Airport cities and financing the future

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With half of the world's population now living in cities, it follows that airports and their surrounding areas are growing rapidly, becoming vibrant economic centers. PwC interviewed several of the world's top airport operators and airport city developers to further explore the role of the airport city as a hub for commercial, residential and other enterprises as well as its capacity for serving regional economies. We also discussed with these leaders the challenges and options for financing airport cities growth. Participants were drawn from a range of different regions and situations as well as from PwC. The moderators and speakers were:

- **John Ackerman**, COO, Denver International Airport
- **Scott Brockman**, COO, Memphis International Airport
- **Larry Cox**, CEO, Memphis International Airport
- **Kim Day**, Manager of Aviation, CEO, Denver International Airport
- **Jeff Fegan**, CEO, Dallas-Ft. Worth International Airport
- **S.G.K. Kishore**, CEO, Hyderabad Airport Property Development, India
- **Abdul Mogale**, Member of the Mayoral Committee or Economic Development, Germiston, Gauteng, South Africa
- **Wan Mohd Fauzi Wan Nawang**, Senior Manager, Land Development Department, Malaysia Airports, Kuala Lumpur, Malaysia
- **John Terrell**, VP of Commercial Development, Dallas-Ft. Worth Airport
- **Pieter Verboom**, CFO, Schiphol International Group

This report summarizes many perspectives from our wide-ranging discussions. We focus our summary on:

- The latest trends in Airport City development,
- How such projects are planned and executed,
- The reasoning behind Airport Cities as profit centers
- Financing options and profit projections, and
- Private public partnerships

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Introduction

A unique opportunity exists for airports that lie some critical distance from the urban centers they serve. These airports have the ability to evolve into a transport hub where travel, commerce, work, retail and recreation converge. The opportunity was partially created by a trend in the 1970s and 1980s when airports began to move away from urban areas in order to have greater capacity for unhindered growth and the opportunity to develop and evolve in a strategic manner. With this migration we began to see the urban center coalescing with many of the airport city operations.

Basic ingredients for a successful airport city include:

- *Relative distance from urban center*
- *Available land (use)*
- *Available infrastructure*
- *Excellent transportation network*
- *Market access*

At a time when many airports are still cash strapped, why should they take the risk of investing in non-aeronautical land development projects?

There are significant economic and even political incentives for airports to invest in land development and in some cases strive to create airport cities. How they do so will play a crucial role in both the airport's revenue but also its impact on the local and regional economy. PwC has found that revenue generated outside the gate increasingly contributes to overall airport business revenues, which allows the airport to undertake more aggressive growth. This growth in turn becomes a stimulus for regional development.

The need for airports to generate new revenue–particularly from non-aeronautical sources—is a primary incentive for creating airport cities around the world. In this paper, PwC looks at the trends, opportunities, challenges, risks and profit potential for the future of this fast-growing economic phenomenon as airports transform into airport cities.

We look first at what goes into defining, creating and sustaining an airport city. We'll also highlight some of the significant economic and political incentives for airports to serve as airport cities. And lastly we'll explore how financing strategies play a crucial role in whether airports excel—or merely get by.

This paper offers actionable insights to airport operators gleaned through interviews with industry leaders and coupled with PwC's own analysis and experience in the field, including the importance of strategic planning, ways to enhance revenue and how short and long-term growth can be driven by various financing options.

Trends: airports transforming into airport cities

"The 21st century model airport city as an urban realm, commercial destination and branded location has clearly arrived."—John D. Kasarda, The Kenan Institute of Private Enterprise, University of North Carolina

Examples of airport city distances to urban centers

As this paper points out, the concept of an airport city only works as intended when located some critical distance from a city center, where they have room to grow into an economic hub of their own. Examples of airport cities and their respective distances from the closet major urban center include:

- *Amsterdam Airport Schiphol: 17 km to Amsterdam*
- *Beijing Capital International Airport: 32 km to Beijing*
- *Berlin Brandenberg International Airport: 24 km to Berlin*
- *Dallas-Fort Worth International Airport: 30 miles to Ft. Worth, 23 miles to Dallas*
- *Denver International Airport: 27 miles to Denver*
- *Dublin International Airport: 12 km to Dublin*
- *Frankfurt International Airport: 14 km to Frankfurt*
- *Hong Kong International Airport: 32 km to Hong Kong*
- *Munich International Airport: 46 km to Munich*
- *Singapore Changi International Airport:: 26 km to Singapore*

In recent years we have seen the proliferation of privatized airports. This infusion of expertise and financial goals has uncovered many creative strategies as these airports seek every possible opportunity to become profit centers.

There are many examples of how the growth strategies employed by airports are as varied as the regions they serve. "Schipol and Munich clearly leveraged their geographic location as the nexus of air and rail and built exceedingly successful office development. In fact, Schipol has been so successful that they are getting higher rent than in Amsterdam's central business district. And Munich has a central public square area that attracts people on weekends, during their leisure time, when they aren't flying anywhere."–John Ackerman, COO, Denver International Airport

Even in the U.S., where most airports are owned by municipalities, it is becoming increasingly evident that airports can hedge the volatility of aeronautical revenue and stabilize their revenue forecasts through economic development opportunities. "In the past, airports served cities. Now, airports have become such strong generators of economic development that they have really become a full profit business. This is less so in the U.S., where the airports are non-profit and more part of the local government."—Larry Cox, CEO, Memphis International Airport

While strategies may differ, the overarching goal is uniform. "The original 'airport cities' concept focuses on business options that help rejuvenate the airport's attractiveness while strengthening its financial position and diversifying revenue streams. The concept integrates business, leisure, living, work, transport and entertainment in one central location….As such, the airport positions itself as a driver of economic growth and development."–Angela Gittens, Director General, ACI World

Central to the trend toward airport cities is the changing mission of these airports, reflecting the changing needs and preferences of airline customers. How airport cities serve the changing needs of passengers and accomplish their desired growth–both "inside and outside the gate"–is a crucial consideration.

Travelers increasingly expect more than just transit. They want a pleasant experience as they move from point A to point B (and often to point C). So it is now quite common to find retail outlets, a variety of restaurants, artistic venues, hotels, convention centers, business offices, and entertainment and recreational centers embedded in airports. Under this model, passengers increasingly contribute to airport revenues, allowing airport cities to undertake more aggressive growth–providing additional passenger and non-passenger services.

What's agreed upon is that airport cities can not only profit from tailoring services and facilities to accommodate travelers, but also help drive their region's growth by becoming destinations in their own right. "Cities have tended to grow up around water ports over time. That same dynamic is now at work around airports–which can serve as a catalyst for economic development in the region…the kind of growth that everybody wants. We see a well-designed, well-integrated airport city as something that will benefit the airport because we get to grow and build the runways that we need to serve the traveling public in the future."–John Ackerman, COO, Denver International Airport

It appears the trend toward airport cities is here for the long-term. As greenfield airports enter the landscape they have seized the opportunity to succinctly define the structure of the economic development zones around them. It has also allowed them to establish rules around restrictions (such as curfews) that prevail at urban city airports.

Catching great art down at your local…airport

As airports and airport cities continue to expand and offer visitors much more than just a means of getting to and from far flung destinations, we are starting to see world-class art cropping up at their facilities.

For example, officials state that Denver International Airport was one of the first airports in the United States to integrate art into its public spaces, with 30 permanent art exhibits now on display, including 9,000 pound piece "Mustang," a 32-foot tall, bright blue, cast fiberglass horse sculpture with gleaming red eyes by New Mexico artist Luis Jiménez. And Sacramento International Airport may be a mid-sized airport but that has not limited its artistic ambitions. They have a piece called "Samson" by artist Brian Goggin, which consists of two 23-foot tall pillars made from 1,400 pieces of luggage stacked on two wheeled carts. The work appears to hold up the ceiling, although steel beams attached to the airport's existing columns keep the structure sturdy. "It does exactly what great public art is supposed to do: Create a sense of fun and whimsy in a normally utilitarian place," said airport spokeswoman Karen Doron. And Miami International Airport, the largest U.S. gateway for Latin America and the Caribbean has a piece called "Ghost Palms" by artist Norie Sato which takes its inspiration from the ubiquitous palm trees that populate the Miami-Dade County landscape.

Airport as an art gallery: but why not? It is yet just another example of how what used to be mere transportation hubs are becoming so much more. And with hundreds of millions of people passing through them every year, airports are a perfect place to provide travelers—and local citizens —an opportunity to marvel at and revel in the international language of artistic expression…just as long as they don't miss their connection.

Q&A

Inside the gate versus outside the gate

PwC spoke with numerous leaders in the field to understand just where an airport city starts and ends and how this affects development.

PwC: Is most development "inside the gate" or "outside the gate" at your airport city?

"Most of the development in terms of investment amounts is behind passport control in the restricted area/airside operations. In 2010, 66% of our total investment was made in aviation—ICT, security, safety, passport control, etc. For example, the Holland Boulevard upgraded to enhance the passenger experience (particularly for transfer passengers)."
—Pieter Verboom, CFO, Schiphol International Group

"Most commercial development at DFW occurs outside of the central terminal area…on the perimeter of the airport's landmass. Approximately 12,000 of the Airport's 18,000 acres are preserved for core aviation operations, and the remaining 6,000 acres are generally available for commercial development."
—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"All of our revenues come from inside the fence. We have about a 50-50 split of aviation revenues and non-airline revenues…with revenues coming from the passenger and cargo airlines and the rest from profits we make off our concessions, hotel, ground transportation companies, rental car companies and parking. Our two largest sources of non-airline income are automobile parking and rental cars. Terminal concessions are third."
—Larry Cox, CEO, Memphis International Airport

"Denver is the fifth busiest airport in North America. And we could physically fit the four busiest airports on our property and still have land left over. So most of our development will happen inside the fence. But we partner with adjacent jurisdictions to agree on the zoning and co-develop the infrastructures. So we can share costs as well as the economic benefit. In this way, we can push the residential area further out."
—Kim Day, Manager of Aviation, Denver International Airport

"Hyderabad Airport was built with a sixty-year concession, part of which was to build an airport city. All of this is inside the fence."
—S.G.K. Kishore, CEO, Hyderabad Airport Property Development, India

Q&A

Airport city restrictions and development

PwC enquired of international authorities to explain how restrictions (if any) on Airport Cities activities can impact development.

PwC: Is the airport city imposing unexpected constraints on your airport (such as curfews) due to community push back or other reasons? If so, have they affected your finances?

"Schiphol does have certain restrictions, in particular on noise capacity and absolute growth in number of air transport movements. So far restrictions have not affected our finances. However, security measures imposed by governments have had a big influence on the airport economics and finances. Currently, security costs have risen to 37% of total aviation costs."
—Pieter Verboom, CFO, Schiphol International Group

"We are one of the few airports in the world that doesn't have some type of restrictions on air operations. With FedEx headquartered here, we are the world's busiest airport from 11pm to 4am. People need to work at the airport; their jobs are dependent upon what happens here. So there's a good understanding of the need for the airport and not to restrict its growth. After all, one in four jobs in the Memphis area is tied in some way to the airport."
—Larry Cox, CEO Memphis International Airport

"The major source of concerns from the surrounding community about DFW's commercial development activities relates to perception of competition, but these concerns are generally mitigated through communication with those stakeholders."
—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"There are three things they do not want us to develop: a convention center, hotels of 500 rooms or more and casinos (which are illegal in Texas)."
—John Terrell, VP of Commercial Development, Dallas-Ft. Worth International Airport

"Denver is very fortunate in that we don't have curfews since the airport was planned very carefully in an area where there wouldn't be the impact on residential areas. In fact, there are actually development restrictions on property that the surrounding municipalities agreed to 20 years ago."
—John Ackerman, COO, Denver International Airport

"To ensure that the growth happens in a particular way, the local government has created a separate planning authority for the entire airport area, including outside the fence. We are a member of the authority, and in that way can ensure that whatever development happens does not hamper airport operations."
—S.G.K. Kishore, CEO, Hyderabad Airport Property Development, India

The opportunity: airport cities as profit centers

"Given the higher income of air passengers—typically two to four times the national average—and their massive numbers compared with shopping malls, it is not surprising that major airport retail sales per square foot are up to six times greater than those for shopping malls."
—John D. Kasarda, Contributing Editor, "Global Airport Cities"

Where is the most potential for airport city development around the world?

Airport cities have global potential, but this is the case for different reasons in different parts of the world. In the developing world, such as Asia, Latin America and Africa, population and/or economic growth will drive much of the need for airports that provide more than just transportation. In Europe and North America, leadership in airport city development is based in large part on the concentration of wealth in those areas as well as the existence of mature infrastructure systems, such as highways, rail, and ports. Ultimately, all of these regions will be competing with each other for the considerable economic boost that comes with being on the cutting edge of transportation development, such as airport cities.

Executed correctly, starting with the model of an airport city being run like a business, there are tremendous economic opportunities for airports, opportunities that can lead to increased economic development for surrounding cities as well as reduced charges to the airlines. In turn, this can help lower ticket prices to an airport city, thus increasing travel to that city. However, it is not surprising that most airport cities must overcome institutional barriers in order to lower project and operating costs to be successful. This can be done in a number of ways, including putting the correct incentives in place for the various stakeholders.

How do airports decide what kind of projects to invest in?

Decisions need to be part of the overall vision for the region and the medium to long-term growth plans of the airport. It is important to examine the competitive landscape of the airport. Agility needs to be a part of any project plan.

The airport must position itself to take advantage of periodic surges created by major events such as national or international sporting or political events. Agility is equally important in an airport's plans to overcome catastrophic events such as the periodic impact of severe weather, or a disaster such as a hurricane or earthquake.

Q&A

Revenues and airport cities

Airport city operations are definitely contributing increased revenue to the airports. Hence, we are seeing more and more airports looking to expand their capabilities both inside and outside the gate. As for percentage of overall airport revenue, it's a "chicken and egg scenario": as you build your airport city, you are starting to generate more flow in and out of the airport. So, you start an airport and then you expand the airport city and it becomes a successful stand alone business. In turn, it drives increased traffic in and out of the airport. PwC wanted to learn from the experts where airport revenues are heading and how airport city operations are affecting them.

PwC: What percentage of your airport's revenue is generated by the airport city and is this percentage rising or falling?

"More than 95% of our total revenue is generated by several airport cities including Amsterdam's Schiphol (our largest airport city) and smaller ones in Eindhoven and Rotterdam. Total revenue was up 2.3% in 2010…with spend per passenger growth of 4.7% behind passport control being the main driver of the increased revenue."
—Pieter Verboom, CFO, Schiphol International Group

"The commercial development revenue budget for FY 2011 is approximately $30 million – which is about 7% of DFW's total revenue (including airfield and terminal revenues). The revenue for commercial development is budgeted at around 3% higher than the previous year."
—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

Q&A

The critical nature of airport city financing.

With a highly dynamic global economy seeing fast moving shifts in resources and planning, PwC wanted to learn how leaders in the field felt airport city financing was developing.

PwC: Has your airport city financing gone as planned? If not, how has it developed differently?

"Thanks to our 'A' S&P rating–and strong demand for loans to key airport groups and infrastructure operators–financing has not been an issue at all. Although Schiphol Group has always preferred to finance itself in debt markets, via bonds and private placements, we have experienced great willingness to provide us with bank financing at very attractive terms."
—Pieter Verboom, CFO, Schiphol International Group

"The financing for commercial development projects has gone as planned where projects are funded through DFW's capital improvement fund. Traditionally, DFW has utilized internally generated funds for commercial development and has not issued bonds. This was due to the provision contained in the prior lease agreement with airlines. Under the new lease agreement, beginning with FY 2011, more financing flexibility will be available for commercial development projects."
—John Fegan, CEO, Dallas-Ft. Worth International Airport

"Commercial development around the airport at Memphis in our airport city is in private hands rather than in the airport's hands. So although we are involved in economic development of the airport city, we don't control it. And we don't finance it. But we have complete control over development and financing of everything in the airport."
—Larry Cox, CEO, Memphis International Airport

"Financing is critical to the success of our airport city. The airport company of Ekurhuleni is 100% owned by the government. But it is a stand-alone company… so it runs as a business…with the land and buildings owned by the state. Private individuals own the areas around us, so the challenge is to get their buy-in to the vision. The role of the state is to show they can guide the development and invest in the infrastructure that was originally built for a smaller community."
—Abdul Mogale, Ekurhuleni, South Africa

"The Kuala Lumpur Airport started off owned 100% by the government. But it is now on the Kuala Lumpur stock exchange…with the government owning about 65% through the investment arm. Since we started the privatization process, we raise a lot more funds on our own, from private sources. We provide initial infrastructure and then bring in investors."
—Wan Mohd Fauzi Wan Nawang, Senior Manager, Marketing & Business, Land Development Department, Malaysia Airports, Kuala Lumpur, Malaysia

Q&A

Airport cities and the bottom line

Airports serve numerous crucial public and private missions and often they do not have to generate profits, but airport cities are different. PwC wanted to hear from the experts what role profitability plays in their airport city planning and management.

PwC: Do your airport city operations generate a profit or loss? If a profit, has this allowed for capital improvements to your airport that would not otherwise have been possible?

"In particular, the non-regulated, non-aviation activities (including retail, passenger services, parking, real estate and the international business) have generated sufficient profits to enable us to expand the airport city. The profitability and returns in the regulated part of our business has over the years been below the regulated rate of return. However, we are able to keep investing in aviation activities to have sufficient capacity and services when we need them. The high quality of our reasonably priced airport operations and services attract the right customers and businesses…to generate more non-aviation revenue and profits. At the same time, the non-aviation activities are very supportive for the aviation business."—Pieter Verboom, CFO, Schiphol International Group

"Under the prior use agreement (DFW's lease agreement with its signatory airlines), commercial development did not generate a net profit for DFW since the agreement required that indirect costs be allocated on an acre basis. The net shortfall was recovered via landing fees. The indirect allocation method has been changed under the new agreement. It is expected that Commercial Development will generate a net profit of approximately $8 million in FY 2011. This does not include natural gas royalties expected to be $15 to $20 million annually."—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"We don't have shareholders and a for-profit motive….Actually, the way we operate our airport, its a breakeven and so our revenues are essentially leveled. We take all of our non-airline revenue and apply that to the expenses of the airport. And then whatever the difference is between those revenues and what it takes to cover all the expenses of the airport, we charge the airlines landing fees, terminal building fees and ground rental fees. The goal is not to increase total revenue, but just to increase non-airline revenue…to keep rates and charges low for airlines. This is an incentive for airlines to add flights and bring more activity to the airport—which adds more employment and more economic development in the airport city as well as the community. In addition, having more non-airline revenue gives us a greater ability to fund infrastructure…allowing us to continue to expand and improve the airport without the costs of the airport going up."—Larry Cox, CEO, Memphis International Airport

"We run financial analysis to determine if the capital outlay of the airport will result in at least a 10% ROI….For commercial development in the industrial, logistics and freight forwarders fields, the range is usually between 10 and 20%. For mixed use like restaurants, retail, hospitality and entertainment, we are seeing in the range of mid 20 up to 200%. There was a lot of debate about whether airport cities could be that profitable. We are seeing such a huge return that Dallas and Ft. Worth want us to move forward as quickly as we can because they don't receive money until there is revenue to tax. In the next 20 years, we can generate $400 million a year in taxes."—John Terrell, VP of Commercial Development, Dallas-Ft. Worth Airport-based

Clearly, land development both inside and outside the gate is increasingly providing double digit returns to airports, so airport cities certainly contribute to the profitability of the airport. But they also contribute both short term and long term to the economic viability of the region.

Q&A

Public private partnerships (PPPs) and airport cities

Although levels of financial involvement differ from airport city to airport city, public-private partnerships are important for a number of reasons. This includes dealing with a sometimes volatile financial market, which represents a borrowing handicap for the private sector, selective economic stimulus plans on the part of governments, and a need for the sort of collaboration that will move projects forward without unnecessary hurdles. PwC requested that our group of airport leaders discuss how private sources can contribute to development.

PwC: Do private sources finance any of your airport city development?

"Schipol Group is a non-listed NV with four shareholders, of which three are governments. In some of our real estate investments, we have private groups participating via a real estate investment fund. In the retail business at our airport, we have concession-holders that are required to make their own investments in the outlets at our airport."—Pieter Verboom, CFO, Schiphol International Group

"It's really too early to tell. We are going to work to earn the best return on our investment for the airport. Europe has heavily privatized most of their significant airport assets and the U.S. has not."—John Ackerman, COO, Denver International Airport

"Private sources typically finance tenant improvements such as vertical construction. In DFW's International Commerce Park, approximately $39 million of investment can be attributed to DFW capital financing, while the estimated capital investment by developers and operators in their buildings is about $250 million."—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"About 10% of the operating expenses at our airport is covered by private sources. For example, when we do a new concession program, we require them to make a substantial investment in their facilities and periodically update them…to provide the best revenue to us…so that private capital is in our concession programs."—Larry Cox, CEO, Memphis International Airport

"We are offering incentives to partners…which is why we are having an investors conference later this year—with both domestic and international investors. The advantage of international investors is that some will come with established skills honed working in places like Schipol or Denver."—Abdul Mogale, Ekurhuleni, South Africa

"We would prefer third parties to come in and develop, including inside the fence. What I am offering is a world-class infrastructure, a green field city development that will have good traffic conditions, proper security, water supply and waste disposal. All the best practices will be brought in and provided."—S.G.K. Kishore, CEO, Hyderabad Airport Property Development, India

"We will work in a couple of ways to give incentives for a particular development to come out: either give rent abatements or not have the rent kick in for a year or two. It gives them an advantage since otherwise they would have to purchase property and start payments immediately. If we can delay their payments until they have income, that helps companies locate at the airport. Also, if they need some specialized infrastructure, we can help with that. But the bottom line is we will not lose money to attract somebody."—John Terrell, VP of Commercial Development, Dallas-Ft. Worth Airport

Private sector support with safety and environmental matters

Public-Private Partnerships are crucial to successful airport city development, and private firms have shown a real willingness to ensure the overall "political viability" of airport cities. For example, the private sector has shown a willingness to participate in the enforcement of safety and security. Ways to do this include establishing regional PPP security programs (such as the one promoted by the Port of Houston) and sharing the burden of enforcement to more evenly allocate overall costs. The private sector has also shown a willingness to participate in the implementation of sound environmental practices, including by supporting PPP programs that set realistic short-term and long-term strategies and sharing technological advances to promote sound environmental practices.

The global economy and financing airport cities

"Airports have unique qualities that make them a good investment, including their potential for high growth and resilience.…Our airports – Sydney, Copenhagen and Brussels – continue to grow traffic, revenue and earnings in the face of the depreciation of the Euro, adverse weather conditions and the eruption of the Icelandic volcano."
—Kerrie Mather, CEO, MAP

The unpredictable challenges facing the global economy continue to impact airport city development. Understanding the contribution of an airport city towards the economic growth of both an airport and its surrounding economic region is crucial. Airport city-type operations offer attractive supplemental revenue which can support non-revenue generating, but essential, investments at airports. To cut risks, investors look for a number of things in an airport city: location in growth markets with reasonably modern infrastructure, transportation networks, and uncomplicated land-use agreements. Other crucial factors include enabling legislation such as tax incentives, the capacity to introduce businesses with high returns, a lack of turf wars and reduced red tape. With these factors in place an airport city can grow beyond providing "supplemental" income to become a self-sustaining and stand alone business.

Some things to consider before embarking on non-aeronautical land development projects.

Enabling legislation including tax incentives, the capacity to introduce businesses with high returns and risk-sharing opportunities are all central to successful efforts. A relative lack of turf wars, inter-jurisdictional squabbles, and red tape are crucial as well.

Q&A

The global economy and airport cities

PwC spoke with our international experts on how the economic difficulties of the past few years have impacted their planning and development.

PwC: How has the state of the global economy affected the financing of your airport city and airport cities in general?

"We only witnessed truly challenging debt market conditions in the weeks immediately after the collapse of Lehman Brothers. Despite this pivotal event, thanks to our "A" S&P rating, the debt market remained open to us. Financing conditions for the overall airport sector and Schiphol improved sharply during 2009 and improved even more in 2010."—Pieter Verboom, CFO, Schiphol International Group

"With our traffic off only about 2% in 2009, we outperformed our peer airports. And 2010 was a record year for us. But like everybody else, the capital markets are more difficult than in years past. And since we are in the initial stages of our airport city, the downturn isn't really impacting our planning."—John Ackerman, COO, Denver International Airport

"The global economic slowdown has affected the pace of commercial development at DFW, particularly with regard to tenant financing. Some projects have been put on hold."—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"We have been impacted just like every community and every airport I am aware of. We had the impact of the recession, fewer flights and lower revenues. But it's coming back. Our cargo grew almost 6% in 2010."—Larry Cox, CEO, Memphis International Airport

Local flavor at international airport cities

Airport cities are increasingly working local food and products, designs and themes into their facilities to better reflect their region, reports USA TODAY. It is a way to not only distinguish themselves from airports that can look and feel similar to each other but also achieve an advantage in the intense competition for air services and attendant revenue. "The airport needs to serve as the mouthpiece or showcase for tourism and business within the city and the region," says Mark Gale, CEO of Philadelphia International Airport. "It's the old cliché: It's the first and last thing (a traveler sees). And sometimes, it's the only thing. It's important to make a statement."

And so Raleigh-Durham International features a sloping stainless steel structure designed by North Carolina-born architect Curtis Fentress to recall the Piedmont mountains that cover much of the state. On the other side of the country, Los Angeles International now features local food and regional cuisine as well as retail stores with locally produced goods. In fact,when new concession contracts were offered in certain terminals in October of 2010, airport officials proclaimed that "almost all" would feature a Southern California flavor or angle.

"I thought it was very important to reflect flavors of L.A.," says Gina Marie Lindsey, Executive Director of Los Angeles World Airports, a city agency that runs the airport. "There is a tremendous amount of diversity in L.A."

For five years Minneapolis-St. Paul Airport has wooed businesses and now about half its restaurants have local ties. Sales per passenger at the airport, where travelers can try local walleye fish, have risen about 15% during the period, says John Greer, Assistant Director of Concession.

The localization strategy isn't suitable for all airports: those that mostly cater to transit traffic, such as Atlanta or Detroit, will want to feature brands their visitors recognize, and having obviously local concepts matters less than execution and quality. But the trend of injecting a more local flavor into airports and airport cities is just one more demonstration of how when done right, these transportation hubs can become communal spaces that bring together the local community and those "just passing through."

Q&A

Providing incentives and closing contracts

International experts were asked by PwC to explain where contracting stands from their perspective and what role "incentives" can play in closing contracts.

PwC: Is your airport successfully closing contracts with businesses? Does it take additional incentives to do so now?

"We have seen a few changes in the retail area but they did not affect our overall earnings potential since they were mainly involved in optimizing services and product offerings. In 2010, our profits in retail increased significantly. In real estate, we have seen contract renewals and new contracts that included temporary incentives to our customers."—Pieter Verboom, CFO, Schiphol International Group

"DFW is proceeding with commercial development deals, but some deals have needed to be restructured…and others included incentives. The terms vary by how important it is for a tenant to be located here."—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"We haven't had anybody of any significance leave. We've still got all of our major tenants…all of our airlines. We feel pretty solid and have not had to offer incentives. Of course, one of the reasons is that we have two major customers (FedEx and Delta) which themselves are an incentive for other companies to remain here or to grow here."—Larry Cox, CEO, Memphis International Airport

Q&A

Demand for traditional airport services and respective development

Regardless of region or economic conditions, it is clear that for an airport city to structure the right deal at the right time, it must utilize a vision that is vetted politically and by the community. It also must be based on a complete understanding of the short and long-term project challenges and opportunities–and ultimately create the best incentives for the investment community. Experts were asked by PwC to explain if they have seen shifts in what people and companies are demanding from an airport and how that has affected their plans.

PwC: Has demand for traditional airport services changed in the last 2-3 years? If so, how has this affected your plans for airport city development?

"To stay highly competitive, continue to win many traveler awards and remain Europe's preferred airport requires upgrading existing services and introducing new services all the time. In fact, new services that enrich the overall passenger experience need to be an integral part of the airport city development plans."— Pieter Verboom, CFO, Schiphol International Group

"The economic slowdown has affected conventional sources of revenue at DFW… causing diversification of non-airline revenue sources to become more critical as a strategy."—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"There's pressure on us from our customers–particularly the airlines–to manage our expenses so that their costs don't go up. We've answered that challenge by freezing hiring, not filling certain vacant positions and carefully managing day-to-day and travel expenses…keeping our costs low and in line with revenues."— Larry Cox, CEO, Memphis International Airport

Solutions: financing strategies to build and sustain airport cities

Private capital from global sources is now playing a serious role in airport city development. The relatively distressed state of economies around the world has resulted in reduced tax receipts and increased deficits. Public Private Partnerships are therefore stepping in and leading the way, often with reduced local restrictions on foreign investment.

How can airports minimize the financial risks associated with building large commercial infrastructure projects?

Airports around the globe have had a range of experiences regarding the profitability, predictability and risks associated with building their airport city operations. All must overcome institutional barriers in order to lower project and operating costs to be successful. This can be done in a number of ways, including putting the correct incentives in place for the various stakeholders. Rising capital costs, especially infrastructure costs, can often be shared with developers and investors. Indeed, spreading around the construction risk and demand risk of a large capital investment outside the gate, providing better financial engineering mechanisms to address borrowing costs, creating incentives to attract synergistic businesses to the airport, rewarding accelerated project implementation and providing tax incentives are also all crucial components in successfully financing and developing an airport city.

In what has become an increasingly interdependent global economy, the future of airport cities is in the process of being written. But there is little doubt that they represent a central trend in the future development of airports throughout the world, often providing high and resilient growth potential, especially with an active management model, and in such a way they can deliver high returns for our investors over time.

Maximize airport city value

When airports come to modernise and expand their terminal facilities, it is a good idea for them to look at ways they can maximize the value of those assets by developing retail and concessions. Retail space and concessions, along with office space and parking facilities, are very central to maximizing profitability at an airport. Retail space at an airport is intrinsically the most valuable real estate of the airport space. Maximizing the returns of this space through smart concession allocation has become both an art and a science.

Q&A

Potential challenges—and meeting them

Speaking with experts in the field allowed PwC to gain strong insight into how they perceive the potential challenges to the well-being of airport cities.

PwC: What are the biggest challenges facing the financing of your airport city? How might that change in the future?

"Large investments in new facilities is a difficult subject to discuss with airlines. They do not always agree with capacity expansion projects–particularly if they may not have a need. Certain large investments in the future–such as an additional terminal or runway–may require convincing both airlines and investors on the merits."—Pieter Verboom, CFO, Schiphol International Group

"Tax-sharing inter-local agreements (that provide for sharing tax revenues generated by on-airport activities between multiple stakeholder municipalities) are a significant challenge facing certain areas of DFW's commercial development growth. Additional challenges are tenant ground-lease based financing, requests for incentives and how we can ensure projections of revenues in order to fund future capital programs."—Jeff Fegan, CEO, Dallas-Ft. Worth International Airport

"I think the challenge is the overall uncertainty in the economy, which then trickles down to the bond markets. As the stock market continues to rise, money is shifted from bonds into stocks. So there's less liquidity in the bond markets. This benefits the yields that issuers (like airports and cities) have to pay–which means the cost of funding our projects becomes more expensive."—Scott Brockman, COO, Memphis International Airport

"The biggest challenges are the unknown factors–such as 911, United's bankruptcy, if a carrier dehubs–the things you can't prevent. So we build such a conservative plan that even if another such setback was to occur, it would not derail us." — Kim Day, Manager of Aviation, Denver International Airport

Review

A summary of the important points emerging from the interviews PwC conducted with international leaders in the Airport Cities field include:

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PwC and airport cities

PwC delivers a fully integrated service offering to airports ranging from support on capital projects to airport operations strategy and support. Our capital projects work addresses the entire project life cycle of the project by bringing together diverse functional and sector expertise on a global basis. Our experience spans the planning, analysis, execution and governance and reporting for large capital programs and our professionals also possess public private partnership experience on both the public and commercial side, regulatory expertise, fund structuring and deal expertise. PwC operations support leverages our depth of knowledge in systems analysis, security, operational improvement, and change.

About the author

Sotiris Pagdadis, Ph.D, is a principal in PwC's Advisory practice and is the PwC New York Metro Capital Projects & Infrastructure (CP&I) leader. He can be reached at (646) 471-5483 or (917) 655-9490 or via email at: sotiris.pagdadis@us.pwc.com

Pagdadis has over 25 years of experience consulting with top executives in public and private sector infrastructure management around the globe. Sotiris has helped clients manage the complexities associated with public-private partnerships, privatization, capital development and capital improvements. His expertise in project due-diligence includes: masterplan and infrastructure assessment, capital project financing, value analysis, risk assessment and analysis, lifecycle analysis, and technology assessment.

Prior to joining PwC, Sotiris was founder and president of the Lambousa Infrastructures Consultancy Group where he pioneered a risk-based management review and project appraisal methodology. He previously served as Managing Director of the Transportation Infrastructure Practice at McKenna Long and Aldridge, LLP, focusing on governmental affairs, procurement advocacy, public-private partnerships and privatization. Earlier he was world-wide vice president of public sector transportation at CA, Inc. There he advised government agencies and private sector clients globally, creating best-of-breed solutions for some of the most prestigious airport and seaport authorities around the world in the areas of asset and portfolio management, services management, and security command and control.

A few examples of Sotiris' client experience includes:

- Conducting a conceptual stage risk assessment for financing a new terminal for dominant airport authority in Europe;
- Advising the Government of Cyprus in establishing PPP Concessions nation-wide in public transport.
- Developing risk management plans and project finance alternatives for the International Arrivals Building at JFK International Airport;
- Conducting the financial and technical risk analysis of the AirTrain for the Port Authority of New York and New Jersey.
- Advising a multi-national concessionaire on capital investment plans for a dominant power generation facility in Malaysia;
- Developing a risk-based, financial model for a prestigious public agency to formulate a 20-year transportation business strategy in electronic tolls collection;
- Conducting a risk assessment and reviewing IT requirements for the largest E911 system in the USA, including security and systems integration;
- Developing decision models for the largest government utility agency in Canada to develop project finance strategies for their water system;
- Conducting a five-year risk and reliability assessment of all MTA subway systems in New York; and
- Providing strategic support for the formation of an IT Security network for the Athens Olympic Games.

Sotiris was trained as an aerospace engineer. After receiving his Doctorate degree in Project Management from The University of Texas at Austin, he went on to become a university professor at the Polytechnic Institute of NYU, followed by advisory roles at Columbia University and the New Jersey Institute of Technology. He is the founder of ECOSFUND, a philanthropic organization providing subject matter expertise to grass roots organizations throughout Sub-Saharan Africa. He was awarded The Order of Alec for outstanding leadership from The University of Texas at Austin in 1984. He is extensively published and regularly appears as a guest speaker at conferences.

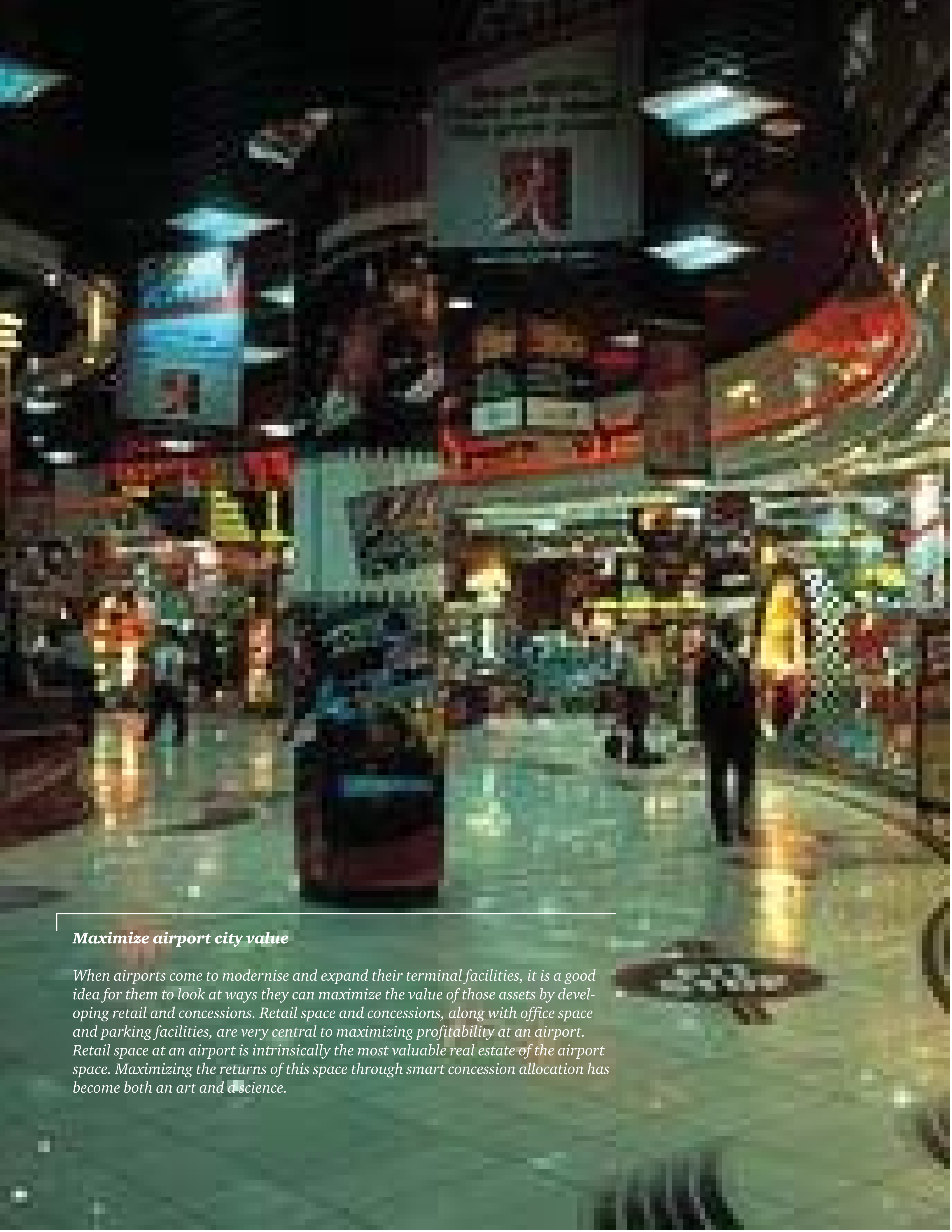
www.pwc.com/us/capitalprojects

Catching great art down at your local...airport

As airports and airport cities continue to expand and offer visitors much more than just a means of getting to and from far flung destinations, we are starting to see world-class art cropping up at their facilities.

For example, officials state that Denver International Airport was one of the first airports in the United States to integrate art into its public spaces, with 30 permanent art exhibits now on display, including 9,000 pound piece "Mustang," a 32-foot tall, bright blue, cast fiberglass horse sculpture with gleaming red eyes by New Mexico artist Luis Jiménez. And Sacramento International Airport may be a mid-sized airport but that has not limited its artistic ambitions. They have a piece called "Samson" by artist Brian Goggin, which consists of two 23-foot tall pillars made from 1,400 pieces of luggage stacked on two wheeled carts. The work appears to hold up the ceiling, although steel beams attached to the airport's existing columns keep the structure sturdy. "It does exactly what great public art is supposed to do: Create a sense of fun and whimsy in a normally utilitarian place," said airport spokeswoman Karen Doron. And Miami International Airport, the largest U.S. gateway for Latin America and the Caribbean has a piece called "Ghost Palms" by artist Norie Sato which takes its inspiration from the ubiquitous palm trees that populate the Miami-Dade County landscape.

Airport as an art gallery: but why not? It is yet just another example of how what used to be mere transportation hubs are becoming so much more. And with hundreds of millions of people passing through them every year, airports are a perfect place to provide travelers—and local citizens —an opportunity to marvel at and revel in the international language of artistic expression…just as long as they don't miss their connection.



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