



The Corporate R&D Tax Credit and U.S. Innovation and Competitiveness

Gauging the Economic and Fiscal Effectiveness of the Credit

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Introduction and summary

Investment in research and development is a significant driver of technological progress and economic growth, particularly in high-wage developed countries. The United States spends more than any other nation in the world on research and development, or R&D, but its relative position (measured by the share of such investment in national income) has been falling even as other countries increase their investments in research. In the United States, as in most other countries, business finances and carries out the majority of R&D activities.

Economic theory provides a strong justification for government support for R&D, including subsidies and incentives for business research. Without such support, companies are likely to underinvest in research (from the standpoint of the economy as a whole) because the results of R&D cannot be fully appropriated by the investing firm. Business accounts for a large and growing share of U.S. R&D spending, financing about two-thirds of the total in 2008, but business R&D as a share of U.S. gross domestic product has fallen behind the share in several other countries, including Japan and South Korea.

The U.S. government supports business R&D both through direct R&D funding, mostly dedicated to national-priority areas such as defense and health, and through tax incentives such as the research tax credit—the subject of this report. The United States was one of the first nations to provide tax incentives for business R&D, but many other countries have now introduced similar incentives, and many of their incentives are more generous. Tax incentives for business R&D have become an important tool used by countries to build their innovation capabilities and bolster their growth.

At the same time, business R&D investment is becoming more globalized. The large multinational companies headquartered in the United States, Europe, and Japan that account for more than 90 percent of business R&D worldwide are locating more of their R&D outside their home countries. Their location decisions are driven by many factors, including the growth of foreign markets, lower costs,

the availability of foreign talent, and the tax and other incentives offered by foreign governments. Foreign investments in R&D by U.S. and other multinational companies are facilitating the development of R&D capabilities and the growth of high-technology industries in many emerging-market economies, particularly China.

Competition among nations to attract business R&D and to develop technology-intensive industries is growing. This challenges U.S. policymakers to strengthen policies that make the United States an attractive location for these activities. The most important of these tax incentives is the corporate research tax credit, formally known as the Research and Experimentation Tax Credit and also referred to by the U.S. Internal Revenue Service as the Credit for Increasing Research Activities. The goal of this corporate R&D tax credit is to encourage R&D investment by domestic and foreign firms alike by rewarding incremental, qualified research in the United States.

Broad federal corporate tax reform is now under discussion in Washington, including the appropriate role of tax expenditures—special features of the tax code to encourage specific activities with incentives such as the corporate R&D tax credit. This tax credit in particular is ripe for examination because it is one of the largest corporate tax expenditures in the federal budget, amounting to between \$5 billion and \$10 billion every year. The credit has, in fact, lapsed as of January 1, 2012, but Congress can reinstate it retroactively as it has done nine times previously.

There have been many careful empirical studies of the efficacy of the corporate R&D tax credit. Most studies find that the credit is effective in the sense that each dollar of foregone tax revenue causes businesses to invest at least an additional dollar in R&D. In other words, the credit stimulates at least as much R&D activity as a direct subsidy. And unlike a subsidy, which is usually linked to a particular kind of R&D related to a specific national goal, the credit allows businesses to select projects on the basis of the anticipated returns from incremental research dollars.

In this report, we examine the role of the credit in federal government support for R&D, evaluate the credit's performance in realizing its objectives, and make recommendations to simplify, modify and strengthen its effectiveness. Our recommendations fall into two broad categories:

- **Measures to simplify the corporate R&D tax credit**
 - Evaluate the revenue and incentive effects of replacing this credit, which is designed to apply only to incremental R&D spending by a company, with a similar credit that applies to the company's full level of R&D spending.

- Evaluate the revenue and incentive effects of replacing this credit with a “superdeduction” for R&D expenses or with an R&D jobs credit for the wages paid to R&D employees.
- Replace the complex definition of qualified-research expenses eligible for this credit with the simpler definition of research expenses eligible for the research expense deduction.
- If this credit is continued in its current form, then change the base period to a period in the more recent past, such as the most recent five years.

- **Measures to strengthen the corporate R&D tax credit**

- Extend a simplified version of the tax credit for a period of 5 years to 10 years, during which the effectiveness of its new design can be assessed.
- After this period, make the simplified tax credit permanent in order to increase its effectiveness.
- Increase the tax credit by about 20 percent to keep it competitive with the tax incentives offered by other nations.
- Provide small firms a larger and, in some cases, refundable version of the tax credit.
- Drop the tax credit from the list of credits that are disallowed under the Alternative Minimum Tax.
- Coordinate data gathering and assessments of the tax credit across agencies, making as much detail as possible available to independent researchers.

The report ends with a brief discussion of the implications of comprehensive corporate tax reform for the corporate R&D tax credit. Given the spillover benefits of R&D investment and the demonstrated effectiveness of the credit, we believe it should be preserved and strengthened as part of corporate tax reform. Otherwise, innovation and growth will languish in the United States as both U.S. and foreign companies locate more of their increasingly mobile R&D to countries offering more generous tax incentives.

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