Capital Intensive Assets and Cross-Border Lease Transactions

By Richard K. Ellsworth

Cross-border lease transactions have gained popularity with operators of complex facilities. Regardless of their application, however, they capitalize on tax law differences, feature common asset characteristics, and involve major appraisal issues.

Cross-border lease financing has become an established financial product that has increasingly become available to a larger universe of asset operators as the number of successful transactions and the asset types involved in these transactions continues to expand.

Historically, United States cross-border lease transactions have been popular with operators of rail and aircraft equipment, but recently, cross-border lease transactions have gained popularity with the operators of complex facilities. Attracted by the benefits associated with these transactions, operators of major utility and infrastructure assets as well as large manufacturing facilities are expressing an increasing interest toward this type of lease financing.

Although the assets associated with cross-border lease transactions are highly diverse, they share a number of common characteristics. This article discusses the common characteristics attributable to the assets involved with U.S. cross-border lease transactions, along with the significant appraisal issues associated with these transactions.

CROSS-BORDER LEASE TRANSACTIONS

Cross-border lease transactions generally seek to take advantage of tax law differences between the two countries involved in the transaction. Because countries may have different ways of distinguishing between a lease and a secured loan, it is possible for a transaction to be structured so that it is treated as a lease in the lessor's country and a secured loan in the lessee's country. In this situation each party to the transaction would be considered the owner of the asset in its respective country and each party would be per-

mitted to recognize depreciation or amortization deductions for the same asset. These transactions may result in the lessee paying less rent when compared with a normal operating lease because the lessor generally transfers a portion of the economic benefit back to the lessee.

A cross-border lease transaction can also furnish a capital infusion to the operator that provides funds for activities such as the retirement of debt obligations, improvement in its financial situation, or investment in new capital projects. Taxpaying lessors are also generally able to utilize either the depreciation benefits associated with asset ownership or the amortization benefits associated with a leasehold interest in an asset more efficiently than entities that are either tax-exempt or expected to experience financial losses for a number of years into the future.

U.S. CROSS-BORDER LEASE TRANSACTIONS

For U.S. cross-border lease transactions, the lease-leaseback and sale-leaseback structures are currently popular. Because of the complexity of the tax and accounting regulations in the United States, along with the regulations of an asset operator's foreign jurisdiction, U.S. cross-border lease transactions require a highly skilled team of transaction advisors to ensure a sound tax and economic structure. The United States has recently has been the largest market for cross-border lease transactions, with rolling stock, aircraft, and facilities being the most popular assets.

U.S. cross-border lease transactions have historically focused on movable equipment assets including aircraft and rail equipment. Because these assets were movable and hence usable by other operators, they avoided several issues that facility transactors were forced to resolve before a facility transaction could be successfully completed. The real estate aspect of a facility created several problems. For example, in some foreign jurisdictions a lessor could be considered to have established a permanent business presence in the foreign country and hence become liable for local income tax.

Additionally, in some foreign jurisdictions, legal hurdles existed with regard to foreigners owning or leasing real estate. The legal and financial advisors eventually resolved the structural issues associated with facility transactions, resulting in the 1994 closing of the first U.S. cross-border lease transaction involving the EPZ Amer 9 facility, a Dutch coal-fired electric generating plant.

Since the closing of the first facility-based cross-border lease transaction, additional cross-border lease transactions have been completed involving coal-fired and gas-fired electric generating facilities, hydroelectric generating facilities, waste-to-energy facilities, and electric transmission assets. In addition to the aforementioned electricity industry assets, maintenance facilities, office buildings, gas distribution networks, wastewater treatment facilities, pulp and paper manufacturing facilities, and a steel processing facility have figured in successful cross-border lease transactions. As can be seen from these transactions, the assets for which cross-border lease transactions have been successfully completed are diverse.

ASSET CHARACTERISTICS

U.S. cross-border lease transaction structures require a long lease term to be financially attractive. Consequently, the primary common characteristic of the assets subject to cross-border lease transactions is the expectation of a long useful life. The requirement of a long expected useful life results in assets that share a number of additional common characteristics including:

- Large capital requirements
- Reliance upon proven technology
- Presence in core infrastructure industries
- Stable and predictable demand for the product or service

An explanation of these characteristics will help to clarify the commonality among these assets and the factors that contribute to the expectation of a long useful life for them.

The assets subject to cross-border lease transactions generally require large investments of capital.

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The demand for the product or service delivered by the asset should be stable and predictable.

For instance, the cost of a large coal-fired power plant or a hydroelectric facility can easily exceed $1 billion. Although the cost of rolling stock equipment is smaller on an individual car basis, a large rail operator may require hundreds of cars for its rail fleet. Because these assets are big-ticket purchases that require significant capital investment, they are unlikely to be replaced frequently and hence possess the expectation that they will have a long useful life.

Proven Technology

The assets involved in these lease transactions rely on proven technology. The technology utilized in coal-fired boilers has evolved over a long period of time, so further technology changes would be expected to occur on an incremental basis. Additionally, given the large capital investment required for these assets, it would not be fiscally responsible to invest significant quantities of capital if the asset is expected to become obsolete in a short period of time due to technological changes. Thus, these asset types utilize well-developed, proven technology that is changing on an evolutionary rather than a revolutionary basis.

These assets are employed in core infrastructure industries such as public transportation, energy supply, waste disposal, and waste treatment. These industries have historically operated on a monopolistic or oligopolistic basis, so there is limited competition. The electric utility industry is expected to change, though, as open access will create a more competitive industry. However, the demand for electricity is expected to remain stable or increase in most countries.

The demand for the product or service delivered by the asset is stable and predictable. The treatment of wastewater and the disposal of municipal solid waste obviously correspond to the underlying population and level of commercial activity within a service region. Electricity demand is more strongly related to the level of economic activity: Large industrial electricity users generally comprise a larger percentage of the demand base and are more influenced by the swings in the business cycle. In general, though, the demand for these products or services provided by the aforementioned industries will be relatively unaffected by changes in economic activity.

APPRAISAL LEASE REQUIREMENTS

Regardless of whether the asset is an aircraft or a complex facility, investors in U.S. lease transactions must generally address a number of specific items to qualify as a true lease for federal tax purposes and thus fully realize the benefits of a lease transaction. Appraisers are generally relied upon to provide opinions to assist tax counsel in satisfying true lease criteria. From an appraisal perspective, the following major items must be addressed in the appraisal report with regard to the asset subject to the lease transaction:

- Useful life
- Fair market value
- Residual value
- Nonlimited use property

The assets being considered for U.S. cross-border lease transactions should be considered within the framework of these appraisal requirements.

USEFUL LIFE

Useful life is an important consideration in cross-border lease transactions because the maximum lease term is a percentage of an asset's remaining useful life. The useful life of an asset can vary depending on factors such as its underlying technology, asset specifications, and the maintenance and repair policy of the asset operator. Useful life information can be developed from a number of sources including the historical study of the operator's experience with the asset or similar assets, the examination of industry information pertaining to asset mortality characteristics, useful life publications, and the design specifications for the asset. For complex facilities, engineers with knowledge of the asset may be consulted with regard to their opinion of useful life. To qualify as a lease transaction for U.S. tax purpos-

es, the maximum lease term is generally limited to 80 percent of the expected remaining useful life for an asset.

FAIR MARKET VALUE

According to accepted valuation principles, the development of fair market value considers the three accepted valuation approaches: the cost approach, the market approach, and the discounted cash flow approach. A valuation conclusion results from considering these three approaches.

Cost Approach

The cost approach considers the value of an asset in terms of the investment in current labor and materials required to assemble an asset possessing comparable utility to the asset subject to the appraisal. The underlying principle with the cost approach is the principle of substitution as an indicator of value. Comparable utility implies similar functionality and economic satisfaction but does not necessarily require that the comparable asset be an exact duplicate of the subject asset. A comparable asset is perceived as equivalent to the subject asset if it possesses similar utility.

Market Approach

The market approach is based on the observation of actual market transactions involving similar assets between buyers and sellers to establish a value for an asset. After gathering market transactions concerning similar assets, adjustments are made to the transaction information to reflect differences such as market conditions, transaction terms, size, location, transaction date, and physical characteristics between the subject asset and the observed comparable asset transactions.

The market price of the comparable transactions can then be converted to a common unit of measure such as price per output capacity or price per unit. An indication of asset value can then be developed by considering the productive capacity of the asset and the price per unit of productive capacity derived from the market transactions. The market comparable approach thus provides a relatively straightforward characterization of how potential asset purchasers perceive value.

Discounted Cash Flow Approach

The discounted cash flow approach measures the present worth of the expected future economic benefits in the form of cash flows associated with asset ownership. The expected future cash flows are projected over the remaining useful life of the asset and then converted to present value using a discount rate. The rate used to discount the future cash flows should consider the risks inherent in ownership of the asset and adequately compensate the investor for the risks assumed. The sum of the discounted cash flows generated by the asset provides an indication of asset value.

RESIDUAL VALUE

To qualify as a true lease for U.S. tax purposes, the residual value of an asset at the end of the lease term, without consideration of inflation or deflation, should generally exceed 20 percent of the asset value at lease inception. If a significant number of market transactions involving assets of similar utility can be identified, a determination of asset value at various stages in its life cycle can be developed. However, for many assets a limited secondary market exists from which to examine market data for the purpose of developing residual value estimates, so residual value estimates are generally derived using the cost approach and the discounted cash flow approach.

With the cost approach, residual value is established by first developing an asset's replacement cost new, which represents the current cost of a new asset possessing the nearest equivalent utility to the appraised asset. After being placed in service, an asset begins to deteriorate due to wear and tear as well as exposure to the elements. The reduction in value from replacement cost new represents the decline of available service from the asset as it ages and its service has been consumed due to operational use.

Residual value estimates generally use the cost approach and the discounted cash flow approach.

For a true lease, it must be feasible for someone other than the lessee to operate the asset commercially.

With the discounted cash flow approach, asset residual value on an uninflated basis is calculated by removing inflation factors from the asset's expected cash flows. Asset revenue and expense projections are presented in a manner consistent with the cash flows developed in the original asset valuation except that inflation adjustments are excluded from the projections. Inflation expectations are also removed from the discount rate by adjusting the risk-free and corporate bond rates to an inflation free basis. The inflation free cash flows are discounted at an uninflated discount rate to estimate the uninflated residual value of the asset. The uninflated residual value is then compared with the asset value at lease inception to determine if the residual value test (greater than 20 percent of asset value at the inception of the lease) is satisfied to qualify as a true lease for U.S. tax purposes.

LIMITED USE

Another important consideration in a cross-border lease transaction is the issue of limited use property. For the lease to be considered a true lease for U.S. tax purposes, it must be economically and commercially feasible for someone other than the lessee to operate the asset commercially. Generally, it is necessary to establish that a pool of potential operators other than the original operator would have a commercial interest in operating the asset as well as possess the ability to operate the asset on an economic basis. Additionally, the potential operators should have the technical knowledge and business acumen to operate the asset.

ILLUSTRATIVE EXAMPLE

A hypothetical new 500-megawatt coal-fired electric generating facility illustrates the previously discussed appraisal requirements.

In performing a valuation for lease transaction purposes, the first step is to establish facility useful life, given that the maximum lease term is a function of useful life. Rev. Proc. 75-21 requires that the lease term must be less than or equal to 80 percent of the facility's expected useful life to qualify as a lease transaction. Giving consideration to historical experience with large coal-fired power plants and the likelihood of a life extension program, a reasonable expectation of useful life is 60 years for a new facility. Therefore, a new coal-fired facility with an expected useful life of 60 years would have a maximum lease term of 48 years.

The valuation of a coal-fired electric generating facility is approached by examining the three generally accepted valuation methods: the cost approach, the market approach and the discounted cash flow approach. A valuation conclusion is reached after considering these approaches. A review of electric utility industry information for construction costs associated with coal-fired power plants indicates that $700 million would be required to construct a new coal-fired plant.

Recent electric generating facility transactions have included facilities relying on coal, gas, oil, and hydroelectric sources to produce electricity. Most of the recent transactions have involved facility portfolios with a mixture of fuel sources. However, the Energy East and the GPU transactions involved older coal-fired electric generating facilities similar to the subject facility with an approximate purchase price range between $650 and $950 per kilowatt of generating capacity for coal-fired facilities. Unfortunately, sufficient information from which to develop a meaningful market based indication of value has historically been unavailable from these transactions.

As electric generating facilities increasingly change hands, the market transactions may become a stronger indicator of facility value. The discounted cash flow approach indicated a value of $750 million. Because the market approach identified recent market transactions with strong comparability to the subject facility and considering the ability of the discounted cash flow approach to model the expected financial performance of the facility, greater emphasis was placed on the value indications from these two approaches. After considering the results from the cost

approach and the discounted cash flow approach, the facility value is concluded to be $730 million.

The facility residual value at the end of the lease term—without considering any increase or decrease for inflation or deflation—is developed using the cost approach and the discounted cash flow approach. With the discounted cash flow approach, the facility residual value is by discounting the expected cash flows available beyond the lease term without regard for inflation or deflation. Based on the discounted cash flow analysis, the facility residual value at the end of the lease term is calculated to be $168 million (23 percent of facility value at lease inception). Similarly, with the cost approach, the facility residual value is determined to be $153 million (21 percent of facility value at lease inception). Therefore, facility residual value without regard for inflation or deflation is calculated to be at least 20 percent of facility fair market value.

CONCLUSION

The universe of assets suitable for cross-border lease transactions is expanding as knowledge concerning the financial benefits of these leasing structures becomes more widespread among asset operators and financial arrangers. Lease financing has become an established product with a proven track record involving a variety of assets. Industry knowledge and experience developed through numerous completed transactions has opened the door to the possibility of lease financing for a larger universe of assets.

The engagement of professional appraisers and other advisors with facility transaction experience is critical in successfully closing lease transactions involving complex facilities.

Completed cross-border lease transactions have encompassed a diverse array of assets that share some common characteristics. Investors generally seek assets that are perceived to be core assets with a stable demand for the output or service delivered by the asset. These core assets also tend to be inactively traded in the marketplace and are generally used until retirement. Attractive assets for cross-border lease transactions generally possess relatively long service lives so that an asset can be leased for a significant period of time in order to maximize the financial benefits to the parties involved in the lease transaction. Long-lived assets that are expected to experience little functional and economic obsolescence are particularly well suited for these transactions.

The author's biography may be found on page 44.

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