R&D Tax Incentives: Czech Republic, 2021

Design of R&D tax relief provisions

The **Czech Republic** provides R&D tax relief through a hybrid R&D tax allowance, which has both a volume-based and incremental component.

<table>
<thead>
<tr>
<th>R&amp;D tax allowance</th>
<th>Type of instrument</th>
<th>Eligible expenditures</th>
<th>Headline rates (%)</th>
<th>Refund</th>
<th>Carry-over (years)</th>
<th>Thresholds</th>
<th>Ceilings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hybrid (volume-based and incremental)</td>
<td>Current* and depreciation of movable fixed assets</td>
<td>Volume: 100 Increment: 10</td>
<td>No</td>
<td>3 (carry-forward)</td>
<td>Base amount Qualifying R&amp;D expenditure in the previous year</td>
<td>No</td>
</tr>
</tbody>
</table>

*Effective January 2014, qualifying expenses have been expanded to include external services related to R&D provided by public R&D institutions such as universities and research institutes.

**Key features:**
- The base amount above which R&D expenditure qualify for the incremental tax allowance of 10% is defined as the amount of qualifying R&D expenditures in the previous year.
- In case of insufficient tax liability, unused allowances can be carried-forward for three years.
- No upper ceiling applies on the amount of qualifying R&D expenditure or value of R&D tax relief.

Generosity of R&D tax support in 2021

Differences in the design of R&D tax incentives drive significant variation in the expected generosity of tax relief per additional unit of R&D investment. In 2021, the marginal tax subsidy rate for profit-making (loss-making) SMEs in the **Czech Republic** is estimated at 0.21 (0.15), above (below) the OECD median of 0.20 (0.18). The implied tax subsidy rate for large firms is also equal to 0.21 (0.15) in the profit (loss)-making scenario, well above (equal to) the OECD median of 0.17 (0.15).

**Figure 1. Implied tax subsidy rates on R&D expenditures: Czech Republic, 2021**

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 (see methodology and country-specific notes), providing an upper bound value of the generosity of R&D tax support, not reflecting the effect of thresholds and ceilings that may limit the amount of qualifying R&D expenditure or value of tax relief.

Recent developments in R&D tax relief provisions

Regular reforms of R&D tax incentives lead to continuous changes in the availability, scope and generosity of R&D tax incentives. Such reforms relate to the launch of new tax incentives, the R&D definition adopted for tax purposes, changes in tax credit and allowance rates, adjustments of thresholds or upper ceilings on qualifying R&D expenditure or tax relief amounts, or changes in the terms and availability of refunds.

In 2021, the Czech Republic did not undertake changes in its R&D tax relief provisions. The latest change in the design of the R&D tax allowance in the Czech Republic occurred in 2014, when the R&D tax allowance became hybrid, including an incremental allowance of 10% for eligible R&D expenditure above the base amount (level of previous year R&D spending). In this year, qualifying R&D expenditures were also expanded to additionally cover R&D services subcontracted to public R&D institutions.

Trends in the generosity of R&D tax support

Since the introduction of R&D tax support in the Czech Republic in 2005, implied marginal R&D tax subsidy rates have declined over time with a slight upturn in more recent years.

In 2005, the R&D tax subsidy rate for profitable (loss-making) SMEs and large firms was 0.30 (0.21) and reached 0.20 (0.15) in 2010. This decline is mainly attributable to the step-wise reduction in the corporate income tax rate between 2005 and 2010, whose magnitude directly affects the value of tax deductions.

A slight increase in implied subsidy rates is observable for profit-making firms in 2014, when the R&D tax allowance was extended to incorporate an incremental component and include machinery and equipment depreciation as eligible expenses.

With no additional changes in the design of the R&D tax allowance or CIT rates since 2014, the estimated implied R&D tax subsidy rate has remained stable ever since, looking at each of the four scenarios considered.

Figure 2. Implied tax subsidy rates on R&D expenditures: Czech Republic, 2000-21

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 (see methodology and country-specific notes), providing an upper bound value of the generosity of R&D tax support, not reflecting the effect of thresholds and ceilings that may limit the amount of qualifying R&D expenditure or value of tax relief.

Policy support for business R&D: the policy mix

In 2019, the Czech Republic is placed below the OECD average in terms of total government support to business R&D as a percentage of GDP, at a rate equivalent to 0.13% of GDP.

Figure 3. Direct government funding of business R&D and tax incentives for R&D, 2019 (nearest year)

As a percentage of GDP

Note: Data on subnational tax support are only available for a group of countries.

Key points:
- From 2006 to 2019, total government support for BERD as a percentage of GDP in the Czech Republic declined by 0.01 percentage point (pp), while the OECD average increased by 0.05 pp.
- During this period, business R&D intensity in the Czech Republic increased from 0.72% to 1.2%.
- In 2019, tax incentives accounted for 37% of government support for BERD in the Czech Republic.

Distribution of R&D tax relief recipients and government tax relief for R&D

The distribution of R&D tax relief recipients and government tax relief for R&D expenditures (GTARD) provide insights into what types of firms claim and benefit from tax relief.

Figure 4. Number of R&D tax relief recipients and value of government tax relief for R&D, 2019

By firm size*, share in percent

By industry**, share in percent

Note: Figures refer to the R&D tax allowance. *SMEs are defined as firms with 1-249 employees. **Economic activity is classified based on NACE C (manufacturing), NACE G-T (services) and NACE A,B,D,E,F (other sectors).

Key points:
- In the Czech Republic, SMEs accounted for 73% of R&D tax relief recipients in 2019, while the share of R&D tax relief accounted for by SMEs amounted to around 24% in this year. 76% of R&D tax benefits were allocated to large firms, comprising 27% of the population of R&D tax relief recipients in 2019.
- In 2019, firms in manufacturing represented around 58% of R&D tax relief recipients in the Czech Republic, followed by firms in services with a share of 39%. The share of R&D tax benefits accounted for by the latter amounted to 30% in that year, while this share amounted to 67% in the case of firms in manufacturing.
Trends in the uptake of R&D tax incentives

Over the period 2005-2019, the number of R&D tax relief recipients increased in the Czech Republic, reaching a peak of 1,311 recipients in 2015. From 2015 onwards, the number of R&D tax relief recipients declined steadily, dropping to around 950 in 2019. The changes observed over the 2007-19 period are primarily attributable to SMEs. Throughout these years, SMEs accounted for around 75-80% of R&D tax relief recipients in the Czech Republic. From 2007 to 2019, the number of SMEs receiving R&D tax support increased from around 460 to 690, while the number of large firms receiving tax support increased from around 115 to 260.

Figure 5. Number of R&D tax relief recipients, Czech Republic, 2005-2019

Note: Figures refer to the R&D tax allowance.

Trends in government support for business R&D

Since the introduction of an R&D tax allowance in 2005, the importance of R&D tax incentives has increased significantly in the Czech Republic, both in absolute and relative terms.

Figure 6. Direct funding of business R&D and tax incentives for R&D, Czech Republic, 2000-19

As a percentage of GDP, 2015 prices (right-hand scale)


- In the Czech Republic, the cost of government tax relief for R&D rose (in 2015 prices) from CZK 986 million in 2005 to CZK 2,507 million in 2019 (1 CZK= 0.039 EUR, Q3 2021).
- As percentage of GDP, R&D tax support increased from 0.026% to 0.05% of GDP during this period.
- Direct funding of BERD increased from 2005 to 2011, declined to reach 0.06% of GDP in 2016 but then reverted to reach 0.08% of GDP in 2019.
- Total government support for BERD in 2019 (0.13%) coincides with its 2005 level.
- The share of R&D tax incentives in total government support effectively doubled over the 2005-19 period, increasing from 20% in 2005 to 37% in 2019.


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