

CHAPTER 5

FINANCIAL AND MANAGEMENT STRATEGIES

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1. BUSINESS MODELS

In North America there are four main business models used by airport sponsors for developing and operating cargo facilities:

- Airport development -- development and management of the property by the airport sponsor.
- Tenant development -- development and management of the property by the carrier or handling company (i.e. GHA's / integrators) that subsequently occupies the facility.
- Third-party development -- development and management of the property by a third party, under contract with the airport sponsor, who subsequently leases the facility to others.
- Joint venture - shared development and management of the property by the public and private sectors or shared development and management by a combination or consortium of air carriers.

2. AIRPORT'S GOALS AND OBJECTIVES

Financing and related management alternatives for cargo development should be determined in the context of the airport sponsor's goals and objectives. Therefore, the airport sponsor should first determine and prioritize its specific goals and objectives. The following is a list of factors to be considered:

Potential to Generate Discretionary Cash Flow.

For airports with compensatory ratemaking methodologies, a cargo cost center that generates net operating revenues can contribute to the airport's net cash flow, thereby providing a source of funding for other aviation improvements.

Lowest Cost to Tenants.

Under certain circumstances, airport sponsors can provide tax-exempt financing for cargo development. Tax-exempt financing can reduce annual debt costs and is among the lowest cost financing options available. Some forms of conventional private sector financing can be structured to achieve lower annual cost to tenants than tax-exempt financing. For example, the private developer may elect to amortize the facility cost over the term of the ground lease, which is usually longer than the amortization period for the debt, in order to produce lower tenant rents. Also, if the private developer uses internal capital there may be greater flexibility over the length of the amortization period. The longer the amortization period, the lower the annual costs.

Preservation of Debt Capacity.

Airport sponsors that have major terminal and airfield requirements may need to preserve debt capacity for these more essential improvements that are typically financed by airports, and rely on private sector funding for cargo and other less essential development (e.g., general aviation, fuel systems, etc.). If the preservation of debt capacity is a concern to an airport, the use of debt financing should be prioritized in relation to the airport's long-term capital improvement program.

Reduce Passenger Airline Rentals, Fees, and Charges.

For airports with a residual airline rate methodology, cargo development that generates positive net cash flow can help to reduce passenger airline rentals, fees, and charges, provided that cargo net revenues are applied as a credit against airline rates and charges. In addition, landing fees paid by all-cargo carriers can also offset passenger airline landing fees at both residual and compensatory airports. Cargo net revenues can also be used to fund airport improvements, thereby reducing an airport's reliance on debt financing, resulting in lower airline costs.

Provide opportunities for privatization.

A number of communities have come under political pressure to privatize some or all of their airport operations. Private sector development of cargo facilities may be one means to address such political pressure while maintaining public sector control over other, more essential and critical aviation functions such as the airfield, apron and terminal complex.

Creation and/or Retention of Jobs in the Local Economy.

Recently, a primary impetus to cargo development has been to create employment opportunities for the local economy. This can be accomplished by serving as a hub in a cargo or express carrier's system or by simply providing sufficient capacity to accommodate the cargo demands of one's own community so businesses can expand and prosper without having the expense of trucking materials in from another nearby airport. This goal can be achieved under almost any financing scenario.

Maintain control over land uses and facilities.

An airport led development provides the greatest control over activities such as the determination of initial land uses and the flexibility to change land uses in later years in response to events or shifts in demand. If considering a third-party development, a significant amount of control in these areas may be retained with appropriate provisions and protections added to the ground lease.

Administrative Burden.

If an airport is considering cargo development, an assessment of the related administrative burdens should be incorporated into the decision-making process. Airport staffing responsibilities for facility financing, bidding, design, construction oversight, marketing, ongoing maintenance, administration and management are greater under airport development than tenant or third-party development.

Avoid unnecessary risks.

Cargo development can entail more financial risk for the airport sponsor than tenant or third-party development. Financial risks are determined by the local economic conditions, changing demand for cargo facilities, technology advances, on-going capital improvements to keep the facility competitive, industry volatility and the scarcity of cargo facilities at the airport or competing airports.

The following matrix provides a guide for selecting a business model based on an airport's assessment and prioritization of goals and objectives. Because the joint venture model is a hybrid between the airport development and private sector models, it may provide an appropriate "middle ground" position for an airport sponsor.

SELECTING A BUSINESS MODEL FOR CARGO DEVELOPMENT

Goals and Objectives	Airport	Tenant	Third-party	Joint venture
Generate discretionary cash flow	X			
Lowest cost to tenants	X			
Maintain/enhance coverage	X			
Preserve debt capacity	X	X	X	X
Reduce airline rates and charges	X			
Provide opportunities for privatization		X	X	X
Create and retain jobs	X	X	X	X
Maintain control	X			
Limit airport administrative burden		X	X	
Avoid unnecessary risks		X	X	

Note: X denotes the model that successfully addresses the specific objective.

3. FINANCIAL CONSIDERATIONS

3.1 Public Sector Financing

There are three main types of tax-exempt financing available for cargo development, all of which must be issued by the airport sponsor.

1. General Obligation Bonds

General Obligation (G.O.) bonds are secured by the full faith and credit of the issuing governmental entity, including the general tax revenues of the governmental entity. The debt service requirements for G.O. bonds issued to fund airport improvements are most often paid from revenues of the airport, and not the other revenues of the issuing entity. However, if airport revenues are not sufficient to pay the debt service requirements, the airport owner may be required to use its general tax revenues as a back-up source to pay the debt service requirements.

Because of the generally higher credit quality associated with this type of obligation, G.O. bonds carry the lowest interest rates of bonds. However, G.O. bond financings are usually preserved for public buildings such as passenger terminals and facilities providing broad access to an airport such as terminal ramps, runways, roadways, and parking rather than more restricted use facilities such as cargo buildings. Cargo buildings and ramps that serve the public by accepting and delivering cargo for shippers and consignees can be treated as public facilities (i.e., cargo terminals).

Very few large airports have outstanding G.O. bonds. At those airports, the debt in most cases was issued many years ago to fund capital improvements. However, in general, governmental entities that own small airports are more likely to make this type of bond financing available. The main advantages of G.O. bond financings are that G.O. bonds usually carry lower interest costs than revenue bonds because they are backed by the full faith and credit of the city, county or state that owns the airport; bond issuance costs are often lower with G.O. bonds than with revenue bonds because it is not necessary to develop a separate indenture or ordinance, financial feasibility study, and other legal and financial documents; and there are usually no debt service coverage requirements related to a G.O. bond issue, due to the strength of the G.O. bond credit backed by the general revenues of the city, county, or state owner of an airport.

2. Revenue Bonds

Revenue bonds are the most commonly used financing mechanism for airport capital improvements. Revenue bonds are usually secured by the revenues of the entire airport (or, if the airport is owned by an authority, the revenues of the authority). Revenue bonds that are secured by the revenues of an airport are usually called General Airport Revenue Bonds (GARBs). The revenue pledge for GARBs include revenues from airline rates and charges, public parking, rental car concessions and other fees, terminal concession fees, other lease revenues, and other types of revenues generated by the airport. Revenue bonds issued by an authority (such as a port authority) that owns an airport are generally secured by all revenues of the authority, including all revenues generated by the airport. Revenue bonds are more frequently used to finance multi-tenant facilities rather than exclusive use cargo facilities.

The following examples illustrate the use of revenue bond financing for cargo development.

- The Massachusetts Port Authority (Massport) constructed several cargo buildings at Boston Logan International Airport (BOS), which were financed with revenue bonds secured by Massport revenues. Demand for the facilities continues to be strong given the scarcity of land and facilities at BOS. Massport adjusts the rental rates annually to recover all associated costs, including coverage on the revenue bonds.
- In 1992, Allegheny County, owner and operator of Pittsburgh International Airport, issued GARBs to construct a cargo facility for a single tenant, USAir. The County and USAir entered into a 30-year exclusive use lease for the facility. The issuance of GARBs for the USAir cargo facility required airline MII approval under the terms of the airline operating agreement and terminal leases.
- The Port Authority of New York and New Jersey has issued Consolidated Bonds, which are secured by the general revenues of the Port Authority, to fund capital improvement costs at all of its facilities, including its airports and the cargo facilities at its airports.

3. Special Facility Bonds

Special Facility Bonds are backed by the dedicated revenue stream of the particular facility financed with the bonds. The types of airport facilities usually financed with special facility bonds include rental car facilities; cargo buildings, hangars, and maintenance facilities; and passenger terminal buildings and ground equipment support facilities for the exclusive use of one or more airlines. In this type of financing, a governmental entity (usually the airport owner or a quasi-governmental entity such as an industrial development agency) typically issues the bonds, and the rent revenue from the facilities is pledged for the payment of the debt service requirements.

The airport sponsor is usually not at risk if the tenant cannot make debt service payments. The rating for these bonds is based on the financial strength of the tenant or guarantees of the third-party sponsor. Because the rating is not based on the financial strength of the airport or its owner, these bonds carry a higher interest rate than revenue bonds.

The strength of the pledged revenue stream may vary greatly from airport to airport depending on several factors, including:

- The number and financial strength of the facility tenants
- The strength of the market for cargo facilities

- The demand for cargo space on airport property

At the large express cargo hubs in Louisville International Airport (SDF) and Memphis International Airport (MEM), cargo processing facilities have been built primarily through special facility bond financing secured by United Parcel Service (at SDF) and Federal Express (at MEM). However, at both airports, revenue bonds were also issued for airfield, land acquisition and other related facilities. In both instances, the revenues received from the cargo carriers have contributed to the payment of debt service on the revenue bonds that financed cargo facilities. The presence of FedEx at MEM has resulted in lower landing fees, partly due to the airport's cost center residual ratemaking methodology.

3.2 Other Public Sector Funds

In addition to debt financing, an airport sponsor can dedicate internally generated funds (airport discretionary cash) to cargo development as well as Airport Improvement Program (AIP) grants and Passenger Facility Charges (PFCs) to non-exclusive use cargo aprons. In accordance with the DOT Policy on Airport Rates and Charges, an airport sponsor can recover the costs of its investment in such facilities, net of grants and PFCs.

i. Airport Improvement Program (AIP) Grants

The FAA issues AIP grants to construct and maintain infrastructure projects that increase the capacity, safety and security at airports across the United States. The FAA assigns the highest priority for AIP funding to safety and security projects. The grants are issued in the form of entitlement grants and discretionary grants.

Airfield projects, including aprons and taxiways connecting aprons to the runway system, are generally eligible for AIP funding. Aprons cannot be exclusively leased and cannot serve facilities exclusively leased to a single tenant. In addition, aprons and related taxiways constructed for the use of a tenant that does not serve the public are not eligible. Aircraft rescue and firefighting buildings and buildings for storage of snow removal equipment are eligible. Passenger terminals have limited AIP eligibility. Hangars and other buildings are generally ineligible, with one exception: non-revenue producing facilities or equipment owned by an airport and used for transferring passengers, cargo or baggage between aeronautical and ground transportation modes are eligible.

If cargo related capital improvements include airside projects such as taxiways and/or aircraft aprons, those project costs could be AIP grant eligible. Improvements, such as an aircraft parking ramp, could not be designed to serve a single tenant because then they would be considered by the FAA to be exclusive use facilities, and therefore ineligible for AIP grant funding. If an airport is contemplating significant future projects related to a passenger terminal complex and associated airfield improvements, it would not be advantageous to use AIP discretionary grant funds for cargo-related improvements, since it will likely want to preserve its AIP grant funding for eligible projects related to the passenger terminal and related airfield projects. The FAA encourages AIP cargo entitlements to be used for projects benefitting air cargo activity, and these funds could be used for airside projects to support air cargo activity, as long as the projects are not used by tenants on an exclusive use basis.

In summary, construction of aprons to support new cargo facility development would be eligible for AIP funding if the aprons are not leased on an exclusive-use basis and do not serve exclusive-use facilities.

ii. Passenger Facility Charges (PFCs)

PFCs are fees imposed by an airport, per enplaned passenger at commercial airports controlled by public agencies. Airports can use PFCs to pay for specific projects approved by the Federal Aviation Administration (FAA). According to federal statutes and regulations, PFC projects must (1) preserve or enhance safety, security, or capacity of the national air transportation system; (2) reduce noise or mitigate noise impacts resulting from an airport; or (3) furnish opportunities for enhanced competition between or among air carriers. In addition, to qualify for funding at the highest level, PFC projects must make a significant contribution to (1) improving air safety and security; (2) increasing competition among air carriers; (3) reducing current or anticipated congestion; or (4) reducing the impact of aviation noise on people living near the Airport.

An airport can use PFCs on a “Pay-as-you-Go” basis (PAYGO), it can leverage part of its PFC revenue stream, or it can do a combination of both. Leveraging PFCs can be advantageous to an airport when it has one or more PFC-eligible capital projects with significant capital outlays projected to occur during a short period of time. By issuing bonds backed by PFCs, an airport can obtain needed funding in the short term, and then pay the debt service on the bonds over time as PFCs are received by the airport.

There are several ways an airport can leverage its PFC revenues:

- Bonds secured solely by PFC revenues (“stand-alone PFC bonds”). In this type of bond financing, PFC revenues are not included in airport revenues, and are dedicated for the payment of debt service on the bonds. There have not been any stand-alone PFC bonds issued in recent years.
- GARBs, with PFC revenues included in the definition of airport revenues. Under this structure, PFC revenues are combined with other airport revenues for the purpose of paying eligible PFC debt service on the GARBs.
- PFC Bonds with a back-up pledge of general airport revenues. With this type of financing, the airport issues bonds secured by PFC revenues, with a secondary pledge of general airport revenues (often called “double barreled PFC bonds”).

Depending on the scope of a cargo project, certain components could be eligible for PFC funding. However, as noted in the subsection on AIP grants, the Airport would likely want to preserve its PFC funding for airfield and passenger terminal project costs, especially in light of the potential redevelopment of the passenger terminal complex and related airfield configuration.

3.3 Private Sector Financing

There are numerous private sector financing alternatives due to the variety of entities that participate in the market. There is a wide array of lending sources, including commercial banks, pension funds, and insurance companies. Access to these sources is limited by the financial strength of the carrier or third-party developer seeking debt financing.

Several private firms have extensive experience in developing and leasing/managing air cargo facilities at airports. Projects included in these firms’ portfolios range from the planning, construction, leasing, and managing of air cargo facilities on land leased from the airport owner, to the purchase and rehabilitation and/or renovation, leasing, and managing of existing air cargo facilities at airports.

A typical financing strategy for capital improvement projects will likely include the issuance of bonds by the airport owner or a development authority (usually referred to as “the Issuer”). In these types of transactions, the Issuer typically loans the bond proceeds to an entity established by the private developer (referred to

in this chapter as “the Company”), for the purpose of building the air cargo facilities. The Loan Agreement between the Issuer and the Company typically requires the Company to pay to the Issuer the costs associated with the bonds, including the principal and interest obligations of the bonds. The Airport typically retains title of the financed facilities, and the Company enters into a Lease Agreement with the Airport. The Company then subleases the air cargo facilities to various tenants. The Company’s obligations under the Loan Agreement and/or Lease Agreement are payable from the rents the Company received from the air cargo facility tenants. Often, the Company’s obligations under the Loan Agreement and/or Lease Agreement are secured by a mortgage given to the Issuer or a Trustee. A Ground Lease is usually executed for the land upon which the project is located, pursuant to which the Company pays to the airport owner lease payments for the land.

Examples of air cargo facilities financed through bonds issued by a development authority include the following:

- Connecticut Development Authority, Industrial Development Revenue Bonds, Series 2000 – for the financing of cargo facilities developed at Bradley International Airport
- Industrial Development Authority of the City of Kansas City, Missouri, Air Cargo Facility Senior Revenue Bonds and Air Cargo Facility Subordinate Revenue Bonds, Series 1995A and 1995B, and Series 1997
- Alaska Industrial Development and Export Authority Revenue Bonds, Series 2001
- Maryland Economic Development Corporation Air Cargo Revenue Bonds, Series 1999
- New Jersey Economic Development Authority

There are a number of active private developers of air cargo facilities in North America. They typically compete for development opportunities through competitive solicitation processes. These private entities have developed and/or manage cargo facilities at numerous airports including major gateways as well as small to mid-size facilities. Their diverse development experience can often bring new and creative approaches to project financing to a project.

The private financing of cargo facilities debt can be advantageous in several ways, including the following:

Flexibility

Often, private financings can be tailored to meet the specific objectives of a cargo development program. For example, the primary objective of an airport might be to create cargo infrastructure at the lowest possible rental rates, in order to be competitive in the marketplace. To achieve this objective, the developer could amortize the cost of the facility over the length of the ground lease (often 30 to 40 years) even though the debt is financed over a shorter period, resulting in reduced rental rates for the tenants. Note that with a longer ground lease, the developer can reduce the costs that flow through to tenants and users. Also, private developers often are better able to secure short-term financings, which typically carry lower interest rates. However, the risk inherent in using short-term financings is that the private entity could be exposed to significant interest rate fluctuations.

Expediency

In some instances, private financing can be secured more rapidly than public financing, particularly if the private entity has lines of credit already established.

Conserve Public Capital

Use of private sector capital conserves public capital for those areas where public funding is the only alternative. To preserve resources, more airports are exploring the use of private sector funding for cargo development.

3.4 Comparative Costs of Finance

The potential financial advantage of public sector development over other forms of cargo development is the access to tax-exempt financing at lower interest rates, particularly for GARBs and aviation facility bonds. However, public sector financing mechanisms have the following special requirements that can dilute the interest rate savings:

- *A debt service reserve* (equal to one year's principal and interest) and an operating reserve (usually equal to two or three months' operating expenses) requirement. Typically, the debt service reserve is funded from bond proceeds, thereby increasing the size of the issue. Interest earnings on the reserve while bonds are outstanding can be credited against annual debt service and the balance can be applied against the final year debt service.
- *Debt service coverage*. The bond issuer is usually required to demonstrate a specified level of debt service coverage typically equal to 1.25 times annual debt service. Depending on the terms of the airport's bond indenture and airline use agreements, this coverage either (a) can be funded once (in the first year of occupancy or prior to occupancy) and then rolled over to demonstrate coverage each year or (b) may have to be funded each year through cargo rentals.

3.5 Generation of Cash Flow

There are several ways for cargo development to generate cash flow for an airport, including:

- Land rentals (valued at "historical cost" in accordance with the DOT Policy on Airport Rates and Charges).
- Recovery of debt service coverage.
- Amortization charges if the cargo development is funded from airport discretionary funds. When an airport sponsor uses its own funds to construct cargo facilities, it can recover this capital through amortization charges over the expected useful life of the facilities.
- Landing fee and ramp fee revenue from all-cargo carriers.
- Percentages of vertical rent
- Percentages of service fees within the facility

3.6 Coverage Dilution/Enhancement

Compensatory airports typically need to demonstrate debt service coverage above 1.25 times to access municipal markets. Most investment bankers recommend maintaining coverage above 1.5 for these airports. Therefore, if a compensatory airport's coverage is relatively low it may not be advisable to finance cargo improvements with GARBs, particularly if cargo rentals are set to generate net revenue below the airport average coverage level (typically 1.25 times). Under these circumstances, the financing could jeopardize the credit rating of the airport as a whole. If so, other financing approaches such as special

facility bonds, tenant or third-party financing, should be explored. Compensatory airports that fund cargo improvements with capital account monies rather than through debt issues can enhance the airport's coverage through the recovery of amortization charges.

3.7 MII Approval

Residual cost airports typically must obtain airline majority-in-interest (MI) approval before proceeding with GARB-financing of cargo improvements unless the cargo cost center is outside the airline purview. To obtain MI approval, the airport sponsor must typically demonstrate long-term lease commitments and full cost recovery (and possibly incremental revenue).

4. RISKS OF DEVELOPMENT

There can be both economic and political consequences to developing cargo facilities in a changing and dynamic market.

If a facility is developed to accommodate expected long-term demand, it is unlikely to be fully occupied immediately after construction. Vacancies could generate pressure to accept tenants under lease conditions that are less than fully favorable to the airport sponsor. For example, the airport may not be able to set rentals to fully recover all costs if market rates are lower. If the expected demand does not materialize, it could result in permanently vacant space. On the other hand, if cargo facilities are developed to accommodate only near-term demand, future growth may render the facilities inadequate and result in revenue losses and dissatisfied customers.

When an airport sponsor develops a facility, it assumes these risks. When a tenant or third-party developer develops a facility, the risks are shifted from the airport sponsor in exchange for an expected profit, while the airport sponsor foregoes potential revenue to avoid the costs and risks of development.

Technology enhancements to the cargo handling process and carrier operational changes can quickly make a facility obsolete or, at a minimum, less efficient for carriers. The result is additional capital requirements to modernize the facilities.

5. RATING EVALUATION CONSIDERATIONS

In analyzing debt, a rating agency looks at general operations and management procedures, capital planning and expansion projects, airport utilization trends, security provisions, environmental issues, and the service area economy, as well as the airlines serving the airport. In rating debt of airports that have a major air cargo component, the rating agency also focuses on the financial, capital, and environmental planning issues associated with the development of air cargo operations.

Air cargo development can have an overall positive effect on the airport's credit rating, if the cargo development is anticipated to generate positive net revenues. An airport can often benefit financially through ground rents for cargo facility improvements, associated landing fees, and revenue from support functions. Revenues generated from air cargo activities at an airport can also demonstrate the diversity of the airport's revenue stream. The development of air cargo facilities can also be viewed as very positive to the extent it stimulates local and regional economic development, which strengthens the demand for, and potentially reduces the cost of air travel at the airport.

6. CARGO FACILITY DEVELOPMENT CONSIDERATIONS

When contemplating potential air cargo development, an airport sponsor should consider the compatibility of increased cargo operations with the airport's existing facilities and passenger airline operations. This includes long-term assessments of both physical and social environmental compatibility with the surrounding community.

Airports eager to attract cargo operators for their projected positive financial and economic impact should carefully weigh the costs in light of the anticipated benefits. This includes an accurate assessment of the cost of facilities needed, the impact of cargo operations, especially express package hubs, or mini-hubs on runway capacity and useful life, regional trucking activity, as well as the environmental impact of potential round-the-clock operations, and related maintenance and noise mitigation costs. Additionally, airports should look at the increased day-to-day management responsibilities and costs associated with growing cargo operations.

Other important considerations include:

- *The market for cargo facilities in the airport service area.*
- *The availability of infrastructure to serve cargo development or the ability to finance such infrastructure.* Site and infrastructure development refers to the development of areas such as airfield aprons, roadways, utilities, telecommunications and common parking. Infrastructure may also include container freight stations, ramp level offices with easy access to the airside, as well as road or rail access for ground distribution. Infrastructure also includes customs clearance capabilities for international cargo. Improvements such as cargo community systems (CCS) to provide visibility and real-time tracking are becoming more common. If not already in place, these components could prove very costly for the airport to develop.

Approaches to site and infrastructure development vary widely depending on factors such as the philosophy of capital investment, the availability of land and capital, the extent of existing development, and the approach to cost recovery. Airports that wish to minimize risk tend to leave infrastructure development to the tenant or third-party developer. Airports that wish to maximize flexibility and control tend to provide the infrastructure development. The costs of infrastructure, other than aircraft aprons, are typically recovered through ground rents. The costs of the apron are usually recovered through aircraft parking fees. Cargo buildings with direct access to aircraft aprons typically have higher rental rates, reflecting the benefit of this access.

- *Compatibility of cargo operations with other airport uses and the surrounding community.* Traditional air cargo moves at night and potentially has higher noise impacts in residential areas than do daytime operations. Express cargo tends to move at the end of the business day, and this may complement an airport's role as a passenger hub. However, express cargo carriers may compete with passenger airlines and strain runway capacity, as well as ramp and road access, especially at major package sorting hubs. Levels of service on accessing roadways should also be carefully considered.
- *The revenue pledge securing / supporting the debt and the financial resources of the tenants.*

7. PRICING OF FACILITIES

7.1 Rate Base Elements

Costs that can be included in the rental rate base for cargo facilities include:

- *Debt service (and required coverage if applicable)*
- *Land rental (based on historical cost, net of grants and PFCs)*
- *Direct operating expenses (maintenance, repairs, insurance, cleaning, common area costs, etc.)*
- *Allocable indirect operating expenses (administration, ARFF, roadway, security, utilities, insurance, etc.)*
- *Infrastructure necessary to support the facility (tug roads, access roads, cargo ramps, employee and truck parking, equipment storage areas, fuel systems, deicing facilities, apron lighting, etc.)*

There are 4 types of rentals and fees typically charged for cargo facilities:

- *Building rentals to recover capital and operating costs associated with the cargo building, including allocable indirect operating costs.*
- *Utility costs if not directly billed by the utility company.*
- *Ground rentals to recover site and infrastructure costs, including truck docks and public vehicular parking areas.*
- *Apron fees to recover the costs of the cargo apron if not included in the landing fee rate base.*

7.2 DOT Policy on Airport Rates and Charges

DOT and FAA policy on airport rates and charges differentiate between the airfield, other aeronautical facilities and non-aeronautical facilities owned by an airport. For the airfield (runways, taxiways and cargo aprons), airport sponsors are limited to recovering historic costs for aeronautical use. Aeronautical uses include "services provided by air carriers related directly and substantially to the movement of passengers, baggage, mail and cargo. Persons, whether individuals or businesses, engaged in aeronautical uses involving the operation of aircraft, are considered aeronautical users". For other aeronautical facilities, fees may be set on the basis of market rates, rather than historic costs, but may also use historic costs. For non-aeronautical facilities, airports must set fees on the basis of market rates.

The distinction between the airfield and other aeronautical facilities was originally an element of the FAA and DOT Airport Rates and Charges Policy adopted in 1996. A court decision held that DOT had not adequately justified the distinction and ordered it vacated. Through a series of decisions on individual disputes over airport fees, DOT has restored the distinction, as reflected in the FAA's Airport Compliance Manual, Order 5190.6B (2009).

Many airport sponsors in North America price cargo facilities (building rentals, apron fees, ground rentals, truck dock and employee parking fees, etc.) on the basis of market rates rather than historical cost, particularly for older facilities, which are fully amortized or nearly fully amortized. In fact, third party or private operators typically price cargo facilities on the basis of what the market will accept. Therefore, private operators will not be constrained by the Policy while airport sponsors who develop or operate cargo facilities will be required to comply with the new pricing restrictions.

As a practical matter, the policy will constrain airport sponsors in setting rates only for cargo aprons and taxiways used to access cargo facilities. For other facilities, airport sponsors can (or must) use a fair market value basis. There are, however constraints. The DOT policy also provides that the progressive

accumulation of substantial amounts of surplus aeronautical revenue may trigger an inquiry into whether the sponsors rates and charges are consistent with the reasonableness requirement. The DOT policy does not preclude generation of any surpluses, and explicitly recognizes the need for airports to finance capital, as well as operating costs.

In addition, airport sponsors are subject to restrictions on the use of airport revenue. Airport revenue may only be used for the capital or operating costs of the airport, the local airport system or other facilities directly and substantially related to air transportation. This requirement means that although an airport sponsor can generate surplus revenue (revenue in excess of its operating costs), it can do so only to the extent that the surplus revenue is needed for current or future capital investment needs at the airport, the local airport system or other facilities directly and substantially related to air transportation. The policies on rates and charges and revenue use do not define precisely the extent to which airports may generate and hold surplus revenue in anticipation of future capital needs.

Taken together, the two policies can discourage an airport sponsor from developing cargo facilities on its own to enhance revenues and thereby generate surplus revenue. These restrictions apply even if a private developer generates profits and an airport sponsor participates in some of those profits. Third party developers typically are not in the business of transporting cargo or freight, and therefore, the development would be considered non-aeronautical. Thus, the fees charged by the sponsor, including any share of the developer's revenue or profits, could be based on fair market value. However, any revenue earned by the sponsor from the third-party development would be considered airport revenue, which is subject to the revenue use restrictions, and such revenue might be considered by the FAA in evaluating whether the airport sponsor was generating excess surplus revenue.

8. DEVELOPMENT TIMELINE/IMPACT ON SCHEDULE

The development of facilities by an airport sponsor usually requires more time than private development. Preparation and negotiation of a lease with a tenant or third-party developer can take six months or longer for airports that have no prior experience in such transactions, but can take less time for airports where the sponsor has prior experience. Leases to tenant or third-party developers (and sometimes attendant Development Agreements) are usually considerably longer and include detailed plans for development and use of the land. Therefore, the lease should contain the standard provisions of a tenant lease, plus a full range of additional provisions such as:

- *Facility design and construction*
- *Reversion of facilities to the airport sponsor*
- *Buyout of the remaining leasehold by the airport sponsor*
- *Development and performance standards*

The airport sponsor should also carefully research the development background, financial strength (capital, net assets, credit rating), and references of the specific developer given the long-term nature of the lease.

On the other hand, preparing and negotiating a lease under airport development usually has little effect on the development schedule and is less complicated. In addition, tenant and third-party leases must be negotiated before development can begin, while airport development can occur in parallel with construction if the airport is willing to take the risk that negotiations will be successful. The additional time required for implementing tenant or third-party development includes allowances for a competitive selection process if required.

It often takes longer to bid and design a facility under airport development than under private development. This is due to the time required to follow government procurement procedures. The magnitude of the time difference depends on the length of the airport's procurement process and the experience of the private entity. Additional time-savings can be realized if a tenant or third party uses a design-build process. Constructing the facility usually takes the same amount of time under each model.

9. CONTROL OF LAND USE AND FACILITIES

9.1 Land Use

An airport retains the most control over land uses occurring on property that it develops, in particular, the authority to determine initial land uses and the flexibility to change land uses in later years in response to events or shifts in demand. Under tenant or third-party development, an airport's control of land uses is frozen for the term of the lease unless appropriate protections are incorporated into the ground lease. Initial uses are set by the terms of the lease, but the airport loses its flexibility without proper ground lease provisions to change land uses in later years as necessary.

Specifying allowed and prohibited uses in the ground lease is essential to maintaining control of the use of airport land.

9.2 Lease Term

Tenant and third-party developers usually require long-term leases in order to finance and/or amortize their investment. In the case of long-term leases, the airport sponsor should include a buyout option so the use of the land is not frozen for the term of the lease. However, buyouts often require a substantial cash outlay, depending on the age of the facilities, to regain control of the land.

Most airport land leases, including land leases for cargo facilities, contain a clause providing that the leasehold improvements (buildings and other facilities constructed by the lessee/developer on the leased land) will transition (revert) to the landlord (the airport owner). Therefore, the length of the lease term is an important consideration for any private entity considering whether to enter into a land lease with the intent of constructing improvements on the land. The private entity will have to depreciate the full value of the improvements over the term of the lease. Therefore, the term of a lease must be long enough to enable the private developer to amortize or depreciate its capital investment.

A review of recent business deals for cargo facilities at airports indicates that a lease term of 25 to 30 years is common. However, it is not uncommon for a developer to seek a longer lease term in consideration for a better financial deal for the airport. For example, a developer often proposes a longer lease term in consideration for a greater financial return to the airport. It is noted that due to concerns about the potential short lease term for cargo facility development at JFK, the lease documents provided that in the event the Port Authority's Master Lease with the City was not extended prior to expiration, the City would enter into a lease with the developer to extend the cargo facility lease for an additional 13 years so that the cargo facility could continue to operate. This was considered by the developer to be a critical provision to realize a reasonable return on its investment.

The issue of lease term length for cargo facility development has also been effectively addressed through the creative use of lease extension options. For example, Ted Stevens Anchorage International Airport (ANC) negotiated a lease agreement for the development of a cargo facility on a 20-acre parcel of land.

The lease term was 35 years, with four options to extend the lease, each option being five years, thereby resulting in a potential lease term of 55 years.

A creative approach to the challenges related to the reversion of leasehold improvements was implemented by the Monroe County Airport in New York (BMG). BMG negotiated a land lease with a private entity, which agreed to develop a 29,000 square foot hangar complex, which was completed in 1994. The lease has a 20-year term, with a 10-year option for renewal, after which the hangar complex will revert to BMG. However, the lease allows the tenant to retain a portion of ownership in the facility. BMG becomes vested in the facility at a rate of 2.5 percent per year. This means that at the end of 30 years (assuming the 10-year renewal option is exercised), the tenant will own at least 25 percent of the facility. BMG has since used this lease structure to attract other types of development, including a flight training center with seven offices, which was constructed in 1998, and a corporate flight complex, which was constructed in 2000.

Because most leases provide for the reversion of leasehold improvements to the airport at the end of the lease term, it is desirable to an airport to include in the lease, clear provisions regarding required facility upkeep and reversion requirements. Otherwise, the lessee may have limited incentive to perform maintenance and upkeep on the facilities during the term of the lease. The airport owner should ensure that the lease provides cure provisions for problems, and enables the airport owner or its representative to enforce required maintenance and upkeep schedules and standards.

9.3 Ground Rent During Construction

Normally, a land lease that involves the development of a cargo or other facilities will specify a certain time period during which the construction of the facilities must be conducted. To be effective, the lease should provide for the termination of the lease if the facility has not been constructed within the specified time period. This protects the airport owner from having land tied up under a ground lease for extended periods, without any facilities being developed.

From the developer's perspective, the land rent during construction should be at a reduced rate, or waived altogether. The developers argue that such a provision enhances the financial viability of the project because it reduces their cash outlay during construction, and increases their return on investment. Perhaps more importantly it reduces the costs that eventually flow through to the tenant.

9.4 Competition With Existing Facilities

An excess of similar facilities at an airport will have the effect of diluting the demand for those types of facilities. Private developers of air cargo facilities, for example, have an interest in ensuring that there will not be excess cargo facilities at the same airport that will compete with the new facilities to attract tenants. This can be problematic, particularly if there are other cargo facilities at the airport that are older and command lower rental rates. Some tenants will prefer to rent the older facilities, even if they are less efficient from an operational standpoint, if the rent is substantially less than the newly developed facilities. This type of situation can undercut the rent producing potential of the new facilities, and will negatively affect the developer's return on investment (and incentive to build). The creation of joint marketing agreements can mitigate some of these concerns.

9.5 Facility Use and Maintenance

An airport often has less control over the management and maintenance of privately developed facilities, compared to facilities developed by the airport. Therefore, it is important that specific standards be included in the agreement with the private developer and operator. In the case of privately managed cargo facilities,

the airport sponsor has to work through the developer rather than directly with the tenants. However, in a multi-tenant facility it may be easier to coordinate through a developer than with a multitude of small tenants.

For all cargo facilities, whether developed and operated privately or publicly, the legal agreements should include strict provisions regarding the handling of hazardous substances and compliance with rules, regulations, and local codes, including financial penalties. This is particularly important in obtaining compliance with local environmental rules and regulations and holding parties responsible for the costs of environmental remediation.

9.6 Tenancies

An airport sponsor's control of tenancies depends on the lease provisions negotiated and the degree to which this control is exercised. Approval of sub-tenancies by the airport sponsor should be part of the standard lease in facilities that the sponsor develops as well as those developed by tenants and third-party developers. Any such agreements should address the potential for a percentage of revenue sharing for the airport above a certain threshold.

9.7 Facility Design

An airport sponsor can control the design of a facility developed by a tenant or third party as closely as a facility it develops if it imposes stringent lease provisions, reviews the developer's design carefully, and enforces its design standards. The ground lease should include provisions on formal design guidelines, regular construction inspection, and approvals of all designs and modifications.

9.8 Guidelines for Airport Control of Commercial Rights

The following provisions are recommended to preserve the rights of an airport to direct and influence the commercial aspects of its air cargo program.

1. The right to develop air cargo facilities on the airport should be non-exclusive; unless there are extraordinary reasons, no third-party (airline or developer) should be granted exclusive control to develop or lease the entire or a majority of the inventory of an airport's air cargo facilities. The airport should maintain its option to either develop or lease cargo facilities itself and/or to award the right to a series of third-parties to develop cargo facilities on a non-exclusive basis.
2. The airport should maintain a market based rental structure in its leases for on-airport cargo facilities to either generate discretionary revenues under its airport operating agreement with the passenger airlines, if possible, and/or to maintain the financial viability for third-party developers to develop and lease cargo facilities (i.e., a cost based rental structure may preclude the option of attracting a third-party developer to develop and lease cargo facilities).
3. The airport should control the rate of commercial development to maintain market rates by timing the development or redevelopment of cargo facilities to minimize a shortage or excess of vacant facilities and cargo space.
4. The airport should establish and maintain the right to approve the rental rate structure charged tenants of third-party controlled facilities to ensure that discounting or artificially lower rates are not permitted that erode an airport's market rental structure. Rates should be comparable for like type facilities (i.e., age, size, utility, location, etc.)

5. The airport must control the commercial access to the airfield ramps to ensure off-airport cargo tenants are not able to by-pass the on-airport cargo facilities and deliver cargo directly to aircraft. Permitting such an activity by off-airport tenants may erode both the market rental structure and the financial viability of on-airport cargo facilities. In other words, the on-airport tenants have paid a premium for the direct access to aircraft while the off-airport tenants have not.
6. As the airport gains title to and control of third-party developed facilities at the expiration of the developer's lease with the airport, the term of that lease and financial offer made by the developer should be linked, perhaps as a bid item in the airport's solicitation, to optimize the best financial return for the airport over the shortest period of time. As the airport stands to gain significant increased revenues when it assumes title and control of these facilities (assuming they were well maintained), the term of the original developer lease needs to be linked directly with the developer's final offer (i.e., lease terms of 30 to 40 years should not be granted absent a quantified financial benefit).
7. The airport should establish and maintain the right of advanced approval of all tenant leases in third-party developed facilities and the activity to be conducted under the lease. All rights of such tenant leases should be subordinate to the lease between the airport and the developer.
8. The tenant activities on the cargo facility premises should be limited to the handling, storage, distribution, and forwarding of air cargo goods or activities expressly authorized by the airport such as fueling, ground handling, and/or servicing of cargo aircraft, subject to the airport's rules and regulations. No other commercial activities should be permitted without the written approval of the airport. The lease between the airport and the developer should obligate the developer to enforce these provisions on its own premises and allow the airport to audit at their discretion.
9. The lease or use of aircraft parking apron space should have a direct relationship to any adjacent cargo building space and such aircraft ramp should be made available on either a common use or preferential use basis and not on an exclusive use basis. Essentially granting a lease of apron space for non-tenant aircraft may harm the marketing of space in the building if a new tenant requires both building space and an aircraft parking position. Common or preferential aircraft parking provisions provide far greater flexibility to the airport in the use of this expensive and scarce resource and yet can be fashioned to support the needs of building tenants first (i.e., no storage of out of service aircraft or equipment).
10. The airport should guarantee access to tenant or developer-controlled aircraft ramps, without charge, to parties under contract to the airport to fuel and service aircraft or handle the air cargo of airport tenants, provided such parties have insurance acceptable to the airport and proper indemnifications have been provided.
11. The airport should establish and maintain its right to approve all assignments and leasehold mortgages in advance. The assignment or sale of a developer or tenant lease should be contingent on requiring the successor to be bound by all of the terms and conditions of the lease, require the conclusion of satisfactory negotiations with the airport, if necessary, and require some financial test of fitness.

10.COMMON USE - AN EVOLVING CONCEPT

Increases in cargo volumes due to e-commerce have changed the goods movement landscape. Forecasts for the next decade (barring anomalous activities or geopolitical conflicts) continue to indicate robust growth. Capacity at many airports will be challenged as consumer demand for next day delivery and global reach expands. To optimize throughput in a cargo building, the model of a common-use facility is becoming more prevalent. Under this concept the facility is developed or operated by a single entity and handles multiple clients on a fee for services basis. This differs from a multi-tenant facility in which different users have small leaseholds in the building. The single managing entity and elimination of internal separations for tenants creates a more efficient operation, increasing staff and equipment productivity, and extending the life of the facility.

Airports can improve their chances of handling high value verticals such as e-commerce and perishables by developing specialized nonaligned facilities with services available to all carriers and forwarders. Leading enticements to stakeholders are:

1. specialized facilities equipped to handle high value verticals
2. automated common use freight terminals
3. integrator facilities
4. availability of high-quality cargo handling services
5. truck marshalling / slot management system
6. ample freighter parking
7. hydrant fueling
8. cargo community systems to link stakeholder information
9. onsite CBP facility
10. access to highway systems

11.AIRPORT STAFFING REQUIREMENTS

Airport staffing to handle financing, bidding, design, construction oversight, marketing, management, administration and maintenance is greater under airport development than under tenant and third-party development. The number of staff needed depends on (a) the number and type (single tenant versus multi-tenant versus common use) of facilities developed, (b) whether the airport has a policy of constructing the particular types of building to expedite design and review processes, (c) the condition of existing infrastructure, and (d) the amount of work performed by others under contract.

There are three categories of staffing requirements:

1. Tasks performed by airport sponsor regardless of who develops the property:
 - *Design review and approval (initial construction and ongoing modifications)*
 - *Construction oversight*
 - *Lease development and negotiation (ground lease if tenant third party, tenant leases if airport developed)*
 - *Monitoring of leased sites*
 - *Revenue and cost accounting (for ground lease if third party developed or for all tenant leases if airport developed)*

2. Tasks performed only if airport sponsor develops the property. If a tenant or third-party develops the facility, they perform these tasks:
 - *Solicitation and review of construction proposals*
 - *Financing*
 - *Insuring functions*
 - *Marketing*
 - *Leasing*
 - *Facility operations and maintenance and related accounting functions*
 - *Tenant billing and collections*
 - *Capital improvements (scheduled and unscheduled)*

3. Tasks performed only if tenant or third-party develops the property.
 - *Solicitation and review of development proposals if a competitive bid scenario is required*

12. STANDARD LEASE TERMS AND CONDITIONS

The following standard lease terms and conditions should be included in cargo facility leases:

- Facility design and construction
- Activities permitted/prohibited/required (on land/buildings)
- Rental rate/rate base elements (procedures for adjusting)
- Ramp use and management (as appropriate)
- Payment provisions
- Subleasing/assignment
- Nondiscrimination
- Airport sponsor access and rights to inspection
- Taxes and licenses
- Improvements and alterations
- Reversion of facilities to airport sponsor (condition)
- Lease buyout
- Indemnity (airport held harmless)
- Insurance requirements
- Signage
- Use of demised premises
- Ownership of improvements
- Maintenance of demised premises
- Restrictions and regulations
- Default and termination
- Cure provisions
- Attorney's fees
- Hazardous and other regulated substances
- Airfield security
- Business tax registration
- Disabled access
- Section 308 exclusivity
- Rights of United States government
- War and national emergency
- Other agreements not affected

- Notices

Each airport typically has its own specific contract language that addresses these and other airport-specific provisions.