R&D Tax Incentives: United States, 2018

Design features

The United States federal government provides R&D tax relief through an incremental R&D tax credit with 4 components:

- In the case of insufficient tax liability, unused tax credits can be carried-forward for 20 years. Since 2016, certain start-ups may elect to apply a portion of their research credit (up to USD 250 000) against their payroll tax liability, instead of their income tax liability.
- A ceiling applies on the amount of R&D tax relief that can be claimed in the reporting period.

Table 1. Main design features of R&D tax incentives in United States, 2018†

<table>
<thead>
<tr>
<th>Tax incentive</th>
<th>Regular research credit (RRC)</th>
<th>Alternative simplified credit (ASC)*</th>
<th>Credit for basic research</th>
<th>Energy research credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of instrument</td>
<td>Incremental</td>
<td>Volume-based</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible expenditures1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headline rates (%)</td>
<td>Current</td>
<td>14 (if no R&amp;D in past 3 years)</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Refund</td>
<td>Certain start-ups only: Tax offset against PWHT instead of income tax liability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carry-over (years)</td>
<td>20 (carry-forward), 1 (carry-back)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thresholds</td>
<td>Base amount</td>
<td>Yes**</td>
<td>Yes***</td>
<td>Yes**</td>
</tr>
<tr>
<td>Ceilings</td>
<td>R&amp;D tax relief</td>
<td>Net income tax less the greater of TMT or 25% of tax liability above USD 25 000.</td>
<td>For eligible small business, TMT treated as zero</td>
<td></td>
</tr>
<tr>
<td>Refund-specific</td>
<td>USD 250 000 (certain start-ups only)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PWHT: Payroll withholding tax; 1. TMT: Tentative Minimum Tax liability; * In 2009, the ASC replaced the Alternative Incremental Research Credit (AIRC). **: Product of a firm’s average annual gross receipts in previous four tax years and the ratio of its qualified research expenses and gross receipts during its base period. ***: 50% of the average qualified research expenses for the three preceding years; †: Sum of (a) the greater of two minimum basic research floors plus (b) an amount reflecting any decrease in non-research giving to universities by the firm as compared to such giving during a fixed-base period.

For additional information: OECD R&D Tax Incentive Compendium and Eligibility of current and capital expenditure for R&D tax relief


Recent developments and trends

Differences in the design of R&D tax incentives drive a significant variation in the expected generosity of tax relief per additional unit of R&D investment across OECD and partner economies and over time. In 2018, the R&D tax subsidy rate for profit-making (loss-making) SMEs in the United States is estimated to be 0.05 (0.04), well below the OECD median of 0.20 (0.17). The tax subsidy rate for large enterprises is equal to 0.05 (0.04) in the profit (loss-making) scenario, below the OECD median, 0.13 (0.10). These estimates focus on modelling provisions of the Regular Research Credit (RRC) and the Alternative Simplified Credit (ASC).

The generosity of R&D tax incentives declined slightly in the United States over the 2000-18 period, as measured by the implied R&D tax subsidy rate for SMEs and large firms in the profit and loss-making scenario. This decline is related to the weights attached in the modelling exercise to each of the R&D tax credits available and modelled during 2000-2018 (RRC, ASC/AIRC). With a weighting based on qualifying R&D expenditure, more weight is attached over time to RRC claims subject to the 50% current R&D expenditure limitation (10% marginal tax credit rate) vs. excess base limitation (20% marginal tax credit rate). Moreover, in the computation of the overall R&D tax subsidy across the two tax credits considered (RRC and ASC), a larger weight is assigned over time to the alternative simplified tax credit. The ASC entails a smaller subsidy rate than the regular research tax credit subject to either limitation. In 2016, tax credits became payable for SMEs, leading to an increase in the SME tax subsidy rate estimated for the loss case. Implied tax subsidy rates increased in 2018 as a result of the corporate income tax rate reduction, enhancing the value of the taxable Federal research and experimentation tax credit in the United States.

Figure 1. Implied tax subsidy rates on R&D expenditures: United States, 2000-2018

1-B-index, by firm size and profit scenario

Note: Implied marginal tax subsidy rates, presented for different firm size and profitability scenarios, are calculated based on headline tax credit/allowance rates. Headline tax credit/allowance rates provide an upper bound value of the generosity of R&D tax incentives, not reflecting the effect of thresholds and ceilings that may limit the amount of qualifying R&D expenditure or value of R&D tax relief. For more information on the calculation of implied tax subsidy rates, see http://www.oecd.org/sti/rd_taxstats/bindex_methodology.pdf, and for notes regarding the modelling of the country-specific time series, see http://www.oecd.org/sti/rd_tax_stats/bindex_notes.pdf

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A taxpayer that claims a research credit must reduce the business deduction for research expenditures by the amount of the credit claimed.
Public support for business R&D: the policy mix

Governments adopt various instruments to incentivise R&D by business. In addition to direct support such as grants and buying R&D services, 30 out of the 36 OECD countries provided fiscal incentives in 2018.

Figure 2. Direct government funding of business R&D and tax incentives for R&D, 2016 (nearest year) As a percentage of GDP


- The United States ranks eight among OECD and partner economies in terms of total government support to business R&D as a percentage of GDP, equivalent to 0.24% of GDP in 2013 (the most recent year for which estimates of the cost of R&D tax incentive support are currently available).
- From 2006 to 2013, government support for BERD as a percentage of GDP increased in United States by 0.01 percentage points, while the OECD median (2006-16) increased by 0.02 percentage points.
- From 2006 to 2013, business R&D intensity in the United States increased from 1.79% to 1.92%.
- In 2013, tax incentives accounted for 28% of total government support for BERD in the United States.

Trends in government support for business R&D

Over the last decade, a general trend towards non-discretionary instruments such as R&D tax incentives has been observed. This trend is far from uniform and the policy mix can vary by country and over time.

Figure 3. Direct funding of business R&D and tax incentives for R&D, United States, 2000-13 As a percentage of GDP, 2010 prices (right-hand scale)


- Between 2000 and 2013, government support for BERD in the United States was largely skewed towards direct funding. An increase in the importance of R&D tax incentives is noticeable from 2009 onwards, both in absolute and relative terms.
- The cost of tax support rose (in 2010 prices) from USD 8.8 billion in 2000 to USD 10.7 billion in 2013.
- As percentage of GDP, tax support remained practically unchanged at 0.07% of GDP over this period.
- Direct funding of BERD increased slightly from 0.17% of GDP in 2000 to 0.18% of GDP in 2013.
- The share of R&D tax incentives in total government support declined from 29% in 2000 to 16% in 2009, and steadily increased thereafter to reach 28% in 2013.


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