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PRIVATIZATION OF AIRPORT AUTHORITY
AND MASS TRANSIT RAILWAY CORPORATION AFTER 1997

by

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ABSTRACT

This report is an attempt to review the feasibility and the applicability of privatization to two Government-owned public bodies, namely the Airport Authority (AA) and the Mass Transit Railway Corporation (MTRC).

Substantial effort has been made to perform an extensive and comprehensive search on recent privatization cases, which happened not only in Hong Kong and China, but also other parts of the world. Selected cases are being studied in detail so as to develop a framework for evaluation.

An interesting finding is that while both AA and MTRC are wholly-owned by the Government and engaged in development and management of large scale infrastructural projects, they are at different stages of development, characterized by different corporate culture, funding needs, and operate under different external environments, etc..

It is considered that AA and MTRC new extensions (such as Tseung Kwan O and the Kennedy Town Extension) are potential candidates for privatization while the Operating Railway (i.e. the existing domestic lines) and the new Lantau and Airport Railway of MTRC are not.

Recommendations regarding the best way forward, in both short-term and long-term, will be discussed.

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CHAPTER I

INTRODUCTION

Privatization has been a widespread phenomenon since 1980s. Airport and railway privatization, in particular, are becoming more and more popular nowadays. Recent examples are cited in Appendix 1 and 5.

For the first time in its history, Hong Kong is carrying out the construction of ten Airport Core Projects at a total estimated cost of HK$ 158 billion. The scale is so large and business opportunity is so enormous that Hong Kong has become a centre of attraction of the world.

Two of the Airport Core Projects are the new airport at Chek Lap Kok and the new Lantau and Airport Railway. They will be developed and managed respectively by AA and MTRC.

Besides, MTRC is also planning other new infrastructural projects such as the Tseung Kwan O and Kennedy Town Extension.

The two companies share some common attributes. They are both 100%-owned by the Hong Kong Government, has no immediate funding need for the projects and faces little market competition locally. Both of them are characterized by their heavy commitment, immobility, and the need to continue project development after the handover of Hong Kong to China in 1997.

A visionary management should consider, at an early stage, what measures should be adopted in order to survive and prosper under the new and dynamic environment. It is the intention of this paper to assess whether privatization is an appropriate step that the companies may take.

CHAPTER II

METHODOLOGY

A literature review will first be conducted to examine the various modes and definitions of "privatization." The motives, objectives, pros and cons and objections against privatization will also be summarized.

Several cases will then be studied in greater detail in an attempt to identify the pitfalls and critical success factors for privatization. These include local cases (the Hospital Authority and the Kowloon-Canton Railway Corporation), overseas cases (British Airport Authority, Albany County Airport, British Rail, Thailand Metro, Boston's World Trade Center Monorail and the Orlando Maglev Demonstration Project, etc.) and most importantly, recent cases in China (Guangzhou Metro, Beijing Metro and Wuhan Metro).

Situational analyses will then be performed against these factors to assess whether those favorable conditions exist in AA and MTRC.

Finally, recommendations will be given as to whether the Hong Kong Government should privatize the airport, the Operating Railway and the Lantau and Airport Railway, or the new railway extensions. Other suggested approaches will also be discussed.

CHAPTER III

LITERATURE REVIEW

Modes and Definitions

The issue of "privatization" has been extensively discussed in various literature. The term "privatization" may refer to:-

- the formation of a Companies Act company and subsequent sale of at least 50% of its shares to private shareholders; [1]
- the sale of an existing state-owned enterprise; [2]
- the use of private financing and management for new infrastructure development[3] e.g. Build-Operate-Transfer BOT;
- outsourcing of public services;[4]

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[1] M.E. Beesley, Privatizations, regulation and deregulation (Routledge, 1992), p.1 - 23.

[2] Gomez - Jose A. Ibanez, John R. Meyer, Going Private - The International Experience with Transport Privatisation (Washington D.C. : Brookings Institution, 1993), p. 1.

[3] Ibanez and Meyer (1993), p.1.

- deregulation,[5]
- franchising,[6] (i.e. confer the right to supply or distribute goods and services to a sole producer or operator for a specified period); or
- management buy-out.[7]

While taking various forms, they all strive to increase the participation of the private sector and promote competition.

To a certain extent, therefore, one might regard the Hong Kong Government has already "privatized" the Airport Authority (AA) and the Mass Transit Railway Corporation (MTRC) because they are not part of the Government. In principle, they should carry out their designated duties in accordance with prudent commercial principles.

However, since both companies are 100%-owned by the Hong Kong Government, the influence of the latter is substantial. It is worthwhile to consider whether the companies should be

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[4] Ibanez and Meyer (1993), p.1.

[5] Matthew Bishop, John Kay and Colin Kayer, Privatization and Economic Performance (Oxford University Press, 1994), p. 342 - 345.

[6] Bishop, Kay and Kayer (1994), p. 1 - 15.

[7] Bishop, Kay and Kayer (1994), p. 314 - 317.

"further privatized" so that the *real, genuine and effective control* are transferred to the hands of the private sector.

Motives and Objectives

Numerous empirical studies revealed that private sector out-performed the public sector. Public companies seldom react to marketing development and are prepared to operate their business at a loss. Over-staffing is also common. A World Bank study by Feibel and Walters (1980) for example, showed that in some cities, the cost of private bus service is approximately 50% to 60% that of publicly owned companies.[8]

Privatization of UK companies such as British Telecom, Post Office, BAA, British Rail, British Coal and British Gas, etc. saw increase in profit, sales and share price since privatization. The "total factor productivity," which measures the relation between physical inputs and output, increased at an average annual rate of about 1% to over 7%. Judging on economic grounds, privatization has worked perfectly. [9]

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[8] Gabriel Roth, Private Provision of Public Services in Developing Countries (Oxford University Press, 1987), p. 221.

[9] John Kay, Colin Mayer and David Thompson, Privatisation & Regulation - the UK Experience (Clarendon Press, Oxford, 1986), p. 94 - 99.

Ruling out the assumption that people in the public sector are less capable than their counterparts in the private sector, the phenomenon might be explained by the following:-

- Public firms are bounded by bureaucratic public sector rules.[10]
- Public firms are funded by public money. As such, they are accountable to the public, making them unable to resist political pressures to provide unremunerative services.[11]
- There is a lack of incentive to improve performance and efficiency.[12]
- There is no threat of being taken-over or going bankrupt because the Government is providing the full backing.[13]
- Job security is usually high. Sacking based on poor performance is seldom executed. Employees are "guaranteed" a comfortable life even without much contribution.

Improving efficiency so that goods and services can be delivered at the lowest costs is therefore one of the major motives for governments to privatize public enterprises.

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[10] Kay, Mayer and Thompson (1986), p. 101 - 145.

[11] Roth (1987), p. 220.

[12] Kay, Mayer and Thompson (1986), p. 101 - 145.

[13] Bishop, Kay and Kayer (1994), p. 15 - 32.

Other privatisation objectives cited by Beesley (1992), Ibanez and Meyer (1993) and Bishop, Kay and Kayer (1994) include:- [14, 15, 16]

- To allow diversification and redeployment of assets so that company will not be constrained by nationalization status.
- To free company from uneconomic services.
- To improve quality of service and encourage innovation so that customers will be better served and only the goods and services desired and wanted will be produced.
- To obtain immediate financial gain.
- To tape new sources of funds. (e.g. To finance infrastructure without substantial increase in tax.)
- To reduce public borrowing.
- To reduce government involvement in decision making of the enterprise.

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[14] Beesley (1992), p. 23 - 40.

[15] Ibanez and Meyer (1993), p.3, 4, 275.

[16] Bishop, Kay and Kayer (1994), p. 1 - 15.

- To ease problems of public sector pay determination.
- To widen share ownership.
- To motivate employees by giving them freedom of action, instituting employee share ownership scheme, and linking pay to performance, etc..
- To gain political advantages. (A very good example is the persistent pursue for privatization of the non-profitable British Rail by the Conservative Party despite public pressure. Their primary motive is to show that they have put in a lot of efforts to get rid of the burden for tax payer regardless of whether the public really benefit from the move.)

The Issue Of Ownership

The transfer of ownership to private sector is believed to be one of the cures to the problems of public enterprises and thus bring about the desirable outcome.

Some scholars argued that it is competition, not ownership *per se*, that matters. Simon Domberger and John Piggott, for example, cited international evidence to support that even without the transfer of ownership, deregulation or liberalization of market will generate substantial improvement if a public enterprise operates in a highly protected or regulated environment. Kay and Thompson (1986) also stated that liberalization without ownership transfer generates substantial improvements in productive efficiency. Borcherding blamed the lack of competition as the reason for less efficient production of public firms.[17]

Nevertheless, private ownership facilitates changes in corporate culture and thus achievement of the objectives.

Parker and Hartley for example, concluded that organizational change was associated with improvements in labour productivity

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[17] Bishop, Kay and Kayer (1994), p. 337 - 353.

growth. The greater the shift towards private ownership, the greater the improvement will be.

Mike Wright, Steve Thompson and Ken Robbie also held the same opinion. They stated that flotation of public enterprise is often associated with

- a clear specification of the profit objective;
- the introduction of bankruptcy threat;
- the transfer of monitoring from political process to the stock market; and
- the potential for improved managerial incentives.

They further found that in the USA and UK, significant positive effects, at least in short to medium term, are indicated.[18]

The issue of ownership is best summarized by Barry Gibson, the Group Retail Director of the British Airport Authority (BAA) :-

> "Privatization acted like a catalyst, allowing BAA to dump old management practices and experiment with new ones. New revenue channels such as retailing could then be fully exploited. ... BAA was privatized in 1987, that began the

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[18] Bishop, Kay and Kayer (1994), p. 331 - 353.

> cultural change ... When you join the private sector you need to start satisfying shareholders."[19]

Yet citing examples of Schiphol and Singapore Changi Airport, he went on clarifying that privatization is not a necessary step.

> "There is no fundamental philosophical reason why private ownership will make it (provision of high quality product) happen. "

[19] Airport Business Management & Development, September, 1995, pp. 31.

Objections

The main objection for privatization lies in externalities. Private companies, motivated only by their own interests, for example, may not deal responsibly with the environment. Safety is also a concern. The firm is also unlikely to render services which are socially preferred but financially not viable.[20]

It was also argued that a private firm which operates in an uncompetitive or unregulated environment will also be inefficient and holds back on the quality and quantity of services produced.

Equity is also a problem as privatization usually involves re-distribution of welfare and thus creates winners and losers.

Lastly, it was cited that other alternatives are available for achieving some objectives of privatization. For example, by issuing bonds, the public firm can also tap private capital without increasing tax or private capital.

While these may be valid arguments, some are not supported by empirical findings. For example, a World Bank study by Feibel and

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[20] Ibanez and Meyer (1993), p. 286 - 288.

Walters (1980) on private bus companies in a number of cities (including Bangkok and Istanbul),[21] found little concrete evidence to support the conventional allegation that private services are less safe than public ones, nor do private operators "skim the cream" by serving only the most profitable routes.

The potential negative effects of privatization can be reduced by imposing regulatory control and/or liberalization simultaneously. The following cases provide some illustrations.

[21] Roth (1987), p. 221.

Case Study

British Airport Authority

Background

British Airport Authority (BAA) was a Government-owned corporation established in 1965 to operate Heathrow, Gatwick, Stansted and Preswick airports. In the 1970s, Edinburgh, Aberdeen and Glasgow were also transferred to BAA.

In an attempt to reduce the size of public sector and promote innovative management, the British Government introduced a white paper in 1985 on airport policy to propose the privatization of BAA.

An Airports Act was finally passed in 1986 and shares of BAA were traded freely in the stock exchange in July 1987.

Control

Vigorous controls and regulations were stipulated in the Airports Act 1986 to prevent unreasonable conduct by the airport operator. For example:-

- Price control for Heathrow, Gatwick and Stansted were implemented. BAA can only increase aeronautical charges (aircraft landing or parking fees, passenger handling charge) at a rate of RPI - X, where RPI is the Retail Price Index and X is the expected increase in productivity specified below:-

Year	X (%)
87 - 91/92	1
92/93 - 93/94	8
94/95	4
95/96 - 96/97	1

- Commercial services is not subject to this formula but the Monopolies and Merge Commission and the Civil Aviation Authority (CAA) would review the commercial policies every 5 years and could request changes. The next formula setting exercise for 1997 - 2002 has started at the end of 1995.

- BAA is also required to produce more detailed accounts than is normally required under Companies Acts and present revenues and expenditures in a detailed and transparent manner.
- There can be no change of use for airport land without Government approval.
- Government reserves the right to take over airports in case of war or other national crisis.
- CAA can investigate complaints of discrimination or abuse of dominant position.
- Government may also limit the size of any individual shareholding (15%) to prevent takeover battles and instability.
- The Government, through various departments, continues to regulate aviation safety, aircraft noise and environmental impacts, and control air space and major expansions.

Result

With only about a 60% increase in passenger traffic from 55.3 million in 1987 to 87.7 million in 1995, revenue for the same period increased 1.64 folds from GBP 439 million to GBP 1159 million.

Earnings per share also increased 2.5 folds from 7.8p to 27.3p, representing an impressive average annual increase of 17%.[22]

BAA is among the top 40 companies in the UK on current market capitalization and enjoys strong credit rating (Short-term rating is A1+ by Standard and Poor's and B1 by Moodys. Long-term debt is rated AA- and A1 by the two companies respectively). As at 22 May 1995, the largest group of shareholder is pension funds (30% of the issued capital), followed by other corporate holders (24%), insurance companies (18%) and private individuals (17%).[23]

BAA has also been very customer-oriented. It carries out extensive market research and annual survey (Quality Service Monitor) to gauge the performance of each airport with respect to 7 areas (cleanliness, mechanical assistance, procedures, comfort, congestion, BAA staff, value for money). A Worldwide Value Guarantee program was launched in May 1994 under which customers are promised full refund from any where in the world if they are not satisfied with any product bought at any BAA's airport. There is also a 24-hour freephone helpline for passengers to check whether an item is in stock and to reserve or pre-order.

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[22] British Airport Authority, BAA Report and Accounts, 1995, p. 51.

[23] British Airport Authority, BAA Report and Accounts, 1995, p. 52.

The company diversifies into other non-aeronautical activities such as retail to maximize its revenue. In the year ended 31 March 1995, retail revenue represented 44% BAA's total revenue.[24]

A pro-active and aggressive attitude towards meeting future demand is observed. A fifth terminal, for example, is currently under planning to increase capacity of Heathrow by 30 million passengers by 2002. Heathrow Express, the rail link into central London, is due to open in 1998.[25] The company's ordinary shares are now listed on the London Stock Exchange, the Toronto Stock Exchange and the Australian Stock Exchange.[26]

Problem

The most serious problem encountered was the over-aggressive pursuit of profit by BAA. In order to increase profit, the company used every means to increase revenue in early years including, for example, charging taxi, bus and coach operators a fee for picking up airline passengers. This drew growing criticism from the public and

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[24] British Airport Authority, BAA Report and Accounts, 1995, p. 3.

[25] "BAA gets ready to bid in Australian sale," Airport Forum, 6/1995, pp. 9 - 10.

[26] British Airport Authority, BAA Report and Accounts, 1995, p. 51.

the press, and resulted in the sudden and unexpected sacking of the Chief Executive in August 1989.

Since then, a moderate approach has been adopted. For example, a "down-town pricing" policy has been implemented to ensure that merchandise sold at the airport will not be sold at a price higher than comparable downtown outlets. The policy stimulated demand and resulted in great leap in retail sales, and BAA is continually renovating and expanding the retail areas in its airports.

Lesson

Government's determination and support is critical to the success and failure of a privatization.

Problems are bound to occur especially when competition is limited. A comprehensive regulatory plan is necessary but not sufficient. It is a responsive Government, which monitors closely the development, listens to the public's view and acts accordingly, that ultimately makes the plan a success.

Full airport privatization is no longer a dream.

The Albany County Airport

Background

Almost all major airports in the US are owned and operated by regional governments. Facing a cutback in federal aid and a cost overrun, the Albany County proposed to privatize the airport in the late 1980s in order to obtain immediate financial gain (and to modernize the airport).

An initial bid of US$4 million was proposed by a regional public agency which operated the public bus system. Several months later, a private real estate firm, British American, which controlled 400 acres of land adjacent to the airport, teamed up with Lockheed Air Terminal, offered to buy the airport for US$30 million. A series of negotiation and revision of offer began. At the end, there were two attractive proposals ready for selection.

Airlines and other aviation groups, however, voiced their concern for higher fees after privatization and lobbied actively. The Federal Aviation Administration finally objected both proposals in December 1989 fearing that the proceed would constitute transfer of airport revenue to off-airport purposes and potential monopoly abuse. The plan to sell / lease the airport was finally abandoned in late 1990.

Lesson

This case again, illustrates the importance of government and social support, and the need for a well-thought regulatory plan. Profitability, although helpful, does not guarantee successful privatization.

Had the County drawn up some control measures to ensure that public interests, including those of the airlines, would not be undermined, the Federal Government might not need to reject both proposals.

Los Angeles Airport

Another very similar case is the proposed privatization of the Los Angeles Airport (LAX).

Background

Citing the poor financial performance of LAX against BAA, the newly elected Los Angeles Mayor Richard Riordan proposed to lease or sell LAX to private business and use the proceeds to put more cops on the street in 1991. To show his determination to bring down cost of the Government and improve its effectiveness, he even announced that he would take only US$1 a year in salary, saving the city US16,999![27]

His privatization plan was first objected by the 15-member city council, the majority of which was not convinced that public asset should be in private hands. Then it was the powerful airlines association Air Transport Association, which feared that a more business-like airport management would demand tougher terms from airlines using the facilities. Airlines also conducted their lobbying in

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[27] "Status quo, please," Forbes, 11 October, 1993, pp. 70- 71.

Washington and obtained support from the head of the transportation appropriations subcommittee, who warned that if Riordan kept pushing for the plan, he would do what he could to stop Riordan from getting federal money needed for other projects.[28]

Notwithstanding the pressure, Riordan met Bill Clinton and the Secretary of Transportation personally in July 1993 to ask for a grant to allow Los Angeles to divert airport funds. What he received was just a polite but noncommittal answer.

Lesson

The LAX and the previous Albany County Airport cases demonstrate clearly the social and political aspects of privatization. Because of the large number of parties involved, maintenance of a balanced interests is crucial.

The top-down approach, like the BAA case, is often more effective and acceptable than bottom-up. The reason may be the government is in a better position to conduct extensive consultation with various

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[28] "Status quo, please," Forbes, 11 October, 1993, pp. 70- 71.

parties, and to develop the most impartial control scheme and implementation plan.

British Rail Privatization

Background

The privatization bill for British Rail (BR) was passed in 1993. The Transport Secretary aimed to have the first series of franchise available to private buyers in 1994.

Since late 1995, BR has been hiving-off 70 businesses with a turnover of GBP 2 billion. To effect the privatization process, the railway was divided into a number of franchisable routes and services providers. Sales of franchise ranged from heavy repair workshop, maintenance activities, rail line to quarry.

The primary objective was to sell-off the assets to private sector instead of building a new system to introduce competitions.

The Control

Many shadow franchises were established to take over the original BR business prior to franchising.[29] They include "Railtrack" - a company currently wholly owned by Government, together with its subsidiaries, "ROSCO" - three rolling stock leasing companies and twenty five "TOC" passenger train operating companies, which take over the operation of the businesses operated by the British Rail.

The shadow franchises are intended to operate for a reasonable period of time before they are sold. The purpose is to provide a set of accounts for potential private buyers for evaluation, and to allow the companies to demonstrate their capability to offer safe and punctual services.

Normally, contracts will be awarded to those private operators who can provide decent services with the lowest level of subsidy.

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[29] British Rail Office of Passenger Rail Franchising, Passenger Rail Industry Overview. September, 1995, p. 16-36.

The first six franchises were awarded in 1995, and the government plans have been half way through in April 1996 when the general election will be at most a year away.[30]

Process

The "Railtrack" has been created to own BR's track and signalling system and vice versa for other shadow franchises. This partial reorganization before privatization improves marketing and efficiency. Seminars were held on privatization with financial institutions which need more concrete information before they can commit their investors' cash.

However, there is strong pressure from the public that Railtrack should not be sold until satisfactory safety management systems are in place to ensure proper co-ordination among the newly formed companies.

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[30] "Rail privatization - Late Departure," The Economist, March, 1994, pp.67.

Result

The award of the franchise was inevitably delayed. By 1995, only two franchises were awarded.

In December 1995, the first franchise of passenger train fleet South West was sold at GBP 1.8 billion. The second of the 25 franchises, Great Western Trains franchise, which runs train services from London to Southwest England, was awarded to the 3i Group Pl at GBP 5.6 billion for seven years.[31] 3i also holds a 24.5% stake. The remaining 51% is held by Great Western management and employees.

Within the same month, a consortium led by Wisconsin Central Transportation Corporation bought 3 freight-train companies from BR for GBP 225 million. The group also bought Rail Express Systems, a unit of BR, in December 95 for GBP 39.6 million.[32]

The latest plan of the Government is to sell at least 51% of Railtrack by April 1996.

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31 "FirstBus wins Train franchise," South China Morning Post, 21 December 1995.

32 "British Rail sells freight divisions," South China Morning Post, 26 February 1996.

Well before the sale of Railtrack, the "Safety Case", a document that demonstrates the existence of an effective Safety Management System to oversee the franchisee's operation, was submitted by Railtrack. It was subsequently endorsed by Health and Safety Executive in March 1994.[33] Getting the Safety Case approved is a pre-requisite for obtaining a licence.

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[33] "Is Railtrack safe enough to sell," Rail, April, 1995, p.6-7.

Problems

The BR privatization creates privatized monopoly which is still a monopoly. It does not offer the economic gains generated by competition, and prohibits the introduction of healthy competition into the business.

The rush to privatization in the last 2 years caused services to get worse before they get better. The anticipated service improvement objectives were not achieved within the short period of time.

The Government's plan to sell the state-owned rail service has been criticized by the public and the main opposition Labour Party, who prosecuted privatization may lead to worse service, higher ticket prices and public financing. This might be wrongly used as a political tool by the anti-privatization Labour Party.

Fraud easily develops during the privatization process and letting of franchisees. Britain's transport secretary said he was delaying the scheduled privatization of London, Tilbury and Southend (LTS) Rail while allegations of fraud were investigated.[34] In addition, an unnamed director of the consortium, who was suspected to be

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[34] "British Rail sells freight divisions," South China Morning Post, Feb. 26, 1996.

involved in a serious breach of ticket revenue settlement arrangements in buying LTS Rail, resigned on 3 February 1996.

Lessons

A major barrier to competition in the railway industry is its large unavoidable fixed costs of production. This makes the introduction of competition infeasible. The fixed costs for the structure, rolling stock, trackwork, power supply and administration are high. Average cost will decrease with increase in train services, but retrained by the passenger demand and train service capacity.

It is thus not feasible nor financially viable for the private sector to build new railways to compete with BR. That is also why British Government decided that a single railway firm or "natural monopolies" will still be efficient enough to fulfill market demand even without the introduction of competition.

A sound legal framework, safety management system, and audit and control procedures for leasing franchises must be in place in order to avoid fraud, chaos and unfair decisions.

Other Railway Privatization Examples in Europe

Railways in Europe are shifting from bureaucratic, integrated, national monoliths into commercially-oriented, customer-focused service providers as a result of privatization.[35]

The underlying forces for change are mainly due to three main issues. Firstly, there is rapid change of rail technology. The need to make significant investment in new track is reduced. Secondly, "deregulation" by EU directives requires railways to separate infrastructure from services. Thirdly, transport demand in Europe is growing rapidly. Road and air transports are increasingly congested. Rail is an attractive alternative.

Gradually, railway transport in Europe is moving from a vertically integrated single enterprise to distinct segments like aviation, and is performed by separate private entities in order to be efficient and commercially viable. Like the BR's example, the single railway is segregated into infrastructures - stations, track, signalling, service providers, owners of rolling stock and equipment manufacturer.

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[35] "The commercial rail revolution starts rolling in Europe," The Public Transport Report 1995/96, p. 40 - 41.

Typical examples are the Sweden Railway, Channel Tunnel and the Paris Metros. (Please refer to Appendix 5 for a summary of the cases of privatization.)

However, not all the privatization cases are successful. The Channel Tunnel 's case tells us that government subsidy for large scale project is inevitable. The Swiss Railway case reveals that privatization is not necessary for railways that are operating efficiently.

Railway Development and Operational Strategies in China

Before looking at the specific case of MTRC, it is worthwhile to scrutinize and analyze the latest trend of infrastructural projects' development in China, in particular the rail industry. The latest financing arrangements of new projects and the existing influence of government on transport development, operations and maintenance will be evaluated in details.

Background

China's railroads are heavily utilized. In 1986, the railroad carried 1 billion passengers and 1.3 billion tons of cargo. The average freight traffic density was 15 million tons per route-kilometer, double that of the United States and three times that of India.[36]

The railroads in China were owned by the state and controlled by the Ministry of Railways. In 1986, a contract system for the management of railroad lines was introduced in China. Five-year contracts were signed between the ministry and individual railroad

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[36] "Army Area Handbook Chapter 8.03: Transportation," U.S.Department of Army, 1994. p.3.

bureaus that were given the individual responsibility for profits and losses. Transportation was brought up as a top priority in the Seventh Five-Year Plan (1986-1990) with an aim to increase the volume of transportation by 30 % by 1990.

To achieve these goals, the Government planned to increase state and local investment as well as to use private funds.[37]

Recent developments

According to the Chinese Minister of Railways, in 1994, the new construction and double-tracking totaled to 3346 km, the highest record in China's railway industry. In October 1995, an ambitious 15-year development programme was announced, the railway development will be accelerated to expand the network, upgrade the railway equipment and improve the safety and services of the railway.[38]

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[37] "Army Area Handbook Chapter 8.03: Transportation," U.S.Department of Army, 1994. p.5

[38] "Construction Programme surges ahead," Railway Gazette International, December 1995, p.83-87.

In order to sustain the growth of economy, China is investing US$36 billion on refurbishment before 2000. It has an aggressive plan to add about 8,000 km of new railway lines to its existing network by the end of this decade, bringing the total trackwork to over 67,500 km.[39]

The most ambitious of the developments is the high speed line linking Beijing and Hong Kong, 2536 km to the south at a cost of 40 billion yuan (about HK$36.8 billion).[40] It signifies China's priority over linking up with the southern economic regions especially Hong Kong. It worths mentioning that the Chinese Railway Ministry has awarded the signalling and automation contract of the Beijing-Kowloon Railway to Italy's Ansaldo Transporti and more contracts to other overseas contractors.

The first phase of the second line of Shanghai underway railway system requires an investment of US$1.2 billion. It is likely to be awarded to a German Consortium, who built line one of the city's metro system.[41] The Chinese Government has tried to find the bid from US, Japan and Germany to get the best financing and

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[39] "Railways need US$36b revamp," South China Morning Post, Jan. 11, 1996.

[40] "Beijing-HK Rail Project," South China Morning Post, Jan. 12, 1996.

[41] "Germans tipped to land rail deal," South China Morning Post, Dec. 5, 1995.

technology transfers. Similar to other recent railway developments, half of the fund will come from a mixture of government and commercially financed loans.

Means to attract foreign investments

In 1994, railway system reported losses of seven billion yuan for railway freight. In the recent years, the Ministry of Railways is adopting a more open policy to increase its revenue by inviting more foreign investment. The following are a summary of the various measures that were undertaken to raise fund from the private sectors:

1. In August 1995, the Wuhan Railway bureau was experimenting with a capitalist way of making a fast buck - by selling naming rights on trains.[42] Auction was arranged to bid for the naming rights of 10 trains for a year. Interested parties from all nationalities participated. However, advertisements would have to comply with China's advertising law, and this meant no depiction of ammunition, arms or cigarettes. Public

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[42] "Railway to sell naming rights to advertisers," South China Morning Post, Aug. 23, 1995.

tendering has become an innovative method of selling intangible assets in China.

2. In September 1995, China announced that it will issue bonds abroad, list some railway companies abroad and establish railway investment funds.[43] The Guangzhou-Shenzhen Railway has been selected for listing in Hong Kong and will float by the first quarter of 1996. The China's most profitable Railway had submitted an application to the Hong Kong Exchange, and also sought a dual listing in the United States through an issue of depository receipts. The company under the auspices of the Ministry of Railways, had picked Bear Stearns as sponsor and co-ordinating with HG Asia and China Development Finance.

3. In December 1995, China issued 1.53 billion yuan in bonds to finance the construction of 11 major railway projects.[44] Agreement was signed between the Ministry of Railways and the China Securities Co.. Three-year bonds, carrying a face value of 1 yuan and 15 per cent interest rate were issued.

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[43] "Mainland Enterprises pursue HK Listings," South China Morning Post, Sep. 11, 1995.

[44] "Rail bond issue planned," South China Morning Post, Dec. 21, 1995.

This is the second time to raise construction bond after the 2 billion yuan worth of bonds was raised in 1992.

4. In December 1995, the Dailian railway administration has become the first bureau of its kind to be recognized as a legal entity.[45] The new Dailian Railway Co. was formed which marked the beginning of market-oriented management of railway industry. The state-owned company controls 543.5 km of railway lines, with an annual handling capacity of 25 million passengers and 30 million tones of cargo.

Fare Policy

The fare policy of Chinese Government on locally run metros can be reflected from the recent Beijing Metro fare rise event.

The Beijing subway is a 43-km network which carries 8.3 million passengers per week. However, the Beijing subway is still losing money in 1996 due to its low fare. The average running cost per journey is 2.7 yuan compared to the revised fare of 2 yuan,[46] which has been raised four times compared to the previous fare of 0.5

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[45] "Legal Status first," South China Morning Post, Dec. 21, 1995.

[46] "Beijing subway fares quadruple," South China Morning Post, Jan. 2, 1996.

yuan. The manner in which the fare was increased reflects the conflict between the needs of the market and fear of China's leader on anger of the public and a rise in inflation. This was only the third price increase since the subway operated in 1971 and the central Government refused two applications by the subway company and the city government to raise the fare to match with rising costs due to inflation. The city government in 1995 paid a subsidy of 400 million yuans, up from 250 million in 1994. A third line into the east suburbs which costs 4 billion yuans was postponed due to shortage of fund.

Lesson

With regard to the fare policy, the facts above suggest that the China Government has the final power on railroad or metro fare price increase over the local government or the company, based on its own economic policy or other reasons. For the time being, the fare revenue in most China railways is not able to finance the operations of the railway nor to sustain the development of new extensions. This is quite alarming if the same principle or fare control policy were applied to Hong Kong Railway Systems after 1997.

However, it should be noted there are regional appeal centres in the Southeast Asia region that could handle contract disputes between company and the government. In the case of MTRC, these establishments can safeguard the rights of the Corporation given in the MTRC Ordinance to determine the fare adjustment without the need for seeking approval from the Government.

On the optimistic side, it is evident that China is undergoing massive efforts to upgrade and expand its railway network.[47] In addition, China is becoming more open in attracting and inviting foreign investment in its infrastructural projects to meet with the huge fund required. This is a clear signal for more liberalized utilities operations and privatization of nationalized industries.

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47 "Construction Programme surges ahead", Railway Gazette International, December, 1995.

Privatization and Private Financing Examples in China

The central government in Beijing has made privatization one of its principal policy objectives for 1995, but the initial implementation of that policy has been hampered by the struggle to succeed Deng. There is no clear rule at present and if the process goes too far, it might be frozen.[48]

State-owned enterprise

Overseas Chinese Businessman Oei Hong Leong, bought 55 percent of the formerly state-owned firm in Jan. 1994 which is an evidence that China is going capitalist [48]. Oei's Hong Kong-listed China Strategic Holdings has taken majority control of nearly 200 factories previously owned by local or provincial governments.

China's new Company Law, enacted in July 1994, seems to commit the government to the path of privatization and appears committed to corporatizing at least a significant portion of its state-owned enterprises. An established legal framework now exists to facilitate

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[48] "Buying up Oei Hong," Institutional Investor, Jan., 1995, pp.46-54

this process, and a substantial number of these corporatized state-owned enterprises seem targeting the equity markets in China or abroad.

Infrastructural Development

China is carefully hedged under the Build-Operate-Transfer (BOT) method. The main objective of introducing BOT in its infrastructural projects is to attract foreign firms to put up initial funding and runs project for a specified period until costs are recouped or an agreed profit made.[49]

Subsequently, the project is handed over to the Chinese Government "without any compensation." The Project companies shoulder all risks during the leased period. As a sweetener, foreign investors would be permitted to increase charges for use of the project in case substantial losses occur due to "readjustment of China's policies." In return, project companies are also allowed to remit foreign exchange to repay loans or dividends.

[49] "Traps in BOT's rules of thumb," South China Morning Post, Dec. 8, 1995.

The typical private financing examples of metros and railways in China are summarized as follows.[50] Most of them belong to well developed China cities like the Guangzhou and Shenzhen, and they will be the typical blueprints for future railway and metro links financing in Hong Kong.

Guangzhou Metro

The Line I of the Guangzhou Metro is under construction and planned to open in 1998-1999. It is a 14-km urban railway that runs through the centre of Guangzhou. The line's eastern terminus will be Guangzhou East Station on the Guangzhou-Shenzhen Railway line.

The Guangzhou Metro is managed by the Guangzhou Metro Corporation (GMC),[51] a state-owned enterprise founded in December 1992. The GMC was commissioned to carry out the construction and management of fast public transit systems of Guangzhou which include the Metro systems and LRT system, and the property development and management along the metro lines.

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50 Janes World Railways, 1995-1996, (Newyork : Franklin Watts), p. 32, 377.

51 Yunping Shao, "The Newly-started and Promising Guangzhou Metro System," Transdelta Conference 1995, Guangzhou Metro Corporation, 1995, p. 56 - 59.

The financing of the Metro Line 1 follows the BOT Model. The project is wholly invested, built and operated by the foreign investor, on condition that they transfer it to the Municipal Government for management after a certain period together with land lease of a certain term and at a premium.

Among the 25 plots of land for co-operative development, 17 contracts have been signed.

Shenzhen Metro

An urban railway has been proposed for Shenzhen City, an airport link connecting the Shenzhen Railway Station with Huangtian Airport. The Shenzhen Planning Department has undertaken a Railway Development study in which three options for links with Hong Kong were explored:-

- a link crossing Deep Way to connect with Yuen Long and the planned Western Corridor Railway
- a parallel alignment with the superhighway between Hong Kong and Huangtian Airport
- a widening of the existing KCR crossing

Despite the above proposed links have no possible connections with the MTR network, but the KCR network instead, they illustrate the recognition of the strategic role of airport rail link in developing China cities.

The operation patterns of similar metros in China will throw some light on how the existing Chinese Government intends the metros to be operated.

Shanghai Metro

The Shanghai Metro Corporation is responsible for operating the Shanghai Metro since the opening of Line 1 in 1993. The route is 16.1 km long with 13 stations. The fare structure is flat. A network of totaling 200 km has been approved for construction by 2010. The operating costs are 100% financed by fares.[52]

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[52] Janes World Railways, 1995-1996, (Newyork : Franklin Watts), p. 324.

Beijing Metro and Light Rail

The Beijing Metro first line was opened in 1969 and had 840,000 daily passengers in 1989. The Beijing Metro Corporation is responsible to the city government for both construction and operation of the metro [53].

In 1994, Beijing Municipal Engineering Administration signed a build-operate-transfer contract with a California-based construction group for a 16.3-km line in the eastern suburbs to link with the Line 1 metro. Another 38-km line will be constructed by a Joint Venture involving the Beijing Municipal Government and the Asian Pacific Rim Construction consortium in July 1994; it will fund construction and operate the line for 20 years, after which ownership will pass to the Chinese Government.

Shenzhen to Guangzhou Railway

Investment banks are preparing for the floatation of China's Guangzhou-Shenzhen Railway in April 1996, the largest HK

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[53] Janes World Railways, 1995-1996, (Newyork : Franklin Watts), p. 32.

floatation by a Chinese enterprise since the listing of Maanshan Iron and Steel in 1993.[54]

The Company is seeking to raise about US$400 million in a dual listing in HK and US. The 50-km line is said to be most profitable in China under the Ministry of Railways.

Lessons

It is evident from the above that China has been experimenting widely with the build-operate-transfer method, involving overseas companies in its metro development, but is carefully hedged with restrictions. In addition, due to the remarkable growth in population and economic development of the cities, the most successful metro developments are associated with huge scale of property development.

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[54] "Guangshen rail seeks US$400m," South China Morning Post, Mar. 5, 1996.

Private Financing Examples in Hong Kong - BOT

Private financing through Build, Operate and Transfer (BOT) of infrastructural projects has been successfully implemented in Hong Kong due to the lack of political interference and positive environment created by government, investors, contractors and engineers.[55]

The advantages of BOT are the ability to meet Hong Kong's immediate demands for infrastructure, incur no initial government expenditure and hedge the government against major risks.

The mechanisms of BOT are briefly summarized as follows:-

- Projects considered commercially viable are let according to government policy on competitive tender basis.
- Private sector is responsible for the management, design, construction and operation of the projects.
- Revenue generated is used to operate the facility, repay interest and create profit for the sponsor in accordance with pre-established formulas for a fixed period, after which the

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[55] Ian McKeat-Smitch, "Engineering aspects of BOT Hong Kong transportation," Transdelta Conference 1995, Charles Haswell & Partners (Far East) Ltd, p.194-199.

completed and tested facility will be transferred to public ownership.

Major infrastructural projects in Hong Kong that are financed through the BOT schemes include:-

- Cross Harbour Tunnel
- Eastern Harbour Crossing
- Tate's Cairn Tunnel
- Western Harbour Crossing
- Route 3 Country Park

The common attribute of BOT is that no government financing is involved. The private sector has to estimate the project financial viability by forecasting the traffic flows and competitive routes that will be built. All risks are therefore borne by investors and contractors. In return, Government contributes land required for construction and operation. For some cases, Government sponsors construction of adjacent supporting highways either directly or as entrusted works.

The current BOT practice in Hong Kong is to grant a 30-year franchise from date of award which gives incentive to open facility as soon as possible.

The concept of BOT can be applied to new projects in which the government does not like to inject capital and those operations which are relatively routine and will be more economic to be operated by private sector. The application of BOT to MTR new extensions will be discussed in the latter chapter.

Kowloon-Canton Railway Corporation

Background

Back in 1973, the Government appointed McKinsey and Co. Ltd. to commission a study on how the government can increase its capacity and expand the services it provides.[56] One of the recommendations was to "hive-off" some departments so that they would function as separate agencies and be managed independently by their own Board and staff. The anticipated benefits include:-

- reduction of administrative load of the government;
- faster response to public needs;
- flexibility to offer terms commensurate with the job;
- less government control; and
- more incentive to staff to improve performance.

Potential candidates suggested include the airport, railway, waterworks and Post Office. It was against this background that the Executive Council decided to establish the Kowloon-Canton Railway Corporation (KCRC) on 15 September 1981.

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[56] McKinsey and Co. Ltd., The machinery of Government : a framework for expanding services, 1973, p. 19.

Process and Problems

A Transitional Board was established on 11 December 1981 to prepare the draft legislation, terms of employment and recommend appointment of the Chief Executive. Staff arrangement study was undertaken by Hay Management Group and an arbitrator was appointed to negotiation terms of transformation. There were three unions at that time. Because of the fear of loss of job security and promotion prospects, the rank and file staff almost strike during negotiation period.[57]

Finally, a package was agreed where the salary of all staff will not be worse-off. "Ex-gratia disturbance allowance" (equals 1 month every 3 years) were paid, and some fringe benefits (e.g. overseas education allowance) which were not provided by KCRC can be retained by staff currently enjoying them.

A 3-month grace period was given and all department staff (1460) accepted the offer and were transferred to the new company.

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[57] Emily Pik Yee Leung, Hiving-off: the case of KCRC, (M.Soc.Sc Dissertation, University of Hong Kong, 1989).

Results

Great progress has been made since corporatization. Net profit before property development of the company increased from a loss of HK$65 million in 1984 to HK$705 in 1994. Revenue per employee increased almost 4 folds during the same period.[58,59]

The company had also adopted a pro-active approach in improving its services by, for example, establishing core values, passenger liaison groups and total quality management programs etc.. It was one of the forerunners who implement the quality circles.

To speed up decision making process, empowerment was encouraged. Line managers were given greater authority in, say, approving expenses.

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[58] Kowloon Canton-Railway Corporation, Annual Report, 1990, p. 4 - 5.

[59] Kowloon Canton-Railway Corporation, Annual Report, 1994, p. 44 - 45.

Controversies

The greatest controversy lies in fare increase. According to the KCRC Ordinance (Section 4), the Corporation is empowered to determine fare. Approval from the government is not required. There have been lots of critics regarding the lack of government control over the increase in fare.

KCRC can also decide employment terms of its staff without consent of the government. The "golden handshake" in early 1989 which saw two senior employees given HK$4 million ex-gratia payment drew much public attention.

Lessons

While the government has taken the first step to improve the railway service by de-bureaucratizing and reducing red tapes, adequate monitor and controlling measures were not in place. In view of the monopoly status of the company, some fare control scheme is required.

The case also revealed the importance of appropriate staff transfer arrangement during implementation. After all, it is the employees who contributed to the success of the company. How to maintain and boost their morale after corporatization is a key issue.

Hospital Authority

Background

The need for a review in provision of medical service stemmed from the intense pressure of major government hospitals which resulted in overcrowding and long queues for treatment.[60] A call for review was initiated in October 1983 by the Legislative Council. A management consultant, W.D. Scott Pty Co. was commissioned to study the management of existing public hospital system in February 1985.

After reviewing the report, the Government decided to establish a Hospital Authority (HA), which should operate outside the civil service and have uniform employment terms. The Government will continue to fund the hospital service and determine the overall policy. The aim is to achieve "more effective management," "to keep abreast of improvements and innovations .. including modern management methods".

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[60] Sir S. Y. Chung, Report of the Provisional Hospital Authority, December, 1989, p. 2 - 3.

The Provisional Hospital Authority was established on 1 October 1988.

Process and Problems

Similar to the case of KCRC, there was great concern over the change in remuneration package after the transfer. Consultants were employed to assist in design of the new terms of service. It was finally agreed that in principle, the new package should be a unified one, with total cost to the Government comparable to that of their counterparts in the civil service. It should be flexible, attractive and could be modified on an individual basis to attract the right person.

A staggered implementation strategy was adopted for the existing 34 public hospital over a period of three years. On 1 December 1990, HA was formally inaugurated.

Result

Since inception, the authority has adopted a customer and staff-oriented management approach and introduced various innovative measures. These include the focus group (started in March 1995), the patient feedback hotline,[61] computerization of patient record,[62] semi-private wards, HA Card for staff (a credit card program organized jointly with Manhattan Card Co. Ltd.), psychiatric care service, reduction of accident and emergency patients waiting time to less than 30 minutes,[63] and the recent employment of private doctors to cope with the demand during Christmas seasons.

There were, however, critics regarding the extravagant pattern of spending public money, offer of luxurious bonus package, failure to handle staff shortage problems and lack of administrative co-ordination, etc..[64]

Lessons

Again, labour relation is critical to the success of any organization reform. Yet short-sighted solutions should not be employed. Even today, 5 years after HA was established, the Director of Audit is

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[61] Hospital Authority, Hospital Authority Newsletter, October 1995.

[62] Hospital Authority, Annual Plan, 95 - 96.

[63] Hospital Authority, Hospital Authority Newsletter, October 1994.

[64] Lowell S.H. Lai, The Corporatisation and Privatization of Medical Services in Hong Kong, (MPA Dissertation, University of Hong Kong, 1994), p. 95 - 97.

accusing HA staff for getting HK$6.7 billion more in housing benefits than their civil service counterparts over the next 20 year.[65] There were strong opposition from HA staff, especially the medical doctors, towards a reduction in housing benefits.

A realistic and well-thought implementation plan is important. The delay of setting up HA from the original target date of 1 April 1990 [66] to 1 December 1990 created uncertainties and adversely affected the credibility of the authority.

Both KCRC and HA adopt an "user paid" principle. Yet unlike KCRC, HA is still being funded by the Government. Stringent monitoring is required to ensure that the public is not exploited and that tax payers' money is well-spent.

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[65] "Anson Chan defiant on papers," South China Morning Post , Feb. 2, 1996.

[66] Sir S Y Chung, Report of the Provisional Hospital Authority, December, 1989, p. 132.

Critical Success Factors

The previous cases should have shed some light on the far-reaching implication of privatization. As pointed out by Gomez (1993), privatization hinges on many political, social and economic concerns. It depends not only on efficiency improvements but societal concerns such as equity, income transfers, environmental problems and role of Government, etc..

To generalize the critical success factors for privatization is no easy task. Nevertheless, some "catalysts" can still be identified.

Privatization will be enhanced if the following conditions prevail:-

1. Economical [67]

    - Competition in the markets in which the privatized firms buy and sell.
    - Potential for large efficiency gain.
    - The activity can approximately cover its costs.
    - A stable economy with little investment risk.

2. Social [68]

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[67] Ibanez and Meyer (1993), p. 8 - 9.

- Staff welfare is not reduced. Adequate compensation is given. Positive perception of prospects under the new organization.
- Not too many redistributions or transfers are involved.
- Welfare of major players are not undermined.
- There are fewer controversial consequences such as environmental concerns or economic development or growth.

3. Political

- Strong and continual government support.
- A stable political environment.

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[68] Ibanez and Meyer (1993), p. 8 - 9.

CHAPTER IV

SITUATIONAL ANALYSIS

Airport Authority

Background

The Provisional Airport Authority was established in April 1990 by the Hong Kong Government to plan, design and construct the new airport at Chek Lap Kok. It is 100%-owned by the Hong Kong Government. With the passage of the Airport Authority Bill in July 1995, the Corporation was finally renamed the Airport Authority (AA) on 1 December 95, with the primary function to provide, operate, develop and maintain the new airport.

The Land Grant further granted AA the entire Airport island comprising approximately 1248 hectares for the period up to 30 June 2047 and the right to develop the island for airport operational, support and related purpose including freight forwarders, hotels, offices retail and other commercial premises.

According to the Agreed Minute On Financing for Airport and Airport Railway (4 November 1994), the Government is to inject HK$36.6 billion for the airport to build Phase 1a of the project (See Appendix 2). Maximum borrowing shall not exceed HK$11.6 billion and AA shall be fully liable for the debt servicing. (It is expected that all borrowing for Phase 1a will be fully repaid by the end of 2002.) [69]

Nevertheless, the Financial Support Agreement stipulates that the Government will provide additional equity to AA if, due to force majeure, the existing funds are inadequate to meet the costs of completing Phase 1a.

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[69] Provisional Airport Authority, Preliminary Information Memorandum, August 1995.

Economical

Corporate Culture

Being wholly owned by the Government, AA is in essence a "state-owned" enterprise subject to all the potential problems discussed previously. Although it is legally charged with the liability to repay all the debts, it is ultimately the Hong Kong Government who is providing the backing. The company cannot be taken over or go bankrupt. There is little incentive to provide goods and services in an efficient and innovative manner, to satisfy customers needs or to maximize revenue.

The use of public fund makes AA accountable to the public and puts it under tight scrutiny by various parties such as the Legislative Council, the Joint Liaison Group and the Airport Consultative Committee, etc.. A lot of time is spent on keeping various bodies updated and seeking approval. Public relation is also a must. A sizable corporate affairs team is required to handle all public requests, for example, for site visit and media interview, etc.. Regular publications are also required to keep the public informed and maintain a good corporate image. All these, if not totally eliminated, at least can be cut down if the company is privatized.

Job security is high. Like the Government, termination of employment due to unsatisfactory performance seldom happens in AA. Internal transfer is the method commonly used to accommodate those employees who were hired but later found to be not suitable for various reasons. Some departments, as a result, are unable to recruit the "best" candidates despite increase in head count. Number of staff grew rapidly from 745 in March 1995 to over 1400 by the end of the year.

Corporate Structure

Like most other organizations, AA has a functional structure. The company is departmentalized into divisions such as Commercial, Engineering, Human Resources, Finance and Information Technology and Legal, etc..

However, it is characterized by a high ratio of support staff vs. operational / line staff. The number of staff working under the Human Resources Department and the Administration Department, for example, is close to 60 each, representing more than 8% total number of staff. The potential for streamlining the current establishment is obvious.

Decision Making Process

Internally, procedures for decision making are complicated and time-consuming. A typical tender process, for example, consists of three stages, during each evaluation was carried out by three groups of panels, each made up of representatives from various departments of a certain rank. A quantitative approach is emphasized in evaluation. Each committee member has to assign points to each evaluation criterion, and the final score is determined via a complicated weighting system.

Line managers are not empowered enough. Almost all decisions involve the Board, which is made up almost 50% by government officials (See Appendix 3). Getting a board paper approved normally requires 3 weeks, starting from registration. With the Board meeting held only once a month, the high degree of involvement of the Board in operational decisions and the lengthy approval process, efficiency, and sometimes also effectiveness, is jeopardized.

Human Resources Policy

The intransparent human resources policy of the company is also a concern. Line managers are hiring new recruits without knowing the salary range they can offer. The Human Resources Department functions like a black box. Employees are not informed, via official channels, the pay scale, the remuneration system or how salary increase is tied to the annual performance appraisal.

There is an urgent need to implement a fair and open reward/punishment system so that efficiency is uphold, a result-oriented approach is encouraged, reward and punishment are tied to performance, and employees are clear of what they are expected and what they can expect to get.

Potential for Efficiency Gain - Benchmarking

In his recent publication "The Airport Business",[70] Rigas Doganis suggested various indicators to measure the productive efficiency of an airport from six different aspects:-

- overall cost performance

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[70] Rigas Doganis, The Airport Business ,(Routledge London & NY, 1992).

- labour productivity
- productivity of capital employed
- revenue-generating performance
- performance of commercial activities
- overall profitability

A broadbrush benchmarking of AA's performance based on pro forma financial statements and activity forecast against BAA, Denver, Copenhagen and Kai Tak airports is presented in Appendix 4.

A more comprehensive comparison with other major international airports is not possible due to data availability. Most regional airports, as we shall discuss in the next section, were opened very recently. Again, lack of data is a constraint.

Nevertheless, the selected airports resemble the new Hong Kong airport at Chek Lap Kok (CLK) in terms of volume of passenger traffic and/or their aggressive pursuit of revenue from airport retail activities, and thus could be considered as comparables.

Raw data are first collected from various sources (Part A, Appendix 4). Adjustments on period and unit of measurement are then made so that data are comparable (Part B). Seven performance indicators are then calculated for each airport (Part C). Their relative ranks are presented in Part D and summarized in the table below.

Indicator / Rank	Overall Cost Performance		Labour Productivity		Productivity of capital employed	Revenue-generating performance	Overall profitability
	a	b	c	d	e	f	g
1	Kai Tak	Kai Tak	Kai Tak	Kai Tak	Copenhagen	BAA	Kai Tak
2	Denver	Denver	CLK	CLK	Kai Tak	CLK	BAA
3	Copen.	Copen.	Copen.	BAA	Denver	Copenhagen	Copenhagen
4	BAA	CLK	BAA	Copen.	BAA	Kai Tak	CLK
5	CLK	BAA			CLK	Denver	Denver

a Total costs per WLU (HK$)
b Operating costs per WLU (HK$)
c WLU per employee (thousand)
d Total revenue per employee (HK$M)
e WLU per GBP1000 net asset value
f Total Revenue per WLU
g Revenue to Expenditure Ratio

CLK is found to perform well in terms of labour productivity and revenue-generating ability. However, its overall cost performance, overall profitability and productivity of capital employed ranked almost the lowest.

While the result is mixed, one conclusion is clear. CLK performed much worse than Kai Tak in six out of the seven criteria (Total or operation costs per Work Load Unit, for example, is about 2.5 times more, while labour and capital productivity is only about 25 to 45% that of Kai Tak.)

The room for further efficiency improvement is obvious.

Competition

Although at the moment the Hong Kong International Airport at Kai Tak is facing no keen competition from any other airports, pressure is expected to build up at the time the new airport at CLK opens.

In the Pearl River Delta alone, new airports at Macau, Zhuhai, Shenzhen and Guangzhou are ready to compete.

The Macau Airport, which was officially opened on 9 December 1995, has a capacity of six million passenger a year,[71] and is expected to draw about 15% traffic on the lucrative Hong Kong - Taiwan route and some cargo from Hong Kong.[72] Revenue to Cathay Pacific Airways on the Hong Kong to Taiwan routes is forecasted to drop by 5 to 10%.[73] The airport can be accessed from Hong Kong by high speed ferry in 60 minutes and is linked to Guangzhou and other major cities in Guangdong by railway. An integrated system for passengers and cargo is also under development. Direct high-speed rail and motorway links to Zhuhai

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[71] "Airport officials support a new and happy medium," Hong Kong Standard, Aug. 20, 1995.

[72] "Airport threat to territory," South China Morning Post, Dec. 12, 1995, p. 4.

[73] "Macau taps into Cathay cash-cow," South China Morning Post, Dec. 7, 1995.

and Guangzhou are being planned.[74] Besides, its landing fees are 15% lower than Hong Kong, and similar to Hong Kong, the airport is offered not only as a final destination but also as a stop-over for regional and inter-continental flights.[75]

The Shenzhen Airport, which started operation on 12 October 1991, can be easily accessed by ferry and bus from Hong Kong. There are also other sea and land transportation means to Zhuhai, Shekou and Shenzhen Railway Station, etc.. It experienced a 20% passenger growth in the first three years. In 1994, it handled 3.2 million passengers. A second terminal, which can handle up to 12 million passengers, is currently under design and is due to open in 1998.[76] Some people even consider that Shenzhen airport will eventually become the air cargo airport centre for Southern China. The unofficial view at Cathay Pacific Airways also favors the development of Shenzhen as Hong Kong's main cargo airport.[77]

Zhuhai Airport, opened in June 1995, was built with a capacity to handle 14 million passenger a year. Its passenger terminal, covering

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[74] "Airport threat to territory," South China Morning Post, Dec. 12, 1995, p. 4.

[75] "Airport officials support a new and happy medium," Hong Kong Standard, Aug. 20, 1995.

[76] "Second terminal planned as Shenzhen grows," Airport Forum, 6/1995, pp. 17.

[77] "To each its own," Aerospace, October, 1993, pp. 36 - 38.

an area of 90,000 sq. m. with 17 boarding bridges, is the biggest and best in China. The proposed link to Hong Kong via the Lingdingyang Bridge is already being studied by the Sino-British Co-ordinating Committee on Major Cross-Border Infrastructure between Hong Kong and the Mainland (the Infrastructure Co-ordinating Committee).[78]

The new airport for Guangzhou, to be built in the city of Huadu, is expected to be four times the size of Biayun airport. It will be able to handle 85 million passenger a year,[79] more than double the 33 million capacity of Phase 1a of Hong Kong's new airport. Two runways and 73 parking bays will be built in the first phase development.[80] Considerable interest among foreign investors has already been created.[81]

Outside the Pearl River Delta, China is planning to expand and upgrade 40 major airports over the next 10 to 15 years, and construction work has already begun. During the period from 1996 to 2000, China will complete the expansion of Beijing airport and

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[78] A.G. Eason, "Infrastructural developments : cross-border co-ordination," Hong Kong Manager, May, 1995, pp. 3 - 9.

[79] "China trades up from bicycles to aircraft," Jane's Airport Review, April, 1995, pp. 27 - 30.

[80] "Happy landings," Orient Aviation, April, 1995.

[81] "China trades up from bicycles to aircraft," Jane's Airport Review, April, 1995, pp. 27 - 30.

start to build new airports in Guangzhou, Shanghai's Pudong, Nanjing and other cities. Telecommunications, navigation, air traffic control and meteorological facilities will get a major boost in order to improve safety.[82] With a growing integrated transport network between Hong Kong and other parts of China, the threats from these new airports cannot be ignored.

There is a need to operate the new Hong Kong airport efficiently so as to maintain the competitive advantage over other rivals.

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[82] "China trades up from bicycles to aircraft," Jane's Airport Review, April, 1995, pp. 27 - 30.

Profit Potential

The airport business is certainly a cash cow. Even in its first year of operation, a profit of HK$1.5 billion is anticipated. Net profit is expected to grow rapidly to HK$14 billion in 2009, a more-than-9-fold increase in 11 years' time. Dividend payout will be possible in year 2000, three years after the airport opens. Borrowing for the first phase is expected to be fully repaid in early 2002.[83]

Latest estimate reviewed that total capital cost for Stages 2 to 6 will be about HK$51.8 billion (Money of the Day). Even before the second terminal is fully operational in 2010, an internal rate of return of 6% can be generated based on the forecast. The project should be attractive enough for the private sector.

Funding

The HK$36.6 billion equity injection by the Government and HK$11.6 billion debt ceiling cater only for the first phase of development for the new airport. Pressure is building up regarding

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[83] Provisional Airport Authority, Preliminary Information Memorandum, August 1995.

the needs to bring forward the second runway, and to speed up planning and development of subsequent developments.

With the Exchange Fund totaled HK$460 billion as at the end of 1995,[84] can the Hong Kong Government afford to pay out HK$51.8 billion, or 11% of the Exchange Fund, to expedite the development of the new airport prior to 1997? Even after the handover, will the Chinese Government be willing to set aside such a huge sum of money for the infrastructure projects?

The hot debate over the debt ceiling for Hong Kong's new airport and Chinese officials' concern over the debt of Macau Airport provided some insight. While full political support was given to the Macau airport project (Deng Xiaoping himself gave the green light in 1980),[85] China still wishes that most of the airport debts can be paid back before the revert of Macau to China on 20 December 1999.

Tapping private capital is an alternative that can relieve the government from the heavy financial burden and shrinking in reserve.

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[84] Ming Pao, Mar. 27, 1996.

[85] "Airport officials support a new and happy medium," Hong Kong Standard, Aug. 20, 1995.

Social

Aircraft Operators

Under the AA Ordinance (Part V), AA is vested with the power to determine airport charges subject to approval from the Governor in Council. These include charges levied on aircraft operators for the use of runways, taxiways, apron areas, passenger processing and other aeronautical facilities and services.

While the actual amount of charges will not be finalized earlier than one year prior to airport opening, a forecast has already been prepared by making reference to other major international airports worldwide. In fact, a comparison with the "Airport and En-Route Aviation Charges Manual 1994" published by the International Air Transport Association (IATA) shows that AA's charges are lower than those at Amsterdam, Heathrow, Taipei and far below airports in Japan including Kansai and Narita.[86]

As long as the initial charges do not differ much from the forecast and regulations are imposed so that annual increase should not be

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86 Provisional Airport Authority, Preliminary Information Memorandum, August 1995.

excessive (for example no more than inflation), objection and fear from airlines regarding unreasonable increase in airport change as a result of privatization should be minimal.

In fact the airline (IATA) view was that "privatization could be supported ... given assurances of increased efficiency, safety, adherence to international specifications and fair user charges." [87]

Retailers

Retailers, who are accustomed to renting premises through negotiation rather than tender, should be one of the strongest supporters for privatization.

One of the reasons why most airports are dominated by only a few operators is that, only a limited number of retailers are familiar with the potential of airport retail and willing to undergo the complicated tendering procedure to obtain the licence.

Privatization will enhance aggressive marketing of the retail opportunities at the airport, the development of an efficient leasing

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[87] "Latin American/Caribbean airports weigh pros and cons of privatization," ACI World Report, August, 1995, pp. 5-6.

process and the achievement of the optimal tenant mix. Retailers will be saved from reading thick tender documents and doing all the paper work, releasing time for more innovation and further improvement.

Airport Users

Passengers, meeters and greeters and well-wishers will not be much affected by privatization. In fact, they should be better served since a privatized company is probably more customer-focused.

Authority Staff

Currently, there is no staff union in AA. Staff are generally inexperienced in bargaining for their own welfare. This is a favorable factor to privatization. Nevertheless, provided a reasonable and market-oriented compensation package is offered, resistance from staff towards privatization should be minimal.

The Public

Environmental impact should not be a concern as the new airport is situated away from the densely populated residential area. A natural noise barrier near Tung Chung ensures that residents at the Northern part of Lantau Island will not be affected by the 24-hour operation of the airport. Various regulations are already in place to prevent water and air pollution.

Provided there is room for efficiency improvement, the whole economy will benefit from privatization. Welfare as a whole increases.

Political

China's determination to improve performance of state-owned enterprises is well-illustrated by the Regulations on Transforming the Operation Mechanism of State-Owned Enterprises announced on 23 July 1992, under which construction of a shareholding system through corporatization was recommended. The objectives were to separate state ownership from management, allow mobilization and rational allocation of social capital, and to provide greater internal management cohesion so that enterprises can become efficient and be able to respond swiftly to changing market conditions.[88] Enterprises became jointly owned by their employees and the original units. Directors and general managers were fully responsible for running the business. Companies received no backing from government, did not form part of state planing and became self-reliant.[89] They are characterized by rights and responsibilities

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[88] Cherng-Shin Ouyang, System Reform of China's State-Owned Enterprises, 1978 - 1993, Review and Appraisal, (Chung-Hua Institution for Economic Research, March, 1995), p. 14 - 18.

[89] "Private enterprise uses diversity as asset," South China Morning Post, Dec. 19, 1995.

(including property rights), and establishment of scientific management, etc..[90]

Along the same line, China has shown its welcome to foreign investment in airports. Although China's foreign investment regulations limit overseas investors to no more than 49% ownership of an airport or port,[91] private sector participation is on the rise.

In Hainan, a special economic zone designated in 1988, foreign companies can take up to a 49% share in the new Meilan airport. Letter of intent had been signed with two US firms, including the Chicago airport group and one European company. Foreign firms are also allowed to take part in airport's management and join the board of the airport company.[92]

There are also plans to sell more than US$300 million shares of Shenzhen and Zhuhai airports to foreign investors. Approval from the government is pending for the sale of B shares of Shenzhen airport in Shenzhen to fund construction of a second terminal

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90 "Management flexibility a key function in reform," South China Morning Post, Dec. 12, 1995.

91 "Zhuhai airport stake for sale," Eastern Express, Sep. 1, 1995.

92 "Foreign funds a boost for airport," South China Morning Post, Dec. 9, 1995, p. 4.

building.[93] Four consortiums have already expressed interest in taking up a stake up to 49% share of Zhuhai Airport in November 1995.[94]

Macau, whose sovereignty will be reverted to China on 20 December 1999, has granted a 25-year concession to CAM, a private company established in 1989, to design, finance, construct and operate the airport. Although the Macau Government holds a 54.86% majority stake, other private investors are also involved.[95] Stanley Ho's casino syndicate STDM owns 35%, while the remaining 10% is shared among three groups from China, Portugal and Macau.[96]

China, however, has been very cautious in privatizing the control of airport's security. This is evidenced by the pull out of Cathay Pacific Airways from a joint venture to expand and operate Xiamen airport in Fujian Province, due to the argument over the operation of airport security and issue of tickets on behalf of other airlines.[97]

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[93] "Airports to sell stocks," Eastern Express, Sep. 8, 1995.

[94] "Zhuhai willing to sell 49pc of airport to overseas investors," South China Morning Post, Nov. 22, 1995.

[95] CAM - Macau International Airport Co. information package & brochures.

[96] "Airport officials support a new and happy medium," Hong Kong Standard, Aug. 20, 1995.

[97] Airports, 19 December, 995, pp.489.

Nevertheless, given China's desire to enter into the World Trade Organization, the trend of trade and investment liberalization is clear.

Together with the elimination of political uncertainties after the transfer of Hong Kong's sovereignty to the mainland after 1997, and the continual effort of China to hold down inflation and stabilize its currency, investment risk should be tolerable.

Summary

In a nut shell, most of the critical success factors for privatization discussed earlier appear to exist for AA:-

1. Competition from neighboring airports is keen.

2. There is potential for large efficiency gain via:-
   - down-sizing;
   - an overall comprehensive procedural review;
   - a change in ownership and hence corporate culture; and
   - a reward system reform which boosts morale and pay for performance, etc.

3. The project is not only self-financing but also an attractive investment opportunity.

4. Given the current setting, privatization will likely be perceived by staff as a positive move towards localization, streamlining unproductive processes and departments and a commitment to reward those who really perform.

5. Other parties, including airlines, retailers, airport users and the public will also benefit, or at least, will not be worse off.

6. Little controversial social consequence is anticipated.

The question then boils down again, to government support. With a clear and persistent direction from the Chinese Government to invite private capital to airports, investment risk should be minimal and privatization is likely to be successful.

The Mass Transit Railway Corporation

In this section, we will examine the Mass Transit Railway Corporation (MTRC) strategically using an "environmental analysis" approach with particular attention to the critical success factors for privatization discussed previously.

We will review the internal environment including organization structure, management and control, financial conditions, operational performance and future development plan. The external environment will be analyzed in the light of market competition, government control and political environment. The strengths and weaknesses of the Corporation will be established by benchmarking its performance with other similar metros, particularly on the ground of efficiency, service quality, fares, productivity, safety performance, profitability, cost-effectiveness, etc.. In each part of the analyses, the needs, benefits and feasibility of privatizing will be contemplated based on the company's characteristics and similar practices world-wide.

At the end of this section, conclusions could be drawn with respect to the pros and cons for MTRC to privatize, the improvement potential, the key underlying deterrents and motivates, the availability of private investors and the possible private financing arrangements after 1997.

Background

Introduction

MTRC is a quasi-government body wholly owned by the Government. The three operating lines of the Mass Transit Railway were opened in stages between October 1979 and August 1989. The Mass Transit Railway is a metropolitan underground / elevated railway network comprising three lines with a combined length of 43.2 kilometers. The network has 38 stations and is worked by over 90 sets of eight-car trains. The average number of weekday passengers in 1995 was 2.4 million, being the most intensely used metro in the world proportionate to its length. One of the Corporation's objectives is to provide cost effective mass transit service to the community at large under commercial prudent principle.

Following the signing of the Memorandum of Understanding concerning the construction of the New Airport in Hong Kong between the Governments of the People's Republic of China and the United Kingdom, the Corporation was invited by the Hong Kong

Government to negotiate the terms under which it would design, construct, finance and operate the new Lantau and Airport Railway.

MTRC is responsible for building a 34-km rail network with an express link to the new airport at Chek Lap Kok and a domestic Tung Chung Line. The Airport Project is now in full swing and most of the civil and electrical and mechanical contracts have been awarded. The cost of the Lantau and Airport Railway was estimated to be around HK$34 billion and the railway is scheduled to open in June 1998.

In addition to the core business of operating the mass transit service and construction of the new Lantau and Airport Railway, the other businesses of the Corporation include Property Development and Estate Management, Commercial and Advertising. According to the 1994 annual report, the non-fare revenue contributed 16% of the total revenue.

Revenue Source	HK$million	%
Fare	4,315	84
Advertising	239	4
Kiosk Rental	82	2
Estate Management and Rental Income	463	9
Other Income	32	1
Total	5,131	100

Source: Mass Transit Railway Corporation, Annual Report 1994, p. 75.

Corporate Objectives

The MTRC ordinance specifies that the purpose of the Corporation is:

> To construct and operate, on prudent commercial principles, a Mass Transit Railway System having regard to the reasonable requirements of Hong Kong's public transport system.

This objective stresses the commercial operating principles, and is in fact very similar to that of a typical private operator.

Economical

Corporate Structure

The high level organization chart of MTRC is shown in Appendix 7. The Operating Railway is the major business of the Corporation. Over the decade, Property Development, Estate Management, Marketing and Commercial have also evolved as secondary business units that cannot be segregated. Due to the huge size of the Corporation, there are many independent functional departments to support the operations of the railway, such as the Finance, Human Resources and Audit and Management Services, etc.

Management and ownership

Chairman of the Board is also the Chief Executive of the Corporation. Among the nine board members and chairman, two are representatives from the Government, six are from the private sector and one new member is from the Bank of China (See Appendix 2). Clearly, both private and public interests are well-represented and the board is not dominated by government officials.

In April 1995, Mr. Jack C.K. So, who has strong commercial and property development background, was appointed the new Chinese Chairman. It marked the Government's commitment to manage and operate the railway under commercial prudent principles.

MTRC currently has over 7,000 staff. The existing railway operations excluding the estate management has staff establishment of over 5,600. The Projects Division, although relatively short term in nature, is employing over 1,000 professional staff to manage the airport project.

The staff turnover in 1994 was around 6%, relatively low among other private sectors or utilities. In addition, the regular Staff Attitude Survey also revealed staff's general satisfaction towards the Corporation.

Overall, MTRC has no major operational or administration deficiencies that require drastic organization restructuring or downsizing.

Operating Organization

The three operating lines, namely Tsuen Wan Line, Kwun Tong Line and Island Lines, are operated and maintained by one Operations Division. The three lines are interconnecting at many interchange stations like Prince Edward, Quarry Bay and Admiralty. The operations of the three lines are supervised under one Operating Control Centre at Kowloon Bay for effective train management and mobilization.

The existing fleet of over 90 sets of 8-car trains are stabled and serviced at three depots at Tsuen Wan, Chai Wan and Kowloon Bay. Major overhaul services are carried out at the Kowloon Bay Workshop. The railway infrastructures are managed by the Civil Works Section, E&M Section, Signalling Section, Automatic Fare Collection System and Computer Control System Section, etc..

At the department level, the engineering organization is arranged and managed as functional units, and area-based control such as individual depot management is only exercised at subsection level. The supporting units such as planning, servicing development, design and safety teams are centralized on section level to promote skill and technology development, and facilitate procedures standardization among the three lines.

This functional organization has been working extremely well in the last 15 years. It minimizes duplication of effort and allows flexibility in localized operation. Minor re-structuring exercises in the subsection level have been taking place to provide better front-line service and improve operational efficiency.

However, the existing functional structure of the Operating Railway is not ready for direct sale or franchising to private operators. The organization needs to be separated into smaller infrastructure or vehicle entities like the BR prior to privatization. Due to the complexity of mass transit operations, it is always difficult either to find one private operator that is both competent and experienced in local metro operations, or it will be unsafe to let all the operations go into the hands of one operator.

In addition, it is believed that due to the heavy level of traffic interaction and interdependency of the three operating lines, separation of the line management and operations functions will hamper communication efficiency, complicate co-ordination and decrease flexibility in spare train mobilization. This obviously will not bring extra efficiency gain to the MTR operation.

Customer Satisfaction

MTRC is frequently accredited due to its continuous strive for customer satisfaction. It has received numerous awards and recognition from the various public bodies or media on customer service performance:-

***"Best Service Award" 1994 and 1995*, by Next Magazine.**

***"Highest Customer Service Ranking,"* Public Attitude Towards Various Public Transport on Customer Service, SRH Survey December 1995.**

The attitude of MTRC towards customer service and the actual performance of the Corporation are even unrivaled among other private sector businesses like Hong Kong Telecom, China Motor Bus and Kowloon Motor Bus.

To demonstrate the attainment of its customer service pledge, the Corporation is proactive in setting up Customer Services Targets on its operational and maintenance services, and publishing the actual performance regularly. In addition, the Corporation is committed to "continuous improvement" and tries every effort to keep improving its targets annually. (see Appendix 11)

To collate customer's feedback widely and effectively, different forms of campaign have been launched. They include as the Passenger Liaison Group, Coffee Evenings in Stations, Liaison Train, Hotlines, Annual MTR Passenger Survey, etc..

The continuous growth in market share, and positive responses from passengers, staff, media and the community at large, evidenced the success of MTRC in its focus on customers.

The remarkable standard of customer service already achieved by the Corporation clearly precludes the necessity to go private, in the context of service improvement.

Market Analysis

In the following pages, the market structure of Hong Kong transportation, the existing marketing share of MTR and the intensity of competition among its major transport competitors are analyzed. As mentioned in earlier sections, a major pre-requisite for privatization is that some form of competition could be introduced to regulate the performance of the company.

Market Structure of Transportation Services in Hong Kong

Over the last ten years, travel pattern in the Territory has been transformed by the opening of the Mass Transit Railway (MTR) in the urban areas, the modernization of the Kowloon Canton Railway (KCR) in New Territories, and the opening of the Light Rail Transit (LRT) in North West New Territories.

However, the bus companies are still taking major share of Hong Kong's public transport system.[98] The largest being Kowloon Motor Bus (KMB) which operates almost 3200 vehicles and carries 2.8 million passenger a day. On Hong Kong Island, China Motor Bus (CMB) and Citybus operate 1200 buses and carry 750,000 passenger a day. The Public Light Buses and maxicabs which run on less patronized routes, carry about 1.7 million passenger a day. Total non-rail movements amount to 5.3 million passenger a day.

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[98] G.E.Tedbury, "Transport in Hong Kong," Highways & Transportation, September, 1995.

For railway transports, the LRT which commenced operation in 1988, carries a daily patronage of 500,000. The 34-km Kowloon Canton Railway carries a daily patronage of 700,000 including the cross-border traffic. The 43-km MTR is the longest rail network in Hong Kong at present and carries 2.4 million passenger a day. In 1994, it took up 27.8% of all transport movements and 67.1% of cross harbour movements.

There is still a market niche in Hong Kong for MTRC to further expand its network and increase its market share.

Regarding the ownership of transport companies, all the non-rail transports are owned by the private or public listed companies. On the contrary, all the three Railway Companies are owned by the Hong Kong Government.

In summary, with a 4 -firm concentration ratio of over 90%, the market structure in Hong Kong can be regarded as a "Tight Oligopoly",[99]. That is, no single firm dominates the market and the combined power of the 4-firm is a dilution of the simple effect that a single firm with the same market share would have. In other words,

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[99] William G. Shepherd, The Economics of Industrial Organisation, Chapter 3, 3rd Edition, Prentice Hall, 1990.

the oligopolists may co-ordinate as tightly as if they were a genuine monopoly. This "collusion" phenomenon is obvious during the annual fare adjustment period when all the transport companies unanimously raise their fares to attain higher joint profits.

Transport Planning and Railway Development Strategy in Hong Kong

The four existing railway networks in Hong Kong actually have no major overlapping routes, thanks to the well-planned Railway Development Strategy.[100] In fact, they operate in a complementary fashion rather than as direct competitors. The interconnections of the rails have been providing efficient and reliable mass transit service within the territory and generating new demands for their counterparts.

Looking into the future, new extensions are being planned to expand the catchment areas of existing networks as well as creating demand through the associated property development in those areas.

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[100] Hong Kong Government Transport Branch, Railway Development Strategy, December, 1994. p.11.

Although new road projects e.g. the Route 3 Project and Eastern Kowloon Express, etc., are in full swing to further improve Hong Kong's highway network, they will not be able to cope with unrestrained growth in road traffic. The limited spaces for heavily built-up areas make it impossible to develop extra roads. Over the past decade, the mode of travel in Hong Kong has been transformed by the development of mass transit passenger rail systems. Superior attributes of mass transit are high capacity, safe and reliable, less pollution and immune to road congestion. All these support the continued development of mass transit systems in Hong Kong.

However, the rail links remained to be developed are financially less viable, compared with the existing lines. Most of the schemes, such as the Ma On Shan Light Rail, Tseung Kwan O Extension, Kennedy Town Extension and South Island Line pass through under-develop and less populated areas. This type of inadequate demand problem is now adversely affecting the Tuen Mun Light Rail Transit which consistently reports loss, up to HK$180 million in 1995. Clearly, the Government should use economic yardsticks in addition to financial return to justify new investments on mass transit. In order to attract private sector's participation in such projects, subsidization, equity injection or other financial initiatives by the Government seem to be inevitable.

To improve information exchange with China on major infrastructural projects in Hong Kong and Guangdong, arrangements have been formalized at the end of 1994 by establishing the Infrastructure Co-ordinating Committee.[101] Issues such as the Lingdingyang Bridge which would link Zhuhai with Hong Kong, and the hottest HK$75 billion Western Corridor Project have been discussed.

Market Competition

Existing lines

As mentioned before, the major competitors of the existing MTR operation are Bus, Ferry and Kowloon Canton Railway. Although the market structure of Hong Kong Transport is "Tight Oligopoly" in nature, MTRC is still improving its service quality, maintaining and pursuing cost-effective operation to fulfill its "commercial prudent" objective.

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[101] A.G.Eason, "Infrastructural Developments: Cross-Border Co-ordination," Hong Kong Manager, May, 1995.

In order to explain the profitability of the MTRC, we attempt to analyze the competitive strategy of the Corporation in the context of industry analysis and competitive positioning.[102]

MTRC has been enjoying competitive edge in the transportation industry. The overall intensity of rivalry of MTR with other transport competitors is relatively low, the only direct competitor is bus. The huge investment cost and franchised operating licence are great barriers of entry to potential competitors. The fast and reliable service offered by MTRC, especially compared with the congested cross-harbour road traffic gives the Corporation great bargaining power as a service provider. Although the air-conditioned bus service is imposing some threat of substitute product, the overall service reliability and time to travel are inferior compared with mass transit. In addition, the regular demand for mass transit service is so enormous that the existing bus service do not have the capability and ability to substitute it at all.

Regarding competitive positioning, MTR has successfully sustained its competitive advantage by being more responsive to customers'

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[102] Charles W.L. Hill and Jones Gareth R., Strategic Management Theory: An Integrated Approach, Houghton Mifflin Co., 1995.

needs and differentiated itself by providing fast, reliable and safe service.

The favourable industrial environment, low rivalry among the "tight oligopoly" competitors and Government's Policy on non-paralleling of railway and bus routes, have fostered the profitability of the corporation and its differentiation compared with bus.

It is believed that even if the existing railway lines were separately franchised to private operators, the non-overlapping routes of the three lines would not introduce direct competitions among the operators. The favorable market conditions still prevail.

New Airport Lines

For the new Airport Railway, foreseeable competitors of the Tung Chung Line are other franchised Air Bus Routes to be operated by KMB / CMB / CityBus which will convene passenger from the town centers to the new airport at Chek Lap Kok. The Government is still deciding whether to allow MTRC to run the Coach Service to the Airport so that a better and prompt arrangement could be made during any major railway incidents. This will be similar to the kind of

Feeder Bus Service being operated by the Kowloon Canton Railway Corporation for Light Rail Transit and Heavy Rail.

If MTRC is really appointed the sole Air Bus Operator, the competition faced by the Corporation will be reduced and it will be less favorable for the Corporation to be privatized.

For the prestige Airport Express Line, convenient facilities like the In-town Check-in facilities will be provided at Hong Kong and Kowloon stations. The service will provide airport railway passengers facilities to check in their flight with their luggage at town centre. A baggage handling fee will be charged to the passengers but will be maintained at a reasonable level to attract the potential users.[103]

However, the major threat to the airport express line is whether the capacity of the Hong Kong's new airport at Chek Lap Kok and thus the Airport Railway can be fully utilized. Given the passenger forecast by AA could be sustained, the airport express line can be fully and economically utilized.

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[103] "In-town check-in for new airport," South China Morning Post, Dec. 8, 1995.

Financial Conditions

Loans Outstanding and Debt/Equity Ratio

MTRC has been bearing heavy debts since it commenced operation. The total amount of outstanding loans was HK$18,121 million at the end of 1994. Outstanding debt has remained within the region of HK$20,000 million in the last ten years due to the continual expenditure on improving and maintaining assets, primarily to improve operational safety and providing a higher level of customer service.

Thanks to the Shareholders' Funds which have been increased by satisfactory result due to property revaluation, the debt / equity ratio including property revaluation surplus has been reduced to 1.5:1 in 1994 compared with 2.8:1 in 1990 and 4.9:1 in 1985.[104]

The other key financial performance figures are summarized in the table as follows:-

[104] Mass Transit Railway Corporation, Annual Report 1994, p. 56-57.

Financial Indicator	1994	1993	1990	1985
Revenue (HK$m)	5,131	4,528	3,164	1,440
Profit/Loss (HK$m)	1,038	735	(108)	(794)
Debt/Equity ratio	1.5:1	1.7:1	2.8:1	4.9:1
Operating Profit as a percentage of revenue	56.4%	56.5%	58.4%	56.2%
Interest and Finance charges (HK$ m)	1,269	1,251	1,846	1,199

Source : Mass Transit Railway Corporation, Annual Report 1994, p. 56-57.

The heavy debt of MTRC has been a need and excuse for annual fare increase. However, it will become a big burden and key threat if the corporation loses the autonomy to revise fare in one day. This will be further elaborated in the following section.

New Airport Railway Financing

After the repeated discussions at the Airport Committee of the Joint Liaison Group, agreement was finally reached in November 1994. The new airport railway will be financed by HK$23.7 billion government equity injection and a capped debt of HK$11.4 billion.

The Hong Kong Government would provide further financial support in the unlikely event that the total cost exceeds HK$35.1 billion.

The LAR Project is financially robust on a stand-alone basis and will produce an internal rate of return at **10%** for an operating period of forty years.[105]

Cash Flow of Airport Railway is depicted in the following table:

Cash Flow	March 1991 (NPV) HK$ billion
Fare Revenue	53.1
Other Commercial and Property Income	5.7
Operating Costs	(29.0)
Construction Costs	(22.1)
Capital Expenditure and Replacement	(4.9)
Total	2.8
Internal Rate of Return	**IRR 10% (40 Years)**

Source : Mass Transit Railway Corporation, Annual Report 1994.

There is no foreseeable demand for additional capital in order to complete the LAR Project.

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105 Mass Transit Railway Corporation, Annual Report 1994.

Future extensions and rail links

The Corporation's financial projections are very strong. Without further equity support, the Corporation has the ability to finance another new extension of HK$10 billion - the Tseung Kwan O Extension, following the Airport Railway Construction Project. According to the new Railway Development Strategy published by the Transport Branch of the Hong Kong Government,[106] the extension of MTR to Tseung Kwan O and alignment work from Quarry Bay to Tin Hau or North Point will be completed before 2001.

MTRC is a metropolitan rail network rather than a railway. With the handover of sovereignty to the Chinese Government, the fate of the future railway extensions in Hong Kong will inevitably be restrained by the existing metro practice in major China cities like Beijing, Guangzhou and Shenzhen.

As discussed in the previous section on privatization of China's metros and railways, the Chinese Government is advocating the

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[106] Hong Kong Government Transport Branch, Railway Development Strategy, December, 1994. p. 50.

BOT financing scheme with restrictions on the private sector. For large scale projects like the Beijing Line 2, the Government forms a joint venture with the foreign investor to form the BOT arrangement, the prime objective is obviously to retain certain extent of control during the BOT period.

Therefore, it is very likely that the future railway links in Hong Kong such as the Kennedy Town Extension or even the Western Corridor Railway will be financed through BOT, Joint Venture or similar schemes to reduce the equity injections required by the future SAR Government. During the transition, the Chinese Government will inevitably exercise joint venture scheme with the foreign investors to exercise its control on Hong Kong transport from the very beginning.

Asset Replacement

The Tsuen Wan, Kwun Tong and Island lines have been operating for 11 to 15 years. There is a comprehensive investment program on station modernization, Rolling Stock refurbishment, major plant replacement and Signalling System Upgrade to improve the passenger throughput and upkeep service reliability. The Corporation announced in 1995 a HK$8 billion 7-year capital projects improvement program to further enhance existing MTR services. It is also projected that 10-15 years later, the existing rolling stocks and infrastructure will be operating for 30 years and will be due for replacement at the same time.

It is perceptible from the above that the Corporation will require substantial equity to replace and improve its facilities with the progressive aging of its equipment. Therefore, an agreement on "Operating Costs" and "Asset Replacement Funding" should be formalized with the Government for future asset replacement. In the case of Singapore (See Appendix 5), [107] the Government is obliged to inject part of the equity to the private transport operators for asset replacement except the depreciated portion. Ambiguous asset replacement responsibility is a huge burden and deterrent to privatization as few private operators will like to shoulder this responsibility.

Credit Ratings

MTRC's investment grade credit ratings are fiercely guarded by the Corporation. The need to maintain good credibility - by keeping to

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[107] "A world class and transport system," White Paper Presented to Parliament by Command of The President of the Republic of Singapore, 2nd January 1996, p.58-71.

agreed debt-equity and interest-covers ratios - provides the cornerstone of MTRC's negotiations with the Government on the levels of additional paid-in and authorized equity, as well as the extent of property development rights associated with the projects.

According to the 1994 MTRC Annual Report, the Corporation has maintained top short term credit ratings in short term commercial paper while long term ratings remain in investment grade categories. Commitment to maintaining a strong financial base and enhanced creditors' and investors' confidence are top priorities.

Rating Agencies	Commercial Paper	Long Term Ratings
Standard and Poors	A-1	A+/ A [a]
Moody's	P-1	A1 / A3 [a]
The Japan Bond Research Institute	A-1	AA /AA- [b]

Source : Mass Transit Railway Corporation, Annual Report 1994, p. 63.

[a] Long term ratings for Hong Kong dollar denominated debt and foreign currency denominated debt.

[b] Long term ratings for debt maturing prior to and after July 1997 respectively.

In December 1994, Moody's Investors Service surprisingly downgraded MTRC's debt rating by two grades, from Aa2 to A1.[108] The reason given for the move was that the local economy was becoming more integrated into China and that it might go through "periods of political uncertainty." MTRC expressed its disappointment at that time by responding that the decision represented a fundamental misapprehension of the protection to Hong Kong under the Basic Law and Joint Declaration. This is the first warning sign of decreasing investor's confidence on China's influence on the financial stability of the Corporation after the handover.

It can be noted that a relatively lower credit rating was given by the Japan Bond Research Institute on those debts maturing after 1997, representing their reservation on the Corporation's profitability after 1997. Fortunately, the overall credit rating stands at AA-, which is still an "excellent rating for investment".

Although MTRC is 100%-owned by the Hong Kong Government, the Corporation itself has excellent credibility in international financial markets especially in the Bond Market. MTRC was ranked

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[108] "Moody's downgrade MTRC debt rating," South China Morning Post, Dec. 11, 1993.

the "Most Impressive Asian Borrower" by Euroweek's poll of market participants in December 1994.

In October 1995, the Corporation announced the issue of 10-year maturity Yankee bond lead managed by Goldman, Sachs & Co. This issue received inspiring responses from the market and the amount issued was increased to US$300 million. Most of the orders were placed with US investors. This again demonstrates the high credit of the Corporation in the US market.

Property Development

Property development and recurrent rental income have been major contributors of non-fare revenue to the Corporation. In 1994, the revenue from property rental and management accounts amounted to HK$463 million, 9% of the total revenue.

For the new Airport Railway, property development of five sites associated with the Airport Railway will be a significant challenge over the next decade. A total investment of over HK$200 billion on the five sites will produce over twenty-four thousand flats, sixteen office towers, nine hotels and five major shopping centers.

All the property projects will be tendered out to the developers for design, construction and development. The advantage being that the land premium would be paid by private property developers. As on other MTR lines property development such as the Central and Admiralty, the Corporation's share of profits generated from these property developments, after all costs including land premium to Government, will be used to fund some of the later construction of the new LAR project.

Construction of strategic and massive development such as Central Station or Kowloon Station, however, is too big for a single consortium to handle. By splitting up the project into several phases, the construction work will be become more manageable and attractive to the developers.

All the above financial arrangements aim at reducing the one-off capital injection into the property projects, as well as spreading out the supply over 10 years so as not to compromise the project cost. The overall property development strategy is to maximize the return from the infrastructural development and reduce the risk to the property markets.

In parallel, the property development will generate land premium for the Government which will probably exceed the HK$23.7 billion capital injected by the Government into the railway project.

It is remarkable that Hong Kong's property development associated with railway development can generate adequate land premium for the Government to finance the project. This attracts Government to construct new railways and private property developers to take up infrastructure projects.

Operational Performance

One of the primary motives behind the worldwide examples of privatization is to improve the operational efficiency.

MTRC's management team has been expending immense resources in human resources development through training, management development, succession plan and career development. In addition, organization revitalization has been carried out internally to improve safety performance, operational efficiency, service reliability, and provide better customer service. The existing standard of performance of MTRC operations can be reflected from a recent benchmarking exercise with four other similar metros.

In 1994, five worldwide metros assigned the Railway Technology Strategy Centre (RTSC) of the University of London to initiate a feasibility study of benchmarking analysis. The five metros are characterized by high passenger volume, predominantly within metropolitan districts.[109]

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[109] Mass Transit Railway Corporation, MTRC's Fare Determination Autonomy, 7 March 1996.

The performance indicators used for benchmarking and the respective ranking of MTRC under each attribute are summarized in the table below:-

Attributes	Measurement	MTRC Ranking
Density	No. of passengers carried per route length km	1
Train Reliability	% of passenger journeys on time	1
Staff Efficiency	No. of passengers carried per staff hour unit	1
Cost Efficiency	Operating cost per car km	1
Asset Utilization	Passenger kilometers per capacity kilometer	1
Equipment Performance	Car km operated between delays	2

Source: Mass Transit Railway Corporation. MTRC's Fare Determination Autonomy. 7 March 1996

The details of the five metros and the performance figures are given in Appendix 8.

MTRC is undoubtedly heading the other four metros in all aspects except equipment performance. Most importantly, MTRC is the only metro that is self-sustainable from its operating revenue without subsidy from the Government.

Social

Fare Policy

Existing Railway

The passenger demand for the Hong Kong Metro is extremely enormous, large enough to generate substantial operating revenue under which it can fulfill its objective to operate in accordance with prudent commercial principles. One distinct difference of MTRC from other railways is that it is profitable and does not require subsidy from the Government during its 16-year operation.

The MTRC Ordinance has vested the Corporation the power and autonomy to determine its fare and the Legislative Council and Executive Council are playing an advisory role only on this matter. Notwithstanding this privilege, MTRC has been setting its fare policy based on the "User-Pay" Principle, the MTRC's success formula.

Before the annual fare review each year, MTRC will carry out the Fare Consultation Process to establish the required fare increase. This includes:

- Conduct Passenger Survey on Public Acceptability of proposed fare increase and value for money service.
- Review fare competitiveness with regard to the Service Quality, Fares of other Transport modes and Market Share;
- Make reference to recent economic growth, inflation and purchasing power, financial revenue, capital expenditure and operating cost growth, etc.

It is obvious that MTRC has been very disciplined and tactful in fare setting. The fare of MTRC has been consistently kept below the inflation and wage increase. From 1980-1995, the average annual increase of MTR Average Fare was 7.8%, which is lower than the Consumer Price Index A (Average 8.6% p.a.) and the HK Payroll Index (Average 14.0% p.a.).[110] (See Appendix 9)

As expected, the fare policy and the existing fare level are widely accepted by the public in terms of value for money. From a recent

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110 Mass Transit Railway Corporation, MTRC's Fare Determination Autonomy, 7 March 1996.

SRH Survey on the Public Attitude Towards Various Public Transport Fares in Terms of Value for Money, MTRC was rated as the second best transportation service after Tram. (See Appendix 10)

The openness of its fare policy is even better than many of the private sector counterparts.

New Airport Railway

According to the Corporation's forecast, the operating revenue from the future Airport Railway comprises fare revenue from passengers, income generated from commercial activities e.g. advertisement and kiosk rentals, and recurrent estate management income contributed from the property developed along the line.

It has been estimated that the Airport Railway will be able to achieve an operating profit from the first years of operation. Operating profit after depreciation will increase steadily in conjunction with progressive increase in passengers and revenue. Net profit can also be expected with the additional share of profits from the property developments less interest expense.

Over an operating period of forty years, the new railway is expected to produce an internal rate of return at 10% which ties in with the Corporation's investment objective.

Threats to Autonomous Fare Policy

However, there is growing threat from the Legislative Council regarding the Corporation's fare policy especially in the time of poor economy. Both the Hong Kong Government and the Corporation argued for continued autonomy in fare determination to ensure cost effectiveness in the delivery of the product to satisfy customers, creditors and the shareholder (the Government). Given the foreseeable continuous debt requirement, the confidence of creditors must be secured.

The existing fare policy could be maintained in the short term. In the medium term, with the progressive influence from the Chinese Government, the commitment of the future SAR Government on autonomous fare policy could not be insured, as shown from the Beijing Metro case. Unless the Corporation is privatized and granted the right to adjust its fare, the experiences of how the China Central Government influenced the local Railway fare policy tell us that the degree of autonomy will inevitably be restrained if commitment from China ceases. In the worst case, such Government-controlled fare policy will result in shortfall in income, and subsequent subsidy from the Government. More severely, the loss of creditability of the Corporation may turn it into another inefficient, unsafe and unreliability railway system commonly found around the world.

As mentioned in earlier lesson, the Corporation still retains the right to negotiate with the Chinese Government in case dispute arises on the fare policy as set out in the MTRC Ordinance. The regional appeal centres in the Southeast Asia region could be used to settle this kind of dispute after 1997. These establishments can safeguard the Corporation's autonomy in fare setting stipulated by the MTRC Ordinance.

Overall, the Fare Policy is one of the key issues that the Corporation must retain control. A failure of which will result in non-profitable operation and loss of power to raise capital.

Employee Compensation

The MTRC Retirement scheme was established in 1977 [104] and all staff are compelled to enter the scheme. In 1994 members contributed HK$54 million and the Corporation contributed HK$176 million to the Scheme. Wyatt Company (HK) limited, an independent actuary confirmed that the assets of the scheme, which are separated from those of the Corporation, totaling HK$1,712 million were more than adequate to cover the aggregate value of members' vested benefits had the scheme been discontinued and the funding level in percentage terms being 100%.

It is typical in public sector privatization that the company is faced with the problem of paying huge sum of compensation to staff for pension. The one-off payment to repay the staff or even transferal of provident fund to other company's provident fund scheme will require substantial amount of cash.

The well-managed provident fund scheme facilities privatization of the Corporation. This factor cannot be a valid deterrent or an excuse used by the Union to prevent the Corporation from going privatized.

Political

The Local Government

The Hong Kong Government respects and supports the Mass Transit for the vital role it plays in the economic and social well being of the colony, and even post 1997, it is unlikely that this feeling will change significantly in a short period.

In December 1995, Mr. Chen Ziying, Vice Director of the Hong Kong and Macao Affairs Office, affirmed the contributions of the Corporation to the prosperity of Hong Kong at a meeting held with a delegation led by MTRC Chairman Mr. Jack So in Beijing.[111] At the meeting, Mr. Chen also expressed the wish that all MTRC staff would continue to work for the Corporation after the return of sovereignty to China. "The existing format of operation and management systems of the Corporation will also remain unchanged after 1997. Its business will also be further developed, " said Mr. Chen.

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[111] Mass Transit Railway Corporation, MTR Express - MTRC Continues to operate on existing format with smooth transition for staff through 1997, 19 December 1995.

Mr. Chen also answered the concern of many MTRC staff by stating that the MTRC will be accountable only to the SAR Government and the Central Government will not interfere. This is in keeping with the spirit of the Basic Law.

China's Influences

The macro impact of China's regain of sovereignty after 1997 need to be addressed in every parts of the Corporation's long term strategy. The confidence of private sector on long term infrastructure projects like railway depends very much on the political stability and socio-economic conditions of Hong Kong.

The signing of the Joint Declaration marked the commitment by China to assure the stability of Hong Kong over the next 50 years. There are many foundations that can honor China's agreement on Hong Kong.[112]

Firstly, China is directing its effort to promote the "one country, two systems" formula as a basis for eventual unity with Taiwan.

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[112] William H. Overholt (1993), China the Next Economic Superpower, (London: Weidenfeld & Nicholson), p.118-161.

Despite the setback after Tiananmen Square event, China has stuck to this principal.

Secondly, two-third of foreign direct investment in China comes from Hong Kong, and 25 to 30% of all foreign exchange earnings come through Hong Kong. Both Hong Kong and China have benefited from the close relationship because of the opportunities for economic growth. Hong Kong handles about 90% of Guangdong's exports and Guangdong handles more than one-fifth of China's exports. Overall, Hong Kong is an efficient and salient point to China for capital, technology, trade, transport, tourism and management.

However, on the pessimistic side, with Hong Kong being part of China, there exists risk that the administration of Hong Kong inevitably will become politicized or overwhelmed by the Chinese Law. China's corruption and crime problem and its potential instability due to future leadership cannot be undermined. Many companies in Hong Kong have diversified their business geographically beyond their normal business objectives, for example, the purchase of the Midland Bank in Britain and Marine Midland in USA by Hong Kong Bank. Nevertheless, such "soft" effect cannot be dealt with effectively by any specific corporate strategies.

In addition, the development of railway in China has been in full swing as mentioned in the Case Study section. All these give the conviction that China is now very open and enthusiastic to expand its infrastructure network and welcome foreign investment. There will be no motive for China to suppress the transport development in Hong Kong.

Summary

MTRC Operating Railway and the Lantau and Airport Railway

After we have examined the internal and external environment of MTRC and the relevancy of the critical success factors for privatization, we come to the conclusion that it is not worthwhile for existing MTRC Operating Railway and the under-construction Lantau and Airport Railway to go private. The existing superb operating performance, financial position, autonomous fare policy and "unchanged" commitment from China Officials do not justify such a drastic but non-necessary change in operating regime.

The following summarize our arguments for the MTRC Operating Railway and the Lantau and Airport Railway not to go private:-

1. The Corporation has been operating on prudent commercial principles. Decision making process is less bureaucratic compared with AA or the Government. We have explained that there will only be small efficiency gain but substantial trade-off if the company is managed by the private sector.

2. MTRC has been striving to improve its service quality. Its equipment standards outperform its private sector counterparts both locally and worldwide. The performance risk is high if the company goes private.

3. MTRC is operating a profitable business both on its railway service and property development. The existing Operating Railway is one of the extremely rare metros that can generate sufficient revenue to repay debts and sustain growth without any regular government subsidy. The Lantau and Airport Railway Project is financially viable on its own and all the fund raising arrangements have been settled. Therefore, the effect of privatization on increase in revenue or reduction of cost to both railways is likely be marginal.

4. The Corporation is financially capable of raising additional capitals for all planned asset replacement and the Lantau and

Airport Railway without further equity injection from Government. There is no short-term need for further capital except for new extensions like Tseung Kwan O, Kennedy Town, East Kowloon and South Island Line.

5. The existing mechanism for motivating employees is well-established, fair and transparent. Together with a fair performance appraisal and rewarding system, staff attitude and morale are reasonably good. Privatization may result in unnecessary lay-off and create instability within the specialized railway workforce.

6. The existing intervention from Government is already low, particularly on the fare policy and dividend repayment requirement. MTRC is very independent in its operation as if it is a "franchise operator" offered by the Government with everlasting concession.

7. The credit rating of the Corporation is well-maintained because of its proven operating performance and strong financial positions. Investors may have less confidence in the debt-repaying ability of the Corporation if it is privatized. It would be detrimental if the Corporation loses its credibility and is forced to raise money at a higher cost.

8. The current setting has been blessed by the Chinese Government - "The Corporation can continue to operate on existing format with smooth transition for staff through 1997". This reduces political risk and strengthens credibility of the Corporation. The low-risk advantage is "non-transferable" to private operator.

9. According to the previous market analysis on the Hong Kong transportation market, the intensity of rivalry among competitors is quite low. The lack of competitors to regulate the operator's performance is not favorable for privatization.

All the above factors reassure that there is no significant or pressing need for the Operating Railway and Airport Railway to go private in both short and medium term. The "Unchanged" operating regime will definitely facilitate smooth transition of the Corporation and its staff through 1997, and the successful opening of the new airport railway in 1998.

MTRC New Extensions

The MTRC new extensions should go private.

The huge amount of capital required to finance the construction of the new extensions cannot be sustained by the Operating Railway and the future Lantau and Airport Railway revenues.

Assuming that no or minimal equity will be injected by the future SAR government, the take-up of these new financial burdens will reduce the established borrowing power and financial credibility of the Corporation.

Conclusions

The following table summarizes the above situational analyses of AA and MTRC.

Attributes	Airport Authority - New airport	MTRC - Operating Railway and Lantau and Airport Railway	MTRC - new extensions (e.g. Tseung Kwan O, Kennedy Town Extension, etc.)
Current Owner	Hong Kong Government (100%)	Hong Kong Government (100%)	n/a
Organization History	6 years	Operating Railway - 17 years LAR - 4 Years	n/a
Corporate Structure	Functional, Highly Centralized	Functional, Centralized	Unknown
Market competition	High	Low (locally)	Low (locally)
Operating Performance	Unknown	High	Unknown
Potential for Efficiency Gain	Substantial	Marginal	Moderate
Profitability	High	High	Moderate
Funding Requirement - Short Term	Low - self sustainable	Low - self sustainable	n/a
Funding Requirement - Long Term	High (HK$52 billion)	Moderate (For debt servicing only)	High (> HK$30 billion) Unlikely to receive equity injection from government
Perceived Social Controversy if Privatized	Little	Moderate	Moderate
Political Risk	Low	Low	High
Recommend to go private ?	**Yes (Public listing)**	**No**	**Yes (JV/BOT)**

In essence, AA is a very ideal candidate for full privatization through public listing because of keen market competition, substantial potential efficiency gain, high profitability of the business, high long-term funding requirement, low social controversy and low political risks.

The planned MTRC new extensions also deserve some lesser degree of privatization. The main reasons being the need for huge amount of capital required for construction and the political uncertainty ahead for new projects. They are candidates for pursuing privatization in form of Build, Operate and Transfer.

The Operating Railway and the Lantau and Airport Railway, on the other hand, face little market competition. The Operating Railway has been operating profitably for 17 years with excellent customer service and outstanding operational performance. Demand for new capital is low. The advantages of retaining the existing operation format definitely outweigh the need for privatization.

Recommendations on how the organizations can pursue their long-term goal to privatization are given in the next chapter.

CHAPTER V

RECOMMENDATIONS

Airport Authority

Short-term

As illustrated by the BR case, privatization should not be pursued in a rush. It is also unlikely that privatization of AA will be a high-priority item shortly after the handover.

A complete management reform which embraces the following will facilitate improvement of performance in the short-run:-

- redefinition and re-position of the role of the Board, the role of each department and the relation among various departments;
- a comprehensive procedural review to streamline existing work flows;
- empowerment of line mangers;

- establishment of performance standards;
- an objective review of the reward and appraisal system (for example by appointing third party experts);
- communication of the result and new remuneration structure to all staff.

Long-term

In the long run, full privatization through public listing is favorable as it will enhance a change in corporate culture.

To reduce speculation, uncertainty, anxiety, possible resistance and boost demand, the following are recommended:-

1. The goal, purpose and scope of privatization must be clearly stated. (For example, airport security may be retained under government control.)

2. Employees must be well-informed and be prepared psychologically for a change. While a high turnover may be harmful to smooth transition, firing unproductive or redundant employees could be an effective tool. (The Japan National Railways, for example, sacked 65,000 staff out of 270,000 in December 1986 and all 7 railway companies showed profit

since Corporation.)[113] Appointment of an independent arbitrator is recommended to review and benchmark the contribution of each employee against his compensation. The outcome could be either a promotion, a downgrade, a freeze or a sack. The hack, if necessary, should be open, fair and one-off. Appeal channel should be established. All remaining employees must be assured that there will be no more job-cut in, say, 3 years, and be offered incentives such as Employee Share Ownership Scheme. Regular staff briefing and enquiry channels are also essential.

3. Airlines should be involved early in the preparatory stage. Their opinions must be taken into consideration. Control mechanism on airport charges should be compromised and agreed beforehand.

4. A task force should be set up to devise detailed and realistic implementation plan, which should include the selection and appointment of a new top management. Once announced, strict adherence to the timetable is a must.

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[113] "Privatization : What Went Wrong," Asian Business, August, 1990, pp. 32 - 39.

5. Aggressive marketing is required. The public, especially potential investors, must be well aware of the opportunity well in advance so that they can provide useful inputs at early stage and conduct thorough evaluation. Detailed statistics regarding the existing operation of the airport must be given.

6. Professionals such as investment bankers should also be involved to offer expert advice on financing.

The Mass Transit Railway Corporation

Short-Term

It has been concluded that there is no short-term need for the MTRC Operating Railway and the Lantau and Airport Railway to go private if the existing favourable financial position, operating conditions and political stability persist.

Long-Term

The most suitable modes for private financing for the new extensions such as Tseung Kwan O, Kennedy , East Kowloon Line and other new extensions in the long run, are Joint Venture and Build-Operate-Transfer (BOT).

A joint venture ownership arrangement between Government and private sector is a more suitable option for rail extension projects. It is because the projects are normally large scale, socially viable but not completely financial viable, and the involvement of Government is therefore indispensable.

Besides, in order to attract more investors such as the property developers to invest in the projects, the grant of associated property development rights should be incorporated in the joint venture agreement.

To throw some lights on the way to privatization, we recommend the following measures be considered during the planning and implementation stages of new extension projects privatization:-

1. The goal, purpose and scope of privatization must be clearly stated and agreed with the future SAR Government. (For example, the decision to form joint venture or enter BOT arrangement and term of concession should be decided)

2. Instead of pursuing staff cut, privatization of new extensions should bring about opportunities for the existing railway to transfer the well trained and experienced staff to take up new challenges. However, the transition should be open, fair and one-off. The new private operator organization should consider offering incentives such as Employee Share Ownership Scheme to motivate staff to join the new organization with independent account. The provident scheme and year of service of the staff should also be transferred to offer a fair transition.

3. A task force with the assistance from financing consultant, financial institutions and banks should be instituted to devise detail and realistic implementation plan for new extension financing. The terms of reference should cover the study of project risks, return and viability in both financial and social terms.

4. According to the recommendations from the Wardley Capital Limited,[114] Heavy Rail Transport is rated as the most difficult transport projects to be privately financed thereby requiring most government support to raise private finance. This is due to the huge capital required, long payback period and high social costs inherited in such large scale projects. (See Appendix 13 for the full list of private finance difficulties for different transport projects.)

   Furthermore, other railways' lessons reveal that entirely privatized operation without government subsidy or involvement especially large scale project will unlikely be successful, for example, the Channel Tunnel Project. (See Appendix 8)

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[114] Kevin D. Files, "Financing Joint Ventures," Transdelta Conference 1995, p.45-49.

Therefore, it is highly recommended that "Joint Venture" with private sector and co-financed by the Government should always be the first choice for railway privatization unless the project is of small scale and has little social implications.

5. Finally, the extent of government support in the BOT or Joint Venture arrangement must be formalized. The Corporation should try every effort to clarify with the Government her roles in planning and implementation of such privatization exercise in order to attract more private investors. The essential roles of the Government should include but not limited to the following:-[115]

[115] Kevin D. Files, "Financing Joint Ventures," Transdelta Conference 1995, p.45-49.

Planning Level

- plan the overall transport infrastructure e.g. develop and update Railway Development Strategy to ensure no direct competition and to align urban planning with infrastructural planning;
- use genuine competition and tendering procedure to select investors;
- realize that privatization has obligations and social costs on Government as well as benefits;
- support the development of capital and bond markets to facilitate fund raising.

Project Level

- allow sufficiently long franchise or concession periods (preferably 30 years for major transport projects);
- restrict future competition for franchise projects;
- foster a stable economic environment and provide proper protections and guarantees for franchises against political risk;
- allow sensible and flexible fare adjustment arrangements;

- be prepared to defend its currency to safeguard foreign investors against macro-economic risks (e.g. foreign exchange rate risk);
- assist in the acquisition of land and resettlement;
- ensure that the tender process is open and fair and eliminate fraud in the tendering and award procedures;
- responsible for liabilities and remedial costs for past environmental damage.

Contingency Plan

We conclude that privatization is not a short-term or long-term goal for the MTRC Operating Railway and Airport Railway. However, due to the uncertainties after 1997, we would like to identify possible threats that will adversely affect the profitability and autonomy of the Corporation. Some recommendations on how the Corporation can cope with and react to these contingencies in the future are given.

Although highly unlikely, we anticipate that the worst scenario would be if the Chinese Officials override their commitment on "Unchanged format of operation" by other decisions, like any of the following:-

- SAR Government wish to reduce the debt level of the Corporation by selling part of its assets to private operators so that it can begin to receive dividends from the Corporation.

- SAR Government regard the existing operation of the Corporation as too costly and inefficient, especially the high internal staff cost.

- SAR Government task the Corporation to take up additional extension development like the Kennedy Town Extension, South Island Line, East Kowloon Line, etc. without injecting equity. The Corporation has to raise capital on its own from the public market.

Under these circumstances, the Corporation might need to re-evaluate the privatization issue even for the Operating Railway and the Lantau and Airport Railway in order to sustain the operation. The four possible strategies that can be considered are highlighted as follows:-

- Franchise the operation of parts of its businesses like estate management and commercial operation to reduce the overhead and utilize commercially available expertise locally.

This is a simple form of privatization that can cut down the overhead cost, but could not bring about significant benefits to its railway operation.

- Separate property, infrastructure, rolling stock and maintenance facilities assets, etc. into entities for sale. Franchise the three operating lines to private operators, analogous to franchising the operation of different routes in the case of British Rail and France Public Transport. However, this should only be taken as the last resort as it will have enormous impacts to the operating regime of the Corporation and its credibility.

- Sell out the whole MTRC as a state-owned enterprise to a single investor . This scheme is not feasible due to the huge capital involved and the loss of control by the Government. The assets of MTRC was HK$34 billion as at 1994 and will roll up to over HK$70 billion after the opening of the Lantau and Airport Railway. It is not easy to find competent buyer that can take up such a HK$70 billion Corporation, without Government's participation and subsidization guarantee.

- Arrange public listing of part of the Government's shares and partly privatize the Corporation. This option is only feasible if the Corporation can continue achieving reasonable operating profits for three consecutive years after the opening of the Lantau and Airport Railway.

In all of the above cases, careful planning of staff re-deployment and redundancy compensation is necessary. The new private operator should consider offering competitive remuneration packages to the MTRC employee to motivate staff to join the new organization. For example, the provident scheme should be transferred to and the year of service of the staff should be recognized by the new company.

In addition, an autonomous fare policy must be instituted and safeguarded in the agreement to attract private investors, and to maintain the creditability of the Corporation. The existing profit control scheme established for public utilities based on return on asset can be referenced.

Last but not least, railway privatization is a new subject to Hong Kong. In view of the technical difficulties mentioned above and the adverse consequences of "inappropriate" privatization, the whole issue including possible pitfalls and impacts to the passenger, staff, Government, public and other stakeholders must be examined thoroughly. In addition, owing to the direct implication of privatization on the future SAR Government's roles and obligations, the issue must involve Central Chinese Government's support and participation in order to be successful.

***** END *****

APPENDIX

APPENDIX 1

RECENT AIRPORT PRIVATIZATION CASES

Country	Airport	Scope of Privatization
USA	New York Kennedy International	For the first time, foreign-flag carriers (Air France, Japan Airlines, Korean Air and Lufthansa), through a limited partnership, were granted the right to exclusively develop, finance, design, construct and operate a new passenger terminal in the US in September 1995 [a].
USA	Kennedy & Newark	Private firms were invited to design, build and manage air cargo facilities in September 1995 [a].
USA	Pittsburgh	BAA was granted a 15-year contract to develop and manage all retail operations at the terminal with effect from 26 August 1991. Amendments to some contract terms were made in 1995. Expire date of agreement and scope of service remained unchanged [b].
USA	Indianapolis	BAA USA Holdings, the US unit of BAA plc, obtained a 10-year contract effective 1 October 1995 to manage the Indianapolis airport system - the first time that BAA was given full management responsibility of all aspects of running an airport outside UK [c]. BAA guaranteed a minimum saving of US$30 million over a ten-year period and receives no payment over costs until saving of US$1 million has been passed to the Indianapolis Airport Authority (IAA) [d]. Any increase in IAA's net income from non-aviation business will be passed back to reduce landing fees and terminal charges. Major operators such as United Airlines and Fedex are pleased [d].

Country	Airport	Scope of Privatization
USA	Atlantic City International	Johnson Controls Inc. was selected to operate the airport in a public/private partnership with South Jersey Transportation Authority in January 1996 because it offered the best chance of minimizing airport operating costs while maximizing revenue. Once final negotiations are complete, the company will be awarded a five-year operation, maintenance and support-services contract to begin on 1 April 1996 [e].
Canada	26 major airports	Passage of the National Airports Policy in July 1994 requires 26 major airports to be operated and financially managed by Canadian airport authorities. Government maintains ownership of the "commercialized" airports but leases the facilities to airport authorities over a period 60 years, plus an optional 20 year extension [f].
UK	East Midlands	Sale to National Express Group Plc (a coach operator) in 1994 [g]. Since privatized, there have been various improvements including improved public transport links, new runway, taxiway light system, etc.. Construction for a new terminal commenced in September 1995. A new roadway system is also being developed [h]. Decision making become faster and more professional. Provided the airport company meets budget, shareholders do not interfere in direct management of the airport. Non-core activities have been dropped. Contracting out reduced fixed costs. Incentive scheme, profit-sharing scheme and employee share-purchase scheme was in place. Company's ability to compete enhanced [i].

Country	Airport	Scope of Privatization
UK	Belfast	Management Employee Buy-Out. Sale to management and staff at US$70 million in July 1994 [j]. Became the second major regional UK airport after East Midlands to enter the private sector [k]. Comparing April to August 1995 with the same period last year, total passenger traffic increased 23% [h].
UK	Cardiff Wales	Sold to private Welsh investor TBI in March 1995 for US$56 million [l].
UK	Birmingham International	Seven local-government authorities agreed to the sale of equity (estimated to be 40%) to private sector in early 1994 [g]. Aer Rianta, an Irish airport management company, was selected in October 1995 for formal negotiations to become a strategic partner for future development of the airport. If negotiation is successful, it will take up substantial minority shareholding (about 40%), while existing owners, 7 local District Councils, will reduce shareholding to less than 50% [m].
UK	Coventry	Plan to privatize the airport near completion by the end of August 1995. Control of the airport will be transferred to a new joint venture company. A private operation company, Airport Management & Investment, will have a 51% stake. The Coventry City Council will hold the remaining 49% share [n].
Italy	(not specified)	Private operators granted concession to manage the airports up to 40 years in September 1995. Current staffing levels to be maintained for at least three years. Government will provide state aid to a maximum of 5 years to ensure viability of airports processing less than 600,000 passengers a year [o].

Country	Airport	Scope of Privatization
Italy	Naples	BAA signed a non-binding letter of intent with the airport in early 1996 for possible purchase of a controlling equity stake in the airport operator. BAA guaranteed the jobs for the 475 airport staff for at least 3 years [p].
Germany	Hamburg, Cologne/Bonn	The German Government intends to sell its 26% and 30.94% stake of the airport companies of the two airports respectively in 1996 [q].
Germany	Munich	City of Munich, which holds a 23% stake of the Munich Airport company FMG signaled an interest in divestiture. The federal government, which owns a 26% stake, may also pull out [l].
Austria	Vienna	Listed in Vienna stock exchange in 1992 [r]. Shares were 3 times oversubscribed in Austria, and 5 times oversubscribed abroad. Since flotation, share price has increased over 50% [s].
Australia	Sydney, Melbourne, Brisbane, Perth	Plan to sell these 4 biggest airport in mid-1996. The other 19 to be sold in 1997. A proceed of about US$2 billion is anticipated [t]. BAA has already indicated that they will bid with two Australian partners for one or more airports scheduled for privatization in 1996 [u]. Draft legislation would cap airport charges for 5 years and limit cross-ownership of some combinations of airports. Leases would run 50 years with option to renew for 49 years [v].

Country	Airport	Scope of Privatization
Mexico	(not specified)	Proposed legislation has been sent to the Mexican Congress to authorize private investment in the country's airport in November 1995. 50-year renewable concession for operation will be issued. Foreign investors will be limited to 49% stake. Larger investment may be considered on a case-by-case basis [w].
Denmark	Copenhagen	Copenhagen Airports A/S was established as an independent company in September 1990 to eliminate public sector borrowing constraints. The board of directors consist of 3 members directly elected by the employees, 2 government officials and 4 elected from the Danish business community. Floated 25% of its equity in the stock exchange in April 1994. Offer over-subscribed with 80% of the shares being sold to foreign investors [x].

[a] "Construction begins on Kennedy Terminal; Cargo Development Advances," Airports, 12 September, 1995, pp.360.

[b] "Allegheny County renegotiates BAA concession agreement," World Airport Retail News, 20 August, 1995, pp. 1,2,8.

[c] "BAA USA signs management contract for Indianapolis Airports," Airports, 19 September, 1995, pp. 371.

[d] "BAA faces tough challenge," Jane's Airport Review, November, 1995, pp. 52.

[e] "Johnson Controls wins Atlantic City Management Contract," Airports, 2 January, 1996, pp. 2.

[f] "Canada's New Commercial Airports Spotlight Concessions," World Airport Retail News, 5 June, 1995, pp. 1 - 7.

[g] "Private investment may be invited to secure Birmingham's future," Airport Forum, 1/1994, pp. 14.

[h] "Airports plan a private agenda," Jane's Airport Review, October, 1995, pp. 40 - 42.

[i] "East Midlands' move into the private sector," ACI Europe . Sources of Finance for Airport Development, p. 32 - 33.

[j] "Public property in private hands?" Airport Support, September, 1994. pp. 23.

[k] "How to sell an airport," Airports International, October, 1994, pp. 26.

[l] "Funding future growth. Beg, borrow or float?" Airport Business Management & Development, July/August, 1995, p. 16.

[m] "Birmingham teams up with Aer Rianta," Airports International, October, 1995.

[n] "Coventry airport privatization nears," South China Morning Post, Aug. 22, 1995, p. 7.

[o] "Italy confirms privatization of country's airports," Airports, 5 September, 1995, pp. 351.

[p] "BAA to negotiate for controlling interest in Naples, Italy, Airport," Airports, 9 January, 1996, pp.9.

[q] "German Government to sell stakes in Hamburg, Cologne/Bonn Airports," Airports, 5 December, 1995, pp. 469.

[r] "Freeing the golden goose," Airport Support, December, 1994, pp. 9.

[s] "Going to market - Vienna Airport's share flotation," ACI Europe . Sources of Finance for Airport Development, p. 32 - 33.

[t] "Sell-off strategy turns sour," South China Morning Post, Nov. 2, 1995, p. 6.

[u] BAA plc unaudited results for the six months to 30 September 1995, November, 1995.

v "Draft Australian Privatization Law Would Cap Charges, Limit Cross-Ownership," Airports, 22 August, 1995, pp. 331.

w "Mexico's president proposes airport privatization bill," Airports, 21 November, 1995, pp. 451.

x "Privatization by flotation at Copenhagen," ACI Europe . Sources of Finance for Airport Development, p. 31.

APPENDIX 2

BOARD MEMBERS OF THE AIRPORT AUTHORITY

Chairman
1. Mr. Wong Po Yan

Ex-officio
2. Dr. Henry Townsend

Public Officers
3. Secretary for Works
4. Secretary for the Treasury
5. Director of New Airport Projects Co-ordination Office
6. Director of Civil Aviation
7. Secretary for Economic Services
8. Chief Executive of the Hong Kong Monetary Authority

Non-Government Members
9. Mr. David Gledhill
10. Mr. Antony Leung Kam Chung
11. Mr. Vincent Lo Hong Sui
12. Dr. Peter Wong King Keung
13. Mr. John Gray
14. Mr. Lo Chung Hing
15. Miss Maria Tam Wai Chu
16. Dr. Philip Wong Yu Hong
17. Mr. Ho Sai Chu

Source : News. Airport Authority Hong Kong, December 1995.

APPENDIX 3

SCOPE OF WORK OF PHASE 1a

- The entire airport platform (approx. 1248 hectares)
- infrastructure
- rail & road surface access systems
- Southern runway, its related taxiway system, aircraft parking aprons
- passenger terminal complex (without NW arm)
- support & ancillary facilities
- aircraft support
- government facilities

Source: Provisional Airport Authority. Preliminary Information Memorandum.
August 1995

APPENDIX 4

PERFORMANCE BENCHMARKING

Part A
Raw Data

Airport	BAA	Denver	Copenhagen	Kai Tak	Chek Lap Kok (CLK)
Year ended	Mar. 95	Dec. 94	Dec. 94	Mar. 94	Mar. 99
Currency unit	GBP million	US$ million	DKK million	HK$ million	HK$ million
Source	1	2	3	4	5
Revenue	1,159.0	237.7	1,063.8	2,532.7	8,405.0
Expenditure					
Staff cost	229.5	47.0	324.6	313.8	862.0
Other operating expense	437.7	77.0	206.8	460.4	1,095.0
Other expenses	-	0.7	-	-	2,012.0
Depreciation	90.3	53.0	168.5	491.8	1,894.0
Interest expense	35.0	34.0	86.8	0.2	1,005.0
Total	792.5	211.8	786.7	1,266.2	6,868.0
Profit before tax	366.5	26.0	277.1	1,266.5	1,537.0
Net Asset	2,845.0	939.1	1,271.8	4,698.7	36,648.0
Passenger (million)	87.7	33.0	14.1	25.0	33.9
Cargo & mail					
million tonnes	1.5		0.3	1.2	1.7
million pounds		840.0			
No. of employee	7,796	n.a.	1,170	300 (*)	1,500 (*)

Source
1 BAA 1995 Report and Account
2 Denver International Airports Annual Report 1994
3 Copenhagen Airports A/S Annual Report 1994
4 Report on Civil Aviation Hong Kong, 1993 - 1994
5 Preliminary Information Memorandum, Provisional Airport Authority Hong Kong, August 1995

(*) Estimates

Part B

Adjusted Data Discounted / Inflated to Calendar Year 1994 in HK$ million

Airport		BAA	Denver	Copenhagen	Kai Tak	CLK
Revenue		13,908.0	1,854.1	1,489.3	2,748.0	6,064.8
Expenditure						
Staff cost		2,754.0	367.0	454.4	340.5	622.0
Other operating expense		5,252.4	600.6	289.6	499.5	790.1
Other expenses		-	5.8	-	-	1,451.8
Depreciation		1,083.6	413.5	235.9	533.6	1,366.7
Interest expense		420.0	264.8	121.5	0.2	725.2
	Total	9,510.0	1,651.7	1,101.4	1,373.8	4,955.8
Profit before tax		4,398.0	202.4	387.9	1,374.2	1,109.1
Net Asset		34,140.0	7,324.9	1,780.6	5,098.1	26,444.3
Passenger (million)		87.7	33.0	14.1	25.0	33.88
Cargo & Mail (million kg)		1,480.0	381.8	270.0	1,203.0	1,674.0
Work Load Unit * (WLU) (million)		102.5	36.8	16.8	37.0	50.6
No. of employee		7,796	n.a.	1,170	300	1,500

* 1WLU = 1 passenger or 100 kg freight

Assumptions

1 GBP = HK$12	1 tonne = 1000 kg
1 US$ = HK$ 7.8	2.2 pound = 1 kg
1 Denmark Krone = HK$1.4	Inflation = 8.5% per year

Part C

Performance Indicator

		BAA	Denver	Copenhagen	Kai Tak	CLK
1	Total costs per WLU (HK$)	93	45	66	37	98
2	Operating costs per WLU (HK$)	78	26	44	23	57
3	WLU per employee (thousand)	13		14	123	34
4	Total revenue per employee (HK$M)	1.78		1.27	9.16	4.04
5	WLU per GBP1000 net asset value	36	60	113	87	23
6	Total Revenue per WLU	136	50	89	74	120
7	Revenue to Expenditure Ratio	1.46	1.12	1.35	2.00	1.22

Part D

Ranked Performance

	Overall cost performance		Labour productivity		Productivity of capital employed	Revenue-generating performance	Overall profitability
Indicator	1	2	3	4	5	6	7
Rank							
1	Kai Tak	Kai Tak	Kai Tak	Kai Tak	Copenhagen	BAA	Kai Tak
2	Denver	Denver	CLK	CLK	Kai Tak	CLK	BAA
3	Copenhagen	Copenhagen	Copenhagen	BAA	Denver	Copenhagen	Copenhagen
4	BAA	CLK	BAA	Copenhagen	BAA	Kai Tak	CLK
5	CLK	BAA			CLK	Denver	Denver

APPENDIX 5

RECENT RAILWAY PRIVATIZATION AND PRIVATE FINANCING CASES

Country	Railway / Year	Mode of Privatization and Lessons
Bangkok [a]	Bangkok Transit Systems Corporation 1994	"BOT" The Bangkok Transit Systems Corporation is a subsidiary of Tanayong Group, a Hong Kong listed company. It was granted a 30-year concession to develop a 28.5-km two-line elevated system with 22 stations.
Bangkok [a]	Metropolitan Rapid Transit Administratio n 1993	"Joint Venture" After failure of the proposed privately financed sky metro in 1992, the government agree to fund 70% of construction costs and MRTA was set up with a remit to construct an initial 20-km elevated line. In 1993, the city's largest property development company, Bangkok Land, is selected to develop the project with AEG Westinghouse as the partner.
China - Wuhan [a]	Wuhan Lightrail /metro Proposed	"Private Financing" The twinning of Wuhan with Duisburg in Germany has agreed under which Siemens will assist the development of proposals for a 9.2-km light rail line. Private sector funding for the scheme is being sought in Hong Kong. A 16-km elevated metro is also proposed for construction by private-sector companies
China [b]	Zhejiang	Zhejiang province has been building China's <u>first</u> railway line with investment by a Sino-foreign joint venture. The 252-km line runs from Jinhua to the coastal town of Wenzhou, is owned by the provincial railway arm, the Shanghai administration bureau of the Ministry of Railways and Hong Kong's Lourus Holding - which is owned by Wenzhou-born academic Nan Huaijin. The investment is more than 2 billion yuan and the line will be in full operation at the end of next year. This railway has been planned since the mid 1980s.

Country	Railway / Year	Mode of Privatization and Lessons
Dartford Bridge Crossing [c]	1995	"BOT" A private sector contractor was given a 20-25 year contract to build, maintain and manage the bridge and to recover all its costs via the toll fees.
Dutch [c]	DutchRail (NS) 1995	Privatization The rail company received Nfl 350m subsidy in 1995. NS is still expanding and upgrading its rail network. It intends to restructure or privatize several business units including NS cargo and has faced strong opposition from the labour union to slow down the pace of privatization.
France [e]	Paris-Orly Airport rapid mass transit system 1995	"Private Finance Initiative" Private financing of investments in public services to reduce public sector debt and tax. This makes the user pay through and limits foreign borrowing.
France [f]	Via G.T., CGEA, Transdev/ Transcet 1995	"Joint Venture and Privatized" In 1982, the franchising of public services in France began with the law on the Orientation of Internal Transport (LOTI). A number of local authorities come together in an "Organizing Authority" (OA) to look after their own transportation needs and contract out their responsibilities through a private company. The national government does not make contribution to this aspect of the financing, but can and does subsidize specific infrastructure projects, not beyond a maximum of 20%. All the private firms must be listed on a register held by the State authorities. The contract must run for a set period, and conditions of service levels and the conditions for their operation and financing must be adhered. The responsible authority will define the fare policy with limitations on the extent of the annual fare changes. OA can choose to operate the system under the legal appellation of "Regie" or use a private organization to run the network; either a semi-private, Joint venture (20%) or a strictly private firm (70%

Country	Railway / Year	Mode of Privatization and Lessons
		of market).
Japan [g]	1993	"Float on the stock exchange" The railway was divided into the geographical sections and is waiting for opportune time to float.
Mexico [h]	FNM Planned 1997	"Franchising" Entire network was privatized within two years. Franchisees will be awarded. Withdrawal of worst performing services.
New Zealand [g]	1980s	"Commercialization under public ownership" Railway sold to an American firm in July 93. Job cuts from 20,000 in 1981 to 5,000 in 1995. Profits replaced losses.
Singapore [l, m]	SMRT Planned	"Float on the stock exchange" SMRT operates and maintains the 67-km metro under license from Mass Railway Transit Corporation (MRTC). The major shareholder of SMRT is Temasek Holdings Pte Ltd. The arrangement is to allow SMRT to operate on its own financially before its shares are offered for public subscription. In 1995, total passengers were 258.9m and the Corporation reported an after tax profit of S$108.6m. In the White Paper "A World Class Land Transport System," Jan 1996 [l], The government is committed to investing in an expanded rail network to provide a significantly better public transport system which charges affordable fares, meets the needs of Singapore and is sustainable in the long run. The Government will change the financing terms for public transport operations. The operator has to be responsible for the operating costs which covers depreciation of existing assets. The rest of the replacement cost will be borne by the government. The amount of government's injection will depend on the rate of asset inflation. This arrangement has distinctive advantages of suppressing fare increase and render more rail projects viable.

Country	Railway / Year	Mode of Privatization and Lessons
Sweden [g]	1988	Only rural services were opened to competition. Mainline services remain a monopoly of the state rail company. No. of employees was trimmed from 29,000 in 1987 to 18,000. Costs have fallen by 30%.
Swiss [k]	Federal Railways SBB 1995	Privatization and separation of infrastructure were ruled out SBB is receiving Sfr2.5bn subsidy from the government every year for infrastructure development and equipment procurement and improvement. In October 1995, the president of announced that the privatization of SBB and separation of infrastructure were not possible due to the following reasons:- i) the railways are already exposed to intense competition from other modes; ii) efficient operations on a railway carrying dense inter-city, local and freight traffic on same tracks can only be assured if the production planning, scheduling and infrastructural management are carried out by an organization that is close to the operation; iii) close inter-dependence between vehicle and infrastructure has never been successfully implemented; iv) Swiss Federal Railway is already the most productive in Europe. Compared with Deutschen Bahn, they produce 25% more train km and 41% more passenger-km and tonne-km per staff; v) asset productivity can be boosted by job cut without need of privatization.
United Kingdom & France Channel Tunnel [l]	BR & SNCF Opened 1994	"Privatization with no Government subsidy" The Eurotunnel was floated in 1987 and shares issued amounted to 2.1 billion pounds. The Eurotunnel is default on 8 billion pounds of loans. It proves that 100% private finance for very big projects is impossible. Government has to be involved. It underlies the vital need for stability and assured legal framework.

Country	Railway / Year	Mode of Privatization and Lessons
United Kingdom [c]	Heathrow Express Rail link 1994	"Joint Venture" 70% British Airports Authority and 30% British Railways Board Joint Venture was formed between government and private sector. The existing infrastructure of government became stakes in the projects.
United Kingdom [c]	London Underground Limited 1994	"Private Finance Initiative" UK Government adopted Private Finance Initiative to renew the entire Northern Line fleet of trains. A leasing and maintenance contract for a fleet of 106 new trains was announced under the government's private finance initiative at the end of 1995. GEC Alsthom was awarded the contract to supply Metro equipment and finance the construction.
United Kingdom [a, c]	British Railway 1994-1996	Privatizing with selling of assets and Franchising. Since April 1994, the BR and London suburban rails have been operated by 25 and 10 regional management known as Train Operating Companies (TOC). They operate as shadow franchises prior to being offered to the private sector on a concessionaire basis. They run over track owned by the infrastructure authority Railtrack and with rollingstock leased from three Rolling Stock Leasing Companies. (Refer to Chapter 3 Case Study for more details)

[a] Janes World Railways, 1995-1996, (Newyork:Franklin Watts).

[b] "Railways behind time on investment," South China Morning Post, 11 April 1996.

[c] "The Private Finance Initiative," Rail Bulletin, Janurary, 1996, pp.19-20

[d] "Dutch Privatization facing strong opposition," Rail Bulletin, December, 1995. pp. 3

[e] "Private financing for infrastructure projects," Railway & Urban Transit, December, 1991, pp. 18 - 37.

[f] "PT franchising in France," UTI, November, 1995.

[g] "The World of railways," The Economist, December, 1993.

[h] "Sale of FNM starts next year," International Railway Journal, December, 1995, pp.28

[I] The President of the Republic of Singapore, A world class and transport system - White Paper Presented to Parliament by Command of The President of the Republic of Singapore, 2nd January 1996, p.58-61.

[j] G.E. Tedbury, "Transport in Hong Kong," Highways & Transportation, September 1995.

[k] "Weibel rules out privatisation and separation of infrastructure," Railway Gazette International, December, 1995, pp.83

[l] "Private finance takes off in Europe," Railway Gazette International, December, 1995, pp.20

[m] "Transformation of MRTC," UTI, November, 1995.

APPENDIX 6

MEMBERSHIP OF THE MASS TRANSIT RAILWAY CORPORATION BOARD

Chairman

1.	Jack. C.K.So	Chairman of the Board and Chief Executive since 1 April 1995

Public Officers

2.	H.H.T.Barma	Secretary for Transport, Hong Kong Government
3.	K.C.Kwong	Secretary for the Treasury, Hong Kong Government (Apr 95)

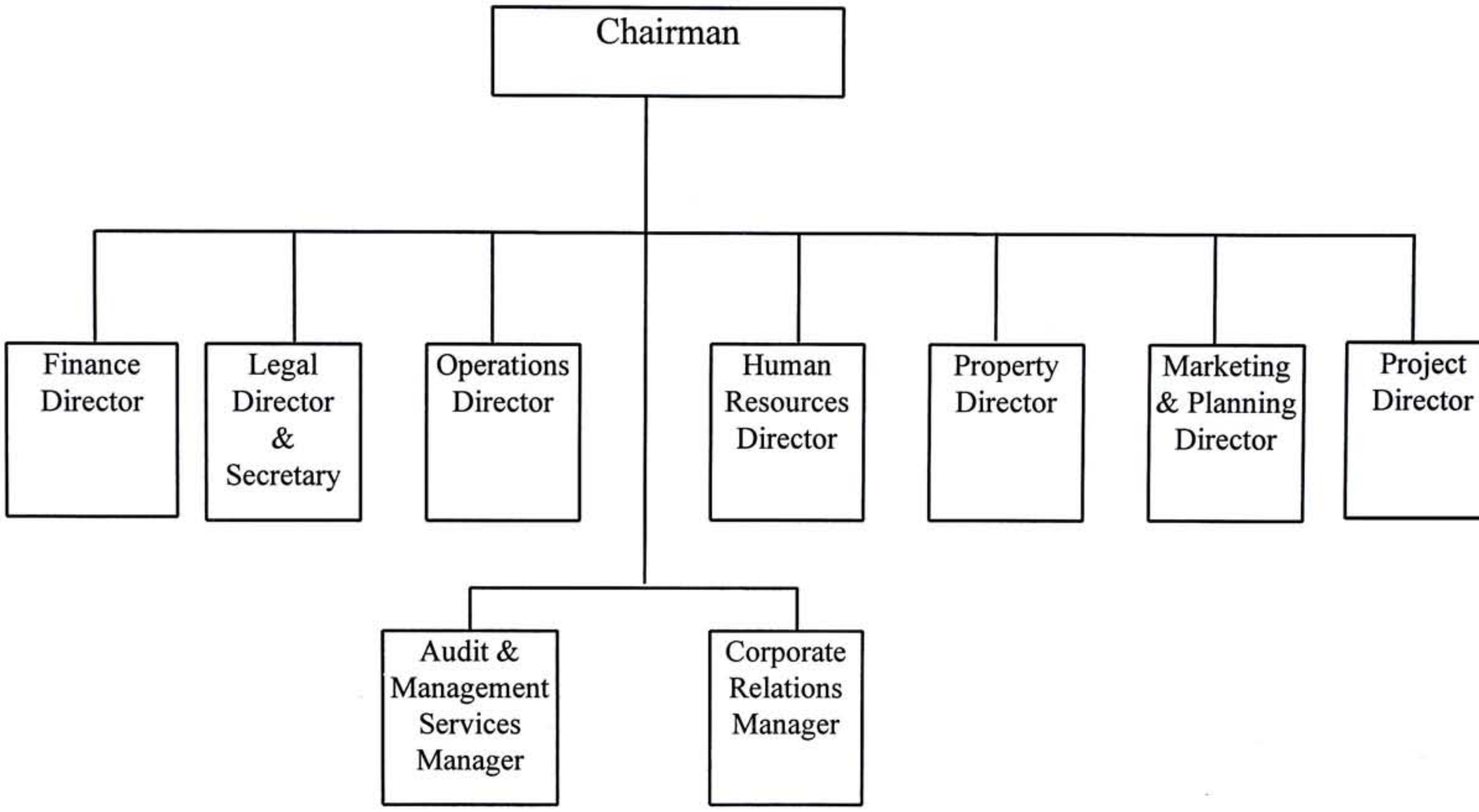
Non-Government Members

4.	Alexander Au Siu Kee	Director, Heng Seng Bank Ltd.
5.	Edward Chen Kwan Yiu	Professor and Director, Centre of Asian Studies at the University of Hong Kong. Member of the Executive Council.
6.	D.W.Gairns	Formerly Senior Partner with KPMG Peat Marwick, Hong Kong.
7.	D.A.Gledhill	Chairman, Sports Development Board.
8.	Ho Sai Chu	Director, Fook Lee Holdings Ltd.
9.	Ho Sing Tin	Managing Director, Wong Tung & Partners Ltd, Member of the Legislative Council.
10.	C.H.Lo	Deputy General Manager of the Bank of China.

Source : Mass Transit Railway Corporation, Annual Report 1994 , p. 2.

APPENDIX 7

TOP LEVEL ORGANIZATION CHART OF MTRC



Source : Mass Transit Railway Corporation, Annual Report 1994, p. 2.

APPENDIX 8

PERFORMANCE BENCHMARKING - FIVE METRO SYSTEMS

COMPANY PROFILE

	MTRC	BVG	LUL	NYCTA	RATP
City	Hong Kong	Berlin	London	New York	Paris
Corporation	Mass Transit Railway Corporation	Berliner Verkehrs - Betriebe	London Undergro und Limited	New York city Transport Authority	Regie Autonome des Transports Parisiens
No. of employee	5343 [a]	7527	20463	30245	20829
Initial Route opened on	1979	1902	1863	1904	1900
Service	2-2.5 min (peak) 3-5 min (non-peak)	3 min (peak) 5-10 min (off peak)	Peak in central area 2.5 min		1 min 35s to 3 min 50s minimum
Fare Structure	Zonal	Flat	Zonal	Flat	Flat

Source: Mass Transit Railway Corporation, Engineering Insight. Nov., 95.

[a] MTRC staff size for the existing railway only, LAR and Estate staff excluded.

PERFORMANCE BENCHMARKING - FIVE METRO SYSTEMS

ROUTE DATA

	MTRC	BVG	LUL	NYCTA	RATP
Route length	43.2	134	394	398	201.4
Rolling Stock (no. of rail cars)	709	1636	4582	5866	3481
No. of stations	38	158	271	469	370
Government subsidy	**Not required**	**Required**	**Required**	**Required**	**Required**
Operating costs (1993) financed by:					
Fares	100% [a]	33%	111% [a, c]	65.6%	36.4%
Commercial Sources	extra revenues	10%	n/a	1.2%	19.2%
State and local government subsidies	0%	57% (1% Federal)	n/a	18.9%	44.4% [b]
Taxy levy	n/a	n/a	n/a	23.4%	

Sources: Mass Transit Railway Corporation, Engineering Insight, Nov., 95.
Janes World Railways, 1995-1996, (Newyork : Franklin Watts), p.36,187,244,287.

[a] Among the 5 metros, only MTRC and LUL covered total costs by passenger fares without any subsidy.

[b] Compensation for 'social fares' reductions, employers, national and local government.

[c] Before depreciation and renewal.

PERFORMANCE BENCHMARKING - FIVE METRO SYSTEMS

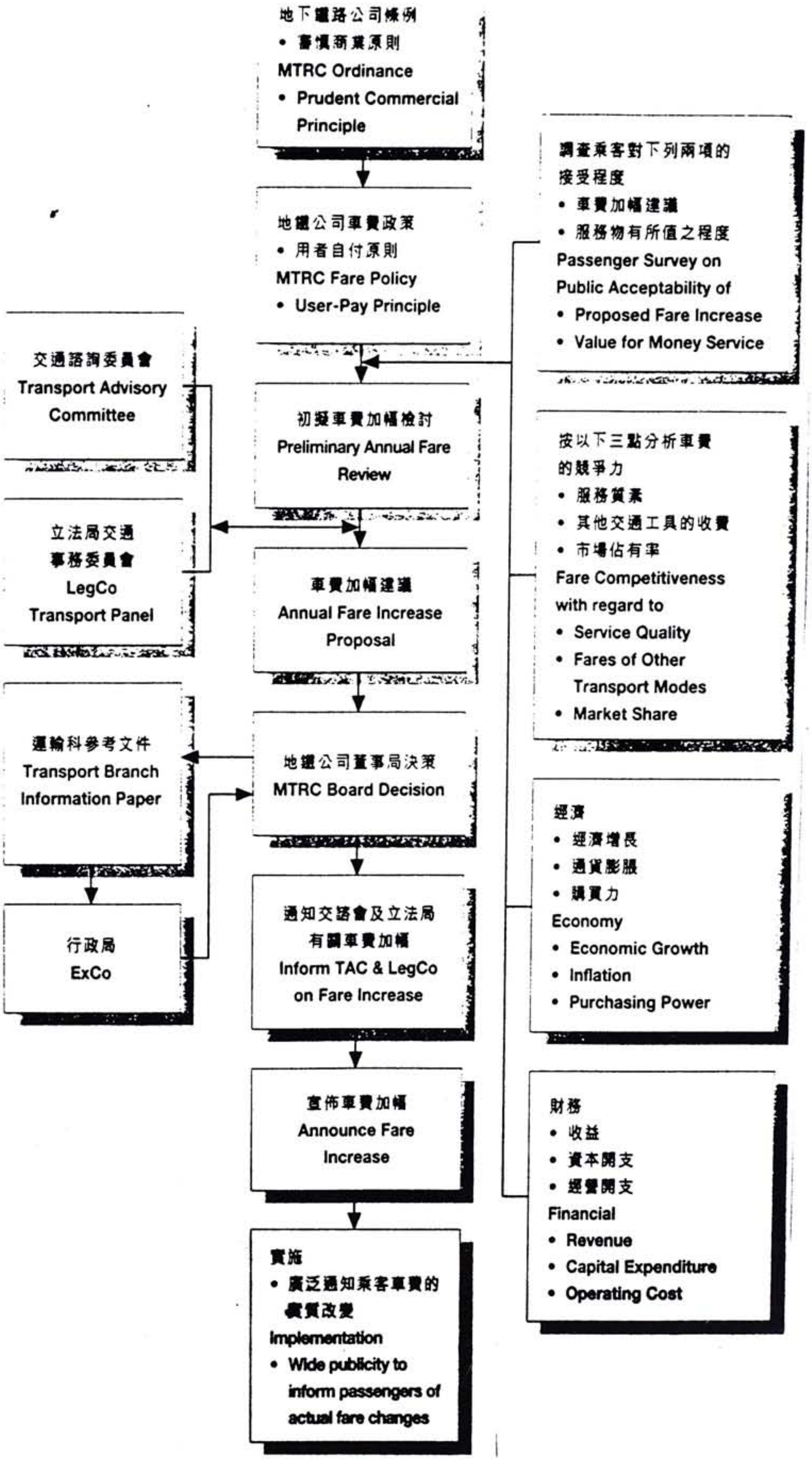
Criterion	MTRC [a]	4 Metros Average
Service Quality - % of passenger journeys on time	99.71 %	94.73%
Efficiency - total passenger journeys per annum per staff hour	76	44.2
Financial Performance - Unit revenue per unit operating cost in terms of each passenger journey	3.53	1.35
Asset Utilization - Passenger kilometer per capacity kilometer	42.5%	24.5%
Reliability - Car Operating Hours between total incidents	580	720

Source: Mass Transit Railway Corporation, Engineering Insight, Nov., 95.

[a] Among the 5 metros, only the MTRC covers total costs by passenger fares without any subsidy.

APPENDIX 9

FARE POLICY OF MASS TRANSIT RAILWAY CORPORATION

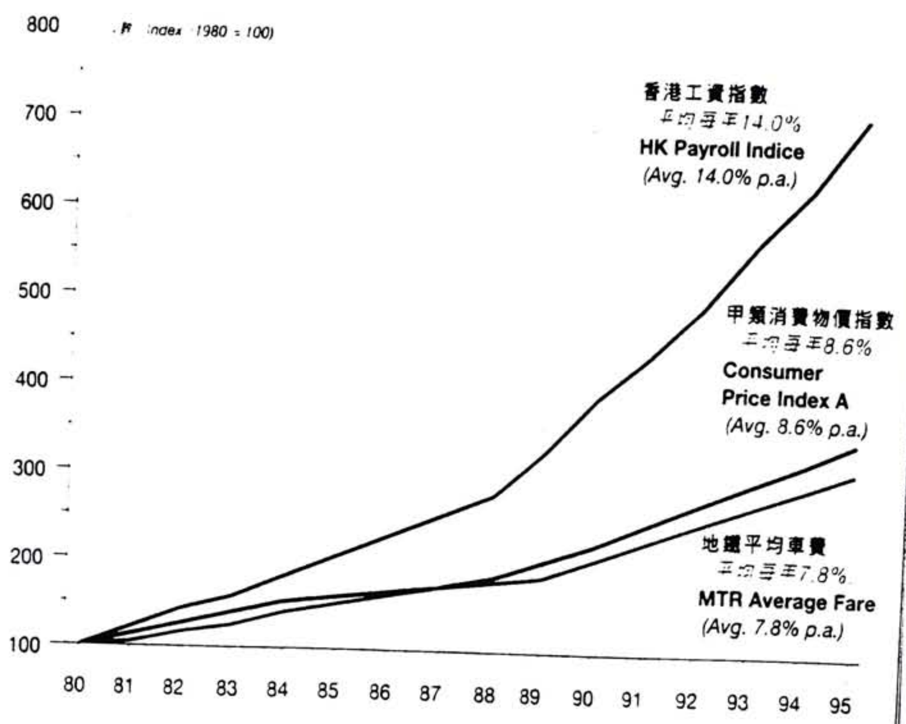


Source: Mass Transit Railway Corporation. MTRC's Fare Determination Autonomy. 7 March 1996.

APPENDIX 10

RECENT FARE ADJUSTMENT OF MASS TRANSIT RAILWAY

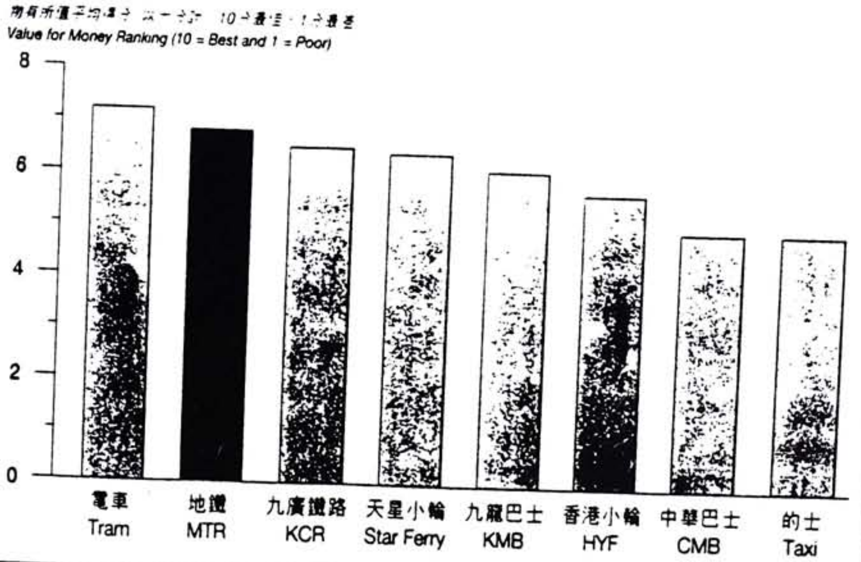
地鐵車費增幅較通脹低
MTR Fare Increase Less Than Inflation



地鐵車費 — 物有所值
MTR Fares — Value for Money

各公共交通工具收費是否物有所值的公眾意向調查
Public Attitude Towards Various Public Transport Fares in Terms of Value for Money

Source: SRH Survey, December 1995



Source: Mass Transit Railway Corporation. MTRC's Fare Determination Autonomy. 7 March 1996.

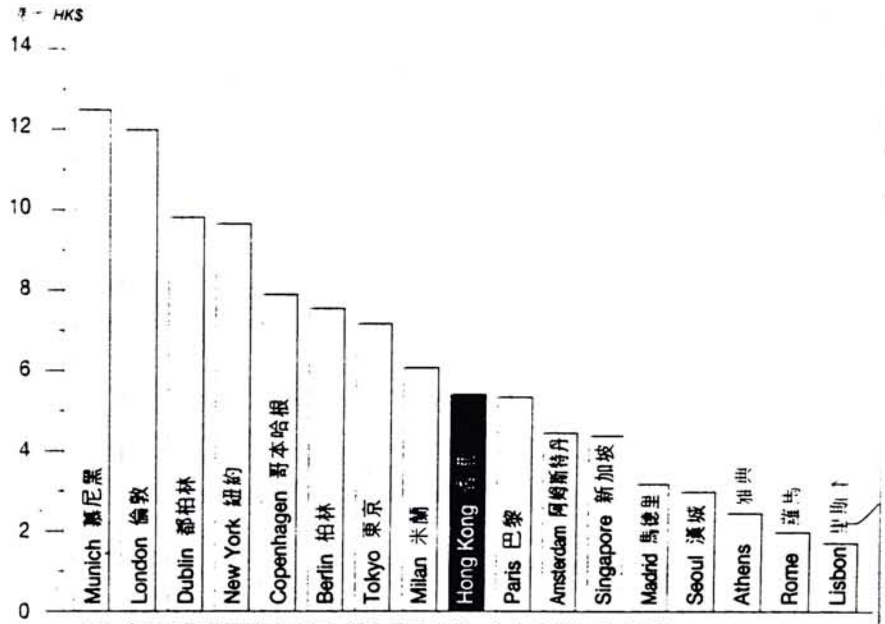
RECENT FARE ADJUSTMENT OF MASS TRANSIT RAILWAY

地鐵車費較本地及海外其他運輸系統優惠

MTR Fares Compared Favourably with Both Local and International Transport Systems

與海外鐵路車費比較

International Comparison



各地成人車費經調整至可作比較之用及反映一九九三年九月的情況

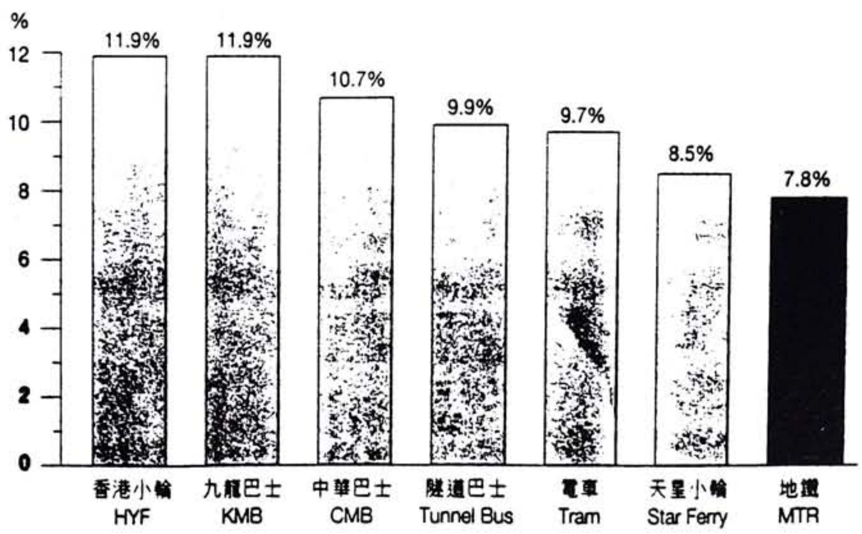
Average fares for adults are adjusted on a comparable basis as at September 1993

與本地運輸系統收費比較

Local Comparison

一九八零至一九九五年平均每年收費加幅

Annual Average Fare Increase, 1980-1995



服務範圍與地鐵相同的路綫

For routes running parallel along the MTR

Source: Mass Transit Railway Corporation. MTRC's Fare Determination Autonomy. 7 March 1996.

APPENDIX 11

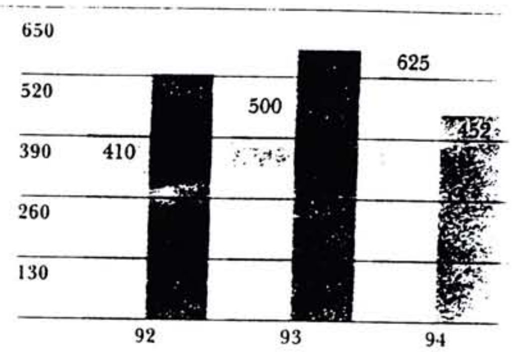
CUSTOMER SERVICE TARGETS OF MASS TRANSIT RAILWAY COPORATION

Equipment Reliability & Availability – Railway Operation 鐵路運作之設備的可靠程度及可供使用程度

Train Reliability 列車服務可靠程度

Our train reliability is measured by the average number of passengers successfully carried for each passenger delayed by 5 minutes or more. Performance in 1994 was affected by the conversion of the rolling stock fleet to an electronic based motor control system and exceptionally wet weather during May and June.

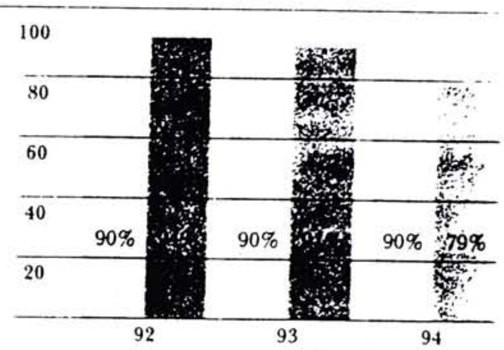
列車服務可靠程度是比較乘客準時抵埗的次數與乘客受延誤達五分鐘或以上的次數。一九九四年，由於所有列車均需更換電子操控牽引系統及五、六月間異常潮濕的天氣，是年的表現因而受到影響。



Peak Hour Train Performance (TWL) 繁忙時間列車表現(荃灣綫)

The Corporation sets targets for the number of train journeys in peak times and then measures the proportion of times these targets have been achieved. Performance in 1994 was affected by intensive service for improved headways which made the target more difficult to achieve and there were more incidents in peak hours.

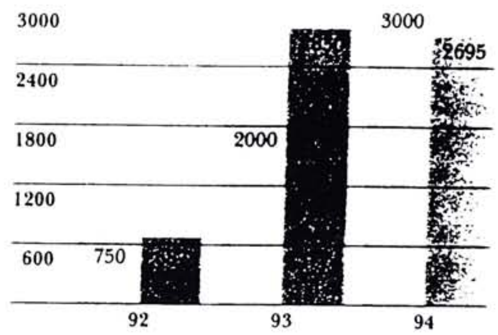
公司制定繁忙時間內列車服務班次指標，然後量度實際行車班次達到預期指標的比率。年內，公司需動用更多資源以應付更頻密的班次，以致所制定的指標更難達到。此外，年內於繁忙時間出現的事故亦較多。



Ticket Reliability 車票耐用程度

Ticket reliability is measured by the average number of successful journeys for a customer before a Common Stored Value Ticket needs exchanging. With the introduction of Hi-C tickets in 1993, ticket reliability has improved. In 1994, problems with physically damaged tickets were identified and a programme is now in place to promote proper custody of tickets by passengers.

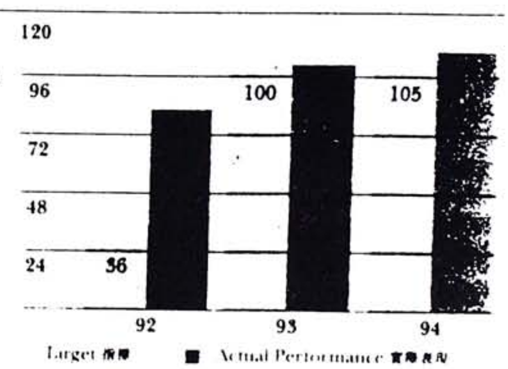
車票耐用程度是指乘客成功使用儲值車票次數與因失效而需要更換車票次數之比較。一九九三年推出強磁車票後，車票的耐用程度大大提高。一九九四年再尋出一些令車票受損的原因，公司現正進行一項計劃，協助乘客正確保護車票。



Escalator Availability 自動電梯可供使用程度

Escalator availability is important for good customer service. The performance is indicated by the average number of successful journeys with escalators being available for one occasion not working.

自動電梯可供使用程度是良好顧客服務的重要一環，此表現可從乘客在車程裡成功使用自動電梯的平均數字得知。



Source : Mass Transit Railway Corporation, Annual Report 1994, p. 52.

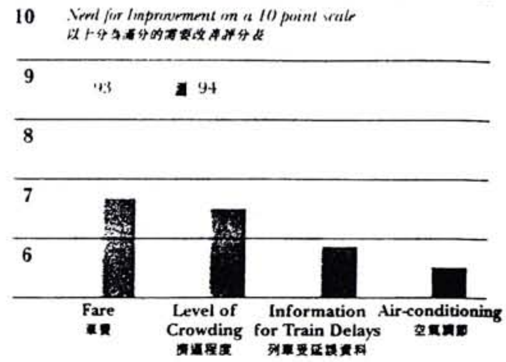
Customer Service Targets and Performance – Railway Operation 鐵路運作之顧客服務指標與表現

Customers' Feedback 顧客的回饋

The Corporation regularly seeks feedback on customers' needs and attitudes toward our services so as to identify areas for improvement. During 1994, through our customer liaison channels, we have received 1,450 passenger suggestions and spoken to over 550 passengers in 48 Passenger Liaison Meetings held in the form of Coffee Evenings.

公司定期收集顧客對我們所提供的服務的需求和感受的回饋，在一九九四年內，公司透過顧客諮詢渠道，收到一千四百五十份乘客建議，更舉辦四十八次乘客聯絡會，以黃昏茶敍形式先後與超過五百五十名乘客對話。

Major Areas that Need Improvement as Perceived by Customers 乘客認為須作改善的主要項目

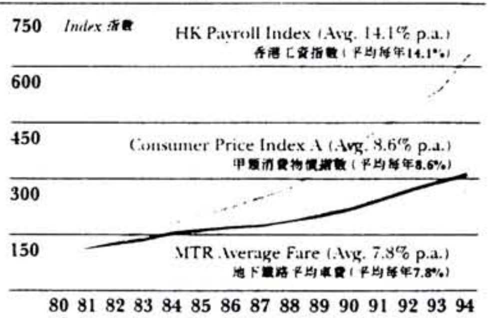


Fare Determination Strategy 釐定車費策略

Since commencement of operation in October 1979, our average annual fare increase has been in line with inflation (Consumer Price Index A) and is below the average annual payroll increase in Hong Kong.

公司在一九七九年十月通車以來，每年的平均車費增幅都跟隨通脹（即甲類消費物價指數）及低於本港每年的平均工資增幅。

Increase in MTR Average Fare 地下鐵路平均車費增長

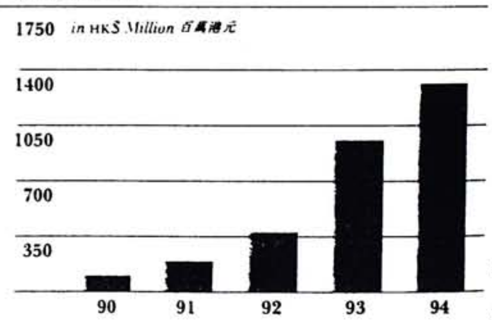


Commitments on Service Improvement & Equipment Replacement 改善服務及更換設備的承諾

The Corporation plans improvements in its service to passengers with capital expenditure programmes on improvements including additional trains, new train control and signalling systems, cooling chillers upgrade, better telecommunication coverage, and station facilities improvements.

公司致力改善乘客服務，已斥資為現時的鐵路展開資本性開支規劃及改善工程，當中包括購買車卡、添置列車控制及訊號系統、更換冷氣系統、擴闊通訊覆蓋範圍及改善車站設施。

Assets Improvement & Replacement 資產的改善及更換

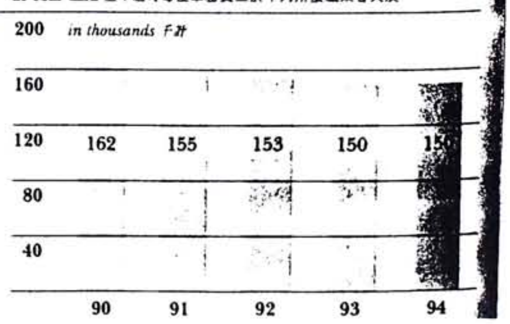


Passenger Carried per Railway Employee 每位車務員工所接載乘客人次

Manpower has marginally increased to support the capital expenditure programme and passenger volume.

公司增聘少量人手以配合資本性開支的計劃及乘客數量。

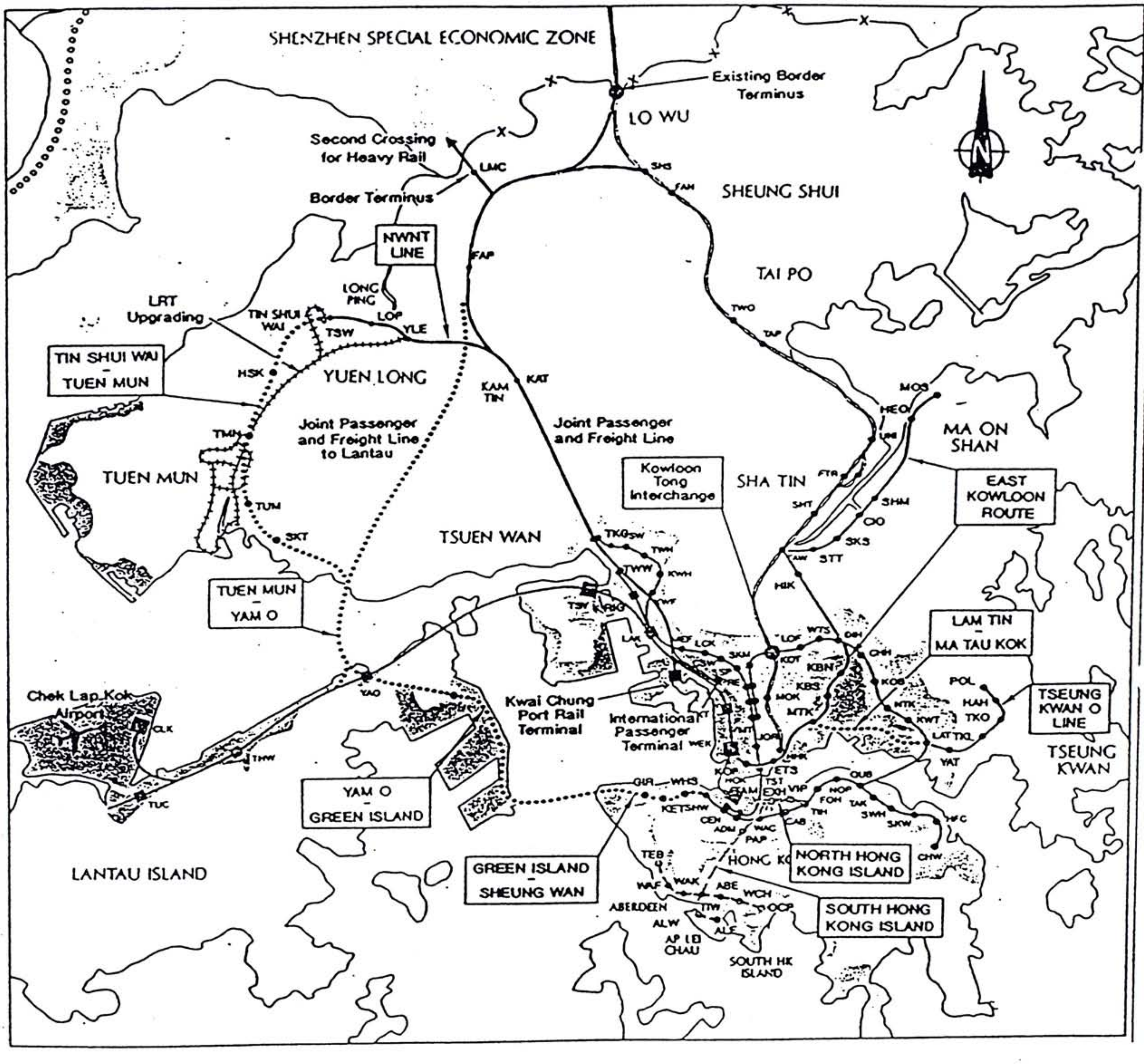
Number of Passengers Carried in the Year per Railway Employee at Year End



Source : Mass Transit Railway Corporation, Annual Report 1994, p. 53.

APPENDIX 12

OVERVIEW OF HONG KONG RAILWAY DEVELOPMENT STRATEGIES



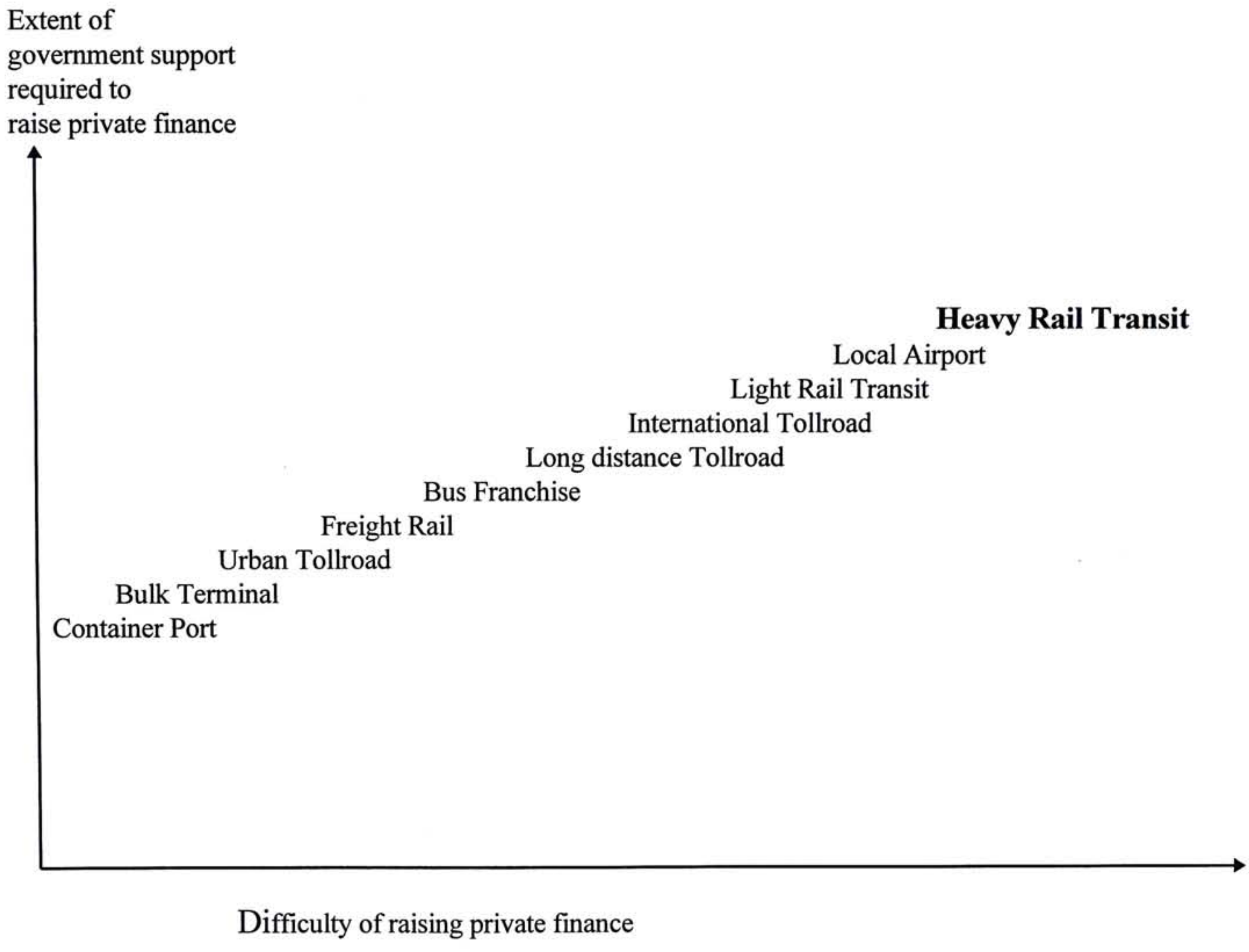
RAILWAY DEVELOPMENT STUDY

OVERVIEW OF STUDY PROPOSALS

Source: Fred Brown and Chai-Kwong Mak, "Railway Development in Hong Kong," Transdelta Conference 1995, 1995, p.78.

APPENDIX 13

LIST OF DIFFERENT TRANSPORT PROJECTS IN ORDER OF DIFFICULTIES OF PRIVATE FINANCING



Source: Kevin D. Files, "Financing Joint Ventures," Transdelta Conference 1995, p.49.

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