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It Is Time to Make the R&D Tax Credit Permanent

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In December 2010, Congress extended the research and development (R&D) tax credit through tax year 2011, but it has since lapsed and has not yet been renewed for 2012. The tax credit was first enacted in 1981 in an effort to improve the international competitiveness of American businesses by encouraging innovation and new technology.

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Concerned about the budgetary impact of lost tax revenue, Congress never made the credit permanent — though it has renewed it 14 times. This creates year-to-year uncertainty for firms that wish to plan for the long term.

What Is the R&D Tax Credit? The R&D tax credit reduces a firm's federal tax liability based on the amount spent on wages, patent attorney fees and so forth to develop a new product or improve existing products. Over the years, the credit has had several names and it has been calculated in various ways.

In recent years, firms have basically had two tax credit options: the regular research credit or the alternative simplified credit. The regular research credit is allowed for spending in excess of a specified base amount — the ratio of research and development to sales expenses in previous years. The base period is 1984 to 1988 for firms that existed at that time, and they receive a 20 percent credit on R&D. For example, if a corporation spends $500,000 on research and has sales expenses of $500,000 in a given year, its base ratio is 1:1. If its R&D spending remained the same the following four years, but its sales expenses increased to $1 million, it would not be eligible for the tax credit until it re-established a 1:1 ratio by increasing R&D spending beyond $1 million.

Since 2007, the alternative simplified credit has been available. It is a 14 percent credit for expenses in excess of 50 percent of R&D expenditures averaged over the firm's three preceding tax years. This allows a firm to continue receiving the credit even if research costs are level or decrease. A small start-up firm with no previous years' expenses can claim 6 percent of its current year research expenses against its tax liability. A start-up firm with no tax liability can carry the credit forward up to 20 years.

Benefits of the R&D Tax Credit. Several studies indicate the R&D tax credit has spurred the growth of R&D spending:

- A 2002 study examining a panel of countries (from 1979 to 1997) found that a 10 percent reduction in the after-tax cost of R&D produces an almost equivalent increase in R&D expenditures in the long run.
- A 1992 study by economist Bronwyn Hall and a 2011 study from Michigan State University found that one dollar in forgone taxes increases R&D spending by two dollars.

The R&D Credit and International Competitiveness. The R&D credit enacted by the

United States in 1981 was the most generous of any nation. However, 14 other developed countries, and the three largest developing countries — China, India and Brazil — have more generous R&D tax credits than the United States [see the figure]:

- France tops the list, with a 42.5 cent effective tax credit for every dollar of R&D spending.
- India ranks fourth, with a credit of 26.9 cents per dollar of R&D.
- Brazil ranks fifth, with a credit of 25.5 cents per dollar.
- China ranks eighth, at 13.8 cents per dollar.

Meanwhile, the United States ranks an abysmal seventeenth, with an effective tax credit of 6 cents — lower than the credit three years ago.

Moreover, China and India provide generous incentives to lure international companies to conduct research and development in their countries. According to a Deloitte survey:

- China offers foreign firms a 150 percent tax deduction for R&D, as long as R&D expenditures grow 10 percent from the previous year.
- India offers a 100 percent to 200 percent tax deduction for R&D, depending on the type of industry.

In 2011, the public and private sectors in the United States spent a combined $436 billion on research and development. It is commonly believed that the federal government is a large funder of R&D projects and, therefore, private industries should not be given additional perks in the form of tax credits. Yet direct federal money for research accounted for less than 9 percent of private industry research spending. Including government loans and tax advantages, private industry still funded almost two-thirds of its research.

Solutions. Two policy changes would make the R&D credit competitive with other countries. First, increase the credit. Many have suggested increasing the alternative simplified credit from 14 percent to 20 percent. According to Ernst and Young, increasing the simplified credit will increase R&D spending by an additional $5 billion in the short-run, and by $8 billion to $18 billion in the long-run. Increasing the alternative simplified credit, combined with the regular research credit under current law, would increase R&D spending by $23 billion to $53 billion.

Second, the R&D tax credit should not be contingent on a year-to-year renewal. Even though it has been repeatedly extended, the last-minute decision-making creates uncertainly for firms wishing to plan over several years.

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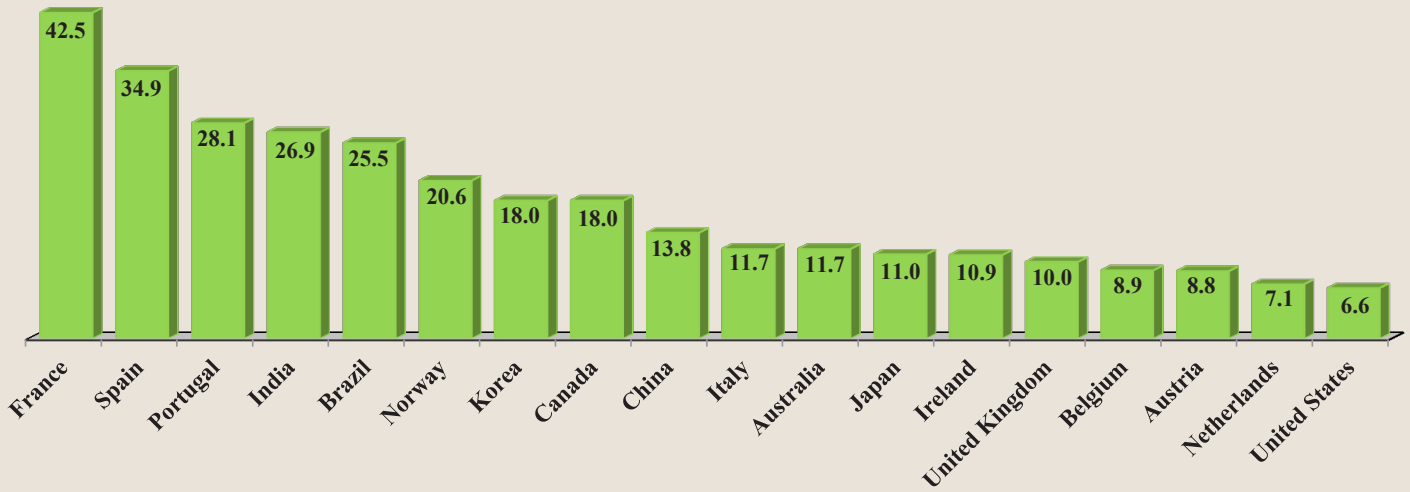
Effective R&D Tax Credit for Large Firms in Selected Countries
(cents per dollar of R&D expenditure, 2008-2009)



Source: *OECD Science, Technology and Industry Outlook 2010*, Figure 2.2, "Change in tax treatment of R&D, 1999 and 2008."