

Appendix

Depreciation and the Accelerated Cost Recovery System (ACRS)

INTRODUCTION

Cost recovery, amortization, and depletion are discussed in Chapter 8 of *SWFT Individual Income Taxes* and Chapter 8 of *SWFT Comprehensive*. For most fixed assets (e.g., machinery, equipment, furniture, fixtures, buildings) placed in service after December 31, 1980, the Economic Recovery Tax Act of 1981 (ERTA) replaced the depreciation system with the cost recovery system.¹ Exhibit 1 summarizes the relevant time periods of the depreciation system and the cost recovery system.

Despite ERTA, a discussion of § 167 depreciation is still relevant for two reasons. First, assets that were placed in service prior to 1981 are still in use. Second, certain assets placed in service after 1980 are not eligible to use the cost recovery system (ACRS and MACRS) and must be depreciated. They include property placed in service after 1980 whose life is not based on years (e.g., units-of-production method).

Chapter 8 focuses on the Modified Accelerated Cost Recovery System (MACRS). A brief summary of the Accelerated Cost Recovery System (ACRS) concludes this appendix.

EXHIBIT 1

Depreciation and Cost Recovery: Relevant Time Periods

System	Date Property Is Placed in Service
§ 167 depreciation	Before January 1, 1981, and <i>certain</i> property placed in service after December 31, 1980.
Original accelerated cost recovery system (ACRS)	After December 31, 1980, and before January 1, 1987.
Modified accelerated cost recovery system (MACRS)	After December 31, 1986.

¹Depreciation is covered in § 167, and cost recovery (ACRS and MACRS) is covered in § 168.

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DEPRECIATION

Section 167 permits a depreciation deduction in the form of a reasonable allowance for the exhaustion, wear and tear, and obsolescence of business property and property held for the production of income (e.g., rental property held by an investor).² Obsolescence refers to normal technological change due to reasonably foreseeable economic conditions. If rapid or abnormal obsolescence occurs, a taxpayer may change to a shorter estimated useful life if there is a “clear and convincing basis for the redetermination.” Depreciation deductions are *not* permitted for personal use property.

The taxpayer must adopt a reasonable and consistent plan for depreciating the cost or other basis of assets over the estimated useful life of the property (e.g., the taxpayer cannot arbitrarily defer or accelerate the amount of depreciation from one year to another). The basis of the depreciable property must be reduced by the depreciation allowed and by not less than the allowable amount.³ The *allowed* depreciation is the depreciation actually taken, whereas the *allowable* depreciation is the amount that could have been taken under the applicable depreciation method. If the taxpayer does not claim any depreciation on property during a particular year, the basis of the property still must be reduced by the amount of depreciation that should have been deducted (the allowable depreciation).

EXAMPLE

1

On January 1, Ted paid \$7,500 for a truck to be used in his business. He chose a five-year estimated useful life, no salvage value, and straight-line depreciation. As a result, the allowable depreciation deduction was \$1,500 per year. However, depreciation actually taken (allowed) was as follows:

Year 1	\$1,500
Year 2	—0—
Year 3	—0—
Year 4	1,500
Year 5	1,500

The adjusted basis of the truck must be reduced by the amount of allowable depreciation of \$7,500 ($\$1,500 \times 5$ years) even though Ted claimed only \$4,500 depreciation during the five-year period. Therefore, if Ted sold the truck at the end of year 5 for \$1,000, he would recognize a \$1,000 gain, since the adjusted basis of the truck is zero.

QUALIFYING PROPERTY AND BASIS FOR DEPRECIATION

The use of property (rather than its character) determines whether a depreciation deduction is permitted. Property must be used in a trade or business *or* held for the production of income to be depreciable.

EXAMPLE

2

Carol is a self-employed CPA who maintains her office in a room in her home. The room, which is used exclusively for her business, comprises 20% of the square footage of her house. Carol is permitted a depreciation deduction only for the business use part of the house. No depreciation deduction is permitted for the 80% of the square footage of her house that is used as her residence.

The basis for depreciation generally is the adjusted cost basis used to determine gain if the property is sold or otherwise disposed of.⁴ However, if personal use assets are converted to business or income-producing use, the basis for depreciation *and* for loss

²§ 167(a) and Reg. § 1.167(a)-1.

³§ 1016(a)(2) and Reg. § 1.167(a)-10(a).

⁴§ 167(c).

is the *lower* of the adjusted basis or fair market value at the time of the conversion of the property.⁵ As a result of this lower of basis rule, losses that occurred while the property was personal use property will not be recognized for tax purposes through the depreciation of the property.

Hans acquires a personal residence for \$130,000. Four years later, when the fair market value is only \$125,000, he converts the property to rental use. The basis for depreciation is \$125,000, since the fair market value is less than the adjusted basis. The \$5,000 decline in value is deemed to be personal (since it occurred while the property was held for personal use) and therefore nondeductible.

EXAMPLE**3**

The Regulations provide that tangible property is depreciable only to the extent that the property is subject to wear and tear, decay or decline from natural causes, exhaustion, and obsolescence.⁶ As a result, land and inventory are not depreciable, but land improvements are depreciable (e.g., paved surfaces, fences, landscaping).

OTHER DEPRECIATION CONSIDERATIONS

In determining the amount of the depreciation deduction, the following additional considerations need to be addressed:

- The salvage value of the asset.
- The choice of depreciation methods.
- The useful life of the asset.

For property subject to depreciation under § 167, taxpayers generally must take into account the **salvage value** (assuming there is a salvage value) of an asset in calculating depreciation. An asset cannot be depreciated below its salvage value. However, the Code permits a taxpayer to disregard salvage value for amounts up to 10 percent of the basis in the property. This provision applies to tangible personal property (other than livestock) with an estimated useful life of three years or more.⁷

Green Company acquired a machine for \$10,000 in 1980 with an estimated salvage value of \$3,000 after 19 years. The company may disregard salvage value to the extent of \$1,000 and compute the machine's depreciation based upon a cost of \$10,000 less \$2,000 salvage value. The adjusted basis may be reduced to \$2,000 (depreciation of \$8,000 may be taken) even though the actual salvage value is \$3,000.

EXAMPLE**4**

This provision was incorporated into the law to reduce the number of IRS-taxpayer disputes over the amount of the salvage value that should be used.

Another consideration is the *choice of depreciation methods* from among the several allowed. The following alternative depreciation methods are permitted for property placed into service before January 1, 1981, and for the aforementioned property placed in service after December 31, 1980, for which cost recovery is not permitted:

- The straight-line (SL) method (cost basis less salvage value ÷ estimated useful life).
- The declining-balance method (DB) using a rate not to exceed twice the straight-line rate. Common methods include 200 percent DB (double-declining balance), 150 percent DB, and 125 percent DB. Salvage value is not taken into account under any of the declining-balance methods. However, no further depreciation can be claimed once net book value (cost minus depreciation) and salvage value are the same.
- The sum-of-the-years' digits method (SYD).

⁵Reg. § 1.167(g)-1.

⁶Reg. § 1.167(a)-2.

⁷Reg. §§ 1.167(a)-1(c) and (f)-1.

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- Any other consistent method that does not result in greater total depreciation being claimed during the first two-thirds of the useful life than would have been allowable under the double-declining balance method. Permissible methods include machine hours and the units-of-production method.

EXAMPLE**5**

On January 1, 1980, Diego acquired a new machine to be used in his business. The asset cost \$10,000 with an estimated salvage value of \$2,000 and a four-year estimated useful life.⁸ The following amounts of depreciation could be deducted, depending on the method of depreciation used:

	1980	1981	1982	1983
1. Straight-line: \$10,000 cost less \$1,000 (\$2,000 salvage value reduced by 10% of cost) ÷ 4 years	\$2,250	\$2,250	\$2,250	\$2,250
2. Double-declining balance:				
a. \$10,000 × 50% (twice the straight-line rate)	5,000			
b. (\$10,000 – \$5,000) × 50%		2,500		
c. (\$10,000 – \$5,000 – \$2,500) × 50%			1,250	
d. (\$10,000 – \$5,000 – \$2,500 – \$1,250) × 50%				250 ⁹
3. Sum-of-the-years' digits:*				
\$10,000 cost less \$1,000 (\$2,000 salvage value reduced by 10% of cost) or \$9,000				
a. \$9,000 × 4/10	3,600			
b. \$9,000 × 3/10		2,700		
c. \$9,000 × 2/10			1,800	
d. \$9,000 × 1/10				900

*The formula for the sum-of-the-years' digits (SYD) method is:

$$\text{Cost} - \text{Salvage value} \times \frac{\text{Remaining life at the beginning of the year}}{\text{Sum-of-the-years' digits of the estimated life}}$$

In this example, the denominator for SYD is 1 + 2 + 3 + 4, or 10. The numerator is 4 for year 1 (the number of years left at the beginning of year 1), 3 for year 2, etc. The denominator can be calculated by the following formula:

$$S = \frac{Y(Y+1)}{2} \text{ where } Y = \text{estimated useful life}$$

$$S = \frac{4(4+1)}{2} = 10$$

EXAMPLE**6**

Using the depreciation calculations in Example 5, the depreciation reserve (accumulated depreciation) and net book value at the end of 1983 are as follows:

	Cost	–	Depreciation	=	Net Book Value*
Straight-line	\$10,000		\$9,000		\$1,000
Double-declining balance	10,000		9,000		1,000
Sum-of-the-years' digits	10,000		9,000		1,000

*Note that an asset may not be depreciated below its salvage value even when a declining-balance method is used.

⁸A four-year life is used to illustrate the different depreciation methods. Note that an asset placed in service in 1980 must have a useful life of at least 39 years in order for depreciation to be deducted in 2018.

⁹Total depreciation taken cannot exceed cost minus estimated salvage value (\$1,000 in this example).

In 1969, Congress placed certain restrictions on the use of accelerated methods for new and used realty that are subject to the depreciation rules under § 167. These restrictions were imposed to reduce the opportunities for using real estate investments as tax shelters. The use of accelerated depreciation frequently resulted in the recognition of ordinary tax losses on economically profitable real estate ventures.

The following methods were permitted for residential and nonresidential real property:

	Nonresidential Real Property (Commercial and Industrial Buildings, Etc.)	Residential Real Property (Apartment Buildings, Etc.)
New property acquired after July 24, 1969, and generally before January 1, 1981	150% DB, SL	200% DB, SYD, 150% DB, or SL
Used property acquired after July 24, 1969, and generally before January 1, 1981	SL	125% DB (if estimated useful life is 20 years or greater) or SL

Congress chose to permit accelerated methods (200 percent declining-balance and sum-of-the-years' digits) for new residential rental property. Presumably, the desire to stimulate construction of new housing units justified the need for accelerated methods.

Restrictions on the use of accelerated methods were not imposed on new tangible personalty (e.g., machinery, equipment, and automobiles). However, the 200 percent declining-balance and sum-of-the-years' digits methods were not permitted for used tangible personal property. The depreciation methods permitted for *used* tangible personal property were as follows:

	Useful Life of Three Years or More	Useful Life of Less Than Three Years
Used tangible personal property acquired after July 24, 1969, and generally before January 1, 1981	150% DB, SL	SL

Since the acquisition of used property does not result in any net addition to gross private investment in our economy, Congress chose not to provide as rapid accelerated depreciation for used property.

The determination of a *useful life* for a depreciable asset often led to disagreement between taxpayers and the IRS. One source of information was the company's previous experience and policy with respect to asset maintenance and utilization. Another source was the guideline lives issued by the IRS.¹⁰ In 1971, the IRS guideline life system was modified and liberalized by the enactment of the **Asset Depreciation Range (ADR) system**.¹¹

ACCELERATED COST RECOVERY SYSTEM (ACRS)

The major characteristics of the **accelerated cost recovery system (ACRS)** are listed in Exhibit 2. For personalty, the recovery period expired (i.e., all of the cost recovery basis was recovered) prior to 2007. For realty, the recovery period expired no later than 2005.

¹⁰Rev.Proc. 72-10, 1972-1 C.B. 721, superseded by Rev.Proc. 83-35, 1983-1 C.B. 745.

¹¹Reg. § 1.167(a)-11.

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EXHIBIT 2

Characteristics of ACRS

Property	Accounting Convention	Life	Method
Personalty	Half-year or mid-quarter	3, 5, 7, 10, 15, or 20 years	Accelerated or straight-line
Realty	Mid-month	15, 18, or 19 years	Accelerated or straight-line

Key Terms

Accelerated cost recovery system (ACRS), 5

Asset Depreciation Range (ADR) system, 5

Salvage value, 3