

## Questions and Answers

May 18, 2007

**1. Q. Why is research and development important to the U.S.?**

**A.** New vaccines, faster Internet and other communications capabilities, safer transportation, enhanced energy-efficient appliances, better homes, improved national security...the list of societal benefits as a result of R&D is endless. R&D is the lifeblood of the U.S. economy. Innovative ideas become reality when companies in America make a strong commitment to invest in research and development. It's a commitment to job creation, to consumers of products and services and to economic growth. The innovation process is also critical to America's future prosperity. Innovation is an intricate process that sparks a chain of investments in capital equipment, workers and spillover activities in every economic sector. Most of the R&D process is hidden from view and poorly understood.

**2. Q. What is the history of the R&D tax credit?**

**A.** Since enactment in 1981, Congress has extended the law an unprecedented 12 times, with extension times ranging from five years to just six months. However, the credit was once allowed to lapse for almost a full year and has several times been extended retroactively, detracting from the stability of the benefit. Retroactive extensions leave companies in uncertain circumstances for long periods of time beyond the expiration date.

**3. Q. What is the most recent action taken by Congress on the R&D Credit?**

**A.** In December 2006, Congress extended and strengthened the R&D Credit by extending current law and enacting a 12 percent alternative simplified credit (ASC). This change recognized the fact that many companies could not qualify for the traditional 20 percent credit due to its statutory formula and that those companies received a much smaller, 1-2 percent effective R&D credit under the alternative incremental research credit (AIRC) method. The December 2006 legislation extended the traditional credit retroactively from January 2006 to December 2007, and implemented the alternative simplified credit from January 2007 to December 2007.

**4. Q. Why is a permanent credit important?**

**A.** A permanent R&D Credit would enhance its incentive value because companies could count on the credit throughout the term of their multiyear projects. If there is any uncertainty regarding the availability of the credit, companies discount its value. This uncertainty has the counterproductive effect of reducing the credit's benefit to the economy. In addition, some studies reveal that it may take up to five years for a company to fully adjust to a change in the after-tax cost of R&D. Thus, a long-term focus is necessary to allow companies to fully change their investment behavior. A temporary credit undermines the very purpose of this critical law. R&D projects are never stop-and-go. Accordingly, the U.S. tax law encouraging R&D should not be stop-and-go.

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“... if you’re going to have a tax credit, it should not be a stop-go measure...”

– Federal Reserve Chairman Alan Greenspan  
in reply to a question about the R&D credit  
while testifying before the Joint Economic Committee

**5. Q. How does the credit work?**

- A. The R&D Credit stimulates R&D spending by all sizes of businesses in the U.S. It is specifically designed to encourage the type of commercial R&D investment that enables companies to bring new and improved products and services to the market. The credit is available only for R&D done in the United States, and applies only to the portion of a business taxpayer’s eligible expenses, called qualified research expenditures (QREs), that exceed a calculated base amount of R&D spending. More than 75 percent of credit dollars are earned on wages paid to people working in high-skilled, high-paying R&D jobs in the U.S.; in some industries, this figure is more than 90 percent.

**6. Q. What type of activity qualifies for the R&D credit?**

- A. The credit applies only to a defined portion of a company’s expenses directly related to performing domestic R&D. Only expenses that satisfy the requirements in Section 41 of the Internal Revenue Code (IRC) are eligible. Those expenses are limited to in-house wages and supplies attributable to qualified research; certain time-sharing costs for computer use in qualified research; and 65 percent of contract research expenses, i.e., amounts paid to outside contractors in the U.S. for conducting qualified research on the taxpayer’s behalf. The R&D activities must be technological in nature, involve a process of experimentation, and be directed at developing a new or improved business component.

**7. Q. How is the credit calculated?**

- A. This year, companies have the opportunity to elect to use one of three credit formulas: the traditional credit, the alternative incremental research credit (AIRC), and the alternative simplified credit (ASC).

Under the *traditional* formula, corporate taxpayers receive a 20 percent tax credit for qualified R&D expenditures in excess of a calculated base amount. The base amount for any given tax year is determined by a statutory formula. Each taxpayer has a fixed-based percentage (FBP), calculated by dividing total qualified expenses incurred during 1984 through 1988 (the base period) by total gross receipts during the same period. The taxpayer’s current base amount is the FBP multiplied by the taxpayer’s average gross receipts for the four years preceding the current tax year. The base amount used to calculate the current year’s credit, however, cannot be less than 50 percent of the current tax year’s QREs.

In 1996, Congress added the “alternative incremental research credit” or AIRC, for companies that were making significant R&D investment but were unable to use the traditional tax credit due to the mechanics used to calculate the base amount. The AIRC utilizes a reduced three-tiered FBP with a reduced three-tiered credit percentage applied to the increment to calculate the credit.

Since January 2007, companies have been able to elect the ASC, a simplified computation that provides a 12 percent credit on current year QREs in excess of 50 percent of a company’s prior three-year average of QREs (6 percent for start-up taxpayers). The ASC calculation differs from

the conventional credit and the AIRC because the ASC is calculated without reference to gross receipts; instead, it looks to the taxpayer's historical R&D spending.

**8. Q. What types of companies or business models benefit from the R&D credit and the various formulas?**

- A. Companies that benefit from the R&D Credit perform significant amounts of R&D; perform that R&D in the United States; pay significant wages to employees directly involved in performing U.S.-based R&D; cross a wide variety of innovative U.S. business sectors; and range in size from small to large. Industry sectors that use the R&D Credit include aerospace, agriculture, biotechnology, chemicals, electronics, energy, information and communications technology, manufacturing, medical technology, pharmaceuticals and software.

The *traditional* credit works well for many companies at which U.S.-based R&D spending has grown consistently with or faster than their revenue.

For a number of years, the *AIRC* has been an important alternative incentive to the traditional credit for those companies whose R&D spending has declined relative to their revenue due to changing business models or economic circumstances. Specifically, the AIRC provides a research incentive to businesses that invest heavily in R&D, but whose changing economic circumstances rendered the 1984-1988 period used to calculate the base amount an inappropriate benchmark. With the implementation of the ASC in January 2007, however, the business community believes the AIRC may no longer be utilized.

The *ASC* is likely to be used by companies in cyclical industries with evolving business models. The formula was designed for the many companies conducting significant amounts of R&D that could no longer qualify for the traditional credit or the AIRC because their R&D spending relative to gross receipts had not kept pace with the ratio set in the base period originally used. This occurred, for example, when a company's sales increased substantially in the intervening years; or when a company entered into a new line of business that generated additional gross receipts but conducted less R&D; or when a company spent less to perform R&D activities because its R&D processes become more efficient. The addition of the ASC addresses the needs of companies with these business patterns, using a more current view of what a company spends on R&D, and provides a more valuable credit to companies increasing their R&D expenditures.

**9. Q. What's wrong with just simply extending current law beyond its December 31, 2007, expiration date?**

- A. Under current law, the R&D credit provides unequal incentives for investment in innovation. Some companies are able to obtain a 20 percent credit under the traditional credit, while companies that use the ASC receive only a 12 percent benefit. The AIRC provides an even smaller incentive. All companies engaged in R&D in the U.S. should be eligible for a strong R&D credit at a commensurate rate of 20 percent.

**10. Q. Why should the Alternative Simplified Credit be increased from 12 to 20 percent?**

- A. The U.S. must increase current R&D incentives to compete for future global R&D investments. Congress should provide a commensurate R&D credit at a 20 percent rate to all companies engaged in R&D in the U.S. The majority of companies that benefit from the R&D credit are likely to use the ASC, so the enactment of legislation to increase that credit from 12 percent to 20 percent would boost the value of the credit significantly for most companies investing in R&D in the U.S.

## **11. Q. How do our foreign competitors treat R&D in their countries?**

- A. The battle among America's trading partners for a larger share of R&D investment has never been more heated. For many U.S. companies, the primary question is where a company should perform R&D. To keep future R&D activities in the U.S., Congress must enact a stronger R&D credit that allows for certainty and planning. The United States must compete for R&D investment dollars with Australia, Canada, France, India, Indonesia, Ireland, Japan, the Netherlands, Pakistan, Portugal, Singapore, Spain, the UK and other countries that provide rich, permanent R&D incentives to induce businesses to locate research activities in those countries.

For example, Canada provides a 20 percent flat credit for R&D spending that includes wage and capital expenditures. In 2003, U.S. subsidiaries spent \$2.5 billion on R&D in Canada, which has mounted an aggressive marketing campaign, including television and print advertisements, to lure more U.S. companies to locate R&D operations north of the border. Ireland is another country that offers a 20 percent credit, as well a full deduction, a low corporate tax rate, advanced infrastructure and a skilled, English-speaking workforce – all factors that appeal to many multinational companies.

Other countries striving to boost their economic growth and raise their standard of living are drawing U.S.-based R&D investment dollars to their shores with incentives that, unlike those of the U.S., are permanent. The one-year lapse of the U.S. R&D credit in the mid-1990s remains a painful memory for companies performing R&D here. Companies must continue to assess the financial risk associated with a temporary R&D credit that may be diluted or gone by the time an R&D project is completed.

The far-reaching consequences of losing U.S.-based R&D permeate every domestic economic sphere. In particular, jobs in the U.S. are permanently lost when a company starts a new R&D project abroad. The ripple effect on jobs can be felt by suppliers that would have provided machinery, parts, transportation and other components associated with R&D and its resulting new products and improved processes.

## **12. Q. What are the direct and indirect benefits of the R&D Credit?**

- A. A small, medium or large company using the R&D credit reduces its financial risk in expensive, labor-intensive R&D investments that may or may not result in a new product, process, or productivity improvement. Many companies have more R&D ideas than money. The R&D credit provides a critically important incentive for funding the riskiest ideas. A strong, permanent R&D credit would enable companies to bring more products and services to market, increase employment and raise the standard of living for all Americans.

The indirect benefits of R&D are exponential. U.S.-based R&D spurs growth in nearly every sector of the economy. The societal benefits, ranging from new medical treatments that save lives to new and better consumer products, raise America's standard of living. In fact, society as a whole reaps the greatest return on any given company's R&D investment.

The social return from basic and applied corporate R&D is, on average, twice as high as the private return from R&D. In some industries, the social return is eight times the private return. Generally, businesses do not consider the benefits to society when making their R&D investment decisions, resulting in an economy-wide underinvestment in R&D. Thus, the R&D credit is important to reduce the after-tax cost of these investments. Without the R&D credit, there would be less innovation, less technological breakthroughs and greater loss of market share to foreign competitors.

While it is clear that consumers benefit from new products and services, the chain of beneficiaries between innovator and consumer is not so readily apparent. Some of the spillover beneficiaries include: advertisers, educators and trainers, marketers, salespeople, suppliers, and transporters.

The cycle repeats itself when researchers invent new products and services that extend the value of the original innovation.