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DEPRECIATION POLICY: WHITHER THOU GOEST

by

Henry J. Lischer, Jr.*

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DEPRECIATION for federal income tax purposes is a device by which the taxpayer receives a tax benefit for the acquisition cost of long life property. Depreciation allows the taxpayer an annual income tax deduction over the useful life of the property for a portion of the cost of the property. It is a device to determine more accurately the periodic net income of the taxpayer, because the cost of long life property is an expense which should be accounted for during the time period in which the property produces revenues. Although depreciation might seem to be a fairly staid and non-

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controversial subject, it is not. Due to varying social and political pressures, depreciation provisions in the Internal Revenue Code have proliferated and have generated considerable controversy. It has been alleged that depreciation can be used to increase investment in depreciable property;\(^1\) to increase the number of jobs in the economy, hold down prices, relieve pressure on the capital markets, and reduce or steady interest rates;\(^2\) and even to win the cold war with Russia.\(^3\) On the other hand, components of contemporary depreciation have been criticized as wasteful,\(^4\) outmoded,\(^5\) and unfair;\(^6\) and complete elimination of the depreciation deduction has been proposed.\(^7\)

This Article considers various elements of the concept of depreciation for federal income tax purposes. Initially, the historical development of the depreciation concept is considered. Next, depreciation as it presently exists under the Internal Revenue Code is presented, and various options for changing depreciation are evaluated. Finally, current issues facing policy makers are explained.

I. HISTORY OF DEPRECIATION

In many respects depreciation is an unusual feature of financial and tax accounting. Although depreciation is considered an expense of generating revenues, it is different from other expenses in that depreciation involves no current cash expenditure because the expenditure was made previously when the property was acquired. Nonetheless, today it is considered appropriate and necessary to spread the cost over the useful life of the depreciable property in determining net income. Historically, however, the appropriateness and necessity of a depreciation deduction has been quite controversial.

The history of depreciation includes both a tax history and a financial accounting history. The formulation of financial accounting depreciation concepts preceded congressional adoption of a depreciation deduction. Thus, the meaning of depreciation for financial accounting purposes is indicative of the meaning of depreciation which Congress intended for tax purposes. Moreover, the financial accounting meaning and the tax meaning are essentially related in that they both seek to allocate the cost of long life assets over their useful lives so as to reflect net income accurately.\(^8\) Accordingly, the concept of depreciation for financial accounting purposes is relevant to the study of depreciation for federal income tax purposes.

\(^3\) Hogan, *Depreciation Reform*, in *id.* at 925, 925-31.
\(^8\) A. Murray, *Depreciation* 5 (1971).
A. Financial Accounting History

Rudimentary financial records date back to the earliest reaches of civilization, but early record keeping was simplistic and unsophisticated by current standards, reflecting the less complicated economic and financial systems of the day. The earliest direct references to depreciation appeared in the sixteenth century. Prior to that time, most economic activity revolved around agriculture and horticulture, operations which were labor-intensive rather than machinery-intensive. Because only a small element in the productive process was depreciable, relatively little concern about depreciation was generated. Another reason why depreciation was largely ignored was that most of the agricultural operations were directly supervised by the persons who owned the enterprise. Thus, there were no absent owners to whom an accurate determination of income had to be provided. This contrasts with contemporary enterprises where most investors are passive nonparticipants and actual operations are performed by professional managers. Moreover, because such owner-operated enterprises were sold only infrequently, the accurate determination of periodic income was less important.

With the onset of the industrial revolution, business activities became increasingly larger and complex, necessitating more sophisticated financial information systems. The industrial revolution also brought into use large amounts of equipment, resulting in more capital intensive industry with greater depreciation potential. Thus, proper depreciation accounting became more important in correctly analyzing the financial results of the industrial activity.

An additional factor which contributed to the acceptance of depreciation was the appearance of the publicly owned company. Because ownership interests were traded publicly and with some frequency, the current value of the interests were important to the owners. The owner of an interest in a publicly traded enterprise is concerned about depreciation for several reasons. Depreciation affects the income or loss of the enterprise, and the rate of return on the interest is a major determinant of the value of the interest. If depreciation is too low, income and the value of the interest would be

10. Id.
11. See E. Saliers, Depreciation 8-9 (3d ed. 1939); Mason, Illustrations of the Early Treatment of Depreciation, 8 ACCOUNTING REV. 209 (1933).
14. Id.
15. P. Leake, Depreciation and Wasting Assets xx (2d ed. 1917).
16. Id.
17. E. Saliers, Depreciation 10 (3d ed. 1939).
overstated; if depreciation is too high, income and the value of the interest would be understated.

Another reason why the owner is concerned about depreciation is that the value of his interest is influenced by the book value of the property owned by the entity.\textsuperscript{21} The book value of the property is calculated as the net difference between the original acquisition cost and accumulated depreciation. If the accumulated depreciation on the property is too low, the book value of the property and the value of the interest would be overstated; if the accumulated depreciation is too high, the book value of the property and the value of the interest would be understated.

A final reason why the owner of an interest in a publicly traded enterprise is concerned about depreciation is the relationship between depreciation and the ability of the entity to pay dividends to its owners.\textsuperscript{22} Generally, dividends can be paid only from income, so as to preserve the permanent invested capital of the enterprise. Some entities were prohibited from paying dividends if sufficient provisions for depreciation were not made.\textsuperscript{23} Even where the organic articles of the entity did not specifically require depreciation, English authorities split as to whether a provision for depreciation was required, with most courts concluding that such a provision was necessary.\textsuperscript{24} These prohibitions sought to treat all owners equally.\textsuperscript{25} If insufficient depreciation were taken, and excessive dividends were paid, the permanent capital of the entity would be depleted.\textsuperscript{26} If an owner sold the interest shortly after the excessive dividend, that owner would receive a disproportionate share of the value of the entity. The remaining owners would not be able to receive dividends until the depreciation insufficiency was satisfied.

Thus, there were compelling reasons for standardized, periodic depreciation accounting. Even so, depreciation was often merely related to profit. Management viewed depreciation as a device by which to level out the highs and lows in the profitability of the entity.\textsuperscript{27} In the years of low profit, little or no depreciation would be taken; in years of high profit, large amounts of depreciation would be taken.\textsuperscript{28}

An early United States Supreme Court decision with respect to depreciation was United States v. Kansas Pacific Railway,\textsuperscript{29} in which the statute facilitating completion of the Union Pacific Railroad to the west coast was at issue. The case turned on the requirement that the Kansas Pacific Railway

\begin{footnotes}
\item[21.] See G. McCarthy & R. Healy, Valuing a Company 334-36 (1971).
\item[22.] See generally R. Kester, Depreciation 99 (1924); E. Saliers, Depreciation 21 (3d ed. 1939).
\item[23.] Davison v. Gillies, [1879] 16 Ch. D. 347 n.1.
\item[25.] E. Matheson, The Depreciation of Factories 4 (2d ed. 1893).
\item[26.] R. Kester, Depreciation 99 (1924).
\item[27.] E. Saliers, Depreciation iii (2d ed. 1922).
\item[28.] Pyle, Depreciation—Accounting Concept or Political Tool?, 48 Management Accounting 49, 49 (1967). Another reason why management would resist uniform depreciation practices relates to over depreciation and the creation of "secret reserves." If the property is depreciated too rapidly, the book value will be less than the market value, resulting in depression of the value of the ownership. Management, or knowledgeable insiders, therefore, might be able to manipulate the price of the ownership interests, or take advantage of the depressed value due to the secret reserves. See R. Kester, Depreciation 96-99 (1924).
\item[29.] 99 U.S. 455 (1878).
\end{footnotes}
pay to the government five percent of net earnings in repayment of principal and interest on borrowed amounts. In determining net income under the statute involved, the Supreme Court held that a depreciation deduction could not be allowed because it was not an expenditure "actually made." 30

This was a rather parochial view of the depreciation concept. Although there was no actual current expenditure, an expenditure had been made earlier when the depreciable property was acquired. When the Supreme Court next addressed the issue of depreciation, it was in the context of public utility property. In City of Knoxville v. Knoxville Water Co. 31 the Supreme Court considered the constitutionality of a municipal ordinance which fixed water rates. The maximum charge was dependent upon the rate of earnings on invested capital of the water company. Under this statute the Court held that depreciation was appropriate, indeed, even required, in order to preserve the capital of the public service company. 32 Thus, the Knoxville Water Co. decision established Supreme Court acceptance of the depreciation concept.

In addition to the judicial development of depreciation, the organized financial accounting profession continued to press for standardized depreciation practices. As the profession became more influential in controlling accounting practices, the American Institute of Certified Public Accountants commissioned several subsidiary organizations to promulgate generally accepted accounting principles. A declaration of financial accounting depreciation policy was contained in Accounting Research Bulletin Number 3333 in 1953, and that policy was followed in 1965 in Accounting Research Study Number 7. 34 The thrust of such pronouncements was to require the regular allocation of the cost of depreciable property over its useful life, as a charge against income. Once depreciation methods were elevated to the status of generally accepted accounting principles, noncompliance therewith would cause the certified public accountant to qualify his opinion as to the client’s financial statements and make special disclosure of the noncompliance. 35 Thus, although there was no direct sanction from the accounting profession for the utilization of improper depreciation methods, a qualified opinion indicating improper depreciation deductions might impair the ability of the

30. Id. at 459.
32. The Court stated:

Before coming to the question of profit at all the company is entitled to earn a sufficient sum annually to provide not only for current repairs but for making good the depreciation and replacing the parts of the property when they come to the end of their life. The company is not bound to see its property gradually waste, without making provision out of earnings for its replacement. It is entitled to see that from earnings the value of the property invested is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning. It is not only the right of the company to make such a provision, but it is its duty to its bond and stockholders, and, in the case of a public service corporation at least, its plain duty to the public.

Id. at 13-14.
33. COMMITTEE ON ACCOUNTING PROCEDURE, AMERICAN INSTITUTE OF ACCOUNTANTS, ACCOUNTING RESEARCH BULLETIN No. 33, RESTATEMENT OF ACCOUNTING RESEARCH BULLETINS 67-91 (1953).
client to raise funds in the capital markets. For large, publicly owned enterprises, a qualified opinion constituted a major impediment to financial freedom and was something to be avoided.

Thus, gradually depreciation came to be recognized as a necessary component of comprehensive financial reporting. The theoretical basis for depreciation was that the cost of property should be allocated against revenues during the useful life of the property. It took the proliferation of publicly owned enterprises, however, to force uniform depreciation practices. Ultimately, the organized accounting profession was successful in causing substantial compliance with standardized depreciation policy.

B. United States Tax History Through 1968

The history of depreciation as a part of the federal tax structure of the United States dates back to early income tax and excise tax legislation. Depreciation was not provided for in 1861, when the first federal income tax statute was adopted, or in subsequent tax laws enacted in 1862, 1864, 1865, 1867, and 1870. In fact, the Act of August 27, 1894 seemed to prohibit depreciation as an expense in computing income.

The first legislative indication that depreciation was a legitimate expense in determining income for federal tax purposes came in the Tariff Act of 1909. The Act imposed a corporate excise tax, and permitted "a reasonable allowance for depreciation of property, if any." The Treasury interpreted depreciation to mean the loss in value "that arises from exhaustion, wear and tear, or obsolescence out of the uses to which the property is put."

In 1913 ratification of the sixteenth amendment removed the constitutional barriers to an income tax. Subsequent to the ratification of the amendment, Congress passed the Tariff Act of 1913, which imposed a tax on corporate income and allowed a deduction for depreciation. The

37. Id.
38. See generally W. Hogan, DEPRECIATION POLICIES AND RESULTANT PROBLEMS 2 (Studies in Industrial Economics No. 8, 1967; TAX FOUNDATION, INC., RESEARCH PUB. No. 24, DEPRECIATION ALLOWANCES 17 & n.1 (1970)).
41. Ch. 349, §§ 27-37, 28 Stat. 509, 553-60. This Act levied a tax of two percent on the "gains, profits and income" derived from any kind of property, rents, interest, dividends, or salaries. Deductions were allowed for "the necessary expenses actually incurred in carrying on any business occupation, or profession." These sections of the Act were held unconstitutional in Pollock v. Farmer's Loan & Trust Co., 158 U.S. 601 (1895).
42. The Act allowed no deduction "for any amount paid out for new buildings, permanent improvements, or betterments, made to increase the value of any property." Act of Aug. 27, 1894, ch. 349, § 28, 28 Stat. 509, 553. Thus, the statute did not directly address the depreciation issue, but did disallow any deduction with respect to capital expenditures.
43. Ch. 6, 36 Stat. 11.
44. Id. § 38, 36 Stat. at 112.
45. Id. § 38, 36 Stat. at 113.
47. U.S. CONST. amend. XVI.
49. Id. § 11(G)(a), 38 Stat. at 172.
50. Id. §§ 11(B), (G)(b), 38 Stat. at 167, 172.
Revenue Act of 1916 did not contain the word "depreciation," but authorized "a reasonable allowance for the exhaustion, wear and tear of property arising out of its use and employment in the business or trade." The absence of any reference to obsolescence caused the Treasury, through regulations, to prohibit any deduction attributable to obsolescence. The Revenue Act of 1918, however, restored obsolescence as an element of depreciation.

In 1920 Bulletin F was first issued by the Bureau of Internal Revenue. Depreciation was a new concept to federal income taxation, and the Treasury was willing to grant to the taxpayer primary authority for determining the rate of depreciation. Accordingly, the bulletin stressed the difficulty and uncertainty in determining the appropriate rate of depreciation and left determination of the amount of depreciation to the taxpayer, subject to the approval of the Commissioner. Deductions were not challenged unless shown unreasonable by clear and convincing evidence. The prevailing notion was that so long as the total amount deducted was limited to acquisition cost, it made little difference as to the method to be used.

The onset of the depression brought about a substantial stiffening by the government with respect to depreciation deductions. In 1931 a revised edition of Bulletin F, along with a corollary report entitled Depreciation Studies, was published, ending the hands-off policy of the 1920's. The report contained a schedule of suggested useful lives for depreciable industrial assets. Although the new useful lives were only suggested, the schedule provided a standard by which to judge the reasonableness of the depreciation.

52. Id. § 5(a), 39 Stat. at 759.
54. Ch. 18, 40 Stat. 1057 (1919).
55. Id. § 214(a)(8), 40 Stat. at 1067.
57. The Bulletin stated:
   Consideration of the elements entering into depreciation and of the many problems arising therefrom, involves questions of great difficulty, the solution of which does not yield to exact determination in such a manner that precise rules of treatment can be established or theoretical formulae deduced which can be applied to all cases, or even to many. It is considered impracticable to prescribe fixed definite rates of depreciation which would be allowable for all property of a given class or character. The rate at which property depreciates necessarily depends upon its character, locality, purpose for which used, and the conditions under which it is used. Manufacturing plants in the same locality, doing identically the same kind of business, depreciate at widely different rates, to a large extent dependent upon the management and the fidelity with which repairs are made and the property maintained; but so many other elements enter into the question that even the relative importance of the different factors can be determined only with difficulty and as approximations. The taxpayer should in all cases determine as accurately as possible according to his judgment and experience the rate at which his property depreciates. The rate used will, however, be subject to the approval of the Commissioner.
58. Id. at 26-27.
60. Id.
tion claimed by the taxpayer. Depreciation allowances had increased substantially during the period of 1924-1931, and in 1931 depreciation claimed by corporations exceeded the amount of taxable corporate income. The situation was considered severe enough that in 1934 the House Ways and Means Committee recommended an across-the-board reduction of twenty-five percent in depreciation allowances for 1934, 1935, and 1936. The Treasury, however, recommended that the desired results be obtained by administrative action, rather than legislative action. Secretary of the Treasury Henry Morgenthau, Jr., in a letter to the Ways and Means Committee, stated that the desired reduction in depreciation deductions could be obtained: first, by requiring the taxpayer to provide a detailed depreciation schedule, which previously had been prepared by the Bureau; secondly, by expressly limiting depreciation deductions to the amount reasonably necessary to recover the cost of the property over the useful life of the property; and, thirdly, by placing the burden of sustaining the amount of the deduction upon the taxpayer. Congress agreed to allow the Treasury to proceed by administrative action and as a result Treasury Decision 4422 was promulgated. Because the burden of establishing reasonableness was shifted to the taxpayer, the Bulletin F standardized lives enjoyed a presumption of validity and grew in importance. In 1942 Bulletin F was again revised and useful life estimates for approximately 5,000 assets were provided. Thus, as a result of Treasury Decision 4222 and Bulletin F, government involvement in depreciation practice became more extensive and comprehensive.

Another change to depreciation for tax purposes occurred in 1932. The Revenue Act of 1932 addressed the interplay of the depreciation deduction and the adjusted basis of depreciable property. Prior to 1932 the adjusted basis of the depreciable property was reduced by the amount of depreciation "allowable" as opposed to the amount actually allowed. The allowable amount was used to prevent the taxpayer from claiming depreciation deductions only in years of high income. Otherwise taxpayers would ignore depreciation for years in which they would derive no tax benefit and save the depreciation for a year when a tax benefit would be realized. This ability to control the timing of depreciation was inconsistent with the theory of

64. H.R. 7835, 73d Cong., 2d Sess. (1934); see H.R. REP. NO. 704, 73d Cong., 2d Sess. 8 (1934). The increase in tax revenues would have been $65,000,000, or 11% of business tax liabilities. See Announcement 71-76, 1971-2 C.B. 503, 505.
66. Id. at 9; S. REP. NO. 558, 73d Cong., 2d Sess. 11 (1934).
67. XIII-1 C.B. 58 (1934).
68. The legislative activity preceding T.D. 4422 and the arbitrary reduction in allowable depreciation outraged many taxpayers. It was viewed as an unwarranted abuse of administrative authority. See Barlow, Depreciation, in 2 HOUSE COMM. ON WAYS AND MEANS, 86TH CONG., 1ST SESS., TAX REVISION COMPREHENDIUM 827, 831 (Comm. Print 1959).
69. T.D. 4422, XIII-1 C.B. 58, 58-59 (1934). See also Mim. 4170, XIII-1 C.B. 59 (1934), for information required to be provided by the taxpayer.
70. TAX FOUNDATION, INC., RESEARCH PUB. 24, DEPRECIATION ALLOWANCES 19 (1970).
72. See generally 40 COLUM. L. REV. 540, 543-44 (1940).
73. Revenue Act of 1926, ch. 27, § 202(b)(2), 44 Stat. 9, 12.
depreciation as a uniform, regular device of expensing the cost of the property.\textsuperscript{74} A problem arose, however, in instances where taxpayers had claimed excessive depreciation in years closed by the statute of limitations. The taxpayer not only received the full benefit of the excessive depreciation, but would argue that the adjusted basis should be reduced only by the allowable amount, not the larger amount improperly allowed.\textsuperscript{75} To mitigate that abuse, the Revenue Act of 1932 amended the adjusted basis provision so that the cost of the property was reduced by depreciation "to the extent allowed (but not less than the amount allowable)."\textsuperscript{76} Thus, if the taxpayer claimed excessive depreciation, the adjusted basis of the property would be reduced by the entire amount allowed, not merely the amount properly allowable. That provision did not directly prohibit the taking of excessive depreciation, but it prevented the government from being whipsawed by the taxpayer when the adjusted basis was in issue.\textsuperscript{77}

The onset of United States involvement in World War II led to legislative adjustments to the concept of depreciation for federal income tax purposes.\textsuperscript{78} Legislation in 1940 permitted corporations an accelerated five-year amortization period, in lieu of useful life depreciation, for property considered necessary for the national defense.\textsuperscript{79} This favored treatment was available with respect to property for which a "certificate of necessity" had been obtained. The Revenue Act of 1942\textsuperscript{80} extended similar favorable treatment to unincorporated businesses. Such legislation was the first of many times Congress enacted a special depreciation rule which departed from the theoretical basis of useful life.\textsuperscript{81} The advantage of such accelerated depreciation is now referred to as deferral. Excessive depreciation was taken during the five-year amortization period, with the result that taxable income and tax liability were reduced. After expiration of the five-year period, no further depreciation deductions were allowed and taxable income and tax liability were increased. Thus, the five-year amortization rule only affected the timing of the deductions; consequently the payment of taxes was postponed, or deferred, rather than forgiven. This deferral of tax liability, however, was the functional equivalent of an interest-free loan from the government because no interest charge or other penalty resulted.

\textsuperscript{74} Id. To force such regular depreciation, the law before 1932 provided that the adjusted basis in the depreciable property would be reduced by the amount allowable, even if no depreciation was taken or allowed. See Sakaba Oil Corp. v. Commissioner, 71 F.2d 370 (5th Cir. 1934).
\textsuperscript{75} S. REP. NO. 665, 72d Cong., 1st Sess. 29 (1931).
\textsuperscript{76} Revenue Act of 1932, ch. 209, § 113(b)(1)(B), 47 Stat. 169, 201.
\textsuperscript{77} This basis provision was upheld by the Supreme Court in Virginia Hotel Corp. v. Helvering, 319 U.S. 523 (1943).
\textsuperscript{78} Pyle, Depreciation—Accounting Concept or Political Tool?, 48 MANAGEMENT ACCOUNTING 49 (1967).
\textsuperscript{79} Second Revenue Act of 1940, ch. 757, § 302, 54 Stat. 974, 998.
\textsuperscript{80} Ch. 619, 56 Stat. 798.
\textsuperscript{81} Significantly, this legislation manifested the willingness of Congress to alter depreciation for reasons independent of tax policy. Clearly, in a time of world war, favorable tax treatment to support the national defense was considered a compelling justification for departing from tax theory. Modifying depreciation to satisfy other non-tax considerations, however, has created considerable complexity with respect to depreciation, and, in the opinion of some, has created unfairness by generating horizontal and vertical inequities. See text accompanying notes 362-67 infra. A similar amortization provision was enacted during the Korean War. Revenue Act of 1950, Pub. L. No. 814, 64 Stat. 906.
Prior to 1946 most depreciation was computed according to the straight line method and the Bureau had indicated a preference for that method.82 In 1946, however, I.T. 3818 authorized the use of the declining balance method so long as it generated reasonable depreciation allowances and properly reflected net income.83 Unfortunately, the Bureau failed to provide guidelines as to reasonable rates to be utilized under the declining balance method.

By 1953 substantial unhappiness had surfaced with respect to Bureau depreciation policy.84 Friction had been generated over depreciation methods and Bulletin F useful lives. Taxpayers were complaining that the Bureau was demanding depreciation methods which were too slow and useful lives which were too long. As a result, the Bureau adopted a new policy designed to reduce controversies between taxpayers and the Bureau. In Revenue Ruling 9085 the Bureau adopted the policy which continues today86 that taxpayer depreciation amounts would not be challenged unless there was "a clear and convincing basis" for a change.

The change in Bureau policy, however, was not sufficient to prevent further statutory modification of depreciation.87 Adoption of the Internal Revenue Code of 195488 brought statutory approval of accelerated depreciation methods.89 Declining balance method depreciation at a rate not exceeding 200% of straight line was authorized, as was the sum of the years digits method.90 The basic statutory standard was a "reasonable" allowance for depreciation, and the two accelerated methods would be deemed reasonable if used in accordance with regulations to be prescribed by the Treasury. The justifications for the accelerated methods were diverse. One concern was to avoid administrative disputes over allowances.91 This concern also resulted in the enactment of section 167(d)92 in 1954 which authorized binding agreements between taxpayers and the Service as to useful life and rate of depreciation. A provision in the House bill93 would have provided a ten

82. In the Bulletin F of 1931 the Bureau approved straight line depreciation and the units of production method. It stated that other methods, including the declining balance method, had not been approved in their entirety. U.S. BUREAU OF INTERNAL REVENUE, DEPT OF THE TREASURY, BULL. "F" 13 (rev. ed. 1931). See also U.S. BUREAU OF INTERNAL REVENUE, DEPT OF THE TREASURY, BULL. "F" 4-5 (rev. ed. 1942).
83. I.T. 3818, 1946-2 C.B. 42, modifying I.T. 2369, VI-2 C.B. 63 (1927). I.T. 2369 had held that the Bureau would neither approve nor disapprove use of the declining balance method prior to audit.
85. 1953-1 C.B. 43. See also Rev. Rul. 91, 1953-1 C.B. 44.
86. Treas. Reg. § 1.167(a)-1(b).
87. Indeed, the change in service policy was largely unsuccessful in limiting administrative disputes over depreciation. See text accompanying notes 109-116, 189-193 infra.
89. I.R.C. § 167(b).
90. Accelerated depreciation was restricted to tangible property with a useful life of three years or more constructed or acquired after 1953. I.R.C. § 167(c). For general discussion of the declining balance and sum of the years digits methods of depreciation, see [1973] 62-2d TAX MNG'T (BNA) A-28 to -35.
92. I.R.C. § 167(d).
percent tolerance on useful life estimates, so that the Service would not have been able to challenge a taxpayer's estimate unless it differed by more than ten percent from the Service's estimate. The provision, however, was deleted by the Senate Finance Committee which indicated that the goal of assuring flexible administrative policy had been achieved by Revenue Ruling 90. Congress clearly was concerned about the administrative problems associated with depreciation, and the revised deduction provision manifested that concern. Another asserted justification for accelerated depreciation methods was that actual, economic depreciation occurred in a pattern more closely resembling accelerated methods than the straight line method. Economic depreciation is defined as the decrease in value of the property during the measuring period. There is a considerable amount of authority indicating that economic depreciation occurs in larger amounts during the early years of use of certain property. To reflect net income for the period more accurately, the depreciation deduction should approximate economic depreciation. The reports of both the House and Senate embrace the notion that accelerated depreciation methods would lead to more accurate reflections of income for federal tax purposes.

A third justification for accelerated depreciation was that it would serve as a stimulus to greater economic activity. This justification is significant from the perspective of tax policy, for unlike the other claimed justifications for accelerated depreciation, the economic stimulus justification was not

101. The House report states: More liberal depreciation allowances are anticipated to have far-reaching economic effects. The incentives resulting from the changes are well timed to help maintain the present high level of investment in plant and equipment. The acceleration in the speed of the tax-free recovery of costs is of critical importance in the decision of management to incur risk. The faster write off would increase available working capital and materially aid growing businesses in the financing of their expansion. For all segments of the American economy, liberalized depreciation policies should assist modernization and expansion of industrial capacity, with resulting economic growth, increased production, and a higher standard of living.
alleged to improve the administration or accuracy of the system, it was alleged to improve the economy and society as a whole. Thus, the door had been opened to external policy justifications for depreciation policy.

The Technical Amendments Act of 1958 introduced section 179 additional first-year depreciation into the Code. Section 179 allowed extra, or "bonus," depreciation of twenty percent of cost, with a dollar limitation on the amount of cost subject to the provision. Thus, the door had been opened to external policy justifications for depreciation policy.

The Technical Amendments Act of 1958 introduced section 179 additional first-year depreciation into the Code. Section 179 allowed extra, or "bonus," depreciation of twenty percent of cost, with a dollar limitation on the amount of cost subject to the provision. The effect of section 179 was to accelerate depreciation deductions without increasing the total amount deductible. Section 179 was part of title II, the "Small Business Tax Revision Act of 1958," of the Technical Amendments Act, which also contained a number of other provisions benefiting small business. Clearly, the thrust of title II was to provide favored tax treatment for small businesses and presented another situation where policy considerations, not directly germane to the revenue generating function of the tax system, induced Congress to provide a special depreciation rule.

In 1962 Revenue Procedure 62-21 brought a major change in depreciation policy. Prior to the Revenue Procedure, Bulletin F contained useful life estimates for thousands of items of property. The Bulletin F useful lives, however, generated animosity in the business community and administrative difficulty for the Service. Therefore, Bulletin F was withdrawn and depreciable property was classified within four major industrial groups: general business; nonmanufacturing activities; manufacturing; and transportation.

102. The direct effect of accelerated depreciation would be to reduce federal revenues. The House estimated the revenue loss to be approximately $375,000,000. H.R. REP. No. 1337, 83d Cong., 2d Sess. 25, reprinted in [1954] U.S. CODE CONG. & AD. NEWS 4025, 4049-50. If the economic stimulus is successful in generating increased economic activity and income, the loss may be offset by the subsequent increase in tax revenue. Id.

103. Following 1954 increasing numbers of similar depreciation provisions appeared in the Code. See text accompanying notes 347-55 infra.


105. The amount of cost subject to the special treatment was limited to $10,000 for unmarried taxpayers, and $20,000 for married taxpayers filing a joint return. Accordingly, the maximum § 179 deduction was $2,000 for unmarried taxpayers and $4,000 for married taxpayers filing a joint return.

106. The statute simply created a larger depreciation deduction in the first year. The § 179 computation was made first, then the § 167 depreciation was determined based on the cost of the property less the § 179 allowance. I.R.C. § 179(d)(8).


108. Title II was designed to aid and encourage small businesses by increasing the volume of both external and internal funds available, thus preventing the break up of small businesses. See 104 CONG. REC. 17,085, 17,090 (1958) (amendment offered by Senator Kerr). This assistance can be attributed to the exalted position of the closely held family business in the United States.


tation, communications, and public utilities. Within each of the four major groups, there were from five to thirty classes of depreciable property. Each class was composed of functionally related property and for each class a "guideline life" was provided to be used in computing depreciation, in lieu of useful life. Thus, Revenue Procedure 62-21 abandoned the item-by-item useful life approach of Bulletin F, and adopted a more general guideline class life approach. If the useful life actually used by the taxpayer equalled or exceeded the guideline life, then the depreciation would not be challenged. If the useful life chosen by the taxpayer was less than the guideline life, the depreciation was subject to challenge.

Not only did Revenue Procedure 62-21 provide for simplification with respect to depreciation, it also provided a substantial concession to taxpayers. The guideline lives were thirty to forty percent shorter, on average, than the useful lives in Bulletin F, and it was estimated that seventy to eighty percent of all taxpayers had been using tax lives longer than the 1962 guideline lives. A concession of that magnitude is significant and indicates that either the earlier Bulletin F guidelines were substantially inaccurate or that the Service intended to move away from using realistic useful lives in determining depreciation. The Service clearly wanted to reduce the administrative disputes over useful life. One way to avoid such disputes was to be very generous in setting the guideline lives. A more important indication, however, that the guideline lives intentionally departed from true useful lives was President Kennedy's discussion of the $1.5 billion revenue loss associated with the new system. He described it as an affirmative stimulus to new investment which in increased tax revenues might ultimately repay the initial tax losses. By characterizing it as a special stimulus, he tacitly conceded that it was inconsistent with the theoretical concept of depreciation based upon useful life.

An important component of the guideline life depreciation method of Revenue Procedure 62-21 was the reserve ratio test, which was intended to test whether the actual retirement and replacement practices of the taxpayer were consistent with the guideline life being used for depreciation purposes. The reserve ratio computations were rather demanding, but the result of the computation was to require a lengthening of the guideline life when a retirement and replacement pattern was longer than the guideline life used for purposes of depreciation. Essentially, the reserve ratio test

112. Id. at 507.
116. Id.
118. See generally Morris, The Reserve Ratio Test, 22 N.Y.U. Inst. on Fed. Tax. 481 (1964). The reserve ratio was the accumulated depreciation expressed as a percent of the gross (undepreciated) bases of the assets within the class. See R. Pollock, Tax Depreciation and the Need for the Reserve Ratio Test 3 (Dep't of the Treasury Tax Policy Research Study No. 2, 1968).
119. The reserve ratio limits were computed to allow actual usage for a period of up to 20%
sought to conform actual service life with the life period used for depreciation purposes.

Revenue Procedure 62-21 provided a three-year transitional exemption from the reserve ratio test.\textsuperscript{120} Even so, there was considerable reluctance to adopt guideline life depreciation by taxpayers, due to the cost of conversion, the complexity of the reserve ratio test, and the fear of not satisfying the reserve ratio test.\textsuperscript{121} Although the guideline lives provided up to a forty percent decrease in useful life for depreciation purposes, the reserve ratio test had the effect of obligating taxpayers to retire property within that same period, even though the property might still be serviceable, in order to preserve the benefits of the shorter guideline lives. Not surprisingly, taxpayers argued for abolition of the reserve ratio test with retention of the short guideline lives.\textsuperscript{122}

From a tax policy perspective elimination of the reserve ratio test is difficult to support.\textsuperscript{123} Requiring substantial identity between the life used for depreciation and the actual service life is logically consistent\textsuperscript{124} and reasonable. The reserve ratio test, after some transitional problems, was not as complicated as its opponents alleged\textsuperscript{125} and its abandonment raised substantial questions with respect to horizontal and vertical equity.\textsuperscript{126} Assume, for example, that taxpayer A utilized the guideline life for depreciation purposes and satisfied the reserve ratio test by retiring the property within the guideline period. Contrast taxpayer B who utilized the guideline life for depreciation purposes, but failed to satisfy the reserve ratio test because the property was still productive at the end of the guideline life. Absent the reserve ratio test, both taxpayers would be treated the same with respect to depreciation deductions. That result is inequitable, however, because taxpayer B's extended use of the property demonstrated that a longer depreciable life with lower annual deductions was appropriate.

The controversy over the reserve ratio test continued and Revenue Proce-
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 disparity 62-21\textsuperscript{127} was supplemented by Revenue Procedure 65-13. Revenue Procedure 65-13 provided an additional method by which to measure compliance with the reserve ratio test.\textsuperscript{128} It also provided another transitional rule to mitigate the immediate consequences of the test and a minimal adjustment rule to minimize the change in the guideline life where the reserve ratio test was not satisfied. The additional transition rule was an attempt to phase in the effect of the test slowly. The transition period was equal to the guideline life of the property, and taxpayers were given a fifteen percent additional allowance with respect to the reserve ratio analysis.\textsuperscript{129} The fifteen percent additional allowance was eliminated over the term of the transition period. The minimal adjustment rule provided that if the reserve ratio test required an increase in the guideline life, the increase in any year could not exceed ten percent of the guideline life.\textsuperscript{130}

Even after Revenue Procedure 65-13, the reserve ratio test was criticized. It was argued that the test did not work well with new, or "green," guideline class accounts because violation of the test could not be determined until the end of the ownership cycle.\textsuperscript{131} Another problem was treatment of stand-by property which had been fully depreciated, but was retained and used only in unusual circumstances. Inclusion of such property in the guideline class could cause failure of the reserve ratio test.\textsuperscript{132} The criticism that the reserve test was too complex continued and was supported by a survey of experienced IRS agents indicating that eighty-seven percent of the agents found the test unworkable and impractical.\textsuperscript{133}

The adoption of the additional transition rule in 1965 delayed effectiveness of the reserve ratio test until 1971 when the transition rules were beginning to phase out. The reserve ratio test, however, was never really given a chance to function because asset depreciation range depreciation was adopted in 1971,\textsuperscript{134} and that method of depreciation did not include a reserve ratio test. In 1972 Revenue Procedure 62-21 and the reserve ratio test were revoked by the Service.\textsuperscript{135}

In addition to Revenue Procedure 62-21, the year 1962 brought several other changes to depreciation for federal income tax purposes. One of the changes was the addition of section 167(f)\textsuperscript{136} which entered the Code via the Revenue Act of 1962. Section 167(f) provided that the taxpayer could disregard for salvage value purposes up to ten percent of the cost of depreciable property. Thus, if gross salvage value was ten percent of the cost of the property, or less, salvage value could be ignored in determining

\textsuperscript{127} 1962-2 C.B. 418.
\textsuperscript{128} Rev. Proc. 62-21 compliance was determined by reference to tables and was termed the "tabular" form of the reserve ratio test. 1962-2 C.B. 418, 439-59. Rev. Proc. 65-13 compliance was measured by a direct mathematical computation (supplemented by an "annual factor") and was termed the "guideline" form of the reserve ratio test. 1965-1 C.B. 759, 760-65.
\textsuperscript{129} 1965-1 C.B. 759, 767.
\textsuperscript{130} Id. at 768.
\textsuperscript{131} Announcement 71-76, 1971-2 C.B. 503, 511.
\textsuperscript{132} Id.
\textsuperscript{133} See id. at 512.
\textsuperscript{134} See text accompanying notes 183-200 infra.
\textsuperscript{135} Rev. Proc. 72-10, 1972-1 C.B. 721, 731.
\textsuperscript{136} Revenue Act of 1962, Pub. L. No. 87-834, § 13(c)(1), 76 Stat. 960, 1034 (codified at I.R.C. § 167(f)).
depreciation. If gross salvage value was in excess of ten percent of the cost of the property, only the excess was utilized as salvage value in determining depreciation.\textsuperscript{137} By ignoring part or all of the salvage value, the total amount depreciable was increased. Upon disposition of the fully depreciated property, however, a gain would be realized because the salvage value would exceed the adjusted basis of zero. Thus, the consequence of section 167(f) was deferral of income taxes. The purpose of section 167(f) was to eliminate speculative salvage value estimates where there would be little residual value.\textsuperscript{138}

The Revenue Act of 1962 also introduced the section 1245 recapture provisions.\textsuperscript{139} Adoption of the depreciation recapture provisions was an extremely significant event in the development of tax depreciation policy. Since section 1231\textsuperscript{140} provides, in effect, long term capital gain treatment for gains realized from sales of depreciable property, it creates a special problem with respect to the depreciation allowance. Annual depreciation is a deduction from ordinary income, and the amount deducted reduces the taxpayer's basis in the property. Upon disposition, if the depreciation deductions taken have been greater than the actual decline in the value of the property, capital gain is realized to the extent the value of the property exceeds its adjusted basis. The effect is that the taxpayer has received prior deductions from ordinary income and realizes a capital gain at the time of sale. From the perspective of tax policy, it is anomalous that the taxpayer could receive capital gain treatment on the sale of business assets, the costs of which have been deducted against ordinary income. This conversion of ordinary income to capital gain was aggravated by the use of accelerated depreciation methods. Section 1245 addressed this anomaly by providing that prescribed amounts of the gain recognized upon disposition of depreciable personal property would be recharacterized, or "recaptured," as ordinary income.\textsuperscript{141}

Mechanically, section 1245 was fairly straightforward. It required the

\textsuperscript{137} Salvage value is utilized in computing the annual depreciation deductions under the straight line and sum of the years digits methods of depreciation. Treas. Reg. §§ 1.167(b)-1(a) -3(a)(1) (1962). Salvage value is not so used in determining declining balance method depreciation. Treas. Reg. § 1.167(b)-2(a) (1962).

\textsuperscript{138} Cf. H.R. REP. No. 1447, 87th Cong., 2d Sess. 67 (1962) (stating that the elimination of excessive depreciation deductions prevents the conversion of ordinary income into capital gains in the depreciation context).

\textsuperscript{139} I.R.C. § 1245.

\textsuperscript{140} Id. § 1231.

\textsuperscript{141} H.R. REP. No. 1447, 87th Cong., 2d Sess. 66-67 (1962). Real property was excluded from § 1245. A reason advanced for excluding real property from § 1245 was that "this treatment presents problems when there is an appreciable rise in the value of real property attributable to a rise in the general price level over a long period." H.R. REP. No. 1447, 87th Cong., 2d Sess. 67 (1962). The meaning of that phrase is not at all clear. Apparently, Congress was concerned that real property was held for longer periods of time than personalty and that recapture should not apply where the price level had been rising. That is a somewhat disingenuous analysis for several reasons. First of all, our tax structure generally ignores rising price levels. Moreover, owners of personalty as well as owners of realty experience the consequences of inflation. Providing special treatment for rising prices only to owners of real property seems unfair. Another curiosity of the exception for realty is that a holding period device could have been drafted which would apply to both realty and personalty. The exception for realty may have been more a manifestation of the political strength of the real estate industry than it was an indication that realty was somehow incompatible with the recapture notion.
recapture as ordinary income of the lesser of gain recognized or post-1961 depreciation deductions taken. If depreciation accurately reflected decline in economic value, the adjusted basis and fair market value would be equal so that upon disposition there would be no gain and, accordingly, no recapture. Recapture occurred only if the property was depreciated more rapidly than its decline in value. It is ironic that Congress adopted section 1245 to deal with depreciation that was too rapid while at the same time adopting section 167(f) which increased the depreciation which could be taken. Even more striking was the inconsistency between section 1245 and the substantial reduction in useful lives and consequential acceleration of depreciation granted earlier in the year by Revenue Procedure 62-21.

The method that Congress chose to deal with the conversion problem is noteworthy for its indirectness. The direct solution to the problem would have been to decelerate depreciation deductions by limiting the accelerated methods or lengthening useful lives. Instead, Congress chose a device which operated at the end of the ownership cycle. The consequence of this indirect approach was to require the taxpayer to account for the excess depreciation upon disposition, rather than during ownership of the property. Thus, the taxpayer was allowed the tax deduction attributable to excess depreciation, but the excess had to be repaid, as ordinary income, at the end of the ownership cycle. The taxpayer did not achieve conversion, but did obtain the benefit of deferring taxes on the excess depreciation until disposition of the property. Because of the deferral advantage, there was still an inducement to accelerate depreciation.

The Revenue Act of 1964 extended the recapture principle to real property by introducing section 1250 into the Code. Although section 1250 appeared on its face to be similar to section 1245, the differences were substantial. Section 1245 generally recaptured the lesser of gain recognized or the post-1961 depreciation. Section 1250 applied only to post-1963 depreciation taken in excess of straight line depreciation. Thus, the scope of section 1250 was considerably narrower than that of section 1245. In addition, section 1250 phased out over time; if the property was held for a sufficient length of time, there was no recapture. This was accomplished by utilizing an "applicable percentage" device. The applicable percentage, 100 percent less one percent per month for each month the property was held in excess of twenty months, was multiplied by the lesser of the gain recognized or the post-1963 depreciation in excess of straight line depreciation. Thus, after 120 months there was no recapture. In summary, the significant differences between section 1245 and section 1250 were that section 1250 applied only to depreciation in excess of straight line while section 1245 applied to all depreciation, and section 1250 phased out over time while section 1245 did not.

142. I.R.C. § 1245.
143. A major goal of § 167(f), no doubt, was to reduce administrative problems over salvage value. That consideration alone might well justify the provision.
144. 1962-2 C.B. 418.
146. If the property was disposed of within one year of acquisition, the recapture applied to all depreciation taken, not just the excess of actual depreciation over straight line.
Purportedly, Congress was concerned about the effect of inflation on recapture computations when it considered extending recapture to realty. It was argued that gain attributable to inflation was fundamentally different from gain attributable to excessive depreciation, and that gain attributable to inflation should be exempted from recapture. The problem became one of drafting a recapture provision which would exempt inflation gains. The provision would have been complex and Congress chose, instead, to attempt to approximate the inflation gain by exempting straight line depreciation and by phasing out the recapture over time. The House Report justifies the special treatment, as follows:

Your committee generally has limited the depreciation recapture to the excess over straight line depreciation because it believes that only to this extent could the depreciation taken appropriately be considered in excess of the decline in the value of the property which occurs over time. If a gain still occurs, it is believed that this is attributable to a rise in price levels generally rather than to an absence of a decline in the value of the property. The portion representing the rise in value is comparable to other forms of gains which quite generally are treated as capital gains. Moreover, your committee believes that when the property is held for an extended period of time, gains realized on the sale or other disposition of the property are more likely to be attributable to price rises generally than to an excess of depreciation deductions. For that reason, your committee's bill also tapers off over a 10-year period the proportion of the additional depreciation (or gain where smaller) which is to be treated as ordinary income upon the sale of the property.  

As a matter of logic, that explanation makes very little sense. Section 1245 was triggered whenever depreciation deductions taken exceeded the actual decline in value. Section 1250, however, was triggered only if depreciation in excess of straight line exceeded the actual decline in value. In other words, an amount equal to straight line depreciation was unequivocally exempted from the section 1250 recapture rules. Mechanically allowing an amount equal to straight line depreciation to escape recapture, on the pretext that such an amount equals a price level increase which should not be recaptured, is not only bad policy, but bad reasoning. It is bad policy because no other type of income is protected from inflation and fairness demands uniform treatment of all taxpayers.  

The phase-out of recapture over time was a corollary of the exemption of straight line depreciation from section 1250. Both provisions were intended

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148. See text accompanying notes 362-67 infra.
to protect depreciable real property from the combined effects of inflation and recapture. The rationale behind the phase-out rule was that the longer the property was held, the greater the proportion of the gain attributable to inflation. Thus, it was argued, to offset and exclude that inflation gain, the recapture provision should be fully effective at first, but phase out over time. Obviously, the phase-out was an imprecise device for compensating for inflation, but Congress chose not to adopt a more precise and more complex inflation adjustment.\footnote{140}

The final element in the pre-1969 development of depreciation for federal income tax purposes came in 1966 with the adoption of section 167(i),\footnote{150} which precluded use of accelerated depreciation methods for real property acquired during a "suspension period" which was imposed from October 10, 1966, until March 9, 1967. Section 167(i) was, in economists' jargon, a counter-cyclical fiscal policy tool enacted in an attempt to decelerate an inflationary economy.\footnote{151} As originally enacted, the suspension period was to terminate on December 31, 1967, but in March 1967, less than four months after actual enactment, the President requested and Congress approved an immediate termination of the suspension period.\footnote{152} The short life of the suspension period was significant in demonstrating how politicized depreciation policy had become. Depreciation was not viewed by Congress as a fixed and immutable component of the Internal Revenue Code, but as a temporal concept subject to the economic and social pressures of the moment. The short existence of section 167(i) indicated how quickly those pressures can shift. Depreciation was no longer a staid concept.

II. CONTEMPORARY DEPRECIATION

A. Tax Shelters and the Tax Reform Act of 1969

The Tax Reform Act of 1969\footnote{153} brought numerous substantive changes to the Code, many of which were directed at tax shelter abuses. An examination of the tax shelter problem must begin with \textit{Crane v. Commissioner}.\footnote{154} \textit{Crane} involved a taxpayer who had received by bequest improved realty subject to a mortgage of approximately $255,000, plus unpaid interest of

\footnote{140. From technical and tax policy viewpoints, the exceptions to § 1250 make little sense. The exceptions undoubtedly attest to the political power of the organized real estate industry. Real property depreciation recapture issues probably created different political alliances than did personal property recapture. A plausible explanation for the less rigorous provisions of § 1250 is that Congress may well have desired to continue to stimulate the real estate industry so as to encourage the construction of housing.}

\footnote{150. Act of Nov. 8, 1966, Pub. L. No. 89-800, § 2, 80 Stat. 1508, 1513.}

\footnote{151. See S. REP. No. 1724, 89th Cong., 2d Sess. 10-11, \textit{reprinted in [1966] U.S. CODE CONG. & AD. NEWS} 4337-38. "The proposal is basically an anti-inflationary measure designed to relieve the pressures, clearly observable in the money markets and capital goods sector, which are producing unusual strains, the highest interest rates in 40 years, and a perceptible trend toward a general condition of economic instability." \textit{President's Proposal on Suspension of the Investment Credit and Application of Accelerated Depreciation: Hearings on H.R. 17607 Before the House Comm. on Ways and Means}, 89th Cong., 2d Sess. 10 (1966) (statement of Secretary of the Treasury Fowler).}


approximately $7,000. The taxpayer was not personally liable on the encumbrance. The property had been appraised at a value equal to the total amount of the debt, $262,000. While owning the property, the taxpayer had used $262,000 as the depreciable basis. The taxpayer subsequently sold the property for $2,500 cash, subject to the $255,000 mortgage.

The Supreme Court held that the amount realized by the taxpayer included both the cash received from the buyer and the amount of the mortgage to which the property was subject. If under *Crane* mortgage indebtedness was included in the amount realized when property was sold, the unavoidable implication was that a purchase money mortgage must also be reflected in the adjusted basis. Accordingly, *Parker v. Delaney* held that a purchase money mortgage is to be included in the adjusted basis; hence, depreciation deductions are based on gross value, not net equity. Depreciation based on gross value applies even if the owner is not personally liable for the indebtedness; the Court concluded that the owner would act to protect the equity in the property regardless of personal liability. Thus, the effect of *Crane* and *Parker* is to treat the taxpayer as 100 percent owner of property purchased with one percent equity and ninety-nine percent indebtedness, even if the indebtedness is nonrecourse. The direct tax consequences are that with a relatively small investment the taxpayer can benefit from 100 percent of the deductions the property generates. The *Crane* rule that gross value, not net equity, is the depreciable basis is logically correct from the perspective of tax policy. To hold that net equity is the depreciable basis would generate considerable computational difficulty and would allow the taxpayer to control the timing of the depreciation deductions. Nevertheless, by allowing the taxpayer depreciation deductions based on properties acquired through nonrecourse financing, *Crane* became a foundation for tax shelters. With the introduction of accelerated depreciation, an entire tax shelter industry was built on this foundation.

In 1954, the accelerated methods of depreciation were touted as being more reflective of actual decline in value. Taxpayers discovered, however, that accelerated depreciation exceeded actual decline in value in the early years of use of the property. The importance of accelerated depreciation was the fact that it could be used to create a tax loss with respect to the property in the early years which could be applied against the taxpayer's

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155. 186 F.2d 455 (1st Cir. 1950).
156. This was premised on the assumption that the taxpayer had some net equity in the property. If there was no net equity, the taxpayer who was not personally liable would not act to preserve the property. *Crane v. Commissioner*, 331 U.S. 1, 14 n.37 (1947). See also *Millar v. Commissioner*, 87 T.C. 656 (1982).
157. The only qualification is that the indebtedness be bona fide and the amount thereof must be determinable. Manuel D. Meyerson, 47 T.C. 340, 350-53 (1966).
158. As the indebtedness was paid down, the net equity would rise. Depreciation would be based on the increased net equity.
159. The taxpayer would have discretion to increase or decrease depreciation deductions by increasing or decreasing the net equity through manipulating the indebtedness. See generally Staff of the Joint Comm. on Int. Rev. Tax., 94th Cong., 2d Sess., 1 Tax Revision Issues—1976 (H.R. 10612) 3-22 (Comm. Print 1976).
160. See text accompanying notes 87-103 supra.
other income. Although the tax loss in the early years would be offset by taxable income in the later years, the taxpayer postponed payment of taxes until the later period. The advantage obtained was deferral.\(^\text{163}\) This deferral advantage could be increased by highly leveraging the property so as to maximize the tax loss in the early years. Promoters found the limited partnership to be the ideal tax shelter investment vehicle because it provided for centralized management, losses were passed through the entity to the limited partner, and the limited partner’s liability could not exceed his contribution.\(^\text{164}\) The combination of Crane, accelerated depreciation, and the limited partnership created tax shelters which were used extensively by high income taxpayers.\(^\text{165}\) The abuse was particularly severe in the case of depreciation on real property improvements because accelerated depreciation substantially exceeded actual decline in value.\(^\text{166}\) Thus, real estate provided a particularly attractive tax shelter investment.\(^\text{167}\)

Given this development of tax shelter abuse, Congress acted in 1969 to minimize, but not remove, the benefits of investing in tax shelters. In the Tax Reform Act of 1969\(^\text{168}\) the excessive depreciation problem was addressed both indirectly and directly.\(^\text{169}\) Indirect remedies were the introduction of a minimum tax on tax preferences and the tightening of section 1250. The direct remedy was a new restriction contained in section 167(j) on accelerated depreciation for real property.

The minimum tax\(^\text{170}\) was intended to impose a tax, though admittedly small,\(^\text{171}\) on items which were entitled to favored treatment under the Code. Due to the existence of those “preferences” many taxpayers with large economic incomes paid little or no income taxes.\(^\text{172}\) Two of the enumerated preference items were based on accelerated depreciation: the excess of accelerated depreciation on realty over straight line, and the excess of accelerated depreciation over straight line with respect to personal property subject to a “net” lease.\(^\text{173}\)

\(^{163}\) Some tax shelters sought not only deferral but also conversion of ordinary income into capital gain. See generally Staff of the Joint Comm. on Int. Rev. Tax., 94th Cong., 2d Sess., I Tax Revision Issues—1976 (H.R. 10612) 3-22 (Comm. Print 1976).


\(^{166}\) See H.R. Rep. No. 413 (Part 1), 91st Cong., 1st Sess. 165 (1969), and text accompanying notes 318-29 infra.


\(^{168}\) I.R.C. §§ 56-58.

\(^{169}\) The tax rate was only 10% and there were substantial exemptions. The tax rate was increased and the exemptions reduced by the Tax Reform Act of 1976, Pub. L. No. 94-455, § 301, 90 Stat. 1520, 1549-54. See text accompanying notes 204-17 infra.

\(^{170}\) A significant factor in the adoption of the 1969 reforms was a Treasury report which disclosed that 154 returns with adjusted gross income of $200,000 or more in 1966 resulted in the payment of no income tax. Staff of the Joint Comm. on Int. Rev. Tax., 91st Cong., 2d Sess., General Explanation of the Tax Reform Act of 1969, at 105 (1970).

\(^{171}\) For an explanation of the net lease requirement, see id. at 106.
The tightening of section 1250 was accomplished by modifying the applicable percentage phase-out rule; the exemption from recapture of straight line depreciation was not changed. The phase-out rule was modified as to post-1969 additional depreciation by deleting the phase-out period and generally substituting 100 percent as the qualified percentage.\(^{174}\) This change complicated the statute because two layers of depreciation recapture now existed: the post-1969 layer, and the post-1963/pre-1970 layer. The two separate layers were required in order to allow the differing applicable percentage provisions to operate. The statute prescribed that the more stringent post-1969 layer be applied first, and if there was any remaining gain not recaptured under the post-1969 layer, then the post-1963/pre-1970 layer would be applied. The computations required were not overpowering, but the language of the statute became rather convoluted.

These indirect methods of resolving the excessive depreciation problem were only partially successful. The minimum tax proved to be a toothless tiger, due to its low tax rate and its generous exemptions.\(^{175}\) The elimination of the recapture phase-out was a move in the proper direction, but the continued exemption for straight line depreciation left a large gap in the section 1250 recapture provisions.

The direct method of dealing with the problem of excessive depreciation was contained in section 167(j) which restricted the availability of accelerated depreciation on real property. Section 167(j) generally provided that new real property improvements could be depreciated at a rate no faster than the 150 percent declining balance method and used real property generally was restricted to straight line depreciation.\(^{176}\) New property was favored over used property, presumably on economic stimulus grounds. Congress wanted to restrict excessive depreciation, while retaining an inducement for the construction and purchase of new real property.\(^{177}\)

The Tax Reform Act of 1969 also contained a number of special depreciation provisions. The section 1250 applicable percentage rules provided special dispensation for residential real property. Although the general rule of the Tax Reform Act of 1969 was to eliminate the phase-out by prescribing 100 percent as the applicable percentage, for residential real property the phase-out principle was retained and the period was lengthened. The old rule provided for a phase-out period of between twenty and 120 months, while the new rule for residential real property provided for a phase-out period of between 100 and 200 months. In the case of government assisted low-income housing, the twenty-month to 120-month rule was preserved. New residen-

\(^{174}\) The 100% applicable percentage rule did not apply to residential real property. See text following note 177 infra.

\(^{175}\) The original estimate of revenue to be generated by the minimum tax on individuals for 1972 and thereafter was $285,000,000. STAFF OF THE JOINT COMM. ON INT. REV. TAX., 91ST CONG., 2D SESS., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1969, at 20 (1970). The actual revenue generated for 1974 was $130,000,000. S. REP. NO. 938, 94TH Cong., 2D Sess. 109 (1976).

\(^{176}\) Once again, however, more generous provisions were made for residential rental properties. See text accompanying note 178 infra.

tial rental property also was provided special treatment under section 167(j), which allowed the use of either the 200 percent declining balance method of depreciation or the sum of the years digits method;\textsuperscript{178} used residential rental property was entitled to the 125 percent declining balance method of depreciation.\textsuperscript{179}

The pattern in the statute clearly indicated several policy decisions by Congress. Residential property was given substantial relief from the more stringent rules because Congress, although concerned about excessive depreciation, was also concerned with housing problems.\textsuperscript{180} The special dispensations given to residential realty indicated that Congress was willing to forgo in part substantive tax reform in order to solve other societal problems. The more favored treatment for new property as compared to used property indicated the desire of Congress to stimulate greater economic activity through construction of new properties.\textsuperscript{181}

Various other depreciation provisions were part of the Tax Reform Act of 1969. Rehabilitation expenditures for low-income rental housing, pollution control facilities, railroad rolling stock, and coal mine safety equipment were provided sixty-month amortization periods.\textsuperscript{182} These amortization periods were totally unrelated to actual useful lives; their sole purpose was to facilitate certain desirable investment practices.

The consequence of the 1969 legislation was a further politicization of depreciation. Originally, depreciation had been a relatively simple, straightforward method of allocating the cost of property over its useful life. After the Tax Reform Act of 1969, depreciation and recapture were rather complicated and the statute contained a number of nonconforming provisions for favored kinds of property or favored activities.

\section*{B. ADR Depreciation and the Revenue Act of 1971}

One of the most significant and controversial changes to depreciation came in 1971 with the introduction of asset depreciation range (ADR) depreciation. ADR depreciation originally was promulgated by administrative action,\textsuperscript{183} and was subsequently codified as “class life” asset depreciation range depreciation in section 167(m). The major purpose of ADR depreciation was to provide additional leeway in determining the useful life of depreciable property.\textsuperscript{184} ADR depreciation was elective and gave the taxpayer a range of useful lives from which to select. The range extended from a useful life of twenty percent in excess of the 1962 guideline lives to a useful life of twenty percent less than the 1962 guideline lives. The system operated

\textsuperscript{178} I.R.C. § 167(j)(2).
\textsuperscript{179} Id. § 167(j)(5).
\textsuperscript{181} Id.
\textsuperscript{182} I.R.C. § 167(k); § 169; id. § 184; id. § 187 (repealed 1976).
by grouping assets acquired in the same year into vintage accounts.185 There was no reserve ratio test.

The background to ADR depreciation provides insight as to the nature of the final legislation. Congress had repealed the investment credit in 1969, because the economy was over-heated and no longer needed a stimulus.186 In addition, accelerated depreciation had been restricted in 1969. The business community did not support either of these actions. As the economy began to soften in 1970 and 1971, the business community began to press for tax reductions as economic stimulus devices. Several members of Congress inquired as to the adequacy of depreciation allowances and the Treasury responded by providing an analysis of the economic consequences of various depreciation reforms.187 On January 11, 1971, the President proposed Treasury adoption of ADR depreciation.188 Eventually ADR depreciation was codified and the investment credit was reenacted by Congress.

Three primary justifications were asserted for adoption of ADR depreciation: it would promote administrative ease; it would provide a more accurate determination of taxable income; and it would generate increased economic activity.189 With respect to the administrative ease justification, the Treasury argued that it was continually plagued by disputes over useful life.190 Although Revenue Procedure 62-21 had provided a thirty to forty percent reduction in the useful lives in Bulletin F,191 the Treasury argued that another twenty percent reduction would further minimize disputes. The 1962 guidelines had not been revised and the Treasury argued that they had become outdated.192 The administrative ease argument was appealing, but not compelling. Carried to its logical extreme, taxpayers would be given absolute control over useful life determinations because there would be no disputes. Moreover, taxpayer control over depreciation had been the policy in the early years of tax depreciation, and it had been abandoned because it led to unrealistically short useful lives.193

The second justification for the twenty percent ADR useful life reduction was that it would lead to more accurate depreciation allowances and therefore more accurately reflect net income.194 The argument was that the thirty to forty percent reduction in useful lives in Revenue Procedure 62-21 had not kept pace with changing technology which generated rapid obsolescence. Although the 1960's certainly was a period of great technological advancement, evidence indicated that useful lives were not too long. The existence of the recapture provisions was evidence that excessive deprecia-

185. For a discussion of the mechanics of the class life ADR system, see R. FEINSCHREIBER, TAX DEPRECIATION UNDER THE CLASS LIFE ADR SYSTEM (1975).
189. DEP'T OF THE TREASURY, ASSET DEPRECIATION RANGE (ADR) SYSTEM 239-60 (1971).
190. Id. at 240-51.
191. See text accompanying notes 109-22 supra.
193. See text accompanying notes 56-70 supra.
tion, rather than insufficient depreciation, had been taken in the past. The limited information available under the reserve ratio test of Revenue Procedure 62-21 indicated that most taxpayers were utilizing useful lives which were shorter than actual replacement practice. Moreover, empirical evidence was beginning to be developed on the useful life question, evidencing that depreciation was too rapid.

The final purported justification for ADR depreciation was that it would serve as an economic stimulus to a lagging economy. There was no substantial dispute that the economy was in a pause, or decline, and that stimulation as a matter of macroeconomic policy was in order. There was disagreement, however, as to the propriety and effectiveness of using ADR depreciation as a fiscal policy tool, and ADR was challenged as an unfair benefit to big business. Notwithstanding those issues, Congress adopted ADR depreciation.

Finally, another special amortization provision entered the Code in the Revenue Act of 1971. Section 188 provided a sixty-month amortization period, in lieu of useful life, for on-the-job training facilities and child care facilities acquired by employers. In 1971 the economy was suffering from the combined effects of a business downturn and high unemployment. To remedy the high unemployment problem, Congress wanted to improve on-the-job training facilities. The incentive for child care centers was intended to aid those persons who could not previously be employed due to child-rearing responsibilities.

C. The Tax Reform Act of 1976

From 1971 until 1976 depreciation policy remained essentially unchanged. By the spring of 1975, however, considerable attention was again focusing on tax shelter abuses. The Tax Reform Act of 1969 simply had not been successful in stopping tax shelters. Because accelerated depreciation was a major element in tax shelters, it too came under scrutiny. The Tax Reform Act of 1976, however, did not directly modify the depreciation deduction. Instead, the 1976 Act restricted the tax benefits derived from investing in tax

195. See text accompanying notes 139-49 supra. It should be noted that the effects of inflation have been ignored at this point. Inflation can have a substantial impact on the determination of gain and recapture. See text accompanying notes 231-84 infra.
201. I.R.C. § 188.
shelters and modified the *Crane* rule\textsuperscript{205} with respect to nonrecourse liabilities.\textsuperscript{206} Under the 1976 Act recourse liabilities for which the taxpayer is at risk are still within the *Crane* rule and cause an increase in the investor’s adjusted basis. The statutory “at risk” rules in the Tax Reform Act of 1976, sections 465 and 704(d),\textsuperscript{207} operate to limit the investor’s allowable losses to the amount that the taxpayer is at risk.\textsuperscript{208} Thus, in the case of highly leveraged shelters using nonrecourse liabilities, the taxpayer’s amount at risk is relatively small and the amount of allowable losses is significantly curtailed. Losses which are not allowed because of the “at risk” rules are held in suspense until an additional amount is at risk against which the suspended losses may be deducted.\textsuperscript{209}

The 1976 Act further refined the percentage phase-out provisions in section 1250.\textsuperscript{210} Under the Tax Reform Act of 1969, the applicable percentage was 100% except for residential rental property which was phased out between 100 and 200 months, and low income housing which was phased out between twenty and 120 months.\textsuperscript{211} Under the Tax Reform Act of 1976 the 100 percent applicable percentage rule was extended to residential rental realty other than low income rental housing. For specified low income rental housing the phase-out period was converted to the 100-to-200 months phase-out. The effect of the 1976 Act was to add a third layer of depreciation recapture to section 1250. Separate computations are now required for post-1963/pre-1970 additional depreciation, post-1969/pre-1976 additional depreciation, and post-1975 additional depreciation. Although tightening the recapture provisions is sound tax policy, piecemeal reform has unnecessarily complicated the statute. The 1976 Act also extended for two years the sixty-month amortization period for rehabilitation expenditures on low-income rental housing and raised the amount eligible for special treatment from $15,000 to $20,000.\textsuperscript{212}

Another significant tax shelter provision contained in the 1976 Act substantially broadened the minimum tax on tax preferences. The 1969 version of the minimum tax had proved to be ineffective in preventing tax shelter abuse\textsuperscript{213} because the original exceptions were too generous and the tax rate was too low. The 1976 Act increased the tax rate from ten percent to fifteen percent, reduced the exempt amount, and modified the items of tax preference. In particular, accelerated depreciation on all leased personal property was subjected to the minimum tax, whereas before the 1976 Act only accelerated depreciation on personal property subject to a “net” lease was subject to the tax.

Another attack on tax shelter abuses contained within the 1976 Act was

\begin{itemize}
\item \textsuperscript{205} See text accompanying notes 154-59 \textit{supra}.
\item \textsuperscript{206} I.R.C. §§ 465, 704(d).
\item \textsuperscript{207} \textit{Id}.
\item \textsuperscript{208} \textit{See Staff of the Joint Comm. on Int. Rev. Tax., 94th Cong., 2d Sess., General Explanation of the Tax Reform Act of 1976, at 33 (1976)}.
\item \textsuperscript{209} \textit{Id.} at 36.
\item \textsuperscript{210} I.R.C. § 1250(a)(1).
\item \textsuperscript{211} \textit{See text accompanying notes 174-79 \textit{supra}}.
\item \textsuperscript{212} I.R.C. § 167(k).
\item \textsuperscript{213} \textit{See Staff of the Joint Comm. on Int. Rev. Tax., 94th Cong., 2d Sess., General Explanation of the Tax Reform Act of 1976, at 33 (1976)}. 
\end{itemize}
the modification of additional first-year depreciation in section 179. In the past, the dollar limitations of section 179 applied to each partner individually. Consequently, each partner could take up to $4,000 of additional first-year depreciation. The 1976 Act severely curtails the tax shelter benefit of section 179 by applying the dollar limitation to the partnership level, rather than to the individual partners. Accordingly, only one additional first-year depreciation allowance may be taken.

The 1976 Act also contained several specialized depreciation provisions. Section 190 allows immediate expensing of costs incurred in removing architectural and transportation barriers to handicapped or elderly persons.\textsuperscript{214} Absent section 190, such expenditures would have to be capitalized and depreciated. With the addition of section 191, certain rehabilitation expenditures for certified historic structures\textsuperscript{215} may be amortized over a sixty-month period, and under section 167(o) a taxpayer who substantially rehabilitates a certified historic structure may elect to be treated as if the original use of the property commenced with the taxpayer.\textsuperscript{216} Thus, such a taxpayer has the option of electing a sixty-month amortization under section 191, or accelerated depreciation under section 167(o).\textsuperscript{217} Finally, section 167(n) provides that only straight line depreciation is available for property constructed or used on a site which previously was occupied by a certified historic structure which was demolished or substantially altered.

D. Theoretical Bases for Contemporary Depreciation

In retrospect, depreciation has come a long way. What started as a relatively simple accounting convention has become a complex statutory concept. Early statutory versions of depreciation were quite succinct, whereas the various contemporary depreciation provisions are lengthy and complex. Originally depreciation was viewed as a fact of tax life, while now considerable tax planning activity is focused on the depreciation and recapture consequences of proposed transactions. In sum, depreciation is a radically different concept now than it was originally. The theoretical underpinnings remain fundamentally unchanged, but the concept is considerably more complex.

One manifestation of the current complexity in the depreciation concept is the multitude of formulations attempting to define depreciation. Diverse formulations have developed in both financial and tax accounting, attributable to conceptual distinctions. Perhaps the simplest and most theoretically accurate definition of depreciation is the excess of the value of the property at the start of a period over the value of the property at the end of the period.\textsuperscript{218} Ultimately, depreciation seeks to allocate the cost of long life

\textsuperscript{214} I.R.C. § 190(c) provides a maximum dollar limitation of $25,000 per year.\textsuperscript{215} Certified historic structures include depreciable buildings and structures which are listed in the National Register or are located in an historical district and are certified to be of historic significance. I.R.C. § 191(d)(1).\textsuperscript{216} \textit{See} \textit{Staff of the Joint Comm. on Int. Rev. Tax.}, \textit{94th Cong., 2d Sess., General Explanation of the Tax Reform Act of 1976}, at 643-45 (1976).\textsuperscript{217} The rate would be 200% declining balance or 150% declining balance under § 167(j), depending on whether the property is residential rental, or not.\textsuperscript{218} Haugh & Keenan Storage & Transfer Co. v. Heiner, 20 F.2d 921, 923 (W.D. Pa. 1927);
property over the period the property is consumed. The cost properly attributable to any period is most accurately reflected by the actual decline in value of the property during that period. Unfortunately, because of intrinsic valuation problems actual decline in value cannot be used for financial accounting or tax purposes.

An alternative view of depreciation is that the depreciation charge represents a fund from which replacement property may be purchased. Historically, this formulation can be attributed to accountants' use of the title "reserve for depreciation" for the accumulated depreciation account. In financial accounting, the word "reserve" connoted a special account from which corporate distributions could not be made. Thus, the title "reserve for depreciation" suggested that the reserve represented a fund which could be used only to purchase new property. Early Treasury regulations adopted this theory, and it is still manifest in Treasury Regulation § 1.167(a)-1(a). Numerous cases have also adopted the replacement fund theory, among them City of Knoxville v. Knoxville Water Co. and United States v. Ludley.

A third formulation of depreciation is that of a mechanical allocation device whereby the net cost of the depreciable property is spread over the useful life of the property. Thus, depreciation is viewed as a means of matching the expenses of production with the revenues received. Without depreciation, the cost of long life property would not be considered in the determination of net income. Depreciation is recognized as a somewhat arbitrary device due to its mechanical allocation, but such a mechanical allocation is mandated due to the difficulties encountered in determining actual decline in value. Under this theory, depreciation is viewed as a device by which to determine more accurately the net income of the enterprise. Financial accounting has adopted this version of depreciation.

Still another formulation of depreciation is that it is a method whereby the taxpayer "recovers" the acquisition cost of the property. The rationale for this formulation is that the taxpayer should be allowed to reacquire, free

228. See Commissioner v. Indiana Broadcasting Corp., 350 F.2d 580, 581 (7th Cir. 1965); Reisinger v. Commissioner, 144 F.2d 475, 477-78 (2d Cir. 1944); Occidental Loan Co. v. United States, 235 F. Supp. 519, 524 (S.D. Cal. 1964).
DEPRECIATION POLICY

of tax, an amount equal to the original cost.\textsuperscript{229} To compensate for the fact that the taxpayer was allowed no immediate tax benefit at the time of acquisition, a tax benefit is allowed over the useful life of the property.

The significant theoretical differences between the foregoing formulations of the depreciation concept have generated considerable confusion with respect to the nature of depreciation.\textsuperscript{230} The confusion persists today and the various theories are manifest in depreciation reform proposals which reflect significantly different perceptions of the nature of depreciation.

E. Purposes of Contemporary Depreciation

Present depreciation provisions manifest numerous purposes. Although the primary purpose of depreciation is the allocation of the cost of the property over its useful life, clearly tax depreciation is used to encourage taxpayers to purchase depreciable property, to induce certain investment activities deemed socially desirable, and to regulate the economy. Conversely, many contemporary depreciation provisions have been enacted to prohibit excessive depreciation. Finally, a goal of depreciation policy has been to minimize administrative disputes over the amounts and timing of depreciation deductions. On reflection, the goals have often been short sighted and inconsistent. Certainly, depreciation is being asked to do a great deal, and the ever expanding scope of its use has distorted the concept.

III. Modification Proposals

A. Inflation Adjusted Depreciation

In an attempt to remedy the existing confusion about depreciation, various proposals to modify depreciation have been offered. The vice or virtue of the proposals no doubt depends on one's interpretation of the correct purpose of depreciation. Some proposals represent mere extensions or modifications of the previously discussed formulations of depreciation. Other proposals represent more radical departures from traditional notions. Probably the most discussed proposal for modification of depreciation is an inflation adjustment.

Substantial and continued inflation has been a contemporary plague to the world's mature industrial economies.\textsuperscript{231} Significant inflation occurred in the United States during the 1960's, and since 1970 inflation has risen

\textsuperscript{229} The Second Circuit stated this formulation as follows: "The purpose of the statute allowing deductions for depreciation is to permit the taxpayer currently to receive income tax-free to the extent that wear and tear and time decrease the value of his investment, or what is treated as his investment, in the property." Reisinger v. Commissioner, 144 F.2d 475, 477-78 (2d Cir. 1944).


Due to the presence of such inflation, it has been argued that depreciation deductions should be adjusted to account for the effects of the inflation. The argument has been articulated on the theories that depreciation is a device to determine net income more accurately and that depreciation is the source of replacement funds. It is argued that inflation has had the effect of causing under-depreciation with respect to both theories. Under the accurate determination of net income theory of depreciation it is argued that the dollars of depreciation based on historical cost are not comparable to current dollars because of inflation. Current dollars are overstated because they are relatively less valuable than historical, noninflated dollars. Accordingly, it is argued that it is erroneous to combine current dollars with historical dollars in determining net income against which to apply the income tax because depreciation is understated and net income is overstated. Arguably, historical dollars should be increased by an inflation adjustment so as to make the depreciation deduction dollars equal in value to current dollars. By so adjusting for inflation, dollars would become constant and net income would be more accurately determined.

With respect to the replacement reserve fund theory of depreciation, it is argued that historical cost depreciation will not create a fund which is sufficient to purchase replacement property. The replacement fund theory is not concerned with the comparability of the dollars utilized in determining net income for the period; it is concerned with the ability of the replacement fund to purchase replacement property at current prices.

An extension of the theoretical differences in inflation adjusted deprecia-

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### Table 1. Statistical Measures of United States Inflation, 1950-1975

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumer Price Index</th>
<th>Wholesale Price Index</th>
<th>GNP Deflator</th>
<th>Fixed Investment Deflator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-55</td>
<td>2.15</td>
<td>1.43</td>
<td>2.60</td>
<td>2.78</td>
</tr>
<tr>
<td>1955-60</td>
<td>2.04</td>
<td>1.57</td>
<td>2.40</td>
<td>2.10</td>
</tr>
<tr>
<td>1960-65</td>
<td>1.27</td>
<td>0.36</td>
<td>1.59</td>
<td>0.52</td>
</tr>
<tr>
<td>1965-70</td>
<td>4.24</td>
<td>2.71</td>
<td>4.21</td>
<td>4.30</td>
</tr>
<tr>
<td>1970-75</td>
<td>6.75</td>
<td>9.64</td>
<td>6.71</td>
<td>7.80</td>
</tr>
<tr>
<td>1973-74</td>
<td>10.97</td>
<td>18.86</td>
<td>9.71</td>
<td>10.94</td>
</tr>
</tbody>
</table>


tion is manifest in the selection of the device by which to account for the consequences of inflation. Two standards which have been suggested are based on current fair market value and general price level adjusted historical cost. The current value standard would recomputate depreciation on the basis of the current value of the depreciable property. It would apply item by item and would seek to determine depreciation according to current replacement cost. By reference to replacement cost, the current value standard conceptually is an extension of the replacement fund theory of depreciation. Conversely, general price level adjusted depreciation is an extension of the accurate determination of income theory of depreciation. This method seeks to equate current and historical dollars by applying an inflation index to historical dollars. Thus, units of equal value would be utilized in determining net income in making intertemporal numerical comparisons.

Financial Accounting. The organized accounting profession has struggled for some time with the problems of changing price levels. Originally, when inflation was less acute than it has been recently, the accounting profession ignored the consequences of inflation. Agitation for change persisted, however, and in 1969 the American Institute of Certified Public Accountants published a nonbinding policy statement which concluded that general price level adjusted financial statements would present useful information to statement readers. A significant step was taken by the organized accounting profession in 1974 when it considered the adoption of a rule which would have required supplementary information the presentation of various items, including depreciation, in units of general purchasing power. The proposal generated considerable disagreement, however, and eventually was withdrawn. The disagreement over the proposal centered not on the need for inflation adjustments, but whether to use a general price level method or a current value method.

239. Current value depreciation may also use various other measurement devices such as reproduction cost, net realization value, discounted cash flow value, specific price index adjusted value, and appraisal value. See G. WELSCH, C. ZLATKOVICH, & J. WHITE, INTERMEDIATE ACCOUNTING 1087-88 (4th ed. 1976).
240. See generally ERNST & ERNST, ACCOUNTING UNDER INFLATIONARY CONDITIONS (1976); ARTHUR ANDERSEN & CO., OBJECTIVES OF FINANCIAL STATEMENTS FOR BUSINESS ENTERPRISES 22-23 (1972); Stott, Capital Recovery in a World of Inflation, 34 TAX REV. 5 (1973).
242. AMERICAN INSTITUTE OF ACCOUNTANTS, ACCOUNTING RESEARCH BULLETIN NO. 33, RESTATEMENT AND REVISION OF ACCOUNTING RESEARCH BULLETINS, ch. 9, § A (1953).
245. TOUCHE ROSS & CO., CURRENT-VALUE ACCOUNTING, ECONOMIC REALITY IN FINANCIAL REPORTING 6 (1976). In the context of international accounting, where the inflation rates of some countries are many multiples of other countries, the international accounting organizations have been successful in adopting advisory rules which urge the disclosure of the effects of
Recently, considerable attention has been given to inflation adjusted accounting required by the Securities and Exchange Commission. In a series of releases, the SEC adopted amendments to Regulation S-X requiring disclosure of certain financial data regarding current replacement cost. Footnote disclosure of the effects of inflation on depreciation and other items must be made on quarterly 10-K reports, while only a more generalized disclosure is required in year-end statements. Presumably such disclosure is for the benefit of more sophisticated investors who go to the trouble of reading the quarterly 10-K reports.

The SEC rules have adopted the current value standard of replacement cost, rather than the general price level standard. The stated objective of the SEC rule is "to give investors information about the current economics of business operations" so that they may "measure the cost of maintaining the operating capability or productive capacity of the entity." It seems inherent in the adoption of the replacement cost standard that the SEC views depreciation as a replacement fund from which to purchase new property. If one of the goals of financial reporting is to disclose the cost of maintaining operating capacity, then the function of depreciation is to charge off an amount equal to the replacement cost of the depreciable property consumed during the period.

Adoption of the SEC rules has not been met with great enthusiasm. The accounting profession remains split on the issue of current value or general price level adjustments. The publicly traded corporations which have been required to file the replacement cost information have been quite vocal in expressing their displeasure with the higher replacement cost depreciation expenses. The reduction in net income, for public reporting purposes, is particularly distasteful to management. It is claimed that the replacement cost figures are unrealistic and misleading.

Federal Income Tax. Although the business world has been displeased with inflation adjusted depreciation for public reporting purposes, there has been...
considerable enthusiasm for inflation adjusted depreciation for federal income tax purposes.\textsuperscript{253} This inconsistent position is revealing with respect to business attitudes towards depreciation.

Proposals have been made to modify tax depreciation by use of replacement cost as the depreciable basis\textsuperscript{254} and by use of a general price level adjustment to historical cost depreciation.\textsuperscript{255} The proponents of replacement cost models maintain that the most accurate measure of current depreciation is related to the actual value of depreciable property at the end of the period. It is argued that the depreciation method should be applied to the replacement cost of the property at the end of the period, not to the historic cost. For example, assume that in year one the taxpayer purchases depreciable property for $300,000 and the property has an estimated useful life of three years. Ignoring salvage value, straight line depreciation for each of the three years would be $100,000. Assuming that the depreciation deduction creates a replacement fund, at the end of the three-year period there will be $300,000 with which to replace the fully depreciated property. Under the replacement fund theory of depreciation, all the numbers appear to be in order. If, however, the replacement cost of the property increases during the period the taxpayer depreciates the property, the replacement fund will be inadequate. If the cost of replacing the property has risen above $300,000, the taxpayer will not be able fully to fund the purchase from the replacement fund. Accordingly, there have been proposals to adjust tax depreciation so that it will be based on the replacement cost of the property during the period.\textsuperscript{256}

If the replacement cost of the property did not increase during year one, the $100,000 annual depreciation would not have to be adjusted. If at the end of year two, however, the replacement cost had risen to $400,000, the year two replacement cost depreciation would be determined by multiplying the annual depreciation rate (1/3) times the replacement cost of the property ($400,000). Thus, the depreciation for year two would be $133,333. If during year three the replacement cost of the property had risen to $600,000, the year three depreciation under the replacement cost method would be $200,000. It should be noted, however, that the foregoing replacement cost depreciation method is not fully satisfactory. The sum of the three annual replacement cost depreciation amounts, $433,333, is still less than the actual replacement cost at the end of year three, $600,000.

\textsuperscript{253} N. TURE, ACCELERATED DEPRECIATION IN THE UNITED STATES 1954-60, at 10 (1967); Harriss, Capital Recovery and the Investment Tax Credit, in HOUSE COMM. ON WAYS AND MEANS, 93D CONG., 1ST SESS., PREPARED STATEMENTS, PANEL DISCUSSIONS ON TAX REFORM, PANEL No. 3, at 351-52 (Comm. Print 1973); 2 Tax Increase Proposals: Hearings Before the Senate Comm. on Finance, 93d Cong., 2d Sess. 534-40 (1974); TAX FOUNDATION, INC., RESEARCH PUB. No. 24, DEPRECIATION ALLOWANCES 38-43 (1970).

\textsuperscript{254} R. COEN, DEPRECIATION, PROFITS, AND RATES OF RETURN IN MANUFACTURING INDUSTRIES 26 (Office of Tax Analysis Paper 3, Dep't of the Treasury 1975); Cohen, Proposals for Depreciation Reform, in DEPRECIATION AND TAXES 209, 209-25 (1956); TOUCHE ROSS & Co., CURRENT-VALUE ACCOUNTING, ECONOMIC REALITY IN FINANCIAL REPORTING 5-8 (1976).

\textsuperscript{255} G. TERBORGH, REALISTIC DEPRECIATION POLICY 8-10 (1954); STAFF OF JOINT COMM. ON TAX., 95TH CONG., 1ST SESS., TAX POLICY AND CAPITAL FORMATION 22-23 (1977); DEP'T OF THE TREASURY, BLUEPRINTS FOR BASIC TAX REFORM 65 (1977).

\textsuperscript{256} See authorities cited in note 254 supra.
In order to have total accumulated depreciation equal the replacement cost at the end of the useful life of the property, two steps would have to be performed each year. The first step would be to determine current depreciation according to current replacement cost of the property, as was done in the foregoing example. The second step would be to adjust the depreciation from previous years. The depreciation taken in previous years was correct when taken, but it would have to be further adjusted in subsequent years if the accumulated depreciation is to equal replacement cost of the property at the end of the useful life. Year three replacement cost depreciation would need no further adjustment because it was based on current replacement cost. Year two replacement cost depreciation would need one adjustment to account for the increase in replacement cost which occurred during year three. Year one replacement cost depreciation would need two adjustments; one to account for the increase in replacement cost which occurred during year two, and one to account for the increase in replacement cost which occurred during year three. The adjustments would be as follows:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>YEAR</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE</td>
<td>TWO</td>
<td>THREE</td>
</tr>
<tr>
<td>Current year replacement cost depreciation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year one: 1/3 ($300,000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year two: 1/3 ($400,000)</td>
<td>$100,000</td>
<td></td>
</tr>
<tr>
<td>Year three: 1/3 ($600,000)</td>
<td></td>
<td>$200,000</td>
</tr>
<tr>
<td>Adjustment to year one depreciation due to increase in replacement cost in year two (33 1/3% x $100,000)</td>
<td>33,333</td>
<td>0</td>
</tr>
<tr>
<td>Adjustment to year one depreciation due to increase in replacement cost in year three (50% x $133,333)</td>
<td>66,667</td>
<td>0</td>
</tr>
<tr>
<td>Adjustment to year two depreciation due to increase in replacement cost in year three (50% x $133,333)</td>
<td>0</td>
<td>66,667</td>
</tr>
<tr>
<td>Total depreciation taken each year</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Total depreciation</td>
<td>$600,000</td>
<td></td>
</tr>
</tbody>
</table>

The mechanics of reporting the adjustment to prior years’ depreciation deductions attributable to subsequent increases in replacement cost would present problems. One way to report the adjustment would be to amend the


258. The adjustment percentage attributable to year two is equal to a fraction, the numerator of which is the excess of the year two replacement cost over the year one acquisition cost, and the denominator of which is the year one acquisition cost:

\[
\frac{400,000 - 300,000}{300,000} = 33 \frac{1}{3}\%
\]

259. The adjustment percentage attributable to year three is equal to a fraction, the numerator of which is the excess of the year three replacement cost over the year two replacement cost, and the denominator of which is the year two replacement cost:

\[
\frac{600,000 - 400,000}{400,000} = 50\%
\]
prior period return, but that is impractical for long life property because of
the statute of limitations. The alternative with respect to such adjustments
attributable to prior periods would be to allow an additional deduction
during the current year to compensate for previously inadequate replace-
ment cost depreciation. Under this alternative, the current year deprecia-
tion deductions would be as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Replacement Cost Depreciation</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$100,000</td>
<td>$133,333</td>
<td>$200,000</td>
</tr>
<tr>
<td>Year two adjustment to year one depreciation due to increase in replacement cost of property in year two</td>
<td>0</td>
<td>33,333</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Year three adjustment to year one depreciation due to increase in replacement cost of property in year three</td>
<td>0</td>
<td>0</td>
<td>66,667</td>
<td></td>
</tr>
<tr>
<td>Year three adjustment to year two depreciation due to increase in replacement cost of property in year three</td>
<td>0</td>
<td>0</td>
<td>66,667</td>
<td></td>
</tr>
<tr>
<td>Total depreciation taken each year</td>
<td>$100,000</td>
<td>$166,667</td>
<td>$333,333</td>
<td></td>
</tr>
<tr>
<td>Total depreciation</td>
<td>$600,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are several objections to this kind of replacement cost depreciation. First, as a matter of fiscal policy it would be destabilizing. During periods of inflation, when fiscal controls should have the effect of restraining the economy, this kind of replacement cost depreciation would have the opposite effect. The larger depreciation deductions caused by increased replacement costs during inflation would result in lower taxable income and lower tax liability to the government. During times of inflation, tax liabilities should increase rather than decrease. Thus, this kind of replacement cost depreciation would be pro-cyclical rather than counter-cyclical as a matter of fiscal policy.

A more serious objection to replacement cost depreciation is the ever-present problem of valuation. Annual determinations of replacement cost would be required and administrative problems abound wherever valuation is involved. Although strongly supported by many in principle, replacement cost depreciation is not a practical alternative for federal income tax purposes because of the administrative difficulties associated with annual valuations of property.

262. R. COEN, DEPRECIATION, PROFITS, AND RATES OF RETURN IN MANUFACTURING INDUSTRIES 16-17 (Office of Tax Analysis Paper 3, Dep't of the Treasury 1975); A. MURRAY, DEPRECIATION 27-28 (1971).
263. R. COEN, DEPRECIATION, PROFITS, AND RATES OF RETURN IN MANUFACTURING INDUSTRIES 16-17 (Office of Tax Analysis Paper 3, Department of the Treasury 1975); A. MURRAY, DEPRECIATION 27-28 (1971). It should be noted that present law depreciation is destabilizing, but to a much more limited degree than the replacement cost proposal.
General price level adjusted depreciation is the other method of adjusting depreciation for inflation.\textsuperscript{265} By utilizing a published government price level index,\textsuperscript{266} rather than replacement cost, the administrative difficulties would be reduced significantly. In lieu of redetermining the replacement cost each year, the historical cost depreciation would be stepped-up by a price level index each year. General price level adjusted depreciation is related theoretically to the accurate determination of net income theory of depreciation\textsuperscript{267} because application of the index converts historical dollars into current dollars so that all dollars utilized in determining net income are units of equal value. For example, assume that a taxpayer purchases depreciable property for $300,000 in year one. The property has an estimated useful life of three years; therefore, ignoring salvage value, straight line depreciation would be $100,000 per year. If in year one the taxpayer generates revenues of $400,000 and incurs other operating expenses of $200,000, net income would be $100,000. Assuming a fifty percent marginal tax rate,\textsuperscript{268} the tax liability would be $50,000. If in year two the price level doubles, then nominal sales would increase to $800,000 and nominal operating expenses would increase to $400,000, but present law historical cost depreciation would remain at $100,000, not double to $200,000. As a result, in year two, net income would be $300,000 and the tax liability would be $150,000. As a result of a doubling of the price level, the taxpayer's nominal tax liability has tripled rather than doubled because the depreciation deduction of $100,000 is based on year one dollars, which have lost half of their value. Due to the incomparability of historical depreciation dollars and current dollars, it has been proposed that historical depreciation be increased by an appropriate price level index. By applying such an index to the foregoing example, historical cost depreciation of $100,000 would be multiplied by an index of 200 percent with the result that the year two depreciation would be restated to equal $200,000. The net income then would be $200,000, rather than $300,000, and the tax liability would be only $100,000. General price level adjusted depreciation would result in a tax liability of $100,000, which is twice the year one tax liability of $50,000. The difference is attributable to the change in price level. Although nominally greater in year two, the tax liability in constant dollars has not increased. Because the general price level adjusted method of depreciation is only concerned with accurately reflecting the results of the current period, and does not seek to create a replacement fund,\textsuperscript{269} no adjustment is made to prior depreciation deductions due to price level changes in the current period.


\textsuperscript{266} There are several indices which could be used: the consumer price index, the wholesale price index, the gross national product deflator, and the fixed investment deflator. See H. GALPER \& J. MENDENHALL, REPORT ON U.S. EXPERIENCE ON INFLATION AND THE TAX STRUCTURE 2 (Office of Tax Analysis Paper 19 Revised, Dep't of the Treasury 1977). Discussion of the relative merits of the various indices is beyond the scope of this Article.

\textsuperscript{267} See text accompanying notes 225-27 supra.

\textsuperscript{268} Additionally assume that the taxpayer does not change tax brackets.

\textsuperscript{269} See text accompanying notes 219-24 supra.
One element of inflation adjusted depreciation remains to be considered, and that is the appropriate adjusted basis for purposes of determining the amount of gain or loss upon disposition. The issue is whether the adjusted basis should be based on historical cost, or increased to reflect the price level change. One proposal would determine the adjusted basis by reference to historical cost reduced by inflation adjusted depreciation. Another proposed method would determine adjusted basis by reference to an inflation corrected cost basis reduced by inflation adjusted depreciation. A third alternative would be to use inflation adjusted depreciation for purposes of determining the depreciation deduction, but use historical cost basis and historical cost depreciation for purposes of determining gain or loss.\(^{270}\)

The first method’s use of historical cost basis reduced by inflation adjusted depreciation, could lead to a negative adjusted basis because total annual depreciation deductions might exceed historical cost.\(^{271}\) The third method, use of inflation adjusted depreciation for purposes of determining the depreciation deduction, but using historical cost basis reduced by historical cost depreciation for purposes of determining gain or loss on disposition, is internally inconsistent. Thus, it appears initially that the correct formulation of adjusted basis for purposes of determining gain or loss would be the second method, inflation corrected cost basis reduced by accumulated inflation adjusted depreciation. To test that thesis, assume that depreciable property was purchased for $30,000 in year one. Ignoring salvage value and assuming a three-year useful life, straight line depreciation would be $10,000 per year. Assume further that a ten percent increase in the price level occurs in years two and three and the property is sold at the end of year three for $5,000. Depreciation amounts would be as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Historical Cost Depreciation</th>
<th>General Price Level Adjusted Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Depreciation</td>
<td>Accumulated Depreciation</td>
</tr>
<tr>
<td>Year One</td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Year Two</td>
<td>10,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Year Three</td>
<td>10,000</td>
<td>30,000</td>
</tr>
</tbody>
</table>

Consider next the tax consequences of the disposition of the property at the end of the year three for $5,000, under each of the alternatives. The combined consequences of ownership and disposition would be as follows:

\(^{270}\) See Ernst & Ernst, Accounting Under Inflationary Conditions 7-9 (1976).


\(^{272}\) Only general price level adjusted depreciation will be utilized in this adjusted basis analysis because replacement cost depreciation is not a practical depreciation method.
### HISTORICAL COST DEPRECIATION (TOTAL DEPRECIATION=$30,000)

<table>
<thead>
<tr>
<th>Method One: Historical Cost Inflation Adjusted Depreciation</th>
<th>Method Two: Inflation Corrected Basis Less Inflation Adjusted Depreciation</th>
<th>Method Three: Historical Cost Basis Less Historical Cost Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total depreciation taken</td>
<td>$30,000</td>
<td>$33,100</td>
</tr>
<tr>
<td>Gain (loss) realized upon sale:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Amount realized</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>b. Less: 12/31/3 adjusted basis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) cost basis</td>
<td>$30,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>(2) less: total depreciation taken</td>
<td>30,000</td>
<td>33,100</td>
</tr>
<tr>
<td>12/31/3 adjusted basis</td>
<td>0</td>
<td>(3,100)</td>
</tr>
<tr>
<td>Gain (loss) realized</td>
<td>$5,000</td>
<td>$8,100</td>
</tr>
<tr>
<td>Net reduction in income over useful life</td>
<td>$25,000</td>
<td>$25,000</td>
</tr>
</tbody>
</table>

The bottom line figures are instructive in determining which basis rule is most accurate. The present law historical cost method results in a net decrease in income of $25,000 over the ownership period. Although that appears reasonable enough considering the $30,000 acquisition cost and $5,000 amount realized upon disposition, it fails to account for the change in price level during the intervening years. Therefore, the $25,000 depreciation deduction is low and overstates income.

With respect to general price level adjusted depreciation, the three methods reach different results. Method one results in a net decrease in income of $25,000, the same as present law historical cost depreciation. It reaches that result by allowing greater depreciation deductions during the useful life, but causing an offsetting larger gain upon disposition because of the use of a negative basis. In effect method one is an acceleration device as it does not allow a larger write-off due to inflation that would occur under present law. Method two, under which adjusted basis is determined by computing an inflation corrected acquisition cost reduced by inflation adjusted depreciation, results in a net reduction of $31,300. This is an excessive reduction in income because it is equivalent to the deduction resulting from replacement cost depreciation274 and, as noted above, under general price level adjusted depreciation, total replacement cost is not deducted. Method three reaches an equitable result even though based on historical cost figures. The underlying premise is that the $33,100 in depreciation deductions taken during the ownership years was appropriate and that the deductions were of current value dollars in the year taken. Theoretically, a proper depreciation deduction for each year of the useful life should generate gain upon sale at the end of the useful life equal to the amount realized from the sale because accurate depreciation deductions will reduce the

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273. Under method two, acquisition cost of $30,000 is stepped up by the inflation index to $36,300.
274. Even though total depreciation deductions of $33,100 have been taken, under method three only historical cost depreciation of $30,000 is used to reduce adjusted basis.
275. The deduction computed under the replacement cost method would be $36,300, less the $5,000 amount realized upon disposition.
DEPRECIATION POLICY

adjusted basis to zero. Accordingly, three years of proper depreciation should cause a gain of $5,000 when property is disposed of for $5,000. The $28,100 net reduction in income is theoretically sound, even though method three appears internally inconsistent in light of its use of both inflation adjusted and historical cost amounts. The $28,100 figure may also be obtained by grossing-up the historical cost depreciation amounts by the inflation index so that the historical depreciation dollars will be comparable to the current period sales proceeds of $5,000. The sum of such adjusted historical depreciation amounts equals $33,100 in current dollars. Reduction by the $5,000 of gain realized upon disposition equals a $28,100 constant dollar net reduction in income over the ownership period.

An additional inflation adjusted depreciation proposal is termed "reinvestment depreciation." The inflation adjusted depreciation methods discussed above make current period adjustments to depreciation during the useful life of the property. Under the reinvestment depreciation method, inflation adjustments are made at the end of the useful life, rather than during the useful life. The excess of the inflation adjusted historical cost over unadjusted historical cost is allowed as an additional depreciation deduction at the end of the useful life of the depreciable property. The deduction is limited to the lesser of (1) the excess of (a) the amount reinvested during the year in depreciable property over (b) the historical cost, not reduced by accumulated depreciation, of depreciable property sold or abandoned during the year, or (2) the greater of (a) the excess of (i) the inflation adjusted basis of the depreciable property sold or abandoned during the year over (ii) the historical cost of such property not reduced by accumulated depreciation, or (b) $50,000. In addition, carryforward of the deduction for two years is allowed.

276. The gross up of historical cost depreciation is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>$10,000(1+.10)^2 = $12,100</td>
</tr>
<tr>
<td>Two</td>
<td>$10,000(1+.10) = 11,000</td>
</tr>
<tr>
<td>Three</td>
<td>$10,000(1) = 10,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

277. See generally W. Hogan, DEPRECIATION POLICIES AND RESULTANT PROBLEMS 113-15 (1967); Davidson, Accelerated Depreciation, in 2 HOUSE COMM. ON WAYS AND MEANS, 86TH CONG., 1ST SESS., TAX REVISION COMPENDIUM 807, 811 (Comm. Print 1959); Paton, The Depreciation Deduction—LIFO Principle Should be Extended to Cover Depreciable Plant, in id. at 877, 883; Peloubet, Depreciation Reform, in id. at 891, 899, 907.


279. As an example, assume that at the end of year ten depreciable property acquired in year one at a cost of $100,000 is retired, and that replacement depreciable property costing $175,000 is purchased. (For a tabular example of how this depreciation method would have worked, see Peloubet, Depreciation Reform, in 2 HOUSE COMM. ON WAYS AND MEANS, 86TH CONG., 1ST SESS., TAX REVISION COMPENDIUM 891, 907 (Comm. Print 1959).) The price index for year one was 100 and the price index for year ten was 200. The reinvestment depreciation adjustment during year ten is the lesser of:

(l) the excess of
(a) reinvestment amount $175,000
(b) historical cost of retired property 100,000

or

$ 75,000
Several features distinguish reinvestment depreciation from the inflation adjusted depreciation methods previously discussed. First, the deduction under reinvestment depreciation is contingent upon reinvestment in depreciable property. Such reinvestment is not required under the other methods. If there is no reinvestment, then no additional depreciation deduction is allowed. Secondly, under the reinvestment depreciation method the extra depreciation allowed upon disposition of the old property constitutes a reduction in the adjusted basis of the replacement property. Thus, reinvestment depreciation is significantly different from general price level adjusted depreciation methods two and three in that it does not generate, in the long run, depreciation deductions larger than historical cost depreciation.

\[ \text{(2) the greater of} \]
\[ \text{(a) the excess of} \]
\[ \text{(i) inflation adjusted historical cost of} \]
\[ \text{retired property: } 200\%($100,000) \]
\[ \text{over} \]
\[ \text{(ii) unadjusted historical cost of retired} \]
\[ \text{property} \]
\[ \text{excess} \]
\[ $200,000 \]
\[ \text{or} \]
\[ (b) $50,000 \]
\[ \text{greater of } (a) \text{ or } (b) \]
\[ $100,000 \]
\[ \text{Lesser of } (1) \text{ or } (2) \]
\[ $75,000 \]

The reinvestment depreciation carryover from year ten is equal to the excess of:
\[ (1) \text{ the amount in (2)(a) above} \]
\[ $100,000 \]
\[ \text{over} \]
\[ (2) \text{ the actual reinvestment depreciation allowed} \]
\[ 75,000 \]
\[ \text{carryover} \]
\[ $25,000 \]

Additionally, assume that at the end of year eleven, property acquired in year one at a cost of $100,000 is retired and replacement depreciable property costing $250,000 is purchased. The price index for year eleven is 210. The reinvestment depreciation adjustment for year eleven is the lesser of:

\[ (1) \text{ the excess of} \]
\[ (a) \text{ reinvestment amount} \]
\[ $250,000 \]
\[ \text{over} \]
\[ (b) \text{ historical cost of retired property} \]
\[ 100,000 \]
\[ \text{excess} \]
\[ $150,000 \]

or

\[ (2) \text{ the greater of} \]
\[ (a) \text{ the sum of} \]
\[ (i) \text{ the excess of} \]
\[ [a] \text{ inflation adjusted historical cost of retired property: } 210\%($100,000) \]
\[ \text{over} \]
\[ [b] \text{ unadjusted historical cost of retired} \]
\[ \text{property} \]
\[ \text{excess} \]
\[ $210,000 \]
\[ \text{plus} \]
\[ (ii) \text{ carryovers from year 10} \]
\[ 25,000 \]
\[ \text{sum of } (i) \text{ and } (ii) \]
\[ $135,000 \]
\[ \text{or} \]
\[ (b) $50,000 \]
\[ \text{greater of } (a) \text{ or } (b) \]
\[ $135,000 \]
\[ \text{Lesser of } (1) \text{ or } (2) \]
\[ $135,000 \]

The reinvestment depreciation carryover from year eleven is equal to the excess of:
\[ (1) \text{ the amount in (2)(a) above} \]
\[ $135,000 \]
\[ \text{over} \]
\[ (2) \text{ the actual reinvestment depreciation allowed} \]
\[ 135,000 \]
\[ \text{carryover} \]
\[ $0 \]

280. Reinvestment in depreciable property is required, but the proposal did not require reinvestment in functionally similar property. Any depreciable property would have sufficed.

though both reinvestment depreciation and general price level depreciation method one merely accelerate the rate of the historical cost depreciation, timing differences between the two methods will exist because the deduction is taken over the useful life of the asset under method one but is taken in the year of disposition under the reinvestment depreciation method.

Reinvestment depreciation has been criticized on several grounds. One of the criticisms is that it generates large, irregular depreciation deductions. Upon retirement of the old property and investment in new property, an additional depreciation deduction is allowable. Depending on the rate of inflation intervening between acquisition and disposition of the property, the additional depreciation adjustment may be substantial. The additional adjustment, therefore, may produce significant distortion of taxable income. Arguably, if an inflation adjustment is appropriate, it should be spread over the life of the property, rather than bunched into the year of disposition. Further, the taxpayer has substantial control over the timing of the extra deduction by being able to control the disposition of the old property. Out of concern that such control will be used in a manner which would be disadvantageous to the federal government, general depreciation principles preclude that control. A second criticism is that the reinvestment depreciation notion is conceptually inconsistent. It is argued that if an inflation adjustment to depreciation is necessary in order to reflect the economic consequences of the enterprise over time, then during periods of inflation the adjustment should be in addition to historical cost depreciation, rather than being a mere acceleration device. Finally, reinvestment depreciation would tend to provide a greater benefit to taxpayers with old properties because the additional allowance is tied into actual retirements. New and growing taxpayers with no retirements during the year would receive no more than $50,000 of additional depreciation. As a matter of macroeconomic policy, that distribution of benefits seems inappropriate. If a tax inducement is to be granted, it would seem more appropriate to give a greater benefit to taxpayers who are investing in new property.

B. Other Proposed Modifications to Depreciation

Minor Substantive Revisions. Although inflation adjusted depreciation has been in the spotlight in the most recent past, numerous other modifications to depreciation for federal income tax purposes have been proposed. The proposed modifications range from relatively minor structural changes to proposals which fundamentally alter depreciation. Although some of the proposals represent minor structural or theoretical changes, their revenue effects could be substantial.

The relatively less substantial changes, in general, seek to accelerate or

282. Id.
283. The concern was expressed in Crane which is discussed in the text accompanying notes 154-59 supra.
decelerate depreciation. Proposals to accelerate depreciation include modifications to additional first-year depreciation, salvage value, the ADR variance, useful life, and depreciation rates. Section 179 presently allows additional first-year depreciation of twenty percent of the cost of the property up to a maximum deduction limitation. An expansion of the additional first-year depreciation allowance to forty percent of the cost of the property and elimination of the maximum deduction has been proposed. Section 179 is merely an acceleration device and the proposed forty percent allowance would simply increase the acceleration. Another modification proposal is to amend the salvage value rules to increase depreciation. Section 167(f) already allows a taxpayer to disregard, for salvage value purposes, up to ten percent of the cost of the property. The modification proposals would either expand the percentage allowance, or completely disregard salvage value in determining the net depreciable adjusted basis. ADR depreciation currently allows a twenty percent variance on useful life and it has been proposed that the variance be increased to forty percent. Finally, new methods of accelerating depreciation have been proposed, including triple declining balance, which would allow depreciation at three times the straight line rate. Alternatively, various proposals have been made to decelerate tax depreciation. In particular, the twenty percent useful life variance of ADR depreciation has been criticized as an unwarranted and unfair provision which should be repealed. Although each of the foregoing proposals might have significant revenue consequences, none can be characterized as a radical theoretical departure from present law.

**Major Substantive Revisions.** In addition to the minor revisions, various substantial structural changes to tax depreciation have been proposed. The scope of the proposals is wide and represents divergent views of the purpose and merit of contemporary tax depreciation. One proposal which has received a considerable amount of attention is allowing a “capital cost recovery” deduction. Briefly stated, capital cost recovery is a method of depreciating equipment expenses incurred during the construction phase. Taxpayers would be allowed to deduct the amount that would otherwise be included in the basis of equipment, subject to certain limitations. This deduction would not be available to individuals or partnerships, but only to corporations.

287. See text accompanying notes 104-106 supra.
289. See text accompanying notes 136-38 supra.
290. 116 CONG. REC. 25,684, 25,686 (1970) (report of Dep’t of the Treasury). Although the proposals would increase the depreciable basis, upon disposition of the property gain would be realized because the salvage value would exceed the adjusted basis of zero. The net effect is a deferral of taxes, not an absolute reduction of taxes. PRESIDENT’S TASK FORCE ON BUSINESS TAXATION, BUSINESS TAXATION 23 (1970).
291. 1 Tax Reform: Hearings Before the House Comm. on Ways and Means, 94th Cong., 1st Sess. 88, 92 (1975) (statement of Walker Winter); 4 id. at 3036, 3043 (statement of Charles E. Walker). See generally 3 id. at 2484, 2488 (statement of Charles Moeller); Kitendaugh, Depreciation Policy for an Expanding Economy, in 2 HOUSE COMM. ON WAYS AND MEANS, 86TH CONG., 1ST SESS., TAX REVISION COMPENDIUM 841 (Comm. Print 1959).
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ation which would use an arbitrary recovery period, rather than the estimated useful life of the property.\textsuperscript{294} The recovery period is intended to be substantially shorter than the estimated useful life. The modern concept of capital cost recovery depreciation came from the Task Force on Business Taxation appointed by the President in September 1969.\textsuperscript{295} The Task Force Report contained various recommendations with respect to business taxation. The stated goals of the recommendations were to encourage the expansion of productive facilities, to bring United States tax depreciation more closely in line with the treatment accorded in other industrial nations, to mitigate the effect of inflation on depreciation, and to simplify present law and minimize administrative disputes.\textsuperscript{296} Specifically, the Report recommended abandonment of the useful life concept for machinery and equipment, and adoption of a capital cost recovery system based upon recovery periods equal to Revenue Procedure 62-21 guideline lives reduced by forty percent. The Report recommended the retention of existing useful life depreciation with respect to depreciable real property improvements.

The Report was issued in September 1970, and in January 1971 the Treasury announced the administrative adoption of ADR depreciation.\textsuperscript{297} Although somewhat similar to capital cost recovery, ADR depreciation adopted only a twenty percent reduction in the guideline lives. Moreover, the reduction was explained in terms of providing a reasonable allowance for obsolescence, rather than as an abandonment of the useful life concept.\textsuperscript{298} The administrative adoption of ADR depreciation, therefore, was not the equivalent of adoption of a capital cost recovery system. Conceptually at least,\textsuperscript{299} ADR depreciation was reconcilable with the traditional concept of depreciation. Capital cost recovery depreciation, how-

\textsuperscript{294.} See Tax Foundation, Inc., Federal Tax Changes for the Future 25-26 (1970). A position paper of the Council of Small and Independent Business Associations urged simplification of tax depreciation for small businesses by allowing such taxpayers to use a 2-, 5-, or 10-year useful life for all depreciable properties. Although the proposal was couched in the language of simplification, it clearly would have had the effect of acceleration and is an example of a capital cost recovery system. See Daily Tax Report (BNA) No. 121, June 22, 1977, at G-6.


\textsuperscript{296.} See President's Task Force on Business Taxation, Business Taxation 16-17 (1970).

\textsuperscript{297.} See text accompanying notes 183-200 supra.

\textsuperscript{298.} There are two major sets of considerations which led to the decision to adopt the ADR system—

1. . . . [ease of administration]

2. The statutory requirement that depreciation deductions include a 'reasonable allowance for obsolescence' required a recognition of changing circumstances, current and anticipated, which call for permitting taxpayers to select lives from a range which includes lives shorter than those permitted by existing guidelines. The ADR system recognizes current and potential obsolescence as a result of recently imposed environmental control requirements, an increasing level of foreign competition, and high rates of capital formation since 1962 which suggest rapid incorporation of technologial improvements. These and other factors indicate that depreciation allowances should not be tied to the past history of the individual taxpayer—an unreliable guide to the period of future productivity of the taxpayer's stock of capital assets.


\textsuperscript{299.} For a discussion of whether ADR depreciation accurately reflects net income, see text accompanying notes 318-29 infra.
ever, is inconsistent with that tradition because the recovery period is arbitrary and not related to useful life.

Even though ADR depreciation was administratively promulgated and then codified in section 167(m), capital cost recovery has not been forgotten. Various business groups have continued to promote its adoption. For example, H.R. 8226, introduced in 1975, would have provided elective capital cost recovery for depreciable tangible personal property and certain tangible real property improvements. The bill provided a five-year recovery period for personal property and a ten-year recovery period for real property. The bill also would have allowed the taxpayer to elect to deduct less than the maximum allowance and carry forward the remaining amount. The bill also proposed amendment of section 46(c)(2), which requires conformity between the useful life used for purposes of determining the investment credit and the useful life used for purposes of depreciation. The amendment would have exempted capital cost recovery property from the conformity requirement. The bill further would have exempted capital cost recovery allowances from being treated as a tax preference item subject to the minimum tax. Obviously, the bill, had it been enacted, would have been very generous to taxpayers who owned depreciable property.

Another substantial structural change to tax depreciation which has been proposed is the immediate expensing of the cost of long life property during the year of acquisition. This method has been referred to as "cash-flow" depreciation. Rather than capitalizing the cost of depreciable property, the entire expense would be allowed at the start of the ownership cycle. Immediate expensing obviously is a radical departure from the current concept of depreciation. Proponents of immediate expensing argue that it would make producers more efficient and it would greatly simplify tax administration. There is no doubt that immediate expensing would simplify administration of the Internal Revenue Code by eliminating useful life, salvage value, and rate of depreciation questions. The efficiency argument, however, is more difficult to substantiate. It is argued that the taxpayer would better be able to assess investment decisions without the distortions induced by the

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300. 1 Tax Reform: Hearings Before the House Comm. on Ways and Means, 94th Cong., 1st Sess. 88, 91 (1975) (statement of Walker Winter); id. at 228, 239 (statement of Russel W. Laxson); 2 id. at 1207, 1210 (statement of Ray M. Stroupe).
301. 94th Cong., 1st Sess. (1975).
302. Id. § 3.
303. Id.
304. Id. § 4.
305. Id. § 5.
tax consequences of useful life depreciation. In other words, it would remove the tax disincentive to invest in long life property. It is further argued that, as a matter of economic policy, it would improve resource allocation and increase investment in long life property. Finally, immediate expensing would most benefit growing taxpayers\textsuperscript{307} who must make large initial investments.

Immediate expensing, however, is subject to strong policy criticisms. The most substantial tax policy criticism is the obvious distortion in net income which this method produces. Our system of taxing periodic net income is premised upon an effort to match revenues with the expenses of generating those revenues. Immediate expensing of the cost of property which contributes to the generation of revenues throughout its useful life clearly distorts the process of determining net income. A substantial deferral of tax liability is thereby realized.

As a matter of economic policy, immediate expensing is criticized on the ground that it would be pro-cyclical.\textsuperscript{308} During expansionary periods when acquisitions of new property are most common the tax system should operate to restrain the economy by increasing taxes. Immediate expensing, however, would reduce taxable income by full acquisition cost. During recessionary periods taxpayers would not benefit from depreciation deductions based on past expenditures made during an expansionary period. Instead the taxpayer would have to make a current expenditure in order to derive a tax benefit.

Another structural change to depreciation which has been proposed is optional depreciation under which the taxpayer would be allowed complete control over the timing of the depreciation deductions.\textsuperscript{309} Presumably, the rationale is to allow the taxpayer to take the deductions so as to maximize the potential tax benefit. This proposal clearly would create instability in the flow of federal revenues and has no theoretical support other than as an economic stimulus.

The final substantial structural change proposal is related to the replacement fund theory of depreciation. A deduction would be allowed at the time the taxpayer makes a contribution of property to a sinking fund, the proceeds from which would be committed to the purchase of replacement property. The deduction would be taken at the time of contribution to the fund, before the acquisition of the property, rather than during its use. By giving the taxpayer substantial control over the timing of the deduction, this method would not contribute to the accurate reflection of net income and would pose considerable administrative difficulties because the sinking fund


\textsuperscript{308} See generally A. Murray, \textit{Depreciation} 27-28 (1971).

would have to be segregated and preserved solely for the purpose of purchasing replacement property.

IV. ASSESSMENT OF MODIFICATION PROPOSALS

In assessing the foregoing proposed changes to contemporary depreciation, various evaluative standards are applied. One standard is whether the proposal is consistent with the underlying theoretical justification for depreciation. The second standard is the correlation between actual economic depreciation based on empirical evidence, and the depreciation which would be generated by the proposal. If the available evidence indicates that tax depreciation is slower or faster than economic depreciation, an adjustment of tax depreciation would be in order. The third standard by which to assess depreciation is to analyze its magnitude as a tax expenditure. Tax expenditures are tax provisions which generate revenue losses by providing special incentives. The fourth evaluative standard is to determine whether the tax depreciation provision is efficient in generating increased economic activity. In other words, does the benefit of increased economic activity with the indirect result of increased tax revenues exceed the direct revenue loss suffered as a result of the provision. A fifth evaluative standard is comparing depreciation in the United States to depreciation provisions in other countries. Finally, modification proposals must be assessed from the perspective of fairness, or tax equity. Somewhat more reasoned and analytical conclusions about depreciation policy may be possible after application of these evaluative standards.

A. Theoretical Justification

As previously discussed, there are different formulations of the theoretical justification for depreciation. The income theory asserts that the purpose of depreciation is to determine periodic net income more accurately by matching revenues and expenses throughout the useful life of the property. The replacement fund theory alleges that the purpose of depreciation is to generate a fund from which replacement property will be purchased. There are other expressions of the theory of depreciation, but the fundamental conceptual issue is the income theory, replacement fund theory dichotomy. Because those theories are irreconcilable and lead to conflicting provisions, depreciation must be premised on one or the other. Replacement fund theory depreciation requires use of current replacement cost, while income theory depreciation requires historical cost, or inflation adjusted historical cost.

Ultimately, resolution of the issue is dependent on the meaning of the phrase “net income,” because depreciation is a deduction taken in determining net income. The problem, however, is that net income is expressed in different ways. One simplistic expression is that net income is the excess of revenues over expenses. A somewhat more sophisticated expression is

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311. See text accompanying notes 218-30 supra.
312. For a discussion of the various meanings of income, see Discussion of Depreciation and Changing Price Level, in DEPRECIATION AND TAXES 102, 109-24 (1959).
that net income is the excess of revenues over expenses, with all expenses stated in current period dollars. A third and completely different version of net income is expressed as the amount which may be distributed without impairing working capital. While the first two versions focus on revenues and expenses, the third version focuses on maintaining current productive capacity. Under the third version, the amount of income will have to be reduced by replacement cost depreciation, if current productive capacity is to be maintained. Productive capacity can be sustained only by purchasing replacement property at current cost. Historical cost depreciation, or even inflation adjusted historical cost, will not be sufficient under this theory of net income, because they are not tied into replacement cost.

The fallacy of the replacement fund theory of depreciation is that the accumulated depreciation "reserve" contains no funds. There are no funds available with which to purchase replacement property because no resources are actually set aside in a sinking fund. A separate contribution to a sinking fund may be made, but such a contribution is not required in order to be eligible for a depreciation deduction. Depreciation itself quite simply does not fund a replacement account. In addition, replacement cost depreciation is inconsistent with the meaning of net income for federal income tax purposes. The Internal Revenue Code determines taxable income by reference to revenues and expenses, not by reference to maintaining the working capital of the taxpayer.

Accordingly, for federal income tax purposes, depreciation is a method of allocating the cost of long life property over its useful life in order to determine periodic net income accurately. Ideally, tax depreciation should be equal to actual economic depreciation during the period, but valuation difficulties require the use of mechanical devices to allocate the net cost of the property over its useful life. Clearly, for tax purposes the income theory of depreciation is correct; proposals which are premised on the replacement fund theory should be rejected.

B. Empirical Evidence

Assuming that depreciation is a method to reflect net income accurately, depreciation should reasonably reflect actual decline in value during the

314. Id.
317. See generally ARTHUR ANDERSEN & CO., ACCOUNTING AND REPORTING PROBLEMS OF THE ACCOUNTING PROFESSION 20 (5th ed. 1976). After struggling with the problem for some time, financial accounting has adopted the income theory of depreciation. Depreciation is viewed as an allocation over time of cost, not a process of valuation. Like prepaid expenses, depreciation deductions are to be taken during the period to which the item relates. See discussion of the AICPA position on depreciation accounting, id. at 210-12.
period. If actual decline in value exceeds tax depreciation, tax depreciation needs to be accelerated; conversely, if actual decline in value is less than tax depreciation, tax depreciation must be decelerated. The comparison of economic depreciation to tax depreciation is made difficult by lack of empirical evidence on economic depreciation. Accurate, publicly reported economic depreciation to tax depreciation is made difficult by lack of

The studies indicate that useful life periods for tax purposes are shorter than the actual useful life of the property. The studies indicate that the 1962 guidelines brought tax lives into relatively close conformity with actual useful lives. After adoption of ADR depreciation, however, tax lives became significantly shorter than actual useful lives. One study indicates that tax lives are nineteen percent shorter than actual useful lives; another study indicates the difference is thirty-six percent. With respect to depreciable real property improvements, the difference between tax lives and actual service lives is even greater. One study determines the difference to be thirty-five percent.


percent, while the findings of another study indicate the difference to be approximately forty-four percent.

The rate of depreciation has also been subjected to comparative analysis. Accelerated depreciation methods for equipment seem to be supported by the analyses. The value of equipment declines more rapidly in the early years of use. Although the annual amount of tax depreciation exceeds the amount of economic depreciation, the difference is attributable to useful lives which are too short, rather than accelerated depreciation being inaccurate in principle. With respect to depreciable real property improvements, however, the studies indicate that accelerated depreciation does not accurately reflect actual change in value. Actual decline in value is much less rapid than tax depreciation. Indeed, it appears that even straight line depreciation is inaccurate. The method which would best reflect economic depreciation is a method slower than straight line, a method such as reverse sum of the years digits. The evidence indicates that economic depreciation is quite slow at first when a building is new and that depreciation increases in amount as the age of the building increases.

325. Taubman & Rasche, Economic and Tax Depreciation of Office Buildings, 22 NAT'L TAX J. 334, 342 (1969). The authors propose lengthening the useful life of structures by 20 years, from 45 to 65 years. The 20-year adjustment represents 44% of the present 45-year useful life.
327. Id.
329. See Taubman & Rasche, Subsidies, Tax Law, and Real Estate Investment, in 3 Joint Economic Comm., 92d Cong., 2d Sess., The Economics of Federal Subsidy Programs 343, 344 (Joint Comm. Print 1972). Algebraically, the sum of the years digits method is expressed as:

\[ X = \frac{Y}{T(T + 1)/2} \]

\[ X = \text{annual depreciation} \]
\[ Y = \text{years of useful life remaining (including current year)} \]
\[ T = \text{total useful life} \]
\[ Z = \text{depreciable adjusted basis} \]

Algebraically, reverse sum of the years digits is expressed as:

\[ X = \frac{T - N}{T(T + 1)/2} \]

\[ X = \text{annual depreciation} \]
\[ N = \text{years of useful life remaining at end of current year} \]
\[ T = \text{total useful life} \]
\[ Z = \text{depreciable adjusted basis} \]
In conclusion, the empirical evidence indicates that tax depreciation exceeds economic depreciation. Useful life for tax purposes clearly is too short, for both equipment and structures. Accelerated rates accurately reflect decline in value in equipment, but not structures. The studies indicate there exists a substantial tax subsidy for investors in depreciable property.

C. Depreciation as a Tax Expenditure

Tax depreciation which exceeds economic depreciation constitutes an affirmative inducement to invest in depreciable property. Because the depreciation is too rapid and results in a deferral of tax liability, it has been referred to as a "tax expenditure." Tax expenditures are revenue losses resulting from tax provisions which allow a special exclusion, exemption, deduction, or rate of tax which differs from the normal structure of the income tax. Any deviation from the standard structure of taxing net income at uniform rates which results in a revenue loss is a tax expenditure.

The concept of tax expenditures is relatively new. As the Internal Revenue Code became more complex and as various special inducements worked their way into the structure, the revenue losses attributable to the special provisions began to rise. The thrust of the tax expenditure theory is that tax expenditures, like traditional subsidy programs using direct budgetary expenditures, should be accounted for to enable Congress to monitor their continued validity.

Due to the efforts of former Assistant Secretary of the Treasury for Tax Policy Stanley S. Surrey, a tax expenditure budget was published in 1968 as part of the annual report of the Secretary of the Treasury. The tax expenditure budget included in addition to direct governmental expenditures, expenditures in the form of revenues forgone which were attributable to the tax expenditure items. The tax expenditures, or "backdoor" expenditures, were thus exposed to allow annual review by Congress. Previously, tax expenditures had been reviewed only once, upon adoption, rather than periodically, as are direct subsidies.

Agitation for greater consideration of the consequences of tax expenditure items contributed to the passage of the Congressional Budget and Impoundment Control Act of 1974. That Act required as part of the annual budgetary process the disclosure of estimated revenue losses associated with each tax expenditure. The purpose behind the Act was to generate further consideration of the hidden consequences of tax expenditures. In addition, tax expenditures could be evaluated with respect to efficiency and fairness standards. By revealing the magnitude of revenue loss, it was

332. The phrase apparently was first used in a 1967 speech by Stanley S. Surrey, then Assistant Secretary of the Treasury for Tax Policy. S. Surrey, Pathways to Tax Reform vii (1973).
335. S. Surrey, Pathways to Tax Reform 1-6 (1973).
thought that tax expenditures which could no longer be justified would be eliminated or restricted.\textsuperscript{336} Although the tax expenditure budget has been sharply criticized,\textsuperscript{337} it appears to have continuing merit in the policy-making process. The tax expenditure theory is no panacea, but it is a useful source of information about tax revenues and expenditures, both actual and constructive.

It has been argued that tax expenditures are preferable to direct expenditure programs because tax expenditures involve less governmental intrusion and control.\textsuperscript{338} Although that libertarian argument is appealing, the response is that direct expenditure programs could be equally free of such intrusion and control; Congress, however, determined it to be in the public interest to prescribe some governmental supervision. On the negative side, tax expenditures suffer from several defects. One criticism is that tax expenditures are overbroad and inefficient because some taxpayers who benefit would have acted in the desired manner absent the tax expenditure.\textsuperscript{339} That may be true, but it is also true of direct expenditures. Another substantial criticism of tax expenditures is that they are inequitable in terms of their distribution of the benefits. Tax expenditures in the form of special deductions benefit the taxpayer in relation to the taxpayer's marginal tax rate. The higher the taxpayer's marginal tax rate, the greater the benefit to be realized. Accordingly, high bracket taxpayers obtain the greatest benefit.\textsuperscript{340} It is questionable whether Congress could, as a political matter, enact a direct subsidy with such a distribution of benefits. Tax expenditures are also criticized because they contribute to high tax rates by restricting the tax base.\textsuperscript{341} Direct expenditures also keep the rate structure high, but with a broader tax base the consequences are different. The combination of tax expenditures and a narrow tax base lead to persons with significant economic incomes having no tax liability. A broader based income tax would restrict the possibilities of that happening. Finally, tax expenditures, as governmental subsidy programs, should not be effected through the income tax system.\textsuperscript{342} Such use perverts the revenue generating function of the tax structure and unnecessarily involves the Treasury Department and the Internal Revenue Service in the administration of governmental subsidy programs.

Excess depreciation is considered to be a tax expenditure item.\textsuperscript{343} Thus, the depreciation attributable to the twenty percent reduction in service life resulting from ADR is considered to be a tax expenditure. The estimated revenue loss for fiscal year 1977 attributable solely to ADR depreciation is

\textsuperscript{339} Id. at 261.
\textsuperscript{340} S. Surrey, Pathways to Tax Reform 50-91 (1973).
\textsuperscript{341} Id.
\textsuperscript{343} Senate Comm. on the Budget, 94th Cong., 2d Sess., Tax Expenditures 61-62 (Comm. Print 1976).
Moreover, the revenue loss attributable to depreciation may be considerably higher than this estimate. Empirical evidence indicates that actual depreciation is considerably slower than tax depreciation, particularly with respect to realty. Because realty is not subject to ADR depreciation, depreciation is a larger tax expenditure than the $1.8 billion estimate indicates. The computational difficulties in attempting to quantify the additional tax expenditure portion of depreciation preclude a more definite revenue loss estimate.

The clear message of the tax expenditure concept is that the tax system should not be used as an indirect device by which to distribute government subsidies. The foregoing empirical evidence indicates that tax depreciation exceeds economic depreciation, thus constituting a tax subsidy.

D. Economic Efficiency

Given the existence of a tax subsidy for depreciable property, it becomes necessary to consider the economic efficiency of the subsidy. The argument supporting excessive tax depreciation is that it will increase the after-tax rate of return on investment in depreciable property and, therefore, it will induce more taxpayers to invest in depreciable property. This investment in productive capacity, it is maintained, will lead to the creation of new jobs, increased economic activity, and a higher standard of living. Efficiency is measured by determining the revenue loss attributable to excessive depreciation and comparing it to the indirect revenue gain attributable to the increased economic activity. If the efficiency factor is high enough, increased federal tax revenues may exceed the revenue loss.

Effectiveness of excessive depreciation, as a macroeconomic policy tool, is to be measured by the increase in investment in depreciable property attributable to the excess depreciation. The economic evidence on that issue is complex and confused. A number of studies indicate varying degrees of affirmative investor responsiveness to accelerated depreciation, while other studies conclude that investor behavior is not signifi-
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significantly affected by the presence of tax inducements to invest in depreciable property. Economic analyses by their nature are qualified and imprecise. The economic efficiency criterion simply has not been sufficiently quantified to be of substantial assistance in evaluating depreciation policy options.

E. Depreciation Allowances in Other Countries

It has been suggested that an appropriate evaluative standard for tax depreciation is to compare tax treatment in the United States and tax treatment in other countries, particularly in countries with which we trade, or with which we compete. It should be noted, however, that this is a relative, or comparative evaluation, rather than an absolute evaluation. The fact that other countries have faster or slower depreciation than the United States does not prove which system is best or most accurate.

The Report of the President's Task Force on Business Taxation included a discussion of depreciation allowances in other industrialized nations. The results were striking in that the United States after passage of the Tax Reform Act of 1969 appeared to have the slowest depreciation system of all the countries. Subsequent to that report, however, the investment tax credit was reintroduced and ADR depreciation was enacted. An updated version of the report now indicates that the depreciation system of the United States is no longer the slowest. Indeed, it now appears that the depreciation system of the United States is more rapid than most of the other countries.

In summary, depreciation policy in the United States is a complex issue involving economic analyses that are qualified and imprecise. The economic efficiency criterion has not been sufficiently quantified to be of substantial assistance in evaluating depreciation policy options.


353. The congressional Budget Office has recently released a report analyzing tax shelter subsidies for real estate. Congressional Budget Office, Real Estate Tax Shelter Subsidies and Direct Subsidy Alternatives (1977). The report concludes generally that the tax subsidies are inefficient in the sense that the intended beneficiaries, builders and developers, do not receive the entire benefit. Of the estimated $1,300,000,000 annual tax subsidy, the study estimates that only one half of the subsidy benefits builders and developers. The other one half is siphoned off by syndicators, lawyers, accountants, and other participants. The report suggests that a more efficient device would be a direct subsidy to the builders and developers. Id. at 67-72.

354. See notes 351-52 supra.


357. Id. at 7-11.

358. Id. at 8-11 (Table II, Graph A).


361. The cost recovery period utilized by the United States is one of the longer periods required. When the combined effects of additional first year depreciation, I.R.C. § 167(f), accelerated methods, and the investment credit are considered, however, the relative position of the United States improves substantially. In analyzing aggregate cost recovery allowances at the end of the first, third, and seventh years, the United States is in the middle range of the countries listed. 1 Tax Reform: Hearings Before the House Comm. on Ways and Means, 94th
States does not deviate substantially from depreciation policies in other countries. Depreciation allowances may have been somewhat slow, in a relative sense, in the past, but present depreciation allowances are not inadequate, comparatively speaking.

F. Fairness Considerations

Analyzing tax depreciation from the perspective of equitable considerations is difficult, due to differences of opinion as to what is fair. General agreement should be reached, however, on the principle that taxation should involve the neutral application of uniform principles. From a fairness viewpoint, a tax provision which grants special treatment to a single class of taxpayers is disfavored. In the context of depreciation, it is inequitable for holders of depreciable property to receive preferred tax treatment. It seems clear that holders of depreciable property do receive preferred tax treatment under present law, because the empirical evidence indicates that tax depreciation exceeds economic depreciation. In this light, any proposal to accelerate tax depreciation further would aggravate the equity problem, whereas proposals to decelerate tax depreciation would make the system more equitable.

With respect to inflation adjusted depreciation, there are several equity considerations. To the extent that inflation adjusted depreciation would increase depreciation deductions, the difference between tax depreciation and economic depreciation would be increased, further benefiting the owners of depreciable property. Inflation adjusted depreciation is also objectionable on grounds of fairness because it is discriminatory. All taxpayers suffer from inflation, but under the proposals only holders of depreciable property would receive relief. The selective application of the relief provision is manifestly unfair. A response to the fairness objection might be that a comprehensive system protecting all taxpayers could be enacted, and the inflation adjusted depreciation provision would be only one element of the system.

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364. See Sneed, supra note 362.
366. Even though the unfairness seems clear, it has been argued that the equitable objection is a red herring. See Paton, The Depreciation Deduction—LIFO Principle Should be Extended to Cover Depreciable Plant, in 2 HOUSE COMM. ON WAYS AND MEANS, 86TH CONG., 1ST SESS., TAX REVISION COMPENDIUM 877, 885 (Comm. Print 1959). But see Peloubet, Depreciation Reform in id. at 891, 897, where it is argued that the equitable concern should be discounted because it will pale in comparison with the increased economic well-being to be enjoyed by all taxpayers due to the changed depreciation provision.
367. Such a system would include an inflation adjustment for all taxpayers, not just holders of depreciable property. Rates, exemptions, or credits could be indexed by an inflation factor so that all taxpayers would be protected from inflation. See G. BREAK & J. PECHMAN, FEDERAL TAX REFORM 36-41 (1975); Manuel, Adjusting to Inflation, TAX NOTES, Apr. 4, 1977, at 9. See generally INFLATION AND THE INCOME TAX (H. Aaron ed. 1976).
V. POLICY ISSUES

Depreciation policy has been constantly moving. Substantial changes in tax depreciation have occurred since the first income tax statutes early in the century. No doubt depreciation policy will continue to change in the future. The problem revolves around determining the direction in which depreciation policy should move. This is a particularly important time for reassessment of depreciation policy because the Carter administration tax reform proposal has been formulated.\(^\text{368}\) The Carter proposal will encompass a broad range of reforms, and Congress will be called upon to reassess fundamental tax policy with respect to a number of subjects, one of which is depreciation.\(^\text{369}\)

A. Nature of the Depreciation Deduction

Policy makers first should seek to dispose of several theoretical issues with respect to depreciation. If the theoretical questions can be resolved, policy choices with respect to depreciation may be less confusing. One of the theoretical issues is to determine the purpose of depreciation within the federal income tax structure,\(^\text{370}\) that is, whether depreciation is a matching device by which better to determine net income,\(^\text{371}\) or whether depreciation is a device to provide a fund for the replacement of exhausted depreciable property.\(^\text{372}\) Resolution of this issue seems to be straightforward. The purpose of depreciation is to assist in determining periodic net income where long life property is used. It would be distortive to expense the entire cost of the long life property in the year of acquisition, or the year of disposition, so the depreciation device allocates the cost of the property over its period of use. Clearly the theoretical basis for depreciation is the matching concept. Depreciation simply does not create a fund from which replacement property can be purchased.\(^\text{373}\)

Recognizing that present law depreciation does not generate replacement funds, Congress could consider changing present law by adopting the replacement fund theory. Adoption of that theory could be accomplished by allowing a deduction for a contribution to a sinking fund, or some related device.\(^\text{374}\) Adoption of the replacement fund theory, however, would constitute a serious break from our tradition of taxing net income.\(^\text{375}\) Because adoption of replacement fund depreciation would severely impair the net

\(^{368}\) See 14 WEEKLY COMP. OF PRES. DOC. 158, 167 (Jan. 21, 1978).

\(^{369}\) The Carter proposals with respect to depreciation are limited to real property depreciation. Useful lives would be determined by reference to average depreciable lives reported in surveys conducted by the Treasury Department. Generally, depreciation would be computed pursuant to the straight line method, with two exceptions. Multi-family housing would be allowed to use the 150% declining balance method through 1982, when straight line depreciation would be required. Low income housing, the perennial favored child, would be allowed to use the 200% declining balance method through 1982, when depreciation would be limited to the 150% declining balance method. U.S. DEPT OF TREASURY, THE PRESIDENT'S 1978 TAX PROGRAM, FACT SHEET 15 (1978).


\(^{371}\) See text accompanying notes 225-27 supra.

\(^{372}\) See text accompanying notes 219-24 supra.

\(^{373}\) See authorities cited supra note 316.

\(^{374}\) See text following note 309 supra.

income foundation of our tax structure, any such proposal should be rejected.

Another theoretical issue with respect to depreciation is whether depreciation should be a neutral deduction in determining net income, or whether it should be a stimulative inducement to investing in depreciable property. Reduced to its simplest terms, depreciation should be a neutral deduction in determining net income. Congress, however, has utilized the depreciation deduction as an indirect device by which to subsidize investment in depreciable property. The revenue loss associated with excess depreciation is substantial, whereas the benefits are not objectively subject to assessment. Thus, at present, policy makers are not adequately informed about depreciation as an economic stimulus. In sum, the benefits of excessive depreciation are largely unknown and probably never will be quantified, while the detriments of excessive depreciation are numerous and, to a limited degree, quantifiable. It can be argued, therefore, that excessive depreciation cannot on balance be justified as an efficient economic stimulus, and should be eliminated. As a result of imperfect knowledge about the effects of excessive depreciation, the issue becomes more political and less analytical. In light of the imperfect knowledge of the issue, it is submitted that depreciation generally should be a neutral matching device rather than an affirmative economic stimulus device.

B. Breadth of Depreciation Provisions

Another issue with respect to depreciation theory is to determine how specialized depreciation should be. Present law has separate depreciation or amortization treatment for personal property, real property, low-income rental housing rehabilitation expenditures, public utility property, certified historic structures, pollution control facilities, lessee improvements, railroad rolling stock, railroad tunnels, on-the-job training and child care facilities, and expenditures to remove barriers to the handicapped and elderly. The plethora of provisions is almost overpowering. In principle, depreciation is a simple concept, but it has been seized upon as a device by which to work social and economic wonders. All of the various provisions are supported by some policy justification, but enough is enough. Seeking to resolve social ills by use of the taxing system generates several problems. The first and most obvious objection to the numerous provisions is the complexity and confusion which is created. As the Internal Revenue Code becomes more complex, only the tax professionals will have sufficient competency to handle tax matters. Public acceptance and support for the system will suffer. The second objection is that most of the special rules are tax expenditures in that they are indirect subsidy devices which are not


377. See text accompanying notes 318-29 supra.

exposed periodically to the full legislative process, as are direct expenditure programs. The third objection is that the Internal Revenue Code is being asked to do too much. The primary function of any tax system is to generate revenues. Any other purposes are secondary, and should be pursued only in unusual circumstances. Tax provisions, such as the special railroad provisions, intended to benefit only particular industries are subject to the criticism that they are indirect subsidies which are unrelated to the revenue generating function. Provisions dealing with certified historical structures and architectural barriers to the handicapped obviously are not related to the revenue generating function. Another significant problem associated with attacking economic or social ills through the taxing system is that the administrative burden is placed on the IRS and the Treasury, rather than a governmental bureau more technically qualified to administer the government program.379

C. Sunset Bills and Periodic Review

If tax expenditures must remain in the Code it is imperative that an automatic procedure be instituted to review their merit on a continuing basis. For example, present law depreciation is too rapid; it would therefore be appropriate for Congress to reassess whether the special treatment is justified. Such a proposal was contained in the S. 2, Sunset Act of 1977.380 The goal of the bill was to institutionalize periodic review. Sunset acts are relatively new creatures of the law and generally have been applied to legislative and administrative bureaucracies, but in S. 2 tax expenditures were included.381 The bill automatically would have terminated all tax expenditures after five years absent an affirmative action by Congress to preserve them.382 Unfortunately, tax expenditures were dropped from S. 2.383 The political battles over preserving cherished tax provisions would have been intense, and Congress apparently was unwilling to engage in those political battles every five years. There is little doubt that conditions justifying tax expenditures change over time. It seems appropriate, therefore, that Congress move in the future towards a sunset review of all tax expenditures.384

VI. CONCLUSION

A. Present Law

Federal tax policy with respect to depreciation has followed a long and winding path. Depreciation under present law represents an amalgam of various theoretical bases and is a complex product of tax, economic, and social policy goals. In analyzing and evaluating present law and proposed

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379. See id.
381. Id., §§ 401-12.
382. This concern was present in the 1976 provisions with respect to certified historic structures, I.R.C. §§ 167(o), 191. The sections provide for automatic termination in five years.
modifications to depreciation, certain conclusions may be reached. One conclusion is that present law depreciation is more rapid than economic depreciation, particularly with respect to real property improvements. Another conclusion is that excessive depreciation is an indirect subsidy, a tax expenditure, which is not subject to periodic review by Congress and which cannot be objectively justified as an efficient economic stimulus. Moreover, present depreciation is discriminatory because it unfairly benefits holders of depreciable property. Finally, depreciation in the United States is not significantly slower than depreciation in other major industrial countries.

B. Guiding Principles

Ultimately Congress must decide what, if anything, to do about depreciation. The range of options is broad indeed. Congress could radically alter the nature of depreciation, modify it in relatively minor ways, or leave it as it is.\textsuperscript{385} No doubt, Congress will have to reconsider depreciation periodically as political and economic pressures change. In considering changes, some important principles should be kept in mind. First, depreciation is a relatively simple concept and extensive statutory treatment of the subject is unnecessary. Second, depreciation is a device which seeks to make a reasonable allocation of the cost of long life property over its useful life. Any provision which deviates from that principle will cause distortion in net income and should be avoided. Deviations which claim to be justified on macroeconomic policy grounds are difficult to evaluate objectively and the burden of persuasion should be on the proponents. The third principle is that while ease of administration is an appropriate and necessary component of any tax system, administrative disputes over depreciation will occur. Tax depreciation provisions, no matter how generous, will not satisfy all of the taxpayers all of the time. It is inappropriate for Congress to compromise the primary function of the tax system to raise revenue merely to avoid administrative disputes. Congress should not give way on depreciation just because taxpayers complain, sometimes quite loudly.

C. Recommendations

Premised on the foregoing principles and the available evidence on contemporary depreciation, several recommendations can be made with respect to change in depreciation policy. It appears that present law depreciation provisions are too complex and too numerous. Congress should simplify and condense them. It also appears that present law depreciation is too rapid and causes a distortion in determining taxable income. Congress should decelerate depreciation by requiring longer useful lives. A necessary first step in that direction is repeal of ADR depreciation.\textsuperscript{386} Congress also should repeal

\textsuperscript{385} See the various options discussed in text accompanying notes 253-309 \textit{supra}.

accelerated depreciation for real property improvements and adopt a method which is slower than straight line.\textsuperscript{387} Inflation adjusted depreciation seems appealing as a device to determine net income more accurately. There are, however, significant objections to inflation adjusted depreciation. The statute certainly would become more complex. Another substantial objection to inflation adjusted depreciation is that it would be unfair to protect only holders of depreciable property from the effects of inflation. Due to the fundamental unfairness of selective relief from the effects of inflation, inflation adjusted depreciation should not be adopted, unless it is part of a comprehensive package of inflation relief provisions which apply to all taxpayers.
