

# Airport Privatisation Success must be measured not just by the maximisation of revenues from an airport sale, but by whether privatisation has delivered a cost-effective service of an appropriate quality for the travelling public.

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IATA Economics Briefing: AIRPORT PRIVATISATION

Brian Pearce Chief Economist, IATA 4th July 2005

With substantial input on airport privatisations from IATA's airport and ANPS charges team. This paper also draws on David Bentley's (2005) 'Global Airport Privatisation' CAPA, TRL's Review of Airport Charges 2004 and Airport Performance Indicators 2004 and reviews of the privatisation of other industries by Prof. John Kay.



# Foreword

## Airports are our partners. Without them we have no business.

### Without airlines, the airports also have no business.

So the renewed trend for privatising airports is a key concern for us. Quite frankly, I do not care who owns the airports. It is the cost and service level that matters. Airlines have experienced many airport privatizations. When governments were greedy, they were disasters.

Privatising airports should not be viewed as a short-term solution to a government's budgetary problems. It must be seen as part of a long-term vision for economic development, and it is clear that airports bring tremendous benefit to an economy. But they are also natural monopolies.

If we are unable to come to an appropriate long-term agreement as partners, then strong, independent economic regulation is required to balance the weak bargaining position of the airport's customers. Privatisation should benefit the airport operators and the Government. It must also benefit the public, travelers, shippers and airline customers.

In this report we have examined the successes and the failures of twelve airport privatisations in Europe, Latin America and Asia-Pacific, and extract ten lessons. These lessons provide a clear framework for all those involved in airport privatisations. I will not repeat them here but one of the principle messages is the importance of a transparent partnership.

We look forward to being fully involved as partners in the process of future airport privatisations.



Giovanni Bisignani Director General & CEO, IATA

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# (1) 1 Executive Summary

This paper examines the success or otherwise of twelve airport privatisations in Europe, Asia and Latin America, and the lessons learnt.

It also looks for lessons from the past twenty years of privatisation in other infrastructure industries.

Success must be measured not just by the maximisation of revenues from an airport sale, but by whether privatisation has delivered a cost-effective service of an appropriate quality for the travelling public. The record with airport privatisations as with other infrastructure industries is often disappointing. We extract a number of key lessons for Governments considering how to privatise airports in the future.

#### Ten key lessons for airport privatisation:

- Successful airport privatisations engage customers as key stakeholders from the outset in establishing the master plans, financial plans and the economic regulation process and then involve them in an ongoing and regular basis through agreed processes and full transparency;
- More efficient management is the key to successful privatisation, since cost of capital is almost always higher in the private sector;
- Good governance is more important than transferring ownership to the private sector, in order for privatisation to be in the public interest. However, privatisation through lease sales will be detrimental to the public interest if royalties to the Government are excessive;
- Independent, robust economic regulation will always be necessary to create incentives for efficiency improvements and for sharing these gains with customers, in the private monopolies created by privatisation. If the Government retains a shareholding and controls the economic regulator, there is automatically an unacceptable conflict of interest;
- The most successful economic regulation has been where the regulator is also overseen by an independent Competition Commission to prevent too comfortable a relationship between the regulator and the regulated entity;
- Economic regulators have sometimes been good at extracting maximum value from existing assets, but have not been good at ensuring cost-effectiveness from new investment;
- Mechanisms to incentivise cost efficiency and continuous improvements must be built in from the outset. CPI-X price cap regulation will create the incentives for efficiency improvement, whereas direct or rate-of-return regulation risks preserving monopoly profits and inefficiencies in the early stages of a privatised airport;
- In order to ensure good quality as well as cost-effective service, it is essential to have in place service level agreements (or similar systems) to ensure that service quality standards are maintained and improved;
- Controls must be put in place to prevent unjustified asset revaluations and moves to dual-till accounting, which leave costs common to both aeronautical and commercial services, burdening airlines and their passengers with substantial charge increases;
- A new model, for structuring infrastructure providers in the private sector, is emerging, which could in theory better serve customers; a debt-financed private company structure limited by guarantee, accountable to a board of customers and business partners. In practice this still may not prevent 'gold-plating' on investment programmes. Customer involvement remains essential;

#### The experience of airport privatisations

## Sale of airports to private companies and investors

#### BRITISH AIRPORTS AUTHORITY (BAA). UK

- · A good example of how to privatise an airport successfully and implement effective economic regulation of existing assets;
- However, less effective economic regulation of new investment has led to a recent sharp rise in airport charges, and potentially inefficient investment.

#### COPENHAGEN AIRPORT (CPH). DENMARK

- This has been a relatively successful privatisation with good service quality and relatively low charges;
- Economic regulation has been effective with a formal incentive-based CPI-X system at the ready should negotiation fail. However, there is a potential conflict of interest with the remaining 34% Government ownership.

#### VIENNA AIRPORT (VIE), AUSTRIA

- Privatisation of VIE has resulted in inadequate investment and high charges for customers;
- Before privatisation VIE had high costs. Very weak economic regulation has done little to change this providing no incentive to improve efficiency, provide adequate investment, or hold back monopoly profits.

#### ZURICH AIRPORT (ZRH), SWITZERLAND

- The privatisation of ZRH was setback by the demise of Swissair, its main customer, but has resulted in few efficiency gains and it is one of the most expensive airports in the world;
- . The absence of independent economic regulation and the use of a dual till means there is little incentive for efficiency gains, or offsets to monopoly power in order to share any such gains with customers in lower charges.

#### BRUSSELS AIRPORT (BRU). BELGIUM

- The economic regulation structure put in place after privatisation provides little reassurance for customers. In particular rate-of-return regulation and the potential to link charges to a reference group of airports provides little incentive for cost efficiency improvements to reduce airport charges;
- The regulation does however increase the level of transparency given to users, and names IATA as a representative organization in the consultation process.

#### AUCKLAND INTERNATIONAL AIRPORT (AIA), NEW ZEALAND

- The privatisation of AIA has resulted in one of the most profitable airports in the world, but subject to ongoing airline criticism over excessive charging;
- The absence of effective economic regulation and an inflated asset base has allowed monopoly profits to persist. Of major concern is the Government's decision to reject the Commerce Commission's recommendation that airfield charges be subject to some form of control.

## Trade sales/leasing assets for private operation

#### SYDNEY INTERNATIONAL AIRPORT (SYD), AUSTRALIA

- The experience of SYD privatisation has been that, although service quality is judged good by passengers, airlines are less satisfied and charges are high;
- . The problem is that formal price-cap economic regulation was abandoned in favour of 'light-handed' price surveillance, after SYD appeared to be 'fattened' for sale with asset revaluations and a move to a dual till. Mandatory price monitoring by the ACCC does not provide sufficient incentive to improve efficiency or to reduce costs to the users.

#### PERTH AIRPORT (PER), AUSTRALIA

- In the case of PER privatisation, the absence of economic regulation since 2002 has led large charge increases with no corresponding rise in services or any significant capital investment;
- . The absence of economic regulation, together with asset revaluation and the use of a dual till, has meant large charge increase for customers.

#### EZEIZA INTERNATIONAL AIRPORT (EZE), ARGENTINA

- · Privatisation of EZE has been a very bad deal for customers. The structure of the lease sale has meant very high charges, under-investment and poor customer service quality;
- The absence of an independent economic regulator and the clear conflict of interest as apparent from extremely high royalty fees has lead to a very confrontational relationship between Government, airport operator and customers to the benefit of none.

#### JUAN SANTAMARIA INTERNATIONAL AIRPORT (SJO), COSTA RICA

• The privatisation of SJO has also been marred by royalties of 40-45% of total airport revenues, which are hindering the required development of the airport. Moreover there is no independent economic regulation of charges.

#### JORGE CHAVEZ INTERNATIONAL AIRPORT (LIM), PERU

• In the case of LIM royalty fees are even higher at 46% of total revenues. This, and the absence of independent economic regulation, has meant the airport operator is constantly attempting to introduce new and higher charges.

#### ATHENS INTERNATIONAL AIRPORT (AIA), GREECE

• Service quality at AIA is good but that comes at a very high price for its customers, in the 3rd highest charges in the world. Moreover, the regulated target rate of return of 15% ensures monopoly profits are achieved at the expense of its captive customer base.

## The experience of other infrastructure provider privatisations

There are now over twenty years of experience with the privatisation of infrastructure providers from many industries. Although considerable amounts have been raised from the sale of public assets to the private sector, the benefits to the customer and the public interest in general have been less clear.

There are a number of lessons that can be drawn from this experience.

#### **Key points:**

- The cost of capital has proved too high under the public limited company 'plc' privatisation model;
- 9 Efficiency gains have been maximized where the management of business is outsourced;
- The sale of public assets and the introduction of competition may conflict;
- Performance improvement can occur without the sale of assets to the private sector;
- Governance arrangements, not ownership, are the key to success;
- Under the 'plc' model there is more incentive for the regulated company to present the regulator with inflated investment plans and other strategies to create the scope for unexpectedly large profits or to reduce the pressure for efficiency gains;
- 7 There has often been a failure to balance objectives to provide a cheap, good quality, safe service;
- Without legitimacy in the eyes of customers and the public privatisation will not work;
- 1 The 'plc' model is also inadequate when an infrastructure provider fails;
- 10 Customers have gained from some privatisations, in terms of lower prices relative to the general consumer price index, but not by a lot;
- Shareholders of privatised companies do not always win. After an initial rise following favourable conditions under which privatisation took place, share prices have generally underperformed as previously public sector entities have not performed well in the private sector.



# 2 Introduction

Privatisation, as a policy, began in 1982 with the sale to individual investors of 51% of British Telecom, which launched a radical change in public policy in Britain and around the world.

BAA, in the UK, was the first major airport privatisation with a full floatation of its shares in 1987.

Airports have until recently been under full Government ownership. This remains the case in the United States where airports are owned by local government and financed mainly through ticket and fuel taxes and bond issues, with airlines owning and operating their own terminals. However, European governments in particular, and increasingly those in Asia-Pacific and Latin America, have privatised many of their larger airports.

#### WHAT EXACTLY DO WE MEAN BY PRIVATISATION?

Since 1982 'privatisation' has become a generic term to describe a range of market-oriented reforms of public sector institutions, including airports and air navigation service providers:

- The full or partial sale to private companies of government assets, usually with the establishment of an autonomous regulator unless competition can be introduced;
- The leasing of assets for long-term operation and development by private companies;
- The liberalisation or the introduction of competition. In practice, this is not possible with airports or air navigation service providers, and so will not be considered in this paper. Competition for the purchase of the privatised asset or its operation is possible and desirable, but once that has occurred the provider becomes a private monopoly.

#### WHAT MAKES IT A SUCCESS?

For privatisation to be in the public interest, rather than just a revenue-raising exercise or a ploy to shift assets off balance sheet for government, it must result in a more efficient management of the infrastructure assets. This is the critical yardstick by which the success or failure of a privatisation must be judged.

Privatisation is not about more efficient finance. The Government is almost always the best borrower, at least in developed economies. Under the public limited company 'plc' model of privatisation the cost of capital may be 6% points higher than what it would cost the government. In order to succeed for customers, private sector management must more than offset this additional cost by efficiency gains. A strong and efficient economic regulator will be a necessary prerequisite for this to be achieved by infrastructure providers, who almost always operate in markets with weak or absent competitive pressures.

But the success of economic regulation is mixed where the interests of managers are not aligned with their customers, which may be the case with, for example, powerful shareholders. Boosting shareholder returns and managers own share options may not always be consistent with providing customers with a cost effective service of the right quality. Managers must also balance the need to provide a cost efficient service for customers, with the (sometimes) conflicting objectives of service quality and safety. Many privatisations in the past 23 years have failed to achieve this.

#### EARLY MODEL BEING CONSIDERED

Following these failures the momentum of privatisation has slowed sharply in Europe. The collapse of Railtrack in the UK and the necessity to financially restructure privatised NATS, the UK air navigation service provider, among others, has led to transport infrastructure privatisation being found unsatisfactory in the very country that originally promoted it.

As a result a new model, of structuring infrastructure providers in the private sector, is emerging, which could in theory better serve the interests of customers; a debt-financed private company structure limited by guarantee, accountable to a board of customers and business partners.

Along with infrastructure businesses in rail and water supply, one of the first to adopt this new model was NAV CANADA. It remains to be seen whether in practice this company structure delivers cost efficiency as well as service quality. The case of Toronto Airport where 'gold-plated' terminal investments occurred, despite this type of corporate structure, raises some doubts.

It is clear that economic regulation is a necessary but not sufficient condition for successful privatisation. Better governance is essential too.

# Experience of Airport Privatisations

### Sale of airports to private companies and investors

So far there have been a relatively small number of airports that have been privatised through the full or partial sale of the assets to private investors. Most of these have taken place in Europe and New Zealand.

#### BRITISH AIRPORTS AUTHORITY (BAA), UK

- A good example of how to privatise an airport successfully and implement effective economic regulation of existing assets;
- However, less effective economic regulation of new investment has lead to a sharp rise in airport charges, and potentially inefficient investment.

BAA was transferred to the private sector in 1987 by the UK Conservative Government, through a public floatation that raised \$2.3 billion. Following its previous management by a government bureaucracy, BAA became a public limited company accountable to its shareholders and the economic regulator, with each airport being a subsidiary and having limited autonomy. Since privatisation the company has diversified, managing airports overseas and taking equity stakes in aviation and non-aviation companies in the UK and overseas. It has become particularly successful in developing its non-aeronautical revenues at its airports.

As a result of BAA's effective monopoly position in London and the SE of England the regulator capped landing and passenger charges at the three largest BAA airports from the time of privatisation. Effective economic regulation has been critical to the success of this privatisation, which, until recently, has kept aeronautical charges relatively low with satisfactory service quality.

The independent TRL Charges Index of the top-50 airports worldwide ranks Heathrow 27th and Gatwick 42nd in 2004 i.e. at present relatively low priced. Evenso, in 2003 BAA's operating profit margin was 30.6%, generating a pre-tax return on capital (ROIC) of 7.8%.

#### The key elements to the effectiveness of economic regulation have been:

- The independence of the regulator. This is established in principle through legislation, but in practice through the role of the UK Competition Commission's ability to recommend to the CAA whether or not the regulator's decision is in the public interest or not. Note that there needs to be constant vigilance against what is known as 'regulatory capture' by too close a relationship between regulator and regulated airport leading to excessive investment and charge levels. Having a Competition Commission acting in the public interest is critical;
- Efficiency improvements generated by incentive-based price regulation, as opposed to other forms of price regulation such as 'rate of return'. Price caps on landing and passenger charges over a 5-year period (which gives customers and airports certainty) took the form of CPI-X, that is the general rate of consumer price inflation minus an efficiency factor. Note that price caps need to be set so that airport profits are not too far in excess of their cost of capital, and to address the common practice of airports over-estimating the investment they expect to incur both of which lead to excessive charging;
- Quality of service was ensured by setting measurable quality and service level standards under the regulatory arrangements. Note that if such standards are not set, then incentive-based RPI-X price regulation could lead to a reduction in service quality in order to improve airport profits;
- Costs of other essential customer services not covered by the price cap (e.g. check-in desk rentals) are taken into account by being included in a 'single till'. The 'single till' principle ensures that the profits generated through commercial activities by the passengers, brought by airlines to the airport, are taken into account when setting the level of airport charges. Note that such a practice is justified by, for example, the UK Competition Commission, on the grounds that the measured profits derived from commercial activities exclude the common costs of landing and passenger services, without which such incomes could not be generated. Further, the application of the single till also eliminates the need for stringent cost allocation requirements, which in the best of cases has been found to be extremely complex;
- Strong and informed regulators are required to challenge the airport's own projections for asset valuation, operating and capital expenses, traffic forecasts and non-regulated commercial revenues. Note that realistic and reasonable estimates are required to set the price caps to allow the airport to earn its cost of capital, but maintain incentives to improve efficiency;
- While the UK economic regulator is considered to have done a good job at extracting maximum value from existing assets, the airline customers of London Heathrow consider that now substantial new investment is underway, price caps have been too generous. The 2003-08 price caps of RPI+6.5% have resulted in actual charge increases of 12% for 2005-06. It is not clear to customers that this pre-financing of future investment will deliver the most cost efficient increase in service levels. Note that regulators need to ensure that there are sufficient incentives to deliver the most cost efficient new investment as well as cost efficient existing operations.

#### COPENHAGEN AIRPORT (CPH), DENMARK

- This has been a relatively successful privatisation with good service quality and relatively low charges;
- Economic regulation has been effective with a formal incentive-based CPI-X system at the ready should negotiation fail. However, there is a potential conflict of interest with the remaining 34% Government ownership.

The Danish Government privatised CPH in several stages. In 1994 there was a public floatation of 25% of the company's shares, followed by a further 24% in 1996. Since then the Government has reduced its stake from 51% to 34%. No one investor is allowed to hold more than 10% of the stock. Since privatisation the airport operator has diversified and has developed and operated airports overseas in countries as diverse as Mexico and China.

A new economic regulation regime was put in place to run from 2003 to 2008, which caps prices for a 3-year period either by negotiation with airlines or, if unsuccessful, by regulation. Effective economic regulation and sensible airport management have been critical to the success of this privatisation, which has kept aeronautical charges relatively low and service quality high.

The independent TRL Charges Index of the top-50 airports worldwide ranks CPH 26th in 2004 i.e. relatively low priced, and in 2003 was ranked best in Europe and 2nd in the world in IATA's customer satisfaction survey.

It is clear that efficiency improvements are key to this success since shareholders are also benefiting. In 2002 CPH had an operating profit margin of 36.5%, which generated an ROIC of 11.1%.

#### The key elements to the effectiveness of economic regulation have been:

- If negotiation fails, then regulated price caps will create an incentive for further efficiency improvements. This is an important mechanism to encourage the airport to come to a reasonable negotiated agreement with airline customers. The incentive-based CPI-X formula incorporates both additional efficiency improvements in the 'X' factor but also a portion of the previous year's passenger traffic growth to claw back any excessive charges resulting from traffic overshooting airport forecasts;
- However, this new regulatory structure may not be delivering as much as it could. The first regulated period from 2003-2005 saw a negotiated agreement to increase charges by 2.75% a year. However, inflation over this period looks set to average less than the European Central Bank's 2% target i.e. in practice the price cap has been CPI+1%. This is unlikely to have been a very strong incentive for efficiency improvements. Unlike the UK situation there is no Competition Commission to act in the interest of the customer and ensure the economic regulator set appropriate price caps. Moreover, the economic regulator is the Ministry of Transport and not an independent body. Since the Dutch Government hold 34% of the shares in CPH there is a potential conflict of interest. The checks and balances of a Competition Commission acting in the public interest and the independence of the economic regulator are key factors to restrict the market power of airports in customer charge negotiations.

#### VIENNA AIRPORT (VIE), AUSTRIA

- Privatisation of VIE has resulted in inadequate investment and high charges for customers;
- Before privatisation VIE had high costs. Very weak economic regulation has done little to change this providing no incentive to improve efficiency, provide adequate investment, or hold back monopoly profits.

VIE was a public corporation before privatisation in 1992, with very high staff costs. At the end of the 1980s its revenue to expenses ratio was 1.1 compared to others such as London Heathrow with 1.5. A key success criteria for privatisation was the elimination of this inefficiency. Partial privatisation took place in 1992 with 50% of VIE shares held by private investors (of which 34.8% is freely floated on the Vienna Stock Exchange) and 10% held by a VIE employees fund. Regional and local government hold the remaining 40%. The VIE operator has not been active in developing non-aeronautical revenues with these only representing 23% of turnover.

The economic regulatory regime provides little incentive for efficiency improvements or new investment. As a result costs and charges have always been high at VIE as the airport has appeared to use its monopoly position, with little opposition from the regulator, to deliver an inefficient and highly priced service to its customers.

The independent TRL Charges Index of the top-50 airports worldwide ranks VIE 13th most expensive in 2004. Moreover, planned investment to 2008 is not expected to prevent capacity constraints being reached, but the investment programme has been cut back reportedly in order to maintain VIE's high dividend payout ratio. In 2002 VIE made an operating profit margin of 36% generating an ROIC of 13.1%, making it the 6th most profitable airport in the world.

#### The main problems resulting from the privatisation of VIE have been:

Direct regulation of charges that creates no incentive for efficiency improvements, unlike the CPI-X approach.
Charges had, until recently, been based on a simple formula, rising with forecast inflation with some reduction
for higher traffic i.e. in essence a cost-plus approach. Late in 2004 the regime appeared to shift to a more direct
regulation of the charge level. Charges were reduced 5% in responses to customer complaints. More fundamentally there has been little incentive for VIE to address the high cost base that causes its charges to be among
the highest in the world;

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- Classic monopolist behaviour is to restrict output in order to boost profit margins. The inadequate investment programme appears to demonstrate this outcome. There are insufficient incentives for cost-efficient investment;
- There are few check and balances with the absence of a Competition Commission nor an independent economic regulator with a clear madate to act in the public interest.

#### ZURICH AIRPORT (ZRH), SWITZERLAND

- The privatisation of ZRH was setback by the demise of Swissair, its main customer, but has resulted in few efficiency gains and it is one of the most expensive airports in the world;
- The absence of independent economic regulation and the use of a dual till means there is little incentive for efficiency gains, or pressure to offset monopoly power to share any such gains with customers in lower charges.

Zurich airport was partially privatised in 2000 with 42% of its shares held by private investors, but a controlling interest held by regional and local government. The operators of ZRH made substantial investments in order to develop non-aeronautical revenues along the lines of BAA, but have done little in the way of diversification overseas with just three management contracts at airports in Chile.

There is little in the way of economic regulation with charges determined by ZRH itself. The role of the Federal Office for Civil Aviation is only to verify that legal provisions and international directives have been observed. There is a version of a Competition Commission in the Price Surveillance Authority that acts as some constraint to excessive charging. However, this has not prevented ZRH from exerting its dominant market position to impose high charges on its customers.

The independent TRL Charges Index of the top-50 airports worldwide ranks ZRH as the 10th most expensive airport in 2004. However, it ranks as one of the least profitable of the top-50 airports. Much of this is due to substantial excess capacity following the collapse of Swissair, its main customer. But, in addition, there is an absence of any regulatory regime to incentivise efficiency improvements. In 2002 ZRH made an operating profit of 11.9% generating an ROIC of 2.3%. Nonetheless, this rate of return exceeds that of most of its airline customers.

#### The major problems with this privatisation have been:

- The absence of any independent economic regulator to check ZRH's market power as a private natural monopoly over much of its customer base. The Price Surveillance Authority has acted as a brake to some recent increases but there has been little incentive for efficiency improvements by ZRH. An incentive-based CPI-X price cap would be necessary to achieve this;
- The airport has also switched from single to dual-till. As a result aeronautical charges bear the full cost of providing aircraft and passenger services. Yet many of these are common costs necessary for the airport to provide commercial services. Commercial service income and profits could not be generated without incurring the costs of the aeronautical services associated with delivering the customers i.e. airline passengers.

#### **BRUSSELS AIRPORT (BRU) BELGIUM**

- The economic regulation structure put in place after privatisation provides little reassurance for customers. In particular rate-of-return regulation and the potential to link charges to a reference group of airports provides little incentive for cost efficiency improvements to reduce airport charges.
- The regulation does however increase the level of transparency given to users, and names IATA as a representative organization in the consultation process.

At the end of 2004 BRU was privatised through the sale of 70% of its shares to a consortium of private investors, rather than a public flotation of the stock.

Previously private investors had been involved in the ownership of the airport and the Belgian Government had a 63.5% shareholding. Today's consortium is led by the Australian infrastructure investor and manager Macquarie Airports which now has a 52% share in BIAC. The demise of flag carrier Sabena and competition from Charleroi Airport and high-speed rail adds to the challenge for the new owners.

The economic regulation placed on the airport imposes a price-cap which can be set in order to allow a particular rate of return on regulated assets, rather than to create incentives to improve efficiency. The first 5-year regulatory period is due to begin in 2006.

The TRL Charges Index places BIAC 20th in 2004. In 2002 BIAC were getting a 10.2% operating profit margin and generating a 2.8% ROIC.

It is too early to determine the success or draw lessons from this recent privatisation.

#### AUCKLAND INTERNATIONAL AIRPORT (AIA), NEW ZEALAND

- The privatisation of AIA has resulted in one of the most profitable airports in the world, but it remains subject to ongoing airline criticism over excessive charging;
- The absence of effective economic regulation and an inflated asset base has allowed monopoly profits to persist. Of major concern is the Government's decision to reject the Commerce Commission's recommendation that airfield charges be subject to some form of control.

Auckland International Airport was privatised in 1998 when the New Zealand government sold its 51% stake in a public floatation. Later the Auckland City Council sold half of its 25.6% stake to private investors. Overseas investors now hold 36% of AIA shares. AIA has been aggressive in developing non-aeronautical revenues, which represented 48% of total revenues last year. For example there is a car dealership on the airport site and AIA even sold electricity at one time.

Airport charges are essentially unregulated, despite privatisation turning AIA into a private natural monopoly. The airport company is obliged to simply consult with its airline customers over charges at least once every five years, and to consult regarding significant capital expenditure programmes. It retains the legal power at the end of the consultation process to set such charges as it thinks fit. However, the Government retains the power to regulate airport charges. In 2002 the Commerce Commission recommended that the Government implement direct regulation of AIA charges, under the process set out in the 1986 Commerce Act. The Government has decided not to pursue this course of action. This light-handed regulation has proved costly for customers.

AIA is no longer included in the TRL Charges Index but is certainly considered by airline users as one of the more expensive airports. It is clear that AIA is one of the most profitable airports in the world. In 2003 it made an operating profit margin of 58.6% generating an ROIC of almost 18%.

#### The key problems with this privatisation have been:

- There is no effective economic regulation to prevent AIA abusing its dominant market position or to create the incentives for efficiency improvements. As a result customers have faced excessive charges;
- The asset base and operating costs on which charges are based have been inflated. Land is valued at a high
  market value and includes areas the airlines do not consider necessary for airport purposes. Moreover, the cost
  of capital used by AIA appears overly high which, particularly when coupled with excessive asset valuations, adds
  to costs and the base for charges.

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## 2 Trade sales/leasing assets for private operation

In Australia and Latin America (and also Greece) the privatisation option taken by Government owners of airports has not been to sell ownership but to lease the airports for longterm development and/or operation by private companies.

#### SYDNEY INTERNATIONAL AIRPORT (SYD), AUSTRALIA

- The experience of SYD privatisation has been that, although service quality is judged good by passengers, airlines are less satisfied and charges are high;
- The problem is that economic regulation was abandoned, after SYD appeared to be 'fattened' for sale with asset revaluation and a move to a dual till. Mandatory price monitoring by the ACCC does not provide sufficient incentive to improve efficiency or to reduce costs to the users.

The sale of a 50-year lease with a 49-year option for the development and operation of Sydney International Airport was undertaken in June 2002, raising A\$5.6 billion. The Australian Government retains ownership but sold 100% of the operating and development rights to a consortium of private investors, led by Macquarie Bank and Hochtief.

On the privatisation of SYD, and following a review by the Australian Productivity Commission, incentive-based CPI-X price cap regulation at Australian airports was ended. There is now no direct economic regulation of airport charging, despite their market power as private natural monopolies. There is mandatory price monitoring by the Australian Competition and Consumer Commission (ACCC) Aviation Group, which does not provide incentives for cutting costs or to reduce prices to the users.

Although ACCC's Service Quality Monitoring Report indicates that service quality is rated good to very good by passengers, and satisfactory to good by airline customers, some airlines consider that this report is a poor substitute for a comprehensive Service Level Agreement.

Sydney Airport Corporation Limited currently offers no services standards, KPIs or commercial consequences for non-performance. There is also no framework for performance management of service level issues. Moreover, with no direct or incentive-based regulation on SYD there is little pressure for efficiency improvements.

It is no surprise that the TRL Charges Index ranks SYD as the 18th most expensive airport in 2004. In 2003 SYD made an operating profit margin of 45.5% generating an ROIC of 3.4%.

#### The key problems with this privatisation have been:

- Although charges have not risen far since privatisation there was a 97% increase just before privatisation in 2001, on the grounds that this would allow SYD to earn a commercial rate of return;
- However, this rise was justified first on the basis of a dual till. As a result aeronautical charges will bear the full
  cost of providing aircraft and passenger services, yet many of these are common costs necessary for the airport
  to provide commercial services;
- Second, aeronautical assets were revalued just before privatisation which further raised the level of charges necessary to achieve the commercial rate of return;
- The above are problems with the privatisation process. However, now that SYD has been privatised the key
  problem is the lack of price-cap economic regulation. The ACCC is a similar body to the Competition
  Commission in the UK, but the key difference is that there is no incentive-based price cap in place to encourage SYD to improve its efficiency. Not only does price monitoring create no incentives for cost efficiency
  improvements, the ACCC has limited powers of enforcement which can be overridden by the Government.

#### PERTH AIRPORT (PER), AUSTRALIA

- In the case of PER privatisation in the absence of economic regulation has led to large charge increases with no corresponding rise in services or any significant capital investment;
- The absence of economic regulation, together with asset revaluation and the use of a dual till, has meant large charge increase for customers.

Perth Airport was sold on a 50-year lease with a 49-year option, with the Government retaining ownership. The long-term lease was bought in 1997 by Westralia Airports Corporation Pty Ltd (WAC) for A\$ 639 million.

In the five years following privatisation PER was subject to price cap economic regulation, though that has since been replaced by a mandatory price-monitoring regime, leaving airport charges unregulated. Quality of terminal service is generally rated good by passengers, and airside service quality is rated by airlines as satisfactory or good.

However, the replacement of economic regulation with mandatory price monitoring in 2002 resulted in the airport increasing charges by 70% on average without a corresponding rise in service quality or major capital investments. In addition PER imposes a fuel throughput levy on jet fuel at the airport.

This increase in charges was justified on the basis of the dual-till system and the revaluation of assets that had been allowed by the ACCC at SYD. PER made an operating profit margin of 63.9% in 2004 generating an ROIC of 8.7%.

#### The key problems with the privatisation has been:

- The lack of any economic regulation of charges since 2002. This means there is little incentive for efficiency improvements and certainly no incentive to share any cost efficiencies with customers in lower charges;
- The same issues as with SYD about the impact on customer charges of asset revaluation and the application of a dual till system.

#### EZEIZA INTERNATIONAL AIRPORT (EZE), ARGENTINA

- Privatisation of EZE has been a very bad deal for customers. The structure of the lease sale has meant very high charges, under-investment and poor customer service quality;
- The absence of an independent economic regulator and the clear conflict of interest as apparent from extremely high royalty fees has lead to a very confrontational relationship between Government, airport operator and customer.

The sale of long-term leases on 32 of the largest airports in Argentina, included Ezeiza International Airport which was privatised in 1999. The total sale was the large single tranche of airport privatisation in the world to date. The buyers of the 30-year lease to develop and operate EZE were an international consortium of investors and airport operators, AA2000. AA2000 have been in court suing the Government for breach of contract from the start of their lease or concession. This demonstrates that these privatisation arrangements have not been satisfactory for the Government or concessionaire, let alone customer.

There is no independent economic regulation to restrict the market power of the airport operator, who is running a natural monopoly. In addition the Government is imposing very high royalties for the lease, which adds very significantly to the cost base. In fact, because of its legal dispute the airport operator had only paid one-third of the lease royalties by mid-2003.

Moreover, quality of service has suffered since only 10% of planned investment has been undertaken and has focused on developing commercial and not aeronautical services. The end result for airlines and passengers has been poor service quality and rising charges.

The confrontational relationship between airline customers and airport operator ended up in the courts.

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#### Some of the key problems with this and other privatisations in Latin America are:

- Sales of leases or concessions were structured in such a way that they almost inevitably led to sharp increases
  in charges, with no corresponding rise in service. Many lease sales were made on the basis of unrealistically high
  traffic forecasts and the bidding process led to high royalties, both of which severely damaged profitability.
  Airport operators have tried to recoup these losses by raising charges on airline customers and cutting back
  investment plans;
- There was very little flexibility built into the 30-year lease contracts, particularly in respect of royalty payments, restricting the ability of airport operators to adapt to changed market circumstances;
- The absence of independent economic regulation of charges and an independent economic regulator or other body acting in the public interest has led to a damaging rise in charges and decline in service quality. There is no incentive for improvements in cost-efficiency that a CPI-X type price cap would deliver. Conflicts of interest abound with, for example, part of airport royalties paying the salaries of the regulator;
- There is no effective mechanism for customer interests to be represented in decisions about charge or service levels. Although lease contracts specify customer consultation, there is no effective regulatory body to ensure the monopoly airport takes any notice;
- Investment in new capacity has been inefficient, due to the lack of economic regulation or customer consultation. In some airports there has been excessive investment in terminal facilities, while in others there has been under-investment:
- Resources are being drained from the industry through lease royalty payments to Government which are not used to fund aviation infrastructure. Moreover, cross-subsidy from more efficient airports to inefficient airports are raising and distorting charge levels for customers, and provide a disincentive for efficiency improvements;
- There is no competition among service providers at airports, such as catering, ground-handling etc. The monopoly provision of these services leads to inefficiency and high charges.

#### JUAN SANTAMARIA INTERNATIONAL AIRPORT (SJO), COSTA RICA

 The privatisation of SJO has also been marred by royalties of 40-45% of total airport revenues, which are hindering the required development of the airport. Moreover there is no independent economic regulation of charges.

In 1999 the Government of Costa Rica sold a 20-year lease on Juan Santamaria International Airport to an international consortium of investors and airport operators, led by UK-based Alterra Partners. The cost was a 35.5% royal-ty that, with additional fees and taxes, reached 40-45% of total airport revenues being remitted to the Government.

There is no independent economic regulation of charges and service quality. However, the Government has set up a commission to determine a model for setting customer charges. After pressure from airline customers the Government's Comptroller General has recognized mistakes in the approval process of airport fees, lowering and freezing charges.

However, there is still no incentive mechanism for efficiency improvements or for any such improvements to be passed on to customers, at least in part, in lower charges. Moreover, service quality is suffering as the investment programme has been halted due to disputes by the airport operator with the Government over the terms of the lease contract. Currently there is a renegotiation process in order to set a new economic model that will give continuity to this project. The delay in the negotiation process has benefited customers because charges have not been reviewed or increased since 2002.

The same list of problems with the way in which EZE was privatised and the lack of economic regulation once privatised apply to SJO.

#### JORGE CHAVEZ INTERNATIONAL AIRPORT (LIM), PERU

• In the case of LIM royalty fees are even higher at 46% of total revenues. This, and the absence of independent economic regulation, has meant the airport operator is constantly attempting to introduce new and higher charges.

The 30-year lease or concession for developing and operating LIM was sold in 2001 to a consortium of international investors, Lima Airport Partners including UK-based Alterra Partners. The cost in royalty payments to the Government is 46% of total revenues, even higher than the case of SJO in Costa Rica, and the airport operators have committed to an ambitious investment programme to build LIM as a Pacific Rim hub for South America. However, political instability and the lack of long-term civil aviation policies has led to great uncertainty about these plans and dissatisfaction among airline customers.

There is no independent economic regulation of charges and service quality. As a result of this and the high royal-ty charges the airport is exploiting its monopoly position, raising charging levels and adding new charges. For example LIM have proposed a tax on transfer passengers and a charge for baggage scanning. Charges for fuelling and boarding bridges are among the highest in the region.

The same list of problems with the way in which EZE and SJO were privatised and the lack of economic regulation once privatised apply to LIM.

#### ATHENS INTERNATIONAL AIRPORT (AIA), GREECE

• Service quality at AIA is good but that comes at a very high price for its customers, in the 3rd highest charges in the world. Moreover, the regulated target rate of return of 15% ensures monopoly profits are achieved at the expense of its captive customer base.

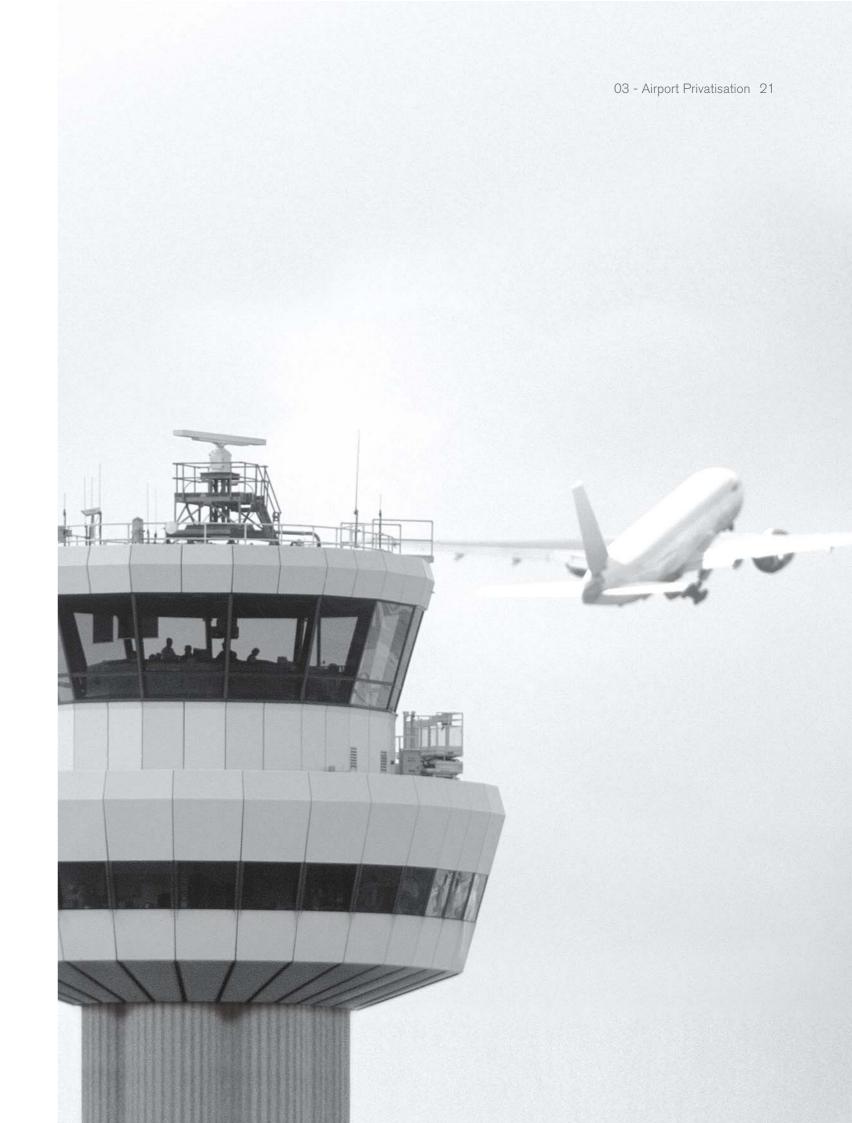
The construction in 2001 of a new international airport for Greece was set up as a 55% Government-owned privatised entity, with a 30-year lease for building and operating sold to a Hochtief-led consortium that included the European Investment Bank. Germany's airport investor and operator Hochtief is setting up an airport investment fund to take stakes in and operate airports around the world, to rival the Macquarie Bank Airport Fund.

There is no independent economic regulator nor any direct incentive-based price caps. Instead there is a form of 'rate-of-return' regulation that caps profits at a 15% rate of return on equity. However, not only does this fail to exert the sort of efficiency incentives that a CPI-X based price cap would, but the airport is permitted to recoup any past shortfalls in achieving this rate of return. Since the weighted-average cost of capital for airports is in the region of 6-7% the economic regulation guarantees monopoly profits will be made by the airport. Economic regulation should be maximizing the public interest by ensuring the monopoly supplier can earn its cost of capital but no more, as in a competitive market. The airport was built to very high standards in order to host the 2004 Olympic Games, so service quality is very good but it is extremely expensive. Charges increased by 500% over the old Athens airport.

Athens was the 3rd most expensive airport in the world in 2004 according to the TRL Airport Charges Index. AlA made an operating margins in 2002 of 33.9% generating a pre-tax ROIC of 4.7%.

#### The key problems with this privatisation were:

- The was little transparency and no consultation with airline customers in the plans to built the new airport. This led to costly and inefficient investment;
- The 'rate-of-return' economic regulation creates no incentives for improving efficiency, and indeed permits monopoly profits. Moreover, if monopoly profits are not made in one year the regulator allows charges to be raised in order to recoup shortfalls;
- The use of a dual till means that aeronautical charges bear the full cost of providing aircraft and passenger services. Yet many of these are common costs necessary for the airport to provide commercial services.



## 1 Lessons from Infrastructure Providers in other industries

The experience of privatising infrastructure providers over the past 23 years has offered some important lessons for the future privatisation of infrastructure providers to the airline industry.

#### Highlight list

- 1. The cost of capital has proved too high under the public limited company 'plc' privatisation model;
- 2. Efficiency gains have been maximized where the management of business is outsourced;
- 3. The sale of public assets and the introduction of competition may conflict;
- 4. Performance improvement can occur without the 10. Customers have gained from some privatisations, sale of assets to the private sector;
- 5. Governance arrangements, not ownership, are the key to success;
- 6. Under the 'plc' model there is more incentive for the regulated company to present the regulator with inflated investment plans and other strategies to create the scope for unexpectedly large profits or to reduce the pressure for efficiency gains;

- 7. There has often been a failure to balance objectives to provide a cheap, good quality, safe service;
- 8. Without legitimacy in the eyes of customers and the public privatisation will not work;
- 9. The 'plc' model is also inadequate when an infrastructure provider fails;
- in terms of lower prices relative to the general consumer price index, but not by a lot;
- 11. Shareholders of privatised companies do not always win. After an initial rise following favourable conditions under which privatisation took place, share prices have generally underperformed as previously public sector entities have not performed well in the private sector.

#### THE COST OF CAPITAL HAS PROVED TOO HIGH UNDER THE 'PLC' PRIVATISATION MODEL

- · Market experience has been that infrastructure providers floated under the 'plc' model have not been transparent enough to allow stock market investors to see the nature of the underlying business model. As a result privatised companies (e.g. in the UK, Welsh Water, BT, Transco - which runs the pipes transporting gas but does not sell gas nor explore for new reserves unlike British Gas in the public sector) have since found cheaper finance by ring-fencing the infrastructure business and funding it with debt. This amounts to a rejection by stock markets of the 'plc' model of privatisation;
- · Generally infrastructure businesses provide a very reliable, but slow growing, revenue stream. In bull phases of stock markets, equity investors demand fast growing revenues. This encouraged a damaging trend of diversification by many privatised infrastructure providers. Vivendi, originally a successful French water utility became an international media business. Enron was originally a Texan energy utility;
- · These stock market pressures have in most cases led to diversification into business that are not profitable nor useful to the customers of the infrastructure provider. Without strong, effective, economic regulation they will lead to excessive price increases for customers.

#### EFFICIENCY GAINS MAXIMIZED WHERE MANAGEMENT OF BUSINESS OUTSOURCED

- The widespread experience of privatisation has been the unexpectedly large labour productivity gains, with much more efficient work practices. Since 1980 in the UK, with little fall in output, employment has been reduced by 75% in steel, two-thirds in railways, half in electricity and by almost half in water;
- It is not ridiculous for the public sector to offer jobs to people who would otherwise be unemployed. But it proved impossible to do without undermining effective management, and created organizations where the interests of employees were put ahead of the interest of customers of the service;
- The most efficient utilities have not been big employers, but have outsourced as much as possible of the running of their assets to specialist, private-sector companies, with specialist capability in the management of different aspects of an infrastructure business. This introduced competition in the management of infrastructure, if not in its provision, and also sourced a pool of specialist talent. Franchises need to be short enough though to allow poor performers to be replaced. There seems little reason why this could not be the case with infrastructure providers to airlines, and indeed this has started to happen with the growth of specialist airport operators.

#### THE SALE OF PUBLIC ASSETS AND THE INTRODUCTION OF COMPETITION MAY CONFLICT

- . In the UK the sale of British Telecom slowed the introduction of competition into the telecoms markets, by turning a public service into a powerful private monopoly able to resist new entrants;
- The deal struck to pave the way for the privatisation of British Gas, which ensured that no restructuring of the company took place. Liberalisation of gas markets, through the break-up of the company, only came about after a long battle with the regulator;
- The point is that not private owner, but the introduction of competition (or economic regulation) is what drives efficiency and better customer service.

#### PERFORMANCE IMPROVEMENT CAN OCCUR WITHOUT THE SALE OF ASSETS TO THE PRIVATE SECTOR

- Under the UK Conservative Government there were substantial commercial successes, while still in the public sector, for British Steel, British Airways and British Leyland;
- The transforming factor was that management were faced with a hard budget constraint i.e. the knowledge that the government is willing to let the business fail. They were also given autonomy i.e. considerable managerial freedom:
- · It may be more difficult making managers of government-owned airports and air navigation providers believe that the government would let them fail. Moreover, they operate in markets far from the degree of competitive pressure found in steel, airlines or autos.

#### GOVERNANCE ARRANGEMENTS, NOT OWNERSHIP, ARE THE KEY TO SUCCESS

- One of the key lessons has been the need to align the interests of infrastructure managers to their customers.
  In the public sector managers want to build and invest, to provide ample margins for security and protect themselves from mistakes. Under the 'plc' model of privatisation managers want to please investors, boost their share options and pay for diversifications. The experience of the California electricity industry following privatisation and weak economic regulation, with 'artificial' shortages forcing up wholesale prices to the benefit of insiders, was revealed following the failure of Enron. Neither of these governance arrangements are in the interests of cost effectiveness and customer service;
- As a result of the failure of the 'plc' privatisation model, a number of privatised infrastructure providers have reconstituted themselves with a new governance structure that puts the interests of customers first. In the UK both Railtrack, now Network Rail, and Welsh Water or Glas Cymru, are not-for-profit companies limited by guarantee. They are debt financed. They have no shareholders or dividend payments so any financial surpluses are invested back in the infrastructure business. Management is accountable to a board representative of customers and business partners. Constitutionally the activities of the business are limited to the provision of the infrastructure, and therefore the interests of its customers. NAV CANADA has a very similar governance structure. However, so has Toronto Airport and this structure has not prevented the 'gold-plating' of terminal investments.

#### UNDER THE 'PLC' MODEL THERE IS MORE INCENTIVE FOR 'REGULATORY GAMING'

- The pressures of achieving better than expected profits, to please the stock markets, led regulatory reviews in a number of privatised infrastructure industries to turn into a game. Companies provided inflated investment plans on the expectation that these would be knocked back by the regulators. In some instances too close a relationship led to 'regulatory capture' by the company allowing favourable price reviews. One solution to this is to have independent oversight by a body like the Competition Commission in the UK and the Commerce Commission in New Zealand:
- Clearly tough and effective economic regulation is essential for infrastructure provision in any industry, and in the
  air transport infrastructure in particular where competitive pressures are weak. But because of the tendency
  towards gaming it is not enough. Management incentives need to be aligned to those of customers. The new
  private company model will do this. However, it will not eliminate the tendency for 'gold-plating' of new investment. The combination of strong economic regulation and the accountability of the provider to the customer is
  required to achieve this.

#### FAILURE TO BALANCE OBJECTIVES TO PROVIDE A CHEAP, GOOD QUALITY, SAFE SERVICE

- The principle failure of infrastructure providers in the public sector has been to provide a cost-efficient, cheap service for customers. However, the service they supply also needs to be safe and of good quality. There have been failures on both sides for some privatised infrastructure providers;
- The examples of serious accidents in the case of Railtrack and failure of water supply with Yorkshire Water have already been discussed. The other obvious example of a failure to supply a service of sufficient quality has been in the electricity supply industry. In 1999 Auckland in New Zealand spent seven weeks without full power. In 2000 there were repeated power cuts in California, as discussed above. Later there were significant power losses in London, Copenhagen and across Italy. The 'plc' governance model under which these businesses operated put too much pressure on managers to generate profit, to the extent that adequate capacity suffered. There is a balance to be achieved by management, which requires the right, customer-oriented, incentive structure to be put in place.

#### WITHOUT LEGITIMACY IN THE EYES OF CUSTOMERS AND THE PUBLIC, PRIVATISATION WILL NOT WORK

• Without legitimacy in the eyes of customers and the public an infrastructure provider will be undermined. An infrastructure provider derives legitimacy or authority either from commercial success in a competitive market-place or through accountability to a political process;

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- In the UK Railtrack, the rail infrastructure provider, was destroyed by the lack of any such accountability, following a major accident and a loss of public confidence. There is more public reaction when the provider deals directly with the public, as with Railtrack. The same happened earlier with Yorkshire Water, when insufficient investment left customers without water supplies. However, the unwinding of the original privatisation arrangements for UK NATS shows how a lack of legitimacy can undermine a company nevertheless;
- Competition will always be lacking for airports and ANSPs so it is vital that a political process is put in place that gives the provider legitimacy in the eyes of their customers i.e. the airlines. The public limited company 'plc' model fails in this respect. The new private company model, limited by guarantee, accountable to a board of customers and business partners, does not.

#### THE 'PLC' MODEL IS ALSO INADEQUATE WHEN AN INFRASTRUCTURE PROVIDER FAILS

- What happens when an infrastructure provider fails? Priority should be given to better management of the service and not the realization of assets for the benefit of creditors and shareholders. The administration process of the 'plc' model was designed for private companies operating in competitive markets, not for public services;
- As a result the experience of failures like Railtrack in the UK has been of long delay before good service is resumed, as the 'plc' model of governance requires that the interests of creditors and shareholders are put ahead of customers;
- Because of the network nature of the airline business, operational problems following financial failure of an infrastructure provider would be extremely disruptive. Again the new private company model is to be preferred to the 'plc' model.

#### CUSTOMERS HAVE GAINED FROM SOME PRIVATISATIONS, BUT NOT BY A LOT

- An index of the prices of 'privatised' goods and services in the UK shows that, since 1980, these prices have moved broadly in line with the prices of other goods. This is better than a rise but the efficiency gains had promised a fall in prices, in real terms, for customers;
- There were massive reductions in labour costs through the elimination of overmanning. However, the impact of technology costs varied between industries. In telecoms falling technology costs reduced prices in real terms. In water rising costs from EU environmental regulations caused a rise in the price of water for customers. The impact of economic regulation has also varied in its effectiveness between industries;
- The bottom line is that considerable effort is required to ensure that privatisation of infrastructure providers is designed in such away that customers will benefit.

#### SHAREHOLDERS OF PRIVATISED COMPANIES DO NOT ALWAYS WIN

- In the UK today there are 23 quoted companies that were once publicly owned. Most have outperformed stock market indices since their floatation. However, if you distinguish the period immediately after floatation with the longer run experience there is a startling divide in performance. Except Enterprise Oil (because of the price of oil) all 23 showed strong share price increases in the first two years following privatisation, but a decline thereafter. On average there was a 43% rise in share price in the first two years, followed by a 39% decline thereafter (as of 2002 when the study by John Kay was undertaken);
- This experience was partly because companies tended to be fattened for privatisation and then initially given low targets by the economic regulator, so that profits turned out better than expected. Once successfully floated the regulator tightened the screws in the interests of customers at the next regulatory review. But there has also been a fundamental problem in that these business grew up in the public sector and were poorly equipped to operate in an equity-funded private sector environment. As a result, we argue above that stock market investors have effectively rejected the 'plc' model of privatisation.

# Conclusions

- Successful airport privatisations engage customers as key stakeholders from the outset in establishing the master plans, financial plans and the economic regulation process and then involve them in an ongoing and regular basis through agreed processes and full transparency;
- More efficient management is the key to successful privatisation, since cost of capital is almost always higher in the private sector;
- Good governance is more important than transferring ownership to the private sector, in order for privatisation to be in the public interest. However, privatisation through lease sales will be detrimental to the public interest if royalties to the Government are excessive;
- Independent, robust, economic regulation will always be necessary to create incentives, for efficiency improvements and for sharing these gains with customers, in the private monopolies created by privatisation. If the Government retains a shareholding and controls the economic regulator, there is automatically an unacceptable conflict of interest;
- The most successful economic regulation has been where the regulator is also overseen by an independent Competition Commission to prevent too comfortable a relationship between the regulator and the regulated entity;
- Economic regulators have sometimes been good at extracting maximum value from existing assets, but have not been good at ensuring cost-effectiveness from new investment;
- Mechanisms to incentivise cost efficiency and continuous improvements must be built in from the outset. CPI-X price cap regulation will create the incentives for efficiency improvement, whereas direct or rate-ofreturn regulation risks preserving monopoly profits and inefficiencies in the early stages of a privatised air-
- In order to ensure good quality as well as cost-effective service, it is essential to have in place service level agreements (or similar systems) to ensure that service guality standards are maintained and improved;
- Controls must be put in place to prevent unjustified asset revaluations and moves to dual-till accounting which leave costs common to both aeronautical and commercial services burdening airlines and their passengers with substantial charge increases;
- A new model, for structuring infrastructure providers in the private sector, is emerging, which could in theory better serve customers; a debt-financed private company structure limited by quarantee, accountable to a board of customers and business partners. In practice this still may not prevent 'gold-plating' on investment programmes. Customer involvement remains essential.



