Measuring Lease Yields

An emerging new method?

Having been associated with the industry for many years as a lessee, lessor and now a consultant, I have seen a variety of ways in which equipment financiers view the tax benefits potentially associated with leasing. The purpose of this article is to examine the major ways tax benefits are measured. It is important for us in this industry to understand these differences for a number of reasons:

- You may not be getting proper credit for tax benefits generated from your leases. If you are a subsidiary of a larger organization, you need to have an appropriate tax sharing agreement based on mutually recognized tax benefits that are pushed down to you.
- Some in the industry have begun to calculate the tax benefits associated with leasing in ways that produce very different results from traditional methods.
- Knowledge of others' calculation approaches could help you win a deal if you know how a competitor treats tax benefits.
- Knowledge of others' methods could help you in seeking and negotiating with suitable syndication partners.

Below is a short discussion of three primary ways lessors measure the yields associated with leasing, (excluding leveraged leasing). There are other methods not discussed in this article.

Tax Benefits Not Recognized

Here, the lease is treated as a loan with a simple IRR Calculation. Some lenders view leasing simply as a product with flexibility and a preferred collection position over lending and do not bother to recognize tax benefits associated with leasing. In many cases this occurs with small ticket leases where the rate of interest is very significant and the additional yield from tax benefits is therefore relatively small. Usually this situation is limited to small ticket leasing or high risk lending.

To illustrate: this lease is really nothing more than a loan for yield measurement purposes—producing for a simple IRR as the "effective rate":

Assumptions

asset cost:	$100,000
deferred tax:	n/a
simple loan rate:	8.00 percent
effective rate	8.00 percent (simple IRR)
tax benefit to lessor:	0:00 percent

Traditional Method to Measure Tax Benefits

Historically, lenders who have wanted to measure tax benefits have used a widely accepted method, which I will call the "Traditional Method." This method essentially determines the amount of current & deferred tax, which represents less taxes an organization would have to pay, and applies this cash flow to reducing the investment balance in the asset. The approach is all done on an after-tax basis so that both revenue and expenses are expressed after-tax. Thus, with current & deferred tax recognition, the basis in the asset is paid down faster up front and then paid down slower towards the back-end of the lease. This approach assumes that a company always has an ongoing use for conventional tax benefits during the measurement period. Ultimately this is a zero-sum tax flow benefit as the current & deferred tax balance reverses out to zero by the end of the lease, but the front-loading of the benefits enhances the yield. The yield that is calculated is an after-tax yield and is traditionally converted into a pre-tax equivalent yield by dividing the after-tax yield by one minus the tax rate—commonly termed "pre-tax equivalent MISF nominal yield".

Consider the following transaction:

Assumptions:

asset cost:	$100,000
term:	60 months
rent:	$1,743.82 (advance)
residual:	20 percent or $20,000
tax depreciation:	5 year MACRS
lessor tax:	35 percent & December tax year-end
commencement:	July 1, 2007

Some in the industry have begun to calculate the tax benefits associated with leasing in ways that produce very different results from traditional methods.

pre-tax IRR of rents plus residual:	8.00 percent
after-tax nominal yield (rents, residual & taxes):	6.04 percent
pre-tax nominal yield (6.04 percent / (1 – tax rate)):	9.29 percent
tax benefit to lessor:	1.29 percent

In this simple example, the traditional method uses the pre-tax cash flows less the actual taxes paid to produce the after-tax nominal yield. This after-tax nominal yield was divided by 1 minus the tax rate (1-.35), to produce the pre-tax nominal yield (9.29 percent), which is compared to the basic IRR to determine the value of the lease tax benefits. In this case it was 1.29 percent. Note: The initial taxes for 2007 and 2008 were negative in the above chart, which means that these were tax savings and paid down the investment. This initial tax benefit in the early years was offset by a larger amount of taxes paid in later years.

Limited Benefit Method to Measure Tax Benefits

Over the last several years an alternate tax benefit measure has become more widely used. This method, which I will call the "Limited Benefit Method," came into being as some companies focused on leverage and lease accounting considerations. Perhaps the Basel II discussions on risk and leverage ratios have made leverage an increased focus for

Period Ending	Equity & Expenses	Rent & Residual	Taxes	After-Tax Cash Flow
30-Dec-07	$ 100,000.00	$ 10,463.00	$ (3,338.00)	$ (86,199.00)
30-Dec-08		20,926.00	(3,876.00)	24,802.00
30-Dec-09		20,926.00	604.00	20,322.00
30-Dec-10		20,926.00	3,292.00	17,634.00
30-Dec-11		20,926.00	3,292.00	17,634.00
30-Dec-12		30,463.00	8,646.00	21,817.00
TOTAL	$ 100,000.00	$ 124,630.00	$ 8,620.00	$ 16,010.00

The leasing industry has known that tax benefits significantly enhance the lessor's yield, making the lease product more profitable than a straight loan.

many lenders. "Barron's Accounting Handbook" defines leverage (debt to equity ratio), as total liabilities divided by Shareholders' equity. Per SFAS 109 and the "Vest Pocket CPA" handbook," the deferred tax liability, usually enjoyed by the lessor, is only brought over from the liability side of the balance sheet to reduce the lessor's investment when a leveraged lease is involved. Therefore, it is argued that the only real benefit of the current & deferred tax liability is the associated reduction in borrowed debt and therefore interest expense. Note that the lessor must have recourse debt for the Limited Benefit Method yield to be relevant. Like the Traditional Method, this approach calculates the value of the deferred tax by assuming that a company has an ongoing use for conventional tax benefits during the measurement period. Rather than "pay down the investment" with the current & deferred tax, this method simply adds the interest saved, through reduced recourse debt, to the pre-tax revenue to determine a new yield. The yield enhancement from the interest reduction is usually much less under the Limited Benefit Method than in the Traditional Method.

Consider these assumptions, which now also include the lessor's borrowing rate:

Assumptions:

asset cost:	$100,000
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tax depreciation:	5 year MACRS
lessor tax:	35 percent & December tax year end
commencement:	July 1, 2007
borrowing rate of lessor:	6.00 percent

Period Ending	Equity & Expenses	Rent & Residual	MEMO Avg. Current & Deferred Tax	Pre-tax Interest on Current & Deferred Tax	Pre-tax Cash Flow+ Interest on Current & Deferred Tax
30-Dec-07	$ 100,000.00	$ 10,463.00	$ 745.17	$ 44.71	$ (89,492.29)
30-Dec-08		20,926.00	6,535.17	392.11	21,318.11
30-Dec-09		20,926.00	10,349.33	620.96	21,546.96
30-Dec-10		20,926.00	10,398.00	623.88	21,549.88
30-Dec-11		20,926.00	8,830.00	529.80	21,455.80
30-Dec-12		30,463.00	4,948.17	296.89	30,759.89
TOTAL	$ 100,000.00	$ 124,630.00	$ 41,805.83	$ 2,508.35	$ 27,138.35

pre-tax IRR of rents plus residual:	8.00 percent
after-tax nominal yield (rents, residual & taxes):	N/A
pre-tax nominal yield:	8.76 percent
tax benefit to lessor:	0.76 percent

The Limited Benefit uses the pre-tax cash flows, plus interest saved from the reduced borrowing (at the lessor's borrowing rate), to produce the pre-tax nominal yield. This pre-tax nominal yield (8.76 percent), can be compared to the basic IRR (8.00 percent), to determine the value of the deferred tax, producing a benefit of 0.76 percent. Note: The deferred tax grows to a maximum around the mid-point of the lease and then diminishes to zero after the last tax payment.

The leasing industry has known that tax benefits significantly enhance the lessor's yield, making the lease product more profitable than a straight loan—other things being equal. Since most lessors have approached the analysis the same way, differences in tax benefit calculations were usually due to differing tax rates and tax year-ends. For example, lessors have recognized that originating a lease toward the end of a lessor's tax year provided the biggest lift as the maximum amount of deferred tax is generated. The higher blended rate due to state & local taxes could produce a further boost. This has led some to syndicate transactions specific to the fiscal year-end of the investor, or based on state and local tax situations. Now with the industry beginning to use two different methods to determine tax benefits, selection of method will also be a determinant.

Summary from examples above:

Assumptions:

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Tax Recognition Method	IRR (Payment + Residual)	Lessor Pre-Tax Equivalent Yield	Lessor Recognized Tax Benefits
as a Loan	8.00 percent	8.00 percent	n/a
Traditional	8.00 percent	9.29 percent	1.29 percent
Limited Benefit	8.00 percent	8.76 percent	0.76 percent

This article represents the thoughts and support of others in the industry. We are sharing these thoughts with the industry so that lessors can review these concepts with their management and advisors as appropriate.

ELT thanks Ray James, senior consultant for Ivory Consulting Corporation (SuperTrump), based in Walnut Creek, California, for this month's column.