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Tax Reform: The Need to Change Depreciation Rules

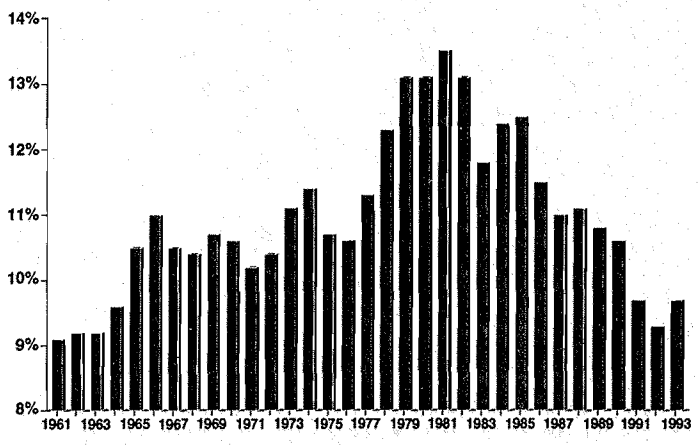
Our income tax system discriminates against long-term investments. Businesses are allowed to deduct the cost of an investment in plant and equipment on their income tax returns. But instead of being able to deduct the full cost in the year an investment is made, firms are forced to spread the expense out over a number of years. These rules governing depreciation distort investment decisions in two ways:

- The tax law treats a dollar of depreciation in the future as if it were just as valuable as a dollar of depreciation today — ignoring the time value of money.
- The tax law also ignores the effects of inflation, treating an inflated dollar as though it were just as valuable as a real dollar.

Under these rules, investments in short-lived assets are more attractive than investments in long-lived assets. In fact, the longer the required depreciation period, the less attractive the asset is — especially during periods of inflation.

FIGURE I

Gross Private Domestic Nonresidential Fixed Investment as a Share of GDP



Source: Department of Commerce

The remedy for this problem is called "neutral cost recovery." Under this system, investors would be allowed to adjust future depreciation expenses for inflation and interest. These adjustments would remove the tax distortions and allow investors to make their investment decisions based on economic considerations, not tax considerations.

Why the Time Value of Money Is Important. Historically, IRS rules reflect the belief that deductions for depreciation should be calculated on a straight-line basis over the useful life of a capital asset. Thus, if a piece of equipment has a useful life of 15 years, a firm would be able to deduct one-fifteenth of the purchase price each year for 15 years.

For example, if the asset were purchased for $150,000, a firm could deduct $10,000 from its gross income per year. However, at a 5 percent discount rate, this $10,000 deduction would only be worth $5,051 in year 15. In total, the present value of these deductions would be only $108,985, rather than $150,000 — or only two-thirds of the actual cost.

Modern rules on depreciation are more liberal than straight line. But they still have the same basic problem.

Why Inflation Is Important. The problem is compounded by inflation. For example, at a 5 percent annual inflation rate, the rate of interest in the previous example becomes 10 percent. At this higher rate of interest the present value of allowed depreciation expenses would be $2,633.

Why Depreciation Rules Matter. Depreciation allowances are an important element in the cost of capital. If firms are allowed to write off an investment more quickly, they are much more likely to invest more, thereby increasing the rate of economic growth, living standards and the number of jobs. As Figure II illustrates, over the long run investment and productivity are strongly correlated.

The Kennedy Tax Cut. A study by tax economist Norman Ture confirmed that accelerated depreciation during the 1950s made corporate investment significantly higher than it otherwise would have been. This positive experience led the Kennedy administration to

Dallas Headquarters: 12655 N. Central Expy., Suite 720 • Dallas, TX 75243-1739 • 214-386-6272 • Fax: 214-386-0924
Washington Office: 727 15th St. N.W., 5th Floor • Washington, DC 20005 • 202-628-6671 • Fax 202-628-6474

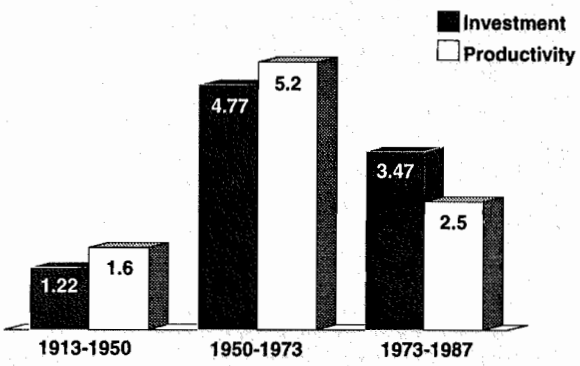
For more information: Jeanette Nordstrom or Briana Gowing 214/386-6272

further liberalize depreciation, allowing firms to write off their investments 32 percent faster on the average. Kennedy also instituted a 7 percent credit against tax liabilities for new investments in machinery and equipment. As Figure I illustrates, gross private nonresidential fixed investment as a share of GDP shot up shortly after the new depreciation rules became effective in 1962.

Liberalization in the First Reagan Tax Cut. The Kennedy administration's depreciation rules remained largely intact until 1981, when the Reagan Administration pushed for still faster depreciation rates. The reform placed all depreciable assets into four broad groups: structures could be depreciated over 15 years; and equipment, machinery and research and development expenses could be written off in ten, five or three years — depending on the type of asset.

FIGURE II

Investment and Productivity in Five Nations



Source: Angus Maddison, *Dynamic Forces in Capitalist Development* (London: Oxford University Press, 1991), pp. 142, 150.

Note: Data are the arithmetic average annual growth rates for the United States, France, Germany, the Netherlands and United Kingdom. Investment figures are based on gross nonresidential capital stock per employed person. Productivity figures are the percentage increase in the gross value added per employed person in industry.

Taking the Gains Back in Other Reagan Tax Changes. Unfortunately, Congress almost immediately took back much of 1981 acceleration the following year. Depreciation periods were further lengthened in the Tax Reform Act of 1986, which also repealed the investment tax credit. The result of these changes has been to lengthen the write-off period for depreciation of assets, thereby increasing the cost of investment and reducing capital investment, as shown in Figure I.

Achieving Neutrality. Although motivated by a desire to make tax depreciation "neutral" with regard to investment, tax reform in 1986 actually made the situation worse. Even under accelerated depreciation methods currently in effect, depreciation allowances taken in future years are worth less than those taken sooner, because of inflation and the time value of money. Economists have long held that true tax neutrality requires that firms be able to deduct the full present value of their investments.

Effects on Federal Revenues. One way to solve this problem is to allow firms to deduct the full cost of an investment in the year the investment is made. However, a major barrier to adoption of this reform is that it would lead to a huge short-term revenue loss for the government, as businesses reduced their tax payments. Although in the long run a larger capital stock would lead to permanently higher revenue for the government, current budget rules do not allow Congress to take such future revenue increases into account.

Neutral Cost Recovery. In order to get around this barrier, an alternative method of depreciation has been devised. Firms would continue to write off their investments over a period of years, but future depreciation allowances would be increased by the rate of inflation and the real interest rate. If done correctly, firms would ultimately be able to deduct the full real present value of their investments.

Such a proposal was included in the "contract" signed by nearly all Republicans running for the House of Representatives. From the point of view of investors, this tax change would be the equivalent of a $90 billion a year tax cut on new investment. However, this revenue loss would be offset by faster economic growth resulting from a larger capital stock. On net, House Republicans believe their proposal would actually increase federal revenue in the first five years.

This Brief Analysis was prepared by NCPA Senior Fellow Bruce Bartlett, an economist at the Alexis de Tocqueville Institution.