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Section 174 and Investment in Research and Development

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In determining their taxable income, companies are allowed to deduct all ordinary and necessary expenses they pay or incur in generating gross income. Those expenses can be current (purchases of inputs with useful lives of less than one year, such as materials and labor compensation) or capital (purchases of assets with useful lives longer than one year, such as patents and computer systems). Current expenses are written off in the year when they are paid or incurred. Capital expenses, by contrast, are written off over the period when acquired tangible and intangible assets lose economic value through amortization or depreciation allowances.

Since 1954, companies engaged in research and development (R&D) have been allowed to deduct in full certain R&D expenses in the year when they were paid or incurred when calculating their taxable income. This treatment is known as expensing and is allowed for qualified research expenses (QREs) related to domestic and foreign research under Internal Revenue Code (IRC) Section 174(a).

The following research expenses qualify for expensing: (1) wages and salaries of researchers, (2) materials and supplies used in qualified research, and (3) the costs of operating and maintaining research facilities (e.g., rent, utilities, and insurance). Each expense is treated as a current expense under IRC Section 162(a). Spending on equipment and buildings used to perform research must be capitalized and recovered through claiming the appropriate depreciation allowances.

Companies investing in R&D have two options for capitalizing QREs and recovering them through amortization over 5 or 10 years. IRC Section 174(b) allows companies to capitalize QREs and amortize them over a period of 5 years, beginning with the month when a company first realizes benefits from an R&D investment. (Amortization involves deducting the same amount in each year of an amortization period, until the original cost of an asset has been fully recovered.) IRC Section 59(e) allows companies to amortize QREs over 10 years, starting with the year when the expenditures were paid or incurred.

Impact of P.L. 115-97

No major change was made in IRC Section 174 between 1954 and the enactment of the 2017 tax revision (P.L. 115-97, also known as the Tax Cuts and Jobs Act or TCJA). The TCJA repealed the option to

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expense QREs, beginning in 2022. Instead, starting in 2022, companies will be required to capitalize those costs and amortize them over 5 years for domestic research and 15 years for foreign research.

Congress did not explain why it chose to eliminate expensing as a cost recovery option for QREs. One possible explanation is that Congress was looking for ways to offset the projected revenue loss from other provisions in the 2017 tax revision. The Joint Economic Committee estimated in 2017 that the amortization of QREs would result in a revenue gain of $119.7 billion from FY2022 to FY2027.

Economic Implications

The option to expense QREs has several potential advantages for firms investing in R&D, relative to amortization. First, it lowers the tax burden attributable on the returns to R&D investments, relative to other investments. Second, expensing can increase a company's short-term cash flow, but at the expense of decreased cash flow in future years. Third, QRE expensing may simplify tax accounting.

The scheduled loss of QRE expensing in 2022 would reduce a firm's tax incentive to invest in R&D. That tax incentive depends, in part, on Section 174(a) expensing and the R&D tax credit (IRC §41). The credit encourages companies to invest more in R&D over time by lowering the after-tax cost of additional R&D.

One way to illustrate the possible impact of a loss of QRE expensing on R&D investment is to examine how the loss might affect the tax burden on the returns to R&D investment. A widely used measure of this burden is the effective tax rate (ETR). It illustrates the share of pretax returns from a new investment that goes toward income taxes, taking into account the statutory tax rate and any other relevant tax preferences (e.g., credits, deferrals, and exclusions).

In a 2018 report, the Congressional Budget Office (CBO) estimated that the ETR for equity-financed investment in R&D (including the IRC Section 41 R&D tax credit) was -14% under pre-TCJA tax law, but the ETR rose to 11% starting in 2022, when the loss of IRC Section 174(a) expensing commences. A negative ETR indicates that an investment is being subsidized through the tax code. In CBO's analysis, the 25-percentage-point increase in the tax burden between 2017 and 2022 for R&D investment reflected the loss of QRE expensing.

In addition to the increased tax burden associated with amortizing R&D expenditures, short-term cash flow is also diminished with amortization, though later-year cash flow is inflated. These companies might also have to maintain two sets of records regarding their QREs: one for tax accounting and one for financial accounting. QREs are written off as a current expense according to generally accepted financial accounting principles.

Debate over Retaining the Expensing Option

The scheduled loss of IRC Section 174(a) expensing in 2022 has drawn opposition from several parties. Among the critics are many companies that invest substantial amounts in R&D. One bill (H.R. 4549) in the 116th Congress would permanently retain the expensing option beyond 2021.

One concern of these critics is that the scheduled loss of QRE expensing will lead U.S.-based firms to conduct less domestic R&D. As the CBO analysis indicated, the start of five-year amortization in 2022 might increase the after-tax cost of domestic R&D relative to the after-tax cost of R&D done in other countries. This concern may be lessened by IRC Section 174(a)'s incentive for relocating R&D operations to the United States. Starting in 2022, the amortization period for QREs from foreign research will be 15 years, as opposed to 5 years for domestic research.

By most accounts, Congress had two goals in adopting Section 174 as part of the Internal Revenue Code in 1954. One purpose was to eliminate uncertainty about the tax treatment of research expenditures by giving companies the choice of expensing those expenses or amortizing them over five or more years. A second purpose was to provide companies with a tax incentive to invest in R&D. The repeal of expensing and its replacement with five-year amortization for QREs under P.L. 115-97 appears consistent with the first goal but inconsistent with the second goal.

The switch to five-year amortization for QREs beginning in 2022 would also be inconsistent with the long-standing treatment of those expenses as current expenses under Section 162(a).

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