

The Case for Repealing the R&D Amortization Provision in the 2017 Tax Cuts and Jobs Act

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Starting in 2022, a provision in the 2017 Tax Cuts and Jobs Act will require companies to start amortizing their R&D investments over five years instead of expensing them in the same year they incur the costs. Congress should repeal the rule before it takes effect. Otherwise, companies will do less research in the United States, jobs will be lost, and U.S. competitiveness will suffer.

KEY TAKEAWAYS

- The R&D tax credit not only spurs firms to conduct more R&D than they would otherwise; it also leads more of that R&D to be performed in the United States instead of offshore.
- The 2017 Tax Cuts and Jobs Act (TCJA) will no longer allow companies to expense current R&D costs in the first year. Starting in 2022, they will instead be required to amortize the costs over five years. This will reduce U.S. R&D.
- The United States currently ranks 24th out of 34 OECD and BRIC nations in the generosity of its R&D tax incentive. If Congress lets this legislative change go forward, the U.S. ranking will fall to 32nd out of 34.
- The U.S. credit is just 39 percent of the optimal level to maximize benefits relative to costs—and if the TCJA amortization provision is not repealed, the new effective rate will be just 18 percent of the optimal rate.
- Without repeal, the tax benefit China provides companies conducting R&D will increase from 2.7 times more generous than the U.S. benefit to 5.7 times more generous.
- If the TCJA's amortization provision takes effect, then after 10 years it would reduce U.S. GDP by \$45 billion and cost more than 48,000 direct jobs.

INTRODUCTION

The 2017 Tax Cuts and Jobs Act (TCJA) made a significant number of changes to both the corporate and personal tax codes. Many of these were intended to make the U.S. economy more globally competitive. Unfortunately, one change will have the opposite effect. Starting January 1, 2022, the tax code will no longer allow companies to expense current research and development (R&D) costs in the first year (to deduct the costs of R&D from their taxable income in the year they incur those costs) and instead will require costs to be amortized over a period of five years. Because of the time value of money, this change will reduce the tax benefits for companies that come from investing in R&D, and as such will result in relatively less domestic R&D and fewer jobs.

Given the intensity of global competition for advanced industry jobs, and the fact that the U.S. R&D tax credit is relatively weak compared with those of U.S. competitors, Congress should pass legislation this year to allow companies to continue expensing their R&D investments. Both the American Innovation and R&D Competitiveness Act of 2021 (H.R. 1304) and the American Innovation and Jobs Act (S. 749) would stop the TCJA amortization provision from taking effect.

R&D TAX INCENTIVES AS A KEY COMPETITIVENESS TOOL

Most developed and emerging economies are competing intensely for advanced technology goods and services jobs. They do not want economies built around tourism, low-wage manufacturing, and natural resources. So, their policies support firms in innovation industries, including semiconductors, autos, aerospace, instruments, machine tools, software, and drugs.

Governments do that with a variety of tools, including STEM (science, technology, engineering, and mathematics) education, R&D funding, government procurement of advanced tech products, and the tax code. In particular, many nations provide a tax incentive for companies to invest in R&D. The rationale for an R&D tax incentive—either a tax credit or a “super deduction” against qualified R&D expenditures—is twofold. First, most economists agree that firms cannot capture all the benefits of the research they do because it “spills over” to other firms, even with patent protection. As such, just as there is an economic rationale to tax negative spillovers such as pollution, there is an economic rationale to subsidize activities with positive spillovers, such as R&D. This is why most economists believe that the R&D credit helps correct a market failure.

Over the last decade, a second factor has gained prominence: the role of R&D incentives in attracting R&D to a particular political jurisdiction.¹ Studies of R&D incentives show that they not only spur firms to do more R&D than they would otherwise do, but also lead more of that R&D to be performed in the jurisdiction with the incentive. Moreover, most academic studies of R&D incentives show that they stimulate more additional R&D than the cost of direct foregone tax revenues.²

THE U.S. RANK ON R&D INCENTIVES INTERNATIONALLY

This raises the key question of where the United States—the first country to establish an R&D tax credit in 1981—ranks internationally in R&D tax incentives. As recently as the mid-1990s, the United States offered the most generous R&D tax incentive in the world. But that is no longer the case. Among a comparison group of 34 nations—30 OECD nations with more than 4 million people, plus the four BRICs (Brazil, Russia, India, and China)—America’s R&D tax credit support

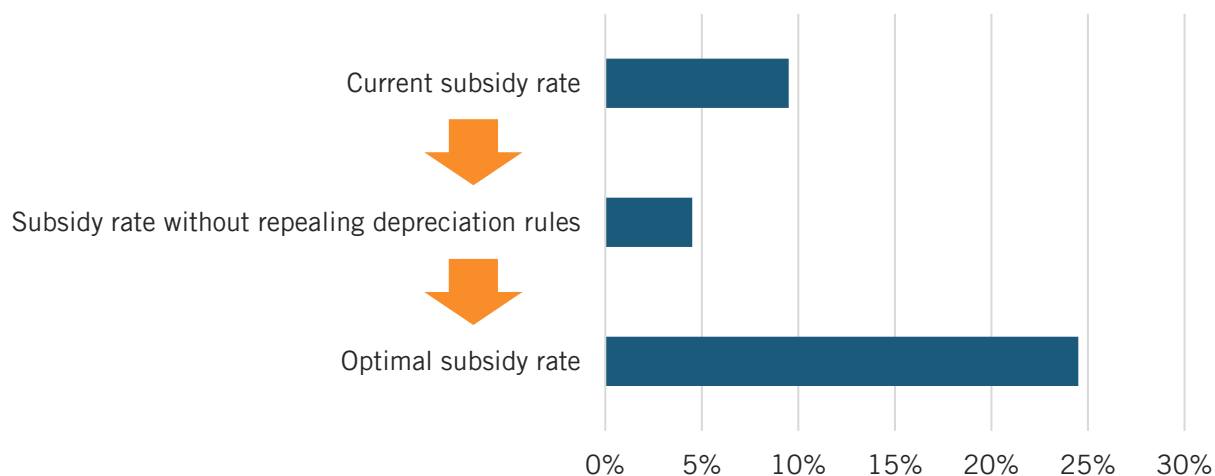
ranks just 24th in its generosity. This is because other nations have either put in place R&D tax incentives or expanded them.³ Firms in China, for example, receive a tax incentive for R&D that is 2.7 times more generous than it is for firms in America. Overall, the U.S. R&D tax subsidy rate of 9.5 percent is just 57 percent of the median rate of the other 33 nations in the comparison group, and 55 percent of the GDP-weighted average rate.⁴

EFFECTS OF THE TCJA CHANGES

This is where the change in the TCJA comes in. The United States will become one of the only countries that does not allow companies to expense current R&D costs.⁵ If Congress does nothing and lets this legislative change go ahead, the result will be a dramatically reduced incentive to invest in R&D, with the United States falling from 24th to 32nd place in R&D tax incentive generosity. If implemented at the federal level only, this would reduce the R&D subsidy by about 5 percentage points, from around 9 percent to 4 percent. If all states were to follow the federal lead and eliminate expensing on their own R&D incentives, the average U.S. R&D subsidy rate would fall by 6.7 percentage points.

It would be one thing if the U.S. R&D incentive were already pretty generous. In reality, it is far from the rate that would optimize economic benefits relative to costs. According to the Information Technology and Innovation Foundation (ITIF), the optimal credit rate—the rate at which further increases produce less overall economic benefits than costs—is significantly higher than the current subsidy rate.⁶ (See figure 1.) The current rate is just 39 percent of the optimal rate. And if the TCJA amortization change is not repealed, the new effective rate will be just 18 percent of the optimal rate. In fact, if the effective rate were increased from its current 9 percent to 15.5 percent by eliminating the 2017 expensing repeal, and effective rates for two federal R&D credits (the regular credit and the alternative simplified credit) were slightly more than doubled, the benefits would still far outweigh the costs, and would put the United States near the median of other countries in R&D tax generosity.

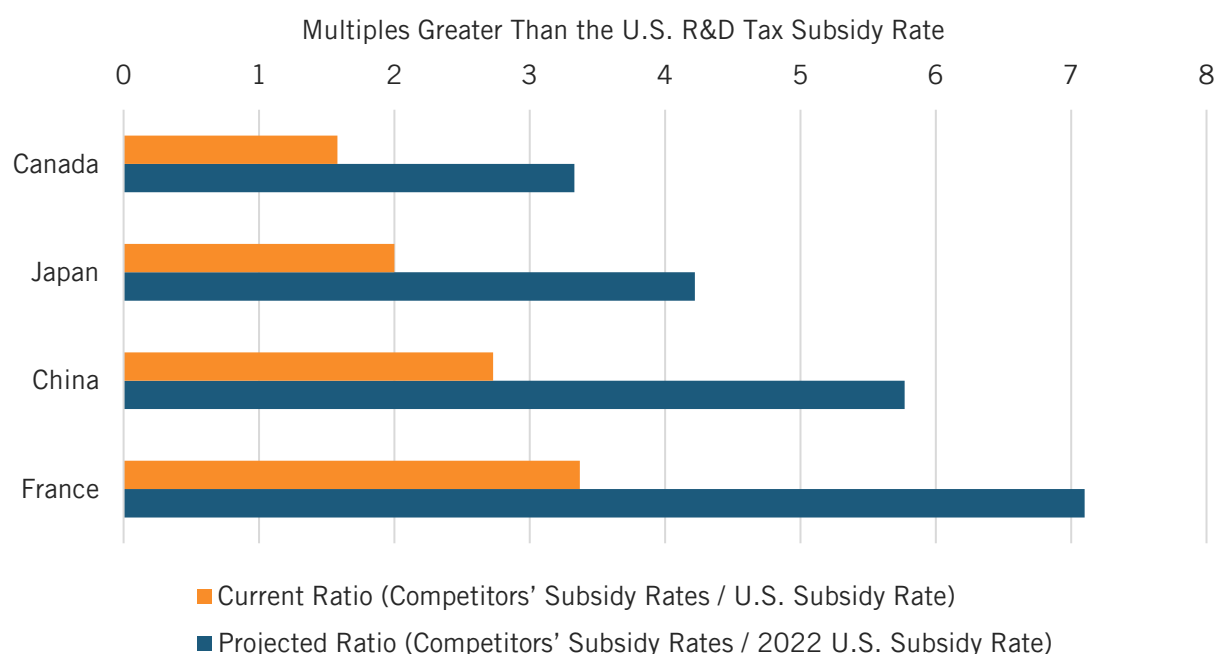
Figure 1: Current and projected law versus the optimal U.S. R&D tax subsidy rate⁷



Not repealing the TCJA provision on expensing would have measurable negative impacts on U.S. innovation, economic growth, jobs, and competitiveness, in part because it would significantly reduce the relative generosity of the U.S. credit relative to our major international competitors.

For example, as mentioned, China subsidizes R&D spending at 2.7 times the current rate in the United States. If Congress does not repeal the amortization provision, China's R&D tax subsidy will be 5.7 times more generous than the U.S. subsidy, Canada will see its advantage over the United States in R&D go from 1.6 to 3.3 times greater, Japan's advantage will increase to a multiple of 4.2, and France's subsidy will increase to a whopping 7.1 times more generous. (See figure 2.)

Figure 2: Select competitors' R&D tax subsidy rates versus the U.S. rate under current and projected law⁸



The change in the amortization provisions would also have negative impacts on R&D and jobs. If the amount of R&D performed falls proportionally to the fall in the subsidy rate, firms in the United States will be expected to invest around \$7 billion less in R&D annually. This would reduce the U.S. R&D stock by an estimated 0.213 percent, which in turn would reduce U.S. productivity growth by 0.05 percent a year. After 10 years, the U.S. economy would be \$45.2 billion smaller than it would otherwise.⁹ The reduced spending on R&D would lead to a reduction in direct jobs of approximately 48,400 and a total reduction from direct and induced spending of 99,000 jobs.¹⁰

This is similar to the findings of the Tax Foundation, which conducted its own analysis of the economic impacts of the TCJA amortization provision being repealed. It estimated that there would be slightly fewer direct jobs (30,600) but that it would have a larger overall economic impact (0.15 percent of GDP). Likewise, in a report prepared for the R&D Coalition, Ernst and Young found that not repealing the provision would reduce employment by 169,400 jobs (direct and induced) over five years.¹¹ Either way, all three estimates point to significant economic benefits of repealing the TCJA R&D amortization provisions.

About the Author

Robert D. Atkinson (@RobAtkinsonITIF) is the founder and president of ITIF. Atkinson's books include *Big Is Beautiful: Debunking the Myth of Small Business* (MIT, 2018), *Innovation Economics: The Race for Global Advantage* (Yale, 2012), *Supply-Side Follies: Why Conservative Economics Fails, Liberal Economics Falts, and Innovation Economics Is the Answer* (Rowman Littlefield, 2007), and *The Past and Future of America's Economy: Long Waves of Innovation That Power Cycles of Growth* (Edward Elgar, 2005). Atkinson holds a Ph.D. in city and regional planning from the University of North Carolina, Chapel Hill.

About ITIF

The Information Technology and Innovation Foundation (ITIF) is an independent, nonprofit, nonpartisan research and educational institute focusing on the intersection of technological innovation and public policy. Recognized by its peers in the think tank community as the global center of excellence for science and technology policy, ITIF's mission is to formulate and promote policy solutions that accelerate innovation and boost productivity to spur growth, opportunity, and progress. For more information, visit itif.org.

ENDNOTES

1. Robert D. Atkinson, "Expanding the R&E Tax Credit to Drive Innovation, Competitiveness and Prosperity" (ITIF, July 2007), <https://itif.org/publications/2007/07/24/expanding-re-tax-credit-drive-innovation-competitiveness-and-prosperity>.
2. Robert D. Atkinson, "Effective Corporate Tax Reform in the Global Innovation Economy" (ITIF, July 2009), https://itif.org/files/090723_CorpTax.pdf.
3. John Lester and Jacek Warda, "Enhanced Tax Incentives for R&D Would Make Americans Richer" (ITIF, September 2020), <https://www2.itif.org/2020-enhanced-tax-incentives-rd.pdf>.
4. ITIF calculations based on figures in Lester and Warda, "Enhanced Tax Incentives for R&D Would Make Americans Richer" (ITIF, September 2020), <https://itif.org/publications/2020/09/08/enhanced-tax-incentives-rd-would-make-americans-richer>.
5. Ibid
6. Ibid.
7. Ibid.
8. Ibid.
9. See, for description of methodology: Robert D. Atkinson, "Create Jobs by Expanding the R&D Tax Credit" (ITIF, January 2010), <https://itif.org/publications/2010/01/26/create-jobs-expanding-rd-tax-credit>.
10. This was calculated based on the methodology in the ITIF report: Daniel Castro and Rob Atkinson, "'Stim-Novation': Investing in Research to Spur Innovation and Boost Jobs" (ITIF, January 2009), <https://itif.org/files/2009-stim-novation.pdf>. Using the CPI inflation rate, expected decline in R&D spending was 30 percent.
11. "Impact of the amortization of certain R&D expenditures on R&D spending in the United States" (EY, October 2019), <https://investinamericasfuture.org/wp-content/uploads/2019/10/EY-RD-Coalition-TCJA-R-and-D-amortization-report-Oct-2019-1.pdf>.