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THE GLOBAL AIRPORT INDUSTRY
Searching for the “New Normal”

November 2010
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THE GLOBAL AIRPORT INDUSTRY—
Searching for the “New Normal”

Dear Reader:

As the cataclysmic economic events of 2 years ago recede in the rear view mirror, the airport industry around the world is seeking to identify and craft new operating parameters, and investigate ways in which it can benefit from the changed environment. In fact, the industry is striving to identify its “new normal” state.

As described by Mohamed El-Erian, the CEO of Pimco (one of the world’s largest bond fund firms), the term “new normal” was coined to caution against the prevailing view that post-crisis industrial economies would revert to their most recent means. The term refutes the notion that the crisis was a mere flesh wound, easily healed with time; instead, the crisis cut to the bone. The “new normal” concept captures what is likely to happen, not what should happen.

The outlook is very different depending on where in the world one is situated. After a relatively brief blip during the lowest point of the global economic tsunami, many if not most of the world’s larger emerging markets are again growing rapidly, as indicated by the recent announcements of gross domestic product growth rates – for example, 5.2% for Russia in the second quarter of 2010, 8.8% for India in the second quarter, and 9.6% for China in the third quarter.

The situation is very different in the developed world – primarily in North America and Western Europe. In these regions (albeit with a few notable exceptions), economic growth is sluggish and unemployment remains stubbornly high. The talk is of “double-dip” recession and deflation. In short, this is far from the “usual” robust recovery seen coming on the heels of a severe economic downturn.

For airport managers, developers, and financiers around the world, the optimal response to the situation is very different depending on where you happen to be. Actions that make perfect sense in an environment of sluggish economic growth will not be the best thing to do where growth is white hot. Further, the very ownership models for privatised airports which became the norm during the past decade seem to be evolving. The “new normal” is not necessarily a single state, but rather a continuum, and where an airport falls on the continuum depends greatly on the local economic circumstances and unique situation.

The series of articles presented on the following pages reflects our thoughts on what the “new normal” is for the global airport industry, and how it varies depending on the nature of the local economy and aviation market. We hope you will find them interesting and informative.

Sincerely,

Mark Lunsford
Managing Director - Aviation

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1. **Trends in Global Air Traffic – Continued Caution in the Developed World; Full Steam Ahead in the Emerging Markets**

The impact of the global economic recession, and the current outlook for both the economy and air traffic growth, is very different depending on where you happen to be in the world. The developing markets are powering ahead following a brief hiccup during the depths of the recession. Meanwhile, the developed countries of Western Europe and North America are facing significant economic uncertainties, among them:

- Sputtering growth, large budget deficits, and a potential double-dip recession;
- Worries about the very survival of the Euro currency, and worker protests and even riots in some of the European countries hugging the Mediterranean; and
- Deep public spending cuts in the UK.

This trend reinforces a longer term swing in activity from the developed world to the developing world. In 2004, just 6 short years ago, the North American market (comprising the United States and Canada) accounted for 37% of global air passengers according to the Airports Council International (ACI) World Airport Traffic Report, as shown in the figures opposite. In that same year, Europe accounted for 30% of the total.

Fast forward to 2009, and we see that North America’s share of the total had fallen to 31%, while Europe slipped by 1% to 29%. Meanwhile, the Asia-Pacific region’s share of the total increased from 21% to 25% over the same period, while the Latin America/Caribbean’s share increased from 6% to 8%.

A review of trends in the air cargo industry tells a similar tale. While in 2004, Europe and North America together accounted for 58% of total air cargo shipments; by 2009, that share had dropped to 51%. Over the same period, the Asia Pacific region boosted its share by 4 points, to 35%, and the Middle East regional total almost doubled (from 4% to 7%).

These are very pronounced swings over a relatively short period of time,
and clearly signify that the “center of gravity” of the global aviation market, like the global economy itself, is moving eastward and southward.

Looking at the annual average growth rates in aviation activity over the 5-year period, we see a similar story, as shown in the table above. While the cumulative annual growth rate in global passenger traffic was 4.1% over the period, the rates for the Asia Pacific, Middle East, Latin America/Caribbean, and Africa regions far outpaced the global averages, while the growth rates for North America and Europe were well below the average. The cargo data tell a broadly similar story.

As can be seen in the table below, the dips in air traffic in 2009, and the rebounds in 2010 (through August) highlight that this recession was felt much more in the developed world than in the developing markets.

It is no secret why these market share shifts are occurring. Economic output is growing much more rapidly in developing countries than those in the developed world. This is not just a current event, but an ongoing phenomenon. As shown in the table on the next page, gross domestic product (GDP) growth rates in the so called “BRIC” (Brazil, Russia, India, and China) economies far outpaced that for the G-7 economies between 1998 and 2008. Furthermore, the pace of growth for the BRICs accelerated during the latter half of the period, in contrast to the G-7 countries (except for Germany and Japan) where rates of GDP growth tailed off.

The countries of the developing world (in particular the big ones – China, India, Russia, Brazil, and Indonesia) have reached, or are now reaching, critical mass in terms of the proportion of their populations that could be considered middle class — the population segment that wants to own a residence, own a car, and travel conveniently and reasonably cheaply to see distant places.

While it was and is an evolving process, the “tipping point” for many of these developing countries seems to have been around the mid-2000s, in particular for the BRIC countries. For example, around that time, the Government of India decided it needed to attract private investors to its infrastructure sector (including airports) if it was to have any hope at all of providing the essential backbone and support system needed for continued growth of its economy. The old ways of government-funded infrastructure would not get the job done fast enough (even if the funds were available). Around the same time, the Government of India deregulated the aviation market sufficiently to allow many new airline entrants into the domestic and international markets. Most of these new airlines fell into the low cost/low fare category, further spurring demand for air travel.

In Brazil, while airport infrastructure remains almost entirely under public sector ownership and control, there has been significant growth in the airline industry, particularly with TAM Airlines, a major domestic operator that has become the principal international operator post-Varig Brazilian Airlines, and Gol Transportes Aéreos, which developed as a major low cost carrier (LCC). Brazil’s aviation market has been...
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successful in attracting international interest, with TAM’s announced merger with LAN Airlines of Chile creating the largest Latin American airline, Gol developing codeshare programs with foreign carriers, and JetBlue’s founder starting a new LCC, Azul Brazilian Airlines. Brazil also faces major infrastructure needs not only as the result of its rapidly growing economy but also the football World Cup in 2014 and the Rio de Janeiro Summer Olympic Games in 2016, both of which may pressure the Brazilian Government to introduce significant private investment into the airport system, even if such investment may be too late to manage these impending demands.

It should, of course, be kept in mind that with hyper-growth comes hyper-risk in sometimes immature markets. Going all the way back to the Asian financial meltdown in 1997, the Russian meltdown the following year, and the Argentine meltdown in 2002, emerging economies have carried the risk of sudden, unexpected, and severe downdrafts. In 2008-09, more owing to excess aircraft capacity than economic conditions as a whole, the Indian domestic aviation market also suffered from a period of rapidly reduced demand – the result of earlier excessive stimulation of the market due to unrealistically low fares being reined back as the airlines tried to return to profitability. Indeed, one only has to look to last year, and the debt repayment issues of certain large Dubai-based debtors, to understand that such events are not just in the past. They could happen again. Even today, there is plenty of media discussion about the Chinese economy being an over-inflated bubble.

For the most part though, the emerging economies suffered only relatively minor collateral damage during the recession. Without a doubt, the crisis developed in the United States and did not involve the emerging markets in terms of its underlying causes (a departure from prior instances of “financial contagion”). There is plenty of evidence to suggest that the bigger developing markets are now more stable, have more reserves, have learned lessons from the events of the past, and are more likely to be able to withstand future shocks (of a type similar to the one just past) than would have been the case even 10 years ago.

In summary, the underlying story seems to be a tale of two types of economy – uncertainty and a need to be cautious in the developed markets; bullishness in the emerging markets. These trends will have an impact on the overall investment strategy and the types of assets that airport investors of varying hues should focus on going forward.
2. The European Charges Directive and its Implications for Airports – Objectives and Principles

After much deliberation and debate—and a certain degree of heartache—the European Union (EU) Directive on Airport Charges finally passed into EU law in March 2009. The member states now have until March 2011 to incorporate its provisions into national legislation, leaving individual airports to evaluate exactly how it will affect them in practice. The initial response when the Directive enacted was, perhaps, largely one of relief—the outcome could have been much more interventionist, and still more weighted in favour of airline interests. Even so, among the European airport community the general sense is that this Directive is a step too far—in most cases existing national regulation provided enough, or more than enough, scrutiny of airport charges. Moreover, as time goes on, concerns are growing on how much the process of implementing the Directive may erode some of the hard fought gains made in securing a more balanced outcome between airports and airlines in the face of strong airline lobbying.

The key principles embedded in the Directive are those of consultation, transparency and non-discrimination. These are all worthy aims, and ones which well-managed commercially sophisticated airports have no problem endorsing. Additionally, there are useful provisions giving airports a clear right to set different charges for differentiated facilities and services. However, despite its positive features, the approach adopted by the Directive contains a number of important pitfalls for the unwary airport manager.

The main requirements of the Directive impacting on airports are shown in the table on the next page.

The way in which these provisions are applied will determine whether the Directive in practice is a flexible, liberal, commercially oriented measure, or an illiberal, bureaucratic imposition. Amongst the key considerations will be:

- The application by national Governments of unnecessary “gold plating” of provisions;
• The preparedness of Governments to make use of “opt outs”
• The ability of airports to use areas of discretion effectively; and
• The extent of the care taken to avoid over-regulation leading to perverse incentives

Gold Plating

It is not open to governments of the member states to remove provisions from the Directive. However it remains open to them to “gold-plate” the Directive by adding provisions – often in the mistaken but popular belief (enthusiastically promoted by airlines) that more regulation is good regulation. In the process, they may well undo the hard won balance which now characterises the Directive.

Obvious areas for gold plating include:

• Making service level agreements compulsory;
• Giving airlines a veto right over new assets and capital investments (which may well be used in practice to inhibit competition);
• Imposing a specific methodology for charges setting (which may well be single till);
• Extending the right of appeal from changes in pricing levels to all prices, whether changed or not;
• Requirements for further information; and
• Further appeal rights

Each of these changes could be seen as a simple “improvement”— strengthening the “consumer” rights of airlines against airports. Yet each of them could add substantially to the burden which the Directive places on airports and move significantly away from the painstakingly secured relatively balanced position.

Opt Outs

The Directive does not necessarily require all countries to establish an additional layer of regulation in order to allow airlines to appeal against charges modifications (following consultation). It allows an important opt out from this provision by member states if one of two conditions applies:

• There is a national regulatory system which sets prices already in place. This avoids the “double jeopardy” of an airport facing airlines shopping between two systems of regulation operating in parallel; or
• There is effective competition in place (as for example occurs between UK regional airports) which is regularly monitored.

It should be stressed that this affects the airlines’ rights of appeal - not the requirement for airports to provide information and to consult. If the airport fails to follow the processes correctly (by for example failing to provide required information or failing to specify and follow a methodology for charging) it can expect to face a challenge.

Moreover, it will presumably always be in the power of member states to impose further regulatory levels at a later stage, if the airport is not able to demonstrate that the system is clearly working effectively.

Areas for Airport Choice

A key feature of the Directive is the aspects which the EU has elected not to control. In three areas in particular, the airport has specific freedoms:

• The methodology for price setting;
• The modulation of prices; and
• The possibility of differentiated services and or tailored facilities

These features taken together have the potential to allow airports to reflect the full richness of potential

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<th>ISSUE</th>
<th>DIRECTIVE PROVISIONS</th>
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| Consultation | • Annual consultation covering charges and service quality  
• Further consultation on any plans for new infrastructure  
• Disagreement on changes to charges can be appealed to a national independent supervisory authority (ISA)  
• Provision for the negotiation of service level agreements – though these are not compulsory |
| Transparency | • Specified cost and traffic information to be provided by the airport as part of the consultation process  
• Airlines also equivalently required to provide information on: forecasts, fleet composition and development projects  
• Airport is required to state methodology used for setting prices |
| Non-discrimination | • Airport is required not to discriminate but may “modulate” prices to reflect issues of “public or general interest” |
| Differentiated services | • The airport is allowed to provide dedicated or tailored facilities or services for different prices  
• Price justification must be objective and transparent (though by implication need not be cost related)  
• Any rationing of access must be on relevant, objective, transparent and non-discriminatory criteria |
approaches to pricing experienced in a competitive market, while still providing appropriate protections to airlines. However, if mishandled by either governments or the airports themselves, this opportunity may well be lost.

Key features are summarized in the table opposite.

Inherent in these provisions are potentially important freedoms which airports should make every effort to preserve and make use of.

Perverse Incentives

An important issue which needs to be evaluated for any new regulatory measure is the extent to which it may lead to unintended consequences and/or perverse incentives. Essentially this relates to the fact that any measure which sets out to change the framework of economic incentives may give rise to effects in areas other than the immediate target. This has been stated in the form of a Law of Unintended Consequences:

“The actions of people (and especially of governments) always have effects that are unanticipated or unintended. These often outweigh the intended effects.”

There are a number of areas where the implementation of the Airports Charges Directive may similarly lead to unintended consequences. For example:

- By introducing a need to state a specific methodology – the Directive may reduce the flexibility with which airports can set charges, and constrain their ability to respond to specific new opportunities. This could have the effect of reducing rather than increasing competition, and increasing rather than decreasing prices.
- By referring only to the provision of service and facilities as a means to differentiate charges, the Directive may be encouraging airports deliberately to force operations through poor quality facilities (lowering services levels to passengers) in order to justify different levels charges - even when better facilities are available and unused.
- By potentially requiring airports to go through onerous justification and appeal processes in the event of changes, the Directive may be introducing a bias against innovations even when these are justified in economic terms and make the airport operate more efficiently.

These unintended consequences are clearly undesirable, and a major priority in determining the detailed implementation of the Directive must be to minimize the likelihood of such effects.

Conclusions – Advice to European Airports

The European Airport Charges Directive is a potentially important development for Europe’s airports. However while its objectives are generally laudable and balanced, there is a danger that in the course of implementation, member states and airports themselves take actions
which remove that balance, and impose constraints which are unnecessarily burdensome and in some cases perverse in their consequences.

Consequently our advice to airports at this crucial stage is:

• Where there is an opportunity to influence the process of converting the Directive into national law in each member state, this opportunity needs to be seized;

• Take the Directive and its requirements seriously and start thinking carefully about how to deal with them;

• Embrace the Directive – much of it represents (overdue) good practice – and ensure that your actions are fully defensible and compliant;

• Examine the flexibility available within the Directive and consider how it can be used in a credible and justifiable manner to enable you to act commercially in order to develop your airport effectively;

• Take great care in your statement on charges methodology and ensure that you are prepared to live up to it; and

• Consider whether you can influence implementation to promote a positive, practical and liberal approach to the Directive, rather than an unbalanced gold plated and restrictive one

The Directive potentially gives airports significant latitude to move beyond the simple cost plus approaches to pricing, and provides opportunities for airports to manage their business in a commercial and/or economic manner. Airports should make every effort to embrace and defend this. ■
Three years after the credit crisis, and two years after the most intense part of the economic contraction, few analysts are seeing a significant acceleration in airport transactions. In 2009, the sale of Gatwick Airport to Global Infrastructure Partners (GIP) appeared to herald a new dawn, but activity since then has been sporadic. The U.S. Federal Aviation Administration (FAA) pilot programme is still on the starting blocks following the aborted sale of Midway Airport in Chicago. Abu Dhabi International Airport’s Public-Private Partnership (PPP) for the midfield terminal was suspended and is to be replaced, it is understood, by a more conventional “building contract” approach. India has given up ideas of privatising the “nonmetro” airports, at least for the present. In Brazil, privatisation of the airports is looking less likely as a consequence of the election of Lula’s left-leaning successor, Dilma Rousseff, as president. The partial privatisation of Spain’s state-owned airport company AENA, if it goes ahead, is widely expected to be geared towards the Spanish pension sector. The privatisation of Prague Ruzyně Airport has been made “illegal” by an Act of the Czech Government, while the PPP of the Portuguese airport system has yet again been postponed in the face of public funding deficits in the country.

Meanwhile, although there have been some successful transactions, these have taken different forms from the models which were popular before the recession. For example, the PPP of St. Petersburg Airport in Russia was completed by a consortium led by a unit of a major state-owned Russian bank (VTB Group). Naples Airport was acquired by an Italian fund F2i to “bring back to national ownership”1 Italian airports. Singapore Changi Airport was corporatised with the objective of transferring it to Temasek, the state-owned Singaporean Sovereign Wealth Fund2. Meanwhile, the U.K.’s local government-owned Manchester Airport bid for the already privately held Gatwick Airport.

So why are established investment models stalling, and divergent investment models emerging? One standard answer is that credit conditions are still difficult and investors and lenders continue to be risk averse. While undoubtedly true, this does not wholly explain the dearth of airport assets being marketed.
Another explanation is that, as has happened every decade over the almost 30-year history of airport privatisation, a new type of investor has seen merits in airport investment – and we still await the “2010s” model (see table on the prior page).

However, the puzzling question here is what unites the current active participants in the market – Manchester Airport, Temasek, F2i, and VTB?

An illuminating book published this year may provide some clues. Ian Bremmer’s *The End of the Free Market* depicts the rise of state capitalism. In Bremmer’s analysis, the financial and economic crisis has re-invigorated the state. “Now that the free market has failed, what do you think is the proper role for the state in the economy?” a Chinese vice minister asks. Naomi Klein’s belief that “corporations have grown so big they have superseded Government” appears increasingly premature.

For Bremmer, “authoritarian governments” have arisen which have “learned to compete internationally by embracing market-driven capitalism…. In this system, governments use various kinds of state-owned companies to manage the exploitation of resources they consider the state’s crown jewels and to create and maintain large numbers of jobs. They use select privately owned companies to dominate certain economic sectors.” Bremmer’s key point is that state capitalists use such entities not to maximise economic growth but essentially to achieve political objectives – the aim is to “maximise(s) the state’s power and the leadership’s chances of survival. This is a form of capitalism but one in which the state acts as the dominant economic player and uses markets primarily for political gain.”

Though this is not part of Bremmer’s thesis, it may in some cases be a matter of degree. In our experience in the airport industry, the non-profit objectives (which can for example include employment, regional development, and support for national airlines) may continue even where a company is partly privatised. Indeed, this is a likely reason for minority rather than majority private ownership under a privatised model. There are also entities which are not formally state-owned (which may include not-for-profit organisations) which behave in a similar way. Finally, some private companies may have some vestigial state capitalist objectives where the behaviour of their boards of directors is influenced by the national political or cultural climate.

Bremmer further identifies various nations which he regards to a lesser or greater extent as “state capitalists” including the BRIC countries (Brazil, Russia, India and China) as well as the United Arab Emirates, Saudi Arabia, Mexico, and Egypt. Enterprises from those countries have gained considerable economic might: “Between 2004 and 2008, 117 state-owned and public companies from the BRICs appeared for the first time on the Forbes Global 2000 list of the world’s largest companies (while) a total of 239 U.S., Japanese, British, and German companies fell off the list.” Interestingly, Bremmer comments that the major trading partners of such state capitalist enterprises are state capitalist enterprises from other countries, leaving “pure” free market companies out in the cold.

Bremmer’s book is primarily a polemic – state capitalists are charged with re-establishing protectionism, causing leading countries to take reckless political risks. In fact, it could be reasonably suggested that Bremmer’s analysis is a variant of a familiar cri de coeur over the continuing secular loss of American economic hegemony.

However, leaving aside the polemics, it does seem that the discovery of the term “state capitalist” casts an interesting perspective on current trends in airport privatisation transactions.

It is certainly the case that in the state capitalist countries, different paths have been adopted to attracting airport investment. In India, highly successful improvements to infrastructure have been made through PPPs by Indian companies with close political and other ties to the Indian state.

...as has happened every decade over the 30 year history of airport privatisation, a new type of investor has seen merits in airport investment – and we still await the “2010s” model
In terms of the Indian airport sector, where more traditional “free trade private” investors have been involved, notably Unique Zurich in the case of the development of the new Bangalore International Airport – local Indian partners have progressively bought out those investors’ stakes. Interestingly, surviving co-investors include Airports Company South Africa (ACSA), the airports operator of South Africa, and Fraport, both of which remain majority state-owned. Meanwhile, GMR Infrastructure has won the tender to redevelop the airports in the Maldives, a country where India has close political ties. Furthermore, the Indian Government now sees the Airports Authority of India (AAI) as the long-term operator of the “nonmetro” airports, having discarded the idea of an international public tender process, at least for the time being. Private development of “merchant greenfield airports” has been allowed though, but only in the form of public-private joint venture concessions under close state contractual and regulatory control (see the article titled “Indian Airport Economic Regulation – The Story So Far.”)

In Italy, the “re-Italianisation” of Italian airports through the sale of Naples Airport by the Spanish firm Ferrovial (a legacy investment made under prior ownership by BAA) to F2i is characteristic and comes on the heels of the end of the experiment with international capital investment at Aeroporti di Roma, which had been 44% held by Macquarie and is now owned by a consortium of Italian banks and funds. In Russia, the winning entity chosen for the redevelopment of St. Petersburg Airport is a PPP including VTB Capital, a Russian state-owned bank, and (once again) majority publicly owned Fraport. By far the largest lender to the project is another Russian state-owned bank, Vnesheconombank (VEB). One feature of this PPP is a very prescriptive development programme (coupled with a relatively informal and somewhat opaque regulatory approach).

In Brazil, it is clear that INFRAERO Brazilian Airports, the government-owned company, and other parties are evaluating how privatisation could work in the context of a centralised economy and political system – and it is not widely predicted that the process they come up with will resemble, say, the open and transparent tender for Brussels Airport.

What about another part of Bremer’s thesis that state capitalist enterprises would tend to invest in other

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<th>CONSORTIUM</th>
<th>NATIONALITY</th>
<th>IS AIRPORT INVOLVED PRIVATE OR STATE OWNED?</th>
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<tbody>
<tr>
<td>Airports Company of South Africa</td>
<td>South Africa</td>
<td>Majority state owned</td>
</tr>
<tr>
<td>Integrated Transportation Company, Incheon International Airport Corporation, Central Japan International Airport, and Samsung, led by Integrated Transportation Company (BADR Consortium)</td>
<td>Korea/Saudi Arabia</td>
<td>State owned</td>
</tr>
<tr>
<td>El Seif Engineering Contracting Co., MMM Group Limited, ADC &amp; HAS Airports Inc. and Emirates NBD Capital / Emirates Financial Services, led by El Seif Engineering Contracting Co. (SaudiAirplex Consortium)</td>
<td>Saudi/UAE/Canada</td>
<td>ADC and HAS is a joint venture involving the Houston Airport System (government agency)</td>
</tr>
<tr>
<td>TAV Airports Holding, Saudi Oger Ltd., Al Rajhi Holding Group, Consolidated Contracting Company, led by TAV Airports Holding (TIBAH Consortium)</td>
<td>Turkey/Saudi</td>
<td>State owned</td>
</tr>
<tr>
<td>YDA Construction, AENA Desarrollo Internacional, OHL Concesiones, led by YDA</td>
<td>Turkey/Spain</td>
<td>State owned</td>
</tr>
<tr>
<td>Saudi Binladin Group, Aéroports de Paris Management, and Bouygues Bâtiment International, led by Saudi Binladin Group</td>
<td>Saudi/France</td>
<td>State owned (partial flotation)</td>
</tr>
<tr>
<td>Limak Investment, GMR Infrastructure, and MAPA Construction, led by Limak Investment</td>
<td>Saudi/India /Turkey</td>
<td>Private</td>
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state capitalist enterprises? Intuitively this feels valid, although evidence is sketchy. One interesting piece of evidence is the list of initially qualified bidders for the PPP for Madinah Airport in Saudi Arabia (see table on the previous page). Clearly this is a somewhat “specialist” project but nevertheless a very interesting mix of entities and nationalities are involved. It is noteworthy that there is not a single “western” infrastructure fund among them, and only GMR represents the largely private sector airport operators.

On the other side of the negotiating table, in many cases the sellers are more comfortable with state companies. Commentators suggested, for example, that Birmingham Airport’s majority public sector owners were far more comfortable with Irish state-owned Aer Rianta as minority investors than they were with fiercely private capitalist Macquarie.

Lastly, it is possible to discern a different set of objectives for sellers and buyers in these recent transactions, compared to the objectives of the participants in the past (see table above).

In conclusion, the state capitalism concept does appear to cast some light on what is happening in the world of airport transactions. For a group of new airport investors from nations that could be defined as falling into that category, significant opportunities are presented. For infrastructure banks, private sector airports, and other established investors, a new set of challenges is posed in this new world.

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1 http://www.f2isgr.it/f2isgr/index.html
2 http://www.asiaone.com/Travel/News/Story/ A1Story20081007-92174.html
3 Ian Bremmer, The End Of the Free Market (Portfolio, May 2010). Acknowledgement to the Center for Asia Pacific Aviation (CAPA) for the idea of a link to airport investments
5 Op cit p5
As a large, geographically diverse country, India has been heavily dependent on its transport infrastructure to allow coherent and effective central government. In the past, this country has been reliant on its comprehensive and effective – but slow – railway industry. As India moves further into the 21st century and its sophisticated educated middle class expands and becomes wealthier, air transport is becoming increasingly important.

The growth of the Indian economy, coupled with the liberalisation of the airlines, has led to a burgeoning in traffic levels which global economic shocks and a degree of retrenchment amongst airlines has done little to halt. Over the 10 years to 2008/2009, air traffic has risen by an average of 11.4% per year. The majority of passengers are domestic (89 million in 2009/2010). However, the still relatively tightly controlled international traffic segment now represents some 34 million annual passengers.

The airports in Bangalore and Hyderabad were privatised in 2004. New greenfield airports were developed for both these cities because the existing airports were located in dense urban areas with little room for expansion. The airports in Delhi and Mumbai were privatised at the same time in May 2006. Each of these concessions was awarded following a competitive bidding process based on paying the Government a share of revenues in exchange for independent operation with freehold ownership of its land. It was established as a company in 1994. Opened in 1999, the airport is part owned by the Government of Kerala and the central Indian Government, each with a 13% stake.

The recent successful opening of the new Terminal 3 at Indira Gandhi International Airport in Delhi under the leadership of GMR Infrastructure has been a symbol of the private sector’s ability to respond to that challenge. However, it remains to be seen to what extent that dynamism will be rewarded in terms of the re-muneration of the investment made.

Until recently, airport infrastructure was virtually entirely owned by the Airports Authority of India (AAI). However, by the early 2000s, it was becoming clear that the underfunded AAI (which also suffered from the level of aeronautical charges in India, which were very low by international standards) would find it virtually impossible to keep pace with minimum service provision – let alone provide India with the high quality 21st century airports which were increasingly being demanded. In response to this, the Indian Government embarked on a programme of letting major airports out on concession to joint venture companies, with AAI (or other government units) holding minority stakes. At this stage, there are 5 major privatised airports in India. Four of these are Indian Government concessions:

- Bangalore - Bengaluru International Airport (greenfield);
- Delhi - Indira Gandhi International Airport (brownfield);
- Hyderabad - Rajiv Gandhi International Airport (greenfield);
- Mumbai - Chhatrapati Shivaji International Airport (brownfield)

The fifth—the greenfield Cochin International Airport—is an independent operation with freehold ownership of its land. It was established as a company in 1994.
the use of the existing facilities and a right to operate the airport and develop new facilities for a period of years. No significant up-front payments were required. The amounts offered at the major mature airports are high – just under 46% of revenues at Delhi and just under 39% at Mumbai – meaning that a key consideration for those airport operators is how to ensure the sustainable development of the airports at a time when only just over 50% of their revenue is available to operate and maintain the airports and develop the assets.

The Privatisation Concessions

Clearly, the amount which can be paid for an airport (whether by revenue share or through an up-front payment) will depend crucially on expectations of how aeronautical charges – which normally provide the majority of income – will be set. In the case of the concessioned airports, clear indications were provided in the documents which made up the concession agreements. For the airports in Delhi and Mumbai, in particular, these suggested a clear and well-defined approach would be applied to charges setting based on a CPI-X type approach, with the price formula reset at 5-year intervals. The methodology for price setting incorporated a hybrid-till approach with 30% of non-aeronautical revenue used to subsidise aeronautical charges.

Even at the outset of the concession agreements, it was recognised that there were inherent problems. The most important of these were related to the high levels of revenue share payments (which were not to be regarded as a component of cost in the determination of prices). These left Delhi Airport with only just over 50% of its total income, and Mumbai Airport with only just over 60% of its total income, to bear all of their respective costs and finance their new investment – a combination that appeared unsustainable. There were also technical difficulties with the method used for setting the X factor which potentially led to highly unstable prices. Furthermore, a number of aspects – notably the opening regulatory asset base (RAB), or the nature of the taxation adjustments – remained unclear.

The clear nature of these problems meant that successful bidders were forced to take a view on the final system evolved for regulation which would result. Effectively they concluded that:

- The final solution would be no worse for investors than that indicated by the concession agreement – no outcome would occur which effectively reneged on the Indian Government’s indications at the time of privatisation; and
- Some way would be found of ensuring viability after the revenue share payments to enable investment to continue.

In taking this approach, the investors were clearly facing significant risks – the strength and balance of the regulators, and their ability and desire to take into account the reasonable interests of investors as well as users would be crucial.

Enter the Airports Economic Regulatory Authority (AERA)

In December 2008, just over 2 years after the concessions were let, the Indian Government passed the legislation setting up the Airports Economic Regulatory Authority (AERA). The legislation applied principally to all private and leased airports, and all other airports designated to have annual passenger throughput of over 1.5 million passengers per annum (referred to as “major airports”). At those airports, the legislation gave AERA responsibility for setting the tariffs for airport aeronautical charges, together with charges for air traffic control, ground handling, and cargo facilities – irrespective of who operated them.

No specific methodology for setting charges was specified, though AERA was required to set the tariff once every 5 years (it could amend the tariff if required within the 5-year period).

The AERA was established in May 2009 with its Chairman (Mr Yashwant Bhave) and its Secretary (Mr Sandeep Prakash) formally appointed in August 2009. They immediately commenced on a process for creating the detailed framework which would be used to set future prices. Key stages envisaged were:

- An initial “White Paper” covering regulatory objectives and philosophy;
- A more detailed paper on the regulatory approach; and
- A final set of draft regulations which would ultimately be the basis of the legal instrument governing airport regulation approved by the Indian Parliament.

In each case, stakeholders would be allowed to make responses in a consultation process.

The Current Position

To date, the first two rounds of this process have been completed. After a difficult beginning (the consultation time set for the first White Paper covered only a period of 9 working days), a number of principles have become clear. However, there remain...
FINDING

Use of CPI-X type methodology based on building blocks approach at successive 5-year reviews

COMMENTS

• Follows approach set out for concession airports – and that applied in UK regulation

Very broad extent of price controlled activities

• Covers all “monopoly” charging elements

Recognition of requirement to ensure that airport is viable

• Potential problems in ensuring viability of concession airports given revenue share to Government

Cost-based approach using historical cost value of assets and a post tax nominal weighted average cost of capital

• Not best solution in economic terms since assets may well be significantly below replacement and/or opportunity cost
• Front end loaded
• However, may be preferable for investors as enables higher charges at the outset – helpful from a financing perspective.

Single till – though exceptions may be made for airports on concession contracts

• Follows UK approach – though dual-till and hybrid approaches are widely used elsewhere
• Exceptions for concession airports reflect indications given by Indian Government at time of letting concessions
• The whole issue has now gone back to the central Government for reconsideration

Formula based on total yield per passenger, with airport able to change charges structure

• Follows UK approach
• Subject to approval from regulator

Correction mechanism if traffic is significantly higher – or lower – than expected

• Mechanism to be used not yet clear
• Danger of one-sided corrections. Airlines insist on lower charges when traffic growth high, strongly resist higher charges when growth is low or negative

Service standards backed by penalties for non-compliance

• For concession airports, additional layer of service regulation on top of concession provisions
• Very large number of measures (40) – not all of which are under airport control

The key findings given by AERA are shown in the table above.

Overall, the framework envisaged appears to be a version of the UK approach, however, with a number of modifications which generally appear to tilt the balance towards airlines rather than airports. Nevertheless, it appears workable for state-owned assets – especially where significant competition is unlikely – and therefore the economic problems caused by distorted prices are less important.

As AERA itself has recognised however, the major problems with financing the concession airports and meeting the expectations of investors in India’s largest airports have not yet been dealt with – the difficulties that the framework has not yet been established, this could lead to many months of uncertainty – the complete regulatory process for the relatively well-established UK system can take up to 2 years.

In view of the need to maintain investor confidence in the face of major capital programmes required at various airports, it would appear to be highly desirable to address the problems at a much earlier stage. A first requirement would appear to be to make a clear public commitment to the principle that the final regulatory framework differs in important respects from the Government’s declared intentions when the concessions were let?

AERA’s current plan is to wait to resolve these issues until the first price setting process under the new framework. However, given

some important issues which have yet to be resolved.

The most important issues to be resolved are:

• How can the confidence of investors be maintained (and thus their preparedness to invest capital at airports and in Indian infrastructure in future be preserved) if the final regulatory framework differs in important respects from the Government’s declared intentions when the concessions were let?

• How can a way be found to make the concession airports viable given the very high levels of the revenue share payments made to the Government of India?

AERA’s current plan is to wait to resolve these issues until the first price setting process under the new framework. However, given
Indian regulator – but has not been specifically acknowledged.

The viability issue is less tractable though there are a number of tools which could be brought to bear. These include:

• Applying a hybrid- or dual-till approach in which aeronautical and commercial revenues are lumped together to provide greater income;

• Setting an initial valuation of the assets which fully reflect their economic value (or even back-solving the asset value to provide the income required to cover the revenue share payments); and

• Treating the revenue payment as a cost despite the clear rejection of this in the concession agreement; but in return for this, insisting on applying a single-till approach (in which purely aeronautical activities are considered) – in effect trading positive and negative adjustments to the terms of the concession agreement.

If AERA and the Indian Government were keen to honour the concession agreements to the greatest extent possible, a hybrid till would appear to be the most appropriate choice, combined with an adjustment to the initial value of the regulated asset base to ensure viability (the concession agreements provide for the inclusion of a hypothetical asset base). However, if AERA were keen to impose a consistent single till approach across all regulated airports, the third option above – that of “passing through” some or all of the revenue share payment – may be the most straightforward and targeted approach to the problem, though it would inevitably face strong opposition from the airlines.
5. Airport Privatisation in North America – Has the Dawn Finally Arrived?

It is somewhat ironic that the United States of America – the most successful capitalist economy in the history of the world – has been slow to adopt airport privatisation in a way that is now second nature in many parts of the world. While there is a large segment of airport operations in the U.S. that involves the private sector to one extent or another, there has been no broad embrace of private ownership of the airports themselves, or private sector operation of the core airport services.

Similarly, in Canada, a status quo emerged with the corporatisation of the largest airports in the mid-1990s, followed by 15 years or so of stable operation by the not-for-profit, non-share capital entities that operate the facilities on a 60-year lease from the Canadian federal government.

Maybe – just maybe – that is about to change in both countries. Powerful forces are at play, which suggest that this could finally be the time when the stars are aligned for a wave of airport privatisations to get underway. In both the U.S. and Canada though, significant impediments have yet to be negotiated and overcome.

What Is Privatisation?

The term “airport privatisation” is often thought of as meaning only the transfer of an entire airport to private operation and/or ownership. Privatisation does not have to be an all-or-nothing solution (i.e., the owner can choose to privatise portions of an airport’s management and operation). In fact, private sector involvement at airports (in North America and elsewhere) can take many forms and has received increasing attention as a means to access private capital, apply private sector techniques to accelerate project delivery and reduce construction costs, secure long-term efficiencies in operation and maintenance, introduce more entrepreneurial ideas in the development of non-aeronautical revenue than was often the case when a government operation, and to de-politicise airport decision-making.

The decision to privatisate is often made in a broader context by the policy-makers of the airport owner and can be undertaken for many reasons, such as: a cash infusion from airport asset sales; repaying outstanding debt; enhancing revenues; improving efficiency; or raising capital for capacity development.

The figure below illustrates the potential range of strategies available for private sector participation in airport management, operation, and development. The range extends from the least level of private involvement – whereby a governmental airport owner contracts with a private company or companies for the provision of certain services (e.g., janitorial, parking, terminal retail) – to the highest level of private sector involvement, where an entire airport
may be transferred to or developed by a private entity, with the authority to set airport charges and to operate and develop facilities (possibly through a long-term lease or sale). Some of these decisions are illustrated below:

**Contracting Services or Outsourcing:** Airports owners routinely use the private sector to achieve operating efficiencies through (1) outsourcing (e.g., janitorial, escalator/elevator repair, non-police security, parking operations), (2) non-aeronautical revenue enhancement (e.g., terminal retail), or (3) project design and delivery (e.g., construction management and programme management) for capital improvements.

**Public-Private Partnerships (PPP) and Project Financing:** PPPs are strategies whereby the government grants a private entity the right to develop, build, maintain, and operate a public asset (e.g., a passenger terminal) for a contracted period while the government maintains rights or obligations. Similar to the project financing option, the government maintains ownership of the asset, but the private party generally assumes the financial risk. The primary distinction between the project financing and PPP strategies is the presence of government participation in the venture (for instance, JFK-International Air Terminal LLC, Terminal 4 in New York).

**Airport Privatisation Pilot Programme:** The programme was legislated by the U.S. Congress in 1996 and allows up to five airports to be leased or sold under specific conditions (see below).

**Full Airport Privatisation:** A long-term lease, long-term concession, sale, or the transfer of an entire airport to private operation and/or ownership. The British government’s sale of the British Airports Authority in 1987 started the worldwide trend in airport privatisation. Major airport privatisations subsequently occurred in a number of other countries including: Australia, New Zealand, Argentina, South Africa, Costa Rica, Mexico, and continental Europe. The goals of these privatisations most often included reducing outstanding government debt, attracting new investment; securing international expertise in airport management and development, and removing governmental constraints limiting airport and air service development.

**Airport Privatisation In the U.S.**

The first wave of airport privatisation in the U.S. took place in the early to mid-1990s after an attempt was made to lease Albany International Airport in upstate New York to a private consortium. The U.S. airline community opposed the lease and the Federal Aviation Administration (FAA) concluded that the Albany privatisation proposal was not legally permissible primarily because airport revenue could not be “diverted” for non-airport purposes and also because “grant assurances” under the FAA’s Airport Improvement Program (AIP)—the federal grant funding programme—required the repayment of prior grants if an airport were leased or sold.

**Attempts at Privatisation**

The Albany approach, though ultimately unsuccessful, triggered a number of attempts at airport privatisation in the late 1990s that conformed to the then-current laws, including conversion to private airport management operation (Indianapolis, Harrisburg), private terminal retail development contracts (Pittsburgh), contracting out of services (Newark), terminal development and operation (JFK-International Air Terminal, Terminal 4).

In 1996, Congress enacted legislation designed to address the aforementioned obstacles on a pilot programme basis. Of the five airport slots defined under the Program, only Stewart (Newburgh) Airport was actually privatised. However, it was “de-privatised” in 2009 when National Express, the U.K. company that won the bidding in 2000, exited the airport management business and sold its interest in the airport to the Port Authority of New York and New Jersey, the operator of the three largest commercial-service airports in the New York metropolitan area.

Today, four of the five FAA privatisation programme slots are taken by: Chicago for Midway Airport; San Juan for Luis Munoz Marin Airport in Puerto Rico; Gwinnet County, for Briscoe Field in Lawrenceville, Georgia; and Hendry County for Airglades Airport in Clewiston, Florida. New Orleans (for Louis Armstrong New Orleans Airport) had also been accepted into the Program, but recently decided not to pursue the privatisation option. Nevertheless, interest in U.S. airport privatisation is growing.

One of these airports, Chicago Midway, actually made it as far as going through a Request for Proposal process and the selection of a private entity—a consortium consisting of Vancouver Airport Services (YVRAS), Citi Infrastructure Investors and John Hancock Life Insurance—to lease the airport property for 99 years in return for a $2.52 billion upfront payment. After
repaying $1.3 billion of outstanding Midway debt, the City intended to earmark the remaining net proceeds for infrastructure improvements and city pension funds. However, the deal collapsed amid the 2008 global credit crunch due to the inability of the private consortium to secure financing.

Apart from the FAA pilot programme, there have been a few private airport development efforts in the U.S., but not many. In May 2009, a private development group known as Branson Airport LLC opened a new airport in Branson, Missouri (a tourist resort area in the Ozark Mountain region). The new airport was developed at a cost of approximately $140 million, the bulk of which was debt funded via a tax exempt municipal bond issue, and the balance from equity. No federal grant money was used in the development of the new airport, which meant that the owners had significant flexibility in setting business arrangements than would have been the case if federal grants were involved. For example, the owners have given certain airlines exclusive route rights to specific destinations.

Although Branson Airport opened for business in the depths of the recession, the owners have attracted airlines and other customers to the new facility, and the airport served over almost 50,000 passengers in its first 11 months of operation.

Why Privatise Now?

Airport privatisation in the U.S. has, up to now, been limited by a number of factors, including: (1) the historic pattern of public ownership of airports; (2) the availability of FAA capital grants; (3) easy access to tax-exempt financing through the U.S. municipal bond market; and, (4) the issue of “diverting” airport revenues to private entities. In short, there have been fewer financial or political imperatives driving privatisation than found elsewhere. But the current dismal state of U.S. public sector finances is changing that picture. Many cities and counties throughout the nation are suffering mightily from the effects of the recession. As often as not, the local airport is their primary asset.

At the 2010 Airports Council International-North America Annual Conference, U.S. airport CEOs reflected on what some of them see as a critical situation, where they are not only being squeezed by a poor economy with an uncertain outlook but also still need to expand capacity and update aging infrastructure. At the same time, grants under the AIP, which account for 40% of airport capital spending, are frozen by the failure of the U.S. Congress to re-enact FAA reauthorization legislation, which authorizes federal grant funding.

A recent report by the American Society of Civil Engineers indicated a $41 billion shortfall in 5-year funding to meet aviation requirements. This shortfall, together with financing restraints in the public sector, has resulted in new calls for full airport privatisation in the United States.

So now, for the first time in many decades, there is (1) a need for significant capital investment in the upgrade and expansion of airport facilities, and (2) a need by the airport owners to obtain cash, and the sooner the better. Moreover, there is cash available for investment in critical infrastructure. Investment banks and institutional investors such as pension funds are aggressively pursuing these types of transactions with governments because such projects offer steady long-term returns at low risk, and are less susceptible to the effects of inflation.

Beyond the myriad overseas based public pension funds, sovereign wealth funds, and specialized infrastructure funds which are looking at airport investments, it is instructive to note that CalPERS, the State of California’s public employees retirement system, recently snapped up a 12.7% share in London’s Gatwick Airport from Global Infrastructure Partners. None are more aggressive in this regard than the Canadian-based public pension funds, which to date have not been able to invest in airports in Canada. But that may be changing.

Airport Privatisation In Canada

Canada, as is often the case, decided on a middle way in changing its airport governance structure in the early 1990s. Until that time, Transport Canada (TC) owned and operated about 125 of the 700 odd certified airports in Canada.

The only significant airport privatisation attempt in Canada had involved the redevelopment of the terminal area at Toronto Pearson International Airport. In the late 1980s, a private consortium was selected to develop a new Terminal 3 at the airport, a project which was successfully implemented. Subsequently, in the early 1990s, a separate bidding process was undertaken to attract private participation to the redevelopment of Terminals 1 and 2. This latter effort collapsed in political acrimony, resulting in the cancellation of a contract with the private consortium in 1993, and the eventual assumption by the newly constituted Greater Toronto Avia-
Some of these airports have even spun off for-profit entities which have shown themselves able to compete with any airport fund/operator in the world: Vancouver Airport Services (YVRAS), for instance, has developed a keen sense of what makes and sustains a private sector airport model, and has managed to do that at 19 airports around the world. In 2009, its network of airports recorded consolidated revenues of more than $530 million, and combined traffic of 28.5 million passengers.

The corporatisation arrangement is seen by many to have been an unparalleled success. The federal government got out of the business of airports and can better undertake its oversight role as regulator and landlord. Communities have benefitted from having local airport management and Boards that come from their communities and recognize the significant effect their airports have on the regional economies. Tenants, including airlines, have benefitted from the de-politicisation of decision-making, the speed with which decisions are now made, and the more generally commercial approach to their relationship with the airport operator. But with all those benefits has come a major point of contention between the airports (and their communities and tenants) and the federal government: the high levels of rent that TC extracts from the airports and the effect that is having on Canada’s competitive position, for instance in the tourism industry’s ability to compete. A recent study undertaken by LeighFisher for the National Travel and Tourism Coalition found that Canada’s travel and tourism competitiveness is ranked fifth out of 132 countries by the World Economic Forum, with Canada’s transport infrastructure ranking first in the world. But when it comes to cost, Canada trailed its peers, and it received particularly poor scores in most elements of price competitiveness.

Some within the Canadian airport industry suggest that a major contributing reason for the weak showing on price competitiveness may lie in the current financial terms within the airports’ operating leases with TC. They note that since the first transfers took place in 1992, the “corporatised” airports have invested $13 billion in capital infrastructure with very little investment by the federal government. However, in the past 10 years alone, the airport authorities have remitted $2.6 billion in rent payments under the terms of their leases, including over $250 million in 2009 alone as the industry coped with the severe economic downturn.

Why Privatise Now?

There are reasons for all parties to take a rational approach to the question of full airport privatisation. For the federal government coping with the largest deficit in Canada’s history, it would be a welcome capital boost to Canada’s balance sheet, and would sustain, if not improve, sovereign credit ratings. Moreover, it further separates the naturally conflicted roles of owner/operator and regulator/compliance auditor. Privatisation plays to the current government’s philosophy that less government is good, and the Canadian government decided many years ago that it shouldn’t be in the business of business – and in most areas has moved fully in that direction. There is very little that is inherently “strategic” which requires continuing ownership, and which could not be better achieved through an appropriate transfer agreement and light handed legislation.

For the airport authorities, the primary benefit would be the release from the strictures of an overly complex operating lease, and the time, effort and cost associated with the continuing “dialogue” on the rent tax issue. In the process, airport management would be properly incentivised to commercially develop this essential element of their regional economic infrastructure to best serve their stakeholders, while continuing to operate a safe and secure facility.

For airport employees, the move to corporatisation has generally been positive to date. With a guarantee of employment for two years after the original transfer, employees have seen employment levels increase while their own careers and contributions have been better recognized. Generally airport employees are today more efficient and productive than at the time of transfer, more involved in their work and likely to enjoy continuing stability under a
properly constructed privatisation regime.

For many stakeholders – including tenants, airlines, tourism entities and local communities – the prospect of a focused airport authority, operating not only with a more equitable and stable cost base but also with access to new sources of capital, holds many benefits. Today, airport communities much better understand the beneficial economic impact of their airports and are thus more supportive. While there has been some trepidation on the part of the airlines in the past, they like the flexibility they find within the new breed of airport managers and the speed of response they experience from the airport authorities. On a risk management basis, some airlines have concluded that the current rent structure is not sustainable, and in the absence of significant change on that issue, full airport privatisation is the better approach.

As noted earlier, Canadian pension funds are among the world’s biggest investors in transportation infrastructure. Airports are attractive to these funds owing to: their long-term view, and the industry’s long-term stability; the overall investment risk profile; their long-term resilient growth potential; strong commercial opportunities; and strong, professional management. There is still a large amount of available debt and equity financing available— and Canadian airports would be seen as a useful part of a geographically diversified portfolio. However, there would be major obstacles to overcome before equity infusions by such investors could take place given the (to date) lack of political will, and the reversionary clauses and options contained in most of the current federal leases.

The Outlook

In the United States and Canada, it is quite likely that government financial travails will lead to a steady and ever louder drumbeat of calls for the privatisation of airport assets. This is because the logic of such transfers of ownership is compelling – the availability of significant pools of money looking for a home in the infrastructure space on the one hand; a desperate need for governments to shore up crumbling balance sheets on the other. And in the middle the airport – a tried and true cash-generating asset that has demonstrable value based on real world airport acquisition transactions.

LeighFisher’s view is that we could be on the brink of a new round of infrastructure privatisation which will include full airport privatisation in both Canada and the United States. It seems that the bandwagon will only begin to roll in earnest though, when there is one clear, unambiguous successful transfer of an airport from public ownership, at a sufficiently high price that will garner attention. The privatisations could look decidedly different in the two countries given the different starting points.

In the U.S. the process will be driven by differing local needs and based on the differing ownership and operating structures currently in place. Also in the U.S., the FAA’s Pilot Program for airport privatisation would need to be expanded beyond the five slots currently available, and become more broadly available to the airport industry.

In Canada, the transfers are more likely to reflect the extent non-share capital local airport authority structure. In both countries, change is in the air.
Using Sustainability to Develop A Business Edge

Sustainability can be a source of opportunity, innovation, and enhanced performance for airports and can guide business solutions that allow airports to “do well by doing good.” In slow and rapid growth economies alike, sustainability is a strategy that will enable airport managers to drive innovations, differentiate themselves, and gain a favorable market position in the long run. In addition, by integrating sustainability into their business strategies, airport managers can benefit the economy, society, and environment.

The Business Case for Sustainability

Six key principles of sustainability guide the way to enhanced airport performance. Sustainability has become a central issue for business over the last 15 years. For organizations to operate responsibly, they have to look at the “triple bottom line” which, in addition to economic concerns, focuses on environmental and social impacts. Airports and the concept of sustainability have become inextricably linked. Examining how the following six principles relate to sustainability and highlighting their benefits helps to explain the business case for sustainability.

1. INCREASING OPERATIONAL AND RESOURCE EFFICIENCY
Significant cost savings can be achieved through practices that conserve natural resources. Optimization of existing facilities through modernization or a change in operational procedures can prolong the useful life of a facility. Avoiding or delaying new development and making the most of existing properties through modernization, retrofitting, and operational procedural changes not only provide savings on capital expenditure but also can result in reduced natural resource extraction, consumption, material wastage, and associated operational cost savings.

2. ASSESSING AND REDUCING BUSINESS RISKS
Risk management plays a critical role in achieving long-term sustainable growth. Identifying, evaluating, and managing non-financial risks is an integral part of an overall sustainable programme which can help an airport prepare for unpredictable environmental changes, natural disasters, impacts of new regulations, accidents related to airport operation, terrorism, and other events. Preparing for the unknown can help an airport operator face the unexpected challenges that might affect the industry, and results in making the business more resilient and better able to face adversity.

3. IMPROVING STAKEHOLDER RELATIONSHIPS AND ENHANCING THE AIRPORT’S REPUTATION
Good community relations are extremely important to airport operators, and efforts to enhance and strengthen an airport’s public image can be an important investment. A proactive and on-going stakeholder engagement programme as part of an overall sustainable business strategy can greatly facilitate the community’s participation in, and acceptance of, planned airport development.
4. ENHANCING THE AIRPORT’S CONTRIBUTION TO THE LOCAL AND REGIONAL ECONOMY

Airports are often regarded as the core of a region’s transportation network and key drivers for local and regional economic growth. As airports grow they attract new business; as new business is drawn to a region it perpetuates economic growth, which increases demand for air travel. As it promotes regional development, an airport operator can influence the process by forming strategic partnerships that can benefit both the airport and the region.

5. IMPROVING ENVIRONMENTAL STEWARDSHIP

Environmental management and mitigation are typically regulated by government agencies. Airport operators must demonstrate compliance with environmental regulation to ensure the continued operation of their airports. Environmental impacts can be effectively managed through an Environmental Management System (EMS). An EMS essentially provides a framework by which an airport operator can track its environmental impacts, target improvements, and monitor progress.

6. BOOSTING LEVELS OF INNOVATION AND PRODUCTIVITY WITHIN THE ORGANIZATION

Workplace initiatives and human factors illustrate the social aspects of sustainability. Tackling employee issues such as professional development, health, safety, workplace environment, and work-life balance can lead to improved productivity in the work place and reduced staff turnover. These are vital for any healthy and motivated organization.
Sustainability Challenges

The airport industry will only fully embrace the concept of sustainability when it can understand the real value and demonstrable benefits it can bring to the business, its owners, and other stakeholders.

The airport industry is now adept at quantifying many environmental benefits; however, there is a deficit of quantifiable evidence of its more wide-ranging benefits. The easiest way to demonstrate success in sustainability is to express the benefits in a common language, i.e., the financial performance of an organization. Quantifying the benefits of sustainability with financial metrics will help overcome some of these challenges. Where financial metrics are not appropriate and cannot be demonstrated, then alternative proxy performance indicators should be established across the industry.

Valuing some areas of business will always remain a challenge, e.g., a stakeholder engagement exercise which results in increased trust between the public and the airport – how can this be quantified with financial metrics? Many aspects of business are intangible, such as goodwill, and finding some method of measurement is nevertheless useful. So, regarding stakeholder engagement, measuring the number of encounters with stakeholders and calculating the number of hours with the community over a given period may provide a suitable proxy measure, which when gauged against year-on-year financial performance can provide useful feedback for the business.

Establishing consistent performance measures across the industry should be a priority if sustainability is to become truly widespread. Some progress is under way through the Global Reporting Initiative (GRI), a network-based organization which has developed the world’s most widely used sustainability reporting framework. Sustainability reports based on the GRI framework can be used to benchmark organizational performance, and compare organizational performance over time. GRI is working with a multi-stakeholder group to create the Airport Operator Sector Supplement. The GRI Airport Operator Sector Supplement is likely to shape the future for sustainability reporting and will support the industry in developing consistent performance metrics.

A further effort at establishing consistency is Airports Council International (ACI) Europe’s Airport Carbon Accreditation programme, established in June 2008, which now encompasses 23 accredited airports in 12 European countries. Under the programme, airports must have their carbon footprints and carbon management processes independently verified. The accreditation criteria for these airports are reviewed on an annual basis.

<table>
<thead>
<tr>
<th>Phase I: STRATEGY AND LEADERSHIP</th>
<th>Phase II: IMPLEMENTATION PLAN</th>
<th>Phase III: MONITORING AND REPORTING</th>
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<tr>
<td>• Develop a shared vision for sustainability – Sustainability Vision Statement or Policy</td>
<td>• Prepare specific goals in order to measure progress towards achieving objectives</td>
<td>• Develop key performance indicators with associated metrics to measure and monitor progress towards achieving goals and objectives</td>
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<td>• Identify a set of strategic sustainability objectives – these should be high level, aligned to or included within the business strategic objectives.</td>
<td>• Develop an action plan for each goal</td>
<td>• Produce an annual report to demonstrate commitment and communicate progress to stakeholders</td>
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<td>• Decide who in the organization will lead the charge, reporting and communicating channels and distributed accountability</td>
<td>• Designate distributed responsibility for each action plan</td>
<td>• Undertake an annual review of strategic objectives and goals – re-assess business priorities to align with new or changing circumstances</td>
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<td>• Determine high-level performance indicators which link to delivery of strategic objectives</td>
<td>• Communicate the plan to stakeholders</td>
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**DELIVERY TOOLS, TACTICS AND APPLICATIONS**

- Risk assessment and analysis tool
- Materiality test
- Decision-making framework
- Stakeholder appraisal
- Life cycle cost analysis
- Environmental Management System
- Safety Management System
- Training workshops
- Social media applications
- Performance evaluations
Sustainability Requires a Top-Down Approach

Sustainability is a shared responsibility and should be an intrinsic part of daily operations and long-term decision-making.

Integrating business and sustainability takes more than good intentions and strong leadership – it requires a focus on sustainability which is driven from the top down and is clearly communicated throughout the organization. Organizations which have a clear focus on sustainability have aligned their sustainability strategy with their business priorities. Some have gone so far as to adjust their organizational structure and reporting relationships, as well as introduce incentives. Airports are increasingly seeing the value of embedding sustainability in an organization this way, as opposed to bolting on sustainable initiatives in an ad-hoc way or focusing their sustainability efforts on public relations.

The three-step process (see diagram on the previous page) sets out how an airport could incorporate sustainability principles into its business plan. The process should be seen as continuing and evolving, similar to the on-going operation and growth of any business.

Sustainability is a business-wide issue and should be an agenda item for the boardroom. A truly sustainable organization needs to do more than just address green design or construction issues; sustainability is no longer the sole concern of an organization’s environmental manager. For maximum impact, a top-down approach to sustainability is essential.

A commitment to sustainability must emanate from the head of the organization, sustainability principles should be integrated into the business plan, and commitment to these principles needs to be reflected in operations at every level. Only when such a framework is in place, will airports be able to quantify the tangible benefits and financial success that integrating sustainability into the business can bring. When sustainability is part of an organization’s core, its success becomes part of an organization’s value.
Over the past decade, India has modernised and upgraded many of its major airports, either through a greenfield development process (as in the case of airports in Kochi, Bangalore, and Hyderabad) or through brownfield modernisations (as in the case of airports in Mumbai and New Delhi). Other airports around India are currently being modernised or developed. While the major objective is to build airside, terminal, and landside capacity to accommodate the growth aspirations of a potential future economic superpower, the industry is also starting to focus on real estate and related infrastructure developments, particularly at the new or planned greenfield airports — and perhaps to build the first generation “Airport Cities” in India.

These greenfield airports are not planned solely for aeronautical activity. Many of them will be located in areas where available land, in conjunction with regional economic drivers and political will, could spur large-scale commercial real estate development. Most of these land developments would be aviation-oriented, clustered around the airport and its transportation links. While these are expected to develop whether planned or unplanned, if planned in the right way and integrated with the airports to which they are linked, these developments could be optimal, flexible, and profitable, and eventually produce a new urban form — the Airport City — or, as coined by Dr. John Kasarda, the “aerotropolis.”

Yet the template of an existing Airport City as currently conceived in other parts of the world is unlikely to work for India. The Airport City in India is likely to have characteristics and challenges unique to the politics, geography, and culture of the subcontinent. This article attempts to explain how Airport City development in India may differ from what has transpired in the two parts of the world where the concept has been more fully realized: East Asia and Western Europe.

We argue that India should establish a new model for the Airport City, given the role of the state and central governments, the nature of real estate development in India, and the state of the local and regional airline industries. We also highlight how certain Indian airports with aspirations in this field exemplify this sort of development.

### Infrastructure Development or the “Great Land Grab”

A key concept of the Airport City framework is that land development should leverage existing or planned transportation infrastructure. Time and again, the presence of effective infrastructure has radically escalated the value of the highest and best use of adjacent land. What has changed over time though, are the respec-
tive roles of the private and public sectors.

In Europe, Airport Cities commonly exploit the intermodality of publicly funded systems, such as motorways and high-speed rail. Typically, Airport City land is private, yet the infrastructure is public. Contrast that model to India, where privately funded roadways are built to unlock the value of contiguous land. The “unlocked” land appreciating in value is quite often under Government ownership, and the Government may assign land tracts to a road-builder to induce his behavior or project choice. In a sense, India inverts the European model: public land, private infrastructure.

The Indian Airport City is, therefore often likely to be the domain of a non-airport developer rather than of an airport operator. This circumstance resembles the Incheon template, in contrast to the Western European model of an airport-owned development company. A large land bank could induce development of a signature infrastructure investment (in addition to an airport), such as a direct rail link between the airport and metropolitan city center.

As part of the development and modernization of New Delhi Indira Gandhi International Airport, a metro link (part of the Delhi Metro) connecting the Airport to the city centre is being built. The proposed link, to be commissioned at the end of 2010, connects the newly developed Terminal 3 at the Airport to Connaught Place in Central Delhi. This will reduce travel time significantly and also allow the transfer of rail passengers from the hinterlands to the Airport. The link will also provide connectivity to about 250 acres of commercial land at the Airport that is planned to be developed in stages.

The chief importance of being land-rich, as is often the case with Indian greenfield developments, is the opportunity to capture return on investment through non-aeronautical development. First, more land being physically available allows for more opportunities — a larger area with a greater number, magnitude, or diversity of nonaeronautical projects. Second, a very large parcel could attract an anchor tenant that would employ thousands and possibly attract numerous firms in its supply chain. Finally, more land allows for more flexibility, so one could strategically plan multiple future phases to account for as-yet-unforeseen technology and community development.

Indian Urbanism and the Growth of Secondary (or Tier II) Cities

Land use planning is not merely a code assigned to a parcel, but an exercise in how efficient one can be with a scarce resource. Exploiting the highest and best use of valuable near-airport land, land-use optimization would produce a densely settled, near-urban form — an “edge city,” as coined by author and urban planner Joel Garreau.

These types of development are largely the same around the world. Aeronautical developments could feature cargo and logistics facilities, free trade zones (FTZs) or special economic zones (SEZs), freight forwarders, and just-in-time shippers. Large-scale non-aeronautical developments could include hotels, convention centers, shopping malls, office parks, and leisure/recreation facilities. More ambitious buildouts may also include hospitals or even residential areas. The feasibility of many of these options is being explored by the operators of the four major public-private airports in India.

What would attract developers to an Indian Airport City? Why would a foreign (or local) firm choose to locate its regional facility near a particular airport? The answer may be the development and branding of a specialized corporate campus, or proximity to skilled labour or manufacturing facilities. Such a campus would be an idealized, yet somewhat contrived, town. It could be attractive as a familiar, predictable, small-scale version of, for example, Silicon Valley, with the advantage of
excellent motorway and rail as well as air access in the long term, rather than a capacity-constrained facility.

As part of the greenfield development of airports at Bangalore and Hyderabad, about 4,000 to 5,000 acres of land were provided to the promoters of the two airports. A key driver of viability was the planned development of approximately 1,000 acres of commercial real estate at these airports. A major driver for the development of these two airports was the provision of adequate land for meeting the long-term aviation demand of the two cities, especially from the perspective of providing landside and freeway access and possible high-speed rail access in the long term.

Increasingly, the secondary cities in India (so called “Tier II” cities) are showing huge potential for development. Home to between 2 and 4 million people each, these cities are local and regional centres for manufacturing, trading, and logistics. As a result, airlines are increasingly looking at these cities as viable options to expand their route networks.

In 2008, the Government of India decided to partly privatise the landside areas of the airports in some of these Tier II cities. Five airports were initially identified and two airports (Udaipur and Amritsar) were selected for a bid process in a pilot program. The model concession agreement that was developed for these two airports was however restrictive – it did not attempt to integrate and synergise the development of aeronautical and non-aeronautical lands and facilities. Instead, it called for developers to team with airport operators to develop landside real estate and manage parts of the terminal. This approach made no sense to any of the shortlisted parties and, in the absence of a coherent strategy of integrating development of the “traditional” airport functions with development of the commercial real estate, the process died.

Following this, various private developers have looked to develop airports in secondary cities, such as Durgapur, Hassan, Jaipur, and Gulbarga. In each case, the local developer has attempted to team with a global airport operator to bring brand value and insight to the aviation market in return for a stake in the project. However, it remains to be seen whether this approach is successful in the long term.

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Bengal Aerotropolis Projects Limited has been set up with a view to developing an airport at Durgapur in West Bengal. Local partners in the developer consortium have brought in Singapore Changi Airport as partners to advise them on the development of the airport. In the long term, the airport is expected to serve a mix of aeronautical and non-aeronautical functions and become a regional hub and destination. The promoters of this project have also planned a similar development in Ludhiana in Punjab.

A developer’s goal of building an Airport City often occurs in tandem with the goal of hosting an airline hub. On this point, developers’ expectations must be tempered, based on airline industry trends within and beyond the confines of India.

The existing mega-hubs across Asia and the Middle East are the home bases of “national champion” airlines of their respective nations – such as Singapore Airlines and Emirates in Singapore and Dubai, respectively. Their massive throughput of passengers and cargo will use Indian airports as spokes, not hubs; and India seems to have missed a chance to serve as a hub on the hugely profitable “Kangaroo Route” and the North America – West Asia Route due to short-sighted government policy and bureaucracy between the 1970s and the 1990s.

Airline hubbing in India would likely need to grow out of the emerging domestic market. What remain, then, are questions. Will airport capacity be enough to accommodate demand? Is Air India going to succeed, stagnate, or fail? Even if we assume that Air India and other domestic Indian carriers succeed, how many hubs are necessary? And what is the role of the fast growing low cost carrier (LCC) model in the Indian subcontinent?

A global airport hub does not emerge from the ambition of an airport developer, but from the decision of a major airline. Given the perennially precarious nature of Air India’s finances and the relative youth of India’s other airlines, the Indian cities that will emerge as airline hubs cannot yet be identified. Indian airline hubbing strategies are only likely to emerge in the medium to long term.

Today, the Asian LCCs have stolen a march over other carriers in the region. With the exception of Singapore Airlines and Emirates, who have managed to capture market share, the growth in the region is driven by LCC traffic (traditionally driven by leisure travelers and holidaymakers). As a result, at secondary airports which are likely to see more low fare traffic, hospitality and leisure driven Airport City developments are likely to be more profitable. As an airport grows, the value of the land is multiplied manifold and the area surrounding the airports becomes increasingly valuable as well.
Intranational Competition

The East Asian model for the Airport City may be the most mouth-watering prospect to the palate of the developer. But the mold for this type of development was not cast in South Asia, circa 2010.

The attractive Airport Cities throughout the world – examples that seed the dreams of developers – have a political or geographical status that does not seem to apply to any location within India today. For example, India obviously is a vast and diverse country – a claim surpassed in the Asia region only by China and possibly Indonesia. Also, India is a pluralistic, federal democracy – a rarity in Asia. A smaller nation with an Airport City tends to have a single gateway airport, where the Airport City is not merely the airport brand, but the national brand – such as Incheon or Schiphol. The Asian/Middle Eastern “city-states” of Singapore, Dubai, Hong Kong, and Abu Dhabi compound the notion of the brand, and blur or eradicate the boundary between public and private sector. At those locations, an Airport City is intrinsically tied with a national airline and sometimes a seaport as well. The local politics sometimes resemble a benevolent dictatorship.

In short, the national project of building an aerotropolis has been largely an exercise in national monomania. Such a pursuit is alien to the Indian national polymania of building three dozen new airports over the coming decade. Furthermore, while East Asian nations may engage in international competition to attract investment, in India the competition may be intranational. The political dynamic probably would be quite different; the comparable case would be the United States. In short, how many Airport Cities can India successfully support? If these Cities are chasing the same firms and the same investors, perhaps it can support only a few.

But if Airport Cities diversify, and each tries to cast a unique business strategy and regional brand, they will not necessarily be reaching for the same piece of the pie. The best path for infrastructure developers in India, at least as it relates to developing Airport Cities, is likely to be to “think local” – focus on the characteristics of the air traffic base in a given market, and exploit regional economic, business, and cultural trends.

The Way Forward

Over the past decade, Indian infrastructure opportunities have multiplied. In many cases, infrastructure development has become a vehicle to unlock the real estate potential of a development’s associated land bank. If land acquisition was being undertaken solely to develop real estate, it would take much too long. As part of a major infrastructure project, however, land is available at a lower price from the Government and these projects receive high priority for land acquisition.

Due to the huge increases in the value of real estate in urban areas of India, many local real estate developers and contractors have seen entry into the infrastructure sector as a vehicle to increase their share price over a very short period of time, leading to increased valuation of their stake and positioning for a possible future share listing or trade sale at the appropriate time.

For multiple Airport Cities to succeed, there needs to be a unique brand and strategy for each development. In the absence of such a development strategy, most airport projects run the risk of increasingly diminished returns.

However, with a cogent long-term vision that integrates the reality of the local air traffic market, regional identity, and local skills in manufacturing, services, and technology based on regional economic trends within the global logistics and supply chain economy, there is significant potential for the development of multiple commercial areas on or in proximity to airports in India.
LEIGHFISHER has extensive experience in all disciplines necessary for the planning and management of airports, including business planning, financial analysis and planning, due diligence and financial feasibility, privatisation, economics and forecasting, commercial and retail planning, airfield and airspace analyses, airport management and operations, facilities planning and design, master planning, ground transport planning, noise and environmental analyses, car park planning and analysis, rental car facility development and business planning, security planning and implementation, and simulation and operational analyses. We have main offices in San Francisco, London, Ottawa, and New Delhi*. For almost 65 years, we have assisted our clients in achieving their vision and goals.

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