

Chapter 13

Measurement of government tax relief for R&D

Governments in several countries provide tax support for R&D with the aim of promoting R&D investment in the economy by granting preferential tax treatment of eligible R&D expenditures, especially to business enterprises. Tax expenditures are complex objects of measurement, and not all statistical systems separately capture all types of tax relief measures. Reporting such tax support in supplementary reports would facilitate transparency and more balanced international comparisons. In response to user and practitioner interest in addressing this gap in previous editions of this manual, this chapter provides guidelines on reporting government support for R&D through tax incentives, with a view to assisting in the production of internationally comparable indicators of Government Tax Relief for R&D expenditures. These guidelines are based on the experience accumulated from a series of exploratory data collections carried out by OECD. Because of the novelty of the guidelines introduced in this chapter, further measurement improvements may be introduced after the publication of this manual.

13.1. Introduction

13.1 Governments in several countries provide tax support for R&D with the aim of promoting R&D investment in the economy by granting preferential tax treatment of eligible R&D expenditures, especially to business enterprises. Such support is provided at the national and in some cases sub-national level. Tax expenditures are complex objects of measurement, and not all statistical systems separately capture all types of tax relief measures. However, because government policy objectives for R&D tax relief are presumably also achievable through either subsidies or other direct outlays, there is widespread acknowledgement that reporting such tax support in supplementary reports would facilitate transparency and more balanced international comparisons.

13.2 In response to user and practitioner interest in addressing this gap in previous editions of this manual, this chapter provides guidelines on reporting government support for R&D through tax incentives, with a view to assisting in the production of internationally comparable indicators of Government Tax Relief for R&D expenditures (GTARD). These guidelines are based on the experience accumulated from a series of exploratory data collections carried out by the OECD since 2007 as well as on previous efforts in the 1990s. They also aim to align as closely as possible to standard OECD definitions (OECD, 2010) and general statistical conventions (EC et al., 2009; IMF, 2014).

13.3 Although tax expenditures for R&D have several elements in common with the government budget allocations for R&D (GBARD) described in Chapter 12, this manual proposes that GTARD should be measured separately and only then integrated into the overall presentation of R&D statistics, particularly for international comparisons. The GTARD indicator can be suitably combined with GBARD to produce an indicator of overall government financial support for R&D that is robust to changes over time in the relative importance assigned to direct versus tax-based support. While these estimates may be less accurate and less internationally comparable than are performer-based statistics, since they are derived from the budget and other government sources, they can be significantly more timely and informative about a government's intentions and actual financial efforts.

13.4 Because of the novelty of the guidelines introduced in this chapter, further measurement improvements may be introduced after the publication of this manual. Data producers and users are encouraged to consult the annex

guidance provided online to this manual available at <http://oe.cd/frascati> for any possible updates that are not reflected in the printed edition.

13.2. Tax relief for R&D expenditures

Tax relief and tax expenditures

13.5 Tax relief measures are incentives that reduce the amount of tax owed by institutional units such as business enterprises or other eligible organisations subject to different types of taxes (IMF, 2014; EC et al., 2009). The extent to which units can reduce their tax liability may be related to the amount of eligible R&D expenditures incurred in the reference period. This type of relief is defined in this manual as tax relief for R&D expenditures and the level of financial resources (in terms of forgone revenue and added expenditure) dedicated to this as tax expenditures for R&D.

13.6 In general, tax relief can take the form of a tax allowance, an exemption, a deduction or a credit. Tax allowances, exemptions and deductions are subtracted from the tax base before the tax liability is computed – they reduce the taxable amount before assessing the tax. For example, in the case of an R&D special **tax allowance**, a monetary unit of spending on R&D expenditures can be deducted from taxable profits by a factor in excess of one. Using a simplistic formulation based on a corporation income tax for presentation purposes:

After-tax profit

$$= (1 - \text{tax rate}) * (\text{revenues} - \text{other deductible expenses} \\ - \text{tax allowance factor} * \text{eligible R\&D expenditures})$$

13.7 A **tax credit** is an amount subtracted directly from the tax liability due from the beneficiary unit after the liability has been computed (IMF, 2014, § 5.29). This can be represented, in a very simplified form, as follows:

After-tax profit

$$= (1 - \text{tax rate}) * (\text{revenues} - \text{all deductible expenses}) \\ + \text{tax credit rate} * \text{eligible R\&D expenditures}$$

13.8 Tax credits can be payable or non-payable. Under a **payable** tax credit system,, when the tax credit exceeds the tax liability, this excess amount may be paid in full or in part to the beneficiary. The payable credits may be awarded to beneficiaries regardless of their tax-paying status. In contrast, tax credits that are non-payable (sometimes called “wastable”) are limited at most to the amount of the tax liability of the taxpayer. When the credit is non-payable, the taxpayer may be allowed to carry-over the unclaimed amount into the future.

13.9 Allowances, exemptions and deductions can also exceed the taxable base of the taxpayer. In that case, authorities may approve provisions for the said excess to be converted into a payable or refundable credit, or to be carried-over (back or forward) under normal or special conditions. A similar treatment may apply to unused, non-payable credits.

Specific challenges for measuring the cost of government tax relief for R&D

13.10 Measuring the cost of tax relief is more challenging than just measuring financial flows, such as in the context of R&D grants or procurements, since the objective is to quantify how much revenue government ceases to gain and dedicate to other activities. The measurement of this concept requires a counterfactual based on how much the government would have raised in the absence of the relief. In practice, this is done by reference to a “normal” or baseline tax structure. The main measurement challenge is the formulation of a consistent approach for estimating the value of the concessions or exemptions beyond a “normal” tax structure that reduce government revenue collections or increase expenditures as a result of R&D expenditures.

13.11 As a general principle for GTARD expenditure statistics, the “normal” tax structure is defined to comprise allowances and deductions that are applicable to otherwise identical, non-R&D expenditures, as well as tax credits provided for comparable activities that do not qualify as R&D. This applies regardless of whether other statistical frameworks compute these as adjustments to the tax payable/paid by the relevant units or as expenditures incurred by government. This approach ensures comparability across countries and an equal treatment of forgone revenues and tax refunds with the specific intent of rewarding R&D activities. The implementation of these criteria is discussed in Section 13.5 in this chapter.

The link with R&D

13.12 For the purposes of measuring GTARD, there has to be a well-defined link with policy intentions to grant preferential tax treatment to a range of R&D expenditures. For example, an employment tax subsidy that can benefit employers of R&D personnel on par with employers of other non-R&D employees should not be imputed in part to GTARD, as the intention of the tax provisions is not the specific subsidy of R&D activities.

13.13 To be counted as part of GTARD, tax relief provisions should be undertaken as part of an integrated R&D policy, with sources appropriately documented and included in inter-ministerial discussions and reports to the legislature in the area of science and research.

13.3. Scope of GTARD statistics

R&D definition and boundaries

R&D expenditures versus R&D-based income

13.14 GTARD is focused on tax relief that is explicitly provided for the reporting of eligible R&D expenditures. The tax expenditures associated, for example, with the advantageous treatment of income arising from past R&D activities, such as “patent boxes” or related instruments, are outside the scope of GTARD statistics.

R&D definitions

13.15 As far as possible, all guidelines, definitions and conventions identified in Chapter 2 are applicable to the collection of data on tax relief for R&D. The basic definition of R&D is as given in Chapter 2. The analysis covers R&D in all fields of R&D (FORD) and makes no distinction between natural sciences and engineering (NSE) and all other fields, although not all countries may necessarily extend tax relief to all domains.

13.16 Definitions of R&D or other types of expenditures eligible for tax relief may differ across jurisdictions and with respect to this manual's definition and explanatory guidance. Definitions of R&D for R&D tax purposes are under continuous evolution and reinterpretation by national tax authorities, a feature that may also have an impact on the records kept by R&D performers. Particular care should be taken to check the actual R&D content of the tax relief provided by governments for innovation-related areas, particularly those relating to other innovation expenditures and expenditures on intellectual property rights or their commercialisation, which may not be an integral part of R&D projects. This manual recommends against the use of coefficients unless the tax records provide a sufficiently informative breakdown between R&D and other costs.

Sectoral scope

13.17 GTARD is concerned with tax relief provided by the government sector for R&D expenditures incurred by tax-paying units, for R&D performed within them (or possibly outside i.e. bought-in) across all institutional sectors covered within this manual.

13.18 The Business enterprise sector is usually the main intended direct recipient of tax relief for R&D. Provisions may allow relief for R&D expenditures subcontracted to third parties, in other domestic sectors or abroad. These are all within the scope of GTARD.

13.19 Tax relief for R&D can also in principle be granted to higher education institutions, private non-profit institutions, individuals and possibly government organisations. The scope of GTARD can reach beyond business enterprises by using tax vehicles that apply directly to these groups. With the exception of individuals, these should be included from GTARD statistics.

13.20 In the case of forms of relief that are targeted directly towards individuals, without going through the institutions that they work for, their exclusion is recommended because it is very difficult to validate and assess the true extent of R&D content, which most likely will be related to the individual's occupation, rather than to R&D activity. This approach ensures greater consistency with the institutional approach to R&D statistics in this manual. Specific examples will be discussed in the following section.

13.21 While R&D tax incentives typically attempt to incentivise the performance of R&D within the domestic economy, authorities can in principle allow provisions that provide tax relief for non-resident taxpayers' R&D

and/or allow taxpayers to declare R&D expenditures subcontracted to affiliated or non-affiliated units abroad. As in the case of GBARD, these are within the scope of GTARD.

13.22 Tax exemptions for international organisations exclusively dedicated to performing R&D in the national territory should not be counted as part of GTARD, on the grounds that these are unlikely to be systematically monitored.

Relief for intramural R&D expenditures and extramural R&D

13.23 Adopting a funder approach (as identified in Chapter 4 and Chapter 8), GTARD statistics cover not only tax relief provided for intramural R&D within the beneficiary organisations, but also relief provided for expenses for outsourced R&D services and contributions to R&D carried out in other organisations.

13.24 If a firm carries out R&D for another company, it should not be assumed that tax provisions prevent both the buyer and seller of R&D services to claim relief for the same unit of R&D expenditure. This may not always be the case. While the measurement of R&D intramural expenditure helps avoid double counting, the data should reflect the actual tax relief provided to both taxpayers. Whenever possible, double counting should be identified.

Types of R&D costs

13.25 All types of R&D costs, including current and capital expenditures, are within the scope of GTARD. This applies to R&D that is expensed by firms as well as R&D expenditures that a firm capitalises in its balance sheet. Also included is tax relief for the amortisation costs of assets used for R&D activities.

Types of tax instruments

13.26 Governments can provide tax relief for R&D expenditures through a number of tax instruments. The OECD classification of taxes (OECD, 2013) is structured according to the base on which the tax is levied and the type of taxpayer.

Corporate taxes on income, profits and capital gains

13.27 Taxes on the profits of corporations and quasi-corporations are by and large the main vehicle for implementing R&D tax incentives. Tax relief for business enterprises that reduces the cost of after-tax R&D performance or funding by the beneficiary by linking the relief provided in the corporation tax bill to the level of eligible R&D is within the scope of GTARD statistics.

13.28 Tax relief for capital gains on R&D-based assets, for example on the revalorisation of patents, etc., should be excluded from GTARD statistics, because this type of relief is not aimed at directly reducing the cost of R&D expenditures but at enhancing the potential, uncertain benefits from such investments. Special tax regimes for intellectual property revenues, sometimes described as

patent or innovation “boxes”, as well as similar types of incentives that fit in this category are therefore excluded.

Taxes on income, profits and capital gains of individuals

13.29 The basic distinction between taxes on corporations and taxes on individuals is that corporation taxes are levied on the corporation as an entity, not on the individuals who own it, and without regard to the personal circumstances of these individuals. In principle, tax relief for R&D provided to individuals is outside the scope of GTARD, because this manual focuses on R&D carried out by institutional units and excludes R&D carried out in an individual capacity. Only tax relief provided to individuals as self-employed, unincorporated firms or R&D contractors can potentially qualify for inclusion. Relief on the income taxes paid by R&D professionals as individuals may be reported separately but should not be combined with GTARD.

Social security contributions

13.30 Compulsory social security contributions are compulsory payments that confer an entitlement to receive a (contingent) future social benefit. Being compulsory payments to general government, they clearly resemble taxes and are sometimes treated as such. These can apply to employees or employers:

- Employers, on a payroll or income basis. These are within the scope of GTARD.
- Employees, on a payroll or income basis. This category should be excluded for the same reasons as tax relief to individuals is excluded. It is possible however that the employer is tasked with withholding employee contributions and that relief is applied on withheld amounts. In that case, it would be necessary to identify whether the employer is the real beneficiary, in which case it should be reported as part of GTARD statistics. Some countries may have rules in place that are intended to ensure that relief on withheld amounts does not reduce the employee's entitlement to benefits arising from the social security contributions.

Taxes on payroll and workforce

13.31 Included here are taxes paid by employers, employees or the self-employed either as a proportion of payroll or as a fixed amount per person, and which do not confer an entitlement to social benefits. The same distinction between employers and employees applies for the purpose of compiling GTARD statistics.

Taxes on property

13.32 Included here are recurrent and non-recurrent taxes on the use, ownership or transfer of property. Only relief on taxes on the use of property for R&D is within the scope of GTARD. For the time being, relief on tax related to transactions on assets arising from R&D is excluded.

Taxes on goods and services

13.33 Included here are excise, sales and value-added taxes for R&D services. In practice, all OECD countries with value-added taxes normally allow the immediate deduction of taxes on purchases by all but the final consumer and impose taxes at all stages. Relief on these amounts should be excluded in principle from GTARD on the basis that these taxes can be deducted by all R&D beneficiaries, unless the relief measure provides a material, quantifiable additional benefit to the enterprise or relevant institution.

Sub-sectors of government

Central (or federal) government

13.34 The central (or federal) government sub-sector includes all governmental departments, offices, establishments and other bodies that are agencies or instruments of the central authority whose competence extends over the whole territory, with the exception of the administration of social security funds. Central (or federal) government therefore has the authority to impose taxes on all resident and non-resident units engaged in economic activities within the country. R&D tax relief provided at this level of government should always be reported.

Regional (or state) government

13.35 This sub-sector consists of intermediate units of government exercising a competence at a level below that of central (or federal) government. It includes all such units operating independently of central/federal government in a part of a country's territory that encompasses a number of smaller localities. In unitary countries, regional governments may be considered to have a separate existence where they have substantial autonomy to raise a significant proportion of their revenues from sources within their control and their officers are independent of external administrative control in the actual operation of the unit's activities. R&D tax relief provided at this level of government should be reported when its contribution is significant.

Local (or municipal) government

13.36 This sub-sector includes all other units of government exercising an independent competence in part of the territory of a country, with the exception of the administration of social security funds. It encompasses various urban and/or rural jurisdictions (e.g. local authorities, municipalities, cities, boroughs, districts). For practical reasons, it is unlikely that R&D tax relief provided at the level of local/municipal government can be captured in a sufficiently precise and timely manner. Unless there is evidence that a significant level of tax support is provided, this category should be excluded.

13.4. Sources of data and measurement

Estimation method

13.37 Given the need to establish a benchmark to identify the amount of relief provided for R&D expenditures, tax expenditures need to be estimated based on the data available by applying a number of conventions and assumptions. According to OECD (2010), there are three mechanisms for estimating the value of tax expenditures associated with relief measures.

- *Initial revenue loss*: the amount by which tax revenue is reduced as a consequence of the introduction of tax expenditure, based upon the assumption of unchanged behaviour and unchanged revenues from other taxes.
- *Final revenue loss*: the amount by which tax revenue is reduced as a consequence of the introduction of a tax expenditure, taking into account the change in behaviour and the effects on revenues from other taxes as a consequence of its introduction.
- *Outlay equivalence*: the direct expenditure that would be required in pre-tax terms to achieve the same after-tax effect on taxpayers' incomes as the tax expenditure if the direct expenditure is accorded the tax treatment appropriate to that type of subsidy or transfer in the hands of the recipient.

13.38 The three methods can yield significantly different estimates of tax expenditure. The main difference between the first two methods is whether or not behavioural effects are taken into account, while the third method takes into account the additional administrative costs of running a programme delivering direct support. The simplest approach (*initial revenue loss*) is used in most OECD countries to estimate tax expenditures, as it does not require complex assumptions on behavioural responses to the hypothetical removal of the tax incentive. A number of budget documents are based on the initial revenue loss method and modified or complemented with behaviour-based estimates for planned future changes in provisions. Such estimates are often based on assumptions about the impact on the eligible amount of R&D claimed by taxpayers.

13.39 For practical purposes, the initial revenue loss is recommended as the method to be applied.

Formulation of a common benchmark for international reporting

13.40 Formulating a common benchmark is a crucial element in producing internationally comparable GTARD statistics that reflect in a robust fashion the financial effort made by governments in providing a preferential treatment for R&D expenditures. This is also one of the most difficult tasks. It is helpful to distinguish current and capital expenditures.

13.41 In the case of current R&D expenditures, it is recommended to exclude from GTARD estimates the tax revenues that are forgone as a result of

provisions that allow firms to treat current R&D expenditures as an expense and deduct them from profits. Such provisions that treat current R&D expenditures like other types of business expenses are the norm across all countries, not least because of the difficulty of enforcing different approaches. For the sole purposes of this manual, the focus is on the cost of provisions that imply a more favourable treatment of R&D. This approach is proposed in order to ensure comparability with countries not reporting dedicated R&D tax relief but allowing the deductibility of current R&D expenses. In the absence of enhanced incentives, companies have the ability to report the current expenditure components of R&D as the deductible costs of sales, without necessarily identifying the R&D nature of the activity.

13.42 This guidance does not preclude that for internal purposes countries may sometimes wish to describe these “normal” expensing provisions as enhanced incentives for R&D by stating that the relevant comparison is with other capital, not current, investments.

13.43 For capital R&D expenditures, the derivation of a benchmark is considerably more problematic, as the baseline treatment for assets varies more significantly across countries. For practical reasons, it is recommended that countries report estimates against the benchmark of identical capital assets *within* their own country.

Recording type of tax relief and dealing with carryover

13.44 In the recording of tax relief from the perspective of the (usually Business enterprise) recipient, important points in time are the period in which the liability arises and the period in which the R&D eligible for relief takes place, the moment the tax liability is definitively assessed, the day it becomes due for payment without penalty, and the day the tax is actually paid or refunds are made.

13.45 In principle, the recording of tax relief for R&D should occur when the R&D generating the basis for claiming relief has taken place; in practice, this may be possible only when the claim is recognised by government regardless of the time when it is paid in cash by government or used to decrease the amount of taxes to be paid to government.

13.46 This “accrual-based” approach ensures the best possible alignment between statistics on R&D expenditures and statistics on R&D performance and funding. It requires, however, a careful accounting of carried-over tax assets and liabilities. R&D performed and reported in a given year may be carried forward into the future and eventually never used if, for example, a company ceases to exist.

13.47 A payments or cash-based approach more closely follows the actual flow of money between authorities and tax-paying units, but misses the link with R&D performance data and the underlying economic and R&D reality. Hybrid solutions are possible, for example cash-based approaches can be aligned to the

tax reference year t in which the R&D was reported rather than the point in time when the tax payments take place (e.g. a number of months into year $t+1$ in the case of annual settlements).

13.48 It is important to note that there is no prevalent approach at present for reporting R&D tax incentives, with very few countries maintaining a system of records that allows the production of estimates on both an accruals and cash expenditure basis. Ideally, countries should record the following:

1. refundable credits provided to taxpayers or other types of units for R&D in the reference period (if applicable)
2. forgone tax revenues in the reference period, for R&D in the same period
3. credits earned but not used in the reference period, e.g. carried forward, valued on a nominal basis
4. credits earned in a previous period used in the reference period, also on a nominal basis.

13.49 The two main indicators for GTARD can be defined on the basis of these components:

- GTARD on an earned or accruals basis= $[1]+[2]+[3]$
- GTARD on a use or cash basis= $[1]+[2]+[4]$.

13.50 It is recommended to use the accruals approach whenever possible, but cash-based estimates are also acceptable as long as they are consistently applied over time. In some countries, tax beneficiaries can decide when they declare (i.e. file for) tax credits/allowances, which may not be in the reference period during which the R&D expenditure actually took place. Additionally, some countries allow beneficiaries to carry forward declared, unused credits/allowances, e.g. as postponed declarations of eligible R&D. In both circumstances there is the potential for double counting. In compiling GTARD indicators, care should be exercised to ensure that there is no double counting in reported totals.

Types of data

13.51 There are different possible data sources that can inform compilers how much tax relief governments provided for R&D. These potential choices are assessed against the objective of providing a comprehensive measure of this type of support. One data source is the recipients of the R&D tax relief; statistics about them might be obtained from surveys of R&D performers (i.e. performer-based approach). Another data source is the provider of the R&D tax relief; statistics about them might be obtained from (verified/approved) tax claim filings (similar to a funder-based approach). The two sources may differ for a variety of reasons.

Surveys of R&D performers

13.52 R&D performer surveys are focused on the identification of R&D performance and its respective “sources of funds”. From this perspective, many

forms of GTARD do not qualify as government funding, because it is not possible for the respondent to align its own reporting of R&D performance to the tax relief. This can occur when the performer is uncertain about the level of relief to be received, which may depend on its profits at the end of the tax year. The link between relief and R&D is therefore in most cases indirect. The relief ultimately received may be used by recipients for other purposes, and may not be realised for years if carried over.

13.53 Eligible R&D expenditures contribute to the *base* for relief calculation but are not necessarily the *object* of funding. Despite the existence of cases where a direct link with intramural performance may apply, it cannot be generally recommended to ask an R&D performing unit for the tax incentive component of the external sources of funds received for R&D, partly because the tax support can also be for R&D costs incurred by third parties on the firm's behalf.

13.54 Subject to successful testing, surveys may instead inquire about:

- the extent of eligible intramural R&D and extramural funding by the unit that have been or will be used to claim R&D tax relief
- how the unit's tax liabilities (assets) were reduced (increased) as a result of its R&D activities in the reference year, and changes in the book value of unused allowances and credits.

13.55 For the reasons stated, it is recommended that statistics of GTARD expenditures be compiled on a source basis rather than a performer basis. Surveys of R&D performers are not recommended for the purposes of reporting GTARD but can provide a second-best solution when actual administrative records cannot be accessed or are too unreliable.

Detailed tax records

13.56 Tax relief claims processed and subsequently analysed by tax authorities are the major source of information on the extent of tax relief for R&D. In many countries, the forms required have several elements in common with R&D surveys, and use their own (often very detailed) taxonomies for different types of expenditures. These data can provide the basis for simple calculations of the value of tax relief for R&D. Estimates can be based on the entire population of claims or on a representative sample.

13.57 Tax records may however only be available in some cases with a time lag that may also exceed that of traditional R&D surveys. For example, claims may become available only after tax inspectors have finished working with them. It has become increasingly common among countries providing tax relief for R&D to provide statistical releases on the number of tax support beneficiaries and on the costs associated with the schemes.

13.58 It is therefore recommended to use tax records for final estimates of GTARD expenditures.

Budgetary information records

13.59 Budget records appear to be most appropriate for the purposes of estimating forecasts and now-casting the “impact” of tax relief on the government’s budgetary position. In many countries this information is available – although often not published – as a separately identifiable category. Budget publications may include ad hoc analyses that report on the expected implications of modifications in the design of R&D tax incentive schemes, based on analytical and simulation approaches. Whenever available, these records are recommended only for the purpose of providing preliminary, timely statistics.

Calendar and fiscal years

13.60 National authorities whose fiscal years do not correspond to the calendar year should provide data, where possible, on a calendar year basis so as to permit maximum comparability with the data of other countries.

13.5. Priority breakdowns for GTARD statistics

By beneficiary sector

13.61 It is recommended that statistics on GTARD expenditure are broken down according to the institutional classification of beneficiary taxpayers, using the main sector classifications in this manual (Business enterprise, Government, Higher education, Private non-profit and Rest of the world). In practice, it may suffice to show the breakdown between the Business enterprise sector and other sectors.

13.62 Among beneficiaries, and in particular within the Business enterprise sector, it is useful to present GTARD statistics by industry/economic activity so that tax relief support can be compared with the allocation of government-financed GERD and BERD based on R&D survey data. Because the tax statistics may not be fully mapped to business registers, special care should be taken to ensure that the reporting of the activities of head offices does not suppress information about the main economic activity of the actual enterprises.

By level of government

13.63 For comparability purposes, it is proposed that countries report GTARD separately for:

- central (or federal) government (and its social security funds)
- regional (or state) government (and its social security funds).

By type of tax relief

13.64 Whenever possible, GTARD statistics (whether compiled on an earned basis or on a use basis) should include separate information on the constituent elements (identified in Section 13.4) that underpin the indicator that countries can feasibly report.

By firm size

13.65 Within the Business enterprise sector, it is recommended that the following breakdown is used, notwithstanding the national definition of firm size for R&D tax relief purposes:

- small-sized firms (less than 50 persons employed)
- medium-sized firms (between 50 and 249 employees)
- large-sized firms (250 or more persons employed).

13.66 It is important to note that country-specific GTARD provisions may vary by firm size, and that the categories may differ from standard size group classifications. It is also possible that size eligibility provisions specify different rules on whether, for the purpose of GTARD, an affiliate represents a different enterprise or not. The existence of such provisions may influence the reported distribution of GTARD expenditures by size group.

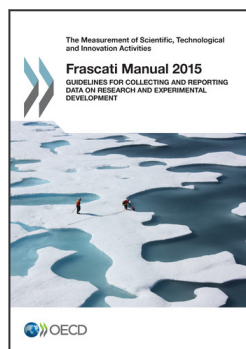
Presentation of GTARD alongside other R&D indicators

13.67 Statistics on government expenditures on tax relief for R&D may be presented alongside two other types of R&D indicators in order to give a more complete picture of government support:

- GBARD. Both measures represent source-based estimates of overall government financial support for R&D. Data compilers should be careful to remove any component of tax support included in GBARD statistics, based on the recommendations made in Chapter 12.
- BERD funded by government. This type of measure can in principle be presented alongside the component of GTARD expenditures in order to illustrate in a more comprehensive way the extent of government financial support for business enterprises. It should be noted that this approach combines funder-based (GTARD) and performer-based statistics, and there may be inconsistencies as a result. For example, some GTARD expenditure may support R&D outsourced to domestic universities or government institutions or to institutions resident abroad.

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