R&D Tax Incentives: Turkey, 2018

Design features

Turkey provides R&D tax relief through an incremental R&D tax allowance and partial exemption from employer social security contributions (SSC).

- The headline rate of the incremental R&D tax allowance is 50%.
- Unused tax benefits can be carried-forward for an indefinite period in the case of the R&D tax allowance. Under the SSC exemption, tax benefits are administered through the social security contributions system, and are thus disconnected from the corporate tax liability of the firm.
- A ceiling applies on the full-time equivalent support personnel who benefit from the SSC exemption.

Table 1. Main design features of R&D tax incentives in Turkey, 2018

<table>
<thead>
<tr>
<th>Tax incentive*</th>
<th>R&amp;D tax allowance</th>
<th>SSC exemption</th>
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</thead>
<tbody>
<tr>
<td>Type of instrument</td>
<td>Incremental</td>
<td>Volume based</td>
</tr>
<tr>
<td>Eligible expenditures†</td>
<td>Current, machinery and equipment, buildings</td>
<td>Labour</td>
</tr>
<tr>
<td>Headline rates (%)</td>
<td>50</td>
<td>50 (SSC rate of 17.5)</td>
</tr>
<tr>
<td>Refund and Carry-over (years)</td>
<td>Infinite (carry-over)</td>
<td>Redeemable against social security contributions. No carry-over.</td>
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<tr>
<td>Thresholds</td>
<td>Qualifying R&amp;D expenditure in the previous year</td>
<td></td>
</tr>
<tr>
<td>R&amp;D tax relief</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Base amount</td>
<td>The full-time equivalent support personnel who benefit from social security contribution cannot exceed 10% of the number of total full-time R&amp;D personnel.</td>
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</table>

Turkey also offers an accelerated depreciation for R&D capital (machinery and equipment). This provision is beyond the scope of this note.


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. Turkey offers one of the most generous R&D tax incentives among OECD and partner economies. In 2018, the marginal tax subsidy rate for profit-making (loss-making) SMEs in Turkey is estimated at 0.06 (0.05), significantly below the OECD median of 0.20 (0.17). The tax subsidy rate for large enterprises is equal to 0.06 (0.05) in the profit (loss)-making scenario, well below the OECD median of 0.13 (0.10). These estimates focus on modelling provisions of the tax allowance, SSC exemption and accelerated depreciation for R&D capital.

Since the introduction of R&D tax support in 2008, the generosity of R&D tax incentives has remained fairly stable in Turkey, looking at each of the four scenarios considered. With no change in the rate of accelerated depreciation, R&D tax allowance and corporate income tax between 2008 and 2018, the implied R&D tax subsidy rates estimated for profitable SMEs and large enterprises exhibit little variation throughout this period, ranging from 0.05 to 0.06. One drop in tax subsidy rates is noticeable in 2009 when the SSC rate was lowered from 20.3% to 16.5% (raised to 17.5% in 2014). The value of the 50% SSC exemption is directly linked to the magnitude of the SSC rate. With an indefinite carry-over option in place between 2008 and 2018, the R&D tax subsidy rates for loss-making firms are positive but slightly smaller than those for profitable firms.

Figure 1. Implied tax subsidy rates on R&D expenditures: Turkey, 2000-18

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 subsidy rates, see http://www.oecd.org/inst/r&d_tax_stats/index.pdf and for notes regarding the modelling of the country-specific time series, see http://www.oecd.org/sti/r&d_tax_stats/index_notes.pdf

1 Disclaimer: http://oe.cd/disclaimer
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


- **Turkey** is placed below the OECD median in terms of total government support to business R&D as a percentage of GDP, equivalent to 0.11% of GDP in 2016.
- From 2006 to 2016, government support for BERD as a percentage of GDP increased in Turkey by 0.09 percentage points, while the OECD median increased by 0.02 percentage points.
- During this period, business R&D intensity in Turkey increased from 0.21% to 0.51%.
- In 2016, R&D tax incentives accounted for 53% of total government support for BERD in Turkey.

**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, Turkey, 2000-16**

As a percentage of GDP, 2010 prices (right-hand scale)


- Since the introduction of R&D tax support in Turkey in 2008, the importance of R&D tax incentives has increased significantly, both in absolute and relative terms.
- As percentage of GDP, R&D tax support increased from 0.021% to 0.057% of GDP during this period.
- Direct funding of BERD accounted for 0.007% of GDP in 2000 and increased steadily thereafter, only interrupted by a slowdown in 2010, reaching 0.051% of GDP in 2016.
- The share of R&D tax incentives in total government support similarly increased significantly over this period, amounting to 42% in 2008 and 53% in 2016.