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Distinguishing Deductible Repairs from Capitalized Improvements: An Expectations Approach to the New Repair Regulations

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**DISTINGUISHING DEDUCTIBLE REPAIRS FROM
CAPITALIZED IMPROVEMENTS:
AN EXPECTATIONS APPROACH TO THE NEW REPAIR
REGULATIONS**

George Mundstock and Thomas J. Korge***

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I. INTRODUCTION

The distinction between an immediately deductible repair expense and a capitalized improvement cost always has presented problems for income tax and other income-based accounting regimes. In theory, every asset-related expenditure is associated with an improvement, since even the most minor repair adds value and utility to a property (compared to the property’s condition immediately before the repair). To make sense

of the distinction, a qualitative standard was needed. The new tangible personal property repair regulations¹ articulate that standard—a standard based on a taxpayer's expectations when the taxpayer first acquired the asset. Thus, a capitalized improvement cost is an expenditure associated with an activity that makes an asset more valuable (i.e., relatively more productive) when the expenditure is incurred than the asset was originally expected to be when it was acquired by the taxpayer (taking into account reasonably expected *future* maintenance and repairs).

This Article explores an economic model of the business use of assets that supports an expectations approach to distinguishing between immediately deductible repairs and capitalized improvements. Under an expectations approach, the classification of an activity as a repair or a capital improvement depends on the taxpayer's reasonable expectation when first placing the depreciable property in service—whether, upon acquisition of the property, the taxpayer reasonably expected the activity to be required in the future to keep the property operating in its ordinarily efficient operating condition. Many of the rules provided by the new regulations are consistent with this approach. The inconsistent provisions can present problems.

Section II of this Article provides a background of deductible repairs and capital improvement. After a brief overview of the purpose for distinguishing deductible repairs from capitalized improvements, this Article begins with an introduction to the expectations approach. An economic analysis that provides a basis for an expectations approach follows. In Section III, this underlying economic theory is used to evaluate whether the new regulations fully implement an expectations approach, leave any gaps, or otherwise create inconsistencies. In particular, this Article compares the regulations' application both to an asset that performs as originally expected and to an asset that does not so perform. Section IV concludes.

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1. Treas. Reg. § 1.263(a)-3 (as amended in 2014). The regulations took effect for all tax years beginning on or after January 1, 2014. *Id.* § 1.263(a)-3(r)(1). However, taxpayers may choose to apply the new regulations to tax years beginning on or after January 1, 2012. *Id.* § 1.263(a)-3(r)(2).

II. BACKGROUND

A. Overview: “Matching” Operating Income with Capital Deductions

The income tax employs various methods of accounting to determine when income and deductions will be reported and thus the amount of tax liability and when it must be paid.² In large part, that accounting is an attempt to “match” income and deductions to clearly reflect income.³ In the case of income producing property, for example, the income tax system uses both transactional and non-transactional accounting to tax income from the property. Any gain or loss realized from the acquisition and later disposition of the property is reported on a transactional basis when the transaction closes (normally upon sale of the property). Any profit or loss realized from using the property (i.e., from ongoing operations) is reported on a non-transactional basis during each tax year of operation.⁴

In determining taxable income from operations, a taxpayer should not be able to deduct the entire cost of the property in the year of acquisition where the asset will produce income over multiple years because an immediate deduction would distort taxable income and, by so deferring tax liability, favor that investment over other income producing activities. If all income and deductions were to be perfectly “matched,” the true economic income from the asset could not be measured annually, but only at the end of the entire useable life of the property. However, the government cannot wait until the end of the asset’s life to ascertain and collect tax on the net income. The property’s economic income must be assessed periodically if the government is to be able to collect revenues to finance its operations annually and to

2. See JAMES J. FREELAND ET AL. 547 (17th ed. 2013) (“Identification of the proper taxable year for reporting an item of income or for claiming a deduction can bear importantly on the taxpayer’s tax liability. Obviously, it’s not just a question whether the taxpayer is taxed on an item in year one or year two. Substantive changes in the law, changes in the tax rates, . . . and other financial activities of the taxpayer, including the time value of money, all may bear on the amount of liability if the item falls into one year rather than another.”).

3. *But cf.* STEPHEN F. GERTZMAN, FEDERAL TAX ACCOUNTING ¶ 4.04[1][b], at 4-81 (Student ed. 2010) (“The matching principle is certainly relevant in testing whether a particular method clearly reflects income for tax purposes, but matching is not of itself the determinative test for finding a fixed liability or for permitting a deduction.”).

4. See George Mundstock, *Taxation of Business Intangible Capital*, 135 U. PA. L. REV. 1179, 1220 (1987) (“This basic regime appears to be the most workable way to structure a tax on business net income, as it provides the flexibility to deal with three types of uncertainty: (i) uncertainties in valuing assets, (ii) uncertainties in accounting for certain types of transactions, and (iii) uncertainties in accounting for tax-significant future expectations.”).

receive the correct present value of the tax revenues (taking into account the time value of money).⁵

For these reasons, the cost of income producing property is deductible not under the taxpayer's overall method of accounting, but under methods of depreciation prescribed by the Tax Code and Treasury Regulations. Depreciation provides a rational, uniform system to apportion the cost of income producing property over multiple tax periods that, at least in theory, approximates the economic cost incurred for the property during the taxable periods when the income is produced and the tax is to be paid.⁶ To this end, the income tax has always required taxpayers to depreciate the cost of income producing property over its useful life (or some other specified period of presumed usefulness). And the starting point for depreciation is the cost to be so apportioned.

Unfortunately, the real world is not quite so simple. The original cost of depreciable property may be readily identified by reference to the price paid for the asset or, in the case of an asset built by the taxpayer, by adding up the taxpayer's construction costs.⁷ But what about subsequent costs of improvements, maintenance, and repairs? All those costs are, economically, capital costs of the depreciable property even though incurred after (sometimes years after) the property has been placed in service. Historically, maintenance and repair costs have been deductible as incurred, while taxpayers must capitalize and depreciate the cost of an improvement. As discussed below, arising out of a need to simplify accounting without unduly distorting net income and hence distorting economic investment decisions, the distinction between immediately deductible maintenance and repair expenses and a

5. Indeed, lifetime net income cannot be accurately (or practically) measured, present valued, and taxed when the asset is first placed in service since, among other things, projected future income may never be fully realized or may be underestimated.

6. Of course, theory and reality rarely meet in the tax laws. Thus, the Modified Accelerated Cost Recovery System (MACRS) and its predecessors, ACRS and the ADR system, generally provide for more generous depreciation over shorter amortization periods. This was done in part in order to encourage businesses to invest in productive assets. *See* STAFF OF J. COMM. ON TAXATION, GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1986, 99TH CONG. 98-99 (Comm. Print 1987); STAFF OF J. COMM. ON TAXATION, GENERAL EXPLANATION OF THE ECONOMIC RECOVERY TAX ACT OF 1981, 97TH CONG. 75 (Comm. Print 1982) ("The Congress concluded that prior law rules for determining depreciation allowances and the investment tax credit needed to be replaced because they did not provide the investment stimulus that was felt to be essential for economic expansion.").

7. *See* I.R.C. § 263A (2012); *see also* *Comm'r v. Idaho Power Co.*, 418 U.S. 1, 12-14 (1974) (depreciation on construction equipment must be capitalized as part of the cost of the constructed property).

capitalized improvement cost is largely grounded on the taxpayer's reasonable expectations for the asset when first placed in service.

B. Historical Background: An Expectations Approach

This Article's expectations approach can trace its origin to the repair allowance rules available under pre-1981 depreciation.⁸ Under pre-1981 law, a taxpayer generally was required to independently determine the useful (that is, depreciable) life of the taxpayer's property.⁹ The regulations also provided that a taxpayer could instead use useful lives of specific classes of depreciable property within ranges published by Treasury.¹⁰ (These ranges formed the basis for the class life system in current section 168.¹¹) This elective system was referred to as the Asset Depreciation Range (ADR) system.¹² Treasury based its ADR class lives on assumed maintenance schedules.

Taxpayers adopting ADR also were allowed to elect Treasury's associated maintenance schedules (repair allowances). Expenditures in a given year related to an asset as to which the taxpayer had elected to use ADR were immediately deductible in an amount up to the applicable annual repair allowance, with excess expenditures capitalized and depreciated.¹³ These repair allowance rules allowed a deduction only for expected amounts—the amounts on which the Treasury based the ADR depreciable lives ranges. This Article's expectations approach for distinguishing repairs from improvements is the basic principle behind the ADR repair allowances writ large.¹⁴

8. Treas. Reg. § 1.167(a)-11 (as amended in 1995).

9. I.R.C. § 167(a) (2012).

10. Treas. Reg. § 1.167(a)-11.

11. I.R.C. § 168(i)(1) (2012).

12. For an excellent summary of the historical background of depreciation, including the ADR system, see BORIS I. BITTKER & LAWRENCE LOKKEN, 1 FEDERAL TAXATION OF INCOME, ESTATES AND GIFTS ¶ 23.1.1 (Thomson Reuters 2015).

13. Treas. Reg. § 1.167(a)-11(d)(2).

14. Treasury considered and finally rejected providing a repair allowance mechanism in the new regulations. The original 2006 proposed regulations contained detailed repair allowance rules. Prop. Treas. Reg. § 263(a), 71 Fed. Reg. 48590, 48603-04, 48620-23 (Aug. 21, 2006). Regulations proposed in 2008 and the 2011 temporary regulations authorized Treasury to publish future industry-specific repair allowances. Prop. Treas. Reg. § 263(a), 76 Fed. Reg. 81060, 81125 (Dec. 27, 2011); Prop. Treas. Reg. § 263(a), 73 Fed. Reg. 12838, 12847, 12866-67 (Mar. 10, 2008). The final regulations contain no such rule. Presumably, Treasury was unwilling to commit to the considerable additional work that would be required to establish repair allowances.

Nevertheless, the regulations do provide a rule that resembles a repair allowance for qualifying (small) taxpayers, a safe harbor rule with respect to a building: In any given year, a taxpayer (with less than \$10 million of average gross receipts) can deduct as repairs with respect to a building an

C. *New Repair Regulations: The Basic Expectations Approach*

A broad expression of an expectations approach is contained in the new repair regulations' key rule, the definition of immediately deductible "routine maintenance" (the expenditures for which are currently deductible):¹⁵

*Routine maintenance for property other than buildings is the recurring activities that a taxpayer **expects** to perform as a result of the taxpayer's use of the unit of property to keep the unit of property in its ordinarily efficient operating condition. Routine maintenance activities include, for example, the inspection, cleaning, and testing of the unit of property, and the replacement of damaged or worn parts of the unit of property with comparable and commercially available replacement parts. Routine maintenance may be performed any time during the **useful life** of the unit of property. However, the activities are routine only if, at the time the unit of property is placed in service by the taxpayer, the taxpayer **reasonably expects** to perform the activities more than once during the class life . . . of the unit of property. [In the case of buildings, the activities must be expected more than once during the first 10 years.] A taxpayer's **expectation** will not be deemed unreasonable merely because the taxpayer does not actually perform the maintenance a second time during the class life of the unit of property, provided that the taxpayer can otherwise substantiate that **its expectation was reasonable at the time the property was placed in service**. Factors to be considered in determining whether maintenance is routine and *whether the taxpayer's expectation is reasonable* include the recurring nature of the activity, industry practice, manufacturers' recommendations, and the taxpayer's experience with similar or identical property. . . .*¹⁶

amount of up to the lesser of (i) 2% of the cost basis of the property or (ii) \$10,000. Treas. Reg. § 1.263(a)-3(h) (as amended in 2014). A true *de minimis* rule, this safe harbor repair allowance uses an absolute dollar amount as a ceiling. Discussed later in this article, the regulations' betterment and restoration rules use only relative amounts and therefore are not truly *de minimis* rules.

15. This article uses the term "incurred" to include amounts paid by cash basis taxpayers. Apparently for drafting convenience, the regulations use the term "paid" instead of "paid or incurred" and then define the term "paid" to include amounts incurred by accrual-basis taxpayers for which economic performance also has occurred. See Treas. Reg. § 1.263(a)-3(b)(1). The regulations' use of "paid" apparently began in the intangibles capitalization regulations and may have been chosen to imply that, for accrual-basis taxpayers, the economic performance requirement applies before the 12-month rule can allow a deduction. See Treas. Reg. § 1.263(a)-4(f)(6) (2004).

16. Treas. Reg. § 1.263(a)-3(i)(1)(ii) (emphasis added). The italics were added to highlight the expectations approach driving the regulatory analysis and to emphasize that expected maintenance occurs during the actual useful life of the asset, not only during the usually shorter class life or the almost always shorter current-law depreciation periods. Expenditures incurred after

Thus, the taxpayer's "reasonable expectations" when the asset was placed in service controls whether a later expenditure with respect to the property is potentially currently deductible as a routine maintenance expense rather than capitalized as an improvement cost.

D. The Economic Theory of Repair Expenses

An economic analysis of the business use of an asset supports the routine maintenance rule's expectations approach.¹⁷ An example helps illustrate the theory: A business buys a machine that is 10-year property under current law for \$1,000. In order to get the most value from the machine, \$75 of maintenance a year will be required. This maintenance policy will particularly benefit the business later in the life of the machine. In other words, maintenance during the early years creates future value. For example, frequent (recommended) oil changes for an automobile do not immediately make the car run much better, but can considerably extend its useful life (or at a minimum, prevent its premature demise). Accounting that fully captures this economics looks at the effect of the repair and maintenance policy on the cash flow of the asset over its entire life and does not account for each repair or maintenance activity in isolation. The cost of each repair or maintenance activity is not an operating expense, but an additional investment in the asset itself. The \$579 present value cost of the \$75-a-year maintenance policy¹⁸ should be treated as an additional cost of the machine. Under an economically "pure" accounting, the total dollar cost of the machine, \$1,579 (the \$1,000 purchase price plus the \$579 present-valued cost of the repair-and-maintenance-policy "asset"), would be depreciated based on the expected future cash flow of the asset taking into account the repair and maintenance policy. Also, an implicit 5% interest cost to reflect the business' assumed cost of debt on the \$579 present-valued maintenance cost (starting at \$29 in the first year and declining to \$4 in the last year) would be deductible during the depreciable life of the asset.¹⁹

the class life to restore an asset to a like-new condition are capital, however. *See infra* text accompanying note 84.

17. This Article looks exclusively at expenditures associated with tangible assets. For a discussion of similar issues related with intangible value, see Mundstock, *supra* note 4.

18. Assuming a 5% annual discount rate to reflect the business' cost of debt, a total of \$750 in maintenance costs incurred at \$75 per year for 10 years would have a present value of about \$579.

19. In this theoretical economic analysis, the taxpayer incurs the \$579 present-valued maintenance cost when the unit of property is acquired even though the maintenance will actually

Of course, current tax law does not follow economic depreciation. Nevertheless, it is helpful to compare (i) the deductions attributable to repair and maintenance under this economically “pure” theoretical approach (but otherwise using current-law, not economic, depreciation) with (ii) the \$75 per year repair and maintenance deductions allowable under current law:

Year	Current Law ²⁰	Capitalization ²¹
1	\$0	\$72.5
2	75	132
3	75	108.5
4	75	90
5	75	73.5
6	75	60.5
7	75	52.5
8	75	49.5
9	75	46.5
10	75	43.5
11	75	19

Deducting the repairs as incurred is actually slower than using the abstract approach and current law’s accelerated depreciation.²² In fact, as already noted, the real benefits of the repair and maintenance policy likely are realized toward the end of the asset’s life. But, the accelerated deduction of the repair “asset” in the right-hand column’s capitalization

be performed later during the useful life of the property. Economically, therefore, the taxpayer has acquired a \$579 present-valued maintenance “asset.” In addition to a depreciation expense for that additional “asset,” the time value of the hypothetical, present-valued cost of that “asset” must also be considered. For that reason, the analysis must include an additional annual interest expense as if the taxpayer had borrowed (or invested the taxpayer’s own capital) to acquire the maintenance “asset.” Again, the 5% interest rate is assumed for purposes of illustration and would vary depending on the taxpayer’s particular circumstances.

20. The table assumes that maintenance occurs on each annual anniversary of the machine having been placed in service. Also, although the machine likely will be useful and benefit from maintenance after the end of its 10-year depreciable life, the example reflects only the costs of maintenance during the first 10 years of use.

21. For simplicity, it is assumed that the machine is purchased and placed in service in the middle of the year (so that, among other things, the half-year convention applies) and that a half year of interest is half of a full year’s interest. Currently lapsed bonus depreciation is ignored. *See* I.R.C. § 168(k) (2012 & Supp. 2014).

22. Of course, treating each expenditure as related to a new asset would result in slower deductions.

model is attributable to current law's very-accelerated depreciation, not to any defect in the model.²³ This noise notwithstanding, the example shows that deducting expected repairs and maintenance as incurred should be an acceptable proxy for the more theoretically pure, but extremely hard to implement, rule.

With this example in mind, the abstract underpinnings of an expectations approach can be better understood. Expenditures are capitalized and not immediately deductible when they are associated with an additional investment.²⁴ The repair versus improvement distinction, therefore, is a determination of whether the expenditure relates to an *additional* investment. To determine whether the expenditure constitutes an *additional* investment, it is helpful to look at a business asset fairly abstractly. In modern finance theory, an asset is viewed as a stream of future cash flow.²⁵ This cash flow can be future revenue, future cost savings, or a combination of the two.²⁶ The value of an asset is the present value of this *expected* future cash flow (which cash flow is measured net of any *expected* future repair and maintenance costs).²⁷ Of course, the gross future cash flow increases by incurring more repair and maintenance expenditures. Conversely, less repair and maintenance would result in less future gross cash flow. In pricing an asset, an efficient market reflects an optimal repair and maintenance policy that results in the highest overall net present value of the future cash flow (also measured net of any expected future repair and maintenance costs).²⁸

Applying this analysis completely, the real total cost of an asset includes both the purchase price and the present value of the practical economic liability to incur future costs for an optimal repair and maintenance policy.²⁹ (The practical liability is not a legal liability of the

23. Also, the comparison in the example does not fully capture the analysis. The effect of a repair policy should be compared to the effect of an alternative policy with fewer (or even no) repairs. The extra repair costs under a prudent repair policy would be amortized based on the difference in costs between a prudent policy and fewer or no repairs. Importantly, the extra repairs would increase and extend the useful (and hence depreciable) life of the asset. So, while more overall costs are deducted with a prudent repair policy, the extra deductions might well be later in the asset's life because of deferring economic depreciation. As a consequence, the economic depreciation of the extra repairs (treated as a hypothetical separate asset) likely is quite slow.

24. *See generally* *INDOPCO, Inc. v. Comm'r*, 503 U.S. 79 (1992).

25. RICHARD BREALEY ET AL., *PRINCIPLES OF CORPORATE FINANCE* 130-31 (11th ed. 2014).

26. *Id.*

27. *Id.* at 144-48.

28. *Id.*

29. *See supra* note 19.

asset owner, but costs to be incurred by the owner to continue using the asset—analogue to, say, a nonrecourse legal obligation.) Like any debt payments,³⁰ the payments on this repair and maintenance liability (i.e., the repair and maintenance costs themselves) would thus be nondeductible. But, the abstract asset (the present value of the extra future gross cash flow resulting from the optimal repair and maintenance policy) associated with the liability would be depreciated. Also, the implicit interest on the liability would be deductible as it accrues. Under this approach, current law's deduction for repairs can be viewed as a proxy for (i) depreciating the extra asset created by optimal maintenance and (ii) deducting the implicit interest on the repair and maintenance liability.³¹

III. ANALYSIS

A. *The Regulations Use an Expectations Test*

In the new regulations, the two primary exceptions to the expectations-based routine maintenance rule quoted above³² are the

30. Technically, this is true only for accrual-basis taxpayers. For simplicity, a cash-basis taxpayer deducts accrued interest (but not principal) when paid. *See* Treas. Reg. §§ 1.446-2(e)(1) (1994), 1.461-1(a) (as amended in 1999).

31. This Article's approach to repairs resembles proposed financial accounting rules for leases currently under joint consideration by the Financial Accounting Standards Board and the International Accounting Standards Board. Under these rules, in many cases, at the beginning of a lease the lessee is treated as having a liability to pay future rent and a corresponding amortizing right-of-use asset. FINANCIAL ACCOUNTING STANDARDS BOARD, FIN. ACCOUNTING FOUND., PROPOSED ACCOUNTING STANDARDS UPDATE (REVISED): LEASES (TOPIC 842) 56 (2013). By capturing the economics of the entire lease, rather than looking at each rent payment in isolation, better accounting is achieved. George Mundstock, *The Tax Import of the FASB/IASB Proposal on Lease Accounting*, 32 VA. TAX REV. 461, 462-68 (2013). To take this analogy further, current tax law's immediate deduction of recurring maintenance is a proxy for better accounting for the expected repair and maintenance practice in the same way that current tax law's respect for level rent in a long-term lease is a proxy for more accurate accounting. *See, e.g., id.* at 462-68; Treas. Reg. §§ 1.461-4(d)(3)(i) (as amended in 2004), 1.467-1(c) (as amended in 2001).

This article's approach also resembles somewhat current tax law's rules for deducting costs associated with decommissioning a nuclear power plant. Under federal law, the operator of a nuclear power plant has clean-up obligations when the plant is decommissioned. While these costs will be paid in the future, they really are costs of power production over the life of the plant. Current law allows a deduction as qualified deposits are made into a decommissioning fund. I.R.C. § 468A (2012). A repair policy is somewhat comparable to the owner's responsibility upon decommissioning a nuclear plant. Interestingly, regulatory accounting treats nuclear decommissioning as a liability and the associated right to operate the plant as an amortizing asset, which accounting is very similar to that suggested in this article for a repair and maintenance policy.

32. *See supra* text accompanying note 16.

betterment and restoration rules.³³ The betterment and restoration rules are discussed more fully in the next two sections of this Article.³⁴ In order to focus on the betterment rule, assume that, over the life of an acquired asset, things turn out as expected (in terms of the cash flow from the asset under the original repair and maintenance policy). Under this assumption, only repair and maintenance expenditures expected when the taxpayer acquired the asset should be deductible. Deducting these expected expenditures when incurred is an acceptable (indeed preferred) proxy for the more complicated, abstract tax accounting for these expenditures that was suggested above.³⁵ Capitalizing and depreciating these expected expenditures as incurred likely is a less accurate proxy (under current law's fresh-start approach to depreciating improvements³⁶) and is certainly much more burdensome. But, repair and maintenance costs in excess of those originally expected are not in this picture. These expenditures are associated with new value (i.e., new future cash flow) and should be (i) capitalized and then (ii) depreciated, if appropriate, as that cash flow is realized.³⁷ Note that this theoretical analysis also applies with respect to land, with the extra value added by expected maintenance potentially depreciable.³⁸

33. Treas. Reg. § 1.263(a)-3(i)(3) (as amended in 2014).

34. This organization is designed to simplify discussion by looking at the betterment and restoration rules separately. Unfortunately, as is noted throughout this article, they can interact in confusing ways.

35. This is particularly the case given that current law's depreciation bears little resemblance to economic depreciation.

36. An improvement is depreciated over a long (new) life rather than over the (shorter) remaining life of the improved assets. See I.R.C. § 168(i)(6) (2012).

37. This Article dodges the issue of how the capitalized expenditures should be depreciated. See BITTKER & LOKKEN, *supra* note 12, ¶ 23.1.4 (discussing economic depreciation).

38. Land, per se, does not depreciate. Treas. Reg. § 1.167(a)-2 (1960). Capitalized expenditures on work associated with land can be depreciated, however. For example, the land work to create modern greens on a golf course is depreciable. Rev. Rul. 2001-60, 2001-51 C.B. 587. Moreover, Congress has provided special depreciation for some land-related expenditures, such as soil and water conservation expenditures and fertilizer expenditures. I.R.C §§ 175, 180 (2012).

As a matter of theory, no depreciation for land is a fairly subtle point. When land is purchased, much of the cost is attributable to revenue expected fairly soon. One might think that such amounts should be depreciated so as to be matched with the associated revenue. Cf. BITTKER & LOKKEN, *supra* note 12, § 23.1.4 (“In making this estimate [of a property's decline in value], it is helpful to think of the value of a business or investment asset as the present value of the net cash flows expected to be generated by the asset over its productive life. An asset held solely for business or investment use has no value apart from its potential to produce income for the owner. Its value is thus the price that would be paid for this income stream; because the income will not be received all at once, it must be reduced to present value.”). But, as time passes, something else happens. The present value of future revenue increases; unlike personal property, land is generally expected to continue producing revenues indefinitely since the land itself does not “wear out.” Therefore, the

As quoted above,³⁹ the language of the new routine maintenance rule expressly adopts an expectations approach. Before turning to the betterment and restoration rules, it is helpful to look at the routine maintenance rule in more detail. The requirement in the quoted language that a routine-maintenance expenditure must be recurring—that is, to be immediately deductible as incurred, an expenditure must be expected more than once in the asset’s useful life (or, with buildings, more than once in the first 10 years)—illustrates a key aspect of an expectations approach: Immediate deductibility is appropriate for expected amounts only when the deduction is an acceptable proxy for more accurate accounting (depreciation and deduction for implicit interest). Immediate deductibility, however, is not an acceptable proxy for “lumpy” expenditures. Presumably, Treasury adopted the betterment rule (discussed below) to address this issue.

This aspect of an expectations approach also is illustrated by the routine maintenance safe harbor provision, quoted above,⁴⁰ that to be deductible as incurred, an expected repair expenditure must be incurred because of use by the taxpayer (not because of use by a prior owner). For example, if a used machine needed its scheduled maintenance when acquired, that maintenance by the new owner is a capital improvement cost to be depreciated by the new owner⁴¹ even though subsequent scheduled maintenance by the new owner would be expensed as incurred in the future.⁴² Consistent with the new owner’s expectation upon acquisition, depreciation of the scheduled maintenance cost incurred upon acquisition by the new owner is much more accurate than expensing at that time. Certainly, the purchase price paid by the new owner for the used machine reflects a discount for the expected cost of any then-scheduled maintenance. If the seller instead had agreed to perform the scheduled maintenance immediately before the sale, the seller would have included the additional maintenance cost in the sale price. In either case, the new owner should capitalize the maintenance cost as part of the total acquisition cost of the used machine, consistent

no-depreciation result for land basically taxes this otherwise unrealized appreciation as it accrues economically. *See generally* George Mundstock, *Eleventh Circuit Affirms Accelerated Depreciation of Land?*, 47 TAX NOTES 737 (1990); *cf.* I.R.C. § 611(a) (2012) (providing an allowance for the depletion of mines, oil and gas wells, and other natural deposits as the land is physically and thus economically depleted of its income-producing resource).

39. *See supra* text accompanying note 16.

40. *See supra* text accompanying note 16.

41. Treas. Reg. § 1.263(a)-3(i)(6) ex. 4 (as amended in 2014).

42. *Id.* at ex. 5.

with the new owner's expectation at the time of purchase.⁴³

An expectations approach also is reflected in the new rule for adaptations:

A taxpayer must capitalize as an improvement an amount paid to adapt a unit of property to a new or different use. In general, an amount is paid to adapt a unit of property to a new or different use if the adaptation is not consistent with the taxpayer's ordinary use of the unit of property at the time originally placed in service by the taxpayer.⁴⁴

Again, asset-related expenditures incurred in activities that are inconsistent with the taxpayer's expectations when the taxpayer first placed the asset in service must be capitalized.⁴⁵

B. The Betterment Rule: A Departure from Expectations

Unfortunately, the new regulations depart from an expectations approach in their "betterment" rule. Routine maintenance is not immediately deductible if it is part of a betterment project.⁴⁶ The betterment rule reflects the approach of the old regulations. One suspects that some at Treasury became nervous relying solely on an expectations approach. The old regulations⁴⁷ contained no qualitative benchmark for an improvement. Rather, they used a vague, relative quantitative test. An improvement was a repair that made an asset "materially" better in some way.⁴⁸ Accordingly, the new betterment rule provides:

A taxpayer must capitalize as an improvement an amount paid for a betterment to a unit of property. An amount is paid for a betterment to a unit of property only if it—

- (i) Ameliorates a material condition or defect that either existed prior to the taxpayer's acquisition of the unit of property or

43. Also consistent with the expectations approach, the regulations do not require a proration of the initial maintenance cost incurred by the new owner where the used property is purchased midway between scheduled maintenances. *See id.* Again, at the time of purchase, the new owner did not expect to incur the subsequently scheduled maintenance cost as an additional cost of the purchase itself.

44. *Id.* § 1.263(a)-3(l)(1).

45. The regulations' examples that discuss what qualifies as a new, unexpected use seem a bit formalistic, if not incongruous. To illustrate, adapting a drug store to also provide limited clinical services is an unexpected and thus new use (so that associated expenditures are capital), while adopting a hospital emergency area to also provide outpatient surgery services is not an unexpected use (so that associated expenditures are immediately deductible). *Id.* § 1.263(a)-3(l)(3) exs. 5, 7.

46. *Id.* § 1.263(a)-3(i)(3)(i).

47. Treas. Reg. § 1.162-4 (1960).

48. *Id.*

arose during the production of the unit of property, whether or not the taxpayer was aware of the condition or defect at the time of acquisition or production;

- (ii) Is for a material addition, including a physical enlargement, expansion, extension, or addition of a major component . . . to the unit of property or a material increase in the capacity, including additional cubic or linear space, of the unit of property; or
- (iii) Is reasonably expected to materially increase the productivity, efficiency, strength, quality, or output of the unit of property.⁴⁹

If not limited to “material” items, the betterment rule would effectively write the expensing of routine maintenance costs out of the regulations. Nevertheless, the betterment rule is an unfortunate modification of the expectations approach.

The rule in subparagraph (i) was not provided by the old regulations and, except for the materiality floor, is generally consistent with an expectations approach. Like a scheduled maintenance paid for a used asset by the new owner at the time of asset purchase,⁵⁰ expensing the repair of a pre-existing defect would not be an acceptable proxy for a more accurate depreciation accounting. Also, a repair deduction for a hidden pre-existing condition could be viewed, in effect, as the deduction of an unrealized loss, which would be unacceptable. This concern is discussed further below.⁵¹

Subparagraph (i) does not capitalize amounts unless they ameliorate a “material” condition or defect.⁵² The regulations fail to define the term “material.” This is troubling. Moreover, the test is relative. So, with expensive properties, say a massive factory, a *relative* materiality floor on capitalization can result in large deductions for expenditures that are more properly viewed as capital. Of course, *de minimis* rules have their place in tax law. But, the *relative* materiality floor in the betterment rule works poorly as a *de minimis* rule.

Worse, the materiality floor can result in seemingly inconsistent treatment. Replacing a gas station’s underground storage tanks discovered to be leaking a year after purchase is capital,⁵³ but removing

49. Treas. Reg. § 1.263(a)-3(j)(1).

50. See *supra* text accompanying notes 41-43.

51. See *infra* text accompanying note 81.

52. Treas. Reg. § 1.263(a)-3(j)(1)(i).

53. *Id.* § 1.263(a)-3(j)(3) ex. 1.

and replacing an office building's asbestos insulation that deteriorates several years after purchase is not.⁵⁴ The gas station owner incurred the costs to ameliorate a material condition or defect that existed before acquisition of the land, while the building insulation deteriorated years after acquisition and its removal and replacement do not materially add to or increase the capacity of the building or otherwise increase its productivity, efficiency, strength, quality, or output.⁵⁵ The installation of concrete lining to stop oil from seeping through the concrete walls of a meat processing plant is also immediately deductible, since the taxpayer discovered the defect years after the plant had been operating and the repair does not materially add to or increase the capacity of the building or otherwise increase its productivity, efficiency, strength, quality, or output.⁵⁶

There is another problem with these relative quantitative tests: They require a determination of the unit of property to use as the reference for deciding whether the expenditure is material. This aspect of the regulations received particular attention from taxpayers while the regulations were being developed.⁵⁷

Subparagraphs (ii) and (iii) of the betterment rule are basically the old regulations.⁵⁸ As to Subparagraph (ii), the taxpayer would have been expected to install a "material" physical addition when the property was acquired, which is consistent with an expectations approach. But, treating an increase in "capacity" as an improvement can require capitalization in cases where expensing would be allowed under a pure expectations approach.⁵⁹ Conversely, activities that make an asset better

54. *Id.* at ex. 2.

55. The distinction between the gas station and office building is subtle at best. A leaking storage tank is a *pre-existing defect* because it was first installed without any leaks. By contrast, the health hazards of asbestos insulation were unknown when first installed and the actual defect (*viz.* the *deterioration* of the insulation) was not *pre-existing*, but occurred years after the taxpayer acquired the office building.

56. Treas. Reg. § 1.263(a)-3(j)(3) ex. 12. Materiality apparently is tested in physical terms and not in terms of utility, which is misguided. *See also* Midland Empire Packing Co. v. Comm'r, 14 T.C. 635, 642-43 (1950) (under the same facts as ex. 12, the Tax Court upheld the taxpayer's deduction of cost of the lining as an ordinary and necessary repair expense under section 162(a)).

57. Prop. Treas. Reg. § 263(a), 78 Fed. Reg. 57686, 57692-93 (Sept. 19, 2013) [hereinafter 2013 Treasury Decision].

58. *See* Treas. Reg. § 1.162-4 (1960).

59. *See and compare* Treas. Reg. § 1.263(a)-3(j)(3) ex. 16 (dredging of a ship channel to restore the depth lost to siltation is not a material increase in capacity and thus is currently deductible), *with id.* at ex. 17 (dredging of a ship channel not only to restore, but also to increase the depth lost to siltation is a material increase in capacity and *no portion* of the work is currently deductible).

than was expected are not capital if not material.⁶⁰

Subparagraph (iii) of the betterment definition, if applied immediately prior to the asset's condition before the repair, would be completely inconsistent with an expectations approach. Fixing a flat tire on a car effects a massive improvement in the quality and output of the car as compared to the car's condition immediately before fixing the flat, but should not be treated as an improvement; it could be treated as an improvement under subparagraph (iii) if the regulations did not further state:

If the expenditure is made to correct the effects of normal wear and tear to the unit of property that occurred during the taxpayer's use of the unit of property, the condition of the property immediately prior to the circumstances necessitating the expenditure is the condition of the property after the last time the taxpayer corrected the effects of normal wear and tear (whether the amounts paid were for maintenance or improvements) or, if the taxpayer has not previously corrected the effects of normal wear and tear, the condition of the property when placed in service by the taxpayer.⁶¹

With this wordy gloss, subparagraph (iii) gets much closer to an expectations approach.

As to activities other than correcting normal wear and tear, the regulations' betterment examples make clear that subparagraph (iii) implements a relative quantitative test and so requires incongruous outcomes: Two examples conclude that a store "refresh" is not an improvement,⁶² but a "remodel" is.⁶³ The distinction between a refresh and a remodel seems to depend primarily upon how much physical work is done to the building. The examples state that the outcomes are based on the "facts and circumstances," with an emphasis on whether and how much the work increases capacity. Thus, work that increases a building's energy efficiency by 10% is an immediate expense,⁶⁴ while work that increases energy efficiency by 50% is capital.⁶⁵ Notably, although an expectations test generally benefits taxpayers, in all of these cases where the regulations allow an immediate deduction because the work is not

60. *See id.* at ex. 4 (taxpayer is not required to capitalize as a betterment the amount paid to inspect, retune, and replace minor components of an ice resurfacing machine one week after purchase to comply with local air quality regulations).

61. *Id.* § 1.263(a)-3(j)(2)(iv)(B).

62. *Id.* § 1.263(a)-3(j)(3) ex. 6.

63. *Id.* at ex. 8.

64. *Id.* at ex. 20.

65. *Id.* at ex. 21.

material, an expectations test would require capitalization.

An interesting question is whether the “plan of rehabilitation doctrine,” a somewhat limited version of which is adopted in the new regulations,⁶⁶ is consistent with an expectations approach. Under this judicially created rule, otherwise deductible repairs are not deductible if incurred as part of a larger improvement project.⁶⁷ Formally, the taxpayer incurs these expenditures in the course of a capital activity so that they do not seem like a current expense. But, under the expectations approach, repair expenditures are deductible as incurred not because the repairs themselves are not capital, but as a proxy for very complicated depreciation and interest imputation. Where should repairs undertaken during an improvement project fit into the proxy? The case law could be read to require capitalization for repairs merely because the repairs were undertaken at the same time as an improvement.⁶⁸ The new regulations limit capitalization to repairs that directly benefit or are incurred by reason of the improvement, which seems fairly limited.⁶⁹ Nevertheless, the examples treat a wide variety of activities as directly benefitting or being incurred by reason of an improvement. In one example, scheduled maintenance of a towboat is capital if undertaken “[i]n combination with the replacement of parts with new and upgraded parts . . . [and] the scheduled maintenance must be completed to perform the horsepower and propulsion upgrade.”⁷⁰ In another, while the costs of painting the company logo on a tractor cab are generally deductible, those costs are not deductible if undertaken while replacing the cab.⁷¹

C. *The Restoration Rule: Things Change*

Having considered the betterment rule, it is time to examine the regulations’ restoration rule. So far, in order to focus on the betterment rule, the analysis assumed that the relevant asset performs as was expected when the taxpayer acquired it. Now, assume that things turn

66. *Id.* § 1.263(a)-3(g)(1)(i).

67. 2013 Treasury Decision, *supra* note 57, at 57693-94. *See, e.g.,* Norwest Corp. v. Comm’r, 108 T.C. 265 (1997).

68. *See* 2013 Treasury Decision, *supra* note 57, at 57693.

69. *Id.* at 57693-94. Capitalization is allowed for all expenditures incurred during an improvement of an individual’s residence (“allowed” because such expenditures would not be deductible if treated as an expense but, if capitalized, reduce the taxable gain when the residence is sold) regardless of whether the expenditures directly benefit or were incurred by reason of the improvement. Treas. Reg. § 1.263(a)-3(g)(1)(ii).

70. *Id.* § 1.263(a)-3(i)(6) ex. 10.

71. *Id.* § 1.263(a)-3(k)(7) ex. 11.

out differently from what was expected: An asset can generate more or less gross cash flow than expected or can require more or less expenditures to generate gross cash flow. Of course, all of these cases involve an unrealized change in value.⁷² In general, changes in value are not reported for tax purposes until realized. In some cases, however, capitalization rules must take changes into account.

Obviously, capitalization rules must address changed circumstances when something unexpected happens that requires amelioration. A casualty can occur. A component or other distinct part of a property can unexpectedly cease functioning and be retired (and replaced). In both cases, ameliorating the unexpected condition is not routine maintenance.

There are two distinct tax scenarios here. First, if a deduction is allowed with respect to the unexpected event, the general rule should be no deduction for the repair, as that would effect a double deduction. However, the repair (to the originally expected condition of the property) may cost more than was allowed as a loss. The extra cost may be due to an increase in prices or because an entire machine costs less than the sum of the portions sold separately. As a result, the adjusted basis of the retired part can be less than the cost of a replacement part. In both of these situations, immediate deduction of the extra cost is appropriate.

Second, if no loss deduction is allowed for the event that required amelioration, the tax concerns flip: When ameliorating the condition only gets the asset back to where it was expected to be, an immediate deduction should be allowed. If the work, however, increases the repaired asset's life (compared to what was expected when the asset was acquired), say because of the installation of unexpected new parts, the hard-to-determine portion of the total repair cost that is attributable to the extra benefit should be capitalized.

Working in concert with the rules that control the deductibility of losses, the new repair regulations do not achieve that ideal outcome, but do work fairly well. First, consider a business casualty. Under current law, a loss deduction is allowed in an amount equal to the lesser of (i) the casualty-related loss in value or (ii) the adjusted basis of the asset (with both reduced by any insurance recovery).⁷³ Under the new repair regulations, a deduction with respect to the repair is allowed only to the

72. This section looks only to changes in value from economic change. Hidden preexisting conditions that do not involve economic change were explored in the betterment discussion above. See *supra* text accompanying notes 50-51.

73. Treas. Reg. § 1.165-7(b)(1) (as amended in 1977).

extent that the repair costs more than any deductible casualty loss (plus any insurance recovery).⁷⁴ However, if the repair also effects an improvement (technically, a “restoration,” which is discussed below⁷⁵), the cost of the restoration in excess of the deductible casualty loss (plus any insurance exclusion) must be capitalized.⁷⁶ These rules are sound except in those few cases where the restoration rule (discussed below in this section of this article) requires capitalization for amounts related to activities that merely return the asset to its expected state.

Second, examine retirements. When an entire asset used in business is retired, a loss is allowed for any remaining basis.⁷⁷ Newly effective regulations (which came out of the same regulations project as the repair regulations) allow loss deductions for retirements of portions of all types of property, including portions that do not qualify as components.⁷⁸ Also, the new regulations allow taxpayers to elect not to claim the loss—presumably in order to deduct a more expensive repair.⁷⁹

These generous new rules allowing a taxpayer to elect a (large) repair deduction in lieu of the loss present policy concerns. If the activity associated with the extra expenditure returns the asset to the condition that was reasonably expected upon the taxpayer’s acquisition of the asset, an immediate deduction is appropriate. If the extra expenditure relates to more than getting things back to where expected when the asset was first placed in service, however, capitalization seems appropriate. For example, a replacement part may have a longer life than the remaining life that the taxpayer originally expected for the part that it replaced. In this case, the proposed regulations allow a larger deduction than the theory would justify (unless the betterment rule applies). But, Treasury proposed the no-loss election at least in part in response to taxpayer simplicity concerns.⁸⁰

74. See Treas. Reg. § 1.263(a)-3(i)(3)(iv), -3(k)(1)(iii), -3(k)(4).

75. See *infra* text accompanying notes 82-96.

76. See Treas. Reg. § 1.263(a)-3(i)(3)(iv), -3(k)(1)(iii), -3(k)(4). Under the language of the regulations, the repair of a casualty, though not a restoration, could still be a betterment. The regulations do not discuss (and this Article therefore ignores) the tax treatment of that possibility.

77. Treas. Reg. § 1.167(a)-8(a) (as amended in 2013).

78. Treas. Reg. § 1.168(i)-8(d)(1) (as amended in 2014); see also Prop. Treas. Reg. § 168, 78 Fed. Reg. 57547-01, 57549 (Sept. 19, 2013) [hereinafter 2013 Proposal].

79. Treas. Reg. § 1.168(i)-8(d)(2).

80. 2013 Proposal, *supra* note 78, at 57549. By way of illustration, the betterment rule provides:

If a taxpayer replaces a part of a unit of property that cannot reasonably be replaced with the same type of part (for example, because of technological advancements or product enhancements), the replacement of the part with an improved, but comparable, part does not, by itself, result in a betterment to the unit of property.

When an asset performs less well than had been expected, but no loss deduction is allowed because there has been no retirement, the new repair regulations' restoration rule comes into play. Before considering it in detail, a little background is useful: If the asset's cash flow becomes less than expected, no loss is allowed; however, there will be less taxable income as less revenue is realized. This is sound. However, if the asset should require more expenditures to generate the originally expected cash flow, the question arises whether the present value of the unanticipated extra expenditures should be capitalized and depreciated (with interest on the implicit liability deducted as it accrues). An immediate deduction for the repairs effectively allows a deduction for the otherwise nondeductible loss, which can be viewed as troubling.⁸¹ Under the regulations, these expenditures would not be immediately deductible routine maintenance, since they were not expected when the asset was placed in service. Nevertheless, the amounts would be deductible unless related to a betterment or restoration.

The restoration rule plays a key role when there is a nondeductible loss, and it can come into play when there is a deductible loss. The regulations' three relevant restoration situations (not already reflected in the discussion above of expenditures related to a deductible loss or an excluded insurance recovery) are where the expenditure:

- (iv) Returns the unit of property to its ordinarily efficient operating condition if the property has deteriorated to a state of disrepair and is no longer functional for its intended use;
- (v) Results in the rebuilding of the unit of property to a like-new condition after the end of its class life . . . ; or
- (vi) Is for the replacement of a part or a combination of parts that comprise a major component or a substantial structural part of a unit of property . . .⁸²

The regulations expressly provide that expenditures described in subparagraph (iv) are not immediately deductible routine maintenance.⁸³

Treas. Reg. § 1.263(a)-3(j)(2)(iii). Clearly, some generosity is behind the election. Thus, the new regulations allow a taxpayer who initially elects to deduct the expenditure as a repair expense in lieu of a loss later to amend and claim the loss should an IRS audit treat the repair as an improvement—say, because the repair involves replacing a major component (*see infra* text accompanying notes 86-96). Treas. Reg. § 1.168(i)-8(d)(2)(iii).

81. If, however, one believes that the only reason for not allowing a loss is the difficulty in measuring it, a backdoor deduction presents no policy problem.

82. Treas. Reg. § 1.263(a)-3(k)(1).

83. *Id.* § 1.263(a)-3(i)(3)(v).

Subparagraph (v) expenditures by definition do not relate to routine maintenance. Expenditures described in subparagraph (vi) under unusual circumstances might be treated as part of routine maintenance but, even then, might have to be capitalized as a betterment. This perverse complexity is an unfortunate consequence of the regulations drawing lines between inconsistent approaches.

Subparagraph (iv) can be inconsistent with an expectations approach. The classic example here is a barn on a family farm. The barn might be more valuable to the farmer with few regular repairs and a periodic large-scale restoration. Thus, the periodic large-scale restoration could constitute the optimal repair policy for the farmer. Current tax depreciation, with fixed depreciable lives, does not accurately reflect this possibility.⁸⁴ Under these circumstances, expensing the deferred maintenance when performed might be better accounting.

Better results are achieved under subparagraph (v). Rebuilding to a like-new condition at any time during the economic life of an asset is inconsistent with any depreciation.⁸⁵ In the abstract, a repair deduction should be allowed for the costs of rebuilding to the condition that, upon acquisition of the property, was expected to exist at the time of the rebuild, with only any excess rebuilding costs capitalized. But, this bifurcation would be difficult, if not impossible, in many circumstances. Also, there is no reason to apply capitalization only after the asset's class life; in this regard, the rule is favorable to taxpayers.

Under subparagraph (vi), the costs of replacing a major component must be capitalized (even when no loss was allowed).⁸⁶ Like the betterment rule,⁸⁷ this major component rule is a legacy of relative quantitative thinking and therefore, is inconsistent with an expectations approach. The examples for subparagraph (vi) demonstrate problems similar to those of the betterment rule⁸⁸: Replacing the membrane on a roof is not capital,⁸⁹ but replacing a roof is.⁹⁰ Replacing all the wiring in a building is capital,⁹¹ while replacing 30% of the wiring is not.⁹²

84. See I.R.C. § 168(a)(2) & (c) (2012).

85. See, e.g., *Royal St. Louis, Inc. v. U.S.*, 578 F.2d 1017 (5th Cir. 1978).

86. Treas. Reg. § 1.263(a)-3(k)(1)(vi). A "major component" is defined as "a part or combination of parts that performs a discrete and critical function in the operation of the unit of property." *Id.* § 1.263(a)-3(k)(6)(i)(A).

87. See *supra* text accompanying notes 53-65.

88. *Id.*

89. Treas. Reg. § 1.263(a)-3(k)(7) ex. 15.

90. *Id.* at ex. 14.

91. *Id.* at ex. 20.

92. *Id.*

Replacing all bathroom fixtures in a building is capital,⁹³ but replacing 40% of the sinks is not.⁹⁴ Replacing 200 out of 300 windows in a building is capital,⁹⁵ while replacing 100 of the 300 is not—as long as the 300 windows are not “a large portion of the physical structure” of the building.⁹⁶

The analysis—to be applied when matters turn out better than originally expected—mirrors the analysis where matters go bad and no loss is allowed. If the asset becomes more productive with the originally expected level of maintenance, the extra revenue is taxed as realized. If less maintenance is needed to get the same cash flow, taxable income also will be greater. The hard case is when less maintenance is needed, but the owner sticks to the old repair policy to get greater cash flow. While capitalization and depreciation would seem appropriate, the new regulations understandably do not try to reach these hard-to-identify situations.

IV. CONCLUSION

The new tangible property repair regulations improve the law considerably. Their routine maintenance rule provides a sound, enforceable, qualitative standard. Unfortunately, the betterment and restoration exceptions to the routine maintenance rules implement a different approach. Not only do these exceptions work poorly, but considerable complexity results from determining their scope that leaves taxpayers (as well as examining agents) guessing. Further reform by expanding the application of the expectations approach already reflected in the routine maintenance rule would be helpful and perhaps result in more consistent after-tax results for myriad investment decisions. If tax policy goals include tax-neutral investment decisions by taxpayers, such additional reform would likely further that policy without unduly sacrificing the simplicity long promoted by the repair allowance and deduction.

93. *Id.* at ex. 22.

94. *Id.* at ex. 23.

95. *Id.* at ex. 26.

96. *Id.* at ex. 25.