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J. Timothy Phillips
West Virginia University College of Law

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DEPRECIATION AND THE RESERVE RATIO TEST

J. TIMOTHY PHILIPS

I. INTRODUCTION
A. General

In the years since World War II the question of proper income tax treatment for the cost of business investment in capital goods has been the subject of increasing interest and controversy. Traditionally, this function has been carried out under the depreciation section of the Internal Revenue Code which permits a "reasonable allowance" for wear and tear on assets regarded as depreciable. In general, depreciation may be allowed as a tax deduction for one of two reasons. It may be thought to result in a fairer distribution of the tax burden, or it may be used as a method of achieving desirable economic effects such as increased investment in plant and equipment. The depreciation reforms that have taken place in the past several years apparently have been motivated by both of these objectives.

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Assistant Professor of Law, West Virginia University; B.S., Wheeling College; LL.B., Georgetown University; LL.M., Harvard University.

Although the subject of proper tax treatment of capital costs embraces a wide variety of assets, controversy has largely centered about investment in machinery and equipment. Therefore, the comments and conclusions in this paper will be directed mainly to that class of assets.


Prior to the War, business had paid scant attention to depreciation. Whether this was because of a lack of understanding of the importance of accurate charge-offs for capital consumption, or because of the relatively lighter impact of the income tax up to that time is not clear. In any event, the War ushered in an era of high tax rates, increased capital consumption and rapid technological progress. These developments brought with them an increased awareness of depreciation on the part of both business and Government.

Business sees the depreciation deduction as a means of increased cash flow and higher rate of return on capital investment resulting from smaller tax bills. The Government, on the other hand, has taken various attitudes toward it depending on the circumstances of the times. In the past it has used the depreciation deduction alternatively as a means of increasing revenues by tightening allowances and as a means of stimulating the economy by permitting larger deductions. The former outlook prevailed in the 1930's, when the Government, in need of greater revenues, attempted to limit depreciation by questioning the useful lives used by taxpayers in computing their deductions. As witnessed by the reforms to be discussed, the latter attitude has prevailed in the more recent past, at least at the policy-making levels.

One reason for Government's recent more liberal attitude toward capital recovery has been the realization that, with the rapid technological development of the post-war years, a large part of the United States' plant and equipment has become obsolescent. Two extreme examples of this can be seen in the railroads and the textile industry. Useful lives used in computing depreciation failed to take into account this increased technological development and, as a result, the deductions were too small to provide a sufficient recovery of capital. The problem was aggravated by the fact that foreign industry, forced to rebuild after the war, was more modern than that of the United States. This, coupled with higher wage rates in this country and more liberal capital recovery rules in most foreign

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4 Terborgh, Depreciation as an Element in Investment Decisions, in Depreciation and Taxes 17 (Tax Inst. 1959).

5 For a fuller discussion on the development of this policy see text accompanying notes 16-30 infra.
countries, brought about a situation in which charges in our own methods of recovery became imperative.  

B. The Concept of Depreciation

To understand the controversy surrounding the question, it is necessary to realize that the concept of depreciation has several different aspects. The conclusion ultimately reached with regard to the proper treatment of depreciation will in large part be determined by the particular aspect to which one adverts.

The traditional idea of depreciation considers it as a means of obtaining an accurate income statement. The accountant, as "score-keeper" of the progress of a business, attempts to match the revenues of a particular accounting period against the costs of generating them. In so doing, it is reasonable that a portion of the costs incurred for capital equipment be charged against the revenues of each period. Unless these charges are made, the expenses of the business will be understated and consequently its income will be overstated. Thus, depreciation in this sense is primarily an allocation of particular costs to the proper accounting periods. The Committee on Terminology of the American Institute of Certified Public Accountants defines depreciation accounting as follows:

Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational matter. It is a process of allocation, not of valuation. Depreciation for the year is the portion of the total charge under such a system that is allocated to the year.

Under such a view the conclusion is inescapable that historical cost is the proper basis to be used in determining the depreciation to be taken in any period. Furthermore, such an outlook seems to favor a straight-line rather than an accelerated method of depreciation. At least superficially, there is no reason to believe that the cost of an asset makes a greater contribution to the revenues of one period in which it is used than to another. Therefore, it would seem rea-

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reasonable to charge the cost equally against each accounting period. Because of this, it is not surprising to find that some accountants view innovations in depreciation methods with a skeptical eye.

The popular notion of depreciation regards it as a means of valuing particular assets. In common terminology, depreciation is the amount by which an asset has diminished in value over a particular time span. Thus, a person says that his car "depreciated" a certain amount in value in the past year. Although this conception of depreciation is at odds with the allocation of cost concept envisioned by the A.I.C.P.A., it apparently has its supporters. One of the arguments advanced for the use of accelerated methods of depreciation under the 1954 code was that property actually does lose value more quickly in the early years of its life. Further, this conception of depreciation as a loss in value of property rather than an allocation of cost is implicit in other proposals for depreciation reform. Proposals for use of price level depreciation assume that its proper measure is the diminution in real value resulting from the use of an asset in producing income. At first blush, the statute itself seems to contemplate a loss of value as opposed to a cost concept. It permits a reasonable allowance for "exhaustion, wear and tear (including obsolescence)." This would seem to indicate the deduction is properly measured by the loss in value of the asset.

The businessman's idea of depreciation seems to be that it represents a setting aside of income which should represent an amount

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8 The acceptance of accelerated depreciation methods by many theoreticians has weakened the above type of analysis. Nevertheless, there appears to remain in the accounting profession a kind of "straight-line hangover." For example, many accountants recommend the establishment of an account for deferred taxes when a firm utilizes accelerated depreciation, apparently in the belief that such methods do not truly measure income. See Wieler, The Accounting Dilemma: Should Book Depreciation Conform to Tax Depreciation?, 18 J. TAXATION 264 (1963).

9 Ibid.

10 Webster gives the primary meaning of depreciation as "a decrease in the value of property". WEBSTER'S NEW WORLD DICTIONARY OF THE AMERICAN LANGUAGE 394 (College ed. 1958).

11 Some authorities hold that correct measurement of income requires an adjustment to the basis on which depreciation is computed so as to reflect changes in the general price level. The remarks in this paper will be confined to cost basis depreciation. For a discussion of price level depreciation see Hogan, op. cit. supra note 6, at 45-50; Cohen, Proposals for Depreciation Reform, in DEPRECIATION AND TAXES 209, 212-16 (Tax Inst. 1959); Hellmuth, Depreciation and Changing Price Levels, in id. at 55; Spacek, Phantom Profits as Seen by an Accountant, in id. at 70.

12 INT. REV. CODE OF 1954, § 167(a).
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sufficient to replace the asset when it is retired.\(^\text{13}\) In this sense depreciation becomes a rainy day fund built up for the day when the asset must be replaced. Under such a view, any amount of depreciation that is insufficient to provide funds for a replacement at the end of the asset's use is not adequate. Because of rising prices, depreciation based on cost would never be sufficient according to this line of thought.

II. INADEQUATE DEPRECIATION UNDER THE TAX LAW

The depreciation section of the Code provides for a "reasonable allowance."\(^\text{14}\) Within certain limits, this phrase can mean practically anything and, as the history of the tax laws indicates, it has meant very different things at different times. Until the 1930's, taxpayers were allowed great discretion in setting their depreciation deductions. The philosophy then prevailing apparently was that only a given amount of cost can be depreciated, and it makes little difference as to the timing of the depreciation deductions. The rates were not really high enough for too great a concern over the size of depreciation allowances. Moreover, there was little inclination on the part of business to take depreciation deductions which could be called excessive.\(^\text{15}\) This stemmed in part from the fact that most businessmen and accountants felt that straight-line depreciation based on physical life was satisfactory.

A. Bulletin F

With the onset of the Depression, the federal government felt an increased need for revenue. Substantial amounts were needed to finance the ambitious public works programs of the day.\(^\text{16}\) In 1934 a subcommittee of the House Ways and Means Committee proposed that the funds be raised by means of a statutory reduction of 25 percent in depreciation allowances. It justified this proposal

\(^{13}\) Powell, Management Views of Tax Depreciation 13-15 (study under auspices of Indiana University Graduate School of Business 1962); see Fairless, Steel's Depreciation Problem 3 (1956); Chamber of Commerce of the United States, Depreciation for Growth 1 (undated).


\(^{15}\) Harney, Depreciation Guidelines, 40 Taxes 917, 920 (1962).

\(^{16}\) Barlow, Depreciation, in Tax Revision Compendium 827, 831, House Ways and Means Committee, 80th Cong., 1st Sess. (1959) [hereinafter cited as Compendium].
by the fact that depreciation does not represent an outlay of cash. 17 This view overlooked the fact that depreciation is actually a charge against income of expenditures already made, 18 and there was considerable doubt as to the wisdom of such a measure. 19 Therefore, Secretary of the Treasury Morgenthau suggested adjustment of depreciation deductions on a case by case basis along with a tightening of administrative policy instead of a statutory change, and this was accepted by the Committee. 20

In pursuance of the new policy, the Treasury issued T.D. 4422, 21 which provided that the cost of property should be charged off over its useful life, and that the burden of proof with regard to the amount of any depreciation deduction would rest upon the taxpayer. It required the taxpayer to "furnish full and complete information with respect to . . . the assets in respect of which depreciation is claimed . . . in substantiation of the deduction claimed." 22 This represented a substantial change from previous practice. Prior to 1934, the regulations had provided: "While the burden of proof must rest upon the taxpayer to sustain the deduction taken by him, such deduction will not be disallowed unless shown by clear and convincing evidence to be unreasonable." 23 Since the burden of proof with regard to depreciation deductions had been effectively shifted to the taxpayer, and since there had been relatively little prior thought given to the subject, it was quite difficult for taxpayers to prevail when their depreciation deductions were questioned. This resulted from the fact that most of them, having given scant attention to depreciation before, were unable to supply the information needed to sustain their burden of proof. Thus, the Treasury by administrative means was able to collect the additional revenue which the Ways and Means Committee had proposed to obtain by a change in the statute. It is apparent, therefore, that the depreciation policy of the Treasury following 1934 was concerned not with economic growth but rather with revenue raising. 24

17 Kitendaugh, Depreciation Policy for an Expanding Economy, in Compendium 841-42.
18 Id. at 842.
19 CHAMBER OF COMMERCE OF THE UNITED STATES, op. cit. supra note 13, at 2.
20 Kitendaugh, supra note 17, in Compendium at 842.
21 XIII-1 COM. BULL. 59 (1934)
22 Ibid.
23 Treas. Reg. 77, art. 205.
24 Barlow, Depreciation, in Compendium at 831.
Initially, the Treasury implemented its new policy by using each taxpayer's record as a basis for mortality studies of his assets. The defect in this approach was that it looked only to the past in order to set useful lives to be applied in the future. It thus could not sufficiently contemplate factors, especially obsolescence, which could only be taken into account by making predictions of events to come.  

Furthermore, in the opinion of some, such a statistical approach to setting rates discouraged replacement.

Because depreciation deductions were being questioned with increasing frequency, the Treasury apparently felt it wise to attempt to introduce some degree of uniformity into the administration of the issue by the then Bureau of Internal Revenue. (It is interesting to note that the name was later changed to Internal Revenue Service for the sake of a better image.) Thus the much used and much abused table of useful lives in Bulletin F was ushered onto the scene.

Bulletin F attempted to alleviate the problem of dispute over what are reasonable depreciation allowances by setting out in great detail suggested average lives for various types of assets. The list was incredibly detailed, consisting of over 5000 separate items, and requiring for its application a review of each specific kind of asset. In a large business this could amount to an extremely time-consuming task. The latter problem was alleviated somewhat by the Treasury practice of agreeing on a general rate considered as reasonable, to be applied to the whole depreciable base or to some large group of assets. This allowed assets to be grouped into multiple accounts for the purpose of depreciation and a flat rate applied to the account, thereby avoiding much of the detail. Such a procedure, however, was not practicable in many cases, especially where small businesses were concerned. In the latter situations, Bulletin F became the revenue agent's Bible, and when the tax-

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25 Kitendaugh, supra note 17, at 843-44.
26 Id. at 844. The efficacy of using past practice to determine future rates has been questioned more recently in connection with the reserve ratio test.
27 I.R.S. Publication No. 173 (1955). The first edition of Bulletin F was issued in 1920. A second was issued in 1931. These merely stated Treasury policy on depreciation. In 1942 however, the third edition presented the list of useful lives about which so much controversy has centered. The table of lives in the 1955 edition is merely a reprint of the earlier one. Lyon, Depreciation and Taxes Before and After Revenue Procedure 62-21, 34 (1962).
28 Id. at 141-42.
payers' lives differed from those in Bulletin F the odds were against him. The dependence on Bulletin F lives extended even to cases in which some agreement had been made as to useful lives, since the Treasury did not feel that the lives it agreed upon should differ too greatly from its suggested lives. Therefore, Bulletin F, which was in fact no more than a guide to agents in examining returns, came to take on the importance of statute and judicial pronouncement itself.

B. Rapid Technological Obsolescence

Bulletin F took for its starting point the physical life of property for which it suggested useful lives. It thus did not adequately take into account technological obsolescence and retirements before property is physically exhausted. This appears to have been a holdover from the idea of depreciation as a decline in the physical value of an asset. At the time of its inception, this may not have been too serious a defect, but as time went on it became increasingly apparent that other factors besides physical life, especially obsolescence, had to be given more consideration if an adequate deduction for depreciation was to be allowed. Furthermore, Bulletin F had been based on Depression years experience when replacement practices were adversely affected. Because of this, it had a distinct bias toward overly long depreciable lives.

The rapid technological progress which followed World War II signalled the commencement of Bulletin F's slow demise. Even the Treasury began to realize that the physical life basis of Bulletin F was unsatisfactory. Many capital assets became useless before they were worn out because advances in technology had made them unprofitable to use. An example of such an occurrence is the great change in the railroad industry from steam to diesel power. Most of the steam engines retired were not physically exhausted, yet they had to be replaced because they were no longer profitable. This was a change which Bulletin F could never contemplate. The Treasury seemingly recognized Bulletin F's inadequacies in 1953

29 Barlow, Depreciation, in Compendium 827, 831.
30 See Smith, Federal Tax Reform 158 (1961); Chamber of Commerce of the United States, op. cit. supra note 13, at 3.
31 See Kitendaugh, supra note 17, at 845-49.
32 Barlow, Depreciation in Compendium 827, 831; Cohen, supra note 11, at 218.
33 See Hogan, op. cit. supra note 6, at 5-12.
when it issued Revenue Rulings 90 and 91. These provided that depreciation deductions should be challenged only when there is clear and convincing basis for a change, and their directive was later raised to the status of a regulation. The question of what is clear and convincing basis for a change is to be decided according to each individual case. Although the top policymakers may have envisioned a substantial liberalization by these rulings, their pronouncements appeared to have escaped the ears of revenue agents, for useful life disputes continued on unabated. There was doubt expressed by some tax practitioners that such an expression of policy at the top could filter down to the revenue agent level, especially when the revenue agent was armed with so formidable a weapon as Bulletin F.

So it came to pass that many businesses, beleaguered on the one hand by rapid obsolescence of their capital equipment, and on the other by zealous revenue agents preaching the doctrine of Bulletin F, were forced to settle for depreciation deductions far too small in relation to the actual useful lives of their assets. It is true that some businesses with the resources to fight the Revenue Service were able to fare better, but most found themselves unable to prevail in the face of the presumption in favor of the Commissioner, and indeed, many found themselves unable even to put up more than a token fight. To compound the problem, some taxpayers for one reason or another had little interest in claiming larger depreciation deductions. Some auditors still felt that Bulletin F provided the soundest basis for computation of the deduction. In other cases managers of corporations regarded the reduced tax liability as too small a reward for the reduced profits which larger depreciation deductions would cause on the corporate income statement.

34 1953-1 CUM. BULL. 43-44. Apparently the Treasury action was in response to a proposal in Congress that the Internal Revenue Service’s adjustment power be limited by statute. See S. Rep. No. 1622, 83d Cong., 2d Sess. 206 (1954).
35 Treas. Reg. § 1.167(a)-1(b) (1956).
36 Parker, Internal Revenue Service Policy on Depreciation, in DEPRECIATION AND TAXES 141, 143-44 (Tax Inst. 1959).
37 Cohen, supra note 11, at 220.
38 See, e.g., Industry’s Need for Depreciation Reform, 18 J. TAXATION 270 (1963); Barlow, Realistic Depreciation and Compensation Policies, in DEPRECIATION AND TAXES 127-130 (Tax Inst. 1959).
39 Id. at 133.
40 Id. at 137. Accountants until recently have generally favored recording depreciation at the same figures for both book and tax purposes. See Wieler, supra note 8, at 264-66.
C. The Problem of Inflation

Another problem faced by businessmen was that of inflation. The value of the dollar had fallen drastically in the years following 1940. The accounting profession traditionally had founded its principles on the so-called three C's—cost, \( ^{41} \) conservatism \( ^{42} \) and consistency. \( ^{43} \) The basis for depreciation allowances accordingly had to be historical cost, even though historical cost had little to do with current real values. Business, therefore, found itself in a dilemma. The fundamental principle of its accounting system was the use of historical cost in its calculations, but the use of historical cost in the computation of depreciation was causing overstatement of income. \( ^{44} \) Revenues measured in terms of current dollars were being matched against deductions in more valuable past dollars. This situation led to proposals for a revaluation of assets in terms of current purchasing power. \( ^{45} \) These have been largely rejected in this country. Conservatism opposes such radical change in accounting methods and consistency demands that a method of accounting should be followed through in the absence of extraordinary circumstances. Therefore, the problem of inflation has been attacked within the framework of cost basis depreciation.

D. Undesirable Effects of Inadequate Depreciation

The failure to record adequate depreciation deductions resulted in overstatement of business profits and consequent over-taxation. In effect the income tax became a capital levy in the case of many corporations. This situation made the building up of capital investment more difficult than it would have been otherwise. Thus, the economy was faced with a situation where the tax law, which in theory should at least be neutral, was acting as a deterrent to capital formation. \( ^{46} \) Furthermore, the strain on business because of the Treasury's depreciation policies reached beyond

\[ \text{Footnotes:} \]


\( ^{42} \) Id. at 48-49.

\( ^{43} \) Id. at 50.

\( ^{44} \) See Spacek, supra note 11, at 71-79.

\( ^{45} \) E.g., H.R. 131, 86th Cong., 1st Sess. (1959) by Rep. Keough. This bill proposed to allow a loss based on replacement value at the time of an asset's retirement. For a discussion of various revaluation proposals see Hogan, op. cit. supra note 6, at 45-50; Cohen, supra note 11, at 212-16.

the tax law. Many businesses were engaged in government contracting. For these businesses the overstatement of profits caused by inadequate depreciation resulted not only in a tax on capital under the guise of an income tax, but also in the renegotiation of their profits under the renegotiation law. These firms, therefore, were in effect subject to two excessive taxes at the hands of the Government.47

E. Foreign Depreciation Practices

The failure to take obsolescence into account adequately had the further effect of causing a deterioration of the United States position in world markets. Canada, the European countries and Japan by and large had modernized their capital equipment following the war and, furthermore, had introduced depreciation and investment policies which encouraged new investment.48

Two countries, Canada and Sweden, have instituted very liberal depreciation policies insofar as the issue of useful life is concerned. A brief review of these will be made here as an illustration of models which have proven satisfactory in other nations.

1. Sweden49

It has generally been thought that the Swedish system is one of the most liberal in the world. Between 1938 and 1951, Swedish corporations were allowed “free depreciation” of machinery and equipment.50 This permitted the taxpayer to deduct in a single year any amount up to the full cost of the property being


49 The information on Swedish law has been derived principally from Harvard Law School, International Program in Taxation, World Tax Series, Taxation in Sweden (1959) [hereinafter cited as World Tax Series, Sweden] which states the law as of 1959. Since 1959 there have been no significant changes in the Swedish approach.

50 World Tax Series, Sweden 269. Free depreciation was limited to corporations and was therefore not applicable in the case of individuals and partnerships. Id. at 269-70.
depreciated. Swedish taxpayers took advantage of this privilege by charging off machinery and equipment too rapidly, and in 1951, because of its inflationary tendencies, free depreciation was abandoned. Temporary limitations were installed at that time and remained in effect until 1956 when a permanent system was established.

The Swedish taxpayer may choose between two depreciation methods: "book depreciation" or "planned depreciation." Under book depreciation the same amount must be written off on the books as is deducted for tax purposes. Essentially this method permits a declining balance rate of 30 percent and results in a write-off of over one-half of the cost of an asset within two years. In addition a supplementary option provides that the taxpayer may deduct in any year an amount sufficient to reduce book value of the asset to a figure equal to its cost minus cumulative depreciation at a 20 percent straight-line rate. Under this rule, the entire cost of a single asset can be written off in five years. Either rule may be used in any year.

Planned depreciation is most often used by small businesses and basically amounts to straight-line depreciation over an estimated useful life. Deductions of 10 percent or less per year on machinery and equipment are not usually questioned. Aside from the above rules, under either method a taxpayer is allowed to write the book value of assets down to an amount below the statutory limits if he can show that their actual value has diminished by that much.

As a complement to the liberal depreciation rules, gain on disposition of machinery and equipment is treated generally as

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51 Id. at 270; Perry, Depreciation Practices in Foreign Countries, in Depreciation and Taxes 191, 204 (Tax Inst. 1959).
52 World Tax Series, Sweden 270.
53 Id. at 271-72.
54 Ibid.
55 Id. at 272. Machinery and equipment with a life of three years or less can be written off in one year under either method. Id. at 273.
56 Id. at 277. For example, if an asset cost $1000, $300 could be written off in the first year ($1000 x 30%) and $210 in the second ($700 x 30%) for a total of $510 in the first two years.
57 Id. at 278-79. The taxpayer will generally take advantage of this option in the latter years of an asset's write-off period when declining balance deductions begin to fall.
58 Id. at 283.
59 Id. at 284 n.8
60 Id. at 283.
ordinary income. Under the book method a procedure analogous to the United States practice of crediting the depreciation reserve for proceeds on disposition is permitted.

Although machinery and equipment is given quite liberal treatment in Sweden, the opposite is true of buildings. Generally their rates are from 2 to 3 percent or lower and the rules are fairly rigid and stringent.

2. Canada

The philosophy behind the Canadian system has been an abandonment of the engineering or “wear and tear” approach. There is an assumption that it is more sensible that an allowance for capital outlay should occur over a period of years, but exact identity between the period of write-off and the actual useful life of the property is not considered to be of too great importance.

The Canadian Income Tax Act, Section 11(1)(a) allows a deduction for “such parts of the capital cost to the taxpayers of property, or such amounts in respect of the capital cost to the taxpayer of property, if any, as is allowed by regulation.” (Emphasis added.) The significant aspect of this approach is that it omits any reference to depreciation, obsolescence, or wear and tear and instead recognizes a portion of capital cost as a deduction. There is a departure from the concept of depreciation as a compensation for diminution in value of an asset which is in use and being worn out.

The Canadian system groups assets into a few broad numbered classes and applies statutory rates of charge-off to them under the declining balance system. Most commercial machinery and

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61 Id. at 289-90.  
62 Id. at 290.  
63 Id. at 287-288.  
64 Perry, Depreciation Practices in Foreign Countries, in Depreciation and Taxes 191, 195 (Tax Inst. 1959).  
65 Perry, Taxation in Canada 68 (1961).  
66 Canadian Tax Regulations, Part XI, § 1100(a).  
67 Ibid. For a temporary period which began March 31, 1966, and will end October 1, 1967, the rates on machinery and equipment have been reduced by one half. Thom, 1966 Tax Changes, 17 Can. Tax J. 110, 113 (1966). Apparently the rate reduction was effected as an anti-inflationary measure.
equipment is included in class number eight and up to March 31, 1966 has been allowed a 20 percent rate. Rates for other types of property are equally liberal. In addition to the regular provisions, special incentive rates have been placed in effect at various times to encourage new industry and investment. Provisions are made for recapture on disposition of an asset.

The percent Canadian system was initiated in 1949 and has led to a large amount of internal financing since then. It has been considered to be quite successful by the Canadians, and there has been little interest in changing its basic structure. Its greatest virtues appear to be its simplicity and avoidance of onerous and time-consuming disputes over useful life while at the same time providing deductions which are in approximate conformity with general experience as to asset life. Its main disadvantage seems to be that it is somewhat rigid.

Canada and Sweden's resolutions of the depreciation problem have largely centered about a liberalization of rates and a shortening of the time span over which the cost of assets is written off. Other countries have approached the problem in different ways. For instance, the United Kingdom has adopted a system of initial allowances and investment allowances which have the effect of accelerating depreciation. France and Belgium, on the other hand, faced with serious inflations, have at various times in the past adopted forms of replacement cost depreciation in addition to liberal rates and incentive allowances.

Probably no one system of depreciation is appropriate for all

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68 Canadian Tax Regulations, Part XI, § 1100(a).
69 PERRY, TAXATION IN CANADA 70-71 (1961).
70 Id. at 69-70.
72 Id. at 198.
74 Id. at 34-35; Statement of Hon. Douglas Dillon, Secretary of the Treasury, in Hearings on the President's 1961 Tax Message Before the House Committee on Ways and Means, 87th Cong., 1st Sess. 17 (1961).
countries. The various needs are so divergent that what is con-
sidered desirable in one may be positively detrimental in another.
Therefore, no definite conclusion can be drawn with regard to
proper United States policy merely by examining the depreciation
models of other countries. However, these models do have some
instructive value, especially that of Canada, a country whose
situation is quite similar to that of the United States.\textsuperscript{75}

F. Accelerated Depreciation

By 1954 the twin factors of rapid obsolescence and inflation
were causing a distortion of real income for many businesses. This
was readily apparent when the new Internal Revenue Code was
adopted, and Congress acted to ameliorate the situation.

The 1954 Code adopted the principle of allowing greater de-
preciation allowances in the early years of asset life, counter-
balanced in the later years by correspondingly smaller deductions.
The idea behind this is that greater deductions soon after an
investment is made are worth more to the taxpayer than deduc-
tions spread evenly over the useful life of the asset. The after
tax funds made available by these larger deductions can be put
to work in the business and can earn a return pending their
absorption by additional tax liabilities later on when allowances
are reduced. In addition, the increased cash flow provides funds
for debt retirement, facilitating capital financing and making
possible a faster return of investment from the taxpayer’s own
funds. This in turn has the effect of reducing the risk of such
investment.\textsuperscript{76}

The 1954 changes allow taxpayers to adopt either the sum of the
years-digits method (SYD) or the declining balance method at a
rate not exceeding two times the straight line rate (double declining
balance or DDB).\textsuperscript{77} These can be applied to assets having a useful
life of three years or more acquired new after December 31,

\textsuperscript{75} In fact the United States has of course copied the Canadian System
\textsuperscript{76} See Terborgh, Depreciation as an Element in Investment Decisions, in
\textsuperscript{77} Int. Rev. Code of 1954, § 167(b).
They enable the taxpayer to recover approximately two-thirds of the cost of a new asset in the first half of its life. In the second half of the asset’s life the deductions are correspondingly diminished. Taxpayers are also given an additional option to adopt some method such as unit of production as long as the depreciation under that method during the first two-thirds of the asset’s life does not exceed the amount which would have been taken under the double declining balance method.  

Another form of acceleration was added to the Code in 1958. Section 179 provides that an additional deduction of 20 percent of the cost of tangible personal property having a useful life of six years or more will be allowed in the year of purchase by the taxpayer. This is known as additional first year depreciation. The value of this section is limited, however, since it applies only to the first $10,000 of asset acquisitions. Thus, the largest deduction under the provision can amount to only $2000. In addition, the basis of the property must be reduced by the amount of the first year allowance.

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78 INT. REV. CODE OF 1954, § 167(c).

As this article goes to press Pub. Law 89-800, 80 Stat. (1966) has just been enacted. This act suspends the allowance of accelerated depreciation on certain new building construction from October 10, 1966 to January 1, 1968. In addition, the 7% investment credit on new machinery and equipment will be suspended for a like period. Accelerated depreciation on new machinery and equipment will not be affected. According to the President, these measures will check inflation and cool down the presently overheated economy. President’s Anti-Inflation Message, 122 Cong. Rec. 21224 (daily ed. Sept. 8, 1966). A discussion of their economic soundness is beyond the scope of this paper. For a criticism of using suspension of the investment credit as a temporary counter-cyclical fiscal measure see Statement of Hon. Stanley S. Surrey, Assistant Secretary of the Treasury, in Tax Changes for Short Run Stabilization, Hearings Before the Joint Economic Committee, 89th Cong., 2d Sess. 232, 242-43 (1966). Apparently the Administration considers these steps to be politically feasible applications of the “new economics” which holds that the federal government at behest of the executive branch should provide economic incentives and deterrents through tax and fiscal policy as the times require. For a layman’s discussion of the “new economics” see Burck, Must Full Employment Mean Inflation?, Fortune, October 1966, p. 120. It is interesting that only a little more than a month after submitting his anti-inflation proposals, President Johnson advocated the spending of additional huge sums on the social security program. Seemingly in the President’s view the economy needs to be heated up and cooled down at the same time. The present Administration’s philosophy of the “new economics” is perhaps best summarized in an adage, “The Lord giveth and the Lord taketh away.”

79 INT. REV. CODE OF 1954, § 167(b).

80 INT. REV. CODE OF 1954, § 179(b). The limitation is $20,000 in the case of a joint return. Ibid.

81 $4000 for taxpayers filing a joint return.

82 INT. REV. CODE OF 1954, § 179(d)(8).
DEPRECIATION, RESERVE RATIO TEST

III. Revenue Procedure 62-21

Although the foregoing measures were helpful and generally welcomed, at least by larger businesses, they did not solve the primary defect in depreciation policy—the unrealistic approach to useful life represented by Bulletin F. The Treasury realized that Bulletin F had become outdated and set out to devise a better method of arriving at reasonable rates. In December 1961, it announced that it was making a thorough study of six basic industries: aircraft and parts manufacturers, automotive manufacturers, electrical machinery and equipment, metal working machinery and machine tools, railways and steel. This study culminated in Revenue Procedure 62-21, first promulgated on July 11, 1962, and effective for all taxable years for which a return is due after that date. Technically, it is a guide for the use of Internal Revenue Service personnel in examining returns, but it has a far greater practical significance. Indeed, its impact has exceeded that of many legislative changes in the tax law.

The purpose of the Procedure was to introduce simplicity, uniformity and objectivity into the administration of the depreciation provisions, and to bring useful lives into line with current rates of technological progress. It represents a new and more indulgent approach to the question of depreciation by the government and gives taxpayers greater freedom in setting their depreciation rates.

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63 Accelerated depreciation was not greeted with uniform enthusiasm, however. See, e.g., Brown, Purposes and Functions of Depreciation Under the Income Tax, in DEPRECIATION AND TAXES 5 (Tax Inst. 1959).
64 Hogan, DEPRECIATION AND CAPITAL REPLACEMENT 44-45 (1962).
A. The Guidelines

The basic principle of the Procedure is that business can itself decide the useful lives of assets, as long as such lives are consistent with retirement and replacement practices. Assets are grouped into a relatively few broad categories subject to a single group-life. There are four general groups: general business assets, nonmanufacturing assets, manufacturing assets and public utility assets. These are broken down into seventy-five guideline classes each of which has a suggested class life. Most taxpayers will have to use only three or four guideline classes. The emphasis in this broad class approach is on achieving a reasonable overall deduction rather than achieving item by item accuracy. In most cases the suggested lives are shorter than those in Bulletin F. An exception to this lies in the treatment of buildings. The guideline lives for buildings are as long as the Bulletin F lives. This is partially because there were no recapture of depreciation provisions with respect to real property in the Code at the time Revenue Procedure 62-21 was released. There is now provision for some recapture on sale of depreciable real property at a gain in section 1250. Whether this will result in shorter guideline lives for buildings is not certain. However, so far it has not, and such a change is unlikely because buildings are not generally subject to the same rapid obsolescence as machinery and section 1250 provides for only partial recapture.

Application of the Procedure is optional with the particular taxpayer. He can choose to have his depreciation deductions examined under the Procedure or under the methods used prior

58 Ibid.
59 Ibid.
60 See remarks of Mr. Lawrence M. Stone, Tax Legislative Counsel Treasury Dept., in DEPRECIATION POLICY AND THE RESERVE RATIO TEST 46 (N.A.M. Symposium 1965).
61 Ibid. In the case of buildings, liberalized depreciation has been subject to some abuse by the setting up of so-called loss corporations. Under this device a corporation is formed to construct an income producing building, such as an apartment house, and the building is depreciated under an accelerated method. This causes depreciation deductions to be high enough in the early years to prevent the earning of taxable income, and consequently the corporation accumulates no earnings and profits. Subject to the applicable corporate law, the corporation is then free to make distributions to shareholders without imposition of a dividend tax. See Henwirz, CASES ON BUSINESS PLANNING 259-55 (1963 Temporary ed.). Use of this technique will of course not be permitted during the suspension of accelerated depreciation for new buildings. See note 78 supra.
Even in cases where the taxpayer does not choose to have 62-21 apply, however, *Bulletin F* has been withdrawn as a guide to examining officers in determining depreciable lives. If the taxpayer elects to have the Procedure apply, he groups his assets into the appropriate classes and determines the class life he has been using for the assets in the class. The class life is the weighted average of the lives used by him for the particular assets in the guideline class. It is computed by finding the sum of the depreciation deductions which would have been claimed in a single year if the taxpayer had used the straight-line method and then dividing this sum into the total basis of all the assets. For purposes of the latter computation, the basis of the assets is not reduced by salvage. The effect of this provision is to permit rates to be derived directly from the guideline lives without adjustment for salvage.

The taxpayer then compares his class life to the guideline life for the class. If his class life is equal to or longer than the guideline life, as it will be in most cases, he may immediately switch to the shorter guideline life. If the taxpayer's class life is shorter than the guideline life, he has an opportunity to justify it under varying circumstances by reference to the reserve ratio.

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92 Rev. Proc. 62-21, 1962-2 CUM. BULL. 418, IRS Publication No. 456 (Revised 1964) Pt. II, § 1 [hereinafter cited by part and section number of the 1964 revision]. The Procedure can be adopted on amended returns, by refund claims or during audit by a revenue agent. This means that the taxpayer can adopt the Procedure retroactively for any open year back to the first year for which a return was due after July 11, 1962. Moreover, a determination to have the Procedure apply does not commit the taxpayer to its provisions irrevocably. Rev. Proc. 62-21, Appendix II, Question No. 66 [hereinafter cited by question number only]; see Morris, *supra* note 85, at 481. But cf. Michiels, *Pros and Cons of Adopting the Depreciation Guidelines*, 13 Tul. Tax Inst. 244, 251 (1964), expressing the opinion that there is no real right to prevent a revenue agent from testing depreciation deductions under the methods set out in the Procedure.

93 Pt. II, § 1.

94 Pt. II, § 4.03. For example, if the total of depreciation deductions under the straight-line method would be $1,000 and the total basis of assets in the class is $10,000, the class life would be 10 years. The straight-line computation is made regardless of the method of depreciation actually used by the taxpayer. *Ibid.* Question No. 58 sets out examples of class life computation. For another explanation of class life determination, see Patton, *supra* note 85, at 215.

95 Pt. II, § 4.04.

96 *Lyon*, op. cit. *supra* note 85, at 53-54; Morris, *supra* note 85, at 495.

97 Pt. II, § 2.
test,\textsuperscript{98} or on the basis of all the facts and circumstances. Significant factors in determining whether a shorter life is justified by all the facts and circumstances include use of the same life for both tax and book purposes, intensive use of the assets, substantial proportion of assets acquired secondhand, extraordinary obsolescence and a disproportionate amount of relatively short-lived assets within the class.\textsuperscript{99} Even if the taxpayer cannot justify shorter than guideline lives in this manner, he may still be able to achieve the same effect by using some special method, such as unit of production or hourly rate to which the Procedure does not apply.\textsuperscript{100} Such methods may automatically reflect special circumstances which the taxpayer would otherwise have to prove.\textsuperscript{101} Of course, in such a situation, the taxpayer would still be obliged to justify the rate used. However, this might prove to be easier once the focus has shifted from a concept of useful life in terms of years.

B. The Reserve Ratio Test

Once a taxpayer has moved to the guidelines, his depreciation deductions will not normally be challenged for the first three years to which the Procedure applies (1962, 1963, and 1964 for most calendar year taxpayers).\textsuperscript{102} Depreciation deductions for ensuing years will in theory be subjected to the reserve ratio test. The reserve ratio test is envisioned by the Treasury as “a technique for establishing objectively that the taxpayer’s retirement and replacement practices for a guideline class are consistent with the class life he is using.”\textsuperscript{103} As originally formulated, it had various technical defects. In 1965 an attempt to correct them was made in Revenue Procedure 65-13,\textsuperscript{104} which made certain changes in the test and also introduced liberalized transition rules.

\textsuperscript{98} Pt. II, § 3.03(a). In addition a taxpayer is allowed to use a shorter than guideline life if such life has previously been accepted on audit and the taxpayer’s retirement and replacement policies are consistent with the life being used. Pt. II § 3.05. See also Question No. 49.

\textsuperscript{99} Pt. II, § 3.06.

\textsuperscript{100} See Pt. II, § 1 n.1.


\textsuperscript{102} Pt. II, § 2, § 3.05, § 5.03. Deductions may still be challenged, however, on the question of the proper adjusted basis for computation of the deduction, Pt. II, § 2 n.3, and placing of assets in the correct guideline class. Question No. 84.

\textsuperscript{103} Pt. II, § 3.05.

\textsuperscript{104} 1965-1 \textit{COM. BULL.}, 759. REV. Proc. 65-13 is discussed in text accompanying notes 129-51 \textit{infra}. Defects in the tabular method of the reserve ratio test are discussed in text accompanying notes 189-96 \textit{infra}. 
1. Theoretical Basis

The fundamental principle of the test is that a control of the accuracy of group depreciation can be obtained by comparing the amount in the depreciation reserve with the basis of the asset account.\footnote{Slitor, How the Reserve Ratio Test Was Determined, 18 J. TAXATION 258 (1963).}

An example will best illustrate the fundamental concept behind this test. Suppose an item of machinery costs $1000 and has a useful life of ten years with no salvage value. If one new machine is acquired yearly and they are depreciated in a group account, the balance in the depreciation reserve going into the tenth year should be 50 percent of the asset account:

<table>
<thead>
<tr>
<th>Year</th>
<th>Machinery</th>
<th>Reserve</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$1000</td>
<td>$100</td>
</tr>
<tr>
<td>2</td>
<td>2000</td>
<td>300</td>
</tr>
<tr>
<td>3</td>
<td>3000</td>
<td>600</td>
</tr>
<tr>
<td>4</td>
<td>4000</td>
<td>1000</td>
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<tr>
<td>5</td>
<td>5000</td>
<td>1500</td>
</tr>
<tr>
<td>6</td>
<td>6000</td>
<td>2100</td>
</tr>
<tr>
<td>7</td>
<td>7000</td>
<td>2800</td>
</tr>
<tr>
<td>8</td>
<td>8000</td>
<td>3600</td>
</tr>
<tr>
<td>9</td>
<td>9000</td>
<td>4500</td>
</tr>
</tbody>
</table>

Thereafter, if the taxpayer replaces each machine as it reaches the end of its ten year tax life, the depreciation reserve will remain at 50 percent of the property account.

The theory is that in stabilized accounts, i.e., accounts which have been in existence for a period of years at least equal to the depreciation life of the property and in which acquisitions and retirements are fairly constant, the reserve account will remain at about 50 percent of the property account. Therefore, if the lives used by the taxpayer for purposes of depreciation are the same as the actual useful lives, the ratio of the reserve account to his asset account should hover near the 50 percent mark.\footnote{See Goldstein, Developments in Tax Depreciation and Related Areas, 49 VA. L. Rev. 411, 417 (1963). Where a taxpayer’s asset account is growing, the reserve ratio would be below 50%; if the account is diminishing, it would be above 50%.
2. Application of the Test

In applying the test, the taxpayer first computes his reserve ratio for the particular guideline class by dividing the total basis of all the assets in the class into the total depreciation reserves for all these assets at the end of the taxable year. For purposes of this computation any portion of the basis of any asset in the guideline class which is subject to emergency amortization or is recovered by means of additional first year depreciation is excluded.

Having found his reserve ratio, he must then find the rate of growth of the guideline class account being tested. A growing account tends to have a lower reserve ratio than a stable one. Likewise, if the account is diminishing the reserve ratio will have a tendency to be higher. Allowance for this factor is included in the test by providing a series of reserve ratio ranges considered normal for different rates of growth. The rate of growth is computed by dividing the total basis of all the assets in the class at the close of the taxable year in question (the growth rate year) by the total basis of all the assets in the class at the close of the taxable year ending one class life earlier (the base year). For example, if the class life being used by the taxpayer is ten years and he is determining his asset ratio for 1965, he will divide the total of all the assets in the class at the end of 1965 by the balance at the end of 1955. In cases where the taxpayer's records for a base year prior to the Procedure are inadequate, he may use the earliest one for which sufficient information is available as the base year. However, this “substituted base year”

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107 The procedures described in the following section are appropriate in applying the tabular method of the reserve ratio test originally set out in Rev. Proc. 62-21. Application of the guideline form version of the test is discussed in text accompanying notes 130-39 infra.

108 Pt. III, § 2.01.

109 Ibid. These amounts are excluded from all computations under the Procedure. Question No. 44. Further, the total basis of the assets in a guideline class must be adjusted to reflect the reductions and increases required by the investment credit provisions of the Revenue Act of 1962 and the Revenue Act of 1964 at the time such reductions and increases are required to be made. Question No. 90.

110 Pt. III, § 2.02(c)(1). “Technically, the rate of growth for a guideline class is the average annual compounded percentage increase in the total basis of the assets in the class measured from the close of a base year to the close of the growth rate year.” Pt. III, § 2.02(c) n.22.

111 Pt. III, § 2.02(c)(2). If a taxpayer uses item or year of acquisition accounts, fully depreciated assets should be left out of this computation. Question No. 43.

112 Pt. III, § 2.02(c)(3).
cannot be later than the first one to which the Procedure applies. Thus, in the above example, if the taxpayer's 1955 records were inadequate, he could use the earliest of any year up to 1962 for which sufficient records were available as the base year (assuming 1962 is the first year for which the Procedure applied to taxpayer). After the asset ratio is computed, the rate of growth can be determined by reference to tables (rate of growth conversion tables) set out in the Procedure.

Once the rate of growth is known, it is possible to determine the reserve ratio considered appropriate for the taxpayer by referring to the reserve ratio tables included in the Procedure. Since the various methods of depreciation affect the reserve ratio differently, there are separate tables for straight-line, sum of the years-digits, and the two declining balance methods. The taxpayer refers to the table for his method and finds the reserve ratio appropriate for his test life and rate of growth. If the taxpayer uses two or more different methods of depreciation with respect to assets in a guideline class, the appropriate range is determined by computing the weighted average of the separate reserve ratio ranges for each method.

For each test life and rate of growth, the table gives a theoretically ideal reserve ratio plus a range of permissible ratios into which the taxpayer may fall and still meet the test. If the taxpayer's ratio is above the permissible range, his class life will be adjusted upward, unless he comes under one of the transition rules or can justify his class life on the basis of all the facts and circumstances. If it falls below the range, he can shorten his class life. The upper limit of the range allows a rate of retirement as much as 20 percent slower than the tax life used. In

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113 Ibid. If the taxpayer does not maintain sufficient records for base years subsequent to the Procedure to enable the rate of growth to be computed, the reserve ratio test cannot be applied and he must justify his deductions on the basis of all the facts and circumstances. Pt. III, § 2.02 n.23.
114 Pt. III, § 2.02. These tables are derived from a calculus formula which apparently constitutes the mathematical basis of the reserve ratio test. See CCH 1965 DEPRECIATION GUIDE 75-77.
115 The test life in most cases will be the class life being used by the taxpayer. See Pt. III, § 2.02(b).
117 Pt. II, § 5.03.
118 Pt. II, § 5.02.
119 Pt. II, § 5.02.
theory this means that the taxpayer can actually use his assets, on the average, for a period of time that is 20 percent longer than the test life and still not have his deductions disturbed. The lower limit of the range has a tolerance of only 10 percent from the ideal ratio so that there is a certain bias in the test in favor of the taxpayer. If the actual lives of the taxpayer's assets are more than 10 percent shorter than the test life he will be entitled to use a shorter tax life. Therefore, it will reflect the fact that he has a right to move to a shorter class life more quickly than the possibility that a longer life should be used.

As stated previously, the reserve ratio test will not be used to lengthen class lives of taxpayers using the guidelines for the first three years to which Revenue Procedure 62-21 applies. For most taxpayers, therefore, 1965 is the first year for which they will have to defend depreciation deductions on the basis of their reserve ratios. A transitional rule was included to aid taxpayers in adapting their retirement and replacement practices to the methods of the new Procedure. In addition to the transition rule contained in the original Procedure, others were adopted during 1965 in Revenue Procedure 65-13. The original transition rule set out a "moving toward" test providing that even though a taxpayer's reserve ratio is above the permissible range, his deductions for a guideline class will not be disturbed for a period of years (beginning with the first year to which the Procedure applies) equal to the guideline life for the class, if his reserve ratio is moving toward the permissible range. The reserve ratio is considered as moving toward the permissible range as long as the amount by which the taxpayer's reserve ratio exceeds the upper limit for the taxable year is lower than it was for any one of three preceding taxable years. It is important to note in this respect that the key to the test lies in the difference between the taxpayer's reserve ratio and the upper limit of the permissible range. Thus, if the taxpayer's reserve ratio were 65

121 Note to Reserve Ratio Tables, in Rev. Proc. 62-21; see Slitor, supra note 105, at 258. Although this result should follow in theory, it does not always work out so neatly in practice.

122 See Slitor, supra note 105, at 258.


124 Pt. II, § 5.03(b). After one class life cycle the "moving toward" test no longer applies.

125 Pt. II, § 5.03(c).
percent and the upper limit of the permissible range 60 percent in 1965, and in 1966 the corresponding figures were 63 percent and 56 percent, the “moving toward test” would not be met. It is therefore possible to fail to qualify under the “moving toward” test even though the taxpayer’s reserve ratio is falling. This would be the case in a situation where the upper limit of the permissible range is also falling because of growth in the asset account. 126

If the taxpayer fails to meet the test in spite of the transition rules, his class life will be adjusted unless he can justify it on the basis of all the facts and circumstances. 127 Under Revenue Procedure 62-21, class life was lengthened in accordance with an adjustment table which required an increase of about 25 percent. The adjustment table as a means of lengthening class life has now been supplanted by new rules in Revenue Procedure 65-13. 128

3. Revenue Procedure 65-13

At the beginning of 1965 it was apparent that many taxpayers were going to “flunk” the reserve ratio test. Realizing this, the Treasury on February 19, 1965, issued several new rules supplementing Revenue Procedure 62-21 with the purpose of lessening the impact of the three year moratorium’s end. 129 These rules were formalized as Revenue Procedure 65-13.

The first rule is the “guideline form,” a method whereby taxpayers are permitted to determine individually their own upper limit of the reserve ratio range. It is designed to provide each taxpayer with an individually tailored reserve ratio upper limit in place of the standardized one of the reserve ratio tables. 130 This was in response to criticism that the assumptions of the

126 See Patton, How to Work with the New Depreciation Guidelines and Rules, 17 J. TAXATION 214, 215 (1962). Conversely, it is possible for a taxpayer to meet the “moving toward” test even though his reserve ratio is rising.

127 Pt. III, § 3.03. Penalty rates to make up for excessive depreciation taken in the past will no longer be imposed. Pt. II, § 6.01; Question No. 37.


129 Treasury Liberalizes Depreciation Rules, Treasury Release, Feb. 19, 1965. This release also contains supplementary data with regard to a survey made by the National Industrial Conference Board on the ability of business firms to meet the reserve ratio test. This survey is discussed in text accompanying notes 210-216 infra.

130 Rev. Proc. 65-13, Pt. I, § 3.01. Use of the reserve ratio tables in Rev. Proc. 62-21 to determine the permissible reserve ratio range is referred to as the tabular method.
reserve ratio tables did not apply to accounts having an uneven rate of growth, i.e., accounts in which acquisitions and retirements are irregular or bunched.\textsuperscript{131} It also is intended to allow the reserve ratio test to be applied more fairly in certain other situations in which the tabular method has proven unsatisfactory.\textsuperscript{132} The guideline form method is optional with the taxpayer and he may use it for any year to which Revenue Procedure 62-21 applies.\textsuperscript{133} Moreover, he may use it one year if that is to his advantage, and use the tabular method for another year.\textsuperscript{134} Finally, he may use the guideline form for one guideline class and the tabular method for another.\textsuperscript{135} Thus, the taxpayer is given almost complete flexibility in applying the guideline form, and his depreciation deductions for a guideline class will not be disturbed for any year in which he can meet the reserve ratio test under either of the methods of applying it.

The guideline form is applied by finding the sum of all asset acquisitions for each year over a period beginning with the taxable year under consideration and going back a number of years equal to 120 percent of the class life being tested (the extended life), and dividing this figure into the sum of the "computed reserves" for each of the years.\textsuperscript{136} For example, if the class life being tested were ten years, the taxpayer would add up the sum of all acquisitions of guideline class assets for the last twelve years. Assuming the year in question is 1966, he would, therefore, include all asset acquisitions for the years 1955 to 1966 inclusive. If the total of all asset acquisitions were found to be $50,000 he would then divide this amount into the sum of the computed reserves for each year to find the permissible reserve ratio upper limit. The computed reserve for each year

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{131} Treasury Liberalizes Depreciation Rules, Treasury Release, Feb. 19, 1965, p. 3.
\item\textsuperscript{132} E.g., where a guideline class has only a few assets or where there is a new taxpayer. Grannan, IRS Liberalizes Guidelines Depreciation Rules, 22 J. Taxation 258 (1965). This article provides helpful instruction in the mechanics of the Rev. Proc. 65-13 and also contains a useful model for working papers in making calculations under the rules. Three other useful articles in this area are: Patton, New Problems in the Interpretation and Applications of the Depreciation Guidelines, N.Y.U. 24TH INST. ON FED. TAX 1609 (1966); Coughlan, Liberalization of Guideline Depreciation Rules, 43 Taxes 828 (1965); Grannan New Depreciation Rules Contain Sleeper, 23 J. Taxation 6 (1965).
\item\textsuperscript{133} Rev. Proc. 65-13, Pt. I, § 3.01.
\item\textsuperscript{134} Ibid.
\item\textsuperscript{135} Ibid.
\item\textsuperscript{136} Rev. Proc. 65-13, Pt. I, § 3.02.
\end{itemize}
\end{footnotesize}
is found by multiplying the cost of the assets acquired in that year by an annual factor given in the Procedure. It is equal to what the actual reserve would have been if no assets had been sold, retired or otherwise disposed of during the period. The upper reserve ratio limit so computed is then compared with the taxpayer's actual reserve ratio to determine if he meets the test. In many cases, use of the guideline form will considerably raise the upper permissible limit of the taxpayer's reserve ratio range. It is not a transition rule and it is intended to remain as a permanent part of the guideline structure.

Two other new rules designed to aid the taxpayer are also contained in Revenue Procedure 65-13. The first is the "transitional allowance rule." It is a temporary rule, effective for a period beginning with the fourth taxable year to which Revenue Procedure 62-21 applies and equal to the guideline life of the class involved. It permits the taxpayer to add a predetermined number of percentage points to the reserve ratio upper limit under either the tabular method or the guideline form method. The taxpayer will be permitted to add 15 percentage points to the upper limit during the first year of the rule. Thereafter, the number of points will diminish at intervals. One-third of the allowance will expire during the first half of the guideline life, and the remaining two-thirds will expire ratably over the second half. When this rule is used in conjunction with the guideline form, it is possible in some instances to have a permissible reserve ratio of over 90 percent.

The second rule helping the taxpayer is the "minimal adjustment rule," and it also is effective for a number of years equal to the guideline life of the class under consideration. It reduces the

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137 Rev. Proc. 65-13, Pt. I, § 3.03.
139 The guideline form can also be used to show that the taxpayer is entitled to use a shorter class life. For this purpose the lower limit of the permissible reserve ratio range is determined by using an extended life equal to 90% of the test life. Rev. Proc. 65-13, Pt. II, § 7.
141 This is called the transition period. For example, in the case of a calendar year taxpayer the transition period of a class with a 10 year guideline life would run from 1965 to 1974 inclusive.
142 Table B of Rev. Proc. 65-13 sets out the transitional allowances for most guideline lives.
adjustment that may be made to a class life in cases where the taxpayer cannot meet the reserve ratio test, even with the use of the guideline form and the transition rules, and is also unable to justify his deductions on the basis of all the facts and circumstances. If the reserve ratio exceeds the upper limit (computed under either the guideline form or tabular method and including the percentage points permitted to be added under the transitional allowance rule) by less than 10 percentage points, the class life will be lengthened so that the new class life will equal the class life used by the taxpayer for the immediately preceding year plus 5 percent of the shorter of either: (1) the guideline life for the class or (2) the class life used by the taxpayer for the first year in which he chose to be examined under Revenue Procedure 62-21.  

If the excess is 10 or more points, the class life will be lengthened in accordance with the foregoing formula, except that 10 percent instead of 5 percent will be used. This represents a substantial reduction from the 25 percent increase required in the adjustment table of Revenue Procedure 62-21. Furthermore, a lengthening adjustment may not be made two years in succession, and if adjustments during the transition period equal or exceed 25 percent, the taxpayer can elect to have the lengthening rule cease to apply. If he so elects, further adjustments will be made on the basis of all the facts and circumstances, and no further adjustment will be made until the fourth year after class life was last lengthened. In effect this means that if several adjustments to the class life have been made, so that the next adjustments will bring the total of adjustments up to 25 percent, the taxpayer may, when that adjustment is made, elect to have the mechanical lengthening rules cease to apply. If he does this, his deductions will not be disturbed for the next three years, and thereafter, adjustments will be made on the basis of all the facts and circumstances.

After the transition period, the same basic rules apply, except that there is no option to use a base figure shorter than the guideline life for the class in determining the percentage to be

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145 Rev. Proc. 65-13, Pt. II, § 4.02. Alternative number 2 does not apply if the year under examination is the first year in which the taxpayer chose to be examined under Rev. Proc. 62-21. Id. at n.8.
added to the class life. 49 In other words, the figure added to the class life in making a lengthening adjustment will always be a percentage of the guideline life for the class. This is in contrast to the rule during the transition period under which the taxpayer has his choice of using as his base figure either the guideline life or the class life used by the taxpayer for the first year in which he chose to be examined under Revenue Procedure 62-21.

In addition to the new rules favoring taxpayers, Revenue Procedure 65-13 introduced new limitations on taxpayers using multiple asset accounts. It was found that the use of open-end multiple asset accounts was producing exaggerated benefits to taxpayers using the straight-line (SL) or sum of the years-digits (SYD) methods. The reason for this is that Revenue Procedure 62-21 permits fully depreciated assets to be included in the depreciable base in calculating the depreciation deduction. Under both SL and SYD the deduction is computed on the total depreciable base and not merely the undepreciated base, as is the case when a declining balance method is used. Therefore, permitting fully depreciated assets to be included in the depreciable base gives greater deductions than would otherwise be possible, and in effect results in a more rapid write-off of the undepreciated assets in the account. 150

Because of this characteristic of open-end accounts and because the new rules in Revenue Procedure 65-13 make policing of deductions more difficult, the Treasury felt it wise to place limitations on the use of SL and SYD in conjunction with open-end multiple asset accounts. Therefore, beginning in the fourth year to which Revenue Procedure 62-21 applies, taxpayers will not be permitted to use the guideline rules if the cost of current acquisitions is recorded in open-end multiple asset accounts and the SYD or SL methods are used. 151 The limitation does not apply to open-end accounts depreciated under a declining balance method or to years' acquisitions multiple asset accounts. The effect of this rule will probably be to cause most taxpayers who use open-end accounts to place new assets in accounts to be

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depreciated under a declining balance method, since otherwise they will be forced to forego the benefits of Revenue Procedure 62-21.

IV. CRITIQUE OF REVENUE PROCEDURE 62-21

A. Benefits

Without doubt, huge benefits have flowed to business and the economy from the Procedure. The guideline lives considerably shortened those suggested by Bulletin F. The Treasury has estimated that the new lives are 30 to 40 percent shorter than previously suggested, and automatically permit higher depreciation deductions on 70 to 80 percent of the machinery and equipment used by American business. In practice the guideline lives are approximately 15 percent shorter than those actually being used at the time the Procedure was issued. For example the average life of machinery and equipment in the guidelines is twelve years. This compares with an average of nineteen years suggested by Bulletin F and fifteen years in actual use by business at the time the guidelines became effective.

With such a shortening of tax lives it could be expected that depreciation deductions would increase substantially as a result and this in fact has occurred. The Commerce Department made a study of the effects of the new rules in the first year in which they applied and found that corporate depreciation deductions increased by $4.1 billion from 1961 to 1962. Of this amount, $2.4 billion was attributable to the guidelines. Corporations electing the guidelines accounted for $14.8 billion or about 55 percent of total corporate depreciation allowances of $27.7 billion in 1962, and the guidelines increased depreciation charges for these corporations by 20 percent. Depreciation charges for all corporations were 10 percent higher than they would have been without the guidelines. Because of the increased deductions,

153 TENBORCH, NEW INVESTMENT INCENTIVES 8 (1962).
154 Schwingle, To Guideline or Not to Guideline, 48 MARQ. L. REV. 207 (1964).
155 Bridge, New Depreciation Guidelines and the Investment Tax Credit, Survey of Current Bus., July 1963, p. 3. This study did not include non-corporate businesses. It is estimated that these businesses would obtain an additional $3 billion in depreciation from the guidelines. Id. at 3 n.1. The Department has made no further published studies of the depreciation guidelines.
156 Bridge, supra note 155, at 4.
157 Ibid.
corporate income tax accruals were $1.25 billion lower than they would have been in the absence of the reform. The study also revealed that the greatest benefits from the guidelines were received by the transportation (particularly railroads) and the manufacturing industries.

A survey by the National Industrial Conference Board in October 1964 which covered the effects of the guidelines in 1963 reached quite similar conclusions with respect to their effect. It also found that more businesses had adopted the guidelines after time for further study than was the case under the Commerce Department study of a year earlier. Finally, the Conference Board survey revealed that there was a great deal of selectivity in guideline adoption. In other words, many companies adopting guidelines did not do so for all their assets, but rather only for those assets whose tax lives under the guidelines were appreciably shorter than under Bulletin F. Thus, only about 29 percent of the companies studied took their depreciation on buildings under the guidelines.

The Commerce Department study found that benefits from the guidelines increased as the size of the company increased. Percentage increases in depreciation deductions were much less for smaller companies (assets under $10 million) than for larger ones. There appear to have been two reasons for this. First, larger firms were using longer lives before the guidelines because their depreciation deductions were audited more closely. Second, smaller companies have found it more difficult to adopt the Procedure because of its complexity and a lack of resources with which to study it. Apparently, many small companies have been

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158 Id. at 3.
159 Id. at 4. Depreciation deductions in the transportation industry increased by 17% as a result of the guidelines; in manufacturing the increase was 14%.
161 Ibid.
162 Id. at 38.
163 Ibid.
164 Bridge, supra note 155, at 5.
165 Ibid.
unable to adopt the guidelines simply because they do not know how and cannot afford competent counsel to show them.\textsuperscript{166}

Although there are no specific published statistics, it appears that the effects of the guidelines have continued. Total capital consumption allowances by corporations have risen steadily by about two billion dollars per year since 1961. In 1961 corporate capital consumption allowances amounted to $26 billion. In 1965 the total was over $36 billion and statistics for the first two quarters of 1966 indicate an annual rate of nearly $39 billion.\textsuperscript{167} Furthermore, in that same period of time corporate after tax profits increased from $27 billion to an annual rate of over $48 billion,\textsuperscript{168} and the total of both capital consumption allowances and after tax profits rose from $53 billion to an annual rate of $87 billion.\textsuperscript{169} It is not unreasonable to infer that at least part of these increases resulted from the guidelines. One commentator has estimated that depreciation deductions in 1965 were approximately $10 billion higher than they would have been in the absence of accelerated depreciation and the guidelines.\textsuperscript{170} It seems safe to assume that a sizeable part of this $10 billion resulted from the shorter tax lives in Revenue Procedure 62-21.

Of the companies which have not adopted the guidelines, the Commerce Study found that about 48 percent of them had failed to do so because it would produce no appreciable tax advantage. Another 33 percent simply stated that management preferred the old procedures.\textsuperscript{171} The remaining non-guideline users gave various reasons such as insufficient time to make a decision, desire to


\textsuperscript{167} President's Council of Economic Advisors, \textit{Economic Indicators}, Aug. 1966, p. 7. The seasonally adjusted annual rate for the second quarter of 1966 was $38.5 billion. \textit{Ibid.}

\textsuperscript{168} \textit{Ibid.}

\textsuperscript{169} \textit{Ibid.}

\textsuperscript{169} This figure is the most significant one in terms of funds available for investment. See \textit{Smith, Federal Tax Reform} 170-71 (1961).

\textsuperscript{170} Terborgh, \textit{The Fading Boom in Corporate Depreciation} 4 (1965).

\textsuperscript{171} Bridge, \textit{supra} note 155, at 6. The meaning of this reply is ambiguous. In some instances it probably meant that management was without adequate knowledge of the Procedure to adopt it. Is should be noted that there is some apparent conflict between the Commerce Department's findings of reasons for non-adoption and those of the National Small Business Association \textit{supra} note 166. The reason for this probably is that the two studies were concerned with different groups of taxpayers.
continue policies established by regulatory agencies, and fear of failing the reserve ratio test.\footnote{Bridge, supra note 155, at 6-7.} From the reasons given for not using guidelines, it appears that most of the large companies which could achieve any appreciable tax advantage from adopting them have done so.\footnote{Lent, supra note 150, at 372.} Furthermore, some firms which have not yet adopted them, may decide to do so later when their deductions are audited, since the choice does not have to be made at the time the tax return is filed.\footnote{See Rev. Proc. 62-21, Question No. 66. Such retroactive adoption by some companies did in fact occur in 1963 after there had been time for further study. Stevenson, supra note 160, at 36. More adoptions have undoubtedly occurred in the intervening years.}

One of the reasons for the liberalized rules was a hope that they would stimulate investment in capital assets. The economic theory behind this is that higher depreciation deductions make investment more attractive in two ways: (1) by shortening the write-off period, the present value of the depreciation deduction is increased, and the rate of return on the investment is thereby enlarged; and (2) the increased deductions result in smaller tax bills and larger after tax income and cash flow.\footnote{Terborgh, Depreciation as an Element in Investment Decisions, in DEPRECIATION AND TAXES 17-18 (Tax Inst. 1959).} Therefore, higher depreciation deductions provide incentives to investment both in the form of an anticipated higher rate of return and in a larger amount of funds available for use in new expenditures.

The increased cash flow aspect appears especially important because of the fact that a depreciation dollar may be worth several dollars of taxable income. The reason for this is that it not only reduces the amount of income subject to tax, but also reduces the amount subject to the demands of shareholders for dividends and of labor for wages. The whole dollar of depreciation is therefore available for investment.\footnote{Ibid.} Since internally generated funds are now the largest source of business investment capital, this increased cash flow is of considerable importance in encouraging investment.\footnote{Meyer & Kuh, THE INVESTMENT DECISION 192 (1957).} One study has even reached the conclusion that cash flow is more important than prospective rate of return in investment decisions.\footnote{Ibid.}
Aside from the economic theories which hold that increased depreciation will lead to more capital investment, there is reason to believe that it is also a psychological incentive. Many businessmen still consider the fact that an asset has a high book value as a deterrent to its replacement. In one study of the views of top management in large companies with regard to depreciation, 50 percent of the firms responding indicated that a high book value for an asset was an obstacle to replacing it. 179 The reasons given for this attitude were that a high book value indicates newness to management, and although engineers know that book value is fairly irrelevant to a decision to replace, it is difficult to communicate with top management in this area. 180 Whatever the reason for this attitude, it does exist, even in large firms whose investment decisions are supposedly made on more sophisticated grounds. Furthermore, if 50 percent of the policy makers in large firms recognize high book value as an obstacle to replacement, it is a reasonable assumption that such an attitude is even more prevalent among the management of small firms. 181

If high book values are an obstacle to replacement, the converse should also be true, i.e., low book values and fully depreciated assets should be a stimulus to investment. Thus, it seems the mere fact that property is depreciated at a faster rate can have the effect of encouraging investment psychologically without regard to economic analysis. 182

The expectation that shorter tax lives would lead to increased investment appears to have been well founded. Outlays by business for plant and equipment, after adjustment for price changes, rose by over 33 percent between 1961 and 1964. 183 Furthermore, this trend has continued. New investment was greater in 1965 than in 1964 by about 16 percent and is expected to be about 17 percent higher in 1966 than it was in 1965. 184 Total expenditures for new

179 Powell, Management Views of Tax Depreciation 31 (Study under auspices of Indiana Graduate School of Business 1962). See also Terborgh, Realistic Depreciation Policy 6 (1954).
180 Powell, op. cit. supra note 179, at 31.
181 Id. at 32.
184 President's Council of Economic Advisors, Economic Indicators, Aug. 1966, p. 9. This figure is unadjusted for price changes. Therefore the "real" increase in investment was somewhat less than the stated percentages.
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Plant and equipment in 1965 totaled nearly $52 billion and are expected to climb to almost $61 billion in 1966. Although not all of the increase in investment (nor probably even the majority of it) resulted from the guidelines, certainly a large part of it did, and there is little doubt that the liberalized depreciation rules have had a stimulative effect on the economy.

Even though they have spurred the economy, however, it does not appear that the guidelines have made a substantial contribution to the current inflation. This seems to have been recognized by the Administration in its anti-inflation proposals. Although a suspension of the investment credit and accelerated depreciation on buildings has been proposed, thus far no move has been made to alter the guideline lives set out in Revenue Procedure 62-21. This is true even though the guidelines would be easiest for the executive branch to change since they were promulgated by administrative fiat in the form of a Revenue Procedure. Perhaps the Administration realizes that the guidelines are a positive help to the economy except under extraordinary conditions, because they encourage needed investment and are not merely an artificial stimulus.

Besides the encouragement of needed investment, the guidelines have also had another effect which appears to have been overlooked by the commentators. For the tax years 1962 through 1964 at least, controversy over depreciation deductions of guideline users has been largely avoided. Moreover, the liberalized rules in Revenue Procedure 65-13 appear to have accomplished this same effect for 1965 and 1966. Since depreciation and its related problems has been one of the most controversial, expensive and time-consuming areas in the audit of returns, this benefit should not be taken lightly. Freedom from the haggling and horsetrading which all too often has characterized depreciation audits in the past may in some cases be nearly as valuable as larger deductions themselves.

185 Ibid.
186 How much of the increase in investment can be laid at the door of the guidelines and how much to other factors such as the investment credit, the rate reductions effected by the Revenue Act of 1964, and the Vietnam War appears to be an unanswerable question. Apparently they all caused it in some way. However, it must be said that the Vietnam War has probably been the major factor in bringing the economy to the overheating point. See Bowen, The Vietnam War: A Cost Accounting, Fortune, April 1966, p. 119, for an excellent analysis of its economic impact.
187 Cf. Powell, op. cit. supra note 179, at 15. A lesser reason for diminished dispute over depreciation has been the enactment of Int. Rev. Code of 1954, § 1245.
One other consideration merits attention. Although the Procedure considerably shortens useful lives and thereby gives larger depreciation deductions, the gains to taxpayers may not be as great as would appear on the surface. The reason for this lies in the interaction between the depreciation allowance and the deduction for maintenance of property. In many cases, depreciation lives have been set on the basis of agreements with the Internal Revenue Service. This is especially true in the case of large taxpayers. One of the factors considered in arriving at these depreciation lives is the taxpayer's treatment of expenditures for maintenance of the property. If the taxpayer has followed a practice of charging most of his maintenance costs to expense, the depreciation life will probably be longer than if he charged some of these costs to the capital account, and vice versa. In many cases where useful lives have been shortened, therefore, the Service may contend that expenditures formerly charged to expense should be capitalized on the ground that they now appreciably prolong the life of the property.¹⁸⁸

B. Criticisms of Revenue Procedure 62-21

Although Revenue Procedure 62-21 brought about substantial improvement over prior depreciation practices, many objections to it have nevertheless been raised. These have revolved chiefly around the reserve ratio test, and many of them have been answered by the guideline form method of applying the test contained in Revenue Procedure 65-13. However, not all the objections have been met and some valid criticisms still remain.

Let us first look at the tabular method of applying the test. The tabular method depends exclusively for its application on the reserve ratio tables contained in Revenue Procedure 62-21. These tables rest on several assumptions of rather doubtful validity: (1) a large number of assets; (2) evenly spaced acquisition and retirement dates; (3) accounts which have been in existence long

¹⁸⁸This is so even though Rev. Proc. 62-21, Question No. 33 explicitly states that the depreciation reform is not intended to affect the classification of expenditures as capital or as expense. An analogous situation occurred following introduction of accelerated depreciation under the 1954 Code. Instances arose where revenue agents apparently would not have made adjustments to useful lives were it not for the fact that the property was being depreciated under one of the accelerated methods. See Cohen, Proposals for Depreciation Reform, in Depreciation and Taxes 209, 218 (Tax Inst. 1959).

https://researchrepository.wvu.edu/wvlr/vol69/iss1/2
enough to reach a substantially depreciated condition;\textsuperscript{189} (4) a steady rate of growth;\textsuperscript{190} and (5) all assets in the account retired at exactly the same age.\textsuperscript{191} With these assumptions as a basis, there are some situations in which the tabular method is clearly inapplicable: (1) green accounts; (2) item accounts; (3) accounts with few assets; (4) accounts with irregular growth and investment patterns; and (5) mortality dispersion accounts.\textsuperscript{192}

A green account is one which has been in existence for a period of time shorter than its class life. In such an account the asset balance is generally growing with few or no replacements and the reserve ratio rises continuously at a constant pace. The Treasury recognized this phenomenon in Revenue Procedure 62-21 by providing that a new taxpayer (or an old taxpayer with a new guideline class) is not required to defend the use of guideline rates during the first life cycle of his accounts by means of the reserve ratio test.\textsuperscript{193} Since there is a fairly high rate of business mortality in this country,\textsuperscript{194} the test is therefore inapplicable in the case of a large percentage of taxpayers.\textsuperscript{195} It is also clear from this rule that the test will generally be of no use in the case of buildings and other long lived assets.

An item account is one which contains only a single asset. In this kind of account the reserve ratio rises from zero to one hundred in a steady pattern. Obviously the reserve ratio test can have no value in this situation. Item accounts are often found in small businesses, and so the reserve ratio test is inapplicable to many assets held by them.

In accounts with few assets the assumptions of the tabular method are likewise violated, since it is unlikely that acquisitions and retirements will be smooth for such an account. In effect,

\textsuperscript{189} Lyon, Depreciation and Taxes Before and After Revenue Procedure 62-21, 71 (1962).
\textsuperscript{190} See Lent, supra note 150, at 376.
\textsuperscript{191} Rev. Proc. 62-21, Question No. 29.
\textsuperscript{192} Lent, supra note 150, at 376-78.
\textsuperscript{194} A Commerce Dept. survey taken in 1955 is the latest official one on the question of business survivorship. It revealed that fewer than 20\% of all business firms reach their tenth birthday and fewer than 30\% reach their fifth. Churchill, Age and Life Expectancy of Business Firms, Survey of Current Bus., Dec. 1955, p. 15, 18.
\textsuperscript{195} Although this group is large in terms of number of taxpayers, it probably is relatively small when taken as a percentage of taxable income and total depreciation deductions.
this situation is an example of the violation of the assumptions which occurs in the case of any account which has an irregular growth and investment pattern. In irregular growth accounts investment is bunched into one or a few years during the class life cycle. When this happens, a firm may go over the limit at certain times, even though in the long run its replacement policy may conform to the class lives it is using. The reverse may also be true. In any year in which the actual rate of growth exceeds the rate of growth computed from the tables, the taxpayer's reserve position according to the tabular method will be improved. Conversely, in years when actual rate of growth falls below the computed figure, a failure may occur even though the taxpayer is conforming his replacement practices to the tax life used.\textsuperscript{196}

The guideline form has corrected the defects of the tabular method in the case of green accounts, accounts with few assets and accounts with irregular investment patterns.\textsuperscript{197} Flaws remain, however, in application of the reserve ratio test to mortality dispersion accounts.\textsuperscript{198}

Mortality dispersion is the term used to denote a situation in which the useful lives of the various individual components of an account differ from the tax life used to depreciate the account as a whole. For instance, if the tax life of an account were ten years, some assets in it might be retired at the end of five years, some at the end of six years and so on. In such a case the last asset in the account might not be retired until it is fifteen or more years old, but because other assets had been retired early, \textit{i.e.}, before they were ten years old, the tax life of ten years would be appropriate for the whole account. Most multiple asset accounts have mortality dispersion in some degree or another; therefore, they could be grouped in the mortality dispersion category.\textsuperscript{199}

\textsuperscript{196}This defect in the test was also recognized explicitly by the Treasury in the Procedure. See Rev. Proc. 62-21, Pt. II, § 5.02 n.12.

\textsuperscript{197}Torghe, \textit{The Reserve Ratio Test, A Palpable Delusion} 10-11 (1965). Apparently, there is no way in which the reserve ratio test can be made meaningful for item accounts. When the guideline form is applied to this type account, the theoretically appropriate reserve ratio always turns out to be the same as the actual reserve ratio. \textit{Id.} at 17.

\textsuperscript{198}\textit{Id.} at 21-24.

\textsuperscript{199}Winfrey, \textit{Statistical Analyses of Industrial Property Retirement}, Iowa Engineering Experiment Station Bulletin 125 (1935) gives typical mortality dispersions for various types of multiple asset accounts. It is cited often by writers on depreciation and is apparently the only empirical study on the subject that has been published.
Both versions of the reserve ratio test make the assumption that there is no mortality dispersion in the account being tested.\footnote{See Rev. Proc. 62-21, Question No. 29.} In the case of the tabular method this assumption helps taxpayers and produces higher permissible ranges than would be the case if the factor of mortality dispersion were taken into account.\footnote{Terborgh, The Reserve Ratio Test, A Palpable Delusion 13 (1965).} However, this is not true in the case of the guideline form method, and its application to mortality dispersion accounts can produce erratic results.\footnote{Ibid. Terborgh demonstrates this fact by means of a series of models based on the Iowa Engineering Station Study cited supra note 199.} Since many mortality dispersion accounts also have characteristics which make the tabular method inappropriate,\footnote{E.g., accounts with irregular investment and growth patterns, accounts with few assets, green accounts.} there are still many situations where on purely technical grounds the reserve ratio test is unsound and arbitrary. Certainly if it cannot be relied upon to give consistently accurate results, its value as a test (which is by definition \textit{normative}) is open to serious doubts.

A second criticism of the reserve ratio test lies in its basic approach to the depreciation problem. It depends essentially on a statistical "look back" analysis similar to the mortality tables used by revenue agents in the early days of T.D. 4422. For example, under the test at the end of one life cycle the tax lives which the taxpayer may use in the future are determined by his retirement and replacement practices of the prior cycle.\footnote{Ture, Tax Reform, Depreciation Problems, Am. Econ. Rev., May 1963, p. 334, 340-41.} Since what has occurred in the past is not determinative of the future, the logic of this approach is difficult to perceive.\footnote{Id. at 341.} Moreover, in an era of rapid technological progress such as we are now experiencing, it is not unlikely that in many cases future asset lives will be totally different from those used in the past.

Another often voiced objection to the test is the complexity involved in applying it. One of the objectives of the guidelines was a simplification of depreciation practices for tax purposes.\footnote{Id. at 334.} One has only to peruse Revenue Procedures 62-21 and 65-13 along with the vast amount of literature on them to realize that this objective has not been wholly accomplished. The rules were
complex to begin with, and it has been necessary to complicate them further in order to correct the technical defects of the Procedure as originally written.

Most of the complexity lies in the application of the reserve ratio test. Adaptation of a system of accounts to the guideline classes can be accomplished without an inordinate expenditure of effort. However, the computations and record keeping required for the reserve ratio test along with application of various special situation rules can become quite involved. In the case of large businesses with adequate resources to employ tax counsel, this hurdle can be overcome. But for many small businesses the sheer complexity of the rules raises an insurmountable obstacle to adoption of the guidelines. One survey has found that 71 percent of small businesses which have not adopted the guidelines failed to do so because of the complexity of the rules.

Even the experts find the reserve ratio test rules abstruse and complicated. Mr. Maurice Peloubet, who has written extensively in the field of depreciation, voiced the objection succinctly in a single sentence while testifying before a Senate Subcommittee: “Nobody but an actuary or a real mathematician can understand this stuff.” Mr. Peloubet is known as an authority on depreciation. If he finds it rather obscure, is it any wonder that the small businessman’s bookkeeper and accountant experience considerable difficulty with it?

If it is true that small taxpayers lack the resources to adopt the guideline depreciation system because of the complexity of the reserve ratio test, a fundamental defect in policy is apparent. The result of such a situation is that large taxpayers, able to employ counsel to study the system and apply it for them, can take ad-

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207 See, e.g., Mills, Depreciation and the Accountant, in Depreciation Policy and the Reserve Ratio Test 24, 28-29 (N.A.M. Symposium 1965). Mr. Mills, a senior partner in Price Waterhouse and Co., feels that the Procedure is not too complicated for most companies.

208 NATIONAL SMALL BUSINESS ASSOCIATION, A SURVEY IN SEARCH OF MORE EFFECTIVE USE OF NEW DEPRECIATION PROCEDURES BY AMERICAN SMALL BUSINESS 3 (1964). A private survey of the National Machine Tool Builders Association conducted last year by the Washington, D.C. law firm of Covington and Burling found that only 35% of the small businesses in that Association had adopted the guidelines. Undoubtedly, a lack of sufficient understanding was responsible for a large part of this failure to adopt.

vantage of the liberalized rules. On the other hand, the smaller taxpayer, unable to obtain such help, must either take his chances with the rules while lacking adequate knowledge, or forego their benefits completely. Admittedly, in a system of self assessment, inequities resulting from taxpayers having different degrees of access to tax advice are practically inevitable. But does this inequality have to be aggravated by the intrusion into an already staggering network of rules and regulations still another complicating factor of doubtful validity and even more questionable utility? If the reserve ratio test were a provision which had seldom application, its complexity might be justified as a refinement of the law. But, as a matter of fact, the test potentially affects every taxpayer who uses depreciable assets to produce income. Surely a provision of such common application should not be so complex that many taxpayers are unable to put it into practice.

Even if all the other objections could be laid aside, the most telling argument against the reserve ratio test would remain. It simply has not worked in practice. At the request of the Treasury, the National Industrial Conference Board undertook a study of what the results would be if the reserve ratio test as originally formulated were applied for 1965, the first year after the three year moratorium for most taxpayers. The findings of this study were quite disturbing. A full 87 percent of the companies in the survey reported that they would fail the basic test in 1965. Of this 87 percent, 67 percent indicated that they would also fail to qualify under the transitional “moving toward” rule. Therefore, about 60 percent of taxpayers who had adopted the guidelines could not qualify under the original reserve ratio test even with the transitional rule set out in Revenue Procedure 62-21.

The Treasury, aware of the harmful effects that an attempt to lengthen the depreciation lives of so large a group of taxpayers would have, took action to forestall this by promulgating the

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210 Sources of Information on Operation of Guideline Procedure, Supplementary Treasury Release, Feb. 19, 1965, p. 6. The results of this survey are also published in the Conference Board Record, July 1965, p. 6; Sept. 1965, p. 17; and March 1966, p. 27.


212 Ibid. The Conference Board estimated that application of the original version of the reserve ratio test in 1965 would have resulted in increased tax liabilities of $650 million for manufacturing corporations. Conference Board Record, March 1966, p. 27, 33.
liberalized rules of Revenue Procedure 65-13. As a result of these new rules about 93 percent of the taxpayers who would otherwise have failed the test in 1965 were able to pass. The problem was thereby postponed but it was not eliminated, for when the transitional rules expire, taxpayers will again face the reserve ratio test and possible lengthening adjustments. This is especially significant in view of the fact that the reserve ratio positions of a sizeable percentage of companies in the Conference Board study actually deteriorated between 1962 and 1965. Thus, hopes that the new transitional rules will enable most taxpayers eventually to pass the test may be overly optimistic. In any event, it is apparent that the test has not worked out as originally envisioned, and because of its various defects, may never do so.

C. A Proposal for Change

It is probably accurate to say that the depreciation problem has not yet been resolved satisfactorily. The guidelines have brought about great benefits, but the confusion and uncertainty engendered by the reserve ratio test has diluted these good effects. Although the test as yet has not been applied in many cases to lengthen

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213 Sources of Information on Operation of Guideline Procedure, Supplementary Treasury Release, Feb. 19, 1965, p. 8. The Treasury estimates that failures under the test would have reduced the 1965 tax benefits under the guidelines (approximately $1.8 billion) by $700 to $900 million. Treasury Liberalizes Depreciation Rules, Treasury Release, Feb. 19, 1965, p. 6. As a result of the liberalized rules only about 5% of guideline users were unable to meet the reserve ratio test in 1965. Ibid.

214 Of course the prospect of widespread lengthening adjustments may not be so unpalatable to the Treasury today as it was in 1965. The Administration may feel that it can at least partially achieve the effect of a tax hike by application of the reserve ratio test and consequent reduction of depreciation deductions. Any additional revenue derived thereby would serve to reduce the amount which might otherwise have to be raised by means of a rate increase. This is reminiscent of the thinking behind T. D. 4422 which ushered in the depreciation problems Rev. Proc. 62-21 was intended to help resolve.


216 One final defect of minor importance should be noted. The test fails adequately to take into account the factor of inflation. It is true that the growth rate tables and the guideline form automatically take inflation of acquisition prices into account. However, neither method of applying the test provides for inflation of salvage prices. This factor is of significance in the case of open-end multiple asset accounts, since most taxpayers who use these follow the practice of crediting the entire proceeds of salvage upon the normal retirement of individual assets to the reserve. See Treas. Reg. § 1.167(a)-8(e)(2). Thus, for these taxpayers inflation of salvage prices will disproportionately increase their reserves and to that extent the test will be inaccurate as applied to them. Where inflation is sufficiently serious (as some observers think it will be in the near future), this defect alone could lead to many taxpayers' failing the test.
tax lives, it will be used with increasing frequency in the future as the benefits of the transition rules expire, unless the present framework is altered. When this occurs, the old time and energy consuming controversies over useful life will be resurrected, as taxpayers, having failed the test, attempt to justify their lives on the basis of the facts and circumstances. If these arguments of taxpayers are not accepted, extensive lengthening adjustments will be made. The situation will then have reverted to a point not greatly superior to that before Revenue Procedure 62-21, with revenue agents and taxpayers haggling and compromising over depreciation deductions, the former basing their arguments on past practices and the latter pointing out the uncertainties of the future.

What measure then should be taken to ameliorate the situation? One possible solution might be for the Treasury to abandon the reserve ratio test by administrative action. However, there are strong arguments against this. For one thing, the depreciation statute as presently interpreted is geared to individualization of depreciation lives to each situation. Therefore, many commentators think that the Treasury has gone as far as possible in liberalizing the depreciation system without running afoul of the statute, and that the reserve ratio test is necessary to maintain some semblance of individualization of tax lives. Moreover, this proposal would not solve the objection to the present system that its basis is entirely too weak for such an important subject as depreciation. The whole guideline system rests on the slender legal basis of a revenue procedure. A revenue procedure is a guide for the use of Internal Revenue Service personnel and technically can be withdrawn at the will of the Commissioner. Furthermore, such a withdrawal can be made retroactively.

218 See, e.g., Stone, Developments Leading up to the New Depreciation Rules, in DEPRECIATION POLICY AND THE RESERVE RATIO TEST 6, 11 (N.A.M. Symposium 1965); Statement of Joel Barlow, in Impact of Current Tax Proposals on Small Business, Hearings Before a Subcommittee of the Senate Select Committee on Small Business, 88th Cong., 1st Sess. 54 (1963); Statement of Maurice Peloubet, in id. at 77.
Although such action by the Commissioner is extremely unlikely in view of the great dependence that has been placed on the guidelines by taxpayers, it does appear that a more substantial legal basis for the guideline system than a revenue procedure is desirable.

The other proposal that has gained considerable support is that the guideline system be incorporated into the Internal Revenue Code but without the reserve ratio test, so that the guidelines could be used by taxpayers as a matter of right.221 This would give the United States a capital cost allowance system similar to the one which has been successful in Canada and would answer the current objection to the guideline system's slender legal basis.

This solution, assuming proper safeguards against abuse were incorporated, appears to be the preferable one. If it were adopted, the depreciation lives which taxpayers could use as of right would be based on industry surveys of the most enlightened firms as the guidelines now are, so that too great a disparity between tax and actual lives would not result. Provision should also be made for taxpayers to use shorter than guideline lives if they can justify them. This would avoid the objection of rigidity that has been raised against the Canadian system.

As a safeguard against taxpayers taking undue advantage, a booking requirement should be made part of any system of statutory guidelines. That is, taxpayers should be required to report the same depreciation for both tax and financial accounting purposes. This would put pressure on large publicly held firms, which have a substantial interest in presenting healthy financial statements, to use reasonable depreciation rates and would act as a deterrent to abuse.222 A booking requirement probably would not have much deterrent effect on smaller businesses whose managements do not have to answer to a shareholder group.223


222 See Powell, Management Views of Tax Depreciation 15 (Study under auspices of Indiana Graduate School of Business 1962). Presumably a C.P.A. would not give an unqualified opinion to a financial statement if the depreciation deductions did not accurately reflect income.

223 Although even in this situation there might be some deterrent effect, if the firm were depending on a showing of a substantial net income on its financial statements as a basis for credit.
but this might not be an undesirable result, since small business is in need of help and higher than deserved depreciation rates for small business would not involve a substantial loss of revenue.\footnote{See Powell, op. cit. supra note 222, at 45-46.}

In addition, a booking requirement would be a positive stimulus to investment by those firms which still use book value as a criterion of when to replace an asset.\footnote{See Smith, Depreciation, Obsolescence, and Depletion, in A Reappraisal of Business Taxation 113, 123 (Tax Inst. 1962). An argument against having a booking requirement is that it might lead to higher prices because of the increased depreciation charges on financial statements. Ibid.}

The principal arguments against the adoption of statutory guidelines have been that: (1) they would result in unfairness among taxpayers, and lead to inefficient allocation of resources in the economy; and (2) they would be a step against individualization of depreciation rates which should not be taken in the absence of more compelling arguments against the reserve ratio test than have heretofore been made.\footnote{See Ture, The Reserve Ratio Test and Tax Depreciation Policy, in Depreciation Policy and the Reserve Ratio Test 63 (N.A.M. Symposium 1965).}

The first argument takes the position that a system of statutory guidelines would lead to inaccurate measurement of taxpayers' incomes, since all would be entitled to use at least the guideline rates. This would give taxpayers who actually keep their assets for longer than the guideline lives an undue benefit, and would accordingly be unfair to others whose retirement and replacement practices were in conformity with their depreciation lives. Hence, the fundamental principle of equity in taxation would be violated.\footnote{Id. at 64-66.}

The other side of this argument appeals to the concept of economic efficiency. It is said that permitting the use of shorter than actual depreciation lives would discourage the most efficient allocation of resources in the economy. Enterprises using large amounts of depreciable assets would attract more capital then they would otherwise, and therefore the market mechanism would be distorted to that extent.\footnote{Ibid.} Thus, the adoption of statutory guidelines, it is argued, would eventually have a positively detrimental effect on the economy.

In addition to these arguments, an appeal to tradition is employed. The United States has always attempted to individualize

\footnotesize{\textsuperscript{224}See Powell, op. cit. supra note 222, at 45-46.}
\footnotesize{\textsuperscript{225}See Smith, Depreciation, Obsolescence, and Depletion, in A Reappraisal of Business Taxation 113, 123 (Tax Inst. 1962). An argument against having a booking requirement is that it might lead to higher prices because of the increased depreciation charges on financial statements. Ibid.}
\footnotesize{\textsuperscript{226}See Ture, The Reserve Ratio Test and Tax Depreciation Policy, in Depreciation Policy and the Reserve Ratio Test 63 (N.A.M. Symposium 1965).}
\footnotesize{\textsuperscript{227}Id. at 64-66.}
\footnotesize{\textsuperscript{228}Ibid.}
depreciation rates in calculating income subject to tax. Why, it may be asked, should we now abandon this concept for a capital cost allowance system, especially in view of the fact that it is not altogether certain that the “bugs” cannot be worked out of the reserve ratio test?229

The fairness and efficiency arguments have some force. No one would deny that these are desirable objectives for a tax law, or that the adoption of guidelines as of right would defeat these objectives to a certain extent. However, this effect might not be as great as appears initially. First, a booking requirement would be a significant deterrent to publicly held firms taking undue advantage of depreciation deductions, and therefore the actual disparity between actual and tax lives in this type firm would not be too great in most cases. Since these firms represent the most significant part of the economy, a booking requirement would probably prevent serious misallocation of resources.230 Secondly, the guideline lives were set only after thorough empirical study by the Treasury of the useful lives in various industries, and therefore are, on the average, about the same as the actual lives of assets being used by most taxpayers. This factor together with a booking requirement should go far to alleviate the inequities and misallocation of resources which might otherwise occur in the absence of attempts at individualization. That this is true appears to be admitted by proponents of the test.231

If serious inefficiency and inequity would not occur under a system of statutory guidelines, proponents of the reserve ratio test must ultimately depend on their tradition argument. This, in effect, says that since we have always attempted to individualize tax depreciation lives, the burden of proof is on those who want to change this policy by a system of statutory guidelines, and they have not carried this burden. This argument overlooks the fact that we are not now in fact attempting to individualize tax lives in the case of taxpayers who have adopted Revenue Procedure 62-21, and have not done so since 1962. The three year moratorium prevented individualization for the years 1962-1964, and Revenue Procedure 65-13 has accomplished that same result for 1965-1966 and the next few years thereafter. Furthermore, even before the

229 Id. at 67.
230 Powell, op. cit. supra note 222, at 45-46.
231 See Ture, supra note 226, at 66-67.
Procedure, the Regulations provided that in the case of taxpayers whose experience is inadequate, the general experience of the industry may be used in setting useful lives until such time as the taxpayer has sufficient experience of his own.232 In view of the high rate of business mortality in this country,233 it is apparent that for any tax year there has always been a large number of taxpayers for whom no effort at individualization has been made.

Since, in fact, we are not now attempting to individualize tax lives in most cases, it would appear that the burden is on the proponents of the reserve ratio test to show that we should go back to the concept of individualization. The Treasury apparently realized this when it took a roundabout method of temporarily avoiding a return to individualization in 1965. The depreciation system has not worked badly since 1962 even though there has been no individualization in the intervening years for guideline adopters. Therefore, the real question seems to be just the reverse of what the proponents of the test say it is. Why should we return to the old concept of individualization when the system we are now using has worked so well?

There are some very good reasons for abandoning the test. First, elimination of the test would also eliminate any problem over its technical flaws, the effect of which no one appears to know for sure. Second, a huge simplification of depreciation procedures would result from abandonment of the complex provisions of the test. This would enable more small taxpayers to adopt the guideline procedures, thereby eliminating the present inequitable situation in which the benefits of the liberalized rules go largely to those who can afford to employ tax counsel to apply them. It would also free resources in both business and Government from the time consuming task of contesting depreciation deductions either by use of the reserve ratio test or on the basis of facts and circumstances. Third, there would be a significant increase in business certainty by assuring a tax life as of right through a statutory provision. Taxpayers would not be subjected to wasteful depreciation controversies such as have occurred in the past as long as they did not seek shorter than guideline lives, and could make investment decisions with more adequate information with regard to cost recovery.

232 Treas. Reg. § 1.167(a)-1(b) (1956).
233 Churchill, supra note 194, at 18.
Such simplification and avoidance of dispute would be especially helpful to smaller businesses which are the objects of a purported Government policy of help. It would be paradoxical if the federal government, which in the past few years has had something for everyone, should find it necessary to continue to burden smaller businesses with the choice of facing the rigors of the reserve ratio test with inadequate knowledge, or giving up the benefits of the guidelines.\textsuperscript{234}

Finally, the most forceful argument is simply that there is very little to be gained by retaining the test. If the Treasury actually begins to apply it, taxpayers will then defend their deductions on the basis of all the facts and circumstances, and the same problems as existed before Revenue Procedure 62-21 will reappear. Depreciation lives will be set by haggling, compromise or sheer desire on the part of the taxpayer to avoid a contest. It is hard to see how this would be an improvement over statutory guidelines in any respect, except for the fact that there might be more work for tax practitioners and employees of the Depreciation, Depletion and Valuation Branch of the Internal Revenue Service.

The proponents of the reserve ratio test apparently take the Platonic attitude that determination of the proper depreciation lives for each taxpayer is an ideal that can be achieved by the use of appropriate methods, and that as truth seekers it is our duty to try to achieve that ideal.\textsuperscript{235} They thus overlook the fundamental indeterminacy of depreciation.\textsuperscript{236} In the natural course of events, there is no way to precisely predict the future. Therefore, it certainly seems futile to expend great amounts of time and effort in an attempt to do so when a reasonable approximation of what will happen is available and will suffice. With the guidelines we

\textsuperscript{234} This line of argument could be applied to the whole tax law. The Government, through Small Business Acts and even through relief provisions in the tax statute itself, purports to encourage the maintenance of the small business segment of the economy, yet, it will not or cannot do one of the things that would help the most: purge the tax law of the excessive complication that has crept into its commonly applied provisions over the years. This brings to mind the remark of John A. Gosnell, General Counsel, National Small Businessmen's Association, before the Tax Institute: "If modern man has demonstrated any outstanding ability, it is the inevitable complication of his collective activities by a staggering load of rules and regulations." \textit{Establishment of Priorities in Depreciation Reform, in Depreciation and Taxes} 226, 227 (Tax Inst. 1962).

\textsuperscript{235} See, e.g., Ture, \textit{supra} note 226, at 66-67.

\textsuperscript{236} See \textit{Grant \& Norton, Depreciation} 365 (1955). "The fundamental indeterminateness of depreciation accounting . . . has not been clearly recognized."
have a prediction of the future event of depreciation which is, on the average, probably as accurate as any that could be devised. Why then should we continue to strive toward the unattainable level of exact prediction? The benefits that might be gained certainly do not appear to outweigh the disadvantages.

Two other points should be noted. First, some proponents of the test feel that it will have a stimulative effect on the economy by encouraging replacement of assets in order to meet the test. However, there is no evidence that investment decisions are or will be made on the basis of achieving a tax deduction. Therefore, there is little reason to retain the test on this ground. A second argument that might be made against statutory guidelines is that they would deprive the executive branch of needed control over the economy by placing depreciation rates in the statute. In answer to this it can be said, first, that it is by no means a settled proposition that such control in the executive is a desirable thing, and secondly, even if it were considered desirable, it could be achieved by enacting a statute which provides guidelines as of right but leaves the decision as to what the lives will be to the discretion of the Treasury. Therefore, this cannot really be considered a reason for retaining the reserve ratio test.

V. CONCLUSION

From what has been said it appears that the reserve ratio test should be abandoned and replaced by a system of statutory guidelines. The new system should contain provisions requiring conformity of book and tax depreciation and should provide for the use of shorter than guideline lives when justified. It should also probably leave discretion in the Treasury to determine prospectively what the guideline lives will be.

This change would result in retaining all the benefits of the present depreciation reform while avoiding the evils. Depreciation disputes would largely be ended and many more taxpayers would be enabled to adopt the guidelines as a result of their simplification by abandonment of the reserve ratio test. Because of the safe-

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guards built into the proposal and the empirical method of determining guideline lives, the inequities and inefficiency that might otherwise result from such a system will be largely avoided.

Since we have in fact been using such a system as a result of the three year moratorium and its effective extension by the transition rules of Revenue Procedure 65-13, and since it has worked well in practice, the logical step is to continue to use it by abandoning the reserve ratio test.