

10-1983

## Tax: Real Property Investment Decisions ACRS vs Straight-Line Depreciation

Joyce M. Lunney

Follow this and additional works at: <https://egrove.olemiss.edu/wcpa>



Part of the [Accounting Commons](#), [Taxation Commons](#), and the [Women's Studies Commons](#)

---

### Recommended Citation

Lunney, Joyce M. (1983) "Tax: Real Property Investment Decisions ACRS vs Straight-Line Depreciation," *Woman C.P.A.*: Vol. 45 : Iss. 4 , Article 6.

Available at: <https://egrove.olemiss.edu/wcpa/vol45/iss4/6>

This Article is brought to you for free and open access by the Archival Digital Accounting Collection at eGrove. It has been accepted for inclusion in Woman C.P.A. by an authorized editor of eGrove. For more information, please contact [egrove@olemiss.edu](mailto:egrove@olemiss.edu).

## Tax

# Real Property Investment Decisions ACRS vs Straight-Line Depreciation

### Editor

Joyce M. Lunney, CPA  
Arthur Andersen & Co.  
Philadelphia, PA 19103

Guest Authors: M. Frank Barton and J. David Spiceland

A major effect of the Economic Recovery Act of 1981 is the creation of an entirely new system for cost recovery of an investment in assets — the accelerated cost recovery system (ACRS). The new system provides for accelerated methods for computing the recovery allowances as well as for shorter recovery periods. The purpose of this article is to examine the new system as to its effect on one aspect of business investment decisions in real property. Specifically, the paper examines the initial choice between the ACRS and straight-line depreciation as allowed by the new law.

### The Accelerated Cost Recovery System (ACRS)

The Act replaces the concept of depreciation based on the useful life

of an asset with a system which employs standard recovery percentages. The percentages reflect accelerated methods of cost recovery over pre-determined periods that have no necessary relationship with the useful life of assets. ACRS also permits the recovery of salvage value. The 1981 Act provides for the recovery of the cost of depreciable personal property, generally over a 3-year, 5-year, or 15-year recovery period, depending upon the type of property.

### ACRS Write-Off of Real Property

Real property has been assigned a 15-year recovery period by the new Act. The cost recovery percentages allowed during this period under ACRS are presented as follows:

### Some Advantages of ACRS

The new system will produce dramatically more favorable tax benefits than previous depreciation methods. For example, assume a \$1,000,000 investment in real property that would have a depreciable life of 40 years prior to the new law. Double declining balance depreciation would produce a depreciation charge the first year of \$50,000, yielding a tax savings of \$20,000 to an investor who is subject to a 50% marginal tax rate and the 20% minimum tax on the excess of accelerated depreciation over straight-line. The same investment under the provisions of ACRS provides a depreciation deduction and tax benefit the first year of \$116,667 and \$49,333, respectively. This amounts to more than doubling the tax benefit with ACRS in spite of higher preference income and a lower depreciation rate (175% versus 200%).

In general, investors in real property will find the ACRS to produce favorable tax effects. However, certain circumstances would indicate that a property holder should consider the optional straight-line depreciation alternative to the ACRS. Previous accelerated methods are no longer an option.

### Residential Real Property

Under previous law, when real property is sold, gain is taxed at ordinary rates only to the extent that accelerated depreciation exceeds straight-line depreciation. There is no ordinary income recapture upon sale when straight-line depreciation is elected. This treatment is unchanged

Recovery Year:	Cost Recovery Percentage:
1	12
2	10
3	9
4	8
5	7
6	6
7	6
8	6
9	6
10	5
11	5
12	5
13	5
14	5
15	5

**TABLE 1**  
**Comparison of Tax Effects\* of SL Depreciation Versus ACRS for Residential Real Property**

Year	%	Depreciation on \$1,000,000 Cost		Tax Benefit @ 50% Less 20% Min. Tax**		Present Value of Cumulative Annual Tax Benefits at 18%		Gain Subject to Recapture at 50%		Capital Gain Taxable @ 20%		Tax at Sale		Present Value of Tax at Sale @ 18%		Net Present Value of The Effects of Sale	
		ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L
1	12	\$120,000	\$66,667	\$49,333	\$33,333	\$41,808	\$28,249	\$53,333	\$0	\$66,667	\$40,000	\$13,333	\$33,898	\$11,299	\$7,910	\$16,950	(\$9,040)
2	10	100,000	66,667	43,333	33,333	72,929	52,188	86,666	0	133,334	70,000	26,667	50,273	19,152	22,656	33,036	(10,380)
3	9	90,000	66,667	40,333	33,333	97,477	73,544	109,999	0	200,580	95,116	40,000	57,891	23,344	39,586	50,200	(10,614)
4	8	80,000	66,667	37,333	33,333	116,733	90,737	123,332	0	266,667	114,999	53,333	59,315	27,509	57,418	63,228	(5,810)
5	7	70,000	66,667	34,333	33,333	131,740	105,307	126,665	0	333,334	129,999	66,667	56,824	29,140	74,916	76,167	(1,251)
6	6	60,000	66,667	30,000	33,333	142,853	117,653	119,998	0	400,000	139,999	80,000	51,860	29,632	90,993	88,021	2,972
7	6	60,000	66,667	30,000	33,333	152,271	128,116	113,331	0	466,667	149,999	93,333	47,089	29,297	105,182	98,819	6,363
8	6	60,000	66,667	30,000	33,333	160,252	136,983	106,664	0	533,334	159,999	106,667	42,566	28,373	117,686	108,610	9,076
9	6	60,000	66,667	30,000	33,333	167,016	144,499	99,997	0	600,000	169,999	120,000	38,328	27,060	128,688	117,439	11,249
10	5	50,000	66,667	25,000	33,333	171,793	150,869	83,330	0	666,670	174,999	133,333	33,435	25,480	138,358	125,389	12,969
11	5	50,000	66,667	25,000	33,333	175,841	156,266	66,663	0	733,334	179,998	146,667	29,145	23,745	146,696	132,521	14,175
12	5	50,000	66,667	25,000	33,333	179,272	160,839	49,996	0	800,000	184,998	160,000	25,385	21,952	153,887	138,887	15,000
13	5	50,000	66,667	25,000	33,333	182,179	164,716	33,329	0	866,667	189,998	173,333	22,095	20,159	160,084	144,557	15,527
14	5	50,000	66,667	25,000	33,333	184,643	167,999	16,662	0	933,334	194,998	186,667	19,217	18,397	165,426	149,612	15,814
15	5	50,000	66,667	25,000	33,333	186,731	170,782	0	0	1,000,000	200,000	200,000	16,704	16,700	170,027	156,082	13,945
16		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	14,156	14,160	172,575	156,622	15,953
17		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	11,996	12,000	174,735	158,782	15,953
18		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	10,166	10,160	176,565	160,622	15,943
19		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	8,616	8,620	178,115	162,162	15,943
20		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	7,302	7,300	179,429	163,482	15,947
21		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	6,188	6,180	180,543	164,602	15,941
22		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	5,244	5,240	181,487	165,542	15,945
23		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	4,444	4,440	182,287	166,342	15,945
24		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	3,766	3,760	182,965	167,022	15,943
25		0	0	0	0	186,731	170,782	0	0	1,000,000	200,000	200,000	3,192	3,180	183,539	167,602	15,937

\*assumes the sale of the property at \$1,000,000 at each year-end.  
 \*\*minimum tax applies only to ACRS to the extent it exceeds S-L.

**TABLE 2**  
**Comparison of Tax Effects\* of SL Depreciation Versus ACRS for Non-Residential Real Property**

Year	%	Depreciation on \$1,000,000 Cost		Tax Benefit @ 50% Less 20% Min. Tax**		Present Value of Cumulative Annual Tax Benefits at 18%		Gain Subject to Recapture at 50%		Capital Gain Taxable @ 20%		Tax at Sale		Present Value of Tax at Sale @ 18%		Net Present Value of The Effects of Sale		
		ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	ACRS	S-L	Difference
1	12	\$120,000	\$66,667	\$49,333	\$33,333	\$41,808	\$28,249	\$120,000	0	0	\$66,667	\$13,333	\$60,000	\$50,848	\$11,299	(\$9,040)	\$16,950	(\$25,990)
2	10	100,000	66,667	43,333	33,333	72,929	52,188	220,000	0	0	133,334	26,667	110,000	79,000	19,152	(6,071)	33,036	(39,107)
3	9	90,000	66,667	40,333	33,333	97,477	73,544	310,000	0	0	200,000	155,377	155,000	94,338	23,344	3,139	50,200	(47,061)
4	8	80,000	66,667	37,333	33,333	116,733	90,737	390,000	0	0	266,667	195,583	195,000	100,579	27,509	16,154	63,228	(47,074)
5	7	70,000	66,667	34,333	33,333	131,740	105,307	460,000	0	0	333,334	231,099	230,000	100,535	29,140	31,205	76,167	(44,962)
6	6	60,000	66,667	30,000	33,333	142,853	117,653	520,000	0	0	400,000	262,470	260,000	96,312	29,632	46,541	88,021	(41,480)
7	6	60,000	66,667	30,000	33,333	152,271	128,116	580,000	0	0	466,667	290,182	290,000	91,040	29,297	61,231	98,819	(37,588)
8	6	60,000	66,667	30,000	33,333	160,252	136,983	640,000	0	0	533,334	316,409	290,000	85,133	28,373	75,119	108,610	(33,491)
9	6	60,000	66,667	30,000	33,333	167,016	144,499	700,000	0	0	600,000	342,636	320,000	78,911	27,060	88,105	117,439	(29,334)
10	5	50,000	66,667	25,000	33,333	171,793	150,869	750,000	0	0	666,667	368,863	350,000	71,648	25,480	100,145	125,389	(25,244)
11	5	50,000	66,667	25,000	33,333	175,841	156,266	800,000	0	0	733,334	395,090	375,000	64,768	23,745	111,073	132,521	(21,448)
12	5	50,000	66,667	25,000	33,333	179,272	160,839	850,000	0	0	800,000	421,317	400,000	58,319	21,952	120,953	138,887	(17,934)
13	5	50,000	66,667	25,000	33,333	182,179	164,176	900,000	0	0	866,667	447,544	425,000	52,331	20,159	129,848	144,557	(14,709)
14	5	50,000	66,667	25,000	33,333	184,643	167,999	950,000	0	0	933,334	473,771	450,000	46,811	18,387	137,832	149,612	(11,780)
15	5	50,000	66,667	25,000	33,333	186,731	170,787	1,000,000	0	0	1,000,000	500,000	475,000	41,760	16,700	144,971	154,082	(9,111)
16		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	35,390	14,160	151,341	156,622	(5,281)
17		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	29,990	12,000	156,741	158,782	(2,041)
18		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	25,415	10,160	161,316	160,622	694
19		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	21,540	8,620	165,191	162,162	3,029
20		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	18,255	7,300	168,476	163,482	4,994
21		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	15,470	6,180	171,261	164,602	6,659
22		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	13,110	5,240	173,621	165,542	8,079
23		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	11,110	4,440	175,621	166,342	9,279
24		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	9,415	2,760	177,316	167,022	10,294
25		0	0	0	0	186,731	170,782	1,000,000	0	0	1,000,000	500,000	500,000	7,980	3,180	178,751	167,602	11,149

\*assumes the sale of the property at \$1,000,000 at each year-end.

\*\*minimum tax applies only to ACRS to the extent it exceeds S-L.

under the 1981 Act for residential real property. Generally, owners of residential real property will find, as before, that the advantages of accelerated (ACRS) write-off will outweigh its potential disadvantages relative to the alternative straight-line method. A comparative analysis is presented in Table I for a hypothetical investment of \$1,000,000 in a residential building. The tax effects depicted assume the potential sale of the building at the end of the various years shown. Only for investments in which a sale is contemplated within five years should the straight-line alternative be considered. Thus, as a general rule, accelerated cost recovery will continue to offer more beneficial tax effects for ownership and investment in residential real property.

### Nonresidential Real Property

Under the 1981 Act, no longer will gain subject to recapture as ordinary income be limited to the excess of accelerated over straight-line depreciation for *nonresidential* real property. Instead, with ACRS *all* prior deductions will be treated as ordinary income upon sale. Electing straight-line depreciation would insure no recapture and all gain on the sale would be capital gain.

An owner or investor in nonresidential real property should consider the relative merits of ACRS (accelerated deductions) versus straight-line depreciation (avoiding recapture) in choosing a cost recovery system when the possibility of selling the property exists. Table II shows the relative advantages for a \$1,000,000 investment and subsequent sale at various stages of the asset's life.

The calculations demonstrate that for a taxpayer in a 50% marginal tax bracket whose time value of money is 18%, straight-line depreciation would be the preferable alternative if sale is contemplated within 17 years. The relevant "holding period" will vary with modifications of the basic assumptions concerning appropriate tax rates, discount rates, and sale price of the asset.

---

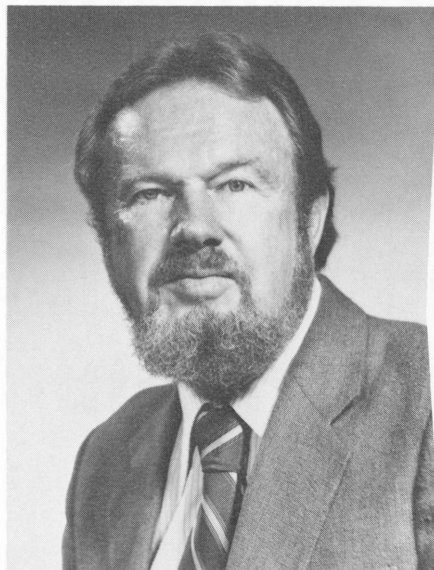
**J. David Spiceland, CPA, Ph.D.**, is professor of accountancy at Memphis State University. Dr. Spiceland has contributed numerous articles to professional journals and has served as editor of an accounting journal.

### Other Considerations

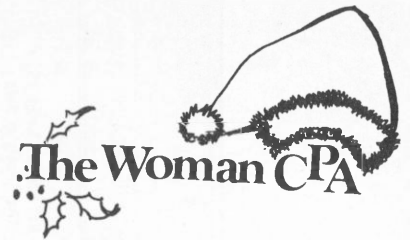
When the comparisons in Table 2 are repeated with the assumption that the taxpayer is not in the alternative minimum tax situation, the choice of ACRS becomes advantageous when sale is made after only twelve years rather than eighteen for investments in non-residential property. In fact, for investments in residential property, the choice of ACRS provides a relative tax advantage for any year of recovery. Thus, for investors who have other income which can be used to reduce the amount of income subject to the alternative minimum tax, the straight-line method would be advantageous in fewer situations.

### Conclusions

The analysis summary indicates that the ACRS will yield favorable tax consequences for many owners and investors in real property. However, electing the alternative straight-line method may produce more beneficial tax effects for real estate which may be subject to sale, particularly in the case of non-residential real property.  $\Omega$



**M. Frank Barton, CPA, Ph.D.**, is associate professor of accountancy at Memphis State University. He is widely published in business and academic journals, and is a previous contributor to *The Woman CPA*.



## Christmas Is Soon

For a favorite young relative working toward, or thinking about, a career in accounting...

For someone nice who did you a business favor...

For the library at your alma mater...

For a VIP (besides yourself) at your office...

\$6.00 will remind a giftee of your thoughtfulness in January, April, July, and October. It will say something good about your taste, too.

### THE WOMAN CPA

CIRCULATION DEPARTMENT:  
THE WOMAN CPA  
P.O. Box 39295  
Cincinnati, Ohio 45239