R&D Tax Incentives: Chile, 2021

Design of R&D tax relief provisions

Chile provides R&D tax relief through a volume-based R&D tax credit.

Table 1. Main design features of R&D tax incentives in Chile, 2021

<table>
<thead>
<tr>
<th>Tax incentive*</th>
<th>R&amp;D tax credit - Law 20.570 (modified Law 20.241)</th>
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</thead>
<tbody>
<tr>
<td>Type of instrument</td>
<td>Volume-based</td>
</tr>
<tr>
<td>Eligible expenditures†</td>
<td>Current and depreciation (machinery and equipment, buildings)</td>
</tr>
<tr>
<td>Headline rates (%)</td>
<td>31.5** (35 gross)</td>
</tr>
<tr>
<td>Refund</td>
<td>No</td>
</tr>
<tr>
<td>Carry-over (years)</td>
<td>Indefinite carry-forward</td>
</tr>
<tr>
<td>Thresholds &amp; ceilings</td>
<td></td>
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<tr>
<td>Floor</td>
<td>100 UTM***</td>
</tr>
<tr>
<td>Ceiling (R&amp;D expenditure)</td>
<td>15 000 UTM***</td>
</tr>
</tbody>
</table>

* Chile also offers an accelerated depreciation of assets used in the process of R&D (immediate write-off for machinery and equipment, and straight line depreciation over 5 years for buildings); ** A baseline tax allowance of 100 is taken as a benchmark for current expenditures (Chile allows for a 65% tax allowance aside the tax credit); *** UTM: Monthly tax unit; 1 UTM ~ CLP 5 350 (100 CLP = 0.11 EUR, Q3 2021).

Key features:

- When introduced in 2008, the R&D tax credit covered only extramural R&D expenditures (Law 20.241). In 2012, its scope was extended to also cover in-house (intramural) R&D.
- In case of insufficient tax liability, unused credits can be carried-forward indefinitely.
- A ceiling of 15 000 Monthly Tax Units (UTM) applies to eligible R&D volumes; a floor (minimum R&D expenditure threshold) of 100 UTM determines the project's eligibility for R&D tax support.

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 Chile is estimated at 0.35 (0.28), well above the OECD median of 0.20 (0.18). The tax subsidy rate for large enterprises is equal to 0.35 (0.28) in the profit (loss)-making scenario, substantially larger than the OECD median of 0.17 (0.15). These estimates model the provisions for the R&D tax credit and the accelerated depreciation of R&D capital.

Figure 1. Implied tax subsidy rates on R&D expenditures: Chile, 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. Source: OECD, R&D Tax Incentives Database, http://oe.cd/rdtax, December 2021.
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, Chile did not undertake changes in its R&D tax relief provisions. The latest change in the design of the R&D tax credit in Chile occurred in 2013, when the scope of the tax credit was extended to cover intramural R&D expenditure and the ceiling on qualifying R&D expenditure was lifted from UTM 5000 to 15 000.

Trends in the generosity of R&D tax support

Following the introduction of an R&D tax credit for extramural R&D expenditure in 2008, the generosity of R&D tax incentives in Chile increased significantly with the extension of the scope of R&D tax support to additionally cover intramural R&D in September 2012.

In 2013, the first year in which the new tax credit is modelled, the implied R&D tax subsidy rate for SMEs (large firms) increased from 0.03 (0.05) to 0.35 (0.28) in the profit-making scenario. In the loss-making case, the marginal R&D tax subsidy rate for SMEs (large firms) rose from 0.02 (0.04) to 0.35 (0.28) in 2013 and has been stable ever since, apart from some smaller scale fluctuations attributable to changes in corporate income tax (CIT) rates over time. CIT rates were raised from 20% to 21% in 2014, 22.5% in 2015, 24% in 2016, 25% in 2017, and reduced to 10% in 2020. Increases (reductions) in CIT rates increase (lower) the value of baseline tax deductions and lower (increase) the value of the taxable R&D tax credit.

If the ceiling on R&D expenditure is considered in the modelling of R&D tax subsidy rates, the rate of large firms in 2021 drops from 0.35 (0.28) to 0.15 (0.12) in the profit (loss) -making scenario, and the one for profitable (loss-making) SMEs from 0.35 (0.28) to 0.19 (0.16).

Figure 2. Implied tax subsidy rates on R&D expenditures: Chile, 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

Chile is placed among OECD and partner economies that provide one of the lowest levels of total government support for business R&D, at a rate equivalent to 0.03% of GDP in 2018 (latest available figure).

**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 2007 to 2018, total government support for BERD as a percentage of GDP increased in Chile by 0.03 percentage point (pp), while the OECD average (2006-2019) increased by 0.05 pp. However, a drop in government support for BERD is expected for 2019 and 2020 following recent budget cuts for R&D and innovation funding.
- During the 2007-18 period, business R&D intensity in Chile increased from 0.11% to 0.12%.
- In 2018, R&D tax incentives accounted for 28% of total government support for BERD in Chile.

**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 credit (and R&D allowance) for intramural and extramural expenses. *SMEs are defined as firms with annual sales of up to UF 100,000 (UF: Unidades de Fomento; 1 UF = 30,357 CLP / 32.262 EUR / 37.689 USD as of 29 October 2021).** Industries are defined as follows: manufacturing - all metallic and non-metallic manufacturing. Services include activities of human health and social assistance, telecommunications and information; transport and storage, commerce, vehicle repair, finance, arts, entertainment and recreation, biotech, education, scientific & technical services; mining services. Other sectors: all other sectors.


**Key points:**

- In Chile, SMEs accounted for 27% of R&D tax relief recipients in 2019, while the share of R&D tax support accounted for by SMEs amounted to around 8% in this year, 92% of R&D tax benefits were allocated to large firms, comprising 73% of the population of R&D tax relief recipients in 2019.
- In 2019, firms in services represented around 50% of R&D tax relief recipients in Chile, followed by firms in manufacturing with a share of 35%. The share of R&D tax benefits accounted for by the latter amounted to 71% in that year, while the share of firms in services amounted to 18%.
Trends in the uptake of R&D tax incentives

Over the 2008-19 period, the number of R&D tax relief recipients increased in Chile, from less than 5 recipients in 2008 to around 50 recipients in 2019. The year 2015 witnessed the largest number of R&D tax relief recipients with nearly 180 corporate R&D performers receiving R&D tax support in that year. Most of the increase in the number of R&D tax relief recipients in Chile is driven by large firms. Large firms account for around 75% of R&D tax relief recipients in Chile over the 2008-19 period.

Figure 5. Number of R&D tax relief recipients, Chile, 2008-2019

Note: Figures refer to R&D tax credit (and R&D allowance) for intramural and extramural expenses.

Trends in government support for business R&D

Since the introduction of R&D tax support in 2008, the importance of R&D tax relief has increased in Chile both in absolute and relative terms, with a decline notable in the more recent years.

Figure 6. Direct funding of business R&D and tax incentives for R&D, Chile, 2007-18

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


- The cost of R&D tax support rose (in 2015 prices) from CLP 45 million in 2008 to CLP 14 486 million in 2018, with a notable increase following the extension of the tax credit to cover intramural R&D in 2013. In 2015, a high number of firms applied for the credit, leading to a significant increase in the cost of R&D tax support paid out to firms (cost estimates are reported on a cash-basis) in 2016.
- As percentage of GDP, the amount of tax support increased steadily to reach 0.01% of GDP in 2018.
- Direct funding of BERD increased from 0.002% of GDP to 0.02% of GDP over the 2007-18 period.
- The share of tax incentives in total government support rose from 1% in 2008 to 28% in 2018.


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