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## **Fitting airport privatisation to purpose**

### **Aligning governance, time and management focus**

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## **Abstract**

Where airports were once the sole responsibility of their governments, liberalisation of economies has seen administrative interests in airport spaces divested increasingly towards market led authority. Extant literature suggests that actions in decision spaces can be described under broad idealised forms of governance, however in looking at a sample of 18 different airports it is apparent that these classic models are insufficient to appreciate the contextual complexity of each case. Issues of institutional arrangements, privatisation, and management focus are reviewed against existing governance modes to produce a model for informing privatisation decisions, based on the contextual needs of the individual airport and region. Expanding governance modes to include emergent airport arrangements both contribute to the existing literature, and provides a framework to assist policy makers and those charged with the operation of airports to design effective governance models. In progressing this framework, contributions are made to government decision makers for the development of new, or review of existing strategies for privatisation, while the private sector can identify the intent and expectations of privatisation initiatives to make better informed decisions.

## **Keywords**

Airport privatisation, governance, airport management

# 1 Introduction

The gateways to regions, airports have been promoted primarily as logistics hubs, and have become focal points for regional development as they foster economic growth and attractiveness (Vickerman, Spiekermann and Wegener 1999; Kasarda 2001; Charles, Barnes, Ryan and Clayton 2007). Airports were traditionally seen as the responsibility of governments to manage and operate, typically in line with strategic economic and defence policies. Increasingly, countries are pursuing strategies to liberalise airports divesting, to varying extents, operational and economic risks and control. With interests to maximise airport development and regional benefits, governments face an increasingly disparate set of interests (Pitt 2001). Governments have increasingly sought private funding in airport development as a means to forward infrastructure development or build efficiency in operations (Graham 2003; Szyliowicz and Goetz 1995). By privatising, government has effectively reduced its ability to control airport spaces directly, yet contemporary planning strategies show an increased need for coordinating development efforts between airports and their regions (Alexander 1998; Kasarda 2001; Blanton 2004). So governments seek private funding for airport development to achieve regional planning goals, but risk losing the ability to actively coordinate future airport development to fit regional economic development plans.

Privatisation provides a ready source of funding for airports, especially where governments lack expertise or the necessary budgetary requirements to undertake a major airport overhaul. Increased competitiveness in the air industries has applied pressure on airports to become more mobile to change, making it necessary for airports to now sit separate of the prohibitive checks and balances required of government authorities (Kay and Thompson 1986). While there are many different strategies that governments can take to enhance the strategic mobility of their airports, each method available has its own inherent impacts and implications on the operations and administration of airports.

Previously, authors have highlighted the different levels of privatisation, authority, and ownership stemming from strategies to enhance the effectiveness of airports for their regions (Graham 2003; Carney and Mew 2003). Individually, each contribution has been an important step to highlighting the complexity of governance in airport arenas; an evolving space in literature as governments and airports continue to liberalise. To manage the increasing complexity surrounding the privatisation of airports, a better understanding of the impacts and implications of different privatisation methods is required. A theoretical framework has been developed from 18 airports to provide clarity on what privatisation sets in operational expectations and administration, merging governance theory with the concepts of airport privatisation (Graham 2003), airport management strategy (Carney and Mew 2003) and models of airport administration and operation (Stevens 2007). The conceptual framework provided is at an early stage of development, however the utility of such a tool is clear in helping decision makers revise what they want, how they want it, how it is now, and how that meets the expectations of 'typical' applications of privatization. In progressing this framework, contributions are made to government decision makers for the development of new, or review of existing strategies for privatisation, while the private sector can identify the intent and expectations of privatisation initiatives to make better informed decisions.

## 1.1 Airport privatisation

Many airports have been privatised to some extent, from the use of contracted agents to service and maintain terminals, through to the whole of airport operations and administration with sale and long term lease arrangements (Graham 2003). In privatising their airports, governments have often made decisions on the needs of the regional economy; some have been positive in delivering enhanced business relationships and airport performance (Gerber 2002), while others have seen a litany of unrealistic expectations and failures (Lipovich 2008), or government responses too late to be of value (Pitt 2001).

**Table 1: Graham's (2003) five modes of privatisation**

<b>Privatisation mode</b>	<b>Typical attributes</b>
Share Flotation	Full or partial sale of airport through the issue and trade of share capital, but can also include long-term leasing (50+ years). This includes responsibility for airport development, operations and administration.
Trade Sale	Full or partial sale to trade partner or investing consortium, often strategically chosen for expertise rather than just available financial capital. This includes responsibility for airport development, and operations.
Concession	Mid- to short-term leasing arrangement (20-30 years) for airport operations. This includes responsibility for airport development and operation, however the influence of government is higher due to the shorter length of the lease.
Project Finance	Often manifests as a buy-operate-transfer (BOT) arrangement for a private entity to refurbish/develop and run an airport facility for a set length of time. Investment can range from the redevelopment of a single passenger terminal through to an entirely new airport. Such arrangements often range in length (up to approximately 30 years), the bigger the project the longer the operational agreement.
Management Contract	A contract for the day-to-day operations of the airport. The operating company does not have control over the development of the airport, and responsibilities may include the operation of the entire airport down to a single operational aspect such as retail or parking.

The literature has defined the varying extents to which airports have privatised since the end of the Second World War (Tretheway 2001; Graham 2003; Wells and Young 2004). Through various modes and levels of privatisation, many airports have gained substantial autonomy from their governments, effectively given the authority to develop and govern the land they inhabit (Graham 2003; Humphreys 1999). The authority given to airports is not necessarily absolute or uncontested, and with various methods available for governments to privatise their airports, different sources and levels of influence exist in airport governance arenas. A brief outline of Graham's (2003) perspective of airport privatisation is given below in table 1, with 'share flotation' being the most liberalised method, through to 'management contract' allowing governments to retain almost complete control. Graham elaborates on her

modes of privatisation, unpacking the impacts privatisation has on competition between airports at the national levels, stressing the importance of a well considered strategy to privatise airports (2003, 27).

## **1.2 Managerial intent and privatisation**

Carney and Mew (2003) expand on competition issues by offering three optimal governance modes for airport privatisation, and is essentially a grouping of Graham's (2003) five privatisation modes into strategic, operational, and project based managerial foci. This simplification, however, groups the privatisation modes into three groups of arrangements that are bound by a standard context, time (Carney and Mew 2003). This contextual anchor allows foresight into the operational goals of the private entity; the longer the time horizon, the less transactional the relationships between the airport and the government will be (Madhok and Tallman 1998). For example, a company contracted to manage an airport's operations for the next 5-10 years will likely drill down on costs and aim for improved efficiencies over building new systems and infrastructure, due to lead times and the available period to seek returns on investment. A company awarded a 99 year lease is likely to invest early for longer term returns on operational capacities and economies of scale, which is likely to require support from local governments to facilitate planning approval. It is important to realise that airports are likely to pursue multiple managerial foci in their management, however underlying themes in actions made, and constraints built into arrangements and local governance are likely to make one dominant over others.

## **1.3 Recognised governance models**

Understanding governance is essential to drawing further light on the decision making processes surrounding privatisation. Contemporary forms of government have allowed for the market to enter the decision making space of airport development, from active engagement in planning (Goetz and Szyliowicz 1997) to effectively full ownership and operation (Bovaird 2005; Graham 2003). Many governments no longer retain the authority to control the development initiatives within airports. Governments act, instead, in a relationship with their airports to achieve long-term regional planning goals, steering and guiding development at arms length (Stoker 1998). To understand why governance in airport spaces is difficult to understand, the traditional definitions of governance, and the evolution of contemporary governance must first be understood.

Hierarchical governance is considered the accepted model of state influence over decision making (Rhodes 2007; Peters and Pierre 1998). A hierarchy is built around a centralised point of control that embodies the constitution and principles it was formed on, and has an underlying authority of physical force if required (Rhodes 2007; Kooiman 2003; Thorelli 1986). Kooiman (2003, 181) includes that hierarchical governance within markets provides a symbolic character of authority, who's authority is "poorly controlled and seldom enforced." Hierarchical governance is often slow to respond to issues in relation to intervention due to its embedded checks and balances, but is essential to the maintenance of long-term objectives (Kooiman 2003; Hill and Laurence 2004).

Market governance is best described as structures and systems underpinned by the ethos of competition, supply and demand, and paying for what is used (Williamson

1975; Klijn 2002; Keast, Mandell and Brown 2006). While government hierarchies have attempted to adopt market governance attributes (Denhardt and Denhardt 2000; Kettl 2000), adverse social consequences show that it is not always a desirable influence on urban communities (Davies 2002). The utility of market led governance is the continual development and review of systems and processes to ensure strength in competitiveness, be it from optimising cost efficiencies or comparative advantages.

Network governance describes a flattened decision making structure, where authority is legitimised through the dynamic relationships amongst and between actors in the network (Thorelli 1986; Powell 1991; Jones, Hesterly & Borgatti 1997). Parker (2007) responds to applications of network governance theory, highlighting the difference between networks that deliberate and governance networks that decide. Network governance aims to create and capture value from the dynamic relationships of horizontal communications and combined tacit knowledge. Network governance often delivers innovative outcomes that appreciate many stakeholder visions, however, agreements are not always in line with the principle of the original issue (Jones et al. 1997). Drawing from the literature, these three idealised models of governance and their underpinning characteristics have been summarised in table 2.

**Table 2: Attributes of governance modes (Keast et al. 2006)**

	<b>State</b>	<b>Market</b>	<b>Networks</b>
<b>Domain of action</b>	Public	Private	Civic
	Dependent	Independent	Interdependent
<b>Relational focus</b>	Authority (centralised authority)	Contractual (legal authority) exchange	Interpersonal authority Trust, reciprocity, common vision
<b>Decision making/planning</b>	Top down - public interest	Private interest – strategic	Communal Deliberative/ collaborative
<b>Integration mechanisms</b>	Legislation, rules, regulations	Specified contracts, arms-length transactions;	Social contracts, compacts, negotiation tables, forums
<b>Accountability</b>	To public	To self	To group

However, in practice idealised models don't exist and operators draw from, and mix and match between modes to create governance processes that best suit their needs and operating context. Thus more contemporary governance theories, discussed below, appreciate a mixing of the traditional theories to produce a dynamic reality of governance in action, where decision making occurs under both transparent and discrete influences.

#### **1.4 Hierarchies decline while polycentrism evolves**

Appreciative of the concerns of evolving modes of governance, Hill and Laurence (2004) question the utility of hierarchical forms of governance in contemporary contexts due to marked increases in outsourcing of public service delivery. Their

conclusions show that while vertical hierarchies are declining in their ability to control, hierarchical constructs remain important in setting and communicating elemental governance to broader groups and society (Hill and Laurence 2004). This supports Peters and Pierre's (1998) insights to the influences of horizontal actors diminishing the abilities of hierarchies to control directly, adding to Rhodes (1997) argument that decisions are now negotiated rather than delivered. The decline of centralised authority within decision making structures (Peters and Pierre 1998; Hill and Laurence 2004) has led to the definition of polycentric regulatory regimes (Black 2008); where decision making regimes are marked by fragmentation, complexity, and the interdependence between actors on decision making.

## **1.5 Crowded policy domains**

Legitimate authority within polycentric decision making regimes is often difficult to define (Black 2008; Skelcher 2005), as there may be a number of actors with varying governance types competing for decision making influence (Keast, et al. 2006; Skelcher, Mathur & Smith 2005). Where governance modes overlap and interact with each other, inconsistencies appear in the interpretations and responses to issues of decision making (Black 2008); these decision making spaces of overlapping and sometimes competing governance structures are defined as crowded policy domains (Keast et al. 2006).

How each actor responds to decisions made is dependant on their perceptions of how legitimacy is gained (Tyler 1990; Chayes and Shelton 2000), which more importantly, is influenced by their governance structure (Thorelli 1986; Jones et al. 1997; Rhodes 2007). Black (2008) suggests that legitimacy may be constructed, especially where non-state actors in need of authority may not be supported by legislation. Where competing claims of authority arise in complex decision making domains such as airports, legitimacy is likely to be sought by multiple actors, making decisions that please all actors highly unlikely (Black 2008; Skelcher 2005). This brings to the fore debates over how dilemmas of competing wants should be approached, how parties gain legitimacy in such debates, and why.

In their efforts to advance airport infrastructures for regional benefits, governments have often sought varying levels of privatisation for a number of different reasons, be it for access to additional funding, expertise in management, or as a part of national strategies for economic liberalisation. Changing the levels of state ownership, authority, and operational control over airports highlights the difficulties that arise in crowded policy domains. Traditional relationships of government agencies as airport administrators have changed to government agencies acting as overseers of airport administrators and operators (Graham 2003), and as stakeholders in shared control of airport operations (Stevens 2007). Shared control and multiple interests in airport decision making is a major source of complexity in reviewing the governance of airports. An understanding of the different types of administrative and operational ownership arrangements is required to appreciate the complexity of institutional arrangements that arise from mixing state and market influences.

## **1.6 Airport operation and administration**

Today, the nature of airport ownership varies greatly from country to country. The majority of airports globally are still public assets, with varying levels of private

sector involvement. A number of models of airport administration and operation are documented by Tretheway 2001, Graham 2003, Wells and Young 2004, and summarised by Stevens (2007) in Table 3.

**Table 3: Models of airport administration and operation (from Stevens 2007)**

<p><b>1. Operation by National Government Department</b> This was traditionally the most common model, where federal governments owned and operated airports. The airports are the responsibility of a department, typically the Civil Aviation Authority (CAA), Ministry of Transport or the military. They may oversee regulation, air traffic control, air navigation and airport operations. Investment in this model is dependant on political process or budget priorities, potentially leading to under investment in airport infrastructure.</p>
<p><b>2. Operation by Municipal Governments</b> This is unique to the US and is typically where airports are run by the city as an administrative department, with some setting up boards as an advisory role, but holding very little real power. This model should have high degrees of accountability and transparency, yet in reality very few US airports provide financial statements to the public.</p>
<p><b>3. Operation by Government Agency</b> In this model aviation matters are referred to a semi-independent government agency, rather than the direct responsibility of a department, (CAA), Ministry of Transport or the military. The department is responsible for policy, while the agency is responsible for the day to day regulations and operations.</p>
<p><b>4. Operation by a Government Corporation</b> This is the vertical separation of operations from regulatory functions, eliminating conflict of interest. The corporation reports to the department, but is semi autonomous due to its corporatised structure. Airport management by corporation is not uncommon, and was the system in Australia prior to privatisation, under the Federal Airports Corporation (FAC). Airport corporations may be wholly owned by the national government, others are jointly owned by federal and local governments, such as, The Schiphol Group, in The Netherlands.</p>
<p><b>5. Airport Authority</b> The term can be ambiguous, but here refers to the governance concept of a private sector corporation, which operates an airport that is not for profit, and as such has no shareholders. They have an independent board selection process which remains in place when there is a change of government, as opposed to the government corporation model, and they have financing that is independent of the government. This model is unique to Canada and was established in the hope airport development would be managed to best serve the region.</p>
<p><b>6. Private Corporation</b> This is when an airport is wholly owned, or leased, by a for-profit corporation, with ownership dispersed among a number of shareholders. Private corporations may own airports and facilities outright, or lease the airport on a long-term basis. Leasing usually means that the government still has residual responsibilities, should the corporation fail, and also has implications for land development as the corporation endeavours to capitalise on its investment, and maximise return in the timeframes of a lease.</p>

Stevens' (2007) summary shows just how complex state level arrangements can be for airports, and provides a complimentary addition to the levels of privatisation provided by Graham (2003).

In coordinating development between airports and their regions, emphasis will be placed on the ability of airports and governments to make decisions that foster a sustainable relationship with each other and the communities they service. Currently, issues stemming from disparate agendas and perceptions have troubled efforts for privatised airports and governments to move beyond cooperative positions into coordinating relationships. The drivers keeping privatised airport and government agendas separate are the reality of operating large market driven organisations that impact negatively on social costs local to their operations, but enhance economic development for the region as a whole (Tomkins, Topham, Twomey and Ward 1998; Charles et al. 2007).

Providing clarity on where authority and responsibility lies is an important step in any decision making process. The overlap of government and market interests make these elements difficult to identify, and in reviewing the governance arrangements surrounding airport spaces it becomes clear that airport spaces are crowded governance domains (Keast et al 2006). Complexity in crowded governance spaces arises from not only disparate agendas, but also from differences in the norms of information flows for decision making that each actor brings with them to the table. Asking decision makers to come together and operate under (likely) foreign decision processes and structures is likely to create at least some level of resistance to cooperation. Privatised airports have a responsibility to facilitate investor returns for both future growth and attractiveness, while governments have a responsibility to ensure regional and community sustainability. Both have the opportunity to benefit from improved coordination and/or collaboration, but enabling each to identify synergies available requires each has a sound understanding of their own agendas, let alone the others'.

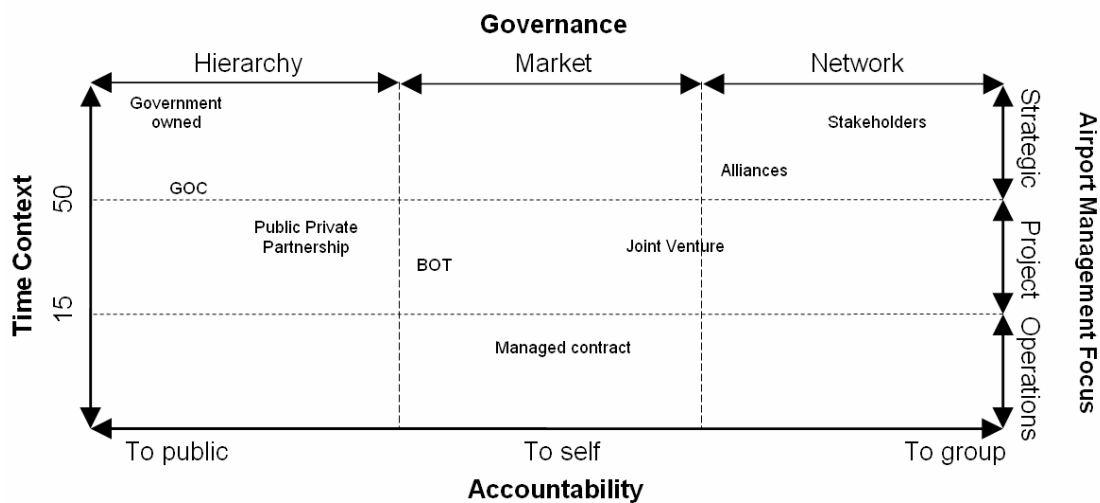
## **1.7 Conceptual framework**

Decisions made in airport privatisation will be affected fundamentally by underlying government legislation, history of privatisation, the desired role of the airport, and the availability of funding and expertise (Graham 2003). More importantly, the negotiation process between government and airport operators bidding for tenure may deliver concessions and alternatives, as disparate agendas of profit versus providing a public service are explored for each actor. To help identify these dissimilar agendas, Carney and Mew's (2003) strategic, operational and project based perspectives build a strong rationale for airport privatisation decisions made by government to consider the contextual fit of governance arrangements to the desired outcomes of the privatisation initiative. Building on this conceptual footing, linking airport management focus and governance accountability provides a basis for mapping the different strategies or levels of privatisation in figure 1; unpacking Carney and Mew's (2003) and Graham's (2003) perspectives of privatisation and strategy against models of governance.

By showing the levels of accountability against appropriate management focuses, a guide to likely modes of privatisation and governance decisions has been provided below for governments, privatised, and private organisations. Governments can keep decision processes in check to ensure a good fit of governance mode and privatisation against the context of what they are actually trying to achieve. In other words, choosing the right mode of privatisation for what is trying to be achieved in a

particular airport case or regional airport strategy. Privatised airports can also use this framework to identify appropriate contractual and/or relational arrangements for on-airport development or operations related activities. Likewise private sector organisations bidding for contracts can use this framework as a complimentary tool for analysing the appropriateness of the proposed arrangement.

The categories of the framework are not mutually exclusive of one another, and exist as a guide of expectations from literature. An airport may be privatised to be operated by a private company, yet the stakeholders be purely of government such as Amsterdam Airport Schiphol; in this case accountability is both to stakeholders and to public through the directly apparent role of the stakeholders.



**Figure 1: Fitting context to governance realities**

While the framework may be used as a tool to assist decisions for each party in the consideration and negotiation process for privatisation, disparate agendas will continue to provide unexpected and sometimes innovative alternatives to proposed arrangements. This is a limitation to any tool such as the above framework, as it is unable to address issues stemming from individual cases' cultural differences in expectations of accountability, reactions of actors to market forces, or the strategic role of an airport as a part of a broader regional/national system. Looking at a sample of 18 airports, figure 2 maps out the management role of different airport operators; most cases appear to be representative of the proposed framework, although there are a number of outliers.

## 2 Method

18 airports were purposively sampled for their apparent differences in privatisation based on assumptions made from the literature. A documentary analysis including annual reports, master plans, government documents, and academic literature was used to determine the institutional and levels of privatisation at each case, and a summary of management intent and governance fit (as per table 2) was created for each airport based on recent decisions, infrastructure developments and master plans.

In practice, all three management areas of strategy, project and operation are utilized simultaneously, and the diverse mix of stakeholders involved with the more liberalized forms of privatization create multiple sources of accountability. To map an airport on the framework, it is up to the analyzer to interpret an airport's situation against the framework, looking for trends, actions and behaviors of airports. When an airport falls outside of the expectations set from literature, it is important to explore reasons as to how and why an airport sits where it does, and some initial explorations into some outliers have been discussed in the data analysis and discussions sections. Likewise if an airport is considered to be problematic, yet falls inside of the expected regions of the framework, investigating how and why is also required.

By gaining an understanding of the individual cases, this knowledge was then used to place each airport on the framework provided in figure 2. Where there had been changes in privatisation, such as completion of contracts, expropriation, or renegotiation of contractual agreement, a solid line was used to represent the change. Dashed lines were used to highlight suggested changes described in the data analysis section that follows.

## 2.1 Data analysis

Appendix 1 provides an overview of the 18 airports reviewed, and most of the airport cases match with expectations set from literature. There are, however, a number of unanticipated outliers that upon further investigation provide meaningful insights to the role of context in decisions and perceptions surrounding the fit of privatisation for purpose. Below, explanations are proffered for the outliers of Ninoy Aquino International Airport (MNL), Shanghai Pu Dong Airport (PVG) and Buenos Aires Jorge Newbery Airport (AEP). These examples highlight cases where the privatisation of each airport does not meet with assumptions made from the literature.

Manila's Ninoy Aquino International Airport was originally under a 25 year BOT with Fraport AG to construct and operate a third terminal facility to enhance the airport's long-haul capacity (Hooper 2002; Graham 2003). Before completion, the Philippine government expropriated the terminal after construction stalled from insufficient funding. The lack of compensation from the Philippine government saw Fraport AG filing the matter to the World Bank's court of arbitration, halting final construction on the facility (Fraport AG 2008). The government is currently in the final stages of releasing the new terminal, after considerable troubles in construction after Fraport AG's removal from the project. While Manila International Airport Authority has continued to look for avenues of increasing capacity, seeking improved efficiency from existing infrastructures now appears a more pressing interest for the airport authority; the challenge for the operator is now to maximise revenues for recouping development costs. A future strategy for maximising operational efficiency while retaining government ownership would be to move to a managed contract strategy for privatisation; utilising market institutional arrangements to achieve operational efficiency while leaving strategic coordination to government owners.

Shanghai Pu Dong Airport is a government owned and operated case that sits distinct of theory's expectations. Recent developments appear to appreciate regional trends in passenger and freight growth, and a national aviation strategy coordinates the airport's operations with others to foster regional economic development. This description

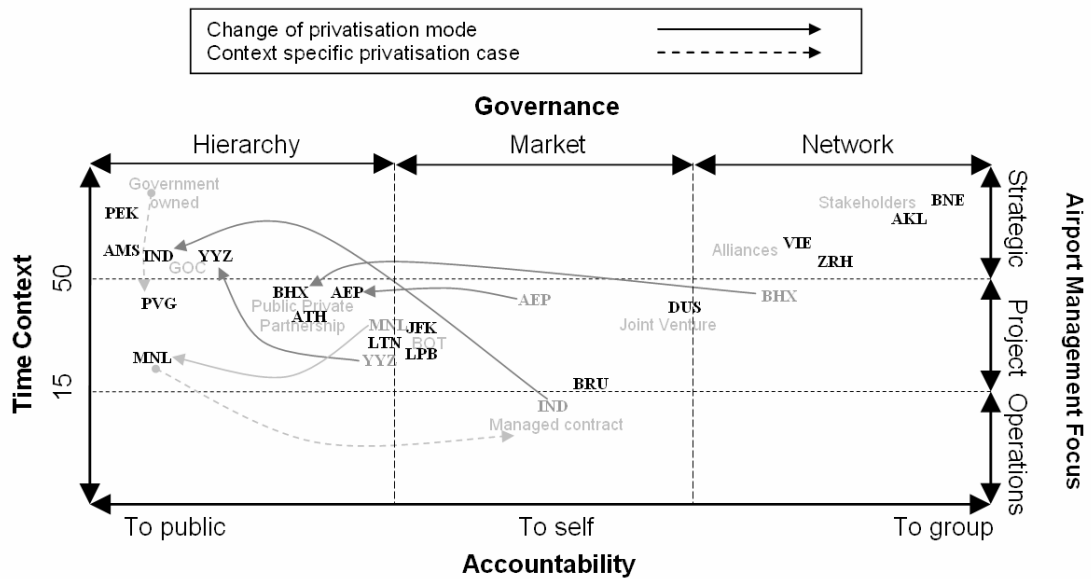
does not appreciate, however, the extremely fast development and growth of PVG's infrastructure (Zhang 2003), and appears to have been managed with a focus towards a series of projects; there is little consideration for future scenarios from a documentary analysis of airport master plans, media and academic literature.

A cycle of large scale development for PVG could be explained by the 2008 Beijing Olympics coinciding with a number of infrastructures completed the same year, or possibly the strong economic growth seen throughout China over the last decade. The ability for China's governments to make funds readily available to changes in market conditions may also reduce the time horizon for strategic planning, making a management context that compresses time for relevant strategies (Zhang 2003). Under these context specific conditions, projects can be completed in shorter time spans compared to other airports or private entities without the same financial backing.

In the case of Buenos Aires, AEP was a part of a large 30 year managing contract awarded to Aeropuertos Argentinos 2000 (Lipovich 2008), and included the refurbishment of a number of airports around Argentina and the management of their ongoing operations. This level of ambitious development is aligned with the time expectations of project focused airport privatisation, however the expectations of highly streamlined operations set in the contractual arrangements made the agreement appear more of a managed contract than a concessionaire or PPP. This split of management interests cannot necessarily be held to blame for the eventual failure of AA2000 to meet its contractual obligations. It may provide, however, a supporting explanation to the inability of the company to maintain adequate supervision and/or expertise of both operations and project management to the group of airports. Literature suggests that the funding of major airport developments is best sought through PPPs, trade sales and project finance privatisation (Graham 2003).

After the failure of AA2000 to service its contract was identified, the Argentine government sought to regain control of the underperforming airport network; lengthy negotiations saw the government settle for a 20% stake in AA2000 after accepting losses incurred by the company (Lipovich 2008). This new arrangement sees the AEP operated by a company resembling a PPP, more in line with the time and management expectations from literature, with the emphasis on improving facilities through privatisation. This approach is not as ambitious as the previous attempt to improve both facilities and streamline operational efficiency at the same time, but it does allow for airport management to focus on the task at hand.

It is interesting to note that when all 18 airports are mapped on the model, the vast majority tend towards more government controlled arrangements than privatised. This could mean that this is a beginning phase for privatisation and that countries are wanting to do this carefully, such as Amsterdam Airport Schiphol, who's intentions have been to privatise but considerations for this decision have been running for years. Additionally, cases such as AEP show that when airport privatisation goes wrong, there may be a tendency for governments to reclaim control rather than retender contracts to market. Further investigation into these areas are required to show the nature of how governments relate to the privatisation of airports, and what that implies for the privatisation process.



**Figure 2: Mapping airport privatisation**

Importantly, airports and governments can use this tool to identify where they sit against existing frameworks. By acknowledging where an airport operator sits in relation to its institutional arrangements and reporting responsibilities, insights for management may be gained for reviewing current management focus against the identified position, and appropriate expectations between airports and their governments can be highlighted.

### 3 Conclusions and discussion

Using the proposed framework provides a novel tool for mapping the privatisation of airports against expectations set by airport management and governance literature. By dissecting the management focus with institutions of accountability, changes in past privatisation initiatives can be compared against one another, but more importantly, airports sitting distinct of normal expectations can be identified readily for further investigation.

The individual context, or story, of each airport adds value to the mapping and investigation of the privatisation initiatives, each outlier providing adequate justification for why they sit distinct of the proposed framework. Context appears to be a major factor for sub-optimal airport privatisation, with AEP the most unique example in this study. The original agreement struck between the Argentine government and AA2000 stands out on the privatisation map; while the agreement’s time horizon fits a development focus, its accountability to self means that AA2000 may not have had the oversight necessary to motivate results in delivery of service. AEP’s new position, after renegotiation and partial expropriation, aligns accountability, privatisation level, and time horizon to fit the original intent of the privatisation initiative.

Using this framework as a decision evaluation tool may be useful in future decisions for the selection of privatisation strategies for airports, however specific contexts may distort the scales of accountability and/or time context. Much like using industry

scans and strategic quadrant analysis for the strategic management of firms, this tool can be used as a diagnostic for both government and industry decision makers to evaluate the appropriateness of entering or offering an agreement. For example, governments are typically bound by checks and balances inherent of public accountability and transparency, reducing the ability of a government to match operational cost efficiencies of private firms. Likewise, firms entering into short term contracts for airport management should have little intent to affect the strategic direction of an airport, as its focus will typically be to build profits through operational efficiency and process management. Finally, governments should expect fully privatised airports to negotiate long-term development programs with their regions, as their long-term success will likely rely on adequate supporting infrastructure as both airport and region grow.

These examples show the possible utility of this framework as both a proactive tool for developing privatisation plans, and as a reflective tool for private enterprise and governments to evaluate and predict likely management behaviour from different types of agreements. Before assumptions are made from this framework, considerations should include reflection on the contextual differences between theory and practice, and further mapping of airports and their operators against this framework is required to determine if findings are actually generalisable. Investigation is required to assess if agreements found outside of expected regions of the framework will have a generalisable implication on favouring one party, or both, or neither.

## 4 Appendix

### **Airport overview of ownership and operations management.**

*The authors acknowledge that data in this section has been collated from the annual reports and websites from each airport, Graham (2003), and Lipovich (2008).*

AEP - Government owned but leased to Aeroportuertos Argentinos 2000 on what was originally a 30 year managed contract. The inability of AA2000 to fulfil contractual agreements saw massive losses accepted by government and a 20% share of the company transferred to government control as compensation (Lipovich 2008). The arrangement now appears more like a PPP or BOT based on the shares held and relationships built by government.

AKL - Private company owned and operated. Provisions in planning show long-term strategic focus.

AMS - Government owned company owned and operated. Appreciation of airport-region relationships to both airport and national planning shows highest consideration for public accountability.

ATH - Airport is government owned but operated under a 30 year PPP in the primarily government owned Athens International Airport S. A.

BHX - Trade sale of airport ownership and operation to government majority with private investor groups, however now effectively two shareholder groups of local governments and foreign investment group, forming what best represents a PPP rather than a trade sale.

BNE - Private company operated on long-term leasing arrangement (50-99yrs).

- BRU - Government ownership and quango operations. Joint private and military airport application limits the ability of long-term foresight for strategic investment.
- DUS - Joint venture between Dusseldorf State Capitol and consortium of three private investors. Relationships with airlines to coordinate infrastructure development to cater forthcoming needs shows accountability to stakeholders
- IND - Government owned and now government operated, however operations were outsourced in 1994 under a short-term managed contract for a period of 10 years, later extended by an additional 2 years.
- JFK - Government owned but outsourcing of terminal development and operations to private enterprise under 20 year BOT arrangement.
- LPB - Government owned but operated under managed 25 year leasing contract. The rights to operate have changed hands a number of times since initial privatisation, the current owner a specialist in operations management.
- LTN - Government owned but operations are leased on 30 year concession. The ability of community lobbying groups to draw negative attention to development plans has shown the accountability of this arrangement to favour public over market concerns, when compared to other concessional arrangements.
- MNL - Manila International Airport Authority owned the airport but facilities were operated under 25 year project financing through BOT arrangements. Continuing legal delays from the annulment of the BOT have led national plans to switch priority to another local airport, changing the focus of airport management away from project to operations management. From the delay of opening of new terminal facilities, it is imperative for airport operators to continue service, improve efficiency to maximise existing revenue streams while the legal outcomes are deliberated. This change in focus may make managed contracts a more suitable option for continuing operations.
- PEK - Central government owned and operated, the strategic consideration in operations management is evident from developments catering for future scenarios of additional runways and national aviation strategies. Operational considerations include the coordination of air traffic flows, additional airports, and capacity controls.
- PVG - Government owned and operated through the Shanghai Airport Authority. Management focus appears project driven as planning appreciates more current trends and operational needs; possibly explained by the high level of government support reducing the direct need for long term engagement with external stakeholders.
- VIE - Privatised airport ownership and operations, however government holds 50% controlling share so has more accountability to local public than other floated companies.
- YYZ - Government owned and operated under a non-profit airport authority, there was some short-term financing from the private sector, however agreements were terminated when operational control was divested from government to airport authority in 1996.
- ZRH - Government owned but leased (until 2051) to Flughafen Zurich AG, which is approximately 35% government owned, for operations and development.

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