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Fitting Airport Privatisation to Purpose: Aligning Governance, Time and Management Focus

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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

As gateways to regions, airports have been promoted primarily as logistics hubs, and have become focal points for regional development through the fostering of 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

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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 progress infrastructure development or build efficiency in operations (Graham 2003; Szyliowicz and Goetz 1995). Privatisation has effectively reduced governments' 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). There are many different strategies that governments can take to enhance the strategic mobility of their airports. Each method available has its own inherent benefits and limitations to the operation and administration of airports, and also changes the governance arena for airport decision making.

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). While governance can readily be defined as the way in which society is organised, and includes the rule structures of inclusiveness, accountability, authority, legitimacy and reciprocity (Rhodes 2007), the privatisation of airports makes for a fuzzy governance 'space' where different governance modes intersect and overlap. Privatised airports are expected to compete and strive for efficiencies based on market based concerns, while broader more regional issues require hierarchical oversight from governments, ensuring safety and health for airport users and neighbours.

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). 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, Mandell and Brown 2006). 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.

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. By 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) a theoretical framework has been developed to provide clarity on what privatisation sets in operational expectations and administration. The framework has been applied to 18 airports of varying levels of privatisation, with initial findings matching expectations from the literature. 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

Privatisation mode	Typical attributes
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 above 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).

While Graham's (2003) five modes provide an overview or categorising of how governments have approached airport privatisation in reality there are many, more subtle, variations of airport privatisation within each mode. A review of the ownership structures utilised for airport privatisation provides valuable background for identifying and considering the underlying economic drivers to airport decision making. The following sub-section looks beyond the modes of airport privatisation to show the differences in underlying decision making values for different models of airport operation and administration.

1.2 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, and Wells and Young 2004. Stevens (2007) summarises these documented models of control as ranging from the direct steering of National Government Departments, Municipal Governments and Government Agencies to more arms length models of Government Corporations, Airport Authorities and Private Corporations. 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).

Providing clarity on where authority and responsibility lies is an important step in any decision making process. 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. The differences in underlying responsibilities and accountability for airport administrators are likely to have very real impacts on decisions made at the airport management level. For example, fully privatised airports have a definite need to pursue economically sustainable practices and/or development, which differs from government owned and operated airports that have access to tax revenues generated beyond the airport fence. To identify the dynamic issues that underpin airport managerial decisions, the following sub-section highlights the critical issues that drive the airport decision making.

1.3 Managerial Intent and Privatisation

Carney and Mew (2003) expand on economic 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.

2. Conceptual Framework

The central theme from the above sections is the wide array of approaches currently utilised for airport privatisation and administration. No one approach can be singled out as the 'best' or 'worst' for airport management, as the decision to (or not to) privatise an airport is based on a diverse spread of issues, from political to economic, from opportunistic to strategic. While many decisions to (or not to) privatise airports appear to be reasonably effective in achieving their initial goals, some outcomes appear to have been less than desirable.

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. The modes of privatisation have been defined below in Table 2 by pulling together Graham's (2003) five modes of privatisation, and Stevens' (2007) insights to ownership. The options for airport privatisation have been arranged according to their level of influence (or distance) from the government arena; Government Owned representing an airport centrally owned and operated under government control, to Stakeholder arrangements representing wholly privatised airports that are steered by arms length regulation and industry policy.

Table 2. Modes of airport privatisation

Privatisation mode	Level of government influence
Government Owned	Central to decision making
Government Owned Company (GOC)	
Public Private Partnership (PPP)	Decisions are a mixture of direct government and private sector influences
Build-Operate-Transfer (BOT)	
Managed Contract	
Joint Venture	
Alliances	
Fully Privatised/Long-Term Leasing (Stakeholders)	Decisions are bound by regulated limits

Combining the themes from Carney and Mew's (2003) ideas of managerial focus with the implications of ownership on accountability and governance, Figure 1 maps out the above (Table 2) privatisation modes against the expected loci of accountability and governance. The created framework shows each arrangement's expectations for managerial focus, governance and accountability, with time context added to represent Carney and Mew's (2003) generalisations of the expected time horizons for each type of 'contracted' arrangement. It is envisioned that the utility of the framework is in cross-checking expectations of privatisation outcomes with the accountability structures necessary to achieve the desired outcomes. 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. Likewise an airport operator is likely to have competencies in more than just a single management focal area, such as Brisbane Airport; in this case the airport operator may be seen as focused towards both project and strategic management arenas due to its current schedule of infrastructure developments and its long-term leasing agreement with the Australian Government. In such a case the authors consider that, even though an airport operator may have a diverse range of issues to address at any one time, a single management foci will still be a dominant feature of airport decision making (much like Keast et al's (2006) ideas of dominant governance modes in crowded domains).

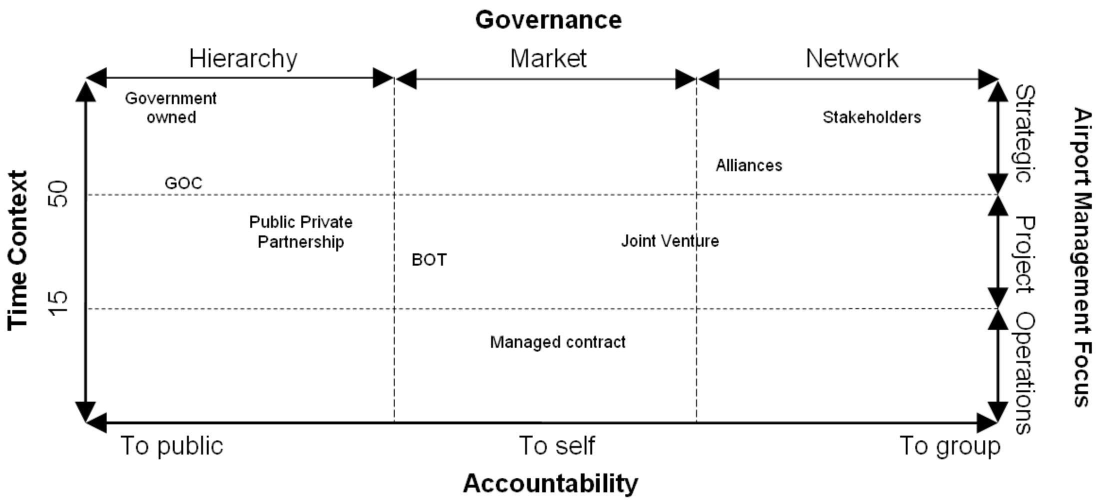

Figure 1. Focus, governance and accountability framework for airport privatisation arrangements

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.

3. Method

18 airports were purposively sampled for their apparent differences in privatisation based on assumptions made from the literature. Purposive sampling was particularly useful in this study as it ensured that all of the modes of privatisation described in Section 1.4 were represented. Airport cases were selected from a database listing a diverse set of operations, development, ownership and land use data for 85 airports from around the world. Some cases have since been identified as pertaining to more than one mode of privatisation in their recent histories, however this was not anticipated when originally selecting the cases. Not all of the modes of privatisation are represented equally, which is a result of pragmatic concerns for the availability of data and the time involved to research each airport case.

The study was based around desk research for each of the selected airport cases. The research methods included a documentary analysis of annual reports, master plans, government documents, and academic literature to catalogue the actions and arrangements for each airport's operations, ownership, administration and development. Using Carney and Mew's (2003) understanding of managerial focus as a lens to view the catalogued data, interpretations were made to define the dominant managerial focus, dominant accountability and governance mode for each airport case. Table 3 (see Appendix) provides a summary of the interpreted data for the 18 airports.

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 analyser to interpret an airport's situation against the framework, looking for trends, actions and behaviours 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.

4. Data Analysis

Table 3 in the Appendix provides the summarised managerial focus and governance mode data for the 18 airports reviewed, and most of the airport cases match with expectations set from literature. For example, Beijing Capital International Airport (PEK) is run by a government controlled company, has a long history of development coordinated with local and regional growth strategies, and is highly accountable to the public sector for its performance to meet economic and social growth concerns. Interpreted, PEK is governed by a dominantly hierarchical system, closely tied to central government agendas, with a dominantly strategic management focus that aligns the growth of the airport with the growth of the region (see Figure 2 for position on the framework). The position of PEK on the framework sits close to the expected position of any GOC; dominantly hierarchical in governance due to close ties to a central agency, and strategic in managerial focus to meet longer-term needs identified from within and beyond the airport fence due to its strong accountability to the public sector.

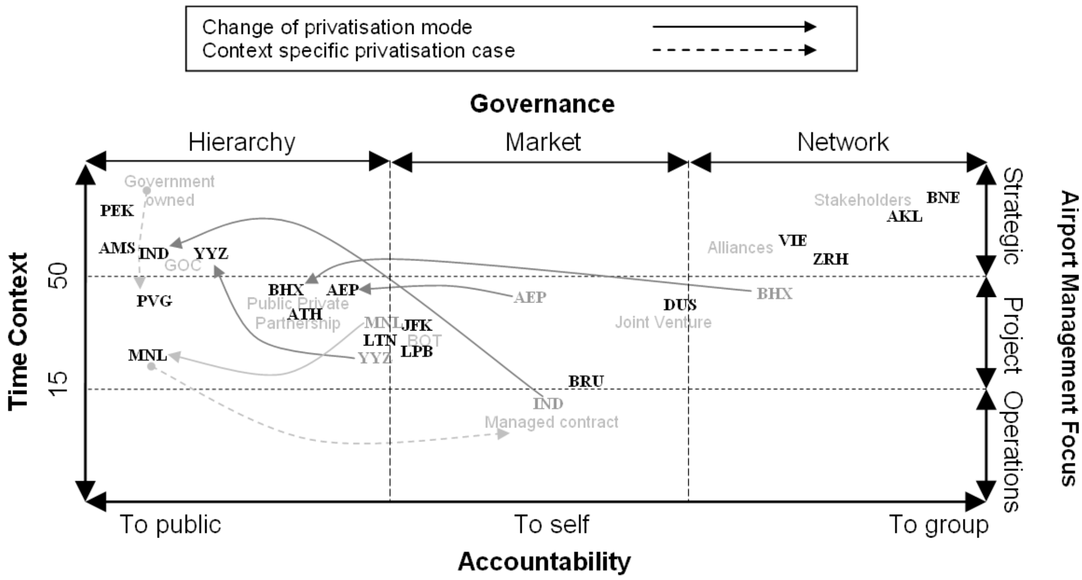

Figure 2. Study airports' focus, governance and accountability

While each individual airport case provides and interesting story, when the airports are grouped by their dominant management focus a number of themes become apparent that do not necessarily fit with the expectations of literature. The following sub-sections discuss the themes evident within each focal area.

4.1 Strategic

The majority of airports studied were heavily influenced by strategic management concerns which is not surprising due to the nature of airports; they are often referred to as strategic infrastructures by governments. The more government influenced airports appeared more focused on coordinating their development with the development of their surrounding region, integrating development with the broader regional economic system. The more heavily privatised airports appear to pursue similar growth and development strategies to those more centrally influenced. However the role of supply and demand has a stronger influence on the ability of privatised airports to sustain development through slower economic periods, placing more emphasis to return from growth strategies to optimising strategies as seen in the case of Auckland (AKL).

It is not surprising that the privatised airports are more influenced by external market forces, nor that more centralised airports are able to sustain development throughout slow economic times and speed up development to meet regional agendas (AMS and PEK are prime examples). What is surprising though is the high level of attention given to stakeholders beyond the airport ownership and operations arena for highly privatised airports. Reading through annual reports and strategy documents shows a strong consideration for highly privatised airports, such as Brisbane (BNE) and Auckland (AKL), to actively seek inputs from not only the airport users but from their airport neighbours.

The network or group of airport neighbours appears to include community groups, local businesses and infrastructure users, and local government agencies (not related to aviation). This is likely due to privatised airports having to rely on their surrounding regions to provide the economic impetus for growth, and for external government agencies to approve new infrastructure developments within and around airports. Poor relationships between airports and their neighbours have previously been seen to lead to highly negative outcomes, such as tall buildings built under flight paths, which for Boston's Logan International Airport (not a part of this study) has severely limited its options for future capacity growth. By engaging with their neighbours in a meaningful way, privatised airports can manage the tensions between stakeholders to improve confidence in pursuing their business strategy.

4.2 Project

Airports with a project management focus are dominated by hybrid arrangements between governments and the private sector. Again, this is not surprising due to the trend for governments to seek funding for large infrastructure projects from the private sector (Kettl 2000). An outlier in the project management space is Pudong (PVG). The airport's short history has already seen it grow rapidly to become one of China's leading freight hubs. It's rapid development and ongoing expansion requires considerable expenditure, and is likely the result of two emergent needs: 1) meeting new capacity demands for the recent Beijing Olympics, and 2) the region's ongoing economic success requiring an enduring expansion to aviation capacity. It is likely that the centralised nature of the Chinese government led to the decision to take on the airport's development without privatising, but the situation might also imply that in times of great need for a certain outcome, government led development may be the best option.

The more privately influenced airports do not have a great showing in this study, which may be a result of the relatively small sample size of airports studied, but is more likely to be influenced by development often being part of a larger strategic management agenda for long-term returns. Previously mentioned airports for Brisbane (BNE) and Auckland (AKL) both have extensive development agendas but as part of a strategy to meet long-term goals. Dusseldorf (DUS) stands out as an airport that actively engages its external stakeholders to ensure its decisions to develop new infrastructure are optimised to supply/demand forces and also to stakeholder needs. This approach may be to ensure profits are captured quickly through smaller developments to meet short- to mid-term market fluctuations, and retain airport customers by ensuring their needs have been identified and met.

A significant outlier in the sample of airports studied is that of Buenos Aires (AEP), which was a part of a large 30 year managing contract awarded to Aeroportuertos 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.

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 is does allow for airport management to focus on the task at hand. Literature suggests that the funding of major airport developments is best sought through PPPs, trade sales and project finance privatisation (Graham 2003), and the above highlights what can go wrong when other modes of seeking project development are used.

4.3 Operations

A number of the airports studied have focused their management towards the efficiency seeking of operations management in the past, however the consistent growth in aviation over the last few decades has resulted in many airports pursuing the expanding and developing of new infrastructure. The above mentioned case of Buenos Aires (AEP) is one such airport. One airport that has had to return to an operations focus is Manila's Ninoy Aquina International Airport (MNL), which 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. The operator, Manila International Airport Authority, has shifted its focus from development to new avenues for increasing capacity and seeking improved efficiency from existing infrastructures. Switching its managerial focus to operations management, 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, which fits with the expectations set by Carney and Mew (2003); utilising market institutional arrangements to achieve operational efficiency while leaving strategic coordination to government owners.

5. Discussion and Implications

It is interesting to note that when all 18 airports are mapped on the framework, 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 want to do this carefully, such as Amsterdam Airport Schiphol, whose intentions have been to privatise but considerations for this decision have been running for years. Alternatively this could also mean that the sample size needs to be increased to include more privatised airports. 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 is required to show the nature of how governments relate to the privatisation of airports, and what that implies for the privatisation process.

The modes of privatisation that are pursued in the analysed cases are not as obvious or transparent as they first seem. Agreements that first appear as using one mode of privatisation appear to behave (slightly or significantly) than the expectations set by Graham (2003) and Carney and Mew (2003). By focusing on the ownerships structure and agendas of controlling actors, insights to how and why privatisation modes do not act as we expect them to come to the fore. This suggests that managerial focus for airports is less tied to the modes of privatisation as first thought, and more reliant on the underlying agendas of controlling stakeholders, particularly owners and those that the airport is accountable to. That is, although we know there are some types of privatisation arrangements better suited for specific functions than others, the underlying political, regulatory and ownership environments play significant roles in enabling chosen arrangements to succeed. Additionally, some arrangements that, at first glance, appear inappropriate may very well be tailored to fit a unique contextual need through the manipulation of ownership or regulation. This means further research on the roles of ownership, regulatory and political spheres on the success of different airport privatisation modes is needed.

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.

6. Conclusion

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 framework for focus, governance and accountability; 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.

Rather than using the framework as a tool for retrospective analysis decision makers can use the framework to better understand the 'best fit' of a particular arrangement to the context of an airport's privatisation. For example, a government run airport that has infrastructure that meets forecasted demand may consider privatising to gain additional rents from the land or to enhance the price efficiencies to make the airport more attractive to airlines and passengers. Graham's (2003) work would naturally suggest a managed contract to drill down on operational efficiencies, and Carney and Mew's (2003) would suggest tendering for a relatively short term contract (less than 15 years). Depending on the political arena and/or regional growth strategies this may not be the best solution.

By identifying the fit of the airport in the broader context of the region or even national system of airports, a government may find more value in not so obvious arrangements; such as long-term leasing agreements that still allow operational efficiencies but also place a strategic responsibility for the new airport operator to develop in parallel with the region's growth. Implicitly this type of arrangement suggests strong horizontal ties are needed between the new tenant and government agencies to ensure coordinated growth. Without recognising the need for accountability to 'the group' of airport stakeholders, leased airports and their regions are likely to face hardships when trying to coordinate development, such as adversarial encounters when trying to gain development approval. An example of one such adversarial encounter has been seen between Brisbane Airport and its local government, Brisbane City Council, when the airport operator was challenged in court over a development approval for retail type development within the airport boundary but close to an existing suburban retail centre. The court ruled in the operator's favour, however both city council and airport operator have acknowledged the need for improved horizontal linkages between their respective organisations to ensure mutual benefits from future development in and around airports. Had their been better horizontal ties between the airport and its local stakeholders earlier, the nature of the encounter may have been very different, or the proposed development may have been presented in a form more acceptable to the airport's neighbours.

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 can be generalised. Investigation is required to assess if agreements found outside of expected regions of the framework will have a generic implication on favouring one party, or both, or neither.

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Appendix

Table 3. Interpreted airport data

Airport	Dominant Managerial Focus	Dominant Accountability and Governance Mode
Jorge Newbery, Argentina (AEP)	**Project/some Operations:** The privatising of the airport (which is one airport in a small network included in the contract) appears grounded in the need to develop and refurbish infrastructure, so the initial intent of the privatisation of the airport is rationalised as being dominantly project oriented. The actual focus of the managing company however, is less clear. AA2000 appears to have focused more on focusing on operations as a way of improving its financial status before driving forward with the developing and refurbishing of the airport's infrastructure.	**Market/To Self:** It is likely that the company agreed to contract terms beyond its capability to deliver, and without strong oversight was able to move into an unsustainable economic position. Accountability for managed contracts is typically to the managing company's ownership, so when the company was failing due to poor oversight, the government made what appears to be a savvy move to rectify issues of accountability while minimising the loss of face of both sides entering into an unsustainable contract.
Auckland, New Zealand (AKL)	**Strategic:** The actions of Auckland Airport's management can only be described as strategic. When AKL was fully privatised the opportunity to build early and reap profits from optimising airport operations later was realised. The airport has undergone extensive upgrading in recent years, and now sees a transition from successful development to optimising the operation of the new infrastructure. These actions are inherent of long-term lease agreements as identified by Carney and Mew (2003).	**Network/ To Group:** There is ample evidence within planning and strategy documents to show a strong acceptance that the airport is tied to its users, neighbouring businesses, and national competitiveness. The operator is not only accountable to its owners but to the government through strict accountability laws, and to its local community through a mixture of tourism and employment related factors – due largely to the small population of the country and the nation's core economic driver of tourism.
Amsterdam – Schiphol, Netherlands (AMS)	**Strategic:** Amsterdam Airport Schiphol is identified as a key driver in the Dutch economy, and is considered one of the most important transport infrastructures in the Netherlands with its title of a 'mainport' for the country. Development is considerably integrated with regional infrastructure, and planning and development decisions are in line with national planning strategies for mobility and centralisation.	**Hierarchy/To Public:** The Dutch government is well known for its deliberative checks and balances for planning and development decisions. While Schiphol Group is removed from the internal checks of government, its planning and development is still regulated by the central government
Eleftherios Venizelos, Greece (ATH)	**Project/Strategic:** Operated under a 30 year Public-Private Partnership (PPP) agreement, the airport has been built primarily as an upgrade from the old Ellinikon Airport as a strategy for regional growth and renewal.	**Hierarchy/To Public:** Unable to fund the project fully, the government retains 55% ownership in the PPP, so there is a strong influence of government on all decisions relating to the airport's operation.
Birmingham International, UK (BHX)	**Strategic/Project:** The trade sale of the airport was to gain valuable expertise in long-term planning in aviation and to gain additional funding to seed development. The trade sale was to set up the airport for long-term business	**To Public/To Self:** The airport was originally sold as a trade sale to a consortium of investors. The government still has a dominant influence on the airport's operation, as the consortium of buyers includes a government agency, which so

	sustainability, but with the intent to improve the existing infrastructure also.	happens to hold the majority share. While the agreement is classified as a trade sale, the ownership structure means that the arrangement works more like a PPP.
Brisbane International, Australia (BNE)	**Strategic:** Brisbane Airport is owned by the national government, however the long-term leasing agreement (50-99 years) makes the arrangement more like a full sale as the operator can develop new infrastructures to diversify and expand revenue streams. Development slated in master plans indicates large scale infrastructure development in the coming decades, and significant commercial developments to diversify revenues.	**Network/To Group:** Policy for development explicitly states the need for external stakeholder engagement for master planning and major developments, so while the decision to approve plans ultimately rests with the Federal Government, local stakeholders play a significant role in the airport's accountability structure. The five year planning 'update' cycle means that the airport engages with its stakeholders on a regular basis.
Brussels, Belgium (BRU)	**Operations:** The airport is operated by a PPP consisting of 25% State ownership and the remaining 75% owned by Macquarie Airports. While there has been some development of new terminal facilities, the high level of competition encourages attention to building operational efficiencies to retain existing airport users. Concerns over night time flight noise has also relaxed pressure on the airport to continue developing new infrastructure.	**Market/To Self and Public:** The terms of the managed contract for BRU place significant emphasis on meeting the demands of airport performance rather than external checks and balances. However the proximity of the airport to the surrounding urban environment has resulted in surrounding community groups having significant influences on discussions for future flight operations.
Düsseldorf International, Germany (DUS)	**Project/Strategic:** The joint venture between Dusseldorf State Capitol (DSC) and three other private investors appears dominantly driven by project management concerns, however the strong influence of the government through DSC ties decision making interests to the broader strategic goals of the region.	**Network/To Group:** The ability to integrate airline decision makers directly into the coordination of infrastructure development indicates the airport's accountability beyond just regulation, corporate governance and its shareholders. Actively including horizontal actors in development actions supports the rationale for a more networked approach to governance than typical market forces of supply and demand.
Indianapolis International, US, (IND)	**Was Operations/Now Strategic:** During its outsourcing of operations management, IND was able to identify and address several market vulnerabilities, and while the airport was streamlined for efficient operations the long-term success of the airport depended on a repositioning of the airport's target market. Subsequent development of new facilities has retained existing and attracted new airport users, particularly in the freight industry as part of a diversification strategy. The completion of the managed contract has seen the Indianapolis Airport Authority (IAA) return to run the airport.	**Was Market/To Self, now Hierarchy/To Public:** During the managed contract and decision making for realigned airport strategy, market type forces dominated the decision making arena. With the return of the IAA to the airport's management the accountability of the airport's management has returned from meeting internal (contracted) KPIs to meeting the expectations of the public sector.
John F. Kennedy, US (JFK)	**Strategic/Project:** Development and operation of new terminal facilities were outsourced to a private company via a Build-Operate-Transfer (BOT) arrangement. This provides a diversified operations structure, where airport management is still the responsibility of government, however some critical services are now shared with the private sector.	**Hierarchy/To Public:** The management of the overall airport area and operations is still controlled by the Port Authority of New York and New Jersey, and accountability is reinforced into the public sector through the airport's ownership by the City of New York.

Long Banga Airfield, Malaysia (LPB)	**Operations:** Operations are outsourced via a 25 year concession agreement. The current operator is considered a specialist in operations management efficiency. Having lost the position as Bolivia's preferred international airport, and the funding support that goes with that position, efficiency is key to the sustainability of the airport for passenger and cargo operations.	**Market/ To Self:** The duration of the contract gives considerable time to retrieve profits from the concession agreement. The focus towards profits from managing supply and demand is a trait of market driven decision making. While there is some oversight to government agencies due to the military presence at the facility, performance is predominantly measured against the internal (contracted) KPIs of the concession.
London Luton, UK (LTN)	**Operations:** Was project oriented however now more operations focused due to community lobbying drawing so much negative attention to proposed development. Now more a refurbishment and optimise approach rather than develop, expand and increase revenue.	**Mixed To Public/To Self in Market:** The concession arrangement in itself is a market contract set with the owner's agenda for performance indicators. The public's voice was clearly considered in choosing not to pursue large scale development at Luton, so has pursued profits within its concession through the refurbishment and optimising of existing infrastructures.
Ninoy Aquino International, Phillipines (MNL)	**Was Project/ Now Operations:** In response to the switching of the nation's preferred gateway airport away from Manila, the operator has had to change its focus from project management to more operations management to optimise the existing facilities to ensure economically sustainable operations. The stoppage to development and newfound focus to operational efficiency makes the arrangement appear better suited to more managed contract arrangements than a BOT.	**Market and Hierarchy/To Public and To Self:** The BOT arrangement provided that the airport decision making would be dominantly private so ensure adequate return on investment for the operating company. However the ability of the government to influence the where aircraft go (to which airport) left residual power to the government, and hence the public. While operational decisions are primarily now market driven, the political backlash evident in strategic decision making for the airport is dominantly hierarchical.
Beijing Capital International, China (PEK)	**Strategic:** The steady pace of development coordinated with local, regional and national growth and aviation strategies shows a clear acceptance of the airport's strategic role in the region's development. Rather than being reactionary in development, such as the case of PVG, PEK's management shows commitment to the long-term goals of the controlling government.	**Hierarchy/To Public:** Accountability is suitably to the public sector, with direct steering of large scale decisions ceded to the Central Government. The hierarchical arrangements for the airport's decision making are evident in its organisational structure and strong government oversight.
Pu Dong, China (PVG)	**Project:** In the short amount of time since opening (1999), PVG has grown from a single runway, single terminal airport into a three runway two terminal airport by mid-2008. With further terminal and runway developments scheduled to 2015, Shanghai Pudong International Airport is clearly focused towards delivering aviation infrastructure to meet the regional demands of growth. In other airport cases that were less tied to the growth of their regions it could appear that the development is strategic, fostering long term growth for the airport. The regional focus of the airport, as a part of a wider system of regional growth, means that the	**Hierarchy/To Public:** Accountability is clearly to the public sector, demonstrated through the government ownership of the SAA and the close decision making ties with the national aviation administrator and local government. The governance of the airport's decision making is primarily hierarchical. While the ownership and operations have been divested from 'direct' government control, the embeddedness of airport strategy with local and regional development strategies shows that more vertical, government based relationships are utilised for managerial decision making.

	airport is less focused on its own strategy, and more at meeting the 'external' needs of the region, which fits well with the administrative coordination with the CAAC and local government.	
Schwechat International, Austria (VIE)	**Strategic:** There appears to be an emphasis on internalising airport operations through created subsidiaries, rather than outsourcing to external contractors. While profits are a key concern for the operator, the internalising of activities is likely to be a strategic move to control and coordinate activities at the airport with minimal red tape. The portfolio of infrastructure developments, demonstrate the operator's commitment to a long-term strategy.	**Mixed Group/Market:** The organisation and running of the operator is mixed between internal measures of performance, external compliance with Federal laws, and the provision of profits to the shareholders of the company. While accountability appears to be to "the group" of airport stakeholders and shareholders, the strong internal controls and measures of the company shows strong ties to market based concerns, such as market volatility. This results in a market governed airport with accountability to the group of stakeholders.
Lester B. Pearson International, Canada (YYZ)	**Strategic:** Development activities have been made for both mid- and long-term returns on investment through infrastructure and commercial improvements. High leasing rents and outlays for the Airport Development Program have resulting in higher rates and charges to airlines, increasing strategic concerns of future market attractiveness and long-term economic sustainability. While marketing programmes are oriented to generating short-term economic gains, these are only to fill the capacity-demand gap created from new infrastructure development.	**Mixed Public/Market:** Accountability is, by proxy, to the public sector, which is supported by the termination of private short-term financing arrangements when the airport was divested from government to airport authority control in 1996. Emphasis on the economic viability of the airport provides a shading of "self preservation" to the airport's decision making, much like a market oriented operator.
Zürich-Kloten, Switzerland (ZRH)	**Strategic:** While project development has been a core part of the operator's recent business dealings, its actions and leadership in operations and administration demonstrate a clear adherence to pursuing goals built of their own (Flughafen Zurich AG) strategy. This is supported by the operator's persistence for pursuing its strategic interests in court when met with opposition.	**Network/To Group:** Flughafen Zurich AG is 35% government owned, so while accountability is to the shareholders of the company, the government holds a strong steering position in airport actions. So while decisions are dominantly made to appreciate the needs of the business and its shareholders, there is some tempering of government influence through ownership.