CUT TO INVEST

Make the Research & Experimentation Tax Credit Permanent

Jessica Lee and Mark Muro

Summary
A simplified and more robust Research and Experimentation (R&E) Tax Credit should be permanently authorized in order to encourage R&D investment by both domestic and foreign-owned firms located in the United States. A permanent R&E Tax Credit will bolster innovation-related investment and activity in U.S. metropolitan areas, foster prosperity, and improve the nation's standing in the global economy.

Background
The Great Recession made clear the need for a new economic growth model that prizes innovation, production, and high-value exports over domestic consumption and debt. Innovation is especially crucial to the "Next Economy" because it will allow the United States to stay at the forefront of an ever-changing world order.

Due in part to strong federal support for private-sector R&D investment, the United States has long led the world in innovation. The Research and Experimentation (R&E) Tax Credit in particular has played a key role in encouraging firms to commit funds to innovation-focused activities. When it was established in 1981, the credit was the first of its kind and provided a clear indication that the United States placed a high priority on cultivating an innovation-driven economy. Recognizing that businesses tend to underinvest in R&D, in part because they cannot fully capture returns on such investments due to spillover effects, the credit sought to provide companies large and small with a powerful added incentive for R&D investment.

Since its inception, the R&E Tax Credit has been widely held to have provided an important boost to research in the U.S., particularly in metropolitan areas. By lowering the effective tax cost of research, the credit has encouraged firms to dedicate more funds to research activity than they otherwise would. These investments in turn have helped produce increased innovation and first-mover advantages, job growth, and higher productivity levels in addition to the less easily quantified multiplier effects that redound to area economies.

Similarly, U.S. metropolitan economies have been the primary beneficiaries of the credit's stimulative effect, given that U.S. metros concentrate over 93 percent of the nation's innovative activity, R&D employment, and R&D establishments. By encouraging private investment in R&D, the credit has contributed to the strength of innovation in U.S. metros and, by extension, the economic dynamism of the nation as a whole.

The Problem

Unfortunately, the stimulative effect of the credit on private-sector R&D investment in the United States has waned over time, as has been increasingly recognized in recent years. This reduction in the R&E credit's influence stems from a number of factors, including:

- **The erosion of the comparative impact of the R&E Tax Credit**. The proliferation of incentives for R&D investment among other nations, many of which now offer permanently authorized credits that surpass the U.S. R&E Tax Credit in generosity and efficacy, has dramatically reduced the former U.S. lead with this policy measure. Recent analyses by the Information Technology and Innovation Foundation (ITIF) note that the United States now ranks 27th in terms of R&D tax inventive generosity

- **Uncertainty about the future tax climate** due to repeated expiration/reauthorization cycles, which discourages long-term R&D investments

- **Overly complicated calculation requirements** that combine with a generally vague definition of qualified expenditures to compound private-sector uncertainty and cause unnecessarily high administrative costs for companies and for the IRS

These factors have weakened the competitive power of the R&E Tax Credit and helped to undercut an important measure supporting U.S. leadership in private-sector innovation. No longer the uncontested leader in innovative activity, **the United States now ranks fourth out of 40 countries in innovation-based competitiveness and comes in second to last with regard to progress over the last decade**.

Proposal

Given these challenges, the Metropolitan Policy Program at Brookings proposes **the permanent authorization of a simpler and more generous federal Research and Experimentation (R&E) Tax Credit.**

Increasing the rate of the Alternative Simplified Credit from its most recent level of 14 percent to 20 percent would go a long way toward stimulating private-sector R&D investment. ITIF has estimated that an expansion of this size would bolster the U.S. economy by **producing a $66 billion increase in annual GDP, at least 162,000 new jobs, and an additional 3,850 patents issued to American inventors**. In addition, permanent reauthorization would bring an end to the cycle of expiration and reauthorization and the attendant uncertainty that has plagued the R&E Tax Credit since its inception.

Along these lines, extending and expanding the credit would:

- **Send a strong signal to firms throughout the world** that the United States remains fiercely committed to cultivating a vibrant innovation ecosystem

- **Encourage companies to engage in long-term planning and undertake R&D projects with longer timelines**

- **Reduce the administrative costs** incurred by firms seeking the credit and by the IRS in determining qualification and compliance

- **Bolster the power and impact of regional innovation systems**, which drive the nation's metropolitan economies

- **Contribute to the renewal of the U.S. manufacturing sector**, which represents the majority of R&D spending in the United States

As these positive effects suggest, a permanent expansion of the R&E Tax Credit would work to enhance the nation's standing in the global economy both now and in the decades ahead.

Budget Implications

Increasing the Alternative Simplified Credit from 14 percent to 20 percent would cost between $6 billion and $8 billion annually. However, as the R&D investment encouraged by the R&E Tax Credit bolsters private-sector earnings, federal tax revenues should exceed the costs of the credit after 15 years. In the President's Budget for FY 2013, the Office of Management and Budget estimated that the five-year (FY 2013-17) cost of increasing the Alternative Simplified Credit to 17 percent would be approximately $43.6 billion.

State of Play

Support for permanent authorization of the R&E Tax Credit spans the political spectrum. The U.S. Government Accountability Office; the President's Council of Advisors on Science and Technology; the Information Technology and Innovation Foundation; the American Enterprise Institute; the Heritage Foundation; business groups including the U.S. Chamber of Commerce and the National Association of Manufacturers; labor organizations such as United Steelworkers; and elected leaders including Senate Finance Committee Chairman Max Baucus and Sen. Orrin Hatch have all called for permanent authorization of the R&E Tax Credit. In addition, both parties have consistently expressed their support for basic research, as evidenced by the passage of the America COMPETES Reauthorization Act of 2010 (P.L. 111-358) and the bipartisan effort to double the budget of the National Institutes of Health.

A recent comparative study of national innovation policies by the National Academies has recommended that the United States "make the R&E tax credit permanent to provide greater certainty for long-term investments and simplify its administration to make the application process easier (and less expensive)." In addition, other National Academies reports have recommended that consideration be given to expanding the credit significantly.

At the same time, there are some who have expressed skepticism about the benefits of the R&E Tax Credit, particularly with regard to its role in generating new innovation activity. Bronwyn Hall of the University of California, Berkeley Department of Economics warns that at least some of the reported increase in research and development attributed to the R&E Tax Credit likely represents a relabeling of existing firm activities rather than truly new innovation activity. Even still, she finds that tax policy to reduce the cost of R&D does in fact affect the amount of R&D that firms choose to undertake.

In years past, concern about the effect of a permanent R&E Tax Credit on revenue costs has produced a string of short-term reauthorizations. Some concern has also been raised that simplifying the calculation of the R&E Tax Credit would encourage a greater number of companies to apply for the credit, which in turn would increase the cost of this tax expenditure. Those who support simplification of the credit calculation argue that smaller firms would comprise the bulk of new R&E Tax Credit seekers and thus would have a minimal effect on revenue costs.

Implementation Requirements

Legislative action would be required to make the R&E Tax Credit permanent and/or to change how the credit is calculated. Given that the R&E Tax Credit expired on December 31, 2011, legislative action would also be required to make any reauthorization retroactive.

References

Robert D. Atkinson, "Effective Corporate Tax Reform in the Global Innovation Economy." Washington: Information Technology & Innovation Foundation, 2009.

Martin Baily, Bruce Katz, and Darrell West, "Building a Long-Term Strategy for Growth through Innovation." Washington: Brookings Institution, 2012.

Alex M. Brill, "Statement Before the House Committee on Ways and Means, Subcommittee on Select Revenue Measures, Hearing on Framework for Evaluating Tax Extenders." Washington: American Enterprise Institute for Public Policy Research, 2012.

J.D. Foster, "Tax Extenders Bill a Good Start—Except for the Tax Increase." Washington: Heritage Foundation, 2012.

Bronwyn Hall and John Van Reenen, "How Effective are Fiscal Incentives for R&D? A Review of the Evidence." *Research Policy* 29 (2000): 449-469.

National Academy of Sciences, National Academy of Engineering, and the Institute of Medicine of the National Academies, "Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future." Washington: National Academies Press, 2007.

Organisation for Economic Co-operation and Development, "OECD Science, Technology, and Industry Scoreboard 2009." Paris: OECD, 2009.

Gregory Tassey, "Tax Incentives for Innovation: Time to Restructure the R&E Tax Credit." *Journal of Technology Transfer* 32 (2007): 605-615.

Laura Tyson and Greg Linden, "The Corporate R&D Tax Credit and U.S. Innovation and Competitiveness." Washington: Center for American Progress, 2012.

Charles W. Wessner and Alan W. Wolff, eds., "Rising to the Challenge: U.S. Innovation Policy for the Global Economy." Washington: National Academies Press, 2012.

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Remaking Federalism | Renewing the Economy

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