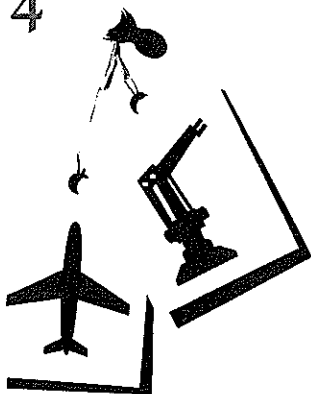


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Volume 1    Number 2

# The Journal of Equipment Lease Financing<sup>TM</sup>

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## ECONOMIC BENEFITS OF LEASE FINANCING

BY BRIMMER & COMPANY, INC.

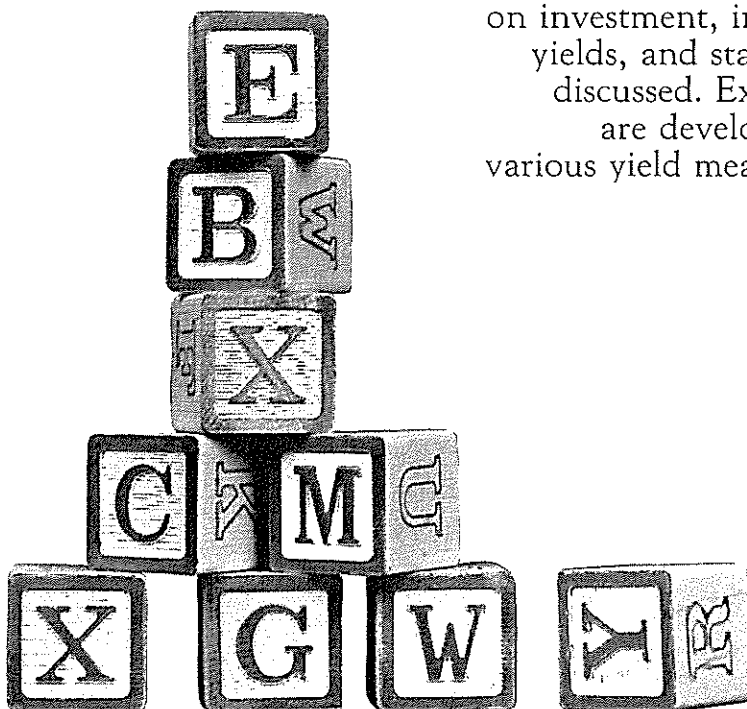
An executive summary of an indepth analysis of the economic impact of the equipment leasing industry on the U.S. economy, the article reviews the economic incentives for lease financing, and the costs of leasing from a public policy perspective. It quantifies leasing as it relates to other sources of business investment, offers a profile of the equipment leasing industry and investigates leasing's contribution to business investment and employment.

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## YIELD ANALYSIS FOR LESSORS: A PRIMER

BY JAMES M. JOHNSON, PH.D.

The article presents a number of the more frequently encountered measures of yield. The notions of pretax and after-tax yields, nominal and effective yields, return on investment, internal rate of return, multiple investment yields, and standard sinking fund yields are defined and discussed. Example single investor and leveraged leases are developed to demonstrate the calculation of the various yield measures presented, and the similarity among leveraged lease yields.

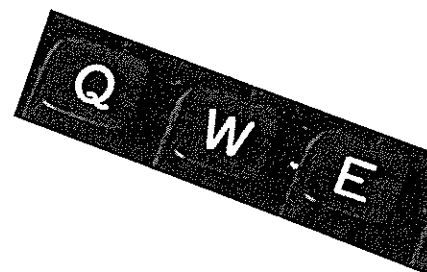


## MODELING A LEVERAGED LEASING COMPANY

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BY THOMAS E. SCHRICKEL

The author describes how computerized modeling can provide management of a leveraged leasing company with a tool to forecast the size of net income for a wide range of marketing strategies, employing a variety of volume levels and transaction types. The article explains how such modeling can be done, starting with tax modeling and its determination of new business volume, and concludes with financial statement modeling and capital structuring.



## ADOPTING THE MARKETING CONCEPT:

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THE KEY TO LESSOR SURVIVAL—AND PROSPERITY—IN THE 1980s

BY THOMAS C. Wajnert

The article takes the position that the equipment leasing industry has matured to a point where the old marketing formulas no longer apply, and suggests re-evaluation of strategic positions based on an assessment of market needs, competitive forces, technology, and financial objectives.

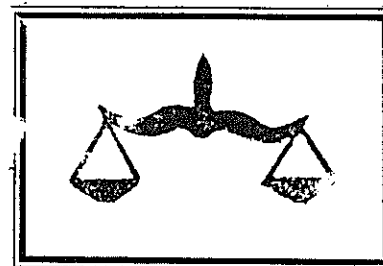
## PROPOSALS FOR A UNIFORM PERSONAL PROPERTY LEASING LAW:

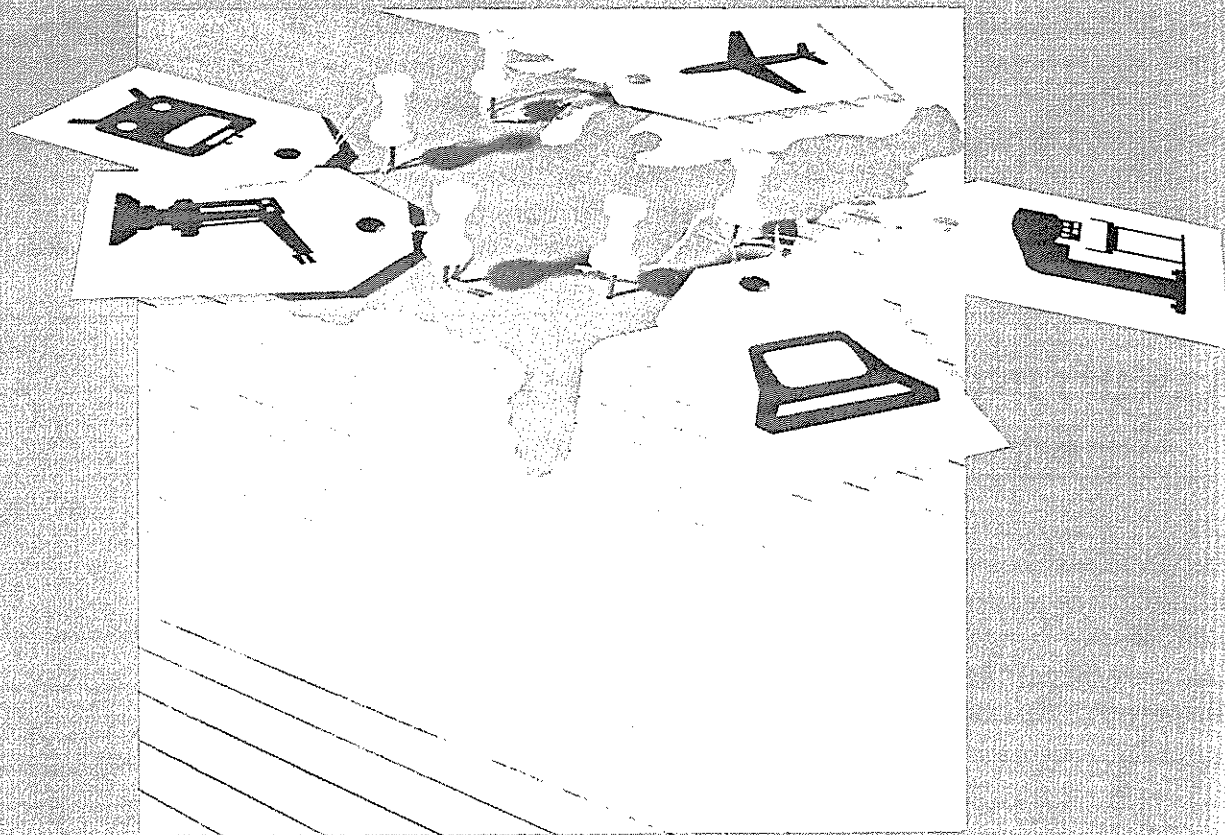
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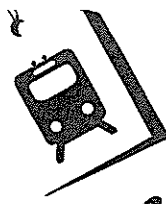
A NONTECHNICAL SYNOPSIS

BY ALICIA NAVAR NOYOLA, ESQ.

Because various laws may be applied to a leasing transaction depending upon whether the transaction is viewed as a true lease or simply as a financing, a uniform personal property leasing law has been suggested to clarify the treatment of lease transactions. The article discusses, in a nontechnical manner, these varying laws and reviews some proposals for a uniform code.







# Economic Benefits of Lease Financing

The following article is the executive summary of a study by Brimmer & Company, produced under the direction of Andrew F. Brimmer, Ph.D. The study was initiated to determine the economic cost and benefits of guideline leasing in general and its implementation in specific industries. The relationship between leasing, investment and employment was included in the parameters of the study.

Because of the limited amount of statistical data available in this area, much of the basic information used in this analysis was constructed from a variety of sources. While a major amount of information was provided from studies and records of the American Association of Equipment Lessors and other industry sources, data was also provided by the U.S. Department of Commerce, the Federal Reserve Board, a compilation of corporate annual reports, and World Leasing Yearbook.

Traditional guideline leasing constitutes a major source of capital for American industry. This method of financing has helped to expand the availability of funds—and to reduce the cost of credit—to many segments of American business which would otherwise find it difficult to obtain the equipment and facilities needed to expand the supply of goods and services on which the welfare of the American public depends.

These general conclusions are derived from a comprehensive assessment of the role which lease financing plays in capital formation in the United States. The study is based on a newly collected body of statistical and other information which made it possible to describe the pattern and magnitude of lease financing in American industry in recent years. It was also possible to estimate the number of additional jobs which leasing helps to create through the financing of new investment in plant and equipment.

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*Brimmer & Company is a diversified economic and financial consulting firm, established in 1976 by Andrew F. Brimmer, a former member of the Board of Governors of the Federal Reserve System. The firm conducts research on financial developments affecting financial institutions, trends in economic activity and interest rates in money and capital markets. It has produced a number of studies on employment, technology, economic growth and industry structure and competition.*

## Economic Incentives for Lease Financing

The acquisition of capital equipment through leasing has expanded substantially in recent years. This was primarily a reflection of the increased appreciation of the economic benefits provided by this source of financing. The tax incentives introduced in the 1950s and 1960s—designed to encourage investment spending—gave a strong boost to leasing. The reason is straightforward: If a firm needing equipment faces a tax situation which precludes its taking advantage of accelerated depreciation or the investment tax credit, it can lease the equipment from another company which can use the tax benefits. The availability of tax benefits to the leasing company enables the latter to charge rents below the cost to the user of purchasing the equipment. Thus, leasing lowers the cost of capital to many businesses while providing tax benefits to lessors who bear the risk of ownership.

Beyond tax incentives, however, a number of other economic factors make leasing an attractive financial instrument for many companies. These include the high cost of tying up cash in equipment purchases that might be better employed in other uses (such as the provision for working capital) or to acquire short-term financial assets. Moreover, compared with the use of bank loans to purchase equipment, leasing requires a smaller down payment, and it typically involves fewer restrictions. Many lease arrangements also include maintenance and repair services.

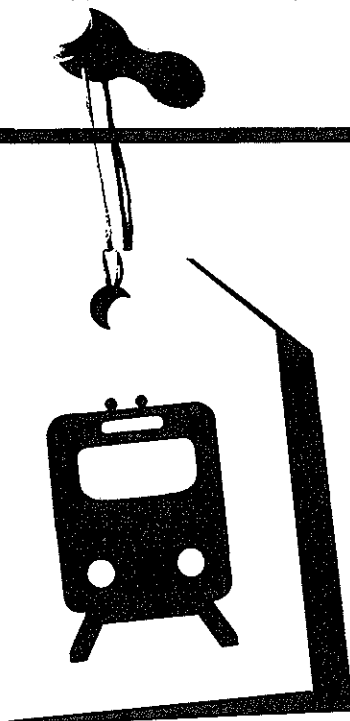
Table 1

**FINANCING BUSINESS INVESTMENT, 1980-1983**  
(amounts in billions of dollars)

| Category  | 1980  | 1981   | 1982  | 1983 F |
|---|-------|--------|-------|--------|
| <b>Business Fixed Investment</b>                                  |       |        |       |        |
| Structures  | 309.2 | 346.1  | 347.6 | 327.9  |
| Producers Durable Equipment                                       | 110.6 | 129.7  | 141.4 | 130.2  |
|   | 198.6 | 216.4  | 206.2 | 197.7  |
| <b>Selected Sources of Funds</b>                                  |       |        |       |        |
| Equipment Leasing   | 43.5  | 55.5   | 57.6  | 61.2   |
| Corporate Equities  | 12.9  | - 11.5 | 1.7   | 8.5    |
| Corporate Bonds   | 32.9  | 35.6   | 42.0  | 42.4   |
| Commercial Mortgages  | 20.7  | - 1.1  | - 0.8 | 6.9    |
| Commercial Bank Loans   | 29.3  | 42.8   | 38.7  | - 7.4  |
| <b>Sources of Funds as a Percent of Business Fixed Investment</b> |       |        |       |        |
| Equipment Leasing   | 14.1  | 16.1   | 16.6  | 18.7   |
| Corporate Equities  | 4.2   | - 3.3  | 0.5   | 2.6    |
| Corporate Bonds   | 10.6  | 10.3   | 12.1  | 12.9   |
| Commercial Mortgages  | 6.7   | - 0.3  | - 0.2 | 2.1    |
| Commercial Bank Loans   | 9.5   | 12.4   | 11.1  | - 2.2  |

F = Forecast

Source: Compiled and calculated by Brimmer & Company. Data on business fixed investment from U.S. Department of Commerce, Bureau of Economic Analysis. Data on sources of funds from the Board of Governors of the Federal Reserve System. Data on equipment leasing calculated by Brimmer & Company, based on the American Association of Equipment Lessors, *Annual Survey of Accounting and Business Practices*, 1980, 1981, 1982.



THE JOURNAL OF  
EQUIPMENT LEASE  
FINANCING

## Costs of Leasing: Public Policy Perspective

The benefits of leasing (particularly the tax savings) accrue primarily to the lessor and lessee, the principal parties to the transaction. The counterpart of these private tax savings is the loss of tax revenue by the federal government. This loss of tax revenue is roughly equivalent to expenditures of federal funds, and they are computed and accounted for as "tax expenditures." For instance, in fiscal year 1982, total tax expenditures were calculated at \$253.5 billion. Of this amount, \$198.4 billion were benefits to individuals, and the remaining \$55.1 billion (21.8% of the total) were benefits to corporations.

These benefits to business enterprises represent a direct reflection of the express intent of Congress to provide benefits and incentives—through the tax code—for companies to undertake certain types of economic activity. The most important of these specific objectives is the stimulation of investment in new plant and equipment. The tax benefits derived from leasing have been a major source of support for this new investment.

For instance, in fiscal year 1982, tax benefits associated with all lease financing are estimated at \$6.7 billion. This figure represented 31.4% of total tax benefits generated by capital expenditures. The leasing-related benefits were divided into those associated with traditional guideline leasing (\$4.0 billion) and safe harbor leasing (\$2.7 billion). Thus, despite the large but transitory impact of safe harbor leasing, the traditionally used guideline leasing accounted for 60% of the tax benefits derived from leasing. Consequently, lease financing clearly has an important—and growing—role in the promotion of new capital investment. Its share of tax benefits appears to be an accurate reflection of the contributions this type of financing makes to total investment expenditures.

## Lease Financing of Business Investment

Lease financing has expanded to the point where it is the most important single source of funds to support business expenditures for capital equipment. For example, as shown in Table 1, in 1982, spending on business fixed investment amounted to \$347.6 billion. This total was divided into outlays for structures (\$141.4 billion) and producers durable equipment (\$206.2 billion). In the same year, equipment leasing is estimated at \$57.6 billion. At this level, lease financing was equal to 16.6% of total business fixed investment. It also represented 27.9% of outlays for producers durable equipment.

Moreover, during the last few years, leasing has risen faster than total capital expenditures. Lease financing as a proportion of the latter climbed from 14.1% in 1980, to 16.1% in 1981, and to 16.6% last year. During 1983, the fraction is projected to rise further to 18.7%.

These estimates suggest that leasing is a more important source of funds to meet business capital requirements than either new equity issues, corporate bonds, commercial bank loans, or commercial mortgages. Leasing is at least five times as important as new equities or commercial mortgages and nearly one and a half times as important as corporate bonds and commercial bank loans.

## Lease Financing: Industry Profile

While leasing finances about one-sixth of business fixed investment across American industry taken as a whole, the proportion is much higher for a number of important types of equipment. The broad pattern and extent of reliance on leasing can be seen in Table 2, which shows capital expenditures and lease financing of selected types of equipment in 1982.

Table 2

### CAPITAL EXPENDITURES AND LEASE FINANCING OF SELECTED TYPES OF EQUIPMENT, 1982

(amounts in billions of dollars)

| Category  | Capital Expenditures | Amount | Lease Financing percent of capital expenditure |
|---|----------------------|--------|--|
| Computers   | 34.0                 | 5.0    | 14.7   |
| Railroads - Class I   | 2.0                  | 0.7    | 35.0   |
| Motor Vehicles  | 30.1                 | 9.3    | 30.9   |
| Aircraft <sup>1</sup>   | 4.0                  | 1.8    | 45.0   |
| Shipping <sup>2</sup>   | 3.1                  | 0.7    | 22.6   |
| Agricultural Equipment <sup>3</sup>                                   | 13.3                 | 0.7    | 5.3  |
| Equipment and Facilities:<br>State and Local Governments <sup>4</sup> | 14.6                 | 2.0    | 13.7   |

<sup>1</sup> Capital leases plus tax benefit transfers

<sup>2</sup> Capital expenditures consist of the value of newly produced nonmilitary vessels

<sup>3</sup> Farm gross capital expenditures (\$12.6 billion) plus new leases of equipment (\$0.7 billion), 1981

<sup>4</sup> Estimated outlays for equipment (\$12.6 billion) plus new leases (\$2.0 billion), 1981

Source: Estimates by Brimmer & Company

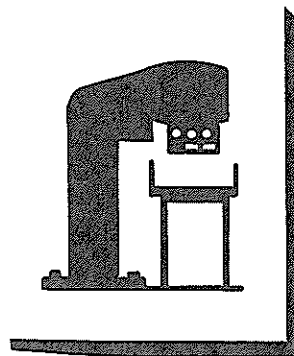


Table 3

**LEASING AND EMPLOYMENT, 1981**

| Industry                                    | New Jobs per<br>\$1.0 Billion of<br>Investment<br>Spending | Value of Leases<br>on New Equipment<br>(billions of<br>dollars) | Increase in<br>Employment<br>(number) |
|---|--|---|---------------------------------------|
| Computers                                   | 43,170   | 4.1   | 176,997                               |
| Office Machinery<br>and Equipment           | 41,080   | 3.1   | 127,348                               |
| Transportation<br>Equipment                 | 20,542   | 15.0 <sup>1</sup>   | 308,127 <sup>1</sup>                  |
| Construction<br>Machinery and<br>Equipment  | 25,170   | 1.6   | 40,272                                |
| Production<br>Machinery and<br>Equipment    | 26,410   | 6.9   | 182,229                               |
| Nonproduction<br>Machinery and<br>Equipment | 27,890   | 3.5   | 97,615                                |
| Agricultural<br>Equipment                   | 24,720   | 2.9   | 71,688                                |
| Medical<br>Equipment                        | 33,430   | 2.0   | 66,860                                |
| Other Equipment                             | 30,302   | 3.0   | 90,906                                |
| Total                                       | 27,602   | 42.1  | 1,162,042                             |

<sup>1</sup> Includes aircraft, trucks, business automobile fleets (10 or more), and shipbuilding, based on estimates by Brimmer & Company

Sources: Value of new leases estimated by Brimmer & Company. Basic data from the *Annual Survey of Accounting and Business Practices*, American Association of Equipment Lessors, 1982. Increases in employment calculated by Brimmer & Company.

Capital expenditures for aircraft are the most heavily dependent on lease financing. In 1982, such expenditures came to \$4.0 billion, and leasing provided \$1.8 billion (45.0%) of this amount. Second in line were railroads, where \$700 million in leasing accounted for 35.0% of capital outlays. Close behind were motor vehicles. Businesses spent \$30.1 billion for this type of equipment, and \$9.3 billion (30.9%) was provided by leasing. In the case of shipping, nearly one-quarter (22.6%) of the value of newly produced nonmilitary vehicles was covered by leasing.

Capital outlays for computers amounted to \$34.0 billion in 1982. Leasing supplied \$5.0 billion (14.7%) of the required financing. Spending on agricultural equipment came to \$13.3 billion. However, lease financing has not made much headway in this sector, and it accounted for only 5.3% of total capital expenditures.

While not directly comparable to traditional guideline leasing transactions, lease-purchase financing of equipment and facilities by state and local governments has been increasing. In 1982, this type of financing amounted to \$2.0 billion and represented 13.7% of the estimated \$14.6 billion in outlays for equipment acquired by these jurisdictions. The volume of lease-purchasing of equipment and facilities by state and local governments has nearly tripled over the last three years. This rapid growth has been stimulated by the seriously adverse economic and fiscal problems faced by states and municipalities.

## Leasing, Investment, and Employment

Leasing makes a major contribution to the creation of new jobs in the American economy. This contribution arises primarily through the support of business spending on new plant and equipment. Such outlays stimulate the demand for capital goods and for a variety of related products and services. As output rises to meet these demands, labor requirements increase, and new jobs are created.



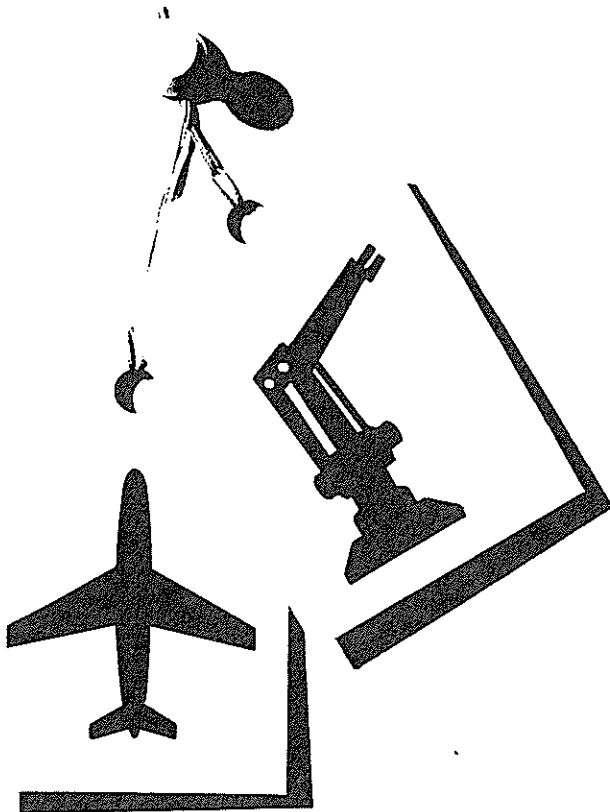
The impact of lease financing on new job creation is illustrated by the statistics in Table 3. The first column of figures indicates how much additional labor (input) is required to bring forth a specified amount of production (output). For the present analysis, it was assumed that an additional expenditure of \$1.0 billion was made on new equipment in selected industries. For example, a rise of \$1.0 billion in outlays for computer and equipment increases total employment by 43,170 persons over what the level otherwise would have been. (This gain consists of 17,050 jobs in the computer industry plus 26,120 jobs generated in related supplier industries.) Summary estimates of added employment per \$1.0 billion of new investment spending are also shown for other industries.

The second column in Table 3 shows the value of leases on new equipment in 1981. These amounts, when multiplied by the number of extra jobs in the first column, provide an estimate of the increase in total employment generated by the volume of lease financing of the types of equipment indicated.

For example, lease financing of computers and equipment is estimated to have stimulated the creation of about 177,000 new jobs in 1981. Among the eight types of equipment shown, the number of new jobs ranged from just over 40,000 in construction machinery and equipment to more than 308,000 in transportation equipment. In the aggregate, it is estimated that the \$42.1 billion of equipment leasing shown in Table 3 stimulated the creation of more than 1,000,000 new jobs in 1981.

## Concluding Observations

The results of this study lead to several important conclusions: Traditional guideline leasing does derive a part of its appeal to investors from the federal income tax benefits associated with the capital expenditures financed under this type of arrangement. However, those benefits are an integral part of the series of tax incentives which the federal government has provided to help achieve a variety of worthwhile public purposes. And among the latter, the stimulation of investment and the creation of new jobs have been given the highest priority on the agenda of national economic policy.



# YIELD ANALYSIS FOR LESSORS: A PRIMER

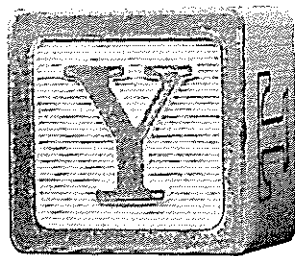
by James M. Johnson, Ph.D.

## Introduction

The word "yield" may well be the most pervasive and the most convolutive term at work in the leasing community. The reason for its Loch Ness likeness, however, is not mysterious. Different uses merely have evolved to assist lessors in accomplishing their varied objectives. However, the myriad of yield definitions can be somewhat overwhelming. Accordingly, this article will explain the uses of yield information, describe the more frequently used types of yield, and illustrate how yields are calculated.

## Yield Definition

The term "yield" is intended to convey a notion of return on investment. Yield allows dollar amounts of



investment cash inflows and outflows to be converted into a more useful form of information: A percentage return on funds invested. All yield measures—regardless of their specific form—are designed to serve this purpose.

## Uses of Yield Information

There are three major uses of yield in the leasing industry. First, it is used to determine how earnings must be reported in compliance with the Financial Accounting Standards Board (FASB).<sup>1</sup> Second, it is employed to price leasing transactions in the marketplace (i.e., to determine the rent requirement). Third, it may be utilized to measure profitability. Since these purposes differ from one another—sometimes substantially—it becomes clearer why yield measures themselves

may produce significantly different results.

The FASB requires that earnings produced by leveraged leases be allocated to the various years the lease will be in existence, according to a multiple investment yield computation (to be discussed in more detail later). Basically, FASB 13<sup>2</sup> states that a leveraged lease may produce reportable earnings at a constant percentage rate (that rate being the multiple investment yield calculated) of unrecovered investment during those periods in which the lessor's investment is positive. Thus, lessors who attach great importance to near-term reportable earnings may attempt to structure a transaction to boost the multiple investment yield (since this will permit a higher percentage of unrecovered investment to be "booked" in the early years of the lease), or structure it to permit the first investment to be recovered more rapidly (which also allows earnings to be reported earlier in the lease). In sum, lessors concerned with the timing of reported earnings must deal with a yield concept known as the multiple investment yield.

Yield measures are used to price leasing transactions in the marketplace. Yields used in this context are methods of communication among various parties. An appropriate analogy might

*The author is Associate Professor of Finance at Bentley College, in Waltham, a suburb of Boston. Prior to Bentley, he was a member of the finance faculty at Notre Dame University. In addition to publishing over two dozen articles and books on business and finance, Johnson has acted as a consultant to a number of business and professional organizations, including the American Association of Equipment Lessors, and has conducted many conferences on finance and leasing.*

be the prime rate. Although several banks may charge the "same" prime rate, the real cost of a business loan may differ from bank to bank, depending upon fees, compensating balances and other factors. However, knowing the prime sends a reasonably clear message to all market participants concerning the cost of money at any point in time. Quoted lease yields work in a similar manner. To facilitate communication, most market participants talk about yields in terms of the single investor rate, and the multiple investment yield rate. Single investor indicates that there is only one investor at risk. Multiple investment indicates that the lease is leveraged as defined by FASB 13.

The yield measure most widely quoted in either case is a rate earned on the equity investor's "at risk" investment, after taxes, nominal per annum,<sup>3</sup> with a zero interest rate sinking fund<sup>4</sup> (whew!). In the case of a single investor lease, the yield quoted is the rate the lessor expects to earn on total capital invested, after taxes. It is based on total investment, since a single investor (lessor) by definition is risking all the capital in the financing. (The lessor may choose to borrow funds for part of the financing, but usually does so on a recourse basis.<sup>5</sup>) The rate quoted on a leveraged lease is based upon the multiple investment rate, computed on the lessor's at-risk investment. Here, however, the lessor's at-risk investment is not the total capital invested in the financing, but is total investment less funds borrowed from a lender on a nonrecourse basis. Thus, if a single investor lease is quoted as earning a 14% yield, for example, one should have a reasonably good idea how it was calculated, since the procedure for so doing is widely agreed upon within the profession.

Lease profitability measurement undoubtedly produces the widest possible range of meanings for yield. There are probably hundreds of yield profitability measures in use, each tailored to the way a particular lessor wishes to evaluate a lease. Although lease profitability analysis does in fact vary widely from lessor to lessor, one thing

is clear: Profitability drives the other two uses of yield. Yields quoted on leases are a by-product, or a function of the lessor's cost of doing business; as the lessor's cost of financing changes, for example, this is factored into a model to determine what quoted yield will be necessary to produce an acceptable level of profitability.

One yield profitability model, popular especially among subsidiary firms, is to price a lease at a fixed number of basis points above their cost of money in order to achieve a fixed "spread" of profit. Other lessors set a target return on actual equity invested in a lease, net of recourse borrowing they employ; this in turn allows them to determine what quoted yield rates will be necessary to insure their target rate of return. Other measures are all designed to accomplish the same objective—that of determining lease rate requirements adequate to achieve profitability goals.

## Types of Yields

Most yield measures are developed upon three types of assumptions; in fact, it may be said that all yields are constructed as if these three assumptions had been addressed—whether or not that is the actual case. For convenience, these assumptions will be referred to as compounding, tax and cash utilization.

The compounding assumption refers to the frequency of cash flow compounding. Since most leases will generate cash flows much more frequently than once a year, it is necessary to decide what, if anything, intrayear cash flows will earn. Suppose, for example, that a single investor lease is priced to earn 1% per month on total invested capital. If the lessor wishes to assume that these cash flows can be reinvested between years but not within years, then the lessor will only focus upon what is called the nominal annual yield. If cash flows are assumed to be reinvested within each year, then the effective annual yield will be used. In the example, a lease earning 1% per month will have a nominal annual yield of 12%. In general, a nominal annual yield is

determined by multiplying the yield for the cash flow interval by the number of such periods in a year. Thus, the monthly yield of 1% translates into  $1\% \times 12 = 12\%$  per year. Alternatively, an effective yield presumes that cash can be reinvested for all intrayear periods, earning the intrayear rate. An effective annual rate is calculated by adding 1 to the intrayear rate, raising the sum to a power equal to the number of periods in a year, and deducting 1 from the result: A straightforward compounding procedure. For the example, the effective rate is  $12.68\%$   $((1+.01)^{12} - 1 = 1.1268 - 1 = .1268 = 12.68\%)$ .<sup>6</sup>

The yield tax assumption refers to either pretax or after-tax yields, depending upon whichever holds more interest to the lessor. In most leasing software packages available, the after-tax return is solved first. Then, somewhat artificially, the after-tax return is "grossed up" by dividing it by the quantity one minus the tax rate assumed in the analysis. If a lease produced a 13% after-tax yield for a 46% tax-bracket lessor, this would be converted to a pretax equivalent by dividing 13% by .54, resulting in a pretax return of 24.07%. This pretaxing procedure is artificial primarily due to its failure to reflect the effect of taxes. If one were to literally measure the pretax return on a lease, pretending that taxes and tax credits were not cash flow components, the calculated yield would be considerably less than the after-tax grossed up number, because the pretax calculation cannot, by definition, reflect the value of investment tax credits or accelerated depreciation. However, the engineered pretax number can be quite useful in communicating with those who are used to thinking in pretax terms, and who are not well versed in tax-oriented investments.

The cash utilization assumption probably offers the most fertile ground for debate among these three yield measures. In a sense, it is a special case of the compounding assumption in that it deals with reinvestment. It focuses upon reinvestment as an issue only when a lease produces a secondary investment problem; i.e., the lease

requires an initial investment (negative cash flow), produces cash inflow (positive cash flow), and then produces subsequent negative cash flow (which may or may not be followed by more positive cash flow, usually in the form of a residual value). A lease which produces negative, positive, negative, (and perhaps then more positive) cash flow in series is treated differently by most lessors (and must be treated differently for reporting purposes, as mandated by the FASB in Statement 13) than a standard single investor lease which produces negative then positive cash flow.

The - + - + cash-flow-type lease is generally a leveraged lease and is variously referred to as a multiple investment, multiple phase, or separate phase lease. The FASB requires unique yield measurement procedures for multiple investment leveraged leases because of their objection to recording ("booking") income in periods during which the investor has no investment; the method required by FASB 13 overcomes this, and is known as the multiple investment yield or the FASB complying yield.

Members of the lessor community may wish to treat multiple investment leases differently for various reasons. First, a standard internal rate of return calculation may produce more than one "correct" answer: A lease may be found to have a return of 3% and also have a return of 43% (and perhaps even a negative return) due to the multiple sign changes in the cash flow sequence. Adjustment procedures employed may not solve this multiple return problem, but they do fix it. Second, a lessor may want to insure that a lease can produce sufficient cash flow to "fund" the secondary investment without requiring additional dollars to be injected from other sources at the disposal of the business (i.e. with dollars "outside the deal"). This issue is generally addressed by the use of a sinking fund concept. One sinking fund procedure uses the context of the FASB 13 multiple investment yield, but permits cash received in excess of 100% return of investment to earn interest (prohibited by FASB 13) as it awaits

use to finance the secondary investment. This may be referred to as the "multiple investment yield with sinking fund" method. Another sinking fund concept simply sets cash inflow aside, earning interest, in a quantity precisely necessary to fund subsequent cash outflows. This is commonly called the "standard sinking fund method."

The purpose of this section has been to develop a general understanding of the uses to which yields are put. In the sections that follow, examples will be used to demonstrate how the various measures are actually calculated, along with interpretation. Due to the wide diversity of profitability models, however, they will not be discussed here.

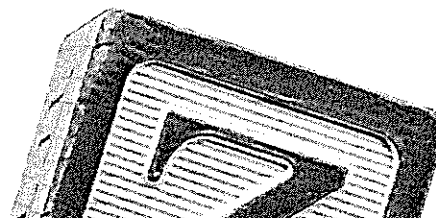
## Yield Measurement

For ease of presentation, two leasing examples will be employed. A single

investor lease will be used to illustrate the concepts of pretax/after-tax, nominal/effective, and return on investment yields. A leveraged lease then will be used to illustrate the internal rate of return, standard sinking fund, and multiple investment yields (FASB complying, and FASB type with sinking fund).

## The Single Investor Lease

The numbers which are used to calculate yield measures are net cash flows. Net cash flows are simply the after-tax cash inflows or outflows generated by an investment during each period of its anticipated life. Table 1 contains data for a sample single investor lease. The specifics are shown at the bottom of the table. The financing involves a piece of equipment which cost the lessor \$300,000. A residual value of \$60,000 is expected to



| COLUMN | - 1 -             | - 2 -             | - 3 -<br>[1 - 2]  | - 4 -<br>[(3) x 46%] | - 5 -   | - 6 -      | - 7 -<br>[1 - 4 - 5 - 6] |
|--------|-------------------|-------------------|-------------------|----------------------|---------|------------|--------------------------|
| YEAR   | Rent,<br>Residual | Depreci-<br>ation | Taxable<br>Income | Taxes                | ITC     | Investment | Net Cash<br>Flow         |
| 0      |                   | 42750             | - 42750           | - 19665              | - 30000 | 300000     | - 250335                 |
| 1      | 70512             | 62700             | 7812              | 3593                 | 0       | 0          | 66918                    |
| 2      | 70512             | 59850             | 10662             | 4904                 | 0       | 0          | 65607                    |
| 3      | 70512             | 59850             | 10662             | 4904                 | 0       | 0          | 65607                    |
| 4      | 70512             | 59850             | 10662             | 4904                 | 0       | 0          | 65607                    |
| 5      | 70512             | 0                 | 70512             | 32435                | 0       | 0          | 38076                    |
| 6      | 70512             | 0                 | 70512             | 32435                | 0       | 0          | 38076                    |
| 7      | 130512            | 0                 | 130512            | 60035                | 0       | 0          | 70476                    |

|                |             |
|----------------|-------------|
| Rent required  | = \$ 70512  |
| Equipment cost | = \$ 300000 |
| Residual       | = \$ 60000  |
| ITC            | = \$ 30000  |
| Depreciable    |             |
| basis          | = 95%       |
| Tax rate       | = 46%       |
| Price to earn  | = 15%       |

be realized at the end of the lease term, and the equipment permits the lessor to earn \$30,000 in investment tax credits (ITC). The asset is five-year property, and 95% of its basis (cost) will be depreciated over five tax years. (TEFRA requires five-year property to be 95% depreciated if 10% ITC is elected, or 100% depreciated if 8% ITC is elected; the former is preferable in this example. See Reference 1.) The lessor's tax rate is 46%, and the lease (for purposes of illustration) is priced to earn a return of 15% on total investment.<sup>7</sup> Finally, the lease is executed and the equipment placed in service on December 10, all cash flows are assumed to occur at the end of each year, and the lease will have a term of seven years, calling for rents to be paid at the end of each year (i.e., in arrears).

Net cash flow for year zero (the commencement date) is the tax benefit of depreciation (depreciation deduction times the lessor's tax rate of 46%) plus ITC minus the cost of the asset. For years one through six, net cash flow equals rent income minus taxes paid on

taxable income. Net cash flow for year seven is the same as one through six, plus the anticipated residual income of \$60,000 (on which taxes are paid as if it were ordinary income). The drop in net cash flow from year four to year five is caused by the loss of further depreciation deductions.<sup>8</sup>

Table 2 explains the concept of return on investment (ROI), a standard form of yield. Recall that the lease was priced to earn a 15% after-tax ROI. Precisely what does that mean? It means that this lease is designed to provide the investor (lessor) with a return of 15% per year on the funds invested for each year. The concept is identical to that of a mortgage loan wherein interest paid each period is computed as a percentage of the amount owed at the beginning of that period; the portion of the mortgage payment left after interest is paid goes toward reducing the principal outstanding on the loan. The sole difference between a mortgage and a lease is that the lease is priced to develop an after-tax rate of return based upon after-tax

cash flows; mortgage amortization is computed on pretax values.

At the inception of the lease, the lessor pays \$300,000 for the equipment and receives the benefit of depreciation and ITC; thus unrecovered investment at commencement is \$250,335—the amount the lessor wishes to recover over the seven-year investment term. For year one, the lessor has a "beginning balance" of unrecovered investment of \$250,335 (column 1); i.e., he has an investment of \$250,335 for that year. Recalling that the lease was priced to produce a 15% ROI, the capital charge for year one is 15% of the capital employed for that year (column 2) or \$37,550 (\$250,335x.15). Since total cash inflow for year one (taken from Table 1) is \$66,918 (column 5), the \$29,368 of cash flow remaining after capital charges goes toward investment recovery (column 3); accordingly, the beginning unrecovered investment for year two is what it was at the beginning of the previous year minus the amount recovered at the end of the previous year, or \$220,967 (\$250,335 - \$29,368).

It will be noted from Table 2 that the ending recovered investment for year seven is zero. This is as it should be, since the lease was designed to produce an ROI of 15%. The 15% ROI for this example means that the lease will produce a 100% return of capital over its seven-year life, and a constant 15% after-tax return on (declining capital) investment during each year of its life. At the end of the lease term, the lessor will have fully recovered its investment, and will have been earning 15% after tax on funds employed each year. Stated yet another way, if all net cash flows from the lease were discounted at a 15% rate for the appropriate number of years, the net present value of the lease would be exactly zero—which is why the unrecovered investment balance at the end of the lease term must be zero; the lease was priced to earn 15% and therefore must produce a zero net present value when cash is discounted at 15%.

This ROI is also identical to the internal rate of return (IRR) measure. IRR is defined as that rate which will

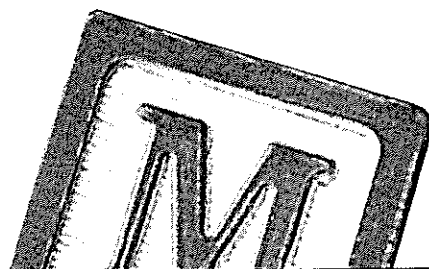
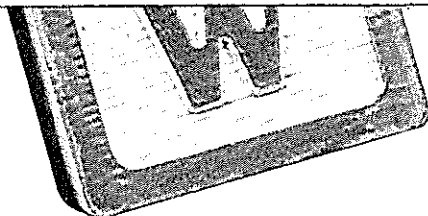


Table 2  
RECONCILIATION OF SINGLE INVESTOR YIELD

| COLUMN | -1-                                    | -2-                      | -3-                    | -4-<br>(1-3)                        | Cash Flow Allocation to: |                          |                        |
|--------|--|--------------------------|------------------------|-------------------------------------|--------------------------|--------------------------|------------------------|
|        |  |                          |                        |                                     | -5-                      | -2-                      | -3-                    |
| YEAR   | Beginning<br>Unrecovered<br>Investment | 15%<br>Capital<br>Charge | Investment<br>Recovery | Ending<br>Unrecovered<br>Investment | Net Cash<br>Flow         | 15%<br>Capital<br>Charge | Investment<br>Recovery |
| 0      | 0                                      | 0                        | -250335                | 250335                              | -250335                  | 0                        | -250335                |
| 1      | 250335                                 | 37550                    | 29368                  | 220967                              | 66918                    | 37550                    | 29368                  |
| 2      | 220967                                 | 33145                    | 32462                  | 188504                              | 65607                    | 33145                    | 32462                  |
| 3      | 188504                                 | 28276                    | 37332                  | 151173                              | 65607                    | 28276                    | 37332                  |
| 4      | 151173                                 | 22676                    | 42932                  | 108241                              | 65607                    | 22676                    | 42932                  |
| 5      | 108241                                 | 16236                    | 21840                  | 86401                               | 38076                    | 16236                    | 21840                  |
| 6      | 86401                                  | 12960                    | 25116                  | 61284                               | 38076                    | 12960                    | 25116                  |
| 7      | 61284                                  | 9192                     | 61284                  | 0                                   | 70476                    | 9192                     | 61284                  |

## LEVERAGED LEASE YIELD MEASURES: A QUICK FIX

| Yield Method                  | Purpose of<br>Adjustments to<br>Cash Flow   | Sinking Fund<br>Earnings<br>Assumption                |
|-------------------------------|---|---|
| FASB 13 complying             | Create separate and distinct investment phases, each with the same yield                  | No interest earned on funds allocated to sinking fund |
| FASB with sinking fund        | Create separate and distinct investment phases, each with the same yield                  | Conservative interest rate earned                     |
| Internal rate of return (IRR) | Create separate and distinct investment phases, each with the same yield                  | Internal rate of return interest rate earned          |
| Standard sinking fund         | Create one investment phase by applying early year cash to (any) subsequent investment(s) | Conservative interest rate earned                     |



cause an investment to have a net present value of exactly zero.

Since this lease example uses annual cash flows, its nominal and effective yields are the same; only when cash flow intervals are terms other than years will there be a difference between the two. However, suppose one wished to know the nominal and effective monthly yields for this lease. The nominal monthly yield would be the annual yield divided by 12, or 1.25%. The effective monthly yield is computed by adding one to the annual decimal equivalent yield, raising the sum to the 1/12th power (.083 power), and deducting one from the result; i.e.,  $[(1 + .15) \exp [1/12] - 1]$ , or 1.17%. Suppose for a moment that the Table 1 lease generated quarterly cash flows, and nominal and effective annual yields were desired. Suppose further that the lease was priced to earn a 4.0% after-tax quarterly ROI. The nominal annual yield of the lease would be 16% (4x4%), and the effective annual yield would be 16.986%  $[(1 + .04) \exp 4 - 1 = 1.16986 - 1 = .16986 = 16.986\%]$ .

The single investor lease in Table 1

was designed to produce an after-tax return. To convert the 15% after-tax yield to a pretax equivalent, the after-tax rate is divided by the quantity one minus the lessor's assumed tax rate of 46%, or  $15\% / (1 - .46) = 27.78\%$ .

To summarize, the 15% ROI earned on the single investor lease is the yield measure generally referred to in the marketplace. It is an after-tax yield earned on total capital employed. It generates a pretax ROI of 27.78%, which is the after-tax return solved for, "grossed up" by dividing the after-tax yield by one minus the lessor's tax rate. Since the lease uses annual cash flows, the nominal and effective yields are identical. Had the lease employed shorter time intervals between cash flows, the nominal and effective annual yields would have differed. The nominal annual yield would be the per-period yield solved for, multiplied by the number of time intervals in a year. The effective annual yield would be calculated by adding one to the decimal equivalent of the per-period yield, raising the sum to the number of time intervals in a year, and deducting one from the result.

## The Leveraged Lease

The most prevalent yield measures for leveraged leases will be discussed in this section. These measures include the FASB-complying multiple investment yield (FASB-complying), the FASB-styled multiple investment yield which includes a sinking fund (FASB with sinking fund), internal rate of return (IRR), and the standard sinking fund method. The basic structural difference among these four methods has to do with the cash flow numbers used to compute yield. With the exception of IRR, none of the methods utilize actual cash flows expected to emanate from a lease, but rather adjust them in various ways to overcome conceptual objections to IRR.

To focus attention upon the common characteristics of these yield measures, as well as to crystallize their differences, one sample lease will be used for all cases—the leveraged lease provided in the FASB 13 document itself—and all measures will be presented in the same analysis structure. In Tables 3 through 6, it will be noted that the beginning unrecovered investment value for year one is \$400,000, and all cash flow numbers are identical; this is as it should be since the same lease is being analyzed in all cases. \$400,000 is the lessor's equity investment in the lease at inception, and thus represents the amount to be recovered over the lease term.

Table 3 exhibits the analysis which produces the FASB-complying yield—that yield used by lessors to book income. Income under FASB 13 may be booked at the multiple investment rate (a constant) times the unrecovered investment for each year. The multiple investment yield is that rate which, when applied to unrecovered investment during those years in which the investment is positive, will exactly recover the lessor's investment by the end of the term. In the case of the sample lease, the multiple investment rate (FASB-complying

rate) is 8.6469%. There is no exact procedure which permits the FASB yield to be calculated directly; rather, computer routines are generally employed which determine the rate through an iterative (trial and error) process.

Note that the FASB rate is multiplied by the unrecovered investment for each year to produce reportable earnings (column 3). Earnings for year four are thus \$92,945 times .086469, or \$8,037. For each year, the amount of cash flow which remains, after earnings have been deducted, goes toward investment recovery until all

capital has been recovered; this is the case for years one through four. In years five and six, the positive net cash flow produced goes into a sinking fund (parking lot)—none of the cash flow is permitted to be booked as earnings since there is no investment, and none is ascribed as investment recovery since all investment has been recovered. The cash flow allocated to the sinking fund does not earn interest, since FASB 13 does not permit it.

For years seven through fifteen, the sample lease produces negative cash flow each year, which is indicative of a second or secondary investment. However, unrecovered investment (column 1) does not become positive during this secondary term until year eleven. The reason why unrecovered investment remains zero for four years of negative cash flow (years seven through ten) is due to the sinking fund. Since funds were placed in the sinking fund—funds generated by this lease during years five and six—it is FASB's opinion that unrecovered investment cannot become positive until the sinking fund is depleted. In year ten, the sinking fund is insufficient to offset negative cash flow for that year, and the amount by which cash flow exceeds sinking funds becomes the unrecovered investment at the beginning of year eleven; further, since there is now again an investment, earnings are recorded as before (even though cash flow is negative). When earnings are booked during negative cash flow years (years eleven through fifteen), investment recovery will be negative by the amount of net cash flow minus booked earnings (e.g., year fourteen investment recovery, column 4, equals  $-\$23,856 - \$6,232$  or  $-\$30,088$ ). In year sixteen, the beginning unrecovered investment is exactly offset by investment recovery for the year—\$137,694; this is also reflected in the *total* of column 4, which adds all positive and negative investment recovery numbers for all sixteen years.

Perhaps the easiest way to reconcile the meaning of the FASB 13 yield is to examine column 8. Here, all values—positive and negative—for both earnings and recovery (columns 3 and 4)

Table 3  
**LEVERAGED LEASE**  
(FASB 13 COMPLYING)

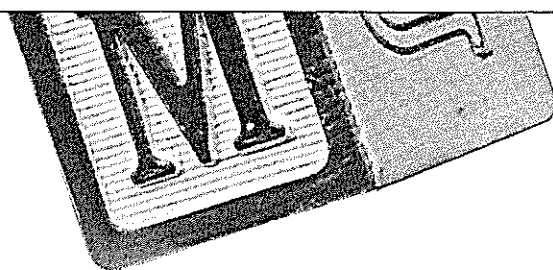
Cash Flow Allocation to:

| COLUMN | - 1 -                                  | - 2 -            | - 3 -                 | - 4 -                  | - 5 -                      | - 6 -                                    | - 7 -                      | - 8 -                       |
|--------|--|------------------|-----------------------|------------------------|----------------------------|--|----------------------------|-----------------------------|
| YEAR   | Beginning<br>Unrecovered<br>Investment | Net Cash<br>Flow | Earnings<br>8.6469000 | Investment<br>Recovery | To/from<br>Sinking<br>Fund | Sinking<br>Fund<br>Earnings<br>0.0000000 | Sinking<br>Fund<br>Balance | Earnings<br>and<br>Recovery |
| 1      | 400000                                 | 169421           | 34588                 | 134833                 | 0                          | 0  | 0                          | 169421                      |
| 2      | 265167                                 | 119923           | 22929                 | 96994                  | 0                          | 0  | 0                          | 119923                      |
| 3      | 168172                                 | 89769            | 14542                 | 75227                  | 0                          | 0  | 0                          | 89769                       |
| 4      | 92945                                  | 71525            | 8037                  | 63488                  | 0                          | 0  | 0                          | 71525                       |
| 5      | 29457                                  | 53182            | 2547                  | 29457                  | 21178                      | 0  | 21178                      | 32004                       |
| 6      | 0                                      | 18616            | 0                     | 0                      | 18616                      | 0  | 39794                      | 0                           |
| 7      | 0                                      | -9553            | 0                     | 0                      | -9553                      | 0  | 30241                      | 0                           |
| 8      | 0                                      | -11108           | 0                     | 0                      | -11108                     | 0  | 19133                      | 0                           |
| 9      | 0                                      | -12803           | 0                     | 0                      | -12803                     | 0  | 6330                       | 0                           |
| 10     | 0                                      | -14649           | 0                     | -8319                  | -6330                      | 0  | 0                          | -8319                       |
| 11     | 8319                                   | -16663           | 719                   | -17382                 | 0                          | 0  | 0                          | -16663                      |
| 12     | 25701                                  | -18857           | 2222                  | -21079                 | 0                          | 0  | 0                          | -18857                      |
| 13     | 46781                                  | -21248           | 4045                  | -25293                 | 0                          | 0  | 0                          | -21248                      |
| 14     | 72074                                  | -23856           | 6232                  | -30088                 | 0                          | 0  | 0                          | -23856                      |
| 15     | 102162                                 | -26698           | 8834                  | -35532                 | 0                          | 0  | 0                          | -26698                      |
| 16     | 137694                                 | 149600           | 11906                 | 137694                 | 0                          | 0  | 0                          | 149600                      |
| TOTALS |  | 516601           | 116601                | 400000                 | 0                          | 0  |                            | 516601                      |

Table 4  
**LEVERAGED LEASE**  
(FASB WITH SINKING FUND)

Cash Flow Allocation to:

| COLUMN | - 1 -                                  | - 2 -            | - 3 -                 | - 4 -                  | - 5 -                      | - 6 -<br>Sinking<br>Fund | - 7 -                      | - 8 -                       |
|--------|--|------------------|-----------------------|------------------------|----------------------------|--------------------------|----------------------------|-----------------------------|
| YEAR   | Beginning<br>Unrecovered<br>Investment | Net Cash<br>Flow | Earnings<br>8.9372700 | Investment<br>Recovery | To/from<br>Sinking<br>Fund | Earnings<br>4.0000000    | Sinking<br>Fund<br>Balance | Earnings<br>and<br>Recovery |
| 1      | 400000                                 | 169421           | 35749                 | 133672                 | 0                          | 0                        | 0                          | 169421                      |
| 2      | 266328                                 | 119923           | 23802                 | 96121                  | 0                          | 0                        | 0                          | 119923                      |
| 3      | 170208                                 | 89769            | 15212                 | 74557                  | 0                          | 0                        | 0                          | 89769                       |
| 4      | 95650                                  | 71525            | 8549                  | 62976                  | 0                          | 0                        | 0                          | 71525                       |
| 5      | 32674                                  | 53182            | 2920                  | 32674                  | 17588                      | 0                        | 17588                      | 35594                       |
| 6      | 0                                      | 18616            | 0                     | 0                      | 18616                      | 704                      | 36907                      | 0                           |
| 7      | 0                                      | - 9553           | 0                     | 0                      | - 9553                     | 1476                     | 28831                      | 0                           |
| 8      | 0                                      | - 11108          | 0                     | 0                      | - 11108                    | 1153                     | 18876                      | 0                           |
| 9      | 0                                      | - 12803          | 0                     | 0                      | - 12803                    | 755                      | 6828                       | 0                           |
| 10     | 0                                      | - 14649          | 0                     | - 7544                 | - 7105                     | 273                      | 0                          | - 7548                      |
| 11     | 7548                                   | - 16663          | 675                   | - 17338                | 0                          | 0                        | 0                          | - 16663                     |
| 12     | 24886                                  | - 18857          | 2224                  | - 21081                | 0                          | 0                        | 0                          | - 18857                     |
| 13     | 45967                                  | - 21248          | 4108                  | - 25356                | 0                          | 0                        | 0                          | - 21248                     |
| 14     | 71323                                  | - 23856          | 6374                  | - 30230                | 0                          | 0                        | 0                          | - 23856                     |
| 15     | 101553                                 | - 26698          | 9076                  | - 35774                | 0                          | 0                        | 0                          | - 26698                     |
| 16     | 137327                                 | 149600           | 12273                 | 137327                 | 0                          | 0                        | 0                          | 149600                      |
| TOTALS |  | 516601           | 120963                | 400000                 | - 4361                     | 4361                     |                            | 520962                      |



have been totalled by year. First, it may be noted that the total of column 8 is exactly equal to the sum of the totals for columns 3 and 4. Second, it is apparent that the investment has been separated into two distinct phases; Phase I requires a cash outlay of \$400,000 in year zero, and produces earnings and recovery in years one through five (in the amounts shown in column 8). Phase II requires investment in years ten through fifteen, and realizes earnings and recovery in year sixteen only.

It is instructive to compute the IRR

for each of these two investment phases—IRR being calculated by finding that rate which causes net present value to equal zero. What is the IRR for an investment requiring an outlay of \$400,000 in year zero, and producing the benefits shown in years one through five in column 8? Second, what is the IRR with the investment requirements shown in years ten through fifteen of column 8, followed by the singular \$149,600 benefit in year sixteen? The IRR of the Phase I investment is found to be 8.6469%. The IRR of the Phase II investment will also be

8.6469%. Finally, if the cash flows in column 8 are all treated as one investment (with a dormant period in years six through nine), it will also produce an IRR of exactly 8.6469%. This equality of yield for the various phases of a leveraged lease will always be identical under FASB 13—by design.

Table 4 shows the results of the FASB yield, but with an interest-producing sinking fund added. This yield is not FASB-complying, but is felt to be more realistic by most members of the lessor community for the simple reason that few lessors are likely to invest a temporary surplus of cash in a noninterest-bearing vehicle. Here, the structure and mechanics of determining yield are identical to Table 3 except that sinking fund contributions are permitted to earn interest. The interest rate assumed is 4% in the example, after-tax; most lessors use a rate between 3.5% and 4%, since the fund's purpose is to simulate short-term investment (the rate on Treasury bills). Not surprisingly, the yield calculated under this method is higher than the FASB rate, since fewer sinking fund contributions are required (sinking fund earnings total \$4,361).

The IRR measure of yield is shown in Table 5. The conventional calculation of IRR, as stated previously, is to find that rate which will cause the net present value of an investment to equal zero; the rate which achieves this is, by definition, the IRR. For unconventional investments like leveraged leases, however, there may be more than one IRR due to the multiple sign changes in the cash flow sequence. (For the sample lease, only one IRR is obtained.)

Calculation of the IRR for the example using conventional means is accomplished by setting the initial investment of \$400,000 in year zero equal to the present value of all future cash flows shown in column 2 and solving for the yield that accomplishes this strict equality; the rate is found to be 9.25753%. The implicit theory behind IRR is that all cash flows—positive or negative—should be discounted at the same rate, and on an "as is/where is" basis (without adjustments). To further explore the significance of this assump-



tion, the IRR may be viewed in a different fashion.

If IRR is shown in a different context, it will be clear that it differs from the FASB complying rate in only one respect, and is identical in structure to the FASB with sinking fund yield measure. To see this, compare the columns in Tables 3 and 5. Note that in each case unrecovered investment falls to zero, and becomes positive in later years. Note that earnings are computed only for those years in which the net investment is positive. Further note that investment recovery (column 4) ceases when all investment has been recovered, and surplus cash flow goes

into the sinking fund. It is clear that the two tables are identical in all but one respect: The IRR allows sinking funds to earn interest. Now compare Tables 4 and 5. Here, both yield measures permit interest to be earned on sinking funds. *In fact, the results produced in Tables 4 and 5 are exactly the same in structure and content, with the sole exception of the rate earned on sinking funds!* The sinking fund rate used in the IRR yield is the IRR itself; the rate used in the FASB with sinking fund yield is designed to reflect the after-tax return on short-term (money market) investments.

The decision of which rate is

preferable to use depends upon the individual lessor. Those lessors who feel that a conservative sinking fund earnings rate should be employed would probably argue that this is proper due to the short period of time during which the sinking funds are available for investment. A perusal of column 5 in Tables 4 and 5 will reveal that contributions to either sinking fund are made for only two years, followed by withdrawals thereafter; thus, it would seem unrealistic to ascribe a long-term earnings rate to funds available for such a short time. Those who would accept the IRR sinking fund rate as more appropriate would argue that sinking funds are not real—they are merely conceptual tools—and, in any case, they are not interested in whether one investment can generate enough cash by itself to finance a secondary one. IRR proponents probably feel that if one adopts a portfolio approach, it is then easy to assume that cash from one investment will be available for reinvestment in others, and will not be placed in money market securities.

Table 6 illustrates the yield calculation for a leveraged lease using what is usually termed the standard sinking fund method. This is probably the least frequently utilized yield measure for leveraged leases. Of the four leveraged lease yield measures presented, the standard sinking fund method is the most unique, due to its objective. The three previous methods all allocate net cash flow—positive and negative—to earnings, recovery, and a sinking fund, and all allocate cash flow to earnings during only those years in which the net investment is positive. Once total investment is recovered, all surplus cash flow is allocated to a sinking fund. The standard sinking fund method is more cash-flow oriented, in that it allocates cash flow to a sinking fund in such a way that the secondary investment is completely eliminated. To see this, compare the earnings and recovery columns (column 8) for Tables 3 through 6. It is seen that only the standard sinking fund method eliminates the negative values. Mechanically, this method allocates cash inflows on an LIFO basis (last in,

Table 5  
**LEVERAGED LEASE**  
(IRR)

Cash Flow Allocation to:

| COLUMN | - 1 -                                  | - 2 -            | - 3 -                 | - 4 -                  | - 5 -                      | - 6 -                                    | - 7 -                      | - 8 -                       |
|--------|--|------------------|-----------------------|------------------------|----------------------------|--|----------------------------|-----------------------------|
|        | Beginning<br>Unrecovered<br>Investment | Net Cash<br>Flow | Earnings<br>9.2575300 | Investment<br>Recovery | To/From<br>Sinking<br>Fund | Sinking<br>Fund<br>Earnings<br>9.2575300 | Sinking<br>Fund<br>Balance | Earnings<br>and<br>Recovery |
| YEAR   |  |                  |                       |                        |                            |  |                            |                             |
| 1      | 400000                                 | 169421           | 37030                 | 132391                 | 0                          | 0  | 0                          | 169421                      |
| 2      | 267609                                 | 119923           | 24774                 | 95149                  | 0                          | 0  | 0                          | 119923                      |
| 3      | 172460                                 | 89769            | 15966                 | 73803                  | 0                          | 0  | 0                          | 89769                       |
| 4      | 98657                                  | 71525            | 9133                  | 62392                  | 0                          | 0  | 0                          | 71525                       |
| 5      | 36265                                  | 53182            | 3357                  | 36265                  | 13560                      | 0  | 13560                      | 39622                       |
| 6      | 0                                      | 18616            | 0                     | 0                      | 18616                      | 1255                                     | 33431                      | 0                           |
| 7      | 0                                      | -9553            | 0                     | 0                      | -9553                      | 3095                                     | 26973                      | 0                           |
| 8      | 0                                      | -11108           | 0                     | 0                      | -11108                     | 2497                                     | 18362                      | 0                           |
| 9      | 0                                      | -12803           | 0                     | 0                      | -12803                     | 1700                                     | 7259                       | 0                           |
| 10     | 0                                      | -14649           | 0                     | -6718                  | -7931                      | 672                                      | 0                          | -6718                       |
| 11     | 6718                                   | -16663           | 622                   | -17285                 | 0                          | 0  | 0                          | -16663                      |
| 12     | 24003                                  | -18857           | 2222                  | -21079                 | 0                          | 0  | 0                          | -18857                      |
| 13     | 45082                                  | -21248           | 4173                  | -25421                 | 0                          | 0  | 0                          | -21248                      |
| 14     | 70503                                  | -23856           | 6527                  | -30383                 | 0                          | 0  | 0                          | -23856                      |
| 15     | 100886                                 | -26698           | 9340                  | -36038                 | 0                          | 0  | 0                          | -26698                      |
| 16     | 136924                                 | 149600           | 12676                 | 136924                 | 0                          | 0  | 0                          | 149600                      |
| TOTALS |  | 516601           | 125820                | 400000                 | -9219                      | 9219                                     |                            | 525820                      |

first out) just sufficient to completely "fund" the secondary investment, given a specified earnings rate on the sinking fund.

To determine how much cash inflow is necessary to fund the secondary investment, the cash outflows are discounted back in time and deducted from the cash inflows (beginning with the last inflow in year six) until the cumulative present value of all outflows has been driven to zero. The results of this procedure are shown in Table 6. All the cash flow from years five and six, plus \$46,569 of the cash flow from year four is sufficient to fund the outflows in years seven through fifteen, assuming that the sinking fund will earn a 4% after-tax rate.

To summarize, it has been shown that three of the four leveraged lease yields are extremely similar; in fact, they differ only in the earnings rate assumed for the sinking fund (zero, a money rate or an investment rate). The fourth measure—the standard sinking fund method—was found to be the most unique, since it is the only measure which has the objective of eliminating the secondary investment.

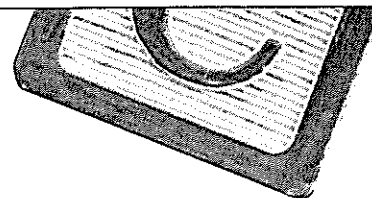
## Footnotes

1. The FASB is a body which establishes accounting rules and procedures governing how companies must report financial information.
2. FASB 13 is the statement which deals with the financial reporting of lease transactions.
3. See the first part of the types of yield section for an explanation of nominal yields.
4. Refer to the leveraged lease section for an explanation of sinking funds and interest rates earned thereon.
5. Recourse borrowing means the borrower is obligated to repay the lender under any and all circumstances. This is distinguished from nonrecourse borrowing, which is typical in leveraged leases. In the latter case, a borrower (the lessor) may be required to repay the lender only to the extent that rents are paid by the lessee. Should the lessee be faulted on rent, the lender has recourse only to the lessee.
6.  $(1 + .01)^{12} - 1$  means raise the quantity 1.01 to the twelfth power and deduct 1.0 from the result.

Table 6  
**LEVERAGED LEASE**  
(STANDARD SINKING FUND [4%])

Cash Flow Allocation to:

| COLUMN | - 1 -                                  | - 2 -            | - 3 -                 | - 4 -                  | - 5 -                      | - 6 -                                    | - 7 -                      | - 8 -                       |
|--------|--|------------------|-----------------------|------------------------|----------------------------|--|----------------------------|-----------------------------|
| YEAR   | Beginning<br>Unrecovered<br>Investment | Net Cash<br>Flow | Earnings<br>7.4508700 | Investment<br>Recovery | To/from<br>Sinking<br>Fund | Sinking<br>Fund<br>Earnings<br>4.0000000 | Sinking<br>Fund<br>Balance | Earnings<br>and<br>Recovery |
| 1      | 400000                                 | 169421           | 29803                 | 139618                 | 0                          | 0  | 0                          | 169421                      |
| 2      | 260382                                 | 119923           | 19401                 | 100522                 | 0                          | 0  | 0                          | 119923                      |
| 3      | 159860                                 | 89769            | 11911                 | 77858                  | 0                          | 0  | 0                          | 89769                       |
| 4      | 82002                                  | 71525            | 6110                  | 18847                  | 46569                      | 0  | 46569                      | 24956                       |
| 5      | 63156                                  | 53182            | 4706                  | - 4706                 | 0                          | 1863                                     | 101613                     | 0                           |
| 6      | 67861                                  | 18616            | 5056                  | - 5056                 | 18616                      | 4065                                     | 124294                     | 0                           |
| 7      | 72918                                  | - 9553           | 5433                  | - 5433                 | - 9553                     | 4972                                     | 119713                     | 0                           |
| 8      | 78351                                  | - 11108          | 5838                  | - 5838                 | - 11108                    | 4789                                     | 113393                     | 0                           |
| 9      | 84188                                  | - 12803          | 6273                  | - 6273                 | - 12803                    | 4536                                     | 105126                     | 0                           |
| 10     | 90461                                  | - 14649          | 6740                  | - 6740                 | - 14649                    | 4205                                     | 94682                      | 0                           |
| 11     | 97201                                  | - 16663          | 7242                  | - 7242                 | - 16663                    | 3787                                     | 81806                      | 0                           |
| 12     | 104444                                 | - 18857          | 7782                  | - 7782                 | - 18857                    | 3272                                     | 66221                      | 0                           |
| 13     | 112226                                 | - 21248          | 8362                  | - 8362                 | - 21248                    | 2649                                     | 47622                      | 0                           |
| 14     | 120587                                 | - 23856          | 8985                  | - 8985                 | - 23856                    | 1905                                     | 25671                      | 0                           |
| 15     | 129572                                 | - 26698          | 9654                  | - 9654                 | - 26698                    | 1027                                     | 0                          | 0                           |
| 16     | 139226                                 | 149600           | 10374                 | 139226                 | 0                          | 0  | 0                          | 149600                      |
| TOTALS |  | 516601           | 153669                | 400000                 | - 37068                    | 37068                                    |                            | 553669                      |



7. It is important to note here that the 15% after-tax rate assumed is for demonstration purposes only, and is substantially higher than prevailing rates at the time of this writing. However, the specific yield assumption used in this example in no way compromises the principles being developed.
8. It may sound counterintuitive to say that property being depreciated over five years will run out of deductions by the end of year four. However, this is correct within the context of the example presented. The example presumes that commencement occurs in early December, which means that ITC and first year depreciation tax benefits will be earned within a few days after the lessor's investment is made. Thus, "year one" tax benefits are included in "year zero," "year two" benefits included in "year one," etc.

## References

1. Johnson, James M. "The Impact of TEFRA on Leasing Transactions." *The Journal of Equipment Lease Financing*, vol. 1, no. 1, 1983. pp. 4-10.



CELLS ROUTE TYP. PHOTO  
Date: 11/1/84  
Page: 1 of 1

Parent: [illegible] Position: [illegible]

|       |       |       |
|-------|-------|-------|
| Pay   | 13.44 | 13.44 |
| Pay   | 74.88 | 74.88 |
| Total | 74.88 | 81.88 |

|           |       |       |
|-----------|-------|-------|
| Gross Tax | 24.04 | 37.28 |
| ITC LIT   | 28.93 | 31.67 |

|  |      |      |      |
|--|------|------|------|
|  | 5.00 | 5.50 | 6.00 |
|  | 5.00 | 5.50 | 6.00 |

|         |       |       |       |
|---------|-------|-------|-------|
| Net Tax | 25.00 | 28.51 | 31.35 |
|---------|-------|-------|-------|

7-7-1

# MODELING a Leveraged Leasing Company

by Thomas E. Schrickel

## Overview

With the advent of joint venture leasing and the frequent startup, acquisition, or divestiture of subsidiary leasing companies, the need for refined analysis of financial statements is more critical than ever before. Corporations which have taxable income and available cash often consider investment in leveraged leasing, because the tax deferral is large in proportion to the lessor's investment and the returns can be attractive. Leveraged leasing is a complex financing method in itself, however, and is further complicated because it has been subjected to much legislation and accounting regulation. Additionally, the profiles of both typical transaction and typical lessee have been subject to considerable change, due to legislation and economic fluctuations in lessee industries.

A leveraged leasing company operating in this dynamic environment faces many uncertainties which must be managed, such as: How much, and what types of, new leasing business can be funded in the next year, or in the next several years? What would the bottom line impact be from funding various amounts and types of new business? What capital structure will enable the company to attain its threshold level of return most efficiently?

There are so many elements to this complex problem that a computer model is undoubtedly the most pragmatic solution. The entire process can be thought of as a simulation to be performed many times, with a resulting

range of preferred marketing plans and volume levels from which a strategy can be chosen. This article explains how this modeling can be done, starting with tax modeling and its determination of new business volume, and concluding with financial statement modeling and capital structuring.

## Tax Modeling

As a start to the modeling effort, assume that Parent Corporation has considerable taxable income, is paying income taxes, and expects this pattern to continue on a projected basis for a five-year period. Additionally, assume that Parent's board has decided to invest in leveraged leasing because of the attractive returns, with the resulting deferral of a substantial part of its tax liability. The Parent's capacity for lease transactions can be developed through a four-step process: (1) Derive a forecast of Parent's taxable income, liability, and tax credits by year for five years; (2) determine the percentage or amount of tax liability to be sheltered; (3) decide what type(s) of lease transaction is representative of the market for new business; and, (4) estimate the amount of new leasing business which can be transacted, given the tax laws and these constraints.

Although this process is straightforward, there are pitfalls in each step. It is difficult to produce a five-year forecast of taxable income for a large corporation. The uncertainty in this type

of forecast is obvious when the ingredients are considered: A forecast of operating income, expenses and capital expenditures by each operating subsidiary of Parent, coupled with the tax department's estimate of foreign tax withholding and state tax position and financial management's interest expense/income forecast.

Step 2 could turn out to be a moving target for several reasons. First, Parent's tax liability exclusive of benefits from leasing will change with economic circumstances such as interest rates and the operating performance of each subsidiary. Second, management's position on paying taxes can have political foundations, and the company's tax policies are therefore subject to change. Finally, tax legislation has been and likely will continue to be very dynamic, due to Congress and the nature of the legislative process.

The difficulty in predicting the types of lease transaction for future business can be exemplified by two words: ERTA and TEFRA. Legislative changes, especially in the tax area, can cause drastic changes in the structure and nature of transactions, as shown by tax benefit transfers under both the 1981 Economic Recovery Tax Act (ERTA), the 1982 Tax Equity and Fiscal Responsibility Act (TEFRA) and TEFRA finance leases.<sup>1</sup> There are also vagaries of lessee industries to consider. Transactions which are common today may not be available or desirable tomorrow. As an example, four years ago not many leasing companies or railroads anticipated the severity of the recent recession, with its adverse effects on railroads or railcar builders.

*The author is a vice president of Continental Illinois Leasing Corp. and marketing manager of their tax-oriented division.*



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Aware of the level of difficulty of the modeling process, an example is in order to show how modeling works. To avoid an excess of technical detail, the example will be purposely simple. For the first step—the forecast of Parent's federal taxable income and credits—assume the absence of foreign income, withholding, and taxes, and that the taxable income forecast is net of any effect from state tax deductions and credits.

For each year of the forecast, Parent's taxable income is multiplied by 46% to determine the gross tax payable.<sup>2</sup> The gross tax payable is reduced by the amount of investment tax credit (ITC), subject to the stated limitation of 85%,<sup>3</sup> to calculate the net tax payable. Table 1 shows Parent's five-year forecast of taxable income and credits exclusive of any leasing, along with the resulting federal tax liability.

Table 1

### PARENT CORPORATION FORECASTED TAX POSITION EXCLUSIVE OF LEVERAGED LEASING

amounts in millions of dollars

| Year                     | 19 x 0 | 19 x 1 | 19 x 2 | 19 x 3 | 19 x 4 |
|--------------------------|--------|--------|--------|--------|--------|
| Parent Taxable Income    | 55.00  | 61.00  | 67.00  | 74.00  | 81.00  |
| Total Taxable Income     | 55.00  | 61.00  | 67.00  | 74.00  | 81.00  |
| Gross Tax Payable at 46% | 25.30  | 28.06  | 30.82  | 34.04  | 37.26  |
| ITC Limitation at 85%    | 21.51  | 23.85  | 26.20  | 28.93  | 31.67  |
| Parent ITC               | 4.00   | 4.50   | 5.00   | 5.50   | 6.00   |
| Total ITC                | 4.00   | 4.50   | 5.00   | 5.50   | 6.00   |
| Net Tax Payable          | 21.30  | 23.56  | 25.82  | 28.54  | 31.26  |

Note: Highlighted area shows Parent's forecasted tax payments, exclusive of any benefits from leveraged leasing.

# ALAS

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### WHAT IS IT?

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- A system which is continually upgraded to provide the most recent accounting practices and federal regulations.
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The taxable income stream starts at an assumed level of \$55 million and increases at about 10% per year; the stream of tax liability likewise increases by about 10% annually, going from \$21.30 million to \$31.26 million over the five-year period—quite a predictable pattern.

In terms of Parent's tax policy, assume that management has placed no internal constraints on Parent's tax payments, such as a floor or a minimum percentage of company pretax income. Also assume for simplicity that management has no interest in carry-back or carryover of either operating losses or ITC. This means that when computing the volume of new leasing business for a given year, the tax benefits from that new business should be sufficient just to offset as much of that year's tax liability as is allowable, without causing excess benefits which would be carried back to prior years or carried forward to future years.

To keep the third step simple, a 20-year leveraged lease will be representative of the desired type of new business. As is typical in a 20-year transaction, deductions from five-year accelerated cost recovery system (ACRS) depreciation and interest on the nonrecourse debt exceed rental income during the first five years of the transaction, resulting in significant tax losses during that period. In this example, the lessor will receive 10% ITC and will assume a 20% residual, while funding the equipment with 60% nonrecourse debt and 40% equity. Table 2 shows the details of the assumed structure, as well as the calculation of taxable income or loss each year (rent less interest expense less depreciation) for such a transaction.

The final step of computing the amount of new leasing business works as follows: Starting with the tax payable before new leasing business, add new leasing business until that year's tax bill is reduced to its allowable minimum from the tax losses and credits due to such new business. The formula for this calculation is quite simple, and is based on the facts that the tax loss from each incremental dollar of new business reduces Parent's net tax

Table 2

## STRUCTURE AND ITEMS OF TAXABLE INCOME/LOSS 20-YEAR MODEL LEVERAGED LEASE

amounts per dollar of equipment cost

| Year   | Rent   | Principal Repayment | Interest Payment | Depreciation | Net Taxable Income (Loss) |
|--------|--------|---------------------|------------------|--------------|---------------------------|
| 1      | .0452  | .0062               | .0390            | .1425        | (.1363)                   |
| 2      | .0904  | .0136               | .0768            | .2090        | (.1954)                   |
| 3      | .0904  | .0155               | .0749            | .1995        | (.1840)                   |
| 4      | .0904  | .0175               | .0729            | .1995        | (.1820)                   |
| 5      | .0904  | .0199               | .0705            | .1995        | (.1796)                   |
| 6      | .0904  | .0226               | .0678            | 0            | .0226                     |
| 7-21   | 1.3108 | .5047               | .5732            | 0            | .7376                     |
| TOTALS | 1.8080 | .6000               | .9751            | .9500        | (.1171)                   |

### Assumptions:

|                          |   |
|--------------------------|---|
| Nonrecourse Debt/Equity: | 60%/40% of equipment cost, respectively   |
| Investment Credit:       | 10% of equipment cost   |
| Depreciable Basis:       | 100% of equipment cost (reduced by one-half the ITC), 5-year ACRS depreciation  |
| Fee:                     | None  |
| Lease Term:              | 20 years, commencing at mid-year  |
| Rental Payments:         | 40 consecutive semiannual payments in arrears, each in the amount of 4.52% of equipment cost  |
| Debt Structure:          | 38 semiannual payments in arrears, 13% interest rate, repayment structured to minimize second investment amount and period  |
| Residual Assumption:     | 20% of equipment cost at the end of the lease term  |
| Tax Method:              | 100% current year, evenly paid on the four current-year tax dates on an accrual basis. In the first year of the transaction only the two tax dates after the lease funding date are used. |
| Lessor Rate of Return:   | Approximately 9% after tax  |

liability (before applying any ITC), and only 85% of such net tax liability can be offset by ITC.

The model calculates that \$114 million of new leasing business will accomplish Parent's goal of one year's maximum allowable tax reduction, as shown in Table 3. Starting with Parent's taxable income of \$55 million in year 19x0, the tax loss from \$114 million of new leasing business reduces taxable income by \$15.54 million (from Table 2, year one tax loss of .1363 per dollar, multiplied by \$114 million) to \$39.46 million. Tax at 46% on \$39.46 million is \$18.15 million, limiting ITC to \$15.43 million (85% of the tax). Along with Parent's \$4 million of ITC, credits from leasing in the amount of \$11.4 million effectively exhaust the ITC limitation. The net tax payable of \$2.75 million in year 19x0 in Table 3 is a dramatic reduction of the comparable figure of \$21.30 million from Table 1.

Note that the stream of taxable loss/income from the new leasing business in year 19x0 also causes reductions or increases in Parent's forecasted tax bills for succeeding years, all of which must be taken into account when computing a multi-year forecast of new leasing volume. In such a multi-year forecast, the same calculations mentioned above will be applied to successive years of the forecast, and will produce leasing volumes which achieve

Table 3

**PARENT CORPORATION FORECASTED TAX POSITION**  
**ONE YEAR OF LEVERAGED LEASING/MAXIMUM TAX REDUCTION**  
 amounts in millions of dollars

|                            |         |         |         |         |         |
|----------------------------|---------|---------|---------|---------|---------|
| New Leasing Equipment Cost | 114.00  |         |         |         |         |
| Year                       | 19 x 0  | 19 x 1  | 19 x 2  | 19 x 3  | 19 x 4  |
| Parent Taxable Income      | 55.00   | 61.00   | 67.00   | 74.00   | 81.00   |
| Leasing Taxable Income     | (15.54) | (22.28) | (20.98) | (20.75) | (20.47) |
| Total Taxable Income       | 39.46   | 38.72   | 46.02   | 53.25   | 60.53   |
| Gross Tax Payable at 46%   | 18.15   | 17.81   | 21.17   | 24.50   | 27.84   |
| ITC Limitation at 85%      | 15.43   | 15.14   | 17.99   | 20.82   | 23.66   |
| Parent ITC                 | 4.00    | 4.50    | 5.00    | 5.50    | 6.00    |
| Leasing ITC                | 11.40   |         |         |         |         |
| Total ITC                  | 15.40   | 4.50    | 5.00    | 5.50    | 6.00    |
| Net Tax Payable            | 2.75    | 13.31   | 16.17   | 19.00   | 21.84   |

Note: Highlighted area shows the reduced amounts of Parent's forecasted tax payments, due to one year of new leveraged leasing business.

Table 4

**PARENT CORPORATION FORECASTED TAX POSITION  
THREE YEARS OF LEVERAGED LEASING/MAXIMUM TAX REDUCTION**

amounts in millions of dollars

|                                   |               |               |               |               |               |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>New Leasing Equipment Cost</b> | <b>114.00</b> | <b>69.00</b>  | <b>50.00</b>  |               |               |
| <b>Year</b>                       | <b>19 x 0</b> | <b>19 x 1</b> | <b>19 x 2</b> | <b>19 x 3</b> | <b>19 x 4</b> |
| Parent Taxable Income             | 55.00         | 61.00         | 67.00         | 74.00         | 81.00         |
| Leasing Taxable Income            | (15.54)       | (31.68)       | (41.28)       | (43.22)       | (42.23)       |
| Total Taxable Income              | 39.46         | 29.32         | 25.72         | 30.78         | 38.77         |
| Gross Tax Payable at 46%          | 18.15         | 13.49         | 11.83         | 14.16         | 17.83         |
| ITC Limitation at 85%             | 15.43         | 11.46         | 10.05         | 12.04         | 15.16         |
| Parent ITC                        | 4.00          | 4.50          | 5.00          | 5.50          | 6.00          |
| Leasing ITC                       | 11.40         | 6.90          | 5.00          |               |               |
| Total ITC                         | 15.40         | 11.40         | 10.00         | 5.50          | 6.00          |
| Net Tax Payable                   | 2.75          | 2.09          | 1.83          | 8.66          | 11.83         |

Note: Highlighted area shows the reduced amounts of Parent's forecasted tax payments, due to three years of new leveraged leasing business.

maximum tax reduction in each of those years. Table 4 shows an example of three years of new leasing business, and the resulting reductions of Parent's tax bill in each of the forecasted five years. The second and third year tax bills of \$2.09 million and \$1.83 million, respectively, show significant savings from the Table 3 values of \$13.31 million and \$16.17 million, and even the fourth and fifth year projected taxes are down over \$10 million each.

The expected result of the tax planning exercise has been realized, which is the large tax savings attributable to leveraged leasing. The derivation of Parent's capacity for leasing business, based on its assumed tax position, has been shown step by step. Having completed the tax modeling, one can incorporate the results into financial statement modeling.

## Financial Statement Modeling

After determining marketing plans for new leasing business, management will want to determine the effect of this new business on Parent's reported income. A financial statement model is necessary, both to handle the range of marketing plans and to examine capital structuring alternatives. The tax law and lessee market uncertainties do not directly affect this type of modeling, since the example uses an assumed volume and type of leasing business. The uncertainties here are more company-specific, such as associating a level of operating expense to a given volume of business or deciding on a leverage ratio or capital contribution.

This model requires three steps: (1) Gathering financial statement data associated with the new leasing business plan in question, and integrating it with data from any existing leasing business; (2) estimating levels of income and expense for items which are not directly transaction-related, such as operating expense and interest rates; and, (3) deriving the capital structure which produces the best financial results for Parent and the leasing company, while meeting legal and corporate constraints.



## FINANCIAL STATEMENT MODEL ASSUMPTIONS AND DEFINITIONS

F G H

|  |   |
|--|---|
| <b>Pretax Lease Income and Allocated ITC:</b>  | Earnings from lease transactions by applying FASB 13 method of accounting for income  |
| <b>Operating Expense:</b>                      | Assumed annual cost for general operation of the company  |
| <b>Interest Expense:</b>                       | Interest on notes payable at 13%  |
| <b>Tax Rate:</b>                               | Assumed to be 46%, and no benefit from any state income tax is assumed  |
| <b>Current Provision:</b>                      | Actual tax benefits to be realized by Parent. Because the ITC is included in the initial year's current provision, it must also be included as an offset in the deferred provision. However, since ITC is a permanent reduction of taxes, and not a deferral, it is not included in deferred taxes payable. |
| <b>Dividends and Return of Capital:</b>        | Dividends are paid against retained earnings to the extent available while maintaining the targeted debt to equity ratio. Contributed capital is returned only after all debt has been repaid.  |
| <b>Net Rent Receivable:</b>                    | Rent to be paid to the lessor net of debt service on the nonrecourse debt   |
| <b>Residual Value:</b>                         | 20% of equipment cost to be realized at the end of the lease term   |
| <b>Unearned ITC and Unearned Lease Income:</b> | The remaining income is to be earned in future years under FASB 13 method of income reporting   |
| <b>Notes Payable:</b>                          | The borrowing necessary to fund the equity portion of new leasing business, not to exceed the targeted debt-to-equity ratio at any year-end   |
| <b>Deferred Tax Payable:</b>                   | Income tax deferred that is payable in future years   |
| <b>Common Stock and Contributed Capital:</b>   | Initial capitalization is assumed to be \$100,000 in common stock. Contributed capital is increased as needed to fund lease transactions and maintain the targeted debt-to-equity ratio.  |

For the first step, the income statement effects of new leasing business are dictated by the lease accounting rules of FASB 13;<sup>4</sup> investment credit and pretax lease income are earned in proportion to outstanding investment by the multiple investment method.<sup>5</sup> Taxes must be provided on allocated pretax lease income on the income statement, whereas actual tax benefits or payments are based on rental income less interest expense less depreciation. In a leveraged lease, these timing differences result in large deferred tax provisions during the five-year period of tax losses due to depreciation, and reductions in deferred taxes due to taxable income thereafter. On the income statement, the deferred tax provisions are offset by the current tax provisions, which reflect the actual tax benefits to be realized.

On the asset side of the balance sheet, net lease investment each year is the sum of rentals and residual receivable, less nonrecourse principal and interest payable, less unearned income. The liability component of deferred taxes payable is the cumulative total of the deferred tax provisions, net of permanent tax reductions due to ITC. This financial statement skeleton is displayed in Table 5, using the first example of \$114 million of new leasing business from Table 3. Table 5 shows the balance sheet and income statement components of the assumed leveraged lease transaction in isolation. The task to be performed is the financing of this transaction within the corporate structure.

By examining the balance sheet in Table 5, the net asset which must be financed each year can be defined as the difference between net lease financing and deferred taxes payable. A combination of equity contribution and

Table 5

# **LEVERAGED LEASING COMPANY** **CAPITAL STRUCTURING FRAMEWORK**

amounts in thousands of dollars

## **Statements of Income**

### **Leasing New Business** **(\$ million asset cost)**

|                                  | 114    | 0      | 0      | 0      | 0      |
|----------------------------------|--------|--------|--------|--------|--------|
|                                  | 19 x 0 | 19 x 1 | 19 x 2 | 19 x 3 | 19 x 4 |
| Pretax Lease Income              | 626    | 807    | 558    | 298    | 49     |
| Allocated ITC                    | 1,902  | 2,452  | 1,694  | 906    | 148    |
| Total Revenue                    | 2,528  | 3,259  | 2,252  | 1,204  | 197    |
| Operating Expense                |        |        |        |        |        |
| Interest Expense                 |        |        |        |        |        |
| Total Expense                    |        |        |        |        |        |
| Income/Loss before Tax Provision | 2,528  | 3,259  | 2,252  | 1,204  | 197    |
| Current Provision                |        |        |        |        |        |
| Deferred Provision               | 18,836 | 10,616 | 9,907  | 9,679  | 9,441  |
| Total Tax Provision              |        |        |        |        |        |
| Net Income                       |        |        |        |        |        |

### **Balance Sheets**

|                            | 19 x 0    | 19 x 1    | 19 x 2    | 19 x 3    | 19 x 4    |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| <b>Assets</b>              |           |           |           |           |           |
| Rent Receivable            | 200,959   | 190,654   | 180,348   | 170,042   | 159,737   |
| Less: Borrowings           | ( 67,693) | ( 66,139) | ( 64,376) | ( 62,376) | ( 60,108) |
| Interest                   | (106,713) | ( 97,962) | ( 89,419) | ( 81,113) | ( 73,076) |
| Net Rent Receivable        | 26,553    | 26,553    | 26,553    | 26,553    | 26,553    |
| Residual Value             | 22,800    | 22,800    | 22,800    | 22,800    | 22,800    |
| Less: Unearned ITC         | ( 9,498)  | ( 7,046)  | ( 5,352)  | ( 4,447)  | ( 4,298)  |
| Unearned Lease Income      | ( 3,127)  | ( 2,320)  | ( 1,762)  | ( 1,464)  | ( 1,415)  |
| Net Lease Financing        | 36,728    | 39,987    | 42,239    | 43,443    | 43,640    |
| Total Assets               | 36,728    | 39,987    | 42,239    | 43,443    | 43,640    |
| <b>Liabilities</b>         |           |           |           |           |           |
| Notes Payable              |           |           |           |           |           |
| Deferred Tax Payable       | 7,436     | 18,052    | 27,959    | 37,638    | 47,079    |
| Total Liabilities          |           |           |           |           |           |
| <b>Shareholders Equity</b> |           |           |           |           |           |
| Common Stock               |           |           |           |           |           |
| Contributed Capital        |           |           |           |           |           |
| Retained Earnings          |           |           |           |           |           |
| Total Equity               |           |           |           |           |           |
| Total Liability & Equity   |           |           |           |           |           |

Note: Amounts shown are financial statement components of the assumed leveraged lease transaction in isolation, before capital structuring is performed. Highlighted areas show the amounts needed to compute the net asset to be financed (total assets less deferred tax payable).

notes will usually be the method of financing this asset. Parent will realize a higher percentage return on its equity as it uses a greater percentage of notes for this financing, as long as the after-tax cost of the notes is less than the after-tax earnings of the total capitalization. Along these lines, the goal of this exercise is to show how a higher return on equity (ROE) can be achieved with greater leverage.

From this framework follows the capital structuring step, after making interest rate and operating expense assumptions. A constant interest rate of 13% has been chosen, and \$500,000 per year is used for operating expenses. Tables 6 and 7 show the effects of different leveraging in the three-year leasing volume projection from Table 4. These two examples differ only in the year-end targeted debt to equity ratios.

The sole effect on the income statements is in interest expense, where the higher leverage (Table 7, at 4:1) produces greater expense than the lower leverage (Table 6, at 3:1). Note the resulting net income benefit in year 19x0 for the lower leverage of \$51 thousand (\$1,199 versus \$1,148 of net income for the higher leverage). On the balance sheet, a lower note payable balance of the lower leverage is offset by a greater requirement of contributed capital, creating a greater capital base for the ROE calculation. The advantage of the higher leverage, in the form of less required total equity in year 19x0, is \$1,464 thousand (\$5,859 versus \$7,323 of total equity for the lower leverage). As the result of higher leverage, the company's average ROE in year 19x0 of 39.2% is higher by 6.5% than the 32.7% ROE of the lower leverage, at the expense of slightly lower annual profit.

Table 6

# **LEVERAGED LEASING COMPANY** **NOTES TO EQUITY RATIO OF 3:1**

amounts in thousands of dollars

J K L

## **Statements of Income and Retained Earnings**

### **Leasing New Business** **(\$ million asset cost)**

|                                     | 114           | 69            | 50            | 0             | 0             |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|
|                                     | 19 x 0        | 19 x 1        | 19 x 2        | 19 x 3        | 19 x 4        |
| Pretax Lease Income                 | 626           | 1,186         | 1,321         | 990           | 474           |
| Allocated ITC                       | 1,902         | 3,603         | 4,012         | 3,006         | 1,439         |
| Total Revenue                       | 2,528         | 4,789         | 5,333         | 3,996         | 1,913         |
| Operating Expense                   | 500           | 500           | 500           | 500           | 500           |
| Interest Expense                    | 1,428         | 3,362         | 3,903         | 3,108         | 1,138         |
| Total Expense                       | 1,928         | 3,862         | 4,403         | 3,608         | 1,638         |
| Income/Loss before Tax Provision    | 600           | 928           | 930           | 388           | 275           |
| Current Provision                   | ( 19,434)     | ( 23,247)     | ( 26,012)     | ( 21,536)     | ( 20,180)     |
| Deferred Provision                  | 18,836        | 22,017        | 24,594        | 20,332        | 19,645        |
| Total Tax Provision                 | ( 599)        | ( 1,231)      | ( 1,418)      | ( 1,204)      | ( 536)        |
| Net Income                          | 1,199         | 2,158         | 2,348         | 1,592         | 811           |
| Beginning of Year Retained Earnings | 0             | 1,199         | -3,357        | 3,542         | 0             |
| Net Income                          | 1,199         | 2,158         | 2,348         | 1,592         | 811           |
| Less: Dividend Paid                 | 0             | 0             | 2,163         | 5,135         | 811           |
| End of Year Retained Earnings       | 1,199         | 3,357         | 3,542         | 0             | 0             |
| <b>Balance Sheets</b>               | <b>19 x 0</b> | <b>19 x 1</b> | <b>19 x 2</b> | <b>19 x 3</b> | <b>19 x 4</b> |
| <b>Assets</b>                       |               |               |               |               |               |
| Rent Receivable                     | 200,959       | 312,287       | 383,884       | 362,820       | 341,757       |
| Less: Borrowings                    | ( 67,693)     | (107,111)     | (134,097)     | (130,349)     | (126,097)     |
| Interest                            | (106,713)     | (162,551)     | (195,516)     | (178,201)     | (161,390)     |
| Net Rent Receivable                 | 26,553        | 42,625        | 54,271        | 54,271        | 54,271        |
| Residual Value                      | 22,800        | 36,600        | 46,600        | 46,600        | 46,600        |
| Less: Unearned ITC                  | ( 9,498)      | ( 12,795)     | ( 13,783)     | ( 10,776)     | ( 9,337)      |
| Unearned Lease Income               | ( 3,127)      | ( 4,212)      | ( 4,537)      | ( 3,548)      | ( 3,074)      |
| Net Lease Financing                 | 36,728        | 62,217        | 82,551        | 86,547        | 88,460        |
| Total Assets                        | 36,728        | 62,217        | 82,551        | 86,547        | 88,460        |
| <b>Liabilities</b>                  |               |               |               |               |               |
| Notes Payable                       | 21,969        | 29,749        | 30,303        | 17,509        | 0             |
| Deferred Tax Payable                | 7,436         | 22,552        | 42,478        | 62,478        | 82,123        |
| Total Liabilities                   | 29,405        | 52,301        | 72,450        | 79,988        | 82,123        |
| <b>Shareholders Equity</b>          |               |               |               |               |               |
| Common Stock                        | 100           | 100           | 100           | 100           | 100           |
| Contributed Capital                 | 6,024         | 6,459         | 6,459         | 6,459         | 6,237         |
| Retained Earnings                   | 1,199         | 3,357         | 3,542         | 0             | 0             |
| Total Equity                        | 7,323         | 9,916         | 10,101        | 6,559         | 6,337         |
| Total Liability & Equity            | 36,728        | 62,217        | 82,551        | 86,547        | 88,460        |
| Average Equity                      | 3,662         | 8,620         | 10,009        | 8,330         | 6,448         |
| Average ROE                         | 32.7%         | 25.0%         | 23.5%         | 19.1%         | 12.6%         |

Note. Highlighted areas show the primary results of differences in capital structuring (in this case, a 3:1 notes to equity ratio versus Table 7 at 4:1).

Note that these relationships among leverage, interest expense, and ROE hold throughout the five-year period of the example, albeit to varying degrees. Although the "greater leverage/higher ROE" example shown here is not particularly imaginative, the conceptual real-world issues of leverage and capital structure, as well as other structuring alternatives, are very accessible with financial statement modeling. To complete the set of financial information, additional statements such as changes in financial position and cash flow are simple extensions of the model presented.

## Conclusion

Management of a leveraged leasing company faces uncertainties in planning volume and type of new business, and needs to know bottom-line impact of preferred strategies. Computerized modeling can provide insight without risk into a range of proposed marketing solutions.

Despite the simplicity of the examples used herein, the effectiveness of the modeling approach in real world situations cannot be denied. By employing modeling, the questions of how much business and how much net income can be answered for a wide range of volume levels and transaction types. Management can visualize the effects of an aggressive marketing campaign or a different capitalization without actually making a move and taking a risk. This capability can be valuable to a company considering entry into leasing, and indispensable to a company already in the business.

Table 7

# **LEVERAGED LEASING COMPANY** **NOTES TO EQUITY RATIO OF 4:1**

amounts in thousands of dollars

## **Statements of Income and Retained Earnings**

### **Leasing New Business** **(\$ million asset cost)**

|                                     | 114           | 69            | 50            | 0             | 0             |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|
|                                     | 19 x 0        | 19 x 1        | 19 x 2        | 19 x 3        | 19 x 4        |
| Pretax Lease Income                 | 626           | 1,186         | 1,321         | 990           | 474           |
| Allocated ITC                       | 1,902         | 3,603         | 4,012         | 3,006         | 1,439         |
| Total Revenue                       | 2,528         | 4,789         | 5,333         | 3,996         | 1,913         |
| Operating Expense                   | 500           | 500           | 500           | 500           | 500           |
| Interest Expense                    | 1,523         | 3,586         | 4,164         | 3,353         | 1,355         |
| Total Expense                       | 2,023         | 4,086         | 4,664         | 3,853         | 1,855         |
| Income/Loss before Tax Provision    | 505           | 703           | 670           | 143           | 58            |
| Current Provision                   | ( 19,478)     | ( 23,351)     | ( 26,132)     | ( 21,649)     | ( 20,280)     |
| Deferred Provision                  | 18,836        | 22,017        | 24,594        | 20,332        | 19,645        |
| Total Tax Provision                 | ( 643)        | ( 1,334)      | ( 1,538)      | ( 1,317)      | ( 635)        |
| Net Income                          | 1,148         | 2,037         | 2,207         | 1,460         | 694           |
| Beginning of Year Retained Earnings | 0             | 1,148         | 3,185         | 3,333         | 66            |
| Net Income                          | 1,148         | 2,037         | 2,207         | 1,460         | 694           |
|                                     | 1,148         | 3,185         | 5,392         | 4,793         | 759           |
| Less: Dividend Paid                 | 0             | 0             | 2,059         | 4,727         | 759           |
| End of Year Retained Earnings       | 1,148         | 3,185         | 3,333         | 66            | 0             |
| <b>Balance Sheets</b>               | <b>19 x 0</b> | <b>19 x 1</b> | <b>19 x 2</b> | <b>19 x 3</b> | <b>19 x 4</b> |
| <b>Assets</b>                       |               |               |               |               |               |
| Rent Receivable                     | 200,959       | 312,287       | 383,884       | 362,820       | 341,757       |
| Less: Borrowings Interest           | ( 67,693)     | (107,111)     | (134,097)     | (130,349)     | (126,097)     |
|                                     | (106,713)     | (162,551)     | (195,516)     | (178,201)     | (161,390)     |
| Net Rent Receivable                 | 26,553        | 42,625        | 54,271        | 54,271        | 54,271        |
| Residual Value                      | 22,800        | 36,600        | 46,600        | 46,600        | 46,600        |
| Less: Unearned ITC                  | ( 9,498)      | ( 12,795)     | ( 13,783)     | ( 10,776)     | ( 9,337)      |
| Unearned Lease Income               | ( 3,127)      | ( 4,212)      | ( 4,537)      | ( 3,548)      | ( 3,074)      |
| Net Lease Financing                 | 36,728        | 62,217        | 82,551        | 86,547        | 88,460        |
| Total Assets                        | 36,728        | 62,217        | 82,551        | 86,547        | 88,460        |
| <b>Liabilities</b>                  |               |               |               |               |               |
| Notes Payable                       | 23,434        | 31,732        | 32,323        | 19,255        | 1,589         |
| Deferred Tax Payable                | 7,436         | 22,552        | 42,147        | 62,478        | 82,123        |
| Total Liabilities                   | 30,870        | 54,284        | 74,470        | 81,733        | 83,712        |
| <b>Shareholders Equity</b>          |               |               |               |               |               |
| Common Stock                        | 100           | 100           | 100           | 100           | 100           |
| Contributed Capital                 | 4,611         | 4,648         | 4,648         | 4,648         | 4,648         |
| Retained Earnings                   | 1,148         | 3,185         | 3,333         | 66            | 0             |
| Total Equity                        | 5,859         | 7,933         | 8,081         | 4,814         | 4,748         |
| Total Liability & Equity            | 36,728        | 62,217        | 82,551        | 86,547        | 88,460        |
| Average Equity                      | 2,929         | 6,896         | 8,007         | 6,447         | 4,781         |
| Average ROE                         | 39.2%         | 29.5%         | 27.6%         | 22.7%         | 14.5%         |

Note: Highlighted areas show the primary results of differences in capital structuring (in this case, a 4:1 notes to equity ratio versus Table 6 at 3:1).

## Footnotes

1. The specific effects on lease transactions of both ERTA and TEFRA have been well documented in various publications by accounting firms, banks, and other professional organizations. For example, see "The Impact of TEFRA on Leasing Transactions" by James M. Johnson, Ph.D. in Volume 1, Number 1, of this publication for a discussion of TEFRA's adverse impact on lessee rents.
2. The marginal tax rate of 46%, which applies to corporate taxable income in excess of \$100,000, is assumed to apply to the entire amount of taxable income throughout all examples. Differences attributable to the actual graduated scale of tax rates on the first \$100,000 of taxable income are insignificant.
3. For taxable years which begin after December 31, 1982, the taxpayer may apply ITC against the first \$25,000 of tax liability plus 85% of the tax liability exceeding \$25,000 (Internal Revenue Code, Section 46). For simplicity, the examples have assumed that the 85% limitation applies to the entire tax liability. Excess credits may be carried back to previous taxable years or carried over to future years.
4. Financial Accounting Standards Board Statement No. 13, "Accounting for Leases," was issued in 1976 in an attempt to standardize the accounting treatment of leases by lessees and lessors. Statement No. 13 has been the subject of numerous amendments, interpretations, and technical bulletins by the FASB since its original issue, but leveraged lease accounting has not changed significantly.
5. Statement No. 13 specifies that in a leveraged lease, income recognition is determined by allocating the anticipated cash flows between income and the decrease/increase of the lessor's investment. Because of this income recognition method, in many leveraged leases a second investment will occur after the initial investment has been recovered. The complication of this method is that the portion of cash flow allocated to income must be allocated in constant proportion to outstanding investment, which means that a computer program must be used to determine the allocation rate.

# Adopting the Marketing Concept:

## The Key to Lessor Survival—and Prosperity—in the 1980s

by Thomas C. Wajnert

The economic forces and business attitudes which prevailed in the go-go 1960s and the inflationary 1970s fostered explosive growth in the domestic equipment leasing industry. From its founding in 1952 through its development to multi-billion dollar status in the early '80s, the industry has greeted hospitably new participants, offering both entrepreneur and institution seemingly unlimited opportunities for growth and profit.

Now, it appears that the industry has reached a point of maturity where the tried and true formulas for success developed during the growth years no longer apply.

A lengthy capital goods recession—and the effects of regulation, deregulation and a Treasury Department awakened to a new source of tax revenue—has temporarily turned growth into stagnation and possibly into decline. As a result, the industry is reorganizing and volume-starved lessors are awakening to the role marketing can play in revitalizing their competitive position. Selling—price and promotion—is passé; marketing—segments, targets, niches, and differentiated products—is now in vogue. Apparently, the leasing industry has finally discovered the marketing concept.

To assert that the equipment leasing industry has *finally* discovered a twenty-year-old concept is not pejorative. It only reinforces the notion that there had been “no need” to do so

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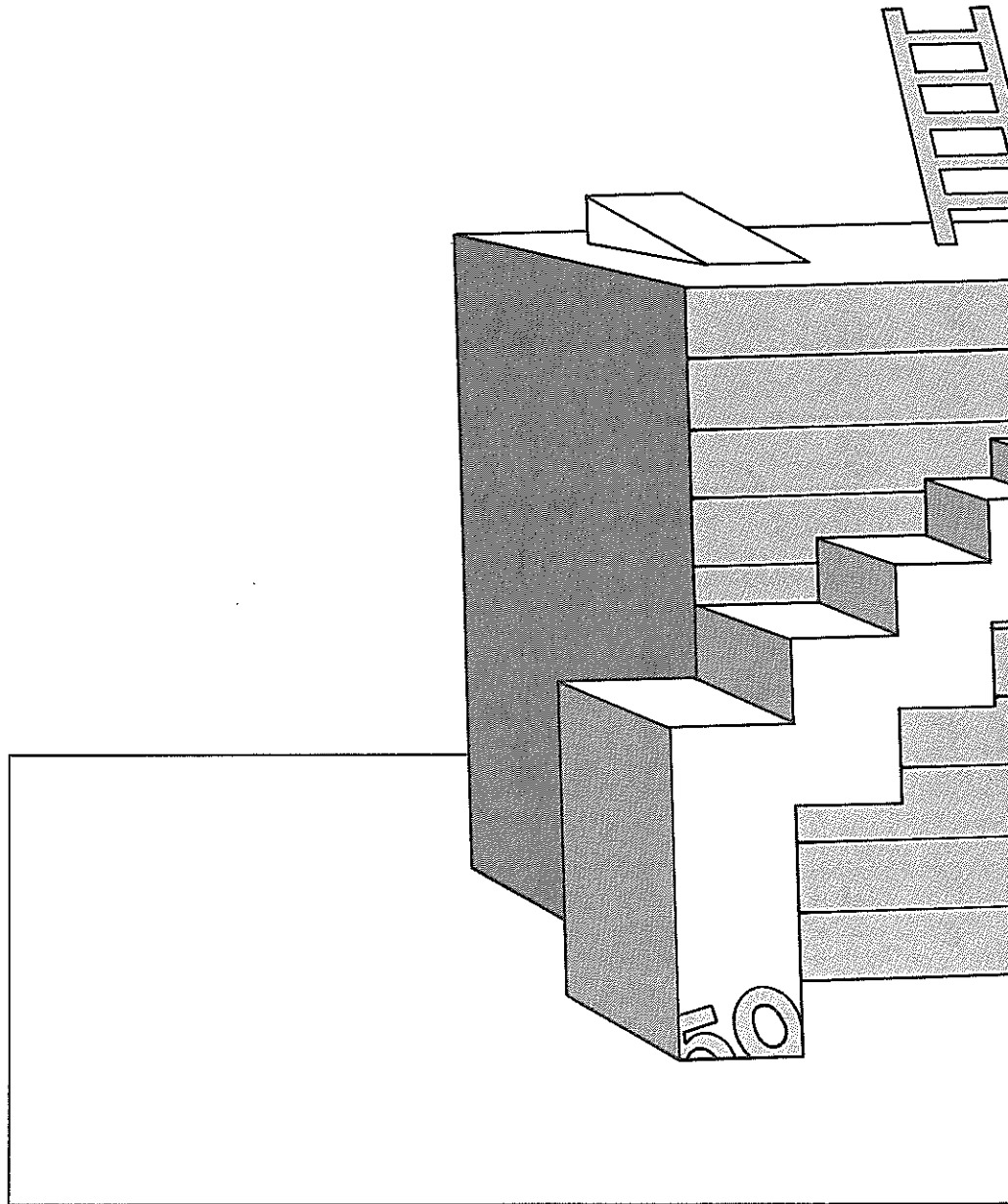
*The author is president of U.S. Portfolio Leasing, Inc., a company specializing in the creation, acquisition, and management of portfolios of operating lease assets. He was previously executive vice president of U.S. Leasing Corporation. He currently serves as chairman of the American Association of Equipment Lessors Operating Lease Technical Panel.*

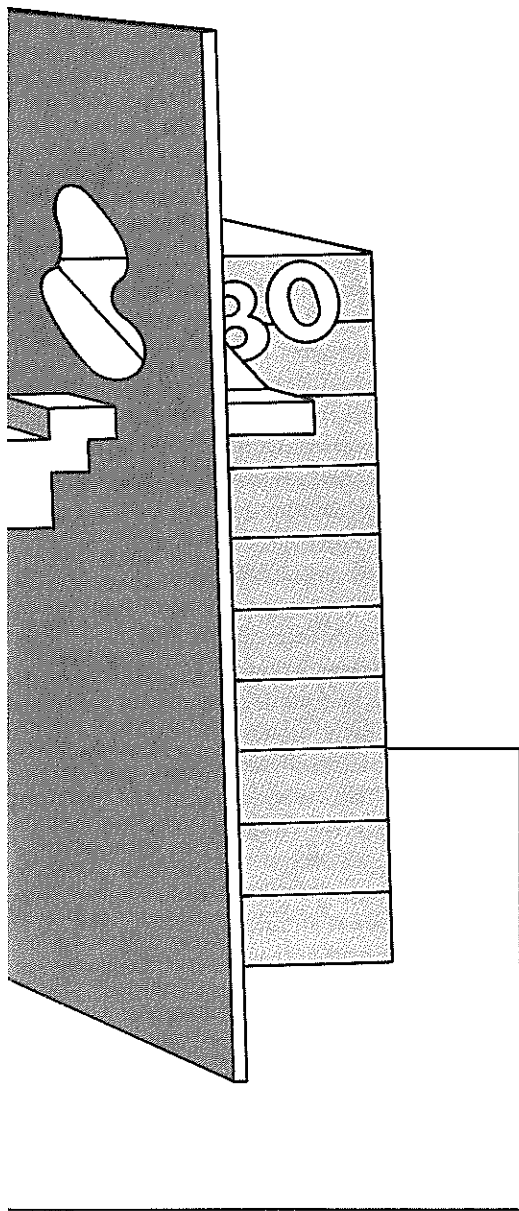
earlier. The older management concepts (production, product, or selling) were all that were needed for success.

The marketing concept was formulated about 1960 through an informal consensus of early marketing practitioners. It is a management orientation that requires identification and grouping of potential customers into different market segments depending

on their needs and wants *and*, then, adaption to deliver needed “products” (satisfiers) more effectively than those of competitors. The tasks are to research and choose target markets and develop effective offers and marketing programs as the key to attracting and holding customers.<sup>1</sup>

The difference between the marketing concept and the older management





concepts is clear: The marketing theory dictates "find wants and fill them." Other concepts advocate a variant of "create products and sell them." The marketing concept requires an integrated corporate effort to generate customer satisfaction and meet the organizational goals while other theories rely on selling and promotion alone to expand profits through

increased sales volume.

Peter Drucker is often quoted to reinforce the implicit differences between selling and marketing: "Indeed, selling and marketing are antithetical rather than synonymous or even complementary. There will always, one can assume, be need for some selling. But the aim of marketing is to make selling superfluous. The aim of marketing is to know and understand the customer so well that the product fits him and sells itself. Ideally, marketing should result in a customer who is ready to buy. All that should be needed is to make the product or service available, i.e., logistics rather than salesmanship, and statistical distribution rather than promotion."<sup>2</sup>

To be sure, the leasing industry does not stand alone as the last holdout; marketing has not played a major role in the management of most service businesses. In late 1981, the Marketing Science Institute described the marketing deficiencies within the service sector: "This situation stands in sharp contrast to the mode prevailing in manufacturing firms, especially those in the business of selling consumer goods. For the past quarter century or more, marketing has been a dominant management function in consumer goods firms, offering strategic direction as well as tactical expertise. Marketing of industrial goods has lagged the consumer sector but has become significantly more organized and more professional in the past 10 to 15 years. Both conceptually and in practice, professional marketing management is still relatively new to the service sector. However, the increasingly competitive nature of many service industries is serving to emphasize both the importance of a marketing orientation and the link between good marketing practice and profitable performance."<sup>3</sup>

As firms in the leasing industry begin to recognize their own need to adopt the marketing concept, they should be mindful of what Philip Kotler refers to as the "five stages of marketing enlightenment."<sup>4</sup> The natural evolution of marketing through the "five stages" leads from sales and sales support systems to real customer

service and sensitivity; from simple products to innovative and differentiated products that satisfy specific needs; from customer perceptions generated through personal selling to strategic positioning within target markets; and from ever-increasing yearly sales quotas to sophistications in analyzing markets, developing strategies and tactics, and installing control systems.

While some firms in the leasing industry are clearly further along the evolutionary marketing path than others, it's fair to say that the industry has been predominantly sales driven. Consider the ever-increasing compensation schemes granted to leasing salespeople over the years; the proliferation of brokers, packagers, and other entrepreneurial spirits whose value added is limited to their hard selling efforts; and those inevitable questions asked when recruiting a potential sales manager: "What kind of following do you have? What business comes with you? Which vendors do you have in your pocket? How many new equity sources can you bring along?"

Of course, there have been attempts to segment the market and demonstrate greater customer sensitivity: Who can forget the conventional lessor specialties of "big ticket," "middle market," and "vendor programs?" But, these represent only a limited effort at market segmentation.

There also has been product innovation: Some developed by lessors, some by regulators. In the 1970s, the industry went from a money-over-money type lease with a choice of purchase options to leveraged and single-investor tax-oriented leases. The accounting profession provided definitions for capital, operating, and sales-type leases while Uncle Sam gave, then modified, and finally took away an innovative and potentially damaging product, the Tax Benefit Transfer (TBT). But, as an industry, equipment leasing persists in offering a product that is arguably the functional equivalent of credit and is packaged, delivered, and sold as a service by an individual sales representative (AKA district or regional manager, leasing

officer, business development or account manager, and every executive title from assistant vice president to chief executive officer).

With all this said, it's still true that this now mega-billion dollar industry is extremely fragmented. No competitor holds a clear and commanding position with a dominant market share. The opportunity to apply the marketing concept and establish a strategic position within the market is overwhelming: If this huge, fragmented market could be segmented to group potential customers into target markets, and bundles of services could be developed to satisfy the needs of those markets, then individual lessors could rise to a profitable dominance of those niches.

Perhaps, in reality, the issue is more one of survival than one of identifying opportunities to be grasped. It is necessary to recognize that the leasing industry, like others before it, has matured; the overwhelming growth that camouflaged a multitude of management indiscretions has slowed dramatically. Ease of entry into the industry has become ease of exit. Institutions are now facing up to the pricing and credit decisions of years past, recognizing their losses and, in some

cases, selling out or closing shop. Bank lessor after bank lessor has opted out of leasing; industrial finance companies and diversified financial service firms have reported huge losses on their lease portfolios; traditional lessor tax bills have evaporated; and, ironically, there still isn't enough business to go around.

Under examination, there are competitive strategies at work that are consistent with mature rather than growth industries:<sup>5</sup>

- ◆ Joint venturing to access and reorganize a mature market—major leasing joint ventures recently have been announced, including the Merrill Lynch partnerships with both IBM Credit and Comdisco.
- ◆ Accessing a mature market through acquisition then rationalization or consolidation—two major insurance companies have taken this approach within the last six months: One through its acquisition of Seafirst Leasing; the other through its acquisition and consolidation of Equico Lessors and OMNILEASE.
- ◆ Development of clearly defined market segments with strategic positioning by competitors—computer leasing is so well defined that it has

its own industry trade association, Computer Dealers and Lessors Association (COLA), with well-positioned competitors (such as Comdisco, CMI, CIS) belonging to both COLA and the American Association of Equipment Lessors.

- ◆ Development of brand recognition to establish dominance in a mature market—many large lessors have utilized advertising in business and consumer magazines to establish their brands. More significantly, General Electric Credit Corporation has recently committed to a national television campaign to create broad customer brand recognition.

If these observations are correct—and the equipment leasing industry has moved into its "mature stage" (see Figure 2)—then I predict a shake-out scenario with more intense competition, but fewer competitors. Product innovation will increase but, with few barriers to entry, will be quickly duplicated by competitors. Increased specialization will take place with lessors acting to dominate a market segment and establish defensible niches. Competitors will be larger—with greater resources—but potentially restrained from acting quickly because of corporate hierarchies and systems.

In light of this continuing reorganization of the industry, lessors would be well advised to re-evaluate their own strategic position. A thoughtful analysis should include:

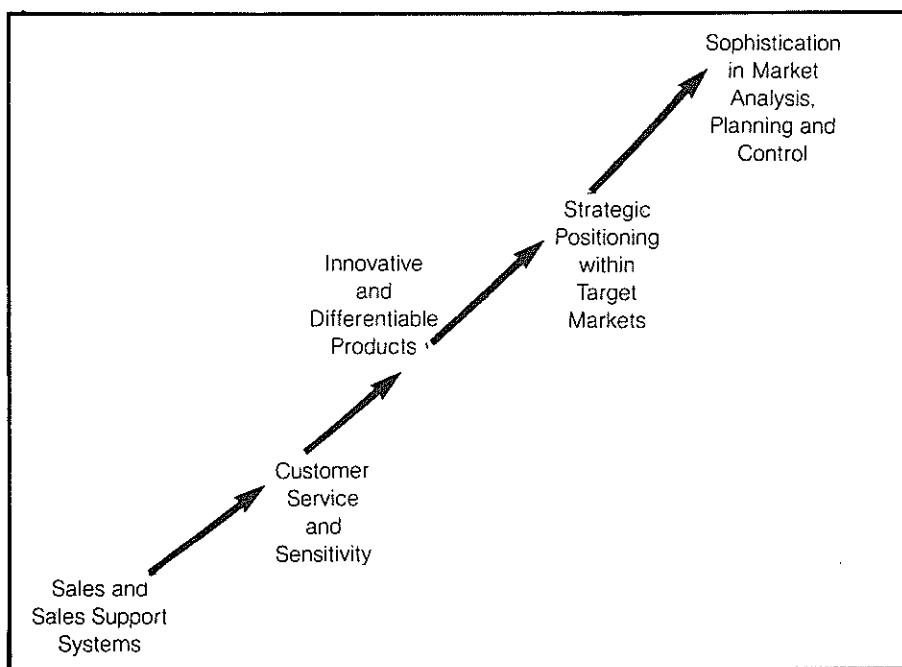
- ◆ Market segmentation and an assessment of market needs;
- ◆ A competitive dissection;
- ◆ A technology or product-potential assessment;
- ◆ Profit sensitivity and impact of alternative strategies on overall organizational objectives.

## Market Segmentation and an Assessment of Market Needs

This effort must go further than the traditional big ticket, middle market, vendor program approach. Vertical industries, geographic location, channels of distribution, and financing requirements can all be used to further

Figure 1

### EVOLUTION OF MARKETING



segment the market. Big ticket might be segmented to project financing for fully automated manufacturing facilities; middle market to in-patient health care facilities with over 200 beds; vendor programs to agricultural dealers in the tri-state (California, Oregon, Washington) area. For a segment to be considered attractive, one must be able to assess the degree to which:

- ♦ The segment size and needs can be measured;
- ♦ The segment members can be effectively reached and served;
- ♦ The segment's potential profitability merits the time and money to create a dedicated effort.

Assessing and measuring the unmet needs of a segment is crucial and should not be based solely on intuition or experience. Actual user interviews by objective business analysts can overturn conventional wisdom and identify innovation opportunities based on unrecognized market needs. Curiosity is important here, not preconception.

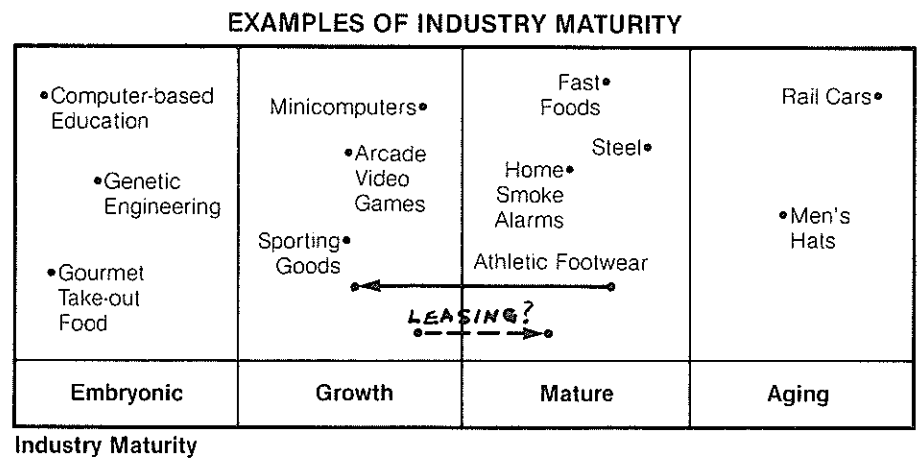
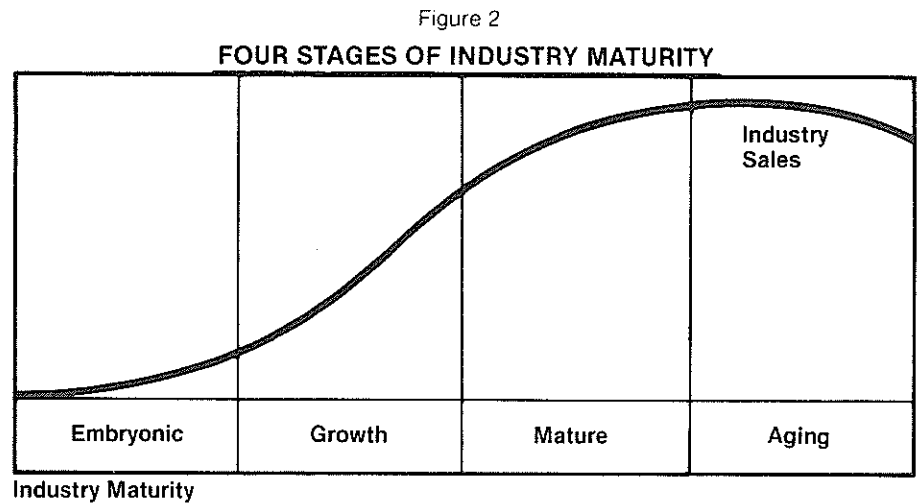
## Competitive Dissection

This is an aggressive analysis to identify competitor weaknesses which may provide strategic opportunities. This effort should develop answers to questions such as:

- ♦ Which segments offer the least or most vulnerable competition?
- ♦ Which competitors are tied to elaborate corporate management systems? Which have financial problems?
- ♦ What are the backgrounds and attitudes of the senior managers of major competitors?

## Technology or Product-Potential Assessment

This is an evaluation of the technologies that lead to innovation, product differentiation, need satisfaction and value added through improved performance features, quality, and application. Traditionally, it would include a lessor's ability to evaluate and



react to the changing regulatory/tax environment, the ability to raise financing or find a tax bill to shelter, the ability to fully administer a diverse lease portfolio, or the ability to provide a vendor timely and professional sales and training. Many of these are "base technologies" upon which the leasing industry was formed, while some are "key technologies" which are still under development. The base technologies are shared by many, while the key technologies are possessed by few. Then, there are "pacing technologies" which are in an early stage of development and have potential for further product innovation. This assessment leads to conclusions as to future investments: A new interactive computer system to process vendor lease applications; development of new tax-based financing sources; establishment of a nationwide salesforce; an authorization to hire experienced tax counsel; a

sophisticated pricing system distributed to a vendor sales force via personal computer and telecommunications; etc.

## Profit Sensitivity

The final step is to identify the two or three levers that dramatically move profits—volume, gross margin, general and administrative costs, sales expenses, depreciation and residual policies, etc.—and to relate them to the needs of the selected market segments, competitive positioning, and the results of the technology assessment. All these factors are then related to the overall objectives of the organization, and a strategic marketing plan is formulated.

Despite the much promoted "experience" or "learning curve," there are many industries in which company profits do not depend on it being the low-cost producer. Differentiated products commanding a dominance in a



market segment or defensible niche grow faster, command higher prices and bring higher margins than their undifferentiated counterparts. They also tend to generate higher returns on investment than do more price sensitive "commodity" products.

Survival—and, perhaps, prosperity—is a realizable goal for lessors in what appears to be a maturing industry. In spite of the efforts of regulators, deregulators, and special interest groups lobbying for favorable tax treatment, there are tremendous opportunities for

lessors who are willing to adopt the marketing concept. There are market segments to be identified; innovative, need-satisfying services to be developed; and niches to be dominated and defended. All lessors share in the base technologies of the industry. Many have invested in key technologies to differentiate services, and a few leading-edge lessors (the survivors?) are developing those pacing technologies that will profitably position them in the more competitive, market-driven leasing industry of the 1980s.

## Footnotes

1. Philip Kotler, *Marketing Management: Analysis, Planning and Control* (Englewood Cliffs, NJ: Prentice Hall, Inc., 1980). pp. 26-31.
2. Peter F. Drucker, *Management: Tasks, Responsibilities, Practices* (New York: Harper and Row, 1973). pp. 64-65.
3. Eric Langeard, et al, *Services Marketing: New Insights from Consumers and Managers* (Cambridge, Mass.: Marketing Science Institute, 1981). pp. 8-10.
4. Kotler, op. cit., pp. 11-12.
5. *Discovering the Fountain of Youth: An Approach to Corporate Growth and Development* (Cambridge, Mass.: Arthur D. Little, Inc.). pp. 46-47.
6. Ibid, pg. 9.

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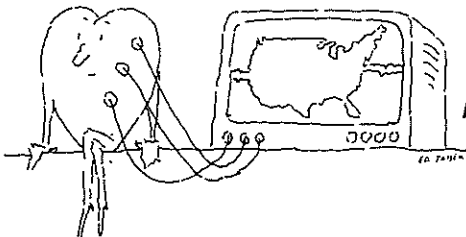
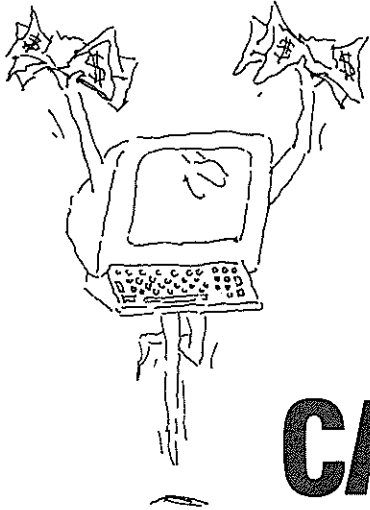
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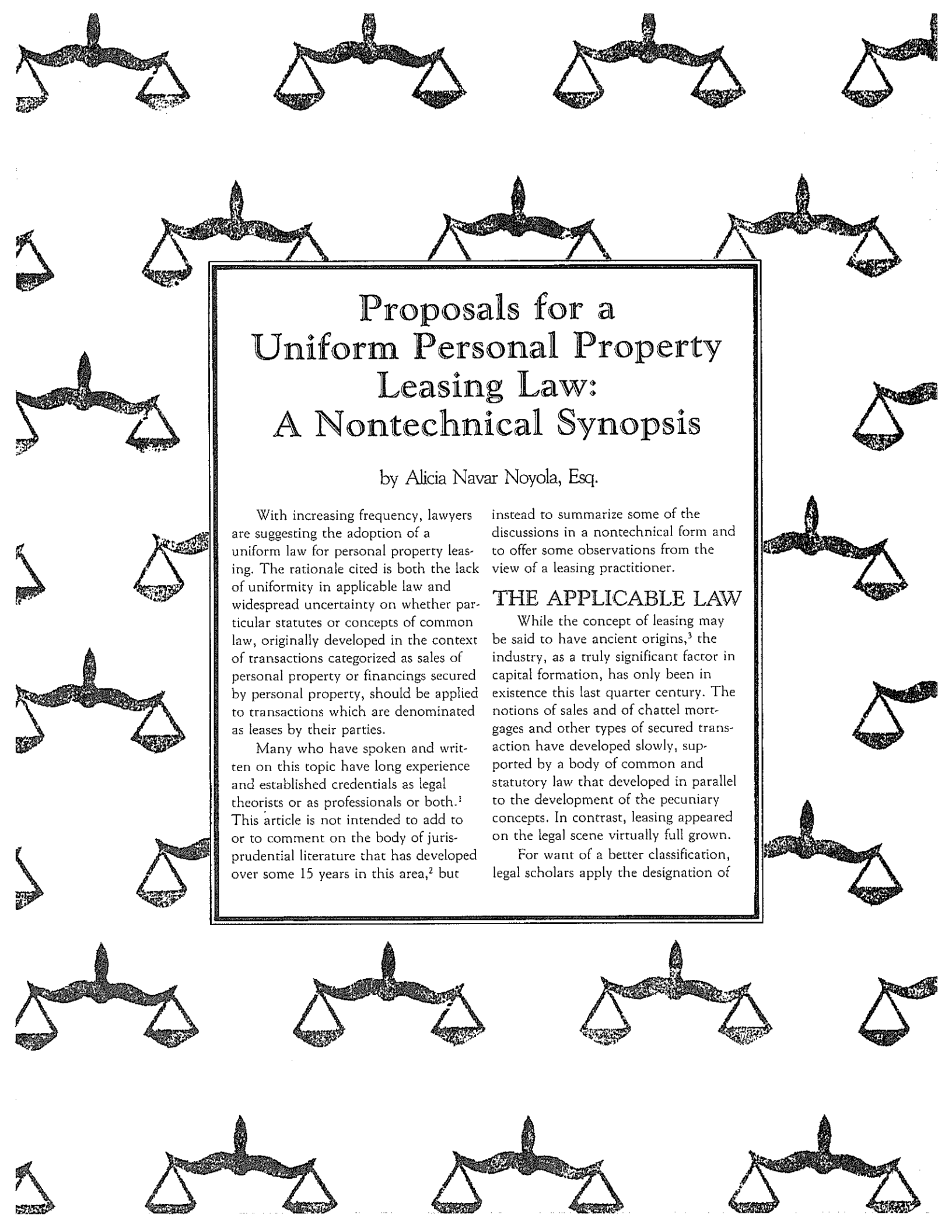
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# Proposals for a Uniform Personal Property Leasing Law: A Nontechnical Synopsis

by Alicia Navar Noyola, Esq.

With increasing frequency, lawyers are suggesting the adoption of a uniform law for personal property leasing. The rationale cited is both the lack of uniformity in applicable law and widespread uncertainty on whether particular statutes or concepts of common law, originally developed in the context of transactions categorized as sales of personal property or financings secured by personal property, should be applied to transactions which are denominated as leases by their parties.

Many who have spoken and written on this topic have long experience and established credentials as legal theorists or as professionals or both.<sup>1</sup> This article is not intended to add to or to comment on the body of jurisprudential literature that has developed over some 15 years in this area,<sup>2</sup> but

instead to summarize some of the discussions in a nontechnical form and to offer some observations from the view of a leasing practitioner.

## THE APPLICABLE LAW

While the concept of leasing may be said to have ancient origins,<sup>3</sup> the industry, as a truly significant factor in capital formation, has only been in existence this last quarter century. The notions of sales and of chattel mortgages and other types of secured transaction have developed slowly, supported by a body of common and statutory law that developed in parallel to the development of the pecuniary concepts. In contrast, leasing appeared on the legal scene virtually full grown.

For want of a better classification, legal scholars apply the designation of

"bailment for hire" to this type of transaction, but the venerable theories of bailment are neither sufficient for, nor wholly applicable to, the issues raised by a modern leasing transaction. In the abstract, a lease is properly perceived as a bailment (the delivery of a thing to a party not its owner, for that party's use, in return for compensation pursuant to a contract).<sup>4</sup> In practicality, a lease can be seen not only as a bailment, but also as a sale of the leased equipment or as a financing secured by that equipment. The extent to which those various aspects dictate the true nature of a transaction denominated as a "lease" depends upon the structure of the transaction and on the circumstances in which it was entered into.

Because of its multiple characteristics, courts and litigants have struggled to make a host of commercial rules of law fit the leasing arrangement. The application is seldom predictable or uniform, and, what is more unfortunate, the consequences of the application of these commercial laws may be inconsistent with the relationship which the parties intended when they entered into the transaction. What follows is a description of the way in which various of those laws have been or could be applied to leasing transactions.

## The Lessor as Creditor

One area of difficulty involves that group of legal concepts brought to bear as a result of the lessor's role as a financing party. If the transaction is viewed as a financing device, and the lessor's interest in the leased property is interpreted as a security interest, laws regarding the perfection and priority of

security interests, availability of remedies, limitations on permissible interest rates, and the rights of the parties in the event of a bankruptcy, might be properly applied.

## Perfection and Priority

The Uniform Commercial Code (UCC), adopted in much the same form in virtually every state<sup>5</sup> includes, in Article 9, provisions establishing the rights of secured lenders and governing their enforcement. A lessor deemed to be covered by the Code is required to make a public record of its interest in the leased property by filing under the provisions of Article 9 to protect its interest in the leased property from being subject to the interests of the lessee's creditors. A failure to file would place the lessor in the category of an unsecured creditor.<sup>6</sup>

The Code also establishes rules for priorities among parties that may have competing interests in the same collateral. Even though a proper filing under Article 9 may be in place, a lessor's interest may be subordinate to those of other parties who may have filed earlier than the lessor,<sup>7</sup> or to the interests of a buyer without knowledge of the lessor's interests,<sup>8</sup> or to liens in respect of federal or state tax liabilities,<sup>9</sup> or to liens attaching because of the nature of the property as a fixture,<sup>10</sup> or to workmen's or materialmen's liens.<sup>11</sup>

## Remedies

Article 9, in Part 5, sets out the rights of a secured party in the event of a debtor default. These provisions have been applied to transactions where a lease was determined to be one "intended for security,"<sup>12</sup> and have also been applied to transactions where there was no determination of whether the lease was one intended for security, and so expressly within the coverage of Article 9, or a genuine lease.<sup>13</sup> It is the application of the provisions of this Article to transactions denominated leases which has caused the most comment and concern among lawyers, and has given impetus to proposals for a uniform statutory approach to personal property leasing.

The remedies available to a creditor under Article 9 include the right to repossess the collateral if it can be done without a breach of the peace, or to do so through judicial process;<sup>14</sup> if the debtor consents, the right to retain the collateral in full satisfaction of the debt;<sup>15</sup> and the right to dispose of the property—by sale, lease, or otherwise—so long as the disposition meets the two basic requirements of the Code: The debtor must receive reasonable notice of the creditor's intention to dispose of the asset, and second, the disposition must be "commercially reasonable."<sup>16</sup>

The creditor's rights are balanced by the rights of the debtor to redeem the property at any time before it has been disposed of or before an agreement is made as to disposition or as to retention, by paying to the debtor the amounts owing;<sup>17</sup> and to challenge a proposed disposition before it is made.<sup>18</sup>

If, after a proper disposition, there remains a deficiency owing by the debtor, the creditor may claim the amount of the deficiency. If there are excess proceeds from the disposition, these are credited to the debtor.<sup>19</sup>

The intent of the Code is to assure that the highest possible price will be obtained for the collateral that secures the debt.<sup>20</sup> While this is certainly the same intent of a lessor seeking to dispose of leased property defaulted upon by the lessee, in several respects the application of Article 9 can be at odds with the interests of a lessor in a true lease transaction.

The premise underlying the remedies prescribed by Article 9 is that the debtor has equity in the property, which cannot be bargained away.<sup>21</sup> Consequently, the debtor is entitled to the value of the property, offset only by the amount of the debt obligation. If Article 9 is applied literally to a lease transaction, then the entire disposition proceeds, including the proceeds that can be attributed to the residual value of the equipment after the lease term, are credited against the lessee's obligations under the lease,<sup>22</sup> and if there is any excess, it is paid to the lessee. The lessor is deprived not only of the

*The author is senior vice president and counsel of Pacesetter Leasing Corporation, a newly organized, privately held company that arranges and participates primarily in third-party operating lease programs. She formerly held a similar position at Budd Capital Markets, Inc., has been affiliated with United States Leasing International, and has acted as lecturer in contract writing and analysis at the University of California, Berkeley School of Law.*

residual value that it may have assumed at the beginning of the lease, but if the property has increased in value beyond the parties original expectations, the lessee, not the lessor, receives the benefit of the windfall. The lessee is thus in a more advantageous position as a result of the default than it would have been had no default occurred and the parties had disposed of the property at the end of the term in accordance with the lease.

The premises underlying Article 9 are intended to protect not only the debtor's interests but also (or perhaps more so) the interests of other secured parties. Hence the Code permits the debtor to vary the provisions of the Article by contract only within a limited scope. While a leasing transaction may be intended as the functional equivalent of the extension of credit, and the remedies provided for by Article 9 may be suitable, leases are frequently entered into on the basis of noncredit considerations, and the remedies designed in light of such noncredit considerations may not be enforceable upon application of Article 9.

The standards imposed by the Article on a creditor in connection with a disposition are stringent, requiring that "every aspect including the method, manner, time, place, and terms" of a disposition be commercially reasonable.<sup>23</sup> The procedures that lessors presently have in place for disposition of leased assets defaulted upon may not meet the standards. The effect of a lessor's failure to comply with the required method of disposition is significant: Such a lessor may be disqualified from collecting any deficiency from the lessee.<sup>24</sup>

## Usury

If the lease can be said to be a loan of money or a forbearance of a debt, then it is subject to the limitations against usurious rates of interest imposed in most states by statute or constitutional proscription.<sup>25</sup> A great volume of leasing is exempted from usury limitations either because of the nature of the lessee as a commercial entity, because there is a specific

exemption provided for the lessor, or because of the time-price doctrine, which allows a seller of property to sell at one price for cash and at another for credit, without the application of usury laws. However, in cases where the laws are deemed to apply, the consequences for violation are severe, ranging from precluding the creditor from collecting the portion of interest held to be usurious, to penalizing the lender by requiring a reimbursement to the borrower of a multiple of the usurious interest.

## Bankruptcy

Whether a transaction is characterized as a lease or as a secured lending can have a significant bearing on the rights of the lessor/creditor in the event of a bankruptcy by the lessee/debtor. In either case, the filing of a bankruptcy petition automatically stays the exercising of the creditor or lessor remedies against the debtor or in respect of the property at issue.<sup>26</sup> If the transaction is a lending, the debtor has the right to continue to use any of the collateral property, with or without the consent of the lender, so long as the lender is given "adequate protection" that the "value" of the property will be preserved.<sup>27</sup> The extent to which this protection is beneficial to the lender depends upon how the property is valued. By comparison, if the transaction is a lease, the debtor/lessee must assume the lease or reject it in its entirety, and if assumed, must give to the lessor "adequate assurances" that any prior default will be cured promptly, and that performance will take place in the future,<sup>28</sup> thus protect-

ing the lessor's negotiated rental stream.

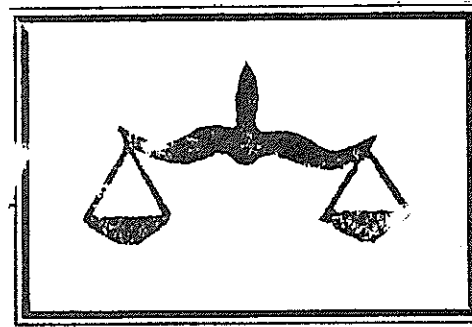
## The Lessor as Seller

A further group of laws is sought to be applied to lessors as a consequence of their role as direct or indirect suppliers of equipment. These may create liabilities in respect of sales warranties, impose an obligation to collect taxes, and limit the enforcement of lessor remedies.

## Warranties

There have developed over time in the common law, two warranties that are implied in connection with transactions involving goods. These warranties, that of merchantability and that of fitness for a particular purpose, have been codified in Article 2 of the Uniform Commercial Code.<sup>29</sup> The significance of the warranties lies in their strict imposition of liability: Warrantor liability does not depend on fault, so that there is liability even where there is no negligence.<sup>30</sup>

The warranties have been applied in lease cases both prior to and since the adoption of the Uniform Commercial Code<sup>31</sup> in instances where courts have found some nexus between the lessor and equipment that justified the imposition of liability, such as the lessor's special knowledge of, or extent of experience with, the equipment, and a showing of reliance by the lessee on the lessor's judgment.<sup>32</sup> The warranties can be excluded by contract provision meeting the requirements of the Code.<sup>33</sup>



## Sales and Use Tax

When a lease is perceived as a sale of the leased property, the laws requiring collection of sales or compensating use taxes may be applicable. Some jurisdictions specifically include leases within the types of transactions on which taxes are imposed.<sup>34</sup> By contrast, a true financing is not itself subject to sales and use tax laws.

## Remedies

Article 2 of the Uniform Commercial Code also describes the remedies available to a seller in the event that a buyer defaults in the payment of the purchase price of goods. Because of a lessor's role as a supplier of equipment, these sections of the Code have been made to apply to lessors. Thus the provision that liquidated damages should be only for "an amount which is reasonable in the light of the anticipated or actual harm caused by the breach, the difficulties of proof of loss, and the inconvenience or nonfeasibility of otherwise obtaining an adequate remedy," and the prohibition of "unreasonably large liquidated damages"<sup>35</sup> could limit the enforceability of acceleration of rentals clauses.

A further provision of Article 2 would, if applied to a lease, indirectly require a lessor to mitigate its damages in enforcing its remedies. Damages to a seller under Article 2 are limited to an amount equal to the difference between the market price of the goods involved in the default, and the unpaid contract price.<sup>36</sup> In order to mitigate, the lessor would be required to dispose of the leased asset by sale or re-lease, crediting the lessee with at least the value of the

use of the property during the remaining lease term.<sup>37</sup> As is required in connection with the enforcement of remedies under Article 9, applying to secured parties, the disposition of the goods must be done in a "commercially reasonable" manner.<sup>38</sup>

It has been suggested that a "merchant lessor" (a lessor who is in the business of leasing equipment of the same type as that sought to be disposed of) is unfairly burdened by the requirement to lease or sell the equipment involved in a default to a customer who would otherwise have taken an item of equipment from the "merchant lessor's" inventory, and that there should be some exemption from the requirement to mitigate for such lessors.<sup>39</sup> However, this is exactly the burden that Article 2 places expressly upon sellers of goods, and it seems inconsistent to relieve a supplier from the requirement of the statute because of the method that it selects for placing the goods in the hands of a customer.<sup>40</sup>

## The Lessor as Owner

The lessor's status as owner of the leased equipment may be the basis for liability for personal property taxes.<sup>41</sup> It also may make applicable the doctrine of strict liability in tort, under which a lessor/owner may be deemed liable in connection with claims or losses relating to the equipment, even without a showing of negligence on its part.<sup>42</sup>

## THE PROPOSALS

None of the proposals for statutory treatment of personal property leasing appearing to date have offered comprehensive statements of what a new

law should be. Rather, the proponents have sought to encourage discussion within their profession and in the industry as to the merits of various suggested approaches.

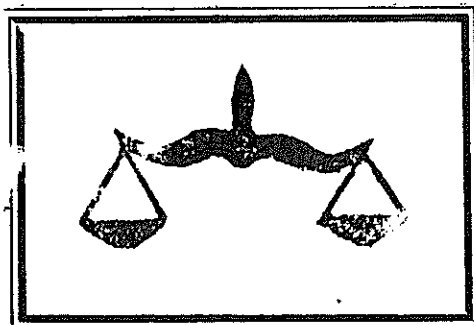
The proposals primarily have addressed remedies available to a lessor in the event of a default under the lease, and, to a lesser extent, the requirement of filing to create a public notice of lease transactions. Among legal scholars, there is much debate as to whether the statutory treatment should take the approach of an amendment to the definitions section of the Uniform Commercial Code and to Articles 2 and 9 of the Code, the addition of one or more Articles to the Code, the creation of an entirely new code, or some combination of the above. For purposes of this article, the substance of the proposals might best be understood without considering how changes in the law would be accomplished structurally. The proposals summarized below reflect the widely diverging approaches that are possible with respect to this issue.

## A "True Lease" Statute

One approach<sup>43</sup> is to acknowledge a distinction between "true" leases and leases which fall in the category of security arrangements. Leases in the latter category are presently and would continue to be governed by Article 9.

"Nonsecurity" leases would be covered by new provisions of law, which would provide remedies designed to protect the lessor's benefit of its bargain. These remedies would include: All the remedies to which a secured party is entitled; and in addition, the right to terminate the lease, to recover any accrued and unpaid rentals, with interest, and to recover such compensation as will place the lessor in the position in which it would have been had the leasing agreement been performed in accordance with its terms.

In determining the amount of this compensation, the lessee would be credited only with the value of the use of the repossessed equipment for the remainder of the original lease term, and would receive no credit for the value of any residual; the lessor would



be required to make reasonable efforts to avoid loss.

This approach does not provide any simple formula for calculating the damages available on a breach, leaving a great deal to be determined in accordance with the circumstances surrounding the lease transaction. Thus, for example, whether the lessor was a "merchant" (and so would lose volume of sales by being required to sell or re-lease equipment which had been default upon) would be taken into account in determining what compensation would give the lessor the benefit of its bargain. Similarly, there is no absolute requirement that a lessor sell or re-lease the equipment in order to mitigate its damages. The lessor would be required to do so only if it were reasonable to do so in order to diminish the loss.

## A "No Distinction" Statute

An alternate approach<sup>44</sup> is premised on the theory that there is no theoretical line between a lease constituting a security agreement and one more properly termed a "true" lease, and that, so long as the remedies which are designed are appropriate to the transaction, it does not matter that a distinction cannot be drawn between the two types of agreements.

The starting point of this proposal is that whenever a lessor grants a purchase option to a lessee, for whatever price, that lessor has given up to the lessee the opportunity for economic gain from the residual. Consequently, remedies should be drawn which preserve this equity position for the lessee. On lessee default, the lessor would be required to sell the property, and all of the proceeds, less the option price, would go to the credit of the lessee and be applied against its liability for prior and future rents. (Presumably an option to purchase at fair market value would bring the transaction within the ambit of these requirements, so that a lessor would be required to sell the equipment in order to preserve the right to damages, but the lessor would preserve the benefit of any unanticipated increase in the value of the

equipment. Such a sale would establish factually what the market value of the equipment is (an amount that equals the lessee's option price).

If there is no purchase option, the lessor would be required to sell the equipment only if at the time of repossession the lease term remaining is more than half of the remaining useful life of the equipment. The lessee receives credit for a portion of the sale proceeds in the proportion of the present value of the use of the equipment for the remaining term to the present value of the use of the equipment beyond the term. If the lease term remaining is less than the remaining useful life, the lessor is obligated only to re-let the equipment.

These proposals are radically different. Each has appeal from the perspective of a lessor. The merit of the first proposal is that it acknowledges and preserves for the lessor its anticipated benefit from a true lease transaction. However, in order to do so, it requires that a distinction be made between a lease which constitutes a "security agreement" and one which does not. The difficulty in distinguishing between the two is, in large part, the cause of the current uncertainty and unpredictability that is sought to be avoided by a statutory treatment of leasing.

The drafters provide some standards intended to guide a court in classifying the transaction, such that a lease which preserves a "meaningful residual" for the lessor is considered to be a true lease. The existence of a fixed price option to buy or to re-lease, so long as it is for an amount "reasonably estimated by the parties at the time the agreement was made to be not less than the fair market value of the property at the time the option is exercised," does not of itself disqualify an agreement as a true lease; however, if: The agreement requires the lessee to pay an amount reasonably equivalent to the purchase price of "the goods" and provides the option to purchase the equipment at no consideration or for nominal consideration; or at the time the lease or an extension is entered into, the parties "could not

reasonably have expected that the leased item would be returned by the lessee to the lessor at a time and in a condition that it would have a value not insubstantial in comparison with the value of the property at the time the lease was made," then the agreement is deemed to be one for security.

All of these standards are thoughtful references to the intention of the parties at the time a lease is entered into or extended. However, none of the standards is a touchstone. Because by necessity they encompass a wide spectrum of factual circumstances, they must be drafted in broad language. Certainly, the guidelines would be a valuable codification of critical factors that a court is to consider, such that some of the more anomalous and contradictory judicial conclusions would probably be avoided. It is difficult nonetheless to expect that there would be a significant reduction in litigation as courts struggle to determine whether the facts of a given situation fit the guidelines.

The "no distinction" statute is appealing because it avoids the difficulty of making a definitional distinction between a true lease and a security agreement. However, it rests on making key factual determinations: Whether a purchase option exists, and if not, what the life of the equipment is when a default occurs.

Even when the facts are clear as to the existence of a purchase option, it seems unlikely that lessors would be prepared to acknowledge that in granting a purchase option, at any price, they have forfeited their ownership interests in the leased equipment. The argument that the grant of an option indicates a lessor's willingness to part with the economic gain that might be obtained upon disposition of the equipment is correct as an abstraction, but this is a willingness to part with title to a given lessee, for a given price, and on the premise that the lessee perform fully its lease obligations. From a practical point of view, lessors often obtain the benefit of a residual higher than originally anticipated even in cases where an option has been granted to the lessee, because the lessee is not

interested in or is not able to exercise the option. The proposal would, as a matter of law, declare that a lessor who has granted an option has no entitlement to a gain from residual and—what is perhaps more troublesome—would deliver the benefit of the gain to a defaulting lessee.

Moreover, the same requirement that equipment be sold is imposed even absent a purchase option whenever the remaining term of a lease is equal to or greater than half of the remaining life of the leased equipment. The availability to the lessor of the economic benefit of ownership would thus depend on the timing of the lessee default. One can expect that in those situations where there is gain to be expected by the lessee from a forced sale, there would likely arise dispute as to what, in fact, constituted the "remaining useful life" of the equipment, in order to establish the applicability of the requirement.

There is a further practical difficulty with the requirement of a disposition by sale. Such a requirement imposes on the lessor the risk of recapture of tax benefits in circumstances in which it is least likely that the lessee could perform on its indemnity to the lessor covering the availability of those benefits.

Various factors contribute to the difficulty of determining, either as a matter of law or of fact, what is the nature of a given lease transaction. A key factor, discussed above, is the mixed jurisprudential heritage of this type of transaction. Yet there are other factors which ought to be recognized in connection with discussions respecting a uniform personal property leasing law.

Many of the cases in which courts sought to make the distinction between a lease and a security agreement share a common factual thread: The lessor sought to enforce remedies that were inconsistent or overreaching. One can infer that a court, in order to avail itself of the equitable principles underlying the security agreement laws, would seek to classify the lease as such an agreement. So long as lessors continue to write leases containing remedy

provisions which could be seen as unconscionable, or as providing a benefit beyond that originally intended to be obtained from the transaction, the line between security agreements and true leases will continue to blur, as courts and legal scholars reach for whatever codified principle they can apply, either directly or by analogy, to balance the equities between the parties.

Another factor that makes it difficult to draw the line between the two types of transactions is the extraordinary flexibility and originality of the leasing industry in devising lease structures to accommodate changing economic and technological circumstances. Structures for variable rates or variable terms, leases for terms materially less than the useful life but longer than month-to-month, and leases permitting cancellations before the expiration of their terms could not easily be analyzed on the basis of the criteria suggested in these proposals.

One of the stated purposes of codifying the law of personal property leasing is that such treatment would promote uniformity in the treatment of lease transactions. Like the Uniform Commercial Code, a leasing statute (in whatever form it is ultimately enacted) could be adopted in substantially the same form in every state of the Union.<sup>45</sup> But this will not result in meaningful uniformity. It is unlikely that a state statute will govern the determination of substantive issues that are raised in a federal tax context, or in a bankruptcy, or in connection with questions of securities law. These areas of law are likely to continue to be enforced in the manner that their enforcers believe best meets the special purposes for which they were adopted. Yet the codification of leasing law may have an impact that proponents may not intend, by adding to the multiple criteria that already are applied in those areas of the law to determine whether a transaction is a lease, and so increasing uncertainty.

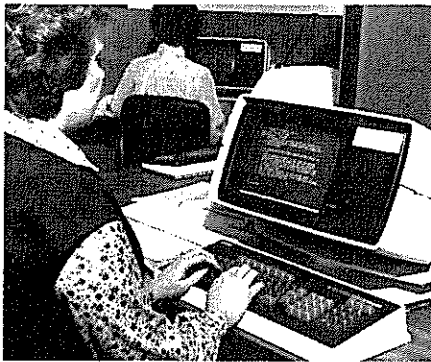
Discussions on the purpose underlying a uniform codification and on the actual proposals for a statute will likely continue for some time. The

nonlegal sector of the leasing industry would do well to bring its perspective to these discussions.

## Footnotes

1. The topic is currently being studied by the Subcommittee on Personal Property Leasing of the Committee on the Uniform Commercial Code, American Bar Association Section of Corporations, Banking and Business Law; by the National Conference of Commissioners on Uniform State Laws, Personal Property Leasing Committee, and, in a cross-national context, by the International Institute for the Unification of Private Law (UNIDROIT).
2. See, for example, Coogan, Hogan and Vagts, *Secured Transactions Under the Uniform Commercial Code* (Matthew Bender 1963, Supp. 1983), Chapters 4.1 & 4.2 by Peter F. Coogan and Chapter 4.3 by Mr. Coogan and Amelia H. Boss; Kripke, Book Review: *Equipment Leasing - Leveraged Leasing*, 37 *The Business Lawyer* 723 (1982). Leary, Jr., *The Procrustean Bed of Equipment Leasing*, 56 *N.Y.U.L. Rev.* 106 1 (1981); Money, *Personal Property Leasing: A Challenge*, 36 *The Business Lawyer* 160 J (1981); and earlier comments at 47 *Notre Dame Lawyer*, 993 (1972); and 13 *UCLA Law Review* 12 J (1965).
3. Leasing lore has it that the first recorded instances of leasing involved the purchase and leaseback by Egyptian Pharaohs of their subjects' land. A more appropriate historical precedent is the practice of railroads, beginning in the 19th Century, to lease their rolling stock.
4. J. Story, *Commentaries on the Law of Bailments* (rev.ed. 1832).
5. All the states of the Union, except Louisiana, and the District of Columbia and the Virgin Islands, have adopted the Code. Louisiana has adopted only certain sections. Uniform amendments to the Code are in place in 21 states.
6. UCC Section 9-302. The Code also provides for a "precautionary" filing under Section 9-408; such a filing is not an acknowledgment that the interest of the lessor is only that of a secured lender, but protects its interests in the event that it is determined that the lease is intended as a security and is not a true lease.
7. UCC Section 9-302.
8. UCC Section 9-301.
9. UCC Section 9-312(5)(a).





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10. UCC Section 9-313.
11. See, for example, *Lease Service Corp. v. Carbonex, Inc.*, 512 F.Supp 253 (S.D.N.Y. 1981).
12. *Grossman v. Lippson*, 8 Cal. App.3d 554, 146 Cal. Rptr. 741 (1978).
13. *Puritan Leasing Co. v. August*, 16 Cal.3d 451, 546 P.2d 679, 128 Cal.Rptr.175 (1976), relied on for the proposition that the remedies applicable in a secured transaction and in a true lease are the same in *W.W. Leasing Unlimited v. Torok Exploration, Mining & Construction Co.*, 575 F.2d 1259 (9th Cir. 1978). See DeKoven, *Leases of Equipment: Puritan Leasing Company v. August*, on *Dangerous Decision*, 12 U.S.F.L.R. 257 (1978).
14. UCC Section 9-503.
15. UCC Section 9-505(2). The consent of other secured parties may also be necessary.
16. UCC Section 9-504(3).
17. UCC Section 9-506. Mr. Coogan comments that even where there exists a valid acceleration clause triggered by a debtor's default in paying a given installment, it is conceivable that a court might allow a debtor to redeem by paying only the installments that may be unpaid, without requiring payment of the full accelerated amount. Cooper, et. al., *supra*, at Section 8.06.
18. UCC Section 9-507(1). The right to challenge also is given to other parties secured by the property being disposed.
19. UCC Section 9-504.
20. UCC Section 9-504, comment 1.
21. See G. Gilmore, *Security Interests in Personal Property*, section 44.2 (1965).
22. This was the outcome of *Puritan*, *supra* n. 13.
23. UCC Section 9-504(3).
24. There are two lines of thought as to the consequences: One would deny the right to any deficiency, and the other would deny the right only to the amount of the difference between what was actually collected at the noncomplying disposition and what would have been obtained at a disposition in line with the requirements of the Code. See cases cited Messrs. Coogan and Hogan in Coogan, et. al., *supra*, at Section 8.06 (2).
25. See, for example, *National Car Rental v. Hendrix*, 565 F.2d 255 (2d Cir. 1977).
26. Section 362 of the Bankruptcy Code.
27. Section 363 of the Bankruptcy Code.
28. Section 365 of the Bankruptcy Code.
29. UCC Section 2-315 and Section 2-314.
30. See Farnsworth, *Implied Warranties of Quality in Non-Sales Cases*, 653 Columbia Law Review, discussion at 657-660.
31. Article 2 has been applied directly to leases and has been applied by way of analogy. Mooney, *supra*, at 1619.
32. Carlin, *Product Liability for the Equipment Lessor? Merchant-Lessor versus Finance-Lessor*, Chapter 8, *Equipment Leasing-Leveraged Leasing*, Practising Law Institute (1980).
33. UCC Section 2-316 and 2-317.
34. As does, for example, California.
35. UCC Section 2-718(1).
36. UCC Section 2-708.
37. UCC Section 2-706.
38. *Id.*
39. See *Honeywell, Inc. v. Lithonia Lighting, Inc.*, 317 Supp. 406 (N.D. Ga. 1970), discussed at Hawkland, *The Impact of the Uniform Commercial Code on Equipment Leasing*, 1972 Ill. L.F. 446, 458.
40. Kripke, *Getting Down to Earth on Equipment Leasing Transactions*, 12 Practising Lawyer 9, 36 (1966).
41. See, for example, *RCA Corporation v. State Tax Commissioner* 513 S.W.2d 313 (Mo. 1974).
42. See Fraser, *Application of Strict Tort Liability to the Leasing Industry: A Closer Look*, 34 Business Lawyer 605 (1979).
43. Proposed by Mr. Coogan and Professor Boss at a symposium "Personal Property Leasing: Prospects and Proposals for Uniform Statute" sponsored in February, 1983, by the American Law Institute and the American Bar Association.
44. Proposed by Mr. Kripke at the same symposium, n.43.
45. There is, of course, no guarantee of uniformity, as the statute is adopted by independent process in each state. Nor will adoption be speedy. For example, the amendments to the Uniform Commercial Code promulgated in 1972 are to date in effect only in some 22 states.

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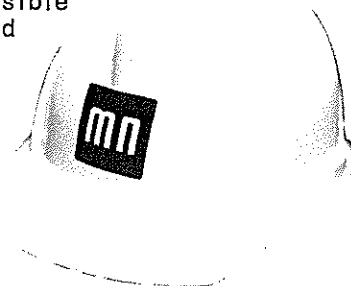
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