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ACCOUNTING FOR LEVERAGED LEASES

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*Presented before the
Bank Administration Institute,
San Francisco—October 1973*

How can you borrow funds at 8 percent, lend them out at 4½ percent and still get a 13 to 16 percent pretax yield on your investment? Sound improbable? To some, maybe, but more and more banks are doing it, and accounting for the transaction is driving their auditors wild.

It is called leveraged leasing. Although the practice was virtually unheard of ten years ago, today banks are investing in the neighborhood of \$1.3 billion annually in leveraged leases. Substantially all of the jumbo jets flown by U.S. airlines are financed by leveraged leases; Anaconda's new \$40 million aluminum plant is financed by a leveraged lease; there is hardly a major railroad in the United States that is not operating railroad cars financed by leveraged leases.

Central to all leveraged leases are the tax benefits associated with the ownership of property, such as the investment tax credit and the right to use accelerated depreciation. Leveraged leasing allows a company (such as an airline) that has more tax shelter than it can use to trade investment tax credit and accelerated depreciation to a company that needs tax shelter (such as a bank) for a lower interest rate.

STRUCTURE OF A LEVERAGED LEASE

To understand just how this tradeoff is accomplished, let us look at a typical leveraged lease transaction.

An airline wishes to acquire \$1 million of new equipment which it intends to use for fifteen years. Given the airline's credit rating and the value of the collateral, an insurance company agrees to lend approximately 80 percent of the funds required at an 8 percent interest rate repayable in equal instalments over fifteen years. The remaining funds would be supplied by the airline with equity funds—the cost of which undoubtedly would exceed 8 percent. Thus, were the airline to purchase the equipment itself, its total average cost of money would exceed 8 percent.

By purchasing the equipment the airline would receive the right to use accelerated depreciation and investment tax credit. But, because of its many other capital investments, the airline has more depreciation and investment credit than it can use. Hence, these tax benefits of property ownership are of little value to the airline.

This is where the bank comes in. The bank has lots of taxable income. It needs tax shelter and is willing to pay for it. So the bank says to the airline, "Let us buy the equipment, and we will lease it to you over fifteen years at a rental exactly equivalent to what you would have to pay the insurance company to liquidate their loan."

For the airline this is obviously a great bargain. Because they no longer supply any equity funds, their effective interest cost drops to about 4.3 percent. The insurance company is willing to go along. It lends the long-term funds to the bank instead of the airline. Further, it accepts a pledge of the airline's rental payments and the equipment as sole collateral for the loan—the same collateral it would have if it had made the loan directly to the airline. The bank supplies the equity funds and, as owner of the equipment, is entitled to receive the associated tax benefits plus any residual value of the equipment at lease termination.

BENEFITS TO THE INVESTOR

We have now structured a leveraged lease, the significant terms of which are set forth in Exhibit 1. The question remaining is how good a deal this is for the bank. The answer to this question lies in an analysis of the cash flows. These are set forth in Exhibit 2.

Most of the cash flows shown in Exhibit 2 are self-explanatory. The lease receipts are the airline's payment to the bank; depreciation is computed over eleven years as permitted under ADR; loan interest is the 8 percent interest paid to the insurance company; taxable income or loss is the lease receipt less interest and depreciation; tax payments at a 50 percent rate are one-half the taxable income or loss; the loan principal payment is the portion of the insurance company loan payment that goes to amortize the loan; and the net cash flow is the sum of the cash flow amounts—the lease receipt, loan interest, tax payments and principal payments.

The net cash flow column is the item of particular interest to the bank. This is what the bank will receive for its \$213,000 investment. At first glance it appears that the bank has not fared too well—it has invested \$213,382, and it will receive a total cash return of only \$131,691. On the surface the lease looks like a losing proposition.

But bankers are far more sophisticated than that. They realize that rate of return is a function not just of how many dollars but also of when they will be received. Looking again at the net cash flow column, one can see that throughout the first eight years of the lease there are significant cash inflows from tax savings. In fact, by the end of the eighth year these cash inflows aggregate over \$300,000. However, most of this cash must be used to pay taxes in the last seven years of the lease.

Obviously the bank is not going to let this excess cash just sit in the vault; it is going to invest it. In fact, the bank really does not have to invest all of the excess cash inflows; it only needs to invest enough to meet future tax payments. The rest it can keep as a recovery of its investment and maybe even a little profit.

The columns headed "Cash Available for Investment and Payment of Future Taxes" indicate how soon the bank has to start putting aside excess cash flows in order to liquidate the cash outflows during the last eight years of the lease. In this example it is assumed that invested funds will generate a 3 percent aftertax rate of return.

Cash flows that can be kept by the bank are shown as "Net Cash Flow to Investor"—a total of \$243,177. Subtracting the original investment of \$213,382, we find that the bank will earn a \$29,795 aftertax profit on the

EXHIBIT 1

Structure of Typical Leveraged Lease

Equipment cost:	\$1,000,000
Lease term:	15 years
Payments:	15 annual in arrears of \$91,900
Residual value:	\$50,000 to be received 6 months after lease termination
Financing:	\$213,382 equity and \$786,618 nonrecourse debt bearing interest at 8% and repayable in 15 equal annual instalments of \$91,900 in arrears
Depreciation:	Sum-of-the-years digits over 11 years as permitted under ADR
Tax rate of lessor:	50%
Lessor's risk-free investment opportunity rate:	3% after tax.

EXHIBIT 2

Economic Analysis

Year	Lease Receipts	Sum-of-Digits Depreciation	Loan Interest	Taxable Income (Loss)	Tax Payments (Refunds)	Loan Principal Payments	Net Cash Flow
0	\$ 91,900	\$ 166,666	\$ 62,929	\$(137,695)	\$(68,848)	\$ 28,971	\$ 70,000 ^a
1	91,900	151,515	60,612	(120,277)	(60,113)	31,288	68,848
2	91,900	136,363	58,108	(102,571)	(51,286)	33,792	60,113
3	91,900	121,212	55,405	(84,717)	(42,359)	36,495	51,286
4	91,900	106,060	52,486	(66,646)	(33,323)	39,414	42,359
5	91,900	90,909	49,332	(48,341)	(24,171)	42,568	33,323
6	91,900	75,758	45,927	(29,785)	(14,892)	45,973	24,171
7	91,900	60,606	42,249	(10,955)	(5,478)	49,651	14,892
8	91,900	45,455	38,277	8,168	4,084	53,623	5,478
9	91,900	30,303	33,987	27,610	13,805	57,913	(4,084)
10	91,900	15,152	29,354	47,394	23,697	62,546	(13,805)
11	91,900	-0-	24,351	67,549	33,775	67,549	(23,697)
12	91,900	-0-	18,947	72,953	36,477	72,953	(33,775)
13	91,900	-0-	13,110	78,790	39,395	78,790	(36,477)
14	91,900	-0-	6,808	85,092	42,546	85,092	(39,395)
15	91,900	-0-	-0-	49,999	25,000	-0-	(42,546)
16	50,000 ^b	1	-0-	49,999	25,000	-0-	25,000
	<u>\$1,428,500</u>	<u>\$1,000,000</u>	<u>\$591,882</u>	<u>\$(163,382)</u>	<u>\$(81,691)</u>	<u>\$786,618</u>	<u>\$131,691</u>

Year	Cash Available for Investment and Payment of Future Taxes		Beginning Balance	Interest Earned	Lease Cash Flow to (from)	Ending Balance	Net Cash Flow to Investor	Cash Flow Earned Income at 6.29%	Allocated to Recovery of Investment	Net Investment Balance
	Flow to (from)	Ending Balance								
0						\$ 32,070	\$ 70,000 ^a	-0-	\$ 70,000	\$ 143,382
1					42,359	75,391	68,848	\$ 9,025	59,823	83,559
2					33,323	110,976	60,113	5,257	54,856	28,703
3					24,171	138,477	19,216	1,812	17,403	11,300
4					14,892	157,523		711	(712)	12,012
5					5,478	167,727		754	(755)	12,767
6					(4,084)	168,675		804	(805)	13,572
7					(13,805)	159,930		854	(855)	14,427
8					(23,697)	141,031		907	(908)	15,335
9					(33,775)	111,487		967	(968)	16,303
10					(36,477)	78,355		1,026	(1,027)	17,330
11					(39,395)	41,310		1,089	(1,090)	18,420
12					(42,546)	-0-		1,159	(1,160)	19,580
13								1,234	(1,235)	20,815
14								1,309	(1,310)	22,125
15								1,391	(1,392)	23,517
16							25,000	1,482	23,517	-0-
							<u>\$243,177</u>	<u>\$29,795</u>	<u>\$213,382</u>	

^a Investment tax credit immediately available to reduce taxes.

^b Proceeds from sale of equipment at lease termination.

lease. The calculation in the last three columns of Exhibit 2 shows this to be a 6.29 percent aftertax or a 12.58 percent pretax equivalent rate of return—not too bad when you consider it was accomplished by borrowing funds at 8 percent and lending them out at 4.3 percent.

The last three columns of this exhibit are of particular interest to accountants—they show the pattern of earnings and the outstanding investment throughout the lease. It is particularly interesting to note that except for the residual, the bank is cashed out of the lease before the end of the fourth year into the lease. Subsequent earnings represent only the accretion of the residual value. This phenomenon—long lease term with early lessor payout—is characteristic of substantially all leveraged leases. It is not only the source of the lessor's high rate of return; it is also the source of the accountants' dilemma.

But before attempting to account for this transaction, let us look again at various elements that contribute to the bank's \$29,795 profit. These are summarized in Exhibit 3. As you can see, all of the bank's investment and profit is recovered from tax benefits and the residual value of the equipment. The rent collected from the airline is just sufficient to repay interest and principal on the insurance company loan.

THE ACCOUNTANTS' DILEMMA

Now let us take a look at the dilemma facing the accountants in recording this leveraged lease transaction and in recognizing the income.

Accounting Principles Board Opinion No. 7 sets forth two methods of accounting that may be used by lessors—the financing method and the operating method. As will be demonstrated, neither of these methods produces a rational profit recognition pattern when applied to leveraged leases.

- **Financing Method.** The financing method accounts for a lease in much the same manner as bankers account for discount loans. The excess of the aggregate rental receipts plus the residual over the equipment cost is recorded as unearned income and is amortized to income in decreasing amounts related to the unrecovered investment. This method results in recording lease income in much the same pattern as interest income is recorded on a mortgage loan.

Exhibit 4 shows a summary income statement by year using the financing method of accounting. Total earned income (\$428,500) represents the aggregate lease receivable plus the residual (\$1,428,500) less the equipment cost (\$1,000,000). Earned income and the investment credit are amortized to income in relation to the declining lease receivable and residual investment. In-

terest expense is the amount paid the insurance company, and income (loss) before tax is the difference between total income and interest expense. Because investment credit income is not taxable, taxes on income are computed on the difference between earned income and interest expense (an \$11,178 loss in year 1) times the assumed 50 percent tax rate.

In this example, the lease itself results in a \$11,691 loss. However, you will recall that the excess cash inflows we set aside to pay future taxes were invested at a 3 percent aftertax rate. Those earnings (\$41,486) offset the \$11,691 loss and generate our \$29,795 net income.

But accountants are not interested just in the magnitude of profits; they are equally concerned with the timing of profit recognition. The basic accounting principle underlying the financing method of accounting is that income is reported on a declining basis in relation to the lessor's declining investment. This exhibit demonstrates that the recognition of net income has

EXHIBIT 3

Summary of Receipts and Disbursements

Receipts:

Rentals—15 × \$91,900	\$1,378,500
Residual	50,000
Tax benefits:	
Investment tax credit	70,000
Tax loss benefit	81,691
Tax deferral benefit	41,486
Total receipts	\$1,621,677

Disbursements:

Loan principal	\$ 786,618
Loan interest	591,882
Total disbursements	\$1,378,500
Remainder	243,177
Less original investment	213,382
Net Profit	\$ 29,795

EXHIBIT 4

Financing Method with Spreading of Tax Credit

Year	Earned Income ^a	Investment Tax Credit ^a	Total	Interest Expense ^b	Income (Loss) Before Taxes	Taxes on Income ^c	Net Lease Income (Loss)	Investment Income After Taxes ^d	Net Income
1	\$ 51,751	\$ 8,455	\$ 60,206	\$ 62,929	\$ (2,723)	\$ (5,589)	\$ 2,866	\$ 2,866	\$ 2,866
2	48,422	7,911	56,333	60,612	(4,279)	(6,095)	1,816	1,816	1,816
3	45,092	7,367	52,459	58,108	(5,649)	(6,508)	859	859	859
4	41,763	6,825	48,588	55,405	(6,817)	(6,821)	4	962	966
5	38,434	6,281	44,715	52,486	(7,771)	(7,026)	(745)	2,262	1,517
6	35,104	5,734	40,838	49,332	(8,494)	(7,114)	(1,380)	3,330	1,950
7	31,775	5,190	36,965	45,927	(8,962)	(7,076)	(1,886)	4,154	2,268
8	28,446	4,646	33,092	42,249	(9,157)	(6,901)	(2,256)	4,726	2,470
9	25,117	4,102	29,219	38,277	(9,058)	(6,580)	(2,478)	5,032	2,554
10	21,787	3,560	25,347	33,987	(8,640)	(6,100)	(2,540)	5,060	2,520
11	18,458	3,015	21,473	29,354	(7,881)	(5,448)	(2,433)	4,798	2,365
12	15,129	2,470	17,599	24,351	(6,752)	(4,611)	(2,141)	4,231	2,090
13	11,799	1,928	13,727	18,947	(5,220)	(3,574)	(1,646)	3,345	1,699
14	8,470	1,382	9,852	13,110	(3,258)	(2,320)	(938)	2,350	1,412
15	5,141	840	5,981	6,808	(827)	(834)	7	1,236	1,243
16	1,812	294	2,106	2,106	2,106	906	1,200	1,200	1,200
	<u>\$428,500</u>	<u>\$70,000</u>	<u>\$498,500</u>	<u>\$591,882</u>	<u>\$(93,382)</u>	<u>\$(81,691)</u>	<u>\$(11,691)</u>	<u>\$41,486</u>	<u>\$29,795</u>

^a Balance is amortized on sum-of-the-years digits over 15½ years.

^b Interest payments to long-term lender.

^c Tax at 50% on earned income less interest expense.

^d Represents the amount assumed to be earned at 3% after tax from the utilization of surplus cash which results from deferral of tax payments. Such amounts would be recorded in the normal process of accounting for such investments.

no relationship to the lessor's declining investment. Because the earnings from tax deferral represent a major portion of total lease profits, the pattern of net income tends to follow the flow of such earnings.

- **Operating Method.** If the financing method is inappropriate for leveraged lease accounting, the operating method is even worse. Exhibit 5 shows the pattern of profits that would be produced by the latter method.

Under the operating method, rentals are reported as revenue and the cost of the equipment is depreciated. In Exhibit 5 the equipment has been depreciated over the lease term on the straight-line method to its \$50,000 residual value. Investment credit has been reported as revenue in the same pattern as that of the rental receipts. The flow of income under the operating method bears even less relationship to the outstanding lease investment than under the financing method.

NET INVESTMENT METHOD

Unfortunately, we have just run out of possible generally accepted accounting methods; there are only two—the financing method and the operating method. Neither produce results that even approach reasonableness when viewed in terms of the economic realities of a leveraged lease transaction, and therein lies the accountants' dilemma.

What is needed is an accounting method that reports the income on a pattern consistent with the economic analysis set forth in Exhibit 2. Many methods have been suggested. I will discuss one of them here—a net investment method.

Most accountants agree that accounting should reflect the underlying economics of a transaction. Let us then start by examining just what elements of our typical leveraged lease comprise the bank's profit.

Exhibit 6 is a summary of the various elements of lease profits expressed both in absolute dollars and in present-value dollars based upon the bank's rate of return inherent in the transaction (6.29 percent after tax).

This analysis indicates that the lessor is investing in (1) a residual, (2) an investment tax credit, (3) a tax loss and (4) future tax deferral benefits. The present value is a function of the timing of the related cash flows. Thus, the residual has a relatively low present value because it will not be received until lease termination, some fifteen and a half years hence. On the other hand, the investment credit can be used to reduce the current tax bill and hence is not discounted. The timing of the tax benefits is somewhere in between and so shows a moderate discount.

EXHIBIT 5

Operating Method with Spreading of Tax Credit

Year	Rental Income ^a	Investment Tax Credit ^c	Total	Interest Expense ^d	Depreciation ^e	Total	Income (Loss) Before Taxes	Income Taxes ^f	Net Lease Income (Loss)	Investment Income After Taxes ^g	Net Income
1	\$ 91,900	\$ 4,667	\$ 96,567	\$ 62,929	\$ 63,334	\$ 126,263	\$ (29,696)	\$ (17,182)	\$ (12,514)	\$ 962	\$ (12,514)
2	91,900	4,667	96,567	60,612	63,334	123,946	(27,379)	(16,023)	(11,356)		(11,356)
3	91,900	4,667	96,567	58,108	63,334	121,442	(24,875)	(14,771)	(10,104)		(10,104)
4	91,900	4,667	96,567	55,405	63,334	118,739	(22,172)	(13,419)	(8,753)	\$	(7,791)
5	91,900	4,667	96,567	52,486	63,334	115,820	(19,253)	(11,960)	(7,293)	2,262	(5,031)
6	91,900	4,667	96,567	49,332	63,333	112,665	(16,098)	(10,382)	(5,716)	3,330	(2,386)
7	91,900	4,667	96,567	45,927	63,333	109,260	(12,693)	(8,680)	(4,013)	4,154	141
8	91,900	4,667	96,567	42,249	63,333	105,582	(9,015)	(6,841)	(2,174)	4,726	2,552
9	91,900	4,667	96,567	38,277	63,333	101,610	(5,043)	(4,855)	(188)	5,032	4,844
10	91,900	4,667	96,567	33,987	63,333	97,320	(753)	(2,710)	1,957	5,060	7,017
11	91,900	4,667	96,567	29,354	63,333	92,687	3,880	(394)	4,274	4,798	9,072
12	91,900	4,667	96,567	24,351	63,333	87,684	8,883	2,108	6,775	4,231	11,006
13	91,900	4,667	96,567	18,947	63,333	82,280	14,287	4,810	9,477	3,345	12,822
14	91,900	4,667	96,567	13,110	63,333	76,443	20,124	7,729	12,395	2,350	14,745
15	91,900	4,662	96,562	6,807	63,333	70,140	26,422	10,880	15,542	1,236	16,778
16	50,000 ^b	—	50,000	—	50,000	50,000	—	—	—	—	—
	\$1,428,500	\$70,000	\$1,498,500	\$591,881	\$1,000,000	\$1,591,881	\$ (93,381)	\$ (81,690)	\$ (11,691)	\$41,486	\$ 29,795

^aRentals as billed.

^bProceeds from sale of equipment at lease termination.

^cSpreading of tax credit in proportion to depreciation.

^dInterest payments to long-term lender.

^eStraight-line depreciation to a \$50,000 scrap value.

^fTax at 50% on rental income less depreciation and interest.

^gRepresents the amount assumed to be earned at 3% after tax from the utilization of surplus cash which results from deferral of tax payments. Such amounts would be recorded in the normal process of accounting for such investments.

Converting the information in Exhibit 6 into an income stream for accounting purposes is probably much easier for a banker than an accountant. Bankers understand present values and compound interest far better than do most accountants. But if you will forgive this accountant, he will try to translate bankers' knowledge into accounting entries.

Exhibit 7 sets forth the lessor's investment in the leveraged tax lease and a pattern of profits that conforms to the underlying economic analysis set forth in Exhibit 2. The bank's investment has been reduced by the \$70,000 investment tax credit, which is received immediately. Further, the residual and its related unearned income are shown on an aftertax basis for simplicity of explanation. (In actual practice, such amounts would be reported on a pretax basis.)

Exhibit 7 demonstrates that each element of the bank's net investment yields an aftertax rate of return of approximately 6.29 percent, and the in-

EXHIBIT 6

Composition of Bank's Net Income

	Total Dollars	PV at 6.29%	Unearned Income (dif)
Rental receipts	\$1,378,500		
Less loan payments:			
Principal	\$786,618		
Interest	591,882	1,378,500	
Net cash from lease	- 0 -		
Residual (less 50% tax) ^a	25,000	\$ 9,408	\$15,592
Investment credit ^b	70,000	70,000	
Future tax benefits:			
Tax loss ^a	106,691		
Tax deferral	41,486	148,177	14,203
Total	\$ 243,177	\$213,382	\$29,795

^aThe residual is shown net of tax. The tax loss relating to the other elements of the lease is therefore \$25,000 greater than shown in Exhibit 2.

^bThe investment tax credit is assumed to be immediately available as a reduction of tax payments.

EXHIBIT 7

Net Investment Method

Year	Residual Value ^a	Balance Sheet Accounts						Net Investment
		Unearned Residual Income ^b	Tax Deferral Benefits (i.e. Prepaid Interest) ^c	Tax Loss Benefit (i.e. Deferred Tax Asset (Liability)) ^d	Unearned Tax Benefit Income ^b			
1	\$ 25,000	\$(15,592) 592	\$ 41,486	\$ 106,691 (68,848)	\$(14,203) 8,433		\$ 143,382 (59,823)	
2	25,000	(15,000) 630	41,486	37,843 (60,113)	(5,770) 4,629		83,559 (54,856)	
3	25,000	(14,370) 670	41,486	(22,270) (51,286)	(1,143) 1,143		28,703 (49,473)	
4	25,000	(13,700) 712	41,486 (962)	(73,556) (42,359)			(20,770) (42,609)	
5	25,000	(12,988) 755	40,524 (2,262)	(115,915) (33,323)			(63,379) (34,830)	
6	25,000	(12,233) 805	38,262 (3,330)	(149,238) (24,171)			(98,209) (26,696)	
7	25,000	(11,428) 855	34,932 (4,154)	(173,409) (14,892)			(124,905) (18,191)	
8	25,000	(10,573) 908	30,778 (4,726)	(188,301) (5,478)			(143,096) (9,296)	

9	25,000	(9,665)	26,052 (5,032)	4,084	(193,779)	(152,392) 20
10	25,000	(8,697)	21,020 (5,060)	13,805	(189,695)	(152,372) 9,772
11	25,000	(7,670)	15,960 (4,798)	23,697	(175,890)	(142,600) 19,989
12	25,000	(6,580)	11,162 (4,231)	33,775	(152,193)	(122,611) 30,704
13	25,000	(5,420)	6,931 (3,345)	36,477	(118,418)	(91,907) 34,367
14	25,000	(4,185)	3,586 (2,350)	39,395	(81,941)	(57,540) 38,355
15	25,000	(2,875)	1,236 (1,236)	42,546	(42,546)	(19,185) 42,702
16	25,000 (25,000)	(1,483) 1,483				23,517 (23,517)

^a Sale of residual at end of lease term.

^b Earned income amortization at 6.29% of net investment.

^c Prepaid interest amortization at 3% of deferred tax credit less prepaid interest.

^d Current tax loss utilized or current taxes paid.

^e Represents the amount assumed to be earned at 3% after tax from the utilization of surplus cash which results from deferral of tax payments. Such amounts would be recorded in the normal process of accounting for such investments.

(continued)

EXHIBIT 7 continued

Year	Income Statement				
	Earned Income ^b	Amortization of Tax Deferral Benefits (i.e. Interest) ^c	Net Lease Income (Loss)	Investment Income after Taxes ^e	Net Income (Loss)
1	\$ 9,025		\$ 9,025		\$ 9,025
2	5,257		5,257		5,257
3	1,813		1,813		1,813
4	712	\$ 962	(250)	\$ 962	712
5	755	2,262	(1,507)	2,262	755
6	805	3,330	(2,525)	3,330	805
7	855	4,154	(3,299)	4,154	855
8	908	4,726	(3,818)	4,726	908

9	968	5,032	(4,064)	5,032	968
10	1,027	5,060	(4,033)	5,060	1,027
11	1,090	4,798	(3,708)	4,798	1,090
12	1,160	4,231	(3,071)	4,231	1,160
13	1,235	3,345	(2,110)	3,345	1,235
14	1,310	2,350	(1,040)	2,350	1,310
15	1,392	1,236	156	1,236	1,392
16	<u>1,483</u>	<u>\$41,486</u>	<u>1,483</u>	<u>\$41,486</u>	<u>1,483</u>
	<u>\$29,795</u>		<u>\$(11,691)</u>	<u>\$29,795</u>	

^a Sale of residual at end of lease term.
^b Earned income amortization at 6.29% of net investment.
^c Prepaid interest amortization at 3% of deferred tax credit less prepaid interest.
^d Current tax loss utilized or current taxes paid.
^e Represents the amount assumed to be earned at 3% after tax from the utilization of surplus cash which results from deferral of tax payments. Such amounts would be recorded in the normal process of accounting for such investments.

come shown for each period is 6.29 percent of the net debit balance in the various elements comprising the net investment at the beginning of the year. Income for year 1, for example, is computed as shown in Exhibit 8.

In addition to recording the income amortization entries, a tax loss of \$137,695 was sustained during year 1 (see Exhibit 2). The resulting tax benefit (\$68,848) is credited to the loss tax benefit component of the leveraged lease investment.

You will note that the net residual component of the lease investment (i.e., residual less earned residual income) continues to accrete at 6.29 percent through the sixteenth year, at which point it is sold. However, the net tax benefits (i.e., deferred tax benefit and tax loss benefit, less the unearned income relating to the tax benefits) earn a 6.29 percent return only so long as the bank has a net investment in this element of its investment (the tax benefit accounts have a net debit balance).

By year 3, the bank has recovered all of its net investment in tax benefits. It then commences to receive the full benefit of the tax deferral (i.e., the net tax benefits have a credit balance). Normally such tax deferral would be con-

EXHIBIT 8

Calculation of Earnings in Year 1

Residual	\$ 25,000
Unearned residual income	<u>(15,592)</u>
Present value—year 0	9,408
Amortization rate	<u>6.29%</u>
Earned income	<u>\$ 592</u>
Tax Benefits:	
Tax deferral benefit	\$ 41,486
Tax loss benefit	106,691
Unearned tax benefits	<u>(14,203)</u>
Present value—year 1	133,974
Amortization rate	<u>6.29%</u>
Earned income	<u>8,433</u>
Total earned income	<u><u>\$ 9,025</u></u>

EXHIBIT 9**Amortization of Tax Deferral Benefit in Year 4**

Deferred tax liability	\$73,566
Less deferred tax benefit	41,486
Discounted value	<u>32,070</u>
Amortization rate	<u>3%</u>
Interest expense amortization	<u>\$ 962</u>

sidered the equivalent of an interest-free loan. But the bank paid for these tax benefits when it invested in the lease. The cost of its investment (\$41,486 in the example) must be matched against the revenues that will now be produced by the surplus cash resulting from the deferral of tax payment. The amount to be amortized each period is based on what the bank paid for the tax deferral benefit (3 percent after tax in the example). Thus, the deferred tax benefit (i.e. prepaid interest) is amortized against income based on the net outstanding liability balance. The method used is identical to that which would be applied to a discount loan and is demonstrated for year 4 in Exhibit 9.

It is assumed that the bank will be able to otherwise invest the available cash at an aftertax return of at least 3 percent. If such earnings were exactly 3 percent they would total \$41,486 over the lease term, equivalent to the total amortization of the deferred interest expense. Although the bank could segregate the cash and separately invest the funds, thus isolating such income as a separate element of the leveraged tax lease profit, in most instances the bank would not do so. It would invest the surplus cash in the normal course of its operations and could earn more or less than the assumed 3 percent rate. Obviously, the total profitability of the lease could therefore be more or less than the amount shown in the example.

Because tax deferral benefits do provide the margin of profits on leveraged tax leases, use of the net investment method imposes some constraint on the maximum tax deferral earnings that can be assumed. The greater the assumed earnings rate, the greater the margin of profit. Further, tax deferral earnings are recognized as an element of total lease profit on a different pattern (generally earlier) than actual investment earnings realization. Thus, under the net investment method the magnitude of assumed tax deferral earnings should be limited to what could be received on relatively risk-free investments such as U.S. Treasury bonds or high-grade municipal bonds.

ECONOMIC REALITY V. GAAP

The net investment method of accounting appears to reflect the economics of leveraged leasing. Why, then, you may ask, is it not adopted as an accepted accounting method along with the financing and operating methods? The answer to this lies in Opinion No. 11 of the Accounting Principles Board.

APB No. 11 sets forth a long list of rules that must be followed in accounting for income taxes. Of particular importance in relation to the net investment method is the rule: "Thou shalt not present value-deferred income taxes." The net investment method effectively presents value-deferred taxes when it assumes earnings from the tax deferral. Hence the dilemma.

It is clear from the economic analysis that without the tax-deferral earnings, the bank would sustain a loss. Thus it is also clear that one of the major assets the bank purchased was a deferral of taxes. Although a deferred tax benefit can be associated with most purchases of depreciable assets, it is usually incidental to the primary purpose of the asset purchase. In the case of the leveraged tax lease, the deferred tax benefit is a principal source (and on an incremental basis the only source) of profits.

Reconciling APB No. 11, which says, "You cannot discount deferred taxes," with the economics of leveraged leasing, where the rate of return is wholly dependent on tax deferral, was a topic of extensive discussion by the Accounting Principles Board before it was disbanded in favor of the new Financial Accounting Standards Board in June of 1973. During its deliberations on the subject the APB reviewed more than twenty-five different proposed methods of accounting. None was adopted. Instead, the APB chose to pass the subject of leveraged leases over to the new FASB. However, they did authorize the issuance of an interpretation that requires disclosure of the method used in accounting for leveraged leases.

Many consider the issuance of this interpretation as tacit acceptance of accounting methods such as the net investment method. Some banks, in fact, are currently using such methods in accounting for their leveraged leases. Others feel that until the basic issue of discounting deferred taxes is resolved, methods such as the net investment method are unacceptable.

This divergence of opinion is not too surprising, for it is indeed rare that you can get all accountants to agree on a single issue. However, there is one thing that most accountants do agree on—leveraged leases are unique and require a unique accounting method. Just what that method will be is yet to be determined. We must await the final deliberations of the FASB. They will cast the final verdict.

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