

# Investments in U.S. Semiconductor Innovation Hindered by R&D Amortization

*Congress must repeal the requirement to amortize R&D expenses and restore the longstanding, immediate deduction of research expenditures critical to U.S. semiconductor leadership.*

## The Importance of R&D

For decades, private sector investments in semiconductor research and development (R&D) propelled rapid innovation in semiconductor technologies, contributing to economic growth, national security, and seismic shifts in computing, 5G, health care, cybersecurity, energy, AI, and more.

The immediate deduction for U.S. R&D expenditures provided a longstanding incentive for chip companies to make those investments, helping to sustain U.S. leadership in this vital technology.

- To maintain global leadership, many U.S. semiconductor companies invest more than 20% of revenue in research, with semiconductors being the #2 industry in R&D spending as a share of revenue. In 2021, U.S. semiconductor R&D investments totaled \$50.2 billion.<sup>1</sup>
- R&D costs are rising exponentially, with the most advanced semiconductor node costing more than \$500 million to design - double the cost to design the previous leading-edge chips.<sup>2</sup>
- Full and immediate expensing is necessary to spur R&D investments in the U.S. and allows companies to further innovate and expand the domestic R&D workforce. On average, 75% of R&D spending goes toward wages and salaries.<sup>3</sup>

## The Challenge

Since 1954, R&D expenditures were treated as an immediate and full deduction. Beginning in 2022, however, U.S. R&D expenses must now be amortized over 5 years, making it less attractive to perform R&D in the U.S. and harming domestic competitiveness in the semiconductor industry.

- As the U.S. incentive for research fails to keep pace with global competitors, other countries continue to offer strong incentives for companies to make domestic R&D investments.
- A taxpayer in China may now claim an additional 100% "super deduction" of eligible R&D expenses. Meanwhile, for a \$100 R&D investment made in 2023, a U.S. taxpayer can deduct \$10 in the first year, \$20 in each year following, until the last \$10 can be expensed in 2028.<sup>4</sup> This means that on the same \$100 of R&D, a Chinese company may deduct \$200, or 20 times as much as the \$10 by a U.S. company in the first year of the expense.
- Even prior to the amortization requirement, the U.S. R&D incentive trailed those offered by global competitors. Under the new law, between the impact of inflation and opportunity cost of amortization, the requirement creates an 11 percent tax penalty on R&D.<sup>5</sup> Accordingly, the U.S. ranking is projected to fall to the bottom quarter of OECD countries for R&D incentives.<sup>6</sup>

## The Solution

**Congress must act immediately to restore the full deductibility of R&D expenditures on a permanent basis, with a retroactive fix to address the harm caused in 2022.**

- It is essential that Congress act to restore the immediate expensing of R&D to continue U.S. leadership in semiconductors and other research-intensive industries; SIA supports the bipartisan *American Innovation and Jobs Act* (S. 866) and the *American Innovation and R&D Competitiveness Act* (H.R. 2673) to achieve these goals.
- Restoring the immediate deduction for R&D expenditures would put the U.S. back on track as a competitive place to conduct R&D, boost the number of technologies commercialized domestically, attract and retain talented workers, and grow the U.S. economy.

<sup>1</sup> SIA, [State of the Industry](#), November 2022, at 23

<sup>2</sup> SIA/BCG, [The Growing Challenge of Semiconductor Design Leadership](#), November 2022, at 14

<sup>3</sup> IRS, [Statistics of Income, Corporation Income Tax Returns Line Item Estimates 2019](#), Publication 5108, Rev. 6-2022, Form 6765, at 176

<sup>4</sup> R&D Coalition, [Letter from CFOs to Congressional Leaders](#), November 2022, at 1

<sup>5</sup> WSJ, [Why Does the U.S. Tax Code Penalize R&D?](#), January 2023

<sup>6</sup> ITIF, [Enhanced Tax Incentives for R&D Would Make Americans Richer](#), September 2020, at 1, 6