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ACRS, ITC, AND TAX NEUTRALITY

SUMMARY

The Economic Recovery Tax Act (ERTA) of 1981 provided a major improvement in the tax system by replacing the Asset Depreciation Range depreciation system of prior law by the Accelerated Cost Recovery System (ACRS). Together with an increased investment tax credit (ITC), ACRS reduced the tax bias against saving and investment in depreciable facilities in general and narrowed the differential in effective tax rates on the income produced by different kinds of depreciable capital. The Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 retreated from these advances toward tax neutrality. The current proposals for repealing the ITC and ACRS, replacing the provisions with a depreciation system based on much longer write-off periods, would further increase the tax bias against investment in depreciable facilities and result in serious tax distortions of the cost of capital and its allocation. Constructive tax reform calls, instead, for moving closer to true expensing of capital outlays.

Many of the current tax restructuring proposals would eliminate the Investment Tax Credit (ITC) and replace the Accelerated Cost Recovery System (ACRS) with a depreciation system based on significantly longer write-off periods. The current arguments against these capital recovery provisions are much the same as those that in 1982 led to the significant curtailment of ACRS in the Tax Equity and Fiscal Responsibility Act (TEFRA): ACRS and ITC are too generous and represent a subsidy for investment in eligible assets; and ACRS and ITC result in widely differing rates of tax on the returns to different kinds of capital, distort capital markets, and have induced capital movement into uneconomic activities.

There should be no argument about the desirability of achieving a tax system which is as nearly neutral as possible, which neither penalizes nor subsidizes investment in general and which does not distort market signals about the costs of and returns on alternative forms of investment. At issue is whether the claims that ACRS and ITC fail to meet this neutrality test are correct.

Note: Nothing written here is to be construed as necessarily reflecting the views of IRET or as an attempt to aid or hinder the passage of any bill before Congress.

In fact, an objective assessment of the 1981 ACRS and ITC provisions show that they were major improvements in both respects; they reduced the then existing bias against saving invested in durable production facilities and narrowed the differentials in tax rates among different kinds of depreciable capital.

The ACRS provisions and the liberalization of the ITC enacted in the Economic Recovery Tax Act of 1981 (ERTA) aimed at reversing the slowdown in the growth of the U.S. industrial base. For the five years ending in 1979, increases in real net business fixed capital averaged just over 2 percent of net national product, one-half the rate for the late 1960s. Numerous factors contributed to that slowdown, chief among which was the escalating cost of capital attributable to the basic income tax bias against saving and capital formation, the inadequacy of depreciation allowances to offset that bias, and the intensification of that tax penalty by inflation. High inflation had caused a large discrepancy between the historic and current replacement costs of investment goods. In real terms, the value of the total depreciation deductions allowable with respect to a given amount of depreciable facilities was a fraction of the expenditures incurred for those assets. As a consequence, real marginal tax rates on the net returns on depreciable property were substantially higher than the statutory rates. This in turn elevated the cost of committing saving to depreciable capital.

ERTA made three major changes in cost recovery to address this problem.[1] Under ACRS assets are written off over periods largely independent of any notion of useful life. ACRS established four cost recovery periods --- 3, 5, 10, and 15 years --- depending on the type of property, with the 15 year category reserved for all real property not designated as 5 or 10 year class property. In general, capital cost recovery was to be based on 150% declining-balance for property placed in service in the years 1981 through 1984, 175% declining balance for property placed in service in 1985, and 200% thereafter.

Second, the ITC rate was increased for most eligible property. Under prior law, property with a useful life of less than 3 years obtained no ITC, that with useful lives of 3 or 4 years got a credit of 3 1/2 percent, that with lives of 5 and 6 years got a 6 2/3 percent credit, while property with a useful life of 7 or more years got a 10 percent ITC. Under ERTA, 3-year property got a 6 percent ITC and all other eligible property was given a 10 percent credit. ERTA also extended eligibility for the ITC to certain kinds of property formerly excluded from the credit's application. In addition, it extended the period of years over which unused credits could be carried forward before being lost.

The third major feature of the 1981 capital recovery provisions was the safe-harbor leasing provision. Safe-harbor leasing created a mechanism by which firms that were currently unable to

use their investment credits and ACRS deductions could transfer these rights to firms that could take advantage of them. It signaled recognition of the fact that the effectiveness of ACRS and the liberalized ITC in offsetting the income tax bias against investment in durable production facilities depended on the extent to which taxpayers could actually utilize these provisions currently, rather than having to defer their benefits, possibly for extended periods of time.

TEFRA made significant and serious changes in the capital cost recovery provisions. Among its other features, TEFRA instituted partial basis adjustment for the ITC, stopped the phase-in toward the 200% declining balance recovery method, limiting the recovery rate to the initial 150% rate, and eliminated the safe-harbor leasing provisions. These changes occurred amid charges that the recovery provisions were too generous and that they represented an investment subsidy which varied widely among types of property and situations of taxpayers, hence distorted the allocation of capital.

To address this allegation it is necessary first to delineate the conditions which must be met for neutral tax treatment.

Tax Neutrality

By neutrality, we mean that a tax does not alter the relations among prices and costs that would prevail in the absence of taxes. Suppose, for example, that without any taxes the price of a pound of apples is half that of a dozen oranges, but when a particular tax is imposed, the prices are the same. Obviously, the tax has increased the price of apples relative to that of oranges; except under extraordinary conditions, this relative price change will lead people to buy fewer apples compared with oranges than they would have if the tax had not been imposed.

The Basic Income Tax Distortion

In this sense, the income tax is unneutral with respect to consumption, on the one hand, and saving and investment, on the other. It raises the cost of future income compared with that of current consumption. To see this, compare these relative costs in the absence and presence of an income tax.

To begin with, consider a world with no taxes where one dollar can either be used to buy an asset which produces a perpetual income stream of 10 cents a year or which can be used to purchase one dollar of current consumption. If we now impose an income tax at, say, 50 percent, we alter the relative price of consumption and future income. The dollar of pre-tax income now buys 50 cents of consumption goods. That same dollar now can buy an income stream of 5 cents, which itself is taxed, leaving a net income stream of 2.5 cents. The tax has doubled the number of

pre-tax dollars needed to maintain the level of consumption but quadrupled the number of pre-tax dollars needed to purchase an equivalent stream of future income. It has, therefore, doubled the cost of future income relative to the cost of current consumption. The higher the tax, the greater the distortion in favor of current consumption.

Income tax distortion of capital allocation

We can think of this fundamental bias of income taxes against saving and investment and in favor of consumption as a first-level unneutrality. In addition, however, insofar as it allows differing deductions, credits, exclusions, etc., the income tax is likely to alter the relative costs of acquiring or holding different kinds of capital. These differing costs of capital are likely to result in a different allocation of saving among alternative capital uses and a different composition of capital than if there were no taxes. These income tax induced differences in capital costs are conveniently designated second-level unneutralities.

Both first-and second-level unneutralities clearly impair the economy's efficiency. The first-level bias, by distorting saving-consumption choices, results in a smaller stock of capital, less production capability, and a lower standard of living than would prevail if the tax were more nearly neutral. And if we can fairly assume that the way people allocate their saving and investment in the absence of taxes would result in the most productive stock of capital, then the second-level distortions must also impose significant costs on the economy. Of the two, it should be clear, the first-level unneutrality, the basic income tax bias against saving and investment in general, must be the more costly.[2]

Neutral tax treatment

Two alternative means to eliminate the basic bias against saving and investment are obvious from the above example: either exempt saving, i.e., expenditures for capital, from taxation while taxing the gross returns to capital, or tax the current income which is saved and invested and exempt all the returns to capital.

If current saving is excluded from the tax base, i.e., is "expensed," the dollar of current income that is saved and invested escapes the tax; the returns on the investment, however, are fully taxed so that the saved dollar produces 10 cents of income per year before tax and 5 cents a year after tax. In the alternate approach, the 50 cent tax on the dollar of current income leaves 50 cents to save and invest, producing 5 cents of income a year before tax; because no tax would be imposed on this return, it also provides 5 cents of income a year after tax. In

either case, a dollar of current income that is saved bears the same burden as a dollar of income that is consumed; the trade-off between current consumption and future income is the same as if there were no tax.

Either approach, consistently applied, would be neutral in the second-level sense as well as with respect to the overall cost of saving relative to consumption. Indeed, either approach is virtually essential if neutrality of tax treatment among alternative forms of saving and investment is to be assured.

Tax Neutrality with Extended Period Write-off

The same neutrality conditions may be satisfied if, instead of either expensing saving or capital outlays or excluding investment returns from the tax base, tax deductions to recover the amount of saving or capital outlays are spread over time, provided that the present value of such deductions equals the amount saved and invested. Because at any positive discount rate, a dollar received a year from now is worth less than a dollar in hand today, the absolute or undiscounted amount of such deductions must be greater than the amount currently saved and invested, if their present value is to equal the amount of the current saving and investment. If the tax law limits the total undiscounted amount of capital recovery allowances to the amount saved and invested, the present value of these allowances must be less than the amount saved, and the capital recovery provisions must fall short of meeting the neutrality test.

To illustrate, allowing the saver to deduct half of this year's saving against this year's income and half against next year's income will fall short of satisfying the neutrality condition. If the discount rate is, say, 10 percent, the present value of these deductions, per dollar of saving, is 87 cents; an additional deduction, the present value of which is 13 cents, would be needed to prevent the tax from increasing the cost of saving the marginal dollar of current income relative to the cost of consuming it. A further deduction of about 7 1/2 cents each year would be needed to equate the value of the deductions over the two years to the current dollar of saving and investment. Total deductions would have to be $1.15. The longer the period over which the deductions are spread, the greater must be the absolute amount of the additional deductions. If the deductions are to be spread over three years, for example, each year's deduction would have to be 40.2 cents per dollar of saving, and the sum of the three years' deductions would have to be $1.21. An alternative correction would be to provide an additional deduction in the first year sufficient to make up the shortfall. In this example, an extra deduction of 14.3 cents would be needed.[3]

Is ACRS with ITC Too Generous? Does it Increase Tax Differentials?

With this framework we can evaluate the claims that ACRS with ITC (1) affords excessively generous capital recovery, at least for many types of capital, and (2) increases the tax differentials among different types of saving and investment, hence exacerbates second-level unneutralities.

In its simplest form, the test is whether the sum of the present values of the ACRS deductions plus a deduction equivalent in its effects on tax liability to the ITC equals, exceeds, or falls short of the amount of the investment. If the sum of the present values of these capital recovery deductions just equals the amount of the investment in the property on which they are allowed, the capital recovery deductions afford neutral tax treatment of that use of saving. If the sum of the present value is less than the investment, these deductions do not fully offset or neutralize the tax bias against that investment. If the sum of the present values exceeds the investment, the capital recovery provisions subsidize the investment. If the shortfall or excess as a percent of the investment is the same for all kinds of investment, the capital recovery provisions equally penalize or subsidize, respectively, all investment; the second-level neutrality conditions are satisfied even though the tax provisions fail to provide neutrality overall.[4]

The results of this test are shown in Table I, in part A with respect to the ACRS-ITC provisions, as enacted in ERTA, applicable to property put in service in taxable years 1986 and later. Part B of the table shows the test results after TEFRA's changes.

These results show that except in the case of 15-year real property, the original ACRS-ITC combination afforded a relatively close approximation of both the first and second level neutrality condition. At a given discount rate, the present value of the capital recovery provisions per dollar of investment is within a few cents of a dollar, significantly exceeding a dollar only in the case of 5-year property at the 4 percent discount rate, which implies little if any expected inflation. For longer-lived property, on the other hand, the ERTA provisions fall substantially short of satisfying the neutrality conditions, leaving a substantial tax penalty on saving invested in such capital and grossly differentiating the tax treatment of such investment relative to investment in shorter-lived properties. The penalty is particularly severe in the case of real property, for which the ITC is not available.

Again putting aside the 15-year recovery period property, the spread in the present value of recovery allowances per dollar of investment, at a given discount rate, is quite small --- a maximum of 11.4 percent in the case of 5-year vs. 10-year property

when the discount rate is 10 percent. At a 4 percent discount rate, the biggest spread is 5.7 percent, in the case of 5-year vs. 3-year property.

TABLE I. Present Value of ACRS and ITC-Equivalent[1] Deductions per Dollar of Investment, at Selected Discount Rates

A. ERTA Provisions for Property Placed in Service in 1986 and Subsequent Years[2]

Recovery Period (Years)	Discount Rate (Percent) 4	8	10
3	$1.05	$ .99	$ .96
5	1.11	1.02	.98
10	1.06	.93	.88
15(Real property	.77	.61	.55
15(Personal property)	1.01	.86	.80

B. TEFRA Provisions[3]

3	$1.02	$ .95	$ .91
5	1.05	.95	.91
10	.99	.85	.79
15(Real property)	.77	.61	.55
15(Personal property)	.93	.76	.70

[1] The ITC-equivalent deduction is computed as the ITC rate divided by .46, the top marginal corporation income tax rate. The ITC rate for 3-year property is 6 percent, that for 5 and 10-year property is 10 percent. The 15-year recovery period class consists principally of real property not eligible for the investment tax credit. However, some 15-year property is eligible; the present value of the deductions for this property per dollar of investment is shown as 15 year personal property.

[2] ACRS deductions calculated with the 200 percent declining balance method, switching to sum-of-the-years digits; the half-year convention is used throughout.

[3] Assumes adjustment of basis for ACRS deductions equal to one-half of ITC. ACRS deductions are computed with the 150 percent declining-balance method, switching to straight line.

Against both the first-and-second-level neutrality criteria, ERTA's ACRS and ITC provisions represent a significant advance over the prior law's Asset Depreciation Range (ADR) provisions.

The present value of the sum of ADR allowances and the ITC-equivalent deduction per dollar of investment in properties with various ADR midpoint lives is shown in Table II. The ADR lives shown in the table are representative of the kinds of production facilities for which ACRS provided the corresponding, much shorter recovery periods presented in the second column of the table.[8]

Table II. Present Value of ADR[1] and ITC-Equivalent[2] Deductions per Dollar of Investment, by Selected ADR Midpoint Lives (and Corresponding ACRS Recovery Periods) at Selected Discount Rates

ADR Midpoint Life (Years)	Corresponding ACRS Recovery Period	Discount Rate (Percent) 4	8	10
3	3	$1.00	$ .93	$ .90
10	5	1.04	.91	.85
18	10	.95	.78	.72
30(Personal property)	15	.81	.63	.57
35(Real property)	15	.61	.43	.37

[1] ADR deductions computed with the 200 percent declining balance method, switching to straight line; the half-year convention is used throughout.

[2] The ITC-equivalent deduction is computed as the ITC rate divided by .46, the top marginal corporation income tax rate. The ITC rate for 3-year property is 3 1/3 percent, that for the other property shown is 10 percent.

Comparing the results presented in Table II with those in Table I.A. shows that (1) compared with the ADR-ITC combination, the present values of the ACRS-ITC capital recovery allowances per dollar of investment come much closer to meeting the first-level neutrality test; the present value of the ADR-ITC allowances generally fall substantially farther short of equality with the amount saved and invested; and (2) the ACRS-ITC provisions significantly reduced the spread in the present value of capital recovery allowances per dollar of investment which occurred in the case of the ADR-ITC provisions, hence were more nearly neutral among different kinds of capital in different uses.

TEFRA, by limiting the write-off rate to 150 percent declining balance and reducing the basis for ACRS deductions by one-half the allowable ITC, significantly reduced the sum of the present values of ACRS and ITC-equivalent deductions per dollar of investment, except in the case of 15-year real property. For most

personal property, TEFRA increased the tax penalty on investment in depreciable facilities, and in the case of 3-and 5-year property at the 4 percent discount rate, reduced the modest subsidy which ERTA had afforded. Moreover, TEFRA increased the percentage spread, at each discount rate, between the highest and lowest present values of capital recovery per dollar of investment. TEFRA, in short, entailed a significant movement away from both first-level and second-level neutrality.

The results in Tables I and II can be translated into the effective tax rates which apply to the returns on different kinds of capital; these tax rates are shown in Tables III and IV.

Table III. Effective Tax Rates under ACRS by Recovery Period and by Selected Discount Rates[1]

A. ERTA Provisions for Property Placed in Service in 1986 and Subsequent Years[2]

Recovery Period (Years)	Discount Rate (Percent)		
	4	8	10
3	-4.6%	1.1%	3.8%
5	-9.6	-2.0	1.4
10	-4.9	5.9	10.4
15(Real property)	20.0	33.4	38.5
15(Personal property)	-0.8	12.1	17.3

B. TEFRA Provisions[3]

3	-1.6	4.6	7.4
5	-4.4	4.0	7.7
10	1.2	12.9	17.7
15 (Real property)	20.0	33.4	38.5
15 (Personal property)	6.3	20.3	25.6

1 See footnote 1, Table 1.
2 See footnote 2, Table 1.
3 See footnote 3, Table 1.

Table IV. Effective Tax Rates Under ADR by Selected ADR Lives at Selected Discount Rates

ADR Midpoint Life (Years)	Corresponding ACRS Recovery Period	Discount Rate (Percent)		
		4	8	10
3	3	0.1%	5.7%	8.2%
10	5	-3.7	7.6	12.4
18	10	3.9	18.6	24.0
30(Personal property)	15	14.4	31.2	36.6
33(Real property)	15	33.0	48.9	53.9

As shown in the earlier discussion, tax neutrality requires that if income that is saved and invested is subject to the income tax, the income that is earned on the investment should be excluded from the tax base. If the capital recovery provisions in the income tax perfectly satisfy the neutrality criterion, theeffective tax rate on the income earned by the production facilities is zero. Any positive effective tax rate means that not only is the income which is used to buy the production facilities subject to tax, but the returns on that investment are also taxed; hence, the income that is saved is subject to a greater rate of tax than that which is consumed. In this case, the capital recovery provisions fall short of eliminating the income tax bias against saving. On the other hand, if the effective tax rate is negative, the capital recovery provisions are too generous, go beyond the requirements of neutrality, and subsidize the investment in the production facilities.

The effective tax rate on the returns on investment is properly defined as the percentage difference between (1) the present value of the pretax gross returns required if the present value of the after-tax gross returns are to just equal the amount of the investment, and (2) the present value of the gross returns that would be required if there were no tax. To illustrate this concept, suppose that a particular production facility costs $1,000 and is expected to contribute to production for five years in the amounts shown in column 2 of Table V. If there were no tax and if the discount rate were, say, 10 percent, the present value of these gross returns would be just equal to $1,000. If the gross returns were less than those shown, their present value would fall short of $1,000, and it clearly would not pay to buy the facility.

Next, suppose an income tax at a rate of, say, 40 percent is imposed on these gross returns less depreciation, in the amounts shown in column 3 of the table. Gross income after tax would fall to the amounts shown in column 6. The present value of the after-tax gross returns would fall to $903.23. If the investment of $1,000 is to be warranted, the present value of the after-tax gross returns must also be at least $1,000, but this will require an increase in the pretax returns to the amounts shown in column 9 of the table. The present value of that stream of required pretax gross returns is $1,161.23 (column 10). The effective tax rate is 16.12 percent, the percentage difference between $1,161.23, and $1,000, that is between the present value of the required pretax gross returns when the tax is imposed and the present value of the gross returns that would be needed if there were no tax.[14]

The effective-tax rates shown in Tables III and IV were calculated in the manner illustrated above. Against the standard of tax neutrality, they are to be interpreted as the extra burden imposed on current income that is saved and invested compared with the tax burden on consumption.

This extra burden clearly is significantly less under the ACRS and ITC provisions in ERTA than under the prior ADR system. Moreover, the spread in effective tax rates is also far less under ACRS than in the case of ADR. Against both standards of neutrality, ERTA's ACRS-ITC provisions represent a major improvement over prior law.

The TEFRA revisions must be seen as a significant step backwards in this respect. Not only did TEFRA increase effective tax rates for all types of property, it also increased the spread among those rates. It intensified the tax bias against saving and capital formation overall and at the same time enhanced the disparities in effective rates from one type of capital to another.

Effect of Other Taxes on Effective Tax Rates

Earlier in this discussion, three factors were identified which qualify the evaluation of capital recovery provisions against the tax neutrality standard. Taking account of these factors significantly increases the effective tax rates under ACRS shown in Table III.

For one thing, the present value of the ACRS deductions and the ITC must be determined with respect to the time at which the costs of acquiring the property are incurred. For the most part, the ACRS deductions are first allowed for the taxable year in which the property is placed in service; the ITC is also claimed in that taxable year. That is often a later taxable year than that in which the investment, or a part of it, is made; this is particularly likely to be true in the case of investment in properties which have an extended, multi-year construction or manufacture period, during which the investor makes progress payments to the supplier of the capital facility. When this is the case, the ITC-equivalent deduction and the ACRS allowances must be discounted to the time (or times) at which the investment cost is incurred to determine whether the present value of these deductions equals, exceeds, or falls short of the amount of the investment.

A second condition is whether the ACRS deductions and ITC are allowed in determining all of the taxes which are imposed on the returns on the investment. There are practically no situations in which this condition is satisfied. When a corporation acquires depreciable property, for example, the ACRS deductions and the ITC are allowed only in determining the corporation income tax liability. Some or all of the income produced by the property is almost invariably subject to the individual income tax, to the extent the corporation pays dividends out of this income or the individual shareholder sells stock in the company and realizes a capital gain reflecting the retention of part or all of the earnings produced by the property. The income in the hands of

Table V. Derivation of Effective Tax Rate

Year	Gross Income	Depreciation	Taxable Income	Tax @ 40%	Gross Income After Tax	Present Value of Gross Income		Required Pretax Gross Income	
	Pretax					Pretax	After tax	Undiscounted Amount	Present Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	300	200	100	40	260	272.13	236.36	366.67	333.34
2	280	200	80	32	248	231.41	204.96	333.33	275.48
3	260	200	60	24	236	195.34	177.31	300.00	225.39
4	240	200	40	16	224	163.92	152.99	266.67	182.14
5	220	200	20	8	212	136.60	131.64	233.33	144.88
Total	1,300	1,000	300	120	1,180	1,000.00	903.33	1,500.00	1,161.23

the corporation is also likely to be subject to state income tax; few state income taxes have capital recovery provisions which are the same as the ACRS and ITC. Insofar as dividends are paid from these earnings, moreover, the individual shareholders are also likely to be subject to state income taxes. Property taxes also apply; they may be treated as an income tax imposed on the capitalized value of the net earnings produced by the property. In short, the ACRS and ITC are taken into account in determining only a fraction of the taxes imposed on the income produced by eligible capital. This consideration must be given full weight in determining whether these capital recovery provisions subsidize investment.

The final condition is whether the ACRS and ITC are given full effect in the years in which they are claimed or whether their effect on tax liability is deferred until a later taxable year or years. This deferral effect occurs when taxable income before ACRS deductions is less than the amount of the ACRS deduction allowable in that year and/or when tax liability before the ITC is less than the amount of the credit. In computing the present value of the ACRS deductions and the ITC, therefore, only the respective amounts actually having effect on tax liability in each year should be taken into account.

The magnitude of the impact of these factors on the effective tax rates on returns to capital is indicated even if account is taken only of the effect of additional taxes payable on these returns. Table VI shows that even when the sum of the rate of all other taxes applied to the returns on depreciable capital is quite low, the overall effective tax rate is materially higher than it would be if, in reality, only the Federal corporation income tax at a rate of 46 percent were imposed.

For example, if other taxes are ignored, the effective tax rate on 3-year property under ERTA, as shown in part A of Table III, is -4.6 percent when the discount rate is 4 percent. If other taxes amount only to 5 percent, the effective rate on this property becomes 5.1 percent. With other taxes aggregating 15 percent, the effective rate becomes 32 percent.

For long-lived property, the effect is even more pronounced. For example, in the case of 15-year real property, for which no ITC is available, the effective tax rate is 32.2 percent when other taxes are 5 percent, compared with 20 percent when no other tax applies, at a 4 percent discount rate. At higher discount rates, this impact of other taxes is even more severe. And as part B of the table shows, the TEFRA revisions significantly enhanced this impact.

A major implication of these results is that even with the ITC, the ERTA capital recovery provisions fell short, almost across the board, of eliminating the tax bias against investment in

Table VI. Effective Tax Rates on Returns to Depreciable Property, by ACRS Recovery Period at Selected Rates of Other Taxes and Selected Discount Rates

A. ERTA Provisions for Property Placed in Service in 1986 and Subsequent Years

Recovery Period	Rate of Other Taxes (Percent)	Discount Rate (Percent)		
		4	8	10
3	5	5.1	11.4	14.4
	10	17.0	24.1	27.4
	15	32.0	40.0	43.7
5	5	-0.4	8.0	11.8
	10	10.9	20.3	24.5
	15	25.1	35.7	36.5
10	5	4.8	16.7	21.7
	10	16.7	29.9	35.5
	15	31.7	46.6	52.9
15(Real property)	5	32.2	47.0	52.6
	10	47.2	63.7	69.9
	15	66.1	84.7	91.8
15(Personal property)	5	11.0	23.6	29.3
	10	23.7	37.6	44.0
	15	39.5	55.3	62.4

B. TEFRA Provisions

3	5	8.5	15.3	18.3
	10	20.8	28.4	31.8
	15	36.3	44.8	48.7
5	5	5.4	14.6	18.7
	10	17.4	27.6	32.2
	15	32.4	44.0	49.1
10	5	11.5	24.4	29.7
	10	24.2	38.5	44.4
	15	40.1	56.3	62.9
15(Real property)	5	32.3	47.0	52.6
	10	47.2	63.7	69.9
	15	66.1	84.7	91.8
15(Personal property)	5	17.2	32.5	38.4
	10	30.5	47.6	54.1
	15	47.2	66.5	73.9

depreciable property, because of the impact of other taxes on the net returns on such property. Stretching out recovery periods and/or reducing the ITC increases this adverse impact, particularly for long-lived property and at high discount rates.

Conclusion

When evaluated against a meaningful concept of tax neutrality, the adoption of ACRS and the changes in ITC in the 1981 ERTA represented a major improvement in the tax structure. The ERTA provisions significantly reduced the overall tax bias against investment in depreciable property and materially narrowed the differentials in effective tax rates among different kinds of property.

The TEFRA provisions pertaining to ACRS were a significant step backward in this report. Although not retreating all the way back to the ADR distortions, TEFRA increased the overall effective rate of tax on returns to depreciable property and widened the spread in the effective rates among assets.

When account is taken of the other taxes which are imposed on the income produced by depreciable production facilities, it is apparent that even the ERTA provisions fall considerably short of eliminating the income tax bias against channeling saving into depreciable capital formation. The simplest way to remedy existing deficiencies would be to provide for expensing of all depreciable capital outlays. Because other taxes apply to the returns on this capital and because differences between the timing of the investment and that of the effective expensing of the investment would very likely persist, some additional capital recovery allowance or tax credit would be needed to satisfy the neutrality tests. If tax policy is to move in the direction of reducing the distorting influences of taxes on the allocation of resources, this is the direction which changes in capital recovery provisions should take. Stretching out recovery periods and eliminating the ITC is the wrong way to go if efficient functioning of the free market system is an important objective of tax policy.

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FOOTNOTES

[1] ERTA did not aim solely at offsetting the erosion of capital recovery allowances by inflation. Its basic purpose was to reduce the inherent bias in the income tax against committing saving to investment in depreciable property.

[2] For many years, much of the scholarly tax literature ignored the first-level unneutrality --- the income tax bias against saving and investment in general --- and concentrated on the second-level unneutrality --- the effect of differential provisions in the tax law in distorting the allocation of capital. This may be likened to focusing attention on preventing petty theft while doing nothing to prevent grand larceny.

[3] In this example, it is assumed that the investment is made at the beginning of the year and that the returns on it as well as the deductions are at the end of the respective years. This assumption is maintained throughout this discussion.

[4] There are three critically important qualifications to this conclusion: (1) the capital recovery allowances must begin at the time at which the costs of acquiring the property are incurred, not at a later date, e.g., when the property is placed in service; (2) the capital recovery allowances must be allowed in determining all of the taxes imposed on the returns on the investment in the property; and (3) the capital recovery allowances must be given full effect in the years in which they are allowed and claimed, not carried forward to some future years. If these conditions are not satisfied the test results will overstate the subsidy and understate the penalty. These qualifications are discussed at greater length below.

[5] Under the ADR system adopted in 1971, depreciable property was assigned to one of 144 property classes, identified by industry with some property type subclassification. A useful life was assigned to each of these property classes but the taxpayer was permitted to assign a life as much as 20 percent shorter or longer for purposes of computing the depreciation allowance. The depreciation deductions computed for purposes of this table were based on the 200 percent declining-balance method with a switch to straight line.

[6] In this example, the capital recovery provisions clearly fall short of providing neutral tax treatment. The present value of the depreciation deductions in column 3 is $758.15, a shortfall of $241.85 from the amount invested.