The Effectiveness of Research and Experimentation Tax Credits

September 1995
In 1981 Congress enacted the research and experimentation (R&E) tax credit, as a means to encourage firms to conduct additional research and development. Congress has never made the R&E tax credit a permanent feature of the tax code; instead, it has extended and modified the policy on numerous occasions, twice after allowing it to expire. The credit once again expired in June 1995, putting Congress back in the position of deciding whether to extend the credit and, if so, for how long and with what terms.

In principle, the R&E tax credit addresses an important public policy goal: stimulating private sector R&D spending, and thereby encouraging advancements in scientific and technological knowledge. As economists have long noted, R&D spending is prone to market failure due to the frequently high returns to society from R&D and the associated difficulty firms often face in appropriating the benefits of their research. Many analysts agree that the R&E tax credit is, in principle, a sensible policy instrument for encouraging the private sector to supply a more socially optimal level of R&D investment. In practice, however, the R&E tax credit often has been criticized for being indefinite in duration and unwieldy in form, for excluding certain types of R&D-performing firms, and for possibly subsidizing research that would take place regardless of the credit. Existing studies of the R&E tax credit are informative in many respects but, as this report demonstrates, are dated, less than comprehensive, or otherwise unsatisfactory.

This background paper responds to requests submitted to OTA by Senator Orrin Hatch, who chairs the Taxation Subcommittee of the Senate Committee on Finance, and Congresswoman Constance Morella, who chairs the Technology Subcommittee of the House Science Committee. The report assesses how well the R&E tax credit is currently understood, identifies inadequacies in the existing data and analyses, investigates implementation issues, considers the tax credit in the context of corporate R&D trends and Federal R&D policy more broadly, draws appropriate international comparisons, and specifies important avenues for further research.

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