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# TAX EXPENDITURE MANUAL

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## PREFACE

Tax expenditures have been at the forefront of policy discussions on tax reforms. Recent global developments including the agreement on Global Minimum Tax (2021) and United Nations initiative to align tax expenditures with sustainable development goals (2021) have provided a fresh impetus to the discussions. Following the Paris agreement on climate change (2015) to contain global warming, countries have also agreed at COP26 (2021) and COP27 (2022) to accelerate efforts to phase-out of inefficient fossil fuel subsidies, significant proportion of which are forgone consumption taxes (IMF, 2021). Along with these developments, global economic crisis precipitated by the pandemic and ongoing conflicts has pushed many countries into fiscal stress, particularly those with low revenue mobilization levels. Since tax expenditures are a leading cause for low fiscal effort for many developing economies, their reform has emerged as one of the key policy options to enhance domestic revenue mobilization.

In the last decade or so, several initiatives were taken by the development partners to inform the tax expenditures reform agenda. Global Tax Expenditures Database was launched in 2021, compiling tax expenditures reported by countries since 1990. Platform for Collaboration (joint initiative of World Bank, IMF, OECD, and UN) on Tax produced a guidance on tax incentives reform in 2015, presenting options for low-income countries to use tax incentives for investment effectively and efficiently. The guidance is currently being updated to reflect on Two Pillar Solution requirements, mainly implementation of the Global Minimum Tax (GMT) and the pandemic. IMF published a series of how-to notes on tax expenditure reporting (IMF, 2019) and evaluation (IMF, 2022). In addition, Economic Commission for Latin America, and the Caribbean (ECLAC) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) published guidance on evaluation of tax expenditures (Redonda, et al., 2023). ADB released a tax expenditure measurement toolkit (Asian Development Bank, 2023), while Addis Tax Initiative launched a pocket guide on tax expenditures for the Parliamentarians (Addis Tax Initiative, 2024). OECD, among its several publications on tax incentives, produced a guidance on tax incentives in the context of GMT (OECD, 2022). World Bank published a guidance on GMT (World Bank, 2022), highlighting implications for the tax incentives. Several capacity building initiatives were also taken. Addis Tax Initiative launched a series of regional technical workshops on tax expenditures to build capacity of developing countries. Institute of Fiscal Studies organized similar workshops in Africa. Since 2021, African Tax Administration Forum has been building the capacity of the tax administrations in African region to measure and report tax expenditures.

This manual is a contribution to the rich body of literature on tax expenditures and aim to inform policymakers and policy debates on tax expenditures reform. In doing so, it builds on the existing knowledge and endeavors to provide a comprehensive guidance on key aspects of tax expenditure analysis. Considering that cross-country comparability of tax expenditure estimates is challenging due to differences in benchmarking, this manual specifically aims to provide guidance on how to benchmark some of the most common features of a tax system. This manual should be seen as a contribution to the vast ocean of knowledge on tax expenditures, rather than an exhaustive guide to all their complexities. This guidance endeavors to assist policy practitioners, especially in developing countries, in navigating and understanding tax expenditure issues.

### HOW IS THE MANUAL STRUCTURED?

The manual is divided into nine chapters. Chapter 1 introduces the concept of tax expenditures, compares them with direct spending, followed by their definition and classification. Chapter 2 presents some global trends. Chapter 3 covers benchmarking of tax system including approaches to benchmark common provisions related to major taxes. Chapter 4 covers measurement issues, including a discussion on methodologies. Chapter 5 covers guidance on reporting in the light of international experience. Chapter 6 covers issues related to evaluation of tax expenditures followed by Chapter 7 specially devoted to cost benefit analysis. Chapter 8 covers governance issues related to fiscal management of tax expenditures. Chapter 9 is the concluding section, which discusses the political economy of tax expenditure reforms and suggests a framework for tax expenditure reforms.

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## ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AETR	Average Effective Tax Rate
BTS	Benchmark Tax System
CBA	Cost-Benefit Analysis
CIT	Corporate Income Tax
COFOG	Classification of the Functions of Government
COP	Conference of Parties to the UNFCCC
CREDAF	Le Cercle de Réflexion et d'Échange des Dirigeants des Administrations fiscales
EAP	East Asia and Pacific
ECA	East Europe and Central Asia
EMDE	Emerging Market and Developing Economies
EU	European Union
FDI	Foreign Direct Investment
FERDI	The Foundation for Studies and Research on International Development
GDP	Gross Domestic Product
GMT	Global Minimum Tax
GTED	Global Tax Expenditure Database
IMF	International Monetary Fund
LAC	Latin America & Caribbean
MCF	Marginal Cost of Fund
MEB	Marginal Excess Burden
MENA	Middle East & North America
METR	Marginal Effective Tax Rate
MoF	Ministry of Finance
NA	North America
NPV	Net Present Value
OECD	Organization for Economic Co-operation and Development
PIT	Personal Income Tax
SHS	Schanz-Haig-Simons
SSA	Sub-Saharan Africa
SUT	Supply Use Table
TE	Tax Expenditure
UCC	User Cost of Capital
UEMOA	West African Economic and Monetary Union
UK	United Kingdom
UN	United Nations Framework Convention on Climate Change
UNCTAD	UN Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
US	United States of America
VAT	Value Added Tax
WB	World Bank

## EXECUTIVE SUMMARY

- 1. Tax expenditures are revenue losses attributable to special provisions in the law, such as exemptions, deductions, credits, and preferential tax rates, that are used as tools to promote economic activities, support social policies, and address market failures.** Such provisions are often designed as incentives, but may also be provided as a relief measure, generally to low-income households. They are viewed as an alternative to direct spending but have distinct characteristics.
- 2. Unlike direct spending, tax expenditures are embedded within the tax system, making them less transparent and harder to control.** However, they can be more politically palatable and easier to implement. On the downside, they often lead to significant revenue losses and may not always achieve their intended policy outcomes.
- 3. While tax expenditures are commonly used by both developed and developing economies, their role may differ based on social and political objectives unique to an economy.** In general, tax incentives in developed countries are embedded in tax law and mostly used for social welfare whereas they tend to be used by developing countries to attract investment, which may be included in the income tax law, the investment, and other laws, or simply government decrees. They do not require upfront use of government funds, which make them for developing countries preferable to financial incentives such as grants or subsidized loans that are more frequently employed in developed countries.
- 4. One of the biggest concerns that surround tax expenditures is their fiscal impact as they lead to significant revenues foregone by the governments.** Due to their embedded nature, tax expenditures can accumulate high fiscal costs over time. Over the last 30 years, the global average of reported revenue forgone from tax expenditures was close to 4 per cent of GDP and more than 24 per cent of tax revenues.
- 5. Effective reporting and monitoring of tax expenditures are essential to ensure they do not undermine fiscal sustainability.** There is a growing interest to understand and analyse the fiscal impact of tax expenditures, including how they influence economic growth, distribution, and social welfare. Limitations arise, however, from their potential ineffectiveness and the difficulty in measuring their true costs and benefits.
- 6. Various methods exist to measure and assess the fiscal impact of tax expenditures.** These methods include setting a benchmark<sup>1</sup> tax system, measurement of revenue loss in relation to the benchmark, and evaluating their effectiveness in achieving policy objectives. Accurate assessment involves calculating the revenue foregone and analyzing the impact on government budgets and economic behavior. This process requires robust methodologies and reliable data.

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<sup>1</sup> A benchmark refers to the standard tax system against which tax expenditures are measured. This standard includes the normal tax rates, rules, and structures that apply to the general taxpayer population. The benchmark serves as a reference point to identify and evaluate deviations that qualify as tax expenditures.

7. **The concept and reporting of tax expenditures have evolved significantly since their inception.** In the pre-2000 period, tax expenditures reporting was limited mostly to advanced countries like USA, Germany, France, Italy, and other European countries. During the last two decades, tax expenditures reporting saw a sharp increase from 15 economies in 2000 to about 105 economies currently. However, many economies do not report tax expenditures or report them on a regular basis. There is a significant variation in the quality and scope of reporting. Also, most economies do not monitor and evaluate the impact of tax expenditures on a systematic basis. Lack of reporting and monitoring of tax expenditures presents serious challenges to their reform.

8. **Fiscal crisis precipitated by global economic shocks has pushed many economies to reconsider the role of tax expenditures in light of their fiscal impact.** Post-pandemic and in the wake of ongoing Ukraine crisis, many economies, particularly the Emerging Market and Developing Economies (EMDEs), experienced a significant erosion of fiscal space (Global Economic Prospects 2021<sup>2</sup>). This has led them to consider tax expenditure reforms aimed at broadening the tax base by streamlining the tax incentives.

9. **Global agreements to protect the tax base, climate, and to achieve the sustainable development goals, have also helped in accelerating tax expenditure reforms.** The implementation of Global Minimum Tax<sup>3</sup> is likely to accelerate the transition from profit-based corporate tax incentives like tax holidays, which are incompatible with the GMT, towards expenditure-based tax incentives. Similarly, the Paris agreement on climate change (2015) followed by COP26 declaration (2021) to phase out inefficient fossil fuel subsidies are playing an important role in accelerating reform of tax expenditures related to the consumption of fossil fuels.

10. **Countries can better pursue tax expenditures reforms when they have a strong institutional capacity to assess and evaluate their fiscal impact.** Many developing economies lack the capacity and knowledge to benchmark their tax system, and to measure and evaluate their fiscal impact. This can act as one of the major barriers to reforms. Development partners, including the international organizations, have endeavored to fill this gap by releasing guidance notes and toolkits related to tax expenditures based on international best practices.

11. **This manual contributes to the existing body of knowledge by providing a comprehensive guidance on benchmarking, measurement, reporting, and evaluation of tax expenditures and suggesting a framework for reform.** It offers new methods and approaches for evaluating tax expenditures. It provides practical tools and framework for policymakers to understand, measure, and manage tax expenditures. The manual introduces innovative techniques for assessing the economic and social impact of tax expenditures, helping to improve transparency, accountability, and policy effectiveness.

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<sup>2</sup> World Bank flagship report (June 2021)

<sup>3</sup> The Global Minimum Tax (GMT), an outcome of the 2021 global agreement by members of Inclusive Framework under Pillar 2 of the OECD BEPS project 2.0 Two-Pillar solution to address base erosion and profit shifting, aims to limit harmful tax competition to attract foreign investment based on tax incentives.

## CHAPTER 1: DEFINING TAX EXPENDITURES

*In this chapter we will discuss the concept of tax expenditures, and how they compare with direct spending. We will look at how tax expenditures can be defined based on their common characteristics and how different countries have defined them. We will then discuss how tax expenditures can be classified based on their economic function, tax type, policy objectives and beneficiary group.*

### 1.1 WHAT ARE TAX EXPENDITURES?

1.1.1 Tax expenditures are revenue losses attributable to special provisions in the law, such as exemptions, deductions, credits, and preferential tax rates, that are used as tools to promote economic activities, support social policies, and address market failures. The term ‘tax expenditure’ may sound like a bit of an oxymoron as the term ‘tax’ connotes collection whereas the term ‘expenditure’ connotes spending. In effect, they represent government spending through the tax system for favored activities or groups. Box 1 shows how the concept of tax expenditures originated in US.

#### Box 1: Tracing the conceptual origins of tax expenditure.

The concept of tax expenditures arose at the beginning of the 1960s, almost simultaneously in Germany and the United States (Jorratt, et al., 2010). Until the 1960s, there was no comprehensive cataloguing of tax incentives or a standardized method for analyzing these incentives and their results. The term “tax expenditure” is attributed to Stanley S. Surrey, who was a professor of law at Harvard University. He observed that many provisions of the Tax Code had economic effects identical to government spending, however, these were not subjected to the same rigor of scrutiny as the spending programs since the provisions were part of the Tax Code. As the Assistant Secretary of the Treasury for tax policy, Surrey began to catalogue tax preferences and develop a methodology for measuring them. He also started to develop a method that could enable the Congress to simultaneously review the tax provisions and spending programs and, thereby, to improve the policymaking process. The initial results came as a shock when the Treasury Secretary, Joseph Barr disclosed before the Joint Economic Committee that 21 people earned more than \$1 million in 1967 without paying any federal income tax, due to their utilization of tax preferences. Subsequently, a chapter on tax expenditures in the United States Budget was included for the first time in 1968. Later, the Congressional Budget and Impoundment Control Act of 1974 was enacted, and it was required that tax expenditures be reported annually in the budget and further required a tax expenditure estimate to be made for all bills reported by congressional committees (Bartlett, 2001). Surrey and coauthor Paul R. McDaniel defined the “tax expenditure” concept as follows:

*The tax expenditure concept posits that an income tax is composed of two distinct elements. The first element consists of structural provisions necessary to implement a normal income tax, such as the definition of net income, the specification of accounting rules, the determination of the entities subject to tax, the determination of the rate schedule and exemption levels, and the application of the tax to international transactions. The second element consists of the special preferences found in every income tax. These provisions, often called tax incentives or tax subsidies, are departures from the normal tax structure and are designed to favor a particular industry, activity, or class of persons. They take many forms, such as permanent exclusions from income, deductions, deferrals of tax liabilities, credits against tax, or special rates. Whatever their form, these departures from the normative tax structure represent government spending for favored activities or groups, effected through the tax system rather than through direct grants, loans, or other forms of government assistance. (Burman & Phaup, 2012)*

In Germany, a Report of Tax Subsidies and Preferences (1st Subventionsbericht) was published in 1967, believed to be the starting point for the tax expenditure measurements in Germany. International Fiscal Association (IFA) and International Institute of Public Finance (IIPF) further expanded the concept during 1970s. In 1978, Austria issued its first report on tax expenditures followed by Canada and the UK in 1979. A year later, Spain and France followed. At the end of the eighties, tax expenditure measurements were widespread in OECD countries. By 1983, Australia, Austria, Canada, France, and Spain were also regularly identifying tax expenditures and reporting them. By 1996, almost all OECD member countries were reporting tax expenditures (Kraan, 2004).

1.1.2 Tax expenditures are generally viewed as an alternative to direct spending. They are a consequence of legislative or regulatory provisions whose implementation result in foregone tax revenue, otherwise collectible as per tax law. They can also be viewed as tax breaks for certain economic flows resulting in revenue loss and therefore, constituting a shortfall for the State

budget; their removal would normally<sup>4</sup> lead to an increase in revenue. They result in passive transfers, as they are not recognized as government grants, but more as income retained by the taxpayers due to a lower incidence of tax. However, they have an effect equivalent to that of budgetary expenditure.

## 1.2 HOW DO TAX EXPENDITURES COMPARE WITH DIRECT SPENDING?

1.2.1 Unlike direct spending, tax expenditures are not budgeted for and remain invisible till their revenue impact is measured and reported. For example, consider a decision of the government to construct a bridge for a cost of \$ 10 million through a company 'X'. It has two options – to pay \$ 10 million to the company 'X' or not collect a tax of \$ 10 million from the company. While the two options may look the same, there is a significant difference in their optics. The first option will be shown in the finance budget of the government as a spending on bridge while the second option will reflect in the budget as a 'free' bridge. The second option does not make it explicit that the bridge has been financed by non-collection of tax revenues to the tune of \$ 10 million.

*figures in million dollars*

	<b>Option 1 (Direct spending)</b>	<b>Option 2 (Tax expenditure)</b>
<b>Receipts</b>		
Tax	10	0
<b>Outlays</b>		
Bridge	10	0

1.2.2 Despite being used as substitutes by governments, tax expenditures and direct spending differ significantly in extent of administrative monitoring and control of public expenditure. Unlike direct expenditure, they are generally open ended, with the amount of expenditure dependent on the decisions of the taxpayers rather than on direct government decision. Tax incentives tend to operate independently and unilaterally, with limited intervention of the government to determine if they are being correctly claimed by the taxpayers. Only a small fraction of tax returns would be audited at best, and thus, the probability of unearthing fraudulent claims is generally low. Therefore, there is far less control over tax expenditures due to moderate administrative supervision. Box 2 compares direct spending and tax expenditures as substitutes using an example of policy to encourage investment in the affordable housing sector.

### Box 2: Comparing direct spending and tax expenditures as substitutes with an example.

Let us consider a government decision to assist and encourage investment in the affordable housing sector. The direct spending route would translate into the concerned line ministry issuing grants or subsidies to people that need to buy an affordable house. When the government gives direct grants, detailed rules are made mentioning the eligibility requirements, pre-requisites, application procedures and other administrative modalities and guidelines for obtaining the said grant, including the periodic monitoring and evaluation. The stipulated government agencies review and evaluate the applications for grants and can further call for specific information to ensure that the grants would be spent for the proposed purposes. These agencies may ask for periodic reports from the beneficiaries and can even initiate recovery proceedings if the investments are found to be used for purposes other than the intended purpose stipulated in the guidelines. The government also exerts control by way of appropriation process and can limit or even fully stop further spending for the program in case the program fails to deliver the desired outcomes during the periodic evaluation and monitoring. The tax expenditure route would instead aim at either reducing the tax liability of individuals who buy a house or real estate developers who construct low-cost houses. While the eligibility conditions may be stipulated by the tax law, it is difficult to control who benefits from the tax incentives and by how much. This may become known only ex-post when the claims are verified through tax audits or similar means.

<sup>4</sup>Assuming no change in behavior of taxpayers in response to withdrawal of tax incentives.

1.2.3 Since tax expenditures are embedded in complex legal provisions, and do not require regular appropriations for their continuation, they are often subject to weaker legislative control. They can be politically more enticing to the government as they only reflect the potential revenue foregone and thereby become less visible than the direct budget expenditures, and their provisions can be routed discretionally through legislation. Compared to direct outlay programs with similar goals, they better meet the need of politicians to appear to favor spending restraint and in some circumstances can be financed at a lower political cost (Howard, 1999). Once introduced, tax expenditures become constant features of the tax structure and do not undergo periodic review for their relevance and effectiveness by the legislature. The reporting of tax expenditures gets absorbed into aggregate revenue forecasts in the subsequent budgetary processes.

1.2.4 Proliferation of tax expenditures due to weak legislative control can lead to accumulation of high fiscal costs over time and pose risks to fiscal sustainability. High levels of revenue foregone due to tax expenditures can threaten budget's distributive, macroeconomic, and administrative functions and can also put the tax system's primary function of revenue collection at risk. Table 1 compares the pros and cons of tax expenditures and direct spending.

Table 1: Comparison of tax expenditures and direct spending

	<b>Tax Expenditures</b>	<b>Direct Spending</b>
<b>Accessibility for beneficiaries</b>	Simple, because of their automatic nature.	More complex, requiring selection.
<b>Administrative and compliance costs</b>	High, if exemptions are properly monitored.	Medium, due to necessity of a selection and allocation system.
<b>Possible abuses</b>	Evasion, avoidance, and rent seeking.	Arbitrariness, inefficiency, and capture of the allocating body.
<b>Flexibility</b>	Work with permanent laws, thereby generating stability but also inertia.	Work with budgets, evaluation, and regular reallocations.
<b>Transparency and accountability</b>	Their automatic nature does not contemplate control mechanisms or accountability.	Must be approved by legislature, as with all governmental expenditure.
<b>Expenditure control</b>	Expenditure determined ex post; uncertain and unlimited, which can cause fiscal imbalances.	Programmed and controlled spending, limited by the budget law.
<b>Equity</b>	Only potential taxpayers benefit, and those with highest incomes often benefit the most.	Discretion can provide more equitable access, enhancing targeting of beneficiaries

Source: (Jorratt, et al., 2010)

1.2.5 Despite their weaknesses, tax expenditures may enjoy certain advantages over direct spending (Howard, 2002). They can deliver support to many individuals and businesses or influence their behavior faster than direct spending and with a higher certainty. Their 'self-disbursing' nature can also reduce the compliance costs or stigma attached to some government programs since obtaining benefits from tax expenditures does not generally require applications or prior approval (Halpern-Meehin, 2015).

## 1.3 DEFINING TAX EXPENDITURES

1.3.1. Over time, tax expenditures have come to be defined differently by different countries and academia. Nonetheless, a common view is that tax expenditures are a departure from a “benchmark” tax system that defines the “baseline” tax treatment based on generally accepted tax principles, or exceptions to a comprehensive income tax system with uniform rates (Sammartino & Toder, 2020). They have also been defined as a transfer of public resources that is achieved by reducing tax obligations with respect to a benchmark tax (Kraan, 2004) (OECD, 2010). They are economically equivalent to granting support through an item of budgetary public spending (Longinotti, 2021). They share certain common characteristics such as loss of revenue, having a policy objective or a desire to change the behavior of economic agents (CREDAF, 2015):

1.3.2. Based on their common characteristics and drawing upon definitions adopted by several countries (Table 2), tax expenditures can be defined as special provisions in the law, with an underlying policy objective, that deviate from the benchmark tax system to benefit a certain class of taxpayers by reducing their tax liability. Some tax expenditures may be analogous to public outlay programs in which case they can be viewed as spending programs administered through the tax code (Sammartino & Toder, 2020).

Table 2: Definition of Tax Expenditure adopted by select countries.

Country	Tax expenditure definition
USA	Revenue losses attributable to provisions of the federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability
Germany	The law does not precisely define tax expenditures. The published reports limited to corporate and industry tax subsidies. The provisions which benefit households are only considered if they constitute subsidies indirect to private companies or economic sectors.
Belgium	Lower revenue from a derogation from the general tax system, with a view to favoring certain economic, social, or cultural activities and which could have been replaced by a direct subsidy.
Spain	An exception to the basic tax organisation; the objective sought must be of an economic or social nature; the benefit of the tax expenditure must be limited to part of the taxpayers or to certain economic sectors
Netherlands	tax expenditures are defined as deviations from the system benchmark tax that reduce government revenue
UK	Tax expenditures are tax reliefs which government uses to encourage particular groups, activities or products in order to achieve economic or social objectives. Tax relief means that you either pay less tax to take account of money you’ve spent on specific things, like business expenses if you’re self-employed, get tax back or get it repaid in another way, like into a personal pension. Tax relief is divided into three categories: tax expenditures, structural elements of the tax and provisions that have both a structural component and a tax expenditure component. The classification criteria are the non-structural character and the equivalence with a public expenditure. The third category includes, for example, reductions linked to age, exemption from family allowances or even amortizations.
Sweden	tax expenditures are defined, unofficially, as measures that reduce revenue relative to a predefined standard, with the aim of achieving a target specific policy or to facilitate the effective functioning of the tax system
Morocco	tax expenditures represent all the tax benefits granted by the State, with a view to encouraging natural or legal persons, by voluntarily renouncing part of its income to achieve specific objectives. Their effect on the budget of the State is comparable to that of direct budgetary expenditure
Senegal	tax expenditures are special provisions derogating from ordinary law which cause losses of revenue for the State, with the aim of encouraging behavior particular economic benefit from taxpayers or to



	subsidize certain groups social. They thus entail, for taxpayers, a reduction in their tax burden by compared to what would have resulted from the application of the standard, i.e. the general principles taxation in Senegal
Argentina	Amount of revenue that is definitively foregone by granting special tax treatment that deviates from that generally established in current tax legislation, to benefit certain activities, zones, or taxpayers.
Brazil	Indirect government expenditure carried out through the tax system that seeks to support economic and social objectives.
Chile	tax expenditures are revenue foregone due to the application of exemptions or special tax regimes, which are designed to support or encourage certain economic sectors, activities, regions, or agents
Colombia	Tax benefits that are conceded with the aim of encouraging economic activities or underdeveloped areas.
Guatemala	Those situations in which the taxable event has occurred, but in which there is no obligation to pay the tax, unlike the rest of the taxpayers; universally applied concessions are considered as part of the norm
Mexico	The amount of revenue that is foregone due to the existence of special tax treatments, administrative facilities, authorized deductions, preferential rates, fiscal incentives, and private resolutions
Nicaragua	Transfers made by the state to certain groups or sectors, which are carried out through a reduction in the taxpayers' tax obligations, rather than through budget expenditure.
Peru	Any tax measure that leads to a loss of revenue for the state and the corresponding reduction in the tax burden for the taxpayer that has not resulted from the application of a general tax law.
OECD	Tax expenditures are tax advantages or exemptions from the tax system "normal" that reduce revenue collections by general government and, because public policy objectives can be achieved by another medium, i.e. grants or other direct expenditures, the tax benefits are assimilated to budgetary expenditure.

Source: (Swift, 2006); (Craig, 2001); (OECD, 2010); (Brixi, 2004); Author

## 1.4. CLASSIFICATION OF TAX EXPENDITURES

1.4.1. Tax expenditures take various forms, such as exclusions from income, special tax rates, credits against tax liability, deductions, and the deferral of tax payments. The common element in these variety of forms is that they reduce tax liability and government revenues. They can be classified in different ways, based on their purpose or intent, target groups, or their economic impact on revenues. Based on the type of the economic benefit or tax relief it provides, tax expenditures are commonly classified as follows (Sammartino & Toder, 2020):-

- By economic function
- By tax type
- By policy objective
- By beneficiary

### A. BY ECONOMIC FUNCTION

1.4.2. Exclusions, exemptions, allowances, and deductions reduce the amount of income or consumption subject to tax. Income that is excluded is not considered as a part of the tax base, such as employer contributions to employee pensions, inter-corporate dividend income, or exempted items like capital gains from sale of property used as primary residence. Similarly,

supply of education, health or food may be excluded from the consumption tax base through VAT exemptions. Deductions allow taxpayers to remove certain parts of income from the tax base like, contributions to individual retirement accounts or health insurance premiums. Table 3 summarizes economic functions of select tax expenditures.

Table 3: Tax expenditures by economic function

<b>Category</b>	<b>Function</b>
<i>Exclusions or exemptions</i>	Exclude certain type of income or consumption from the tax base based on its source or beneficiary. Tax holidays that provide exemption from corporate income tax, customs, excise, or VAT are offered by many countries to attract investment.
<i>Itemized deductions</i>	They are a special category of deductions, valuable only to taxpayers whose total itemized deductions are larger than the standard deduction available to all tax filers. In the USA, for instance, most prominent itemized deductions are the home mortgage interest and charitable contributions.
<i>Tax credits</i>	They reduce tax liability by the dollar amount of the credit, irrespective of the tax rate of the taxpayer. For example, the \$2,000 child tax credit reduces tax liability by \$2,000 per child for all taxpayers eligible to use it fully. Refundable credits are a special category of credits that allows taxpayers to receive credits that may even exceed their income tax liability like the health insurance premium assistance tax credit, and the child tax credit.
<i>Preferential tax rates</i>	They benefit taxpayers who receive certain types of income or consume certain types of goods or services. For example, under dual income tax system, long-term capital gains and certain dividends are typically taxed at a lower rate of income tax as compared to the tax rates on ordinary income range. Similarly, supply of certain essential goods or services related to food, education, or healthcare are usually taxed at reduced VAT rates.
<i>Deferral of tax liability</i>	Allows taxpayers to delay tax payments. This may put a taxpayer in a lower tax rate bracket at the time of payment or may reduce the present value of taxes. For example, immediate expensing or accelerated depreciation of certain capital investments shifts the reported taxable income to later years by allowing taxpayers to claim deductions for the costs of those investments earlier than what the normal income accounting rules would allow.
<i>Patent Box regime</i>	They are a combination of incentives that provide preferential treatment to expenditure incurred for research & development (R&D) and income earned from inventions, patents, copyrights, or royalties. R&D expenditure may be allowed super deductions (more than 100 percent of actual expenses incurred) or tax credits (as a percentage of eligible expense) while the income may be either exempted or subject to reduced rate.
<i>Loss-carry back</i>	Allows loss of current year to be adjusted against profits of earlier years.

## B. BY TAX TYPE

1.4.3. Tax expenditures may also be classified for the different categories of taxes, and more specifically under various heads shown in table below. Based on the tax type, tax expenditure may have a different design, intended beneficiaries, and policy objective. Typical tax expenditures related to various taxes like the PIT, CIT, VAT, Customs and Excise are shown in Table 4.

Table 4: Common tax expenditures by tax type

<b>Tax type</b>	<b>Common tax expenditure</b>
<b>PIT</b>	<ul style="list-style-type: none"> <li>- Itemized deductions such as mortgage interest, savings, or medical expenses</li> <li>- Deduction for gifts to certain recipients</li> <li>- Deduction for donations to philanthropic organisations</li> <li>- Concessional treatment of superannuation benefits</li> <li>- Earned income tax credit</li> </ul>
<b>CIT</b>	<ul style="list-style-type: none"> <li>- Exemptions such as tax holidays.</li> <li>- Reduced tax rate.</li> <li>- Investment allowance for investment in plant and machinery.</li> <li>- Accelerated depreciation for investment in energy efficient equipment.</li> <li>- Deduction of more than hundred percent of expenditure on research and development.</li> </ul>
<b>VAT</b>	<ul style="list-style-type: none"> <li>- Exemption on supplies related to education, health, water etc.</li> <li>- Zero-rated supply of new house or residential building</li> <li>- Exemption on supplies by charitable organisations</li> </ul>

	- Reduced rate on food supplies - Exemption for fee based financial services
<b>Excise tax</b>	- Excise concessions for 'alternative fuels' - Excise exemption on kerosene used as heating fuel. - Excise exemption on small agricultural equipment - Reduced rate on electric vehicles
<b>Customs</b>	- Import duty exemption for government institutions, personal items etc. - Import duty exemption on medical material, books, agricultural material

## C. BY POLICY OBJECTIVES

1.4.4. Tax expenditures can also be classified based on the policy objectives that they seek to achieve, which can be social, economic, environmental, political, or cultural. Box 3 shows how Morocco classifies its tax expenditures based on economic, social and cultural activities.

- Social: such as deductions under personal income tax related to expenses on physically handicapped individuals, savings by senior citizens, deductions against donations to charitable organizations engaged in religious and social welfare activities.
- Economic: investment-linked deductions profit linked allowances or exemptions or deductions to reduce marginal effective tax rate and incentivize investment.
- Environmental: exemption or investment-linked deductions or allowances or accelerated depreciation for investment in green technologies.
- Political: exemption to public sector, Government consumption, contributions, or donations to political parties etc.
- Cultural: exemption of income from cultural activities, VAT exemption for dance or music performances.

Box 3: Tax expenditures by policy objectives - an example from Morocco

Morocco publishes detailed break-down of its tax expenditures by tax type, economic function of tax expenditure, sector, beneficiary, objective, and purpose. A snapshot of tax expenditures by policy objective from statement published in 2022 is shown below. It shows the revenue impact of tax expenditures by tax type and policy objectives. Some of the biggest tax expenditures are oriented towards economic and social activities through VAT, corporate, and income tax related concessions.

Designation	In millions of dirhams							
	2020				2021			
	Economic Activities	Social Activities	Cultural Activities	Total	Economic Activities	Social Activities	Cultural Activities	Total
VAT	4 706	7 877	169	12 752	4 844	8 590	157	13 590
Corporate Tax	4 332	743	-	5 076	3 542	543	-	4 086
Income Tax	1 828	2 182	-	4 010	1 863	2 498	-	4 361
European transport Law, Annual Special Tax on Motor Vehicles and Special Turnover Taxes	3 902	1 211	-	5 113	4 873	1 417	-	6 290
Domestic Consumption Tax	207	-	-	207	83	-	-	83
Interest Damage	656	14	-	669	946	145	-	1 092
<b>Total</b>	<b>15 631</b>	<b>12 027</b>	<b>169</b>	<b>27 827</b>	<b>16 151</b>	<b>13 193</b>	<b>157</b>	<b>29 501</b>

## D. BY BENEFICIARY

1.4.5. Tax expenditures can also be classified based on beneficiaries at the individual or firm level or aggregated by income, sector, or region. An analysis of different beneficiaries of tax expenditures in country reports may improve transparency in the allocation of public funds and allow an informed discussion about the equity implications of tax expenditures. Beneficiary groups could include individuals or households, companies, or non-profit organizations (such as charitable or religious institutions). They could be further classified based on income, size, location, or sector. Box 4 shows select tax expenditures in US related to dependent care credit, earned income credit and mortgage interest deduction that are classified based on income of individual taxpayers.

### Box 4: Tax expenditure by beneficiary - an example from US

The table below shows distribution of select individual tax expenditures in USA by income class in 2020. Return column shows number of tax taxpayers who benefitted from tax expenditures and the amount column shows aggregate tax expenditures enjoyed by taxpayers in each income class. While earned income credits are well targeted towards low-income households, mortgage interest deduction is mostly availed by the richest taxpayers with annual income of more than \$100,000.

*[Money amounts in millions of dollars, returns in thousands]*

Income Class [2]	Dependent Care Credit		Earned Income Credit [5]	
	Returns	Amount	Returns	Amount
Below \$10,000 .....	2	[4]	4,468	\$4,354
\$10,000 to \$20,000 .....	5	\$2	7,733	23,067
\$20,000 to \$30,000 .....	58	15	4,713	18,263
\$30,000 to \$40,000 .....	219	83	3,901	11,462
\$40,000 to \$50,000 .....	375	191	3,110	6,161
\$50,000 to \$75,000 .....	866	503	2,555	4,099
\$75,000 to \$100,000 .....	735	458	301	409
\$100,000 to \$200,000 .....	2,479	1,963	17	25
\$200,000 and over .....	1,436	1,509	1	1
<b>Total .....</b>	<b>6,175</b>	<b>\$4,724</b>	<b>26,799</b>	<b>\$67,842</b>

Income Class [2]	Mortgage Interest Deduction	
	Returns	Amount
Below \$10,000 .....	---	\$1
\$10,000 to \$20,000 .....	24	4
\$20,000 to \$30,000 .....	62	21
\$30,000 to \$40,000 .....	134	53
\$40,000 to \$50,000 .....	247	115
\$50,000 to \$75,000 .....	1,177	727
\$75,000 to \$100,000 .....	1,481	1,442
\$100,000 to \$200,000 .....	5,066	6,824
\$200,000 and over .....	4,876	15,526
<b>Total .....</b>	<b>13,067</b>	<b>\$24,712</b>

Source: (Joint Committee for Taxation, 2020)

## CHAPTER 2: GLOBAL TRENDS IN TAX EXPENDITURE

In this chapter, we will look at some global statistics related to tax expenditures, including distribution of tax expenditures by income group and region. We will also discuss certain limitations to cross-country comparison of tax expenditures.

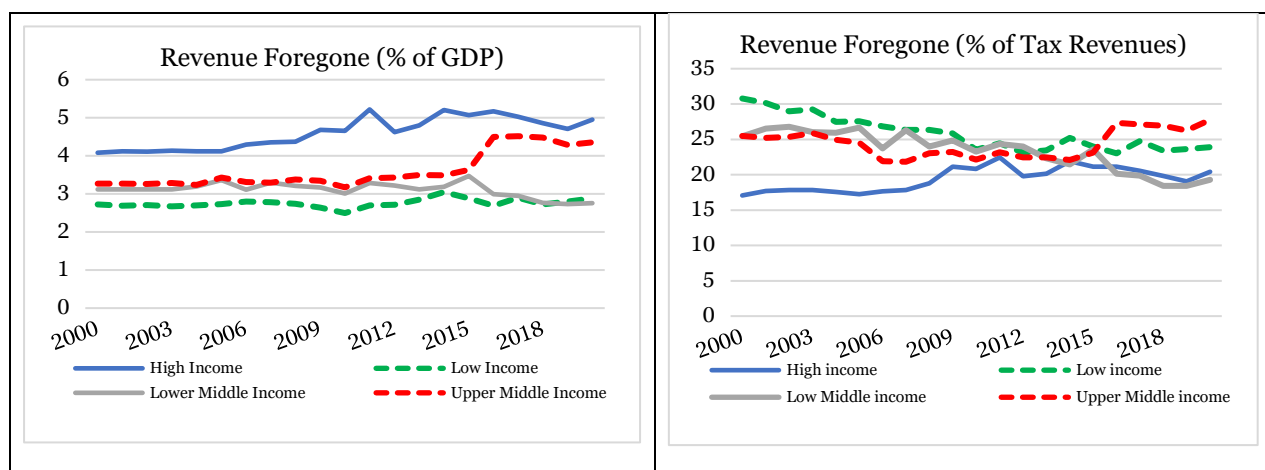
### 2.2 TAX EXPENDITURES: THE BIG PICTURE

#### GLOBAL SCALE AND TRENDS

2.2.1 Over the last 30 years, the global average of reported revenue forgone from tax expenditures was close to 4 per cent of GDP and more than 24 per cent of tax revenues (Haldenwang, et al., 2021). The average size of tax expenditures is much higher in high-income countries (4.9 per cent of GDP) as compared to the low-income and lower-middle income countries (2.7 per cent of GDP) (Beznoska, 2023).

2.2.2 While the revenue foregone due to tax expenditures in developed countries is higher when seen as a percentage of GDP, it is relatively higher in developing countries when seen as a percentage of tax revenues (Table 5). In 2020, upper-middle income and low-income countries had foregone 27.8 per cent and 23.9 per cent of their tax revenues respectively in contrast to high-income countries which had foregone 20.4 per cent of their tax revenue due to tax expenditures.

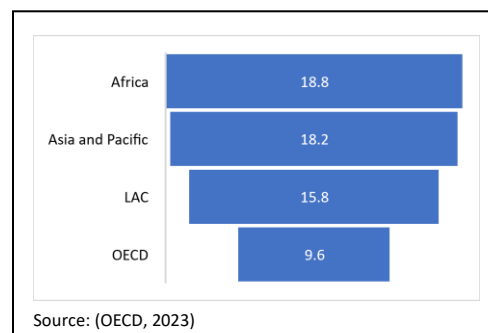
Table 5: Revenue foregone due to tax expenditures



Source: GTED, World Bank calculations

2.2.3 It is worthwhile to address the role of tax expenditures in developing countries separately because some incentives are especially common in developing countries, as are some unique institutional features. Developing countries mostly use tax expenditures to incentivize businesses and attract investment (Haldenwang, et al., 2021) whereas developed countries use them for social welfare (see Box 1). Since business taxes are the main sources of revenues for developing countries (see Figure 1), tax expenditures related to such taxes have a relatively higher fiscal impact.

Figure 1: Share of CIT in total revenues by region



Source: (OECD, 2023)

### Box 5: Tax expenditures in select OECD countries

Developed countries mostly use welfare-oriented tax expenditures to provide relief to individual taxpayers and households. Some of the high-income countries, such as Netherlands, Finland, Czechia, and Ireland, have tax expenditures of more than 10 percent of GDP. In Netherlands<sup>1</sup>, for instance, tax expenditures result in revenue foregone of over Euros 100 billion per year out of which the biggest are pension-related tax benefits and labor tax credits (42 percent), general tax credit (24 percent), and mortgage interest deduction (10 percent). Similarly, in USA top tax expenditure items are exclusion of employer contributions for medical insurance premiums and medical care (\$ 221 bn), exclusion of net imputed rental income (\$ 124 bn), capital gains (102 bn), and defined contribution employer plans (\$ 100 bn).

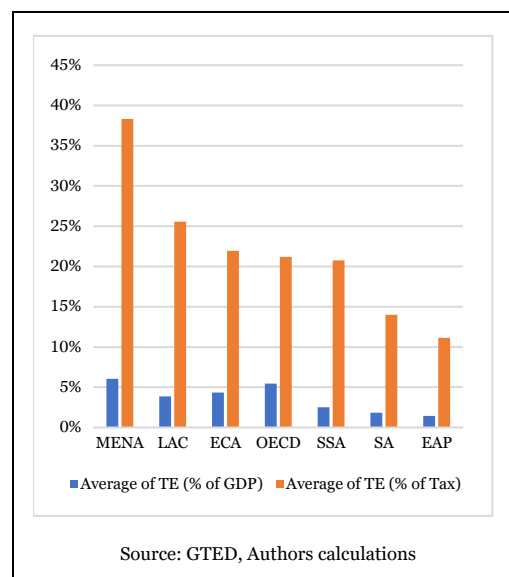
Country	Region	Number of TE provisions	TE (% of GDP)	Year	Tax (% of GDP)	TE (% of Tax)
Netherlands	OECD	231	14.2	2020	26.1	54%
Finland	OECD	221	12.5	2020	30.3	41%
Czech Republic	Europe & Central Asia	206	10.4	2019	19.4	54%
Ireland	OECD	272	10.3	2020	16.8	62%
United Kingdom	OECD	466	8.1	2020	25.4	32%
Australia	OECD	598	7.9	2020	28.5	28%
Latvia	Europe & Central Asia	155	7.7	2018	22	35%
United States	OECD	315	6.5	2020	19.2	34%
Canada	OECD	411	6.5	2020	29.5	22%

Source: GTED, Author's calculations

## TAX EXPENDITURES BY INCOME GROUP AND REGION

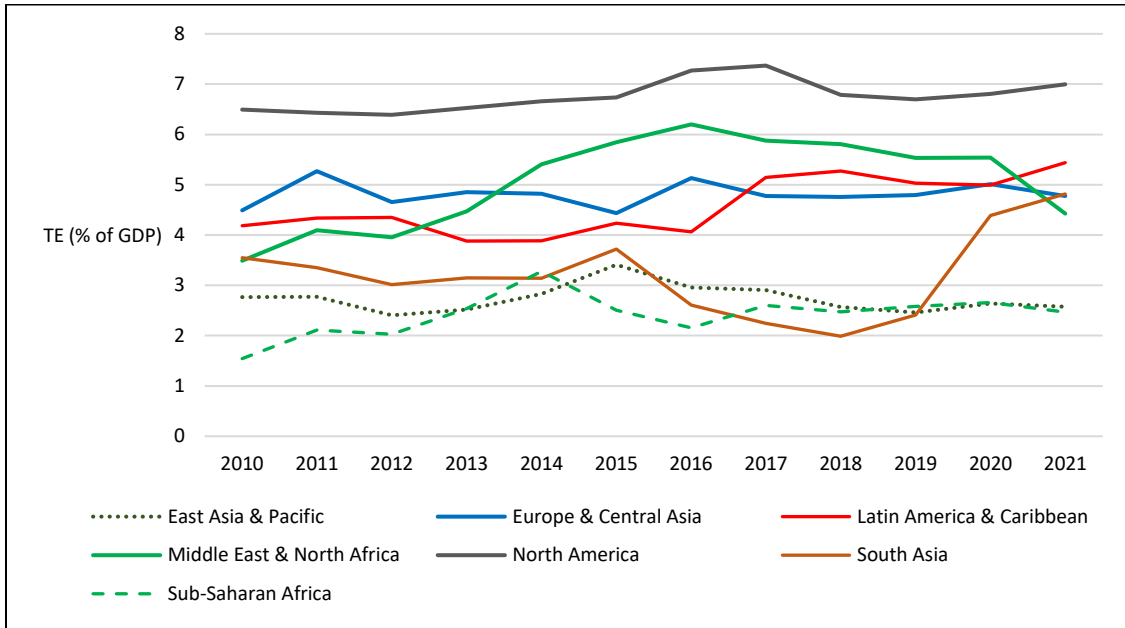
2.2.4 As shown in Figure 2, certain regions like the Latin America & Caribbean (LAC), Middle East & North Africa (MENA), and Eastern Europe & Central Asia (ECA) regions have relatively higher tax expenditures (GTED, 2024). For instance, in the MENA region, countries with high tax expenditures include Jordan (9.5 percent in 2019), Tunisia (5.9 percent in 2021), and Morocco (2.5 percent in 2021). Similarly, in the LAC region, tax expenditures are significantly higher in Colombia (7.7 percent in 2021), Honduras (7.2 percent in 2021), Ecuador (6 percent in 2021), and Dominican Republic (4.9 percent in 2021). In ECA region, Russian federation (14.8 percent in 2021), Latvia (8.6 percent in 2021), Armenia (6.5 percent in 2021), Romania (4.7 percent in 2021), and Georgia (4.6 percent in 2021) have high tax expenditures. In Sub-Saharan Africa (SSA), Cabo Verde (6.2 percent in 2021), Nigeria (3.9 percent in 2021), Burundi (3.3 percent in 2021), Mauritania (3.1 percent in 2021), and Mali (2.9 percent in 2021) have notably high tax expenditures. Figure 3 shows that tax expenditures have grown significantly over the last decade in South Asia, LAC, and MENA regions.

Figure 2: Tax expenditures by region



Source: GTED, Authors calculations

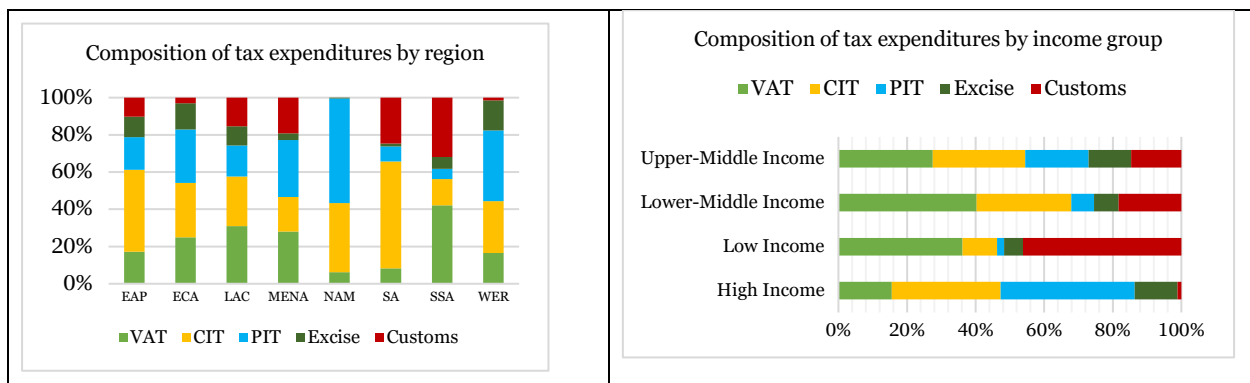
Figure 3: Tax expenditures - trend by region (2010-21)



Source: GTED

2.2.5 Composition of tax expenditures by tax type (Figure 4) shows higher proportion of VAT related tax expenditures in SSA, LAC, MENA, and a higher proportion of CIT related tax expenditures in South Asia and East Asia & Pacific regions. Similarly, while low-income and lower-middle countries mainly rely on VAT related tax expenditures, upper-middle income countries rely more on corporate tax expenditures. Developed countries, mainly concentrated in the North America (NAM) and Western Europe region (WER), have relatively higher share of PIT expenditures.

Figure 4: Composition of tax expenditures by region and income group

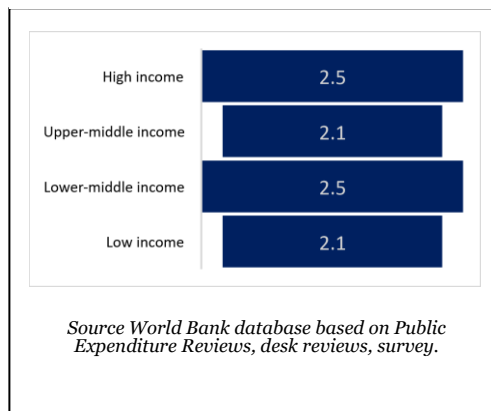


Source: GTED, Authors calculations

## VALUE-ADDED TAX INCENTIVES

2.2.6 VAT incentives - whether applied via exemptions, reduced rates, or zero rating - represent the largest source of tax expenditures, accounting on average for more than 2% of GDP, with modest variation across income groups. Most VAT-related tax expenditures countries are generally attributable to exemptions and reduced rates for essential goods like food, education, and health. However, the revenue impact is higher in case of low-income countries where the collection efficiency of VAT is relatively much lower due to high levels of compliance gap. In some countries, as revealed during World Bank's Public Finance Review, revenue losses due to exemptions and zero-ratings were found to be greater than overall VAT revenue collections.

Figure 5: Average VAT-related tax expenditure (as percentage of GDP) by income groups



## CORPORATE TAX INCENTIVES

2.2.7 Several developing countries, particularly in South Asia, East Asia & Pacific, and Latin America & Caribbean region, offer profit-based<sup>5</sup> CIT incentives like tax holidays or reduced rates (Table 6). Developed countries, on the contrary, mostly offer expenditure-based<sup>6</sup> tax incentives such as investment tax credit, R&D tax credits, and super-deductions. Empirical research suggests that profit-based incentives are blunt policy instruments, which are popular due to their visibility to the investors and ease of administration but are highly ineffective in generating new and additional investment (James, 2014). Expenditure-based incentives, on the other hand, are better targeted and have proven to be much more effective in stimulating additional investment.

Table 6: Break-up of CIT-related tax expenditures by region

Region	Number of countries surveyed	Tax holidays / tax exemption	Reduced tax rate	Investment allowance / tax credit	R&D tax incentive	Super-deductions	SEZ / Free Zones	Discretionary process
East Asia & Pacific	12	92%	75%	67%	83%	33%	92%	83%
Eastern Europe & Central Asia	17	82%	35%	24%	29%	0%	94%	35%
Latin America & Caribbean	24	92%	33%	50%	8%	4%	71%	42%
Middle East & North Africa	15	80%	40%	13%	0%	0%	80%	40%
OECD	34	12%	32%	65%	76%	21%	68%	35%
South Asia	8	100%	38%	75%	25%	63%	63%	38%
Sub-Saharan Africa	44	80%	64%	77%	11%	18%	66%	77%

Source: (James, 2020)

<sup>5</sup> Profit-based incentives like tax holidays and reduced tax rates are determined as a percentage reduction of firm profit.

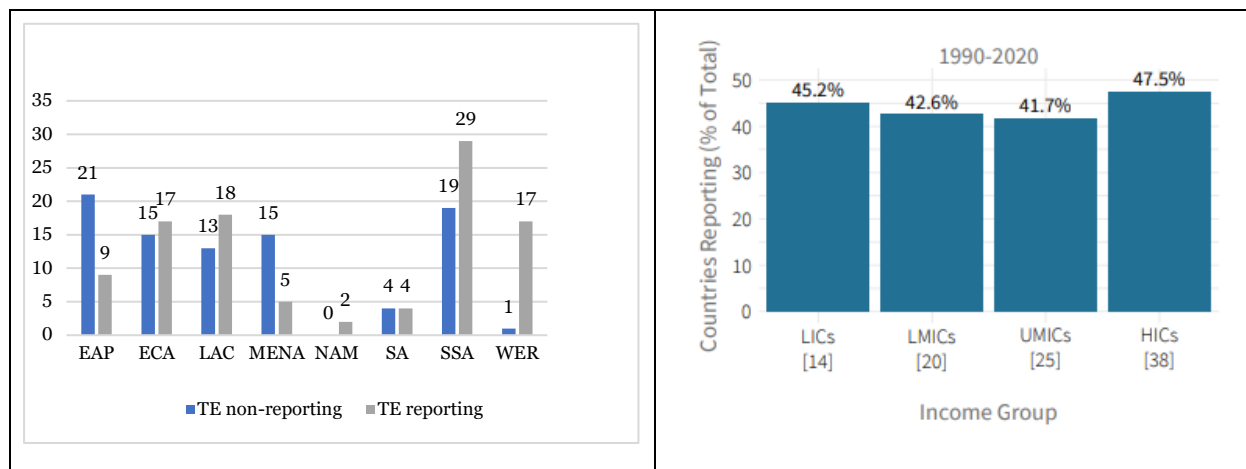
<sup>6</sup> Expenditure-based incentives like accelerated depreciation and investment tax credits reduce the after-tax cost of capital expenditures.



## 2.3 LIMITATIONS OF TAX EXPENDITURE STATISTICS

2.3.1 Cross-country comparison of tax expenditures is challenging due to limited data of tax expenditures across countries. Only 105 economies currently report their tax expenditures (GTED, 2024). Many countries in the EAP (24 percent), ECA (17 percent), LAC (15 percent), and SSA (22 percent) regions do not report tax expenditures (Figure 6). Therefore, many regions may not be well represented in the regional statistics. Similar limitation also applies to the statistics by income group (Figure 6).

Figure 6: Break-up of countries based on tax expenditure reporting status by region.



Source: (GTED, 2024)

2.3.2 Another main challenge to cross-country comparison is difference in benchmark tax treatment by countries. Currently there are no internationally accepted benchmarks due to which there is a wide variation in benchmarks adopted by countries. Therefore, a similar kind of incentive may be treated by one country as a tax expenditure and another as part of the benchmark. Moreover, the size of tax expenditures for the same dollar amount can be different for two countries if the tax rates are different. In the next chapter, different approaches to benchmarking tax system will be discussed followed by guidance on how to benchmark some of the most common features of a tax system for each tax type.

## CHAPTER 3: BENCHMARK TAX SYSTEM

*In this chapter we will define the benchmark tax system and discuss common benchmarking approaches. We will cover important concepts like negative tax expenditures and structural reliefs. We will then discuss some of the most common features of a tax system for the major taxes and provide guidance on benchmarking such features.*

### 3.1 BACKGROUND

3.1.1 The starting point for measurement of tax expenditures is to establish a baseline tax policy against which the policies that represent a deviation can be identified. Such baseline tax policy constitutes what is known as the benchmark tax system, which establishes the standard tax treatment applicable to all taxpayers in general. However, there is no ‘global standard’ for a benchmark tax system. Despite commonalities in the tax systems followed by countries based on generally followed economic and accounting principles, significant differences remain in the rate structure, and tax treatment of various items of income and consumption. Differences in baseline tax treatment for the same or similar provision can lead to differences in benchmark tax system adopted by countries, which in turn affect the tax expenditure estimates. For instance, ceteris paribus exempt income of 100 in a country where the benchmark tax rate is 10 percent will lead to tax expenditure of 10 whereas in a country with a benchmark rate of 30 percent will lead to tax expenditure of 30. Thus, for tax expenditure estimates to be comparable, they should be based on the same benchmark. Even for the same country, tax expenditures may not be comparable if the benchmark changes from year to year. In this section, we will discuss how to benchmark a tax system in the context of generally accepted tax principles.

### 3.2 DEFINING THE TAX SYSTEM

3.2.1 Tax systems may differ in ways they recognize certain types of ‘income’ or ‘consumption’ as part of tax base and the rate at which such income or consumption is taxed. Apart from differences in treatment of tax base and tax rate, tax systems also differ based on tax instruments that are used to raise revenues. A tax system can be characterized by type of tax instrument (whether the tax is paid directly by the person who bears it), tax unit (who pays the tax), tax base (wage, profits, dividends, interest, rent, consumption), and tax rate (proportion of tax base collected as tax).

### 3.3 DEFINING THE BENCHMARK TAX SYSTEM

3.3.1 Benchmark tax system (BTS) is not defined in the tax legislation. It can be thought of as an ‘ideal’ tax system encompassing a comprehensive tax base and standard tax rates applicable to all taxpayers for each tax instrument. Such tax base does not include preferential tax measures. BTS sets the baseline tax policy against which all the deviations can be identified. Table 8 defines the main components of BTS, which include tax unit, tax base and tax rate for each tax type. For instance, BTS for the PIT may include individuals or married couple as tax unit; labor income, profit from self-employment, and passive income as tax base; and a progressive or flat rate schedule as the tax rate.

Table 7: Defining a benchmark tax system.

Tax Instrument	Tax Unit	Tax Base	Tax Rate
PIT	Individual or married couple	Labor income, profit from self-employment, passive income from investment	PIT rate schedule – flat or progressive
CIT	Firm (which is not pass-through)	Profit	CIT rate
VAT	Final consumer	Value added / Final consumption	VAT rate
Excise duty	Final consumer	Consumption	Excise rate
Customs duty	Importer	CIF value	Customs tariff
Carbon tax	Final consumer	Carbon content	Carbon tax rate
Wealth tax	Individual, Firm (which is not pass-through)	Value of net assets	Wealth tax rate
Property tax	Owner of immovable property	Fair market value of property	Property tax rates that vary by the location, owner characteristics
Inheritance tax	Individual	Market value of inherited assets	Inheritance tax rate

### 3.4 BENCHMARKING APPROACHES

3.4.1 Most countries do not have a formally adopted or declared BTS. Such system is generally implicit in the tax laws and the principles that guide their continuity and evolution over time. Practically, every country interprets and applies the principles of taxation based on its unique economic, social, and political environment. That said, the principal criterion of benchmark design is that the benchmark should represent a consistent tax treatment of similar activities or classes of taxpayers. That is, a benchmark tax treatment should neither favor nor disadvantage similarly placed activities or classes of taxpayers (Swift, 2006). The choice of the benchmark requires some judgement and should be guided by the purpose of the tax expenditure reporting for its users (OECD, 2021). A BTS is typically defined using one, or some combination, of the following approaches (OECD, 2021) –

- ✓ Normative or Conceptual approach. This approach defines a normative benchmark tax system based on the notion of how economic activities or taxpayers ought to be taxed. It refers to an ‘external’ or theoretical concept of comprehensive income or consumption that provides guidance on how tax policy should be defined, irrespective of whether this benchmark accurately reflects existing tax law. Under this approach, the benchmark tax base could be defined as a comprehensive income tax base or a broad-based consumption tax base.
- ✓ Positive or Reference tax law or legal approach. Under this approach, a country’s existing tax system forms the starting point for defining the benchmark. A tax expenditure is an explicit concession that departs from what is considered a generally applicable tax provision under the existing tax law. This approach provides more flexibility in defining TEs and will generally provide a narrower list of TEs than the conceptual approach.
- ✓ Expenditure subsidy approach. This approach seeks to cost only those concessions that are clearly comparable to an expenditure subsidy. This method is rarely used in practice, and it would likely result in a narrower list of TEs than under the other two approaches.
- ✓ Fundamental aspects of the tax system: Under this approach, a country’s benchmark tax system is characterized only by the most fundamental aspects of a tax system. This approach ensures that information is reported on a wide range of tax measures, including measures that may not be considered tax preferences or substitutes to direct program spending. This approach is also simpler and less subject to interpretation than the normative approach.

3.4.2 One of the main distinctions between the normative and legal approach to BTS is that the latter establishes a broader baseline by treating certain preferential<sup>7</sup> legal provisions as a norm. While most countries follow a legal approach, some countries include the most fundamental aspects of the tax systems in the benchmark. Most African countries that have carried out the assessment of their tax expenditures have adopted the reference tax law approach, whereas many countries of the OECD have adopted a normative approach (CREDAF, 2015). Canada defines its tax benchmark as the “tax structure that is characterized only by the most fundamental aspects of a tax system” (Department of Finance Canada, 2021). In a similar spirit the Australian tax expenditure reports states “The choice of tax benchmark unavoidably involves judgment and therefore, may be contentious in some cases. These judgments are informed by long-standing features of the tax system, practice in tax expenditure publications in other jurisdictions and consultation with stakeholders.” (Australian Government the Treasury, 2021). Tax expenditure reports that follow a mixed approach indicate that the tax benchmark should not be interpreted as an indication of the way activities or taxpayers ought to be taxed. Only the United States uses a purely conceptual approach for defining the benchmark but also presents estimates based on a legal reference benchmark (OECD, 2022). Mixed approaches are found in Australia, Canada, Chile, Mexico, and Norway. The rest of countries in Table 8 use the reference approach for benchmark. It is worth noting that Australia and Canada stand out as countries that define the benchmark in a more detailed and clear way.

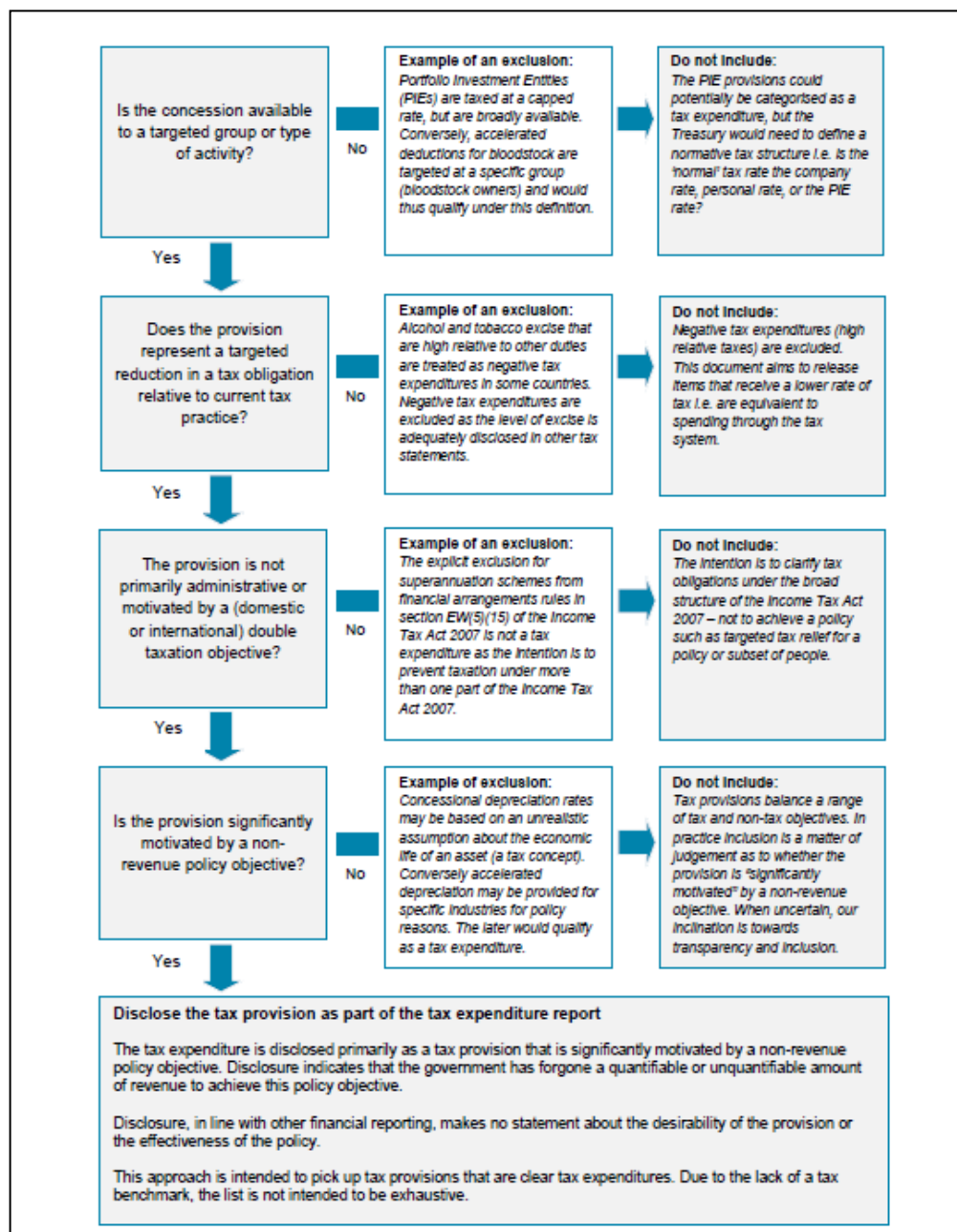
Table 8: Benchmarking practices in select countries

Country	Reference	Conceptual	Expenditure subsidy approach	Fundamental aspects of the tax system*
Argentina	Yes			
Australia				Yes
Austria	Yes		Yes	
Belgium	Yes			
Bolivia	Yes			
Canada				Yes
Chile	Yes			Yes
Colombia	Yes			
Costa Rica	Yes			
Czech Republic	Yes			
Dominican Republic		Yes		
Ecuador	Yes			
El Salvador	Yes			
France	Yes			
Germany			Yes	
Guatemala	Yes			
Honduras	Yes			
Italy	Yes			
Mexico				Yes
Nicaragua	Yes			
Norway				Yes
Paraguay		Yes		
Peru	Yes			
Spain	Yes			
UK				Yes
United States	Yes	Yes		
Uruguay	Yes			
* It is not conceptual, but it is very broad.				
Source: (OECD, 2021), (Vázquez, 2022)				

<sup>7</sup> Here ‘preferential’ implies provisions that should otherwise be a part of a comprehensive tax base.

3.4.3 Unlike other OECD countries, New Zealand follows a criteria-based benchmarking for its tax expenditure reporting (see Figure 7). It identifies provisions that provide tax concessions to a targeted group or type of activity but excludes provisions that are motivated by administrative or double taxation or non-revenue policy objective.

Figure 7: Criteria-based benchmarking approach followed by New Zealand



## 3.5 NEGATIVE TAX EXPENDITURES

3.5.1 Once the BTS has been adopted, provisions that deviate from the benchmark may result in positive or negative tax expenditures based on whether the provision is beneficial or punitive

in nature. Exceptions in tax system are sometimes designed to provide less favorable treatment to taxpayers and are called negative tax expenditures (Joint Committee on Taxation, 2023). Some of the common examples of such exceptions are limitations on carry forward of loss, thin capitalization rules to limit the use of debt and interest deductions, rules that limit the claim of certain business expenditure such as travel, entertainment, or hospitality. A negative tax expenditure leads to collection of higher than benchmark revenue by the government. Some countries like Australia, and US report negative tax expenditures.

3.5.2 Special provisions of the law the principal purpose of which is to enforce general tax rules, or to prevent the violation of other laws, are not treated as negative tax expenditures even though they may increase the tax burden for certain taxpayers (Joint Committee on Taxation, 2023). Examples of these compliance and enforcement provisions include (1) the limitation on net operating loss carryforwards and certain other losses following ownership changes (2) dividends stripping<sup>8</sup> rule and (3) the disallowance of a deduction for fines and penalties.

## 3.6 CHOICE OF BENCHMARK TAX SYSTEM

3.6.1 A normative or conceptual approach follows certain established principles that provide guidance to the user on common views about the most desirable tax system. Haig-Simon and Schanz-Haig-Simon definitions for income, for instance, are based on normative approach and provide a good basis for determining which flows should be treated as income for the purposes of the benchmark (Swift, 2006). This can facilitate a transparent discussion on how provisions in tax law compare to such norm. However, unlike the conceptual benchmark, the reference law approach reflects what society views as a desirable system based on the contemporary realities. This would also provide a better sense to policy makers about the revenue impact of deviant provisions, as its reference is the existing tax system, rather than some theoretical concept that may deviate in various ways.

3.6.2 While it is appealing to define a benchmark that follows a well-established conceptual tax system, if the implementation of this benchmark is not feasible within the current tax architecture, the arguments to apply that ideal as the tax expenditure benchmark are weakened. Despite being clear and transparent, following the conceptual approach might not produce actionable tax expenditures. For instance, under the conceptual benchmark, all capital gains should be taxed on accrual basis. However, it may not be practicable to do so as it involves high compliance costs for taxpayers and in some extreme cases, unrealized gains may force liquidation at the time of tax payment (Giampaolo & Massimo, 2021). Therefore, taxation of capital gains on realization basis has practically become the norm.

3.6.3 Practical considerations demand that the choice of the BTS be based on the larger purpose that benchmarking, measurement, and reporting of tax expenditures serve. In general, most policy makers intend to use tax expenditure reporting to put them under the same scrutiny as ordinary public expenditures in terms of revenue costs, efficiency, effectiveness, and equity, as well as transparency and fiscal accountability. This approach aims to provide information on a full range of measures and allows readers, who may take a different position as to the appropriate benchmark system, to construct their own list of tax expenditures. What becomes crucial is that countries define a benchmark to ensure that tax expenditures are identified, listed, and measured in a consistent manner. This enhances comparability of tax expenditures for a country across time, and even across countries. Therefore, incorporating elements of the reference tax law has emerged

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<sup>8</sup> Dividend stripping, a form of tax avoidance, occurs when what should have been a taxable dividend is converted into a capital sum in the hands of a shareholder. This typically happens by way of a sale of shares to a related party and the ultimate economic ownership or control of the company remaining unchanged.

as the most common approach in tax expenditure assessments across the world. Given the importance of the benchmark tax system for TE analysis, the following criteria can guide its choice (OECD, 2021):

- ✓ Well-defined and transparent. The benchmark should be well-defined and transparent so that policymakers and the public at large understand the underlying assumptions that have been made and they can verify the calculations.
- ✓ No discrimination. The benchmark should represent the standard taxation treatment that applies to similar taxpayers or types of activity (reflecting horizontal equity). Discriminatory elements in the tax code will be qualified as tax expenditures.
- ✓ Structural reliefs. The benchmark should explicitly acknowledge which features of the tax system have been treated as a structural relief. Progressive rate schedule for the personal income tax and basic income exemption limit are typically considered to be a structural relief.
- ✓ Consistent. The benchmark should be consistent across taxes and make explicit reference to how it treats measures that relieve double taxation (integration). For example, if there is integration of corporate and personal taxation, the benchmark system should be consistently applied to both the CIT and the PIT for assessment of tax expenditures.
- ✓ Actionable. The benchmark should be defined in a way that the resulting list of TEs informs policy makers about possible reform options. At least, the TE list provides a starting point for an evaluation of tax concessions.
- ✓ Facilitate international comparability. The benchmark may be chosen such that it follows the approaches in other countries. Variations should be made explicit and reported as a memorandum item in tax expenditure statements.
- ✓ Narrow. The benchmark should be as narrow as possible to maximize the identification and reporting of deviant tax provisions that may represent tax expenditures. This goes well with the objective of using TE reporting as a means of enhancing transparency in public expenditure.

### 3.7 IDENTIFYING STRUCTURAL RELIEFS

3.7.1 Certain legal provisions that deviate from the benchmark should be considered as structural reliefs if the policy objective of such provisions is to achieve redistribution or administrative efficiency. For instance, most countries provide a basic income exemption limit below which personal income tax does not apply or a registration threshold for businesses below which they are not required to charge VAT. Developing countries typically have a huge informal sector, which is 'hard-to-tax'. The policy to exclude such people or businesses from the tax base by prescribing an income threshold for PIT or turnover threshold for VAT, is based on administrative efficiency rather than providing a tax concession.

3.7.2 Preferential tax treatment provided in international agreements to avoid double taxation or to promote free trade are also structural reliefs. However, the comparison between national taxation and international agreements should be made to the letter and not by interpreting the text or extrapolating from it (FERDI, 2018). For instance, the Chicago Convention establishes rules of airspace, aircraft registration and safety, and exempts commercial air fuels from tax. However, the Chicago Convention is not applicable to domestic aviation. Thus, while exemption of excise on aviation fuel covered by the Chicago convention should be considered a part of structural relief, exemption of excise on aviation fuel supplied to domestic airlines should be treated as a tax expenditure. Similarly, preferential treatment agreed under Double Taxation

Avoidance Agreement by a country should be considered as a structural relief as the purpose of such agreement is not to provide a tax concession but to avoid double taxation (McDaniel & Surrey, 1985). Box 6 shows an example of structural relief in India which allows a lower rate of 10 percent withholding tax rate on income from royalties in case of non-residents covered by DTAA.

**Box 6: Structural relief under DTAA: example from India**

India amended its income tax law in 2023 to increase the tax rate for royalties or fees for FTS earned by non-resident taxpayers or foreign companies in India. Previously, such income was taxed at 10 percent under Section 115A of the Income-tax Act. The amendment increased this special tax rate to 20 percent (plus surcharge and health and education cess as applicable) effective April 1, 2023, provided the income is not linked to a permanent establishment or fixed place in India. However, many DTAA that India has signed with countries provide a lower rate of 10 percent on income from royalties or FTS. Considering that the lower rate is based on an international agreement, it can be considered as a structural relief.

3.7.3 However, countries may differ widely in their political judgment to distinguish structural reliefs from tax expenditures. For instance, unlike all other OECD countries, Germany and France do not consider VAT rate reductions for food as a tax expenditure because these countries view these provisions as fundamental features of their tax system based on a general and redistributive logic (OECD, 2021). As discussed in para 3.4.2, UK reports basic features of its tax system as structural reliefs and non-structural reliefs as tax expenditures. According to the UK tax expenditure report, while non-structural reliefs help or encourage certain classes of individuals, activities, or products to achieve economic or social objectives, structural reliefs exist to define the scope of the tax, calculate income or profits correctly, make the tax progressive or simplify the tax code.

3.7.4 In the interest of transparency, structural reliefs should be explicitly recognized outside the benchmark even though they do not lead to tax expenditures. Wherever possible the cost of structural reliefs should be quantified and reported as a memorandum item in the tax expenditure statement. This enables the stakeholders to better understand the tax expenditure estimates and compare them with earlier estimates or estimates of other countries. UK, for instance, reports the cost of quantifiable structural reliefs and list of structural reliefs where cost estimates are unavailable (HM Revenue & Customs, 2023). Some of the common tax provisions that should be considered as structural reliefs are shown in Table 9.

**Table 9: Common structural reliefs in a tax system**

Tax type	Provision	Reason for treating as a basic feature of tax system
PIT	Basic exemption limit below which income is not taxed	Administrative efficiency as cost of collection is more than the revenue foregone <sup>9</sup>
PIT	Progressive rate schedule	Redistribution and equity are fundamental objectives of PIT
PIT / CIT	Tax rates on income of non-residents from interest, royalty, fee from technical services as per Double Taxation Avoidance Agreement	Conform to international agreement
CIT	Tax depreciation rates applicable to various assets	Tax depreciation rates are based on expected useful life of asset. Normatively, they should be equal to economic depreciation rates based on true useful life of asset. However, differences in rates are due to non-revenue reasons. Moreover, cost of measuring economic

<sup>9</sup> Czech Republic considers the basic exemption limit as a TE. Canada does not consider it a TE but still measures it.



		depreciation rate may exceed the revenue foregone due to which it may not be administratively efficient.
CIT	Simplified taxation regimes for micro and small businesses with turnover below VAT registration threshold under which tax is paid on turnover and the tax rate covers both CIT and VAT.	Administrative efficiency as cost of collection is more than the revenue foregone. Measurement issues as simplified regimes allows businesses to follow basic book-keeping due to which data of profits may not be available.
CIT / PIT	Lower flat tax rate on dividend income received by individual shareholders from corporations	Relief from double taxation of corporate profits in the hands of corporate and individual shareholders
VAT	Turnover threshold below which VAT registration and payment is not mandatory	Administrative efficiency as cost of collection is more than the revenue foregone
VAT	Exemption of VAT on exports	Normative VAT design is destination based and VAT is levied only on domestic final consumption
VAT	Exemption of VAT on imports by firms in Free Economic Zone for re-export	Normative VAT design is destination based and VAT is levied only on domestic final consumption
Customs	Reduced customs tariff as per Free Trade Agreements	Conform to international agreement
Customs	Exemption of customs duty on imports by diplomatic and international organizations	Conform to international agreement

## 3.8 BENCHMARKING OF COMMON TAX PROVISIONS

3.8.1 In the following sections, we will discuss approaches to benchmark some of the common provisions under various taxes such as the PIT, CIT, VAT, Excise, and Customs. These discussions are neither exhaustive nor prescriptive; rather they are intended to guide the discussions on BTS in a country.

### PERSONAL INCOME TAX

#### COMPREHENSIVE INCOME BENCHMARK

3.8.2 The definition of income which most economists use is the so-called Schanz-Haig-Simons (SHS) or comprehensive definition of income. It is a very wide definition and includes all forms of income such as -

- wages, salary, commissions,
- profits of privately-owned businesses,
- dividends, interest income from securities and bank accounts, tips, rental income
- transfer payments (such as employment insurance benefits)
- gifts or inheritances received.
- fringe benefits such as the value of free (or subsidized) parking provided by an employer, the value of driving a company car for personal use, frequent flyer miles earned from taking business trips, the value of accommodation in owner-occupied housing.
- the net increase in the real value of a person's assets.

3.8.3 The basic SHS definition of income is - *A person's annual income is the value of what she could consume in that year, while keeping her wealth constant.* In other words, income is the increase in economic wealth between two points in time, plus consumption in that period. In this definition of income, consumption includes all expenditures except those incurred in earning or producing income. However, pure SHS basis of income is not followed by any country. For instance, while SHS income includes income from capital gains on accrual basis, most countries tax income from capital gains on realization basis. Similarly, most countries do not consider real income (net of inflation) for computing taxable income.

3.8.4 Another contentious issue in choosing a benchmark for personal income tax is whether the basis for benchmark should be income or consumption (Burman, 2003). Since income equals sum of consumption and savings, if the income tax is considered the norm, then savings tax incentives—such as tax-exemption for individual retirement accounts and pensions, and preferential tax rates for capital gains—are considered tax expenditures. If a consumption tax is taken as the norm (consumption equals income net of savings), then the taxation of interest and dividends (which are income from savings) are negative tax expenditures. This implies that tax-exempt pensions and individual retirement account are part of the BTS and not considered as TE. Against this baseline, preferential tax rates on capital gains constitute a negative tax expenditure because they exceed the benchmark rate of zero. In contrast, against the income tax baseline, the failure to tax realized capital gains at full rates is a tax expenditure. Countries should preferably follow a comprehensive income benchmark albeit with some deviations (shown in Table 10) that pose practical difficulties.

Table 10: Common deviations from SHS comprehensive income

SHS income / comprehensive income base	Common deviations
Imputed income from assets such as house property is included as income	Imputed income from assets is generally not considered as income; self-occupied house property is exempted from tax by most countries
Income from capital gains (such as increase in stock prices, gold, house property etc.) is considered as income on accrual basis	Income from capital gains is considered as income on realization basis
Real income is taxed	Nominal income is taxed though benefit from inflation indexation is allowed by some countries

## RESIDENCE VS SOURCE-BASED TAXATION BENCHMARK

3.8.5 In deciding the jurisdictional principles for tax base, most countries follow a mix of residence<sup>10</sup> and source-based<sup>11</sup> taxation system under which income or profits which result from international activities such as cross border investment may be taxed where the income is earned (source country) or where the person who receives it normally based (Country of residence). Generally, the resident taxpayers pay tax on their global or world-wide income while the non-resident taxpayers pay tax on income derived from the economic activities undertaken in the country. Theoretically, one can imagine a world in which all countries adopted either pure

<sup>10</sup> Residence taxation of income is based on principle that the people and firms should contribute towards the public services provided for them by the country where they live, on all their income wherever it comes from.

<sup>11</sup> Source based taxation of income is based on the principle that the country that provides the opportunity to generate income or profits should have the right to tax it.

residence jurisdiction or pure source jurisdiction. Economists tend to favor residence<sup>12</sup> jurisdiction, both because they consider the source of income to be hard to pin down (income often has more than one source), and because they think residence jurisdiction promotes economic efficiency, since the decision where to invest should be unaffected by the tax rate. However, developing countries rely heavily on source-based taxation to raise revenues and do not prefer residence-based taxation. Although, pure source taxation enables investors to play countries off against each other to obtain lowest source-based tax rate. It also creates problems of determining the source of income and of combating base erosion and profit shifting.

**3.8.6 Once the country has adopted its basic jurisdictional principles with respect to treatment of a taxpayer based on its residence, citizenship, domicile, or a combination of such criteria to define who would be subjected to domestic tax rules (and hence to whom international tax rules would be apply), deviations from those rules should be treated as tax expenditures or outside the BTS.** For instance, in India an individual is said to be a resident in the tax year if physically present in India for a period of 182 days or more in the tax year (182-day rule), or physically present in India for a period of 60 days or more during the relevant tax year and 365 days or more in aggregate in four preceding tax years (60-day rule). If none of the two conditions are met, the individual is said to be a non-resident in that tax year. Resident taxpayer is subject to domestic tax rules and is liable to taxation on global income (residence-based taxation) unlike non-resident taxpayer who is liable to taxation only on India-sourced income (source-based taxation). In 2020, the Indian government provided relief to people who are either citizens or Indian origin and visit India for upto 120 days in a year. Now a person will qualify as a resident of India only if the duration of visit exceeds 120 days provided his India-sourced income exceeds INR 1.5 million. In effect, source-based tax treatment to the beneficiaries who visit India for 60-120 days amounts to a deviation from the benchmark residence-based taxation applicable to them. Such deviation in residency rule would lead to a tax expenditure.

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#### TREATMENT OF BASIC INCOME EXEMPTION LIMIT

**3.8.7 Though SHS income base does not provide for a basic income exemption limit for taxability of personal income, it should be treated as a structural relief.** Most countries adopt basic income exemption limit under the PIT system. As discussed earlier, such policy is driven by administrative considerations.

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#### TREATMENT OF SCHEDULAR PERSONAL INCOME TAX RATES

**3.8.8 The progressive PIT rate structure should be treated as part of the BTS<sup>13</sup>.** It can be argued that a country should adopt a certain hypothetical rate structure as a benchmark and any deviation from such rates should constitute tax expenditures. However, this is not practicable for two reasons – one, that the rates are generally decided in a parliamentary democracy by the parliamentarians and therefore reflect the policy choice of the public based on existing social, economic, and political circumstances; and two because it may be extremely challenging to reach consensus on any time-invariant hypothetical rate structure. The benchmark for the wage tax can therefore mirror that of a standard PIT rate schedule.

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<sup>12</sup> However, pure residence taxation is unrealistic, for three reasons (Avi-Yonah, 1995) – (1) countries are unlikely to give up the right to collect tax from foreigners doing business within their economy, (2) pure residence-based taxation would reduce revenues in poor developing countries, who rely heavily on source-based taxation, in favor of the rich developed countries where investors reside; more importantly, residence taxation is much easier to evade or avoid, by channeling international investments through tax, (3) strong protection of bank confidentiality and other secrecy provisions in heavens makes it hard for the residence country to get the information about its resident's foreign source income.

<sup>13</sup> Since the progressive rate schedule is part of benchmark tax system, rates lower than the top marginal rate in the rate schedule are aimed at providing structural relief.

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## TREATMENT OF TAXATION OF DIVIDENDS AND INTEREST INCOME

**3.8.9 Benchmark tax rate for dividends and interest should be based on combined assessment of PIT and CIT rates.** Many countries follow a dual system where the wage income is taxed at progressive rates and the capital income (such as dividends and interest) is taxed at a lower flat rate. Under a classical system, CIT is paid by corporates on profits while the distributed profits in form of dividend is taxed in the hands of individual shareholders. To ensure neutrality, assuming that individual is in the top PIT rate bracket, the sum of CIT and dividend tax should match the maximum marginal PIT rate. Therefore, if the CIT rate, say 'u', is less than the top PIT rate, say 'm', the benchmark tax rate for dividend income should be the grossed-up difference of PIT and CIT rate or  $\frac{m-u}{1-u}$ . If dividend is taxed at a lower rate, it should be considered as a tax expenditure. To illustrate, if the CIT rate is 20 percent, the final withholding tax on dividends is 5 percent, and the top PIT rate is 30 percent, the combined rate applicable to the sum of corporate profits and dividend income is 24 percent (20 plus 5 percent of 80), which is 6 percentage points below the top PIT rate of 30 percent. Benchmark dividend withholding tax rate is 12.5 percent. Accordingly, the difference between actual and benchmark rate (7.5 percent of dividend income) should be treated as a tax expenditure.

3.8.10 Similarly, consider interest income from corporate bonds, which is taxed in the hands of individuals. Corporates are allowed to claim deduction for the interest paid on borrowed capital. So far as the CIT rate matches with the rate at which interest income is taxed, there is no tax expenditure. However, if the interest income is taxed at a rate lower than the CIT rate, it leads to a tax expenditure. To illustrate, if a country imposes a final withholding tax rate for interest of 10 percent, and the CIT rate is 20 percent, the difference will constitute tax expenditure.

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## TREATMENT OF SIMPLIFIED TAX REGIME FOR SMALL UNINCORPORATED BUSINESSES

**3.8.11 Simplified tax regime or presumptive taxation for small unincorporated businesses should be treated as a structural relief.** Small (unincorporated) businesses, generally owned by sole proprietors, are sometimes treated differently, with a simplified tax on income expressed as a notional return to turnover, or a tax on turnover. In this case, it can be argued that a lighter tax burden on income constitutes a tax expenditure. But estimating such income could present problems if reporting requirements are truncated and do not require such businesses to report full account of their profit and loss account. Thus, it can also be argued that due to administrative difficulties in taxing small businesses, simplified tax regime constitutes a structural relief and therefore not considered a tax expenditure. While there is no right or wrong answer, the treatment of such policy in benchmark tax system should be invariably discussed in the tax expenditure item irrespective of whether the revenue foregone is quantified or not.

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## TREATMENT OF STANDARD DEDUCTIONS FROM WAGE INCOME

**3.8.12 Standard deduction provided to salaried taxpayers (including pensioners), which is generally in lieu of itemized deductions, should be considered outside the BTS.** Like the basic income exemption limit, many countries provide a standard deduction against the wage income in lieu of itemized deductions. Such deduction may be attractive to taxpayers due to its simplicity and ease of calculation. The rationale behind standard deduction is, therefore, ease of compliance and administration. USA treats standard deduction as defining zero-rate bracket and therefore a part of benchmark (Joint Committee on Taxation, 2019). However, the SHS definition only allows cost of producing income as a deduction. The itemized deductions such as mortgage interest, property taxes, or charitable donation, which are replaced

by standard deduction, are considered as a tax expenditure. Therefore, standard deduction should also be considered as a tax expenditure.

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#### TREATMENT OF AGRICULTURAL INCOME

3.8.13 In several<sup>14</sup> developing countries, personal income from agriculture is not taxed due to social and political reasons. Generally, power to tax such income is vested with the sub-national governments and therefore such exemptions fall outside the scope of federal tax system. If the power to tax agricultural income is with the federal government, exemptions to agriculturalists who earn more than the basic income exemption limit should normally be considered outside the BTS. This will be in line with the SHS definition of comprehensive income base. However, there are several practical difficulties that a country may face. Many developing countries are a traditional agrarian economy, with a significant proportion of population dependent on agriculture as a means of livelihood. It can be administratively challenging to estimate tax expenditures if agriculturists are not required by law to maintain any account of income or to file tax return. In such an event, exemption of agricultural income can be treated as a structural relief. However, attempts should be made to quantify the cost of such relief and included as a memorandum item in the tax expenditure report.

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#### TREATMENT OF PENSION CONTRIBUTIONS

3.8.14 Pension contributions or retirement savings are recurring payments that employees (and their employers) make as a contribution towards a pool of funds such as pension fund that finances their post-retirement pension income. Some of the common tax treatments, including preferential tax treatment of pension contribution (including employer contribution) and income earned on such contributions are shown in the Table 11 based on whether the contribution is allowed to be deducted from taxable income, whether the return on savings is taxed and whether the early withdrawal from pension funds is taxed.

Table 11: Common tax treatment of savings and pension contributions

Tax treatment type	Taxation of pension contribution	Taxation of earnings on pension contribution	Taxation of withdrawal of benefits
TEE	Tax	Exempt	Exempt
TTE	Tax	Tax	Exempt
ETT	Exempt	Tax	Tax
EET	Exempt	Exempt	Tax
EEE	Exempt	Exempt	Exempt

3.8.15 A significant number of countries, both developed and developing, provide preferential treatment to the personal income from retirement. On the other extreme, some countries like Denmark, Iceland, Netherlands, and Sweden tax income earned from work less than the pensions. There are mainly three kinds of retirement benefits that are received by an employee that can vary in design depending on whether the employer is public or private. First, there are lumpsum benefits distributed at the time of retirement (such as gratuity, leave encashment, and commutation of pension). Second is the pension income in lieu of regular salary, which could come from a pension fund, public or private. Third is the exemption from payment of social security payments.

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<sup>14</sup> Like India, Pakistan, and Burundi

3.8.16 Pension benefits and income are taxable on the consideration that (i) they are deferred wages if paid by the employer; and (ii) they are received as annuities under the EET-based pension plans. Under SHS income base, income from savings is taxed under TTE, which leads to double taxation of savings. To eliminate such double taxation, typically, countries have adopted the EET (Exempt-Exempt-Tax) or TEE (Tax-Exempt-Exempt) system of taxation of pension contributions. Under EET, contributions and gains are tax-exempt, but withdrawals—principal plus gains—are taxed. Under TEE, contributions are taxed, but gains are tax-exempt and there is no tax upon withdrawal. **The two alternate systems of EET or TEE should be used as a structural relief for taxation of pension contributions or benefits.**

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#### TREATMENT OF GIFTS, DONATIONS, AND BEQUESTS

3.8.17 Gifts, donations, and bequests are transfer of money or valuables from one person (transferor or donor) to another (transferee or donee). In countries which have adopted gift tax (like USA, UK, India), if value of gift exceeds a certain threshold, the donor must pay the tax and cannot deduct the value of gift from income. **Threshold for gift tax is provided for administrative efficiency and should be considered as structural relief.**

3.8.18 Unlike gift tax, charitable donations are allowed as deduction to the donor. As per comprehensive income benchmark, donations are not cost of producing income and should not be allowed as deduction. They are rather consumption. Moreover, donation receipts are generally treated as exempt in the hands of charitable organizations. **Therefore, deductions for donations in hands of donor should be treated as outside the BTS.** Box 7 shows an example of tax expenditure due to exemption from inheritance tax in UK.

##### Box 7: Tax expenditure in inheritance tax - example from UK

In UK, inheritance tax is paid on the value of someone's net estate at death (calculated as the value of their assets, minus debts, and after calculating tax reliefs available). Inheritance tax is charged at 40% above a threshold currently set at £325,000. This threshold is often termed the 'nil-rate band'. However, gifts made seven or more years before death are exempt from inheritance tax whereas gifts made between seven years and time of death are taxed at lower progressive rates. There are several reliefs available to people, which reduce inheritance tax liabilities. Inheritance tax is exempt on transfer of assets between spouses and civil partners. Owners or part owners of a business or agricultural property may be eligible for 50% / 100% inheritance tax reliefs. These are considered by UK as tax expenditures.

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#### TREATMENT OF EMPLOYEE FRINGE BENEFITS

3.8.19 It is common for employers to provide a wide range of fringe benefits to their employees such as free or low-cost housing, meals, transportation etc. which can account for a very significant position of an employees' total compensation package. A normative PIT must include the value of such benefits. Most countries tax such benefits under their tax policy. Consequently, **a provision that excludes from income the value of employee fringe benefits, wholly or partly, would result in tax expenditures and should be treated as outside the BTS.**

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#### TREATMENT OF INVESTMENT INCOME

3.8.20 A comprehensive PIT tax base must include all the current income from investments such as bank deposits, corporate bonds, stocks, mutual funds, life insurance policies, rents, royalties, and other similar income. Any exclusion from income is equivalent of a direct grant or subsidy and any deferral of income inclusion is the equivalent of an interest free loan (McDaniel & Surrey,

1985). Thus, exemption of investment income should be treated as outside the BTS or a tax expenditure.

#### TREATMENT OF DEDUCTIONS FROM HOUSE PROPERTY INCOME

3.8.21 The annual imputed rental income from an owner-occupied housing should be included in the comprehensive or normative PIT tax base. Such income should be net of the cost of producing it such as depreciation, maintenance costs, interest, and taxes. Many countries exempt the imputed rental income from owner-occupied housing to encourage house-ownership. They also allow deductions to cover payment of mortgage interest, repairs and renovation, and recurring property tax. **If exclusion of imputed rental income from one owner-occupied house is considered as benchmark, deductions for mortgage interest, repairs and renovation, and recurring property tax should be considered outside the BTS and lead to tax expenditures.**

Table 12: Summary of benchmark treatment of personal income

Provision	Whether part of BTS or a structural relief or a tax expenditure	Reason
Residence-based or source-based taxation rules are relaxed in case of certain taxpayers	Tax expenditure	Generally applicable residence-based or source-based taxation rules in the tax law applicable in general are treated as part of BTS.
<b>Basic income exemption limit below which income is not taxable</b>	Structural relief	Administrative efficiency
Schedular PIT rates	BTS	Hypothetical PIT rate schedule difficult to adopt
Dividend income taxed at a rate lower than grossed up difference of marginal PIT rate and CIT rate	Tax expenditure	To ensure neutrality, income from corporate and non-corporate sources should be subject to same rate.
Interest income on corporate bonds taxed at a rate lower than		
Simplified tax regime for small unincorporated businesses	Structural relief	Administrative efficiency
Standard deduction from wage income	Tax expenditure	Not treated as cost of producing income as per SHS comprehensive or normative income base.
Income of agriculturists is exempt from taxation	Tax expenditure. However, can be a structural relief in an agrarian based developing economy.	SHS comprehensive income base includes income from all sources. Administrative efficiency if structural relief.
Pension contributions are taxed under EET or TEE tax treatment	Structural relief	Avoid double taxation of savings.
Gift tax or inheritance tax is exempt below a certain threshold	Structural relief	Administrative efficiency

Charitable donation is allowed as a deduction in hands of donor	Tax expenditure	Not treated as cost of producing income as per SHS comprehensive or normative income base.
Employee fringe benefits are exempt from taxation	Tax expenditure	SHS comprehensive income base includes income from all sources whether in cash or kind.
Investment income is exempt from taxation	Tax expenditure	SHS comprehensive income base includes income from all sources.
Deductions are allowed to cover payment of mortgage interest, repairs and renovation, and recurring property tax for owner-occupied house whose imputed income is not taxed.	Tax expenditure	Cost of producing income which is excluded from the tax base should not be allowed.

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## CORPORATE INCOME TAX

3.8.22 Under comprehensive income tax base, there is no separate corporate income tax as all taxes are collected from individuals. However, most countries have adopted a separate CIT system to tax profits in the hands of corporations. Under the classical system, residual tax on profits that are distributed in form of dividends are taxed separately in the hands of individual shareholders. Retained earnings are indirectly taxed through tax on capital gains from sale of shares.

3.8.23 The general definitional principle for the normative CIT base is the increase in the net worth of the corporation for the taxable period. Consequently, all receipts (including receivables) which result from business activities including the investment income and governmental subsidies should be included in the CIT base and all the costs of generating such receipts, including depreciation and obsolescence, must be excluded from the tax base. Conversely, exclusion from the tax base an item of receipt or granting a deduction for costs not associated with the production of income or in amounts which exceed actual costs for the taxable period constitute deviations from the normative principles and hence tax expenditures. Generally, any policy that excludes part or whole of tax base through special provisions like tax holidays, or special economic zones should be considered outside the BTS and would lead to tax expenditures.

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## TERRITORIAL VS WORLDWIDE TAX SYSTEM

3.8.24 Countries tax corporations either on basis of a territorial tax system or a world-wide tax system. The territorial tax system —also known as source-based tax system allow multinational businesses to exclude or deduct foreign-earned income from their domestic tax base, ensuring that such profits are only taxed in the foreign country in which they were earned. In worldwide tax system, a corporation headquartered in the country must pay the corporate income tax on all its income, regardless of whether it is earned in the country or overseas. Under a territorial system exemption of any domestic income would fall outside the BTS whereas under a worldwide system exemption of any income, irrespective of whether it is earned in the residence country or abroad, would amount to deviation from benchmark.

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## TREATMENT OF DEPRECIATION – ECONOMIC VS TAX

3.8.25 The normative CIT base allows capital expenditures for physical assets to be deducted in form of depreciation allowances over its useful life or the time during which the asset generates



income. Depreciation is generally calculated based on economic concept or accounting concept. The economic concept looks at the decline in the real (or inflation adjusted) market value of asset over time due to economic factors such as deterioration in physical productivity. On the contrary, the accounting concept uses certain fixed schedule<sup>15</sup>, for amortization of capital cost of asset as a proxy for economic depreciation. Generally, the depreciation schedule used by corporations for reporting net profits to shareholders and tax authorities may be different due to which the taxable net profit may be different from the shareholder's net profit. It is argued that the normative CIT base should be based on economic depreciation, which is the true measure of the capital cost recovery allowance. However, it may not be practicable to do so as the estimation of true economic depreciation of each business asset is quite a challenging and resource-intensive exercise. **Therefore, the standard depreciation rates adopted in the tax law should be considered as structural relief on grounds of administrative efficiency.**

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#### TREATMENT OF ACCELERATED DEPRECIATION

3.8.26 The effect of providing higher depreciation allowance on certain assets amounts to deferral of tax payment and the difference between the depreciation allowance allowed as per normal rates and accelerated rates can be considered as an interest-free loan to the corporation. At the same time, lower depreciation allowance in future years increases the tax liability and leads to revenue gain, which needs to be offset with the revenue foregone in earlier years. This would present challenges to measurement of revenue foregone and consequent tax expenditures especially when there is adjustment of losses in the years in which revenue gain occur. Nevertheless, for practical purposes, **accelerated depreciation allowance that is more favorable than the standard depreciation allowance as per tax law should be considered outside the BTS** and would lead to tax expenditures.

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#### TREATMENT OF CORPORATE INCOME TAX RATES

3.8.27 Although most countries follow a system of a single standard rate of CIT applicable to all companies, it is not uncommon for countries to follow multiple rates based on sector, location, or performance requirement (such as minimum capital investment or employment). Some countries even follow a progressive rate schedule like the PIT rate schedule. **The standard rate of CIT, which is generally applicable to companies, or the highest rate in case of a progressive CIT rate schedule, should be treated as part of BTS** and rate lower than the standard rate would lead to tax expenditures.

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#### TREATMENT OF NON-PROFIT ORGANISATIONS

3.8.28 The normative tax base of non-profit organisations engaged in charitable, religious, political, or other eligible activities of similar nature should be like corporations and taxable at standard CIT rate. However, **if a country exempts income of such organisations from taxation, it amounts to a direct subsidy or a grant by the government, which should be considered as outside the BTS** and would lead to tax expenditure.

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#### TREATMENT OF LOSSES

3.8.29 Under the normative CIT policy, cost of producing income is allowed as deduction. However, operating losses may occur if such deductions exceed the receipts. Such losses are generally allowed to be carried forward (or carried backwards) to be adjusted against income of future (or past years) years. **As per comprehensive income base, indefinite loss**

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<sup>15</sup> such as declining balance method, straight-line method, double-declining balance method, sum-of-the-years digits method

**carryforward is the norm and should be considered as part of BTS.** Denial to a corporation of loss carryover or even limiting such period amounts to a negative tax expenditure as the loss arising from excess cost of producing income would have to be absorbed by the corporation (or business).

Table 13: Summary of benchmark treatment of common CIT provisions

Provision	Whether part of BTS or a structural relief or a tax expenditure	Reason
Domestic income of a company is exempted by a country that follows territorial system for CIT	Tax expenditure	Generally applicable territorial or world-wide taxation rules in the tax law are treated as part of BTS.
Tax depreciation allowances are not as per economic depreciation allowance.	Structural relief	Administrative efficiency
Accelerated depreciation allowance	Tax expenditure	Deferral of tax liability is similar to an interest free loan to the company
CIT rate is lower than the standard rate in case of certain companies or lower than the highest rate in case of progressive rate schedule	Tax expenditure	Generally applicable standard rate or highest rate in case of progressive CIT rate schedule is the BTS
Income of non-profit organizations is exempt	Tax expenditure	Generally applicable standard rate or highest rate in case of progressive CIT rate schedule is the BTS
Loss carryforward is not unlimited	Negative tax expenditure	Unlimited loss carryforward is the BTS

## VALUE ADDED TAX

**3.8.30 The normative tax base for VAT includes all supplies for consideration of goods or services for domestic final consumption by the purchaser and the normative tax rate is the single standard VAT rate applicable to all goods or services.** An exclusion from the VAT base of all or part of a supply for domestic final consumption constitutes a deviation from the norm and therefore lead to tax expenditure. However, the tax base does not include value of supplies that are used in a trade or business or constitutes an investment.

## TREATMENT OF REGISTRATION THRESHOLD

**3.8.31 VAT registration threshold should be treated as a structural relief.** Most countries follow a policy of excluding small businesses from the requirement of VAT registration. Such businesses are large in number but their contribution to the tax revenues is relatively insignificant due to which it may be administratively more efficient to exclude them from tax base if their annual turnover is less than a minimum turnover threshold. Consequently, such businesses are not required to charge and pay VAT on the supplies made by them.

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## TREATMENT OF ZERO-RATED EXPORTS

3.8.32 Theoretically, two jurisdictional bases are available for imposition of VAT: origin-based and destination-based. Under the origin principles, a country would tax all supplies for consumption including those destined to be consumed in another country. Exports would thus be subject to tax; imports would not. The reverse applies if the destination-based principle is adopted. The normative VAT adopts a destination principle of applying VAT to international transactions due to which the domestic taxes including VAT should not be embedded in the value of exported goods and services. This can be achieved by imposing zero VAT rate on exports and refunding the input taxes on purchases. **Hence, the policy of zero-rated exports should be considered as part of the benchmark.**

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## TREATMENT OF EXEMPT IMPORTS

3.8.33 Many countries follow a policy of exempting VAT on imported goods, which are used as inputs for production of goods for exports. Similar exemption may be granted to import of capital goods that are used by businesses. The purpose of such exemptions is not to provide a benefit to businesses but to avoid working capital of such businesses from getting locked in form of input taxes on imports. Such input taxes must be, in any case, refunded to the businesses by providing input tax credits. Delays in issuance of such refunds to the businesses can affect their working capital requirements and competitiveness. Therefore, such **VAT exemptions on imported goods that are used by businesses for intermediate consumption to produce goods or services should be treated as a structural relief.**

Table 14: Summary of benchmark treatment of common CIT provisions

Provision	Whether part of BTS or a structural relief or a tax expenditure	Reason
VAT is exempt for certain supplies	Tax expenditure	Standard VAT rate is the BTS for all supplies for domestic final consumption
VAT is exempt for unregistered businesses below the registration threshold	Structural relief	Administrative efficiency
Exports are zero-rated	BTS	Normative VAT base as per BTS is all supplies for domestic final consumption.
VAT is exempt on imported goods used as intermediate inputs for production of goods or services	Structural relief	Administrative efficiency

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## CUSTOMS DUTY

3.8.34 Customs Duty is a tariff or tax imposed on goods when transported across international borders. The purpose of Customs Duty is to protect each country's economy, residents, jobs, environment, etc., by controlling the flow of goods, especially restrictive and prohibited goods, into and out of the country. **Benchmark treatment is that imported goods are subject to the same taxes on consumption as domestically produced goods and, therefore, are free from customs duty (except for excise-equivalent customs duty).** Therefore, countries like Australia consider imposition of customs duty to be a negative tax expenditure.

Many developing countries, however, consider customs duty as an important source of revenue. In such cases, standard customs tariff rate applicable to a commodity based on its HS code should be considered as part of the BTS.

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#### TREATMENT OF CUSTOMS EXEMPTION UNDER INTERNATIONAL AGREEMENTS

3.8.35 Customs duty exemptions are commonly provided by countries that are signatories to international agreements such as Vienna Conventions, Chicago Convention, Florence Agreement and Nairobi Protocol. Often such agreements can take precedence over national legislation and, as such, national policymakers would not have the requisite jurisdiction or authority to tax these activities even if they desired to do so (Geourjon, et al., 2019). **Therefore, any deviations from the standard customs tariff rate accounted for under international agreements should be considered as a structural relief.**

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#### EXCISE TAX

3.8.36 An excise tax is a tax imposed on a specific good or activity. Excise taxes are commonly levied on cigarettes, alcoholic beverages, soda, gasoline, insurance premiums, amusement activities, and betting. Excise taxes are employed as Pigouvian taxes, or sin taxes, to price in externalities<sup>16</sup>. Typically, excise taxes are levied to reduce consumption of cigarettes, alcoholic or sugar-sweetened beverages, to curb pollution, or to reduce traffic congestion. A normative benchmark excise duty rate should be set at the rate where the external costs of consuming a good or service are fully internalized. While in theory this makes a lot of sense, but in practice, estimating precise country specific costs of the externalities associated with consumption is challenging and so this approach is not commonly followed. **Therefore, most countries follow the legal approach to benchmark the excise tax rates, which is grounded in national tax legislation** (Granger, et al., 2022). This is often due to practical reasons, such as ease of measurement. However, often due to variation in such rates by product type, a country may implicitly tax the source of externality at different rates. To illustrate the specific excise rate may vary for tobacco products like cigars, cigarettes, and raw tobacco based on volume (which could be weight or a packet consisting of, say 20 cigarettes). However, the implicit rate per unit volume of tobacco may vary. **Alternatively, the highest implicit rate of excise tax per unit of good should be used as part of the BTS.**

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<sup>16</sup> An externality, in economics terms, is the side effect or consequence of an activity that is not reflected in the cost of said activity.

## CHAPTER 4: MEASUREMENT OF TAX EXPENDITURES

*In this chapter we will discuss how tax expenditures can be measured, including the revenue foregone method, the most popular method due to its simplicity and ease of understanding. We will also the tools for measurement of tax expenditures for various taxes.*

### 4.1 APPROACHES TO MEASUREMENT

4.1.1 There are three main approaches to estimating tax expenditures:

- Revenue foregone (or static estimation): Revenues that would be collected in absence of the measure and assuming that the removal of the tax expenditure does not affect taxpayer behavior.
- Revenue gain (or dynamic estimation): Revenues that would be collected in absence of the measure and assuming that taxpayers would respond to the elimination of the tax expenditure.
- Outlay equivalence approach: This approach estimates the amount of direct spending that would be required to provide the same level of benefits to recipients.

4.1.2 The ‘revenue foregone’ is the most popular and frequently used method by countries due to its simplicity and ease of use. However, it does not account for taxpayer behavior due to which it may over-estimate the size of tax expenditures. To illustrate, consider a taxpayer who invests, say, 30 percent of his savings in stocks due to a tax exemption applicable to dividend income and income from capital gains on sale of stocks. If such exemption is removed, the taxpayer is likely to switch from stocks to other instruments due to which the investment in stocks will go below 30 percent. Revenue foregone method would assume that the taxpayer will continue to maintain 30 percent investment in stocks even when tax exemption is removed and hence over-estimate the revenue impact.

4.1.3 Revenue gain method can provide a more realistic view of the fiscal implications of removing a tax expenditure as it accounts for the potential loss of revenue due to the elimination of a measure, such as accounting for changes in investment or labor supply decisions as well as for changes in tax planning opportunities (e.g., tax base shifting). Incorporating behavioral responses in the costing methodologies can be difficult as it requires estimates of the potential behavioral response in the context of eliminating each tax expenditure. These parameters are often not available, complex to incorporate in the estimation methodologies and, in some cases, do not reflect the country’s context. Inappropriately internalizing the behavioral responses could lead to significant bias in the revenue loss estimates. For these reasons, countries have typically adopted the revenue foregone method for estimating tax expenditures for reporting purposes. Australia is one of the few countries that have adopted the revenue gain method but only for the key tax measures (i.e., for ten large benchmark deviations). Despite not accounting for a behavioral response in the reporting estimates, countries may account for a potential behavioral response in their fiscal impact estimates when developing new tax measures considered by a government or when evaluating existing ones.

4.1.4 As for the outlay equivalence approach, it is not used to estimate tax expenditures for reporting purpose but rather used in the context of evaluating a tax expenditure against a direct spending alternative. Under this approach, the direct expenditure equivalent of a tax expenditure is estimated by calculating the direct expenditure required in pretax terms to achieve the same after-tax effect on taxpayer’s 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. Table 12 compares the revenue loss and outlay equivalent for several well-known tax subsidies or expenditures in USA in 2004 (Carasso & Steuerle, 2004). The ratio of outlay equivalent to revenue loss rises when the tax rates of beneficiaries are higher. Thus, the ratio is lowest for programs like the earned income tax credit, much of which goes to low-income families.

Table 15: Revenue vs. Outlay Equivalent cost for eight tax expenditures in US (2004)

S. No.	Provision	Revenue Loss (Million dollars)	Outlay Equivalent (Million dollars)	Ratio of Outlay Equivalent to Revenue Loss
1.	Net exclusion of pension contributions and earnings (All plans)	151,906	180,890	1.19
2.	Employer exclusion for medical premiums and care	123,850	160,520	1.30
3.	Charitable contribution deduction (All types)	42,120	59,790	1.42
4.	Child credit	21,310	28,410	1.33
5.	Medical expenses deduction	6,340	6,910	1.09
6.	Worker's compensation benefits	6,190	7,710	1.25
7.	Hope and lifetime learning tax credits	5,860	7,510	1.28
8.	Earned income tax credit	5,090	5,660	1.11

*Note:* The amounts for the child credit and earned income tax credit shown here count the non-refundable portions only.  
*Source:* Budget of the U.S. Government, 2004, Analytical Perspectives, Tables 6-3 and 6-5.

Source: (Carasso & Steuerle, 2004)

4.1.5 Estimating tax expenditures can be challenging and require carefully designed measurement tools as tax preferences can interact with each other and with other features of the tax system. The sections below provide an overview of the key measurement methodologies used to estimate tax expenditures under the revenue foregone approach for different revenue streams.

## 4.2 TOOLS FOR TAX EXPENDITURE MEASUREMENT

### MICROSIMULATION MODELS

4.2.1 The gold standard for estimating the fiscal impact of new and existing tax policy measures related to direct taxes such as the PIT and CIT is to use microsimulation models. Microsimulation models are widely used to assess the impact of a wide range of public policies ranging from dynamic long-run impacts of education policies to short-run distributional impacts of timely spending (e.g., COVID-19 income support programs). These models can provide powerful insights into the fiscal and distributional impacts of tax policies as well as their interactions with other government programs. Several countries now have microsimulation models to assess tax policies – mostly related to PIT and CIT. Some of them are noted in Table 13 and described in Box 8.

Table 16: Microsimulations Models for Select Countries/Regions

<i>Countries</i>	<i>Models</i>
<i>Australia</i>	CAPITA
<i>Canada</i>	T1 Model and T2 Model
<i>EU countries</i>	EuroMod
<i>Finland</i>	SISU /TaxIPP
<i>France</i>	SAPHIR
<i>Ghana</i>	GHAMOD
<i>Select developing countries</i>	SouthMod
<i>United Kingdom</i>	TaxBen/UKMOD
<i>US</i>	CBO/TaxSIM
<i>Norway</i>	LOTTE
<i>France</i>	SAPHIR
<i>World Bank/IMF</i>	Income Tax and VAT Models

**Box 8: Description of tax microsimulation models used by countries.**

**EUROMOD-** It is a tax-benefit microsimulation model for EU countries. It is used to calculate the effects of taxes and benefits on household incomes and work incentives for the population of each country and for EU as a whole. It is also used to evaluate the effects of tax-benefit policy reforms and other changes on poverty, inequality, incentives and government budgets.

**SOUTHMOD-** It is also a tax-benefit microsimulation model built on the EUROMOD platform by the United Nations University (UNU-WIDER) and the University of Essex for developing countries. The model has been built for African countries such as Ghana, Zambia, Mozambique and South Africa among others.

**OTA Microsimulation Models-** It comprises of 4 models used by the Office of Tax Analysis, Department of Treasury, USA- i) Individual Income Tax Model; ii) Individual Income Tax Receipts Model; iii) Tax Distributional Model; iv) Corporate Income Tax Model.

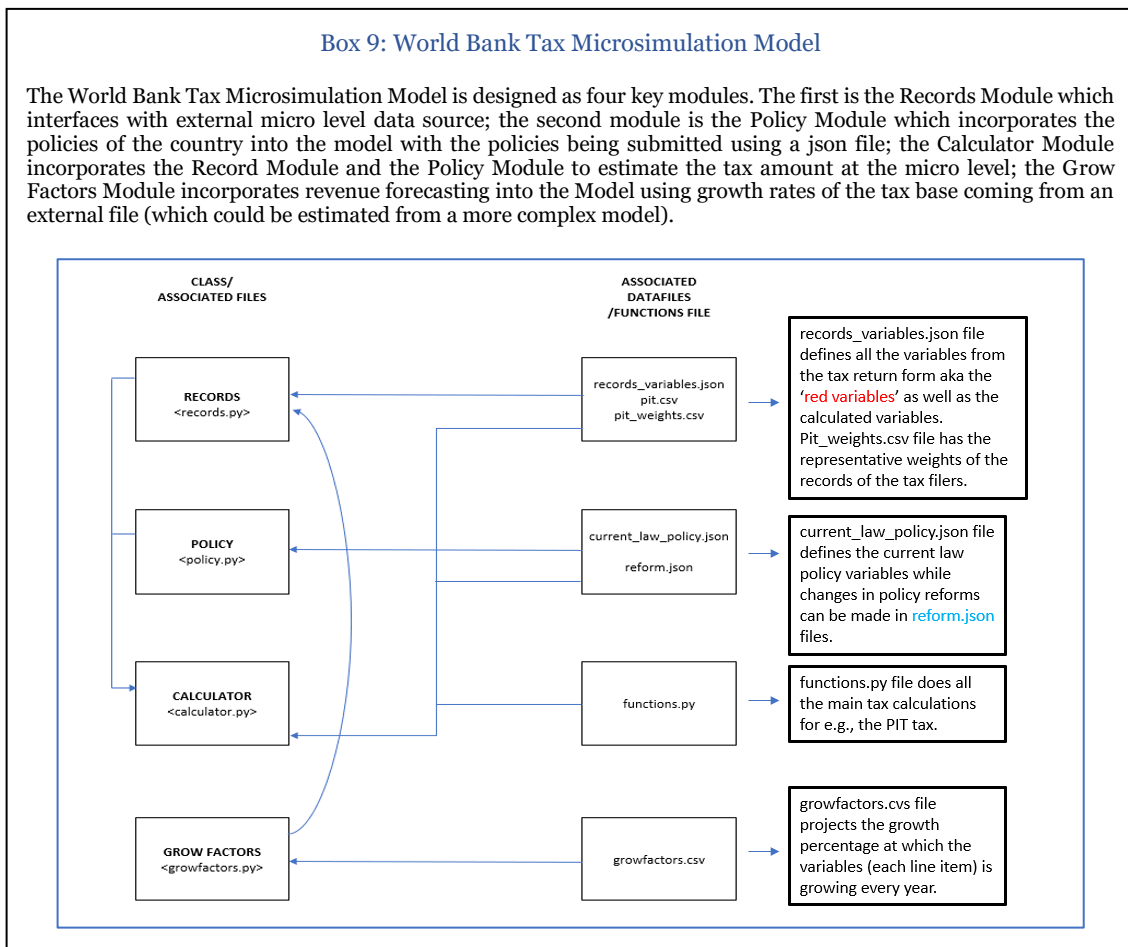
**Tax Calculator Model** used by Congressional Budget Office, USA comprising mainly of an income and payroll tax calculator to simulate the impact of past and future laws.

4.2.2 The advantage of microsimulation models over standard economics models is two-fold. First, as noted above, microsimulation models fully take the individual level heterogeneity into account as they are observed in micro data sets. Standard economics models on the other hand, usually employ a ‘representative agent’ framework where a representative individual or firm is said to embody all the features and characteristics of the average agent. Such an assumption prevents any detailed analysis at the level of individual agents and can also hide certain individual level behavior which may be important for the policy under consideration. Secondly, microsimulation models allow an estimation of the cost/benefit of a reform down to the individual level which cannot usually be done by standard economics models. The cost/benefit as well as winners/losers of a reform can be calculated at any level of aggregation required by the policymakers, and this allows for a rich perspective and informed decision making. A microsimulation model usually comprises of three elements-

- A micro data set, containing economic and/or socio-demographic characteristics of a sample or universe of agents.
- The rules of the policies to be simulated. For example, in the case of a simple Personal Income Tax model, the rules would comprise of the tax logic incorporated in the Income Tax Returns.

- A theoretical model of the behavioral response of agents. This aspect is missing in the simpler microsimulation models but can be added when more precise and sophisticated analysis becomes essential for policy makers. Modelling the impact of tax policy on the labor-supply decision of an individual is an example of such a theoretical model. The choice of model to be incorporated depends on the questions which are required to be answered by the microsimulation model.

4.2.3 A basic microsimulation model calculates the tax liability for each taxpayer for a given base year. In essence, it is a calculator based on the tax code and includes the interaction with social security contributions and benefits that are either delivered through the tax system or outside. A carefully designed microsimulation model would also account for the temporal aspects of some measures (e.g., allowing losses to be carried forward to offset current and future tax liabilities). The value of a tax expenditure is calculated by comparing the amount of revenues collected under the existing tax system and the revenues that would be collected in absence of the measure – accounting for the interaction of removing the measure with other parts of the tax system. Microsimulation models therefore optimize the tax situation of each taxpayer in the model by using up all deductions and credits available under the counterfactual scenario. These models are also particularly useful in better understanding the distributional impact of tax preferences as they are based on individual-/corporate-level data. Box 9 shows the structure of the World Bank Tax Microsimulation Model, which is used for policy analysis, including estimation of revenue impact of tax expenditures.





4.2.4 Microsimulation models rely on micro-level data to simulate policy impacts. Consequently, such models are data intensive and require unit-level data as a key input. Data sources include administrative data such as tax returns (PIT/CIT Returns, VAT Returns etc) as well as consumption, income, and other surveys (such as consumption surveys, enterprise surveys etc.). Since the information captured in surveys and administrative data is different for each country, microsimulation models are highly customized for a country based on the data sets available. The simulations which are run are ultimately limited by the extent to which the data is representative of the whole population. In the context of tax policy, these data would include information required to calculate tax liability and other demographic variables needed to analyze the incidence and distribution of measures.

4.2.5 As the full population data can contain many observations and variables, it can be difficult to integrate them into a microsimulation model because of the computing resources required to process large datasets and the more involved data quality controls for population data files. To minimize these costs, a representative sample of the population can be developed as input to the model. These samples are typically stratified random samples, which are based on a sampling method that consists of breaking out the population into more homogenous non-overlapping subgroups, or strata, and then randomly sampling within these strata. Stratification allows for oversampling within highly heterogeneous groups (e.g., high-income earners) to obtain more precision for these groups while keeping the sample size small for more homogenous groups (e.g., pensioners). The key advantage of stratified sampling is that the sample can remain at a manageable size when computing resources are limited while keeping the characteristics of the population mainly intact. Box 10 shows a simple program to draw a stratified random sample.

#### Box 10: Stratified Random Sampling - python program

When subpopulations within an overall population of tax data vary, it could be advantageous to sample each subpopulation (stratum) independently. Stratification is the process of dividing taxpayers of the population into homogeneous subgroups before sampling. The strata should define a partition of the population. That is, it should be collectively exhaustive and mutually exclusive: every element in the population must be assigned to one and only one stratum. Then simple random sampling is applied within each stratum. The objective is to improve the precision of the sample by reducing sampling error. It can produce a weighted mean that has less variability than the arithmetic mean of a simple random sample of the population.

Shown below is a simple program in python that is used to generate a stratified random sample from a population data of taxpayers (referred to as 'population.csv'). Each record in the data has a unique identification 'id\_n'. Sampling technique is to partition the population into 10 strata or bins based on 'total\_gross\_income'. Each bin is then used to extract a random sample based on a bin ratio. For instance, bin ratio of 1/20 means to sample 1 out of every 20 records or 5 percent of the data in the bin. Similarly, bin ratio of 1 means to sample 100 percent. Generally, 100 percent sampling is followed for the top bin, which contains data of taxpayers with highest income. Since most of taxes are collected from these taxpayers, their 100 percent representation in the sample ensures better accuracy of results.

```
import pandas as pd
import numpy as np

data=pd.read_csv('population.csv') #reads the data in a dataframe

# allocate the data into bins
data['bin'] = pd.qcut(df['total_gross_income'], 10, labels=False)
data['weight']=1
# bin_ratio is the fraction of the number of records selected in each bin
# 1/10,...1/5, 1/1
bin_ratio=[20,20,20,20,20,20,20,20,10,1]
frames=[]
df={}
for i in range(len(bin_ratio)):
# find out the size of each bin
bin_size=len(data[data['bin']==i])/bin_ratio[i]
# draw a random sample from each bin
df[i]=data[data['bin']==i].sample(n=bin_size)
df[i]['weight'] = bin_ratio[i]
frames=frames+[df[i]]
sample = pd.concat(frames)
sample['id_n'] = sample.index
sample.to_csv('sample.csv')
```

EXAMPLE – MEASUREMENT OF TAX EXPENDITURE DUE TO PIT DEDUCTION

4.2.6 Consider the following simplified example as an illustration of how a personal income tax expenditure – a deduction of childcare expenses – can be estimated using a simulation model and administrative data (Table 14). Here, the model calculates the difference between two tax liabilities based on PIT rate of 10 percent – the actual reported liability and the counterfactual assuming the elimination of the childcare expense deduction. In this simple example, the tax expenditure of the childcare deduction is 1,500 in local currency (or 15,000 x 10%). Tax expenditure due to employment tax credits of 500 and seniors tax credit of 200 is straightforward to compute.

Table 17: Example of PIT Deduction Tax Expenditure

	Reported	Simulation
<b>Gross Income:</b>		
Employment Income	100,000	100,000
Business Income	50,000	50,000
Other Income	10,000	10,000
	160,000	160,000
<b>Allowable Deductions:</b>		
Child Care Expenses	15,000	-
Business Expenses	5,000	5,000
Other Allowable Expenses	500	500
Total Deduction	20,500	5,500
Taxable Income	139,500	154,500
Tax on taxable Income (10%)	13,950	15,450
<b>Tax Credits:</b>		
Employment Tax Credit	500	500
Seniors Tax Credit	200	200
Tax Payable	13,250	14,750
<b>Tax Expenditure</b>	<b>1,500</b>	

4.2.7 In practice, however, the estimation is more elaborated as the calculations include all taxpayers with childcare expenses, account for the progressivity of the tax schedule (i.e., a deduction can straddle tax brackets and be valued at different tax rates) and account for the fact that an individual may not be using up all the allowable deductions (i.e., allowable deductions may bring net income below zero). Similar examples for corporate tax expenditures can also be constructed. For instance, a tax expenditure for a tax holiday can be estimated by assuming that the income relieved would be taxed at the standard rate. Other estimation approaches are more complex, including those involving tax expenditures offering a timing preference. A timing preference allows a taxpayer to defer taxes to a subsequent taxation period. In these cases, the benefit to the taxpayer is the time value of money – equivalent to an interest-free loan. Examples of these types of tax expenditures include accelerated tax depreciation or the deferral of income as in the case of registered savings accounts.

EXAMPLE – MEASUREMENT OF TAX EXPENDITURE DUE TO ACCELERATED DEPRECIATION

4.2.8 Tax expenditure estimates of timing preferences can be presented on a net present-value basis to account for the future stream of deductions under both the benchmark system and the preferential treatment. To illustrate the calculations, Table 15 presents a scenario where an accelerated tax depreciation is available to corporations for new investments. The tax expenditure in this example represents the difference between the flow of deductions under the benchmark depreciation regime and that under the accelerated schedule, on a net present value basis, multiplied by the corporate tax rate (equivalent to 1,807 in local currency).

Table 18: Example of an Accelerated Tax Depreciation Expenditure calculated on a NPV Basis

Purchase price of an asset = 100,000 (local currency)	Year									
	1	2	3	4	5	6	7	8	9	10
Benchmark Tax Depreciation	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Accelerated Tax Depreciation (50% straight-line method)	50,000	50,000	0	0	0	0	0	0	0	0
Difference	40,000	40,000	-10,000	-10,000	-10,000	-10,000	-10,000	-10,000	-10,000	-10,000
(a) Net present value of differences in allowable tax depreciation (assuming a 6% discount rate)	18,069									
(b) Corporate tax rate	10%									
(c) Tax Expenditure (a) x (b)	1,807									

Note: Assuming the benchmark tax depreciation rate is equal to 10% straight-line and the firm has a positive tax liability in all years.

4.2.9 In practice, the estimation of the tax expenditure of timing preferences relies on several assumptions – particularly when the targeted activity or spending is not in a steady state (i.e., fluctuates from year to year). Specifically, it is difficult to forecast the future stream of allowable deductions given the lumpiness of some large investment projects and the volatile business cycles affecting investment, the profitability of firms and the discount rate. Given these challenges, some countries prefer not to report on the timing preferences while others prefer to present estimates on a cash flow basis.

Table 19: Example of an Accelerated Tax Depreciation Expenditure calculated on a Cash Flow Basis

Benchmark Depreciation (10% straight-line)		Taxation Year									
		1	2	3	4	5	6	7	8	9	10
Year of acquisition	1	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
	2		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
	3			10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
	4				10,000	10,000	10,000	10,000	10,000	10,000	10,000
	5					10,000	10,000	10,000	10,000	10,000	10,000
	6						10,000	10,000	10,000	10,000	10,000
	7							10,000	10,000	10,000	10,000
	8								10,000	10,000	10,000
	9									10,000	10,000
	10										10,000
	Total		10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
Accelerated Depreciation (50% straight-line)		Taxation Year									
		1	2	3	4	5	6	7	8	9	10
Year of acquisition	1	50,000	50,000								
	2		50,000								
	3			50,000							
	4				50,000						
	5					50,000					
	6						50,000				
	7							50,000			
	8								50,000		
	9									50,000	
	10										50,000
	Total		50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
(a) Difference		40,000	80,000	70,000	60,000	50,000	40,000	30,000	20,000	10,000	-
(b) Tax Expenditure (a) x 10%		4,000	8,000	7,000	6,000	5,000	4,000	3,000	2,000	1,000	-

Note: Annual investment assumed to be 100,000

4.2.10 To illustrate the cash flow approach, consider the simplified example presented in Table 16 where an annual investment of 100,000 (local currency) is made in each year. It is assumed that the accelerated depreciation is introduced in year 1, the asset depreciates over 10 years under the benchmark system and over 2 years under the accelerated depreciation schedule. In this cash flow example, the tax expenditure for a given taxation year represents the difference in allowable depreciation in each year, times the tax rate. Here, the tax expenditure increases to 8,000 in year 2 and gradually falls to zero in year 10 when the stock reaches its maturity or steady state. In

practice, however, investments are not generally in a steady state and can fluctuate substantially from year to year, which could lead to high volatility in cash flow estimates of tax expenditures. This volatility in investment will lead to the result of negative tax expenditures in some taxation years, which can be difficult to communicate to decision makers and the public.

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## VAT GAP MODEL

4.2.11 Microsimulation model may not be the most suitable tool when it comes to measurement of VAT tax expenditures. Measurement of tax expenditure due to preferential rate or exemption needs estimation of final consumption, which is the tax base for VAT. However, being an indirect tax, while VAT is borne by consumers, it is paid by businesses who file return declaring both intermediate sales (to businesses) as well as final sales (to consumers). VAT administrative data does not capture detailed transactions that can allow for the estimation of VAT expenditures at the level of taxpayer, based on consumption preferences related to, say, zero-rated and exempt goods or services. VAT registrants generally remit VAT net of input tax credits, on an aggregate basis, regardless of the type of supply and agents involved in the transaction, which makes it difficult to be segregated into intermediate and final consumption.

4.2.12 To overcome the limitations of administrative data, National Accounts data are used in simulation models to estimate VAT preferences. The Supply and Use Tables (SUT) are the main data sources used to estimate the amount of VAT payable on expenditure categories, as well as the amount of VAT payable under the benchmark system. The SUT measure the productive structure of an economy. The tables trace the production and import of commodities through their use as intermediate inputs, final consumption, exports, or gross capital formation. The SUT allow us to disentangle the transactions into those that can attract input tax credits, those related to commodities with a preferential treatment, and the transactions that are fully taxable. Specifically, the Supply Table (Figure 8) provides information on the commodities that are supplied by each sector of the economy, as well as the amounts that are supplied by importation. The Supply Table is critical to determine the share of an industry's production that is exempt from the VAT.

Figure 8: The Structure of a Supply Table

Products \ Industries	Industries				Imports	Total
	Agriculture, forestry, etc.	Mining and quarrying	...	Services		
Agriculture, forestry, etc.	Output by product by industry				Imports by product	Total supply by product
Ores and minerals, etc.						
...						
Services						
Total	Total output by industry				Total imports	Total supply

4.2.13 The Use Table provides information on the value of a given commodity that is used by each industry as an intermediate input, as well as the amounts intended for final demand (e.g., households, government, and not-for-profit organizations), investment and exports. The Use Table (Figure 9) and the legislative blueprint (discussed below) are therefore at the core of a VAT simulation model as they provide information on the transaction value of specific commodities by type of use (e.g., final consumption or intermediate input) as well as their VAT treatment.

Figure 9: The Structure of the Use Table

Products \ Industries	Industries				Final uses			Total
	Agriculture, forestry, etc.	Mining and quarrying	...	Services	Final consumption	Gross capital formation	Exports	
Agriculture, forestry, etc. Ores and minerals, etc. ... Services	Intermediate consumption by product and by industry				Final uses by product and by category			Total use by product
Value added	Value added by component and by industry							Value added
Total	Total output by industry				Total final uses by category			

4.2.14 In order to model VAT revenues and estimate tax expenditures, a blueprint of the VAT legislation needs to be calibrated to the SUT data. The blueprint replicates the VAT legal provisions for detailed commodity groups – e.g., taxable supplies and zero-rated and exempt supplies. Foregone revenues for a specific tax expenditure are estimated by removing the preferential treatment in the blueprint and comparing the estimated revenues to the baseline revenues.

EXAMPLE – VAT EXPENDITURE DUE TO EXEMPT SUPPLIES

4.2.15 To illustrate the calculation of VAT expenditures, consider the following stylized example where the VAT paid under the benchmark system is compared to the VAT paid under a case where a product is exempt. Under the benchmark system (first pane of Table 17), the value-added taxes are levied on commodities at every step of the production and distribution chain. The VAT paid on business inputs is fully refundable through input tax credits – therefore making the VAT neutral with respect to the cost of doing business. As such, the VAT is effectively levied on final consumption – 10% of 800 in value added (local currency). In the case where supplies are exempt from the VAT, the supplier does not collect VAT from the sales to consumers and cannot recover the VAT paid on the inputs. In the example (presented in second pane of Table 17), the product manufactured is exempt from VAT. As such, no VAT is collected on the sale of the product to the retailer and final consumer. At the same time, the manufacturer cannot claim an input tax credit for the VAT paid on input. Total VAT collected under the exempt supply example is 50 – resulting in a tax expenditure of 30.

Table 20: Example of Tax Expenditure Calculations for Exempt Supply

Benchmark	Purchase price	Input tax credit (ITC)	Price net of ITC	Value-added	Pre-tax price	VAT	Tax remitted	Sale price
Natural resource	0	0	0	0	0	0	0	0
Harvest	0	0	0	500	500	50	50	550
Manufacturer	550	50	500	200	700	70	20	770
Retailer	770	70	700	100	800	80	10	880
Total				800			80	
Manufactured goods are exempt	Purchase price	Input tax credit (ITC)	Price net of ITC	Value-added	Pre-tax price	VAT	Tax remitted	Sale price
Natural resource	0	0	0	0	0	0	0	0
Harvest	0	0	0	500	500	50	50	550
Manufacturer	550	0	550	200	750	0	0	750
Retailer	750	0	750	100	850	0	0	850
Total				800			50	

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## CUSTOMS AND EXCISE TAX EXPENDITURE

4.2.16 Tax expenditure estimates for customs and excise duties typically rely on administrative data, which include information by type of commodity and by preferential rate. The estimates are generally calculated by assuming the application of the general rates on the taxable base and comparing the results to baseline revenues. For these duties, there can be interactions with other parts of the broader tax system. For instance, VAT systems generally include the value of the duties in the consideration of supply. Eliminating a preferential treatment would therefore raise VAT revenues, in addition to customs or excise duty revenues. This interaction should be accounted for in the foregone revenue estimates.

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## OTHER CONSIDERATIONS

4.2.17 Since there is generally a lag between data availability and the current fiscal reference year, tax expenditure estimates of prior years can be grown to the reference year to provide decision makers with timely information during the budget planning process. Projections can be based on macroeconomic outlooks, demographic projections as well as on any other information on factors that can influence the take-up of specific measures.

4.2.18 Tax expenditures are generally estimated for each provision independent of other provisions. This is because expenditures interact with each other and with the tax system more broadly. One should therefore be careful when adding up tax expenditure estimates to determine the total value of the assistance. The fiscal impact of eliminating two (or more) tax expenditures can therefore be different than from simply adding up the independent estimates. Consider the following example.

- An individual with income of \$100,000 is taxed at a progressive rate schedule of 10 percent if income is \$50,000 or less and 20 percent on income above \$50,000. He can use two income tax deductions to lower taxable income by \$50,000 each (or \$100,000 combined) and brings tax liability to zero. In absence of these deductions, tax liability would have been \$15,000.
- Independently, eliminating either deduction would increase tax payable to \$5,000.
- Adding the two estimates suggest that the increase in tax would be \$10,000. However, eliminating both simultaneously would effectively raise tax liability to \$15,000.
- Moreover, independently eliminating either deduction may not increase tax payable if reducing one deduction allows taxpayer to increase the other deduction.

4.2.19 It should also be noted that tax expenditure estimates do not account for the impact that a particular tax preference could have on the overall level of economic activity, and in turn on tax revenues. For example, an investment tax credit could lead to higher level of investment and economic growth. Both direct and indirect impacts of such incentives on the economy and tax revenues are generally not accounted for in the tax expenditure estimates.

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## MEASUREMENT WHEN DATA IS LIMITED

4.2.20 Many low income EMDEs with low institutional capacity generally operate in a data constrained environment due to which conventional methods for estimation of tax expenditures can be quite challenging to adopt. Lack of data availability could be due to reasons like low levels

of digitalization or low compliance levels due to which limited data is obtained through electronic filing of tax declarations. Even where level of digitalization is reasonably high, limited data could be a result of poorly designed tax declarations which do not adequately capture the information needed to measure tax expenditures. In some countries that offer tax holidays, beneficiary companies are not required to file tax declarations due to which it is challenging to measure the potential tax base and the revenue impact in their case. Similarly, in countries that do not mandate filing of tax declarations in case of employees, lack of sufficiently disaggregated data of each employee in the declaration filed by the employers can make it difficult to assess tax expenditures. Many countries do not routinely prepare Supply-Use Tables or Input-Output Tables, which can constrain the estimation of tax expenditures related to VAT. Data quality too can be an issue, if the tax administration does not routinely verify the data obtained through tax declarations or other third-party reporting agencies like financial institutions or property registrars. Many necessary fields may be either missing or incorrectly filled, which if not flagged at the time of filing can lead to erroneous assessments.

4.2.21 In data-constrained countries, basic methodologies for estimation of tax expenditures could be adopted to get rough estimates of tax expenditures. In recent years, an increasing number of low- and middle-income countries have started reporting limited set of estimates based on what is achievable within data and resource constraints (Granger, et al., 2022). Even if a more detailed and sophisticated analysis of tax expenditures by most low and middle income countries is not feasible, an industry and regional inventory of recipient businesses, with a simple accounting of revenue lost, would go a long way toward improving tax administration and compliance (Junquera-Varela & Lucas-Mas, 2024). For instance, in case of companies a simple difference of average tax rate (based on ratio of actual tax liability to accounting profit) and the statutory tax rate can be helpful in getting a ballpark figure for corporate tax expenditures. However, such crude methods must be used cautiously. For instance, such differences could be partly due to adjustments that are not related to tax incentives such as set-off of past losses, or differences between the book and standard tax depreciation rates. Similarly, there could be upward adjustments due to thin capitalization rules or disallowance of certain expenses like fine or penalties, which can mask the full impact of tax incentives. In case of personal income tax, applying the average tax rate to the aggregate deductions claimed by individual taxpayers can provide crude estimates of tax expenditure. Tax expenditures related to VAT, which need more complex methodologies based on Supply-Use Tables, could be estimated on basis of VAT returns filed by registered suppliers that supply goods meant for final consumption. Nevertheless, reporting of such estimates should be backed by explanation of data, methodology and assumptions as well as possible limitations.

## CHAPTER 5: REPORTING OF TAX EXPENDITURES

*In this chapter, we will discuss international practices related to reporting of tax expenditures based on review of TE reports of 45 countries. Countries differ significantly in legal mandate for reporting and reporting quality, measured in terms of level of disaggregation (description of measures and objectives, provision-wise estimation, legal reference for provisions, by tax type), explanation of methodology, projections for future years, classifying tax expenditures based on government function categories. A standardized reporting format has been suggested which also classifies tax expenditures as per functions of government.*

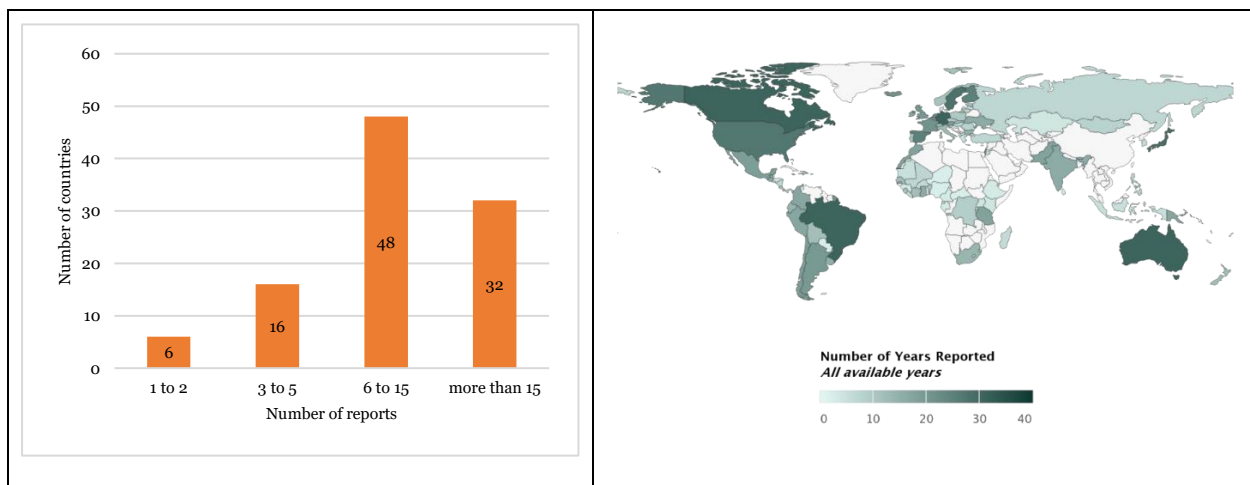
### 5.1 NEED FOR TAX EXPENDITURE REPORTING

5.1.1 Reporting of tax expenditures is critical to achieving transparency and informing the stakeholders about the fiscal impact of TEs. It is only through the report that stakeholders can understand how the tax system has been benchmarked, which are the key tax expenditures, what data and data sources were used to measure the revenue impact, and what methodology was used to measure the TEs for the major taxes. If included in the TE reports, one can also know the major beneficiaries and the distribution of tax expenditures by sector, region, or income. The primary responsibility to prepare and publish the TE report based on administrative data lies with Ministry of Finance.

### 5.2 GLOBAL TRENDS IN TAX EXPENDITURE REPORTING

5.2.1 Over the last decade, many countries have adopted or enhanced their reporting practices related to tax expenditures. According to the Global Tax Expenditures Database (GTED, 2024), about 105 jurisdictions are reporting on the amounts of tax expenditures while more than 110 jurisdictions do not report their tax expenditures. The maturity of reporting varies by region as noted in the chart below. Developed countries have typically reported on tax expenditures for more than 20 years while most of the other countries have either begun reporting or not reporting at all. Figure 10 shows some global trends in reporting during the last three decades.

Figure 10: Global trend in TE reporting 1990-2021



Source: (Redonda, 2022)



5.2.2 In this section, the reporting practices based on a review of tax expenditure reports of forty-five countries will be discussed (Table 18). Most of these countries (except for Kenya, Cabo Verde, and Bhutan) regularly reported their tax expenditures. It is observed that the regular reporting of tax expenditures is strongly correlated to the fact that a country either has a legislated commitment to publish tax expenditures or releases such reports as part of the annual budget documents (30 countries). Of note, the European Union (EU) and the West African Economic and Monetary Union (*Union Economique et Monétaire Ouest Africaine*, UEMOA, in French) both provide guidelines to Member States to publish estimates of tax expenditures on annual basis. The EU Budgetary Framework Directive requires Member States to publish information on the effects of tax expenditures on government tax revenues since 2014. Similarly, a UEMOA directive has recommended Member States to produce an annual tax expenditure report on taxes and custom duties since 2009 (*Directive n°01/2009/CM/UEMOA portant code de transparence dans la gestion des finances publiques au sein de l'UEMOA*). Some of the key findings are -

- ✓ Most report have comprehensive TE estimates with a total of 40 countries reporting on all or most tax bases. Providing details on the definition of the benchmark and/or estimation methodologies is also common with 28 countries reporting on such information. Countries that provide detailed information on the benchmark tax system and the estimation methodologies include (but not limited to) Australia, Belgium, Benin, Canada, France, Indonesia, Mali, and the UK.
- ✓ Review indicates that the legal reference is not commonly made available in tax expenditure reports with only 22 out the 45 countries reviewed publishing details on the legal reference. Providing the legal reference of each measure is valuable for officials and the public to understand the scope and reach of a tax expenditure.
- ✓ Information on the number of beneficiaries and sectors benefiting from each tax expenditures are documented in the reports for 22 countries. UEMOA Member States typically provide detailed information on a sectoral basis.
- ✓ There is generally a lag between data availability and the current fiscal reference year. Tax expenditure estimates of prior years can be grown to the reference year to provide decision makers with timely information during the budget planning process. Of the countries reviewed, only 14 of them project tax expenditures to the current fiscal year.

5.2.3 It is important for policymakers and the public to be able to compare amounts spent on tax expenditures to those spent on direct expenditure programs. To this end, the tax expenditures can be classified according to the corresponding spending groups of a country's public accounts categories. Alternatively, they can be classified according to an internationally recognized expenditure classification, such as the Classification of the Functions of Government (COFOG), to allow for cross-country comparison. COFOG was developed by the OECD and is published by the United Nations Statistical Division as a standard approach to classify the purposes of government activities (see Table 24). To this end, the review found that only 6 countries have links to the program expenditure categories – including Belgium, Canada, and Iceland (Table 19).

**Table 21: Country coverage by region - review of 45 tax expenditure reports**

Region	No. of countries
East Asia & Pacific	3
Eastern Europe & Central Asia	6
Latin America & the Caribbean	6
Middle East & North Africa	3
North America	2
South Asia	3
Sub-Saharan Africa	12
Western Europe	10
Total	45

Table 22: Key features of tax expenditure reporting for select countries

Jurisdictions	Regular Publication	Description of measures	Tax Base	Details on BMK and Estimation Methodology	Projections	Legal Reference	Objective of TE	Sector/Beneficiary Categories	Government Function Categories	Part of Budget Documents or Legal Requirement to Publish
Albania	P	P	All or most bases	P				P		
Argentina	P		Select taxes	P		P	P			
Australia	P	P	All or most bases	P	P	P				
Belgium	P	P	All or most bases	P	P		P		P	P
Benin	P	P	All or most bases	P		P	P	P	P	P
Bulgaria	P	P	All or most bases	P			-	P		P
Burkina Faso	P	P	All or most bases			P	P	P		P
Burundi	P		Select taxes							P
Bhutan			Select taxes							
Cabo Verde			Select taxes							P
Cameroun	P	P	All or most bases	P		P	P	P		P
Canada	P	P	All or most bases	P	P	P	P	P	P	P
Chile	P	P	All or most bases	P	P	P	P	P		P
Côte d'Ivoire	P	P	All or most bases	P	P	P	P	P		P
Czechia	P	P	All or most bases	P		P	P			P
Ecuador	P	P	All or most bases	P		P	P	P		P
Finland	P	P	All or most bases	P		P				P
France	P	P	All or most bases	P	P	P	P	P		P
Germany	P	P	All or most bases	P	P	P	P	P		P
Honduras	P		All or most bases			P		P		P
Iceland	P		All or most bases					P	P	P
India	P		All or most bases		P	P				P
Indonesia	P	P	All or most bases	P		P	P	P	P	P
Ireland	P		All or most bases							
Israel	P	P	All or most bases		P	P	P	P		P
Italy	P	P	All or most bases	P		P	P		P	P
Jamaica	P	P	All or most bases	P						P
Jordan	P		All or most bases							P
Kenya		P	All or most bases	P						
Latvia	P	P	All or most bases	P	P	P				P
Lithuania	P		All or most bases							P
Luxembourg	P		All or most bases	P	P					P
Mali	P		All or most bases					P		P
Maroc	P	P	All or most bases	P		P	P	P		
New Zealand	P	P	All or most bases	P	P	P	P	P		
Pakistan	P	P	All or most bases	P		P		P		
Peru	P		Only aggregated							P
Romania	P		All or most bases		P					P
Rwanda	P	P	All or most bases	P				P		
Senegal	P	P	All or most bases	P				P		
South Africa	P		All or most bases							
Spain	P		All or most bases				P			
Uganda	P		All or most bases							
United Kingdom	P	P	All or most bases	P	P		P	P		
United States	P	P	All or most bases	P						P

5.2.4 From a transparency perspective, it is best practice to group tax expenditures according to their policy intent to allow policymakers and the public to take stock of the total amounts of funds provided for a similar objective. To this end, 20 countries have reported tax expenditures based on their policy objective. Table 20 presents some examples of the details on the policy objectives from reports from Benin, Belgium, Indonesia, Morocco, and Canada. The reporting practices of policy objectives vary from the presentation of 4 groups in Indonesia to 19 categories in Morocco. The policy categories in the Canadian report are also detailed but presented by objectives that are internal to the tax system and other objectives.

Table 23: Standardized Categories for Policy Objectives – Select Countries

Bénin		Morocco		Canada
Reduce the tax burden on households		Developing the social economy		<b>Objectives that are internal to the tax system:</b>
Ensure the well-being of the population		Facilitate access to housing		To reduce administration or compliance costs
Develop the agricultural sector		Mobilize domestic savings		To prevent double taxation
Encourage the formalization of legal acts		Encourage investment		To promote the fairness of the tax system
Promote access to housing		Reduce the cost of health		To ensure a neutral tax treatment across similar situations
Promote social actions		Reduce the cost of financing		To recognize non-discretionary expenses (ability to pay)
Promote private investment		Reduce production cost		To implement intergovernmental tax arrangements
Reduce the cost of public investment		Develop the agricultural sector		To recognize expenses incurred to earn employment income
		Improve purchasing power		
<b>Belgium</b>		Encourage teaching		<b>Other objectives:</b>
Housing		Develop disadvantaged areas		To provide income support or tax relief
Saving and credit		Promote culture and leisure		To encourage savings
Investment - entrepreneurship		Encourage exports		To encourage or attract investment
Sector-specific provisions		Reduce state expenses		To encourage investment in education
Environment		Modernizing the economy		To encourage employment
Research and development		Attract foreign savings		To support competitiveness
Employment		Developing the mining sector		To achieve a social objective
Family		Encourage craftsmanship		
Social		Other goals		
Authority – Public Authorities				
Various				
<b>Indonesia</b>				
Improving people's welfare				
Assistance for SMEs				
Improving the investment climate				
Support for businesses				

## 5.3 REPORTING FORMAT

5.3.1 Review of tax expenditure reporting identified several commonalities in terms of best reporting practices. Regular reporting is widespread amongst the countries reviewed (albeit many countries have yet to report on tax expenditures). Some of the international best practices in reporting of tax expenditures are as follows.

- Since tax expenditure provisions interact with each other, they should be reported provision-wise and should not be aggregated / added.
- Although less common, some countries provide valuable details on legal references, the objectives of tax expenditures, beneficiaries, projections, the reliability of estimates, and categories of government functions. Releasing these metrics can be viewed as best practices given that they provide valuable information to policymakers and the public to assess tax expenditures.
- Releasing tax expenditures alongside budget estimates or the public accounts release is a best practice amongst a large majority of the countries reviewed. This practice should be considered by others as it provides policymakers and the public access to timely information when assessing the government's finances.

5.3.2 Based on the international best practices, particularly in some of the advanced countries like Australia, Belgium, Canada, Germany as well as WAEMU countries, and the framework suggested by IMF (Heady & Mansour, 2019), a suggested standardized reporting format that countries could follow is shown in Table 21. Moreover, it is suggested that TEs should be classified based on the classification of functions of government (COFOG) to enable comparison across time and with other countries<sup>17</sup>.

Table 24: Tax expenditure reporting format

<b>Name of measure</b>				
Description				
Tax				
Type of measures				
Legal reference				
History				
Objective - category				
Objective - details				
Internal to the tax system/Other objective				
COFOG – 1 <sup>st</sup> level				
COFOG – 2 <sup>nd</sup> level				
Reliability of estimates				
Type of beneficiaries				
Number of beneficiaries				
Prior evaluations				
	Actual	Actual	Projection	Projection
	2020	2021	2022	2023
Measure	xxxxxx	xxxxxx	xxxxxx	xxxxxx

<sup>17</sup> Comparison with other countries may have to be seen in the context of differences in benchmark tax systems.

Table 25: Classification of the Functions of Government (COFOG) – Select Groups

<b>First-level COFOG</b>	<b>Second-level COFOG</b>
<b>General public services</b>	Executive and legislative organs, financial and fiscal affairs, external affairs Foreign economic aid General services Basic research R&D general public services General public services n.e.c. Public debt transactions Transfers of a general character between different levels of government
<b>Economic affairs</b>	General economic, commercial and labour affairs Agriculture, forestry, fishing and hunting Fuel and energy Mining, manufacturing and construction Transport Communication Other industries R&D economic affairs Economic affairs n.e.c.
<b>Environmental protection</b>	Waste management Waste water management Pollution abatement Protection of biodiversity and landscape R&D environmental protection Environmental protection n.e.c.
<b>Housing and community amenities</b>	Housing development Community development Water supply Street lighting R&D housing and community amenities Housing and community amenities n.e.c.
<b>Health</b>	Medical products, appliances and equipment Outpatient services Hospital services Public health services R&D health Health n.e.c.
<b>Recreation, culture and religion</b>	Recreational and sporting services Cultural services Broadcasting and publishing services Religious and other community services R&D recreation, culture and religion Recreation, culture and religion n.e.c.
<b>Education</b>	Pre-primary and primary education Secondary education Post-secondary non-tertiary education Tertiary education Education not definable by level Subsidiary services to education R&D education Education n.e.c.
<b>Social protection</b>	Sickness and disability Old age Survivors Family and children Unemployment Housing Social exclusion n.e.c. R&D social protection Social protection n.e.c.

Source: UN Statistics Division, Classification of the Functions of Government (COFOG)

## CHAPTER 6: EVALUATION OF TAX EXPENDITURES

*In this section, we will discuss the rationale for tax expenditure evaluation in the context of need for an objective impact assessment, and to provide ex-ante and ex-post feedback to the policy process. We will discuss some challenges that countries face and the key considerations to prepare for evaluations. We then propose an evaluation framework based on criteria to assess the performance of tax expenditures followed by a discussion on prioritizing measures for evaluation. In the last section, need for evidence-based evaluation is discussed as a prelude to a detailed discussion on cost-benefit analysis in the next chapter.*

### 6.1 RATIONALE FOR TAX EXPENDITURE EVALUATION

#### NEED FOR OBJECTIVE IMPACT ASSESSMENT

6.1.1 Like any other public expenditure program, tax expenditures too need regular evaluation to ensure that limited resources of the government are spent effectively, efficiently, and equitably. When policymakers introduce tax expenditures, whether in form of tax incentives or tax reliefs, they do so with a policy objective in mind. For instance, objective of earned income tax credit in US is to reduce the tax burden and to supplement the wages of working families whose earnings are less than the maximums for their filing status (US IRS, 2024). Similarly, the objective of R&D tax relief provided by the UK government is to support companies that work on innovative projects in science and technology (HM Revenue & Customs, 2007). Evaluation of these incentives would assess how far they were able to achieve the policy objectives and at what cost?

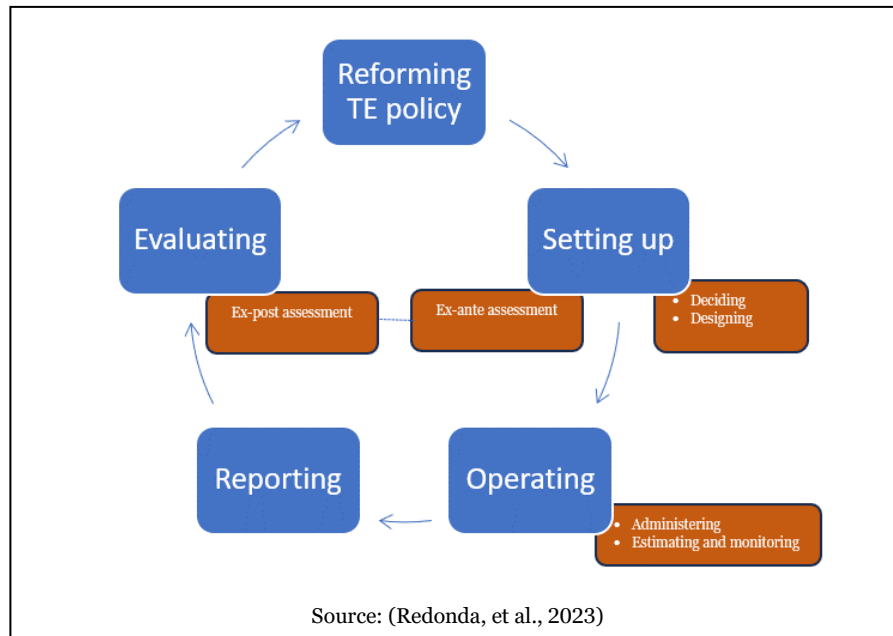
6.1.2 Tax expenditure evaluation seeks to provide objective, fact-based assessments of the effects of tax expenditure measures on resource allocation and income distribution by using economic theory and quantitative methods to analyse economy-wide benefits and costs from such measures (Lenjosek, 2004).. It seeks to ask questions like –

- *Is the TE well suited achieve the desired objective and outcomes?*
- *How well TE complements other policy interventions used to achieve same or similar objectives?*
- *Is the TE effective in producing the desired objective and outcomes?*
- *Is the TE best use of resources that are needed to achieve the desired objective and outcomes?*
- *Has the TE created a measurable impact?*
- *Can the impact created by TE be sustained?*

#### NEED TO PROVIDE EX-ANTE AND EX-POST FEEDBACK

6.1.3 TE evaluation should be viewed as an integral part of the policy process cycle (Figure 11). Policy evaluation connects the policy formulation and policy implementation by providing feedback on how well the policy is working on the ground and what changes are needed to make it work better. In the context of tax expenditures, evaluation provides feedback to the policymakers before introduction (ex-ante) as well as post-introduction (ex-post). Ex-ante evaluation helps in deciding whether and how tax expenditure will help in achieving such objectives? and how should it be effectively designed? Ex-post evaluation helps in assessing the effectiveness of tax expenditure after it has been introduced and provides feedback for course correction.

Figure 11: Stages in tax expenditure policy process



## CHALLENGES

6.1.4 Generally, when policies are formulated and introduced, their objectives are defined in terms of broad goals and are not well documented in terms of specific output or outcome targets. This presents serious challenges to their performance evaluation. Box 11 illustrates this through an example of tax incentive introduced by the Indian government in 2017 to encourage start-up entrepreneurs. The policy did not specify outcome targets and was extended several times without getting feedback on its performance. Parliamentary evaluation revealed that the policy only benefitted 1 percent of start-ups till 2023. Clearly specifying the number of start-ups which are expected to benefit from the incentive program on an annual basis could have helped its evaluation and early course correction.

### Box 11: Did tax incentive for Indian start-ups work?

Indian government introduced a tax incentive (section 80IAC of the Income Tax Act, 1961) in 2017 to encourage start-ups, which are new business entities working towards innovation, development or improvement of products or processes or services. The incentive provides full tax exemption for 3 out of 5 years set up during April 2016 to March 2019. The relevant excerpts from the budget speech (Ministry of Finance, India, 2016) are *Startups generate employment, bring innovation, and are expected to be key partners in Make in India programme. I propose to assist their propagation through 100% deduction of profits for 3 out of 5 years for startups set up during April 2016 to March 2019.* The memorandum to the budget (Ministry of Finance, India, 2016) further explains the policy objective as - *With a view to providing an impetus to start-ups and facilitate their growth in the initial phase of their business, it is proposed to provide a deduction of one hundred percent of the profits and gains derived by an eligible start-up from a business involving innovation development, deployment or commercialization of new products, processes or services driven by technology or intellectual property.*

Post-introduction, the incentive was extended several times. In the 2024 budget speech, the incentive was again extended to include start-ups incorporated before 1<sup>st</sup> April 2025. However, recently the Parliamentary Standing Committee on Commerce noted that only 10,165 startups of the 98,119 registered startups have applied for tax benefits under 80-IAC. Further, the panel noted in its report that the inter-ministerial board has only granted eligibility certificates to only 1,173 applicants as of March 31, 2023. This means that even after six years of the implementation of Section 80-IAC of the Income Tax Act, 1961, only 1% of recognized startups have received the Certificate of Eligibility (Dhoot, 2023). The Panel urged the government to review the norms so that more start-ups could avail the tax benefits. It also noted that a 'staggering 75% of the applications' were being sent back for 'resubmission,' indicating a lack of clarity among start-ups on the process.

6.1.5 Lack of sufficient and reliable data can present challenges to conducting ex-ante or ex-post evaluations. Most countries collect humungous amount of data through electronic sources, which can be valuable for evaluations. Such data may flow to the government through electronic tax returns, financial intermediaries like banks and stockbrokers, utilities like electricity providers, and public agencies like property registrars and motor vehicle authority. Statistical agencies of the government also collect data related to national accounts as well as data of households and businesses through regular surveys. However, such data may not be in the requisite format or may not contain data points that are necessary for evaluations. Moreover, in developing countries, low level of digitalization of some of the third-party data providers such as public agencies can constrain the availability of data in digitized format.

6.1.6 Weak institutional capacity or lack of political commitment can further constrain the ability of a country to conduct evaluations. Generally, evaluations are conducted by a dedicated team in the policy wing of the Ministry of Finance. The team should have the mandate, requisite expertise, and resources to carry out evaluations. In practice, however, evaluation receives low priority due to which very few countries in the world evaluate tax expenditures (Table 23 contains a few examples). Out of the 106 countries that report tax expenditures, only 16 have referenced, summarized, or included at least one evaluation in their reports (Redonda, et al., 2023). Most countries do not give enough consideration to how they will measure impact of tax expenditures. For instance, in its report, the National Audit Office of the UK pointed out that *when designing a new tax expenditure, HM Treasury undertakes many of the activities that we would expect at this stage including consulting with relevant stakeholders; however, we did not find any cases among tax expenditures introduced since 2013 where government had set out plans for their evaluation at design stage, or triggers for evaluation if costs or benefits differed significantly from their forecasts* (National Audit Office, UK, 2020). However, some countries like Canada, Netherlands, and Republic of Korea have established well-developed tax expenditure evaluation framework (Redonda, et al., 2023).

Table 26: Select country examples on evaluation of tax expenditures.

<p><b>Netherlands</b></p> <ul style="list-style-type: none"> <li>- Applies a standard set of questions to facilitate the introduction of new tax expenditures. Questions include whether the same goals can be achieved through other policy instruments.</li> <li>- Reviews established tax expenditures – both the ministry of finance and the spending department can be involved.</li> <li>- Results of the reviews are set out in the budget memorandum.</li> <li>- Budget memorandum also outlines plans for the next reviews of tax expenditures.</li> </ul>	<p><b>Germany</b></p> <p>Legal obligation to report on tax expenditures to parliament every two years. Applies a standard evaluation framework with four core areas:</p> <ul style="list-style-type: none"> <li>- target accuracy.</li> <li>- cost-efficiency.</li> <li>- necessity; and</li> <li>- sustainability.</li> </ul> <p>Had externally evaluated 82% of tax expenditures (by value) by November 2019</p>
<p><b>France</b></p> <p>Annual budget document sets out the total cost of tax expenditures for three years, with latest cost split by government function (for example, economy). Includes a list of evaluations of reliefs in budget documents. Evaluations can be internal or carried out by the court of auditors.</p>	<p><b>Canada</b></p> <p>Prepares a comprehensive report intended to facilitate the analysis of federal tax expenditures. Report covers:</p> <ul style="list-style-type: none"> <li>- costs – both estimates of actual costs and forecasts for future years;</li> <li>- summary of each tax expenditure, including a brief description, its objectives, historical information, and references to spending programmes relevant to the policy area; and</li> <li>- evaluations and analytical papers assessing the impact of specific tax expenditures.</li> </ul>
<p><b>Ireland</b></p> <p>Publishes an annual report on tax expenditures summarizing the fiscal impact of the range of tax expenditures and the results of reviews of individual tax expenditures. It has established a framework for evaluating new and existing tax expenditures. For existing tax expenditures, the framework covers: relevance; cost; impact; and efficiency. It allows for flexibility in how framework is applied to reflect nature and scale of the tax expenditure. More thorough evaluations are recommended for more costly tax expenditures. Guidelines specify:</p> <ul style="list-style-type: none"> <li>- the tax system should only be used where there are demonstrable market failures and where a tax-based incentive is more efficient than direct expenditure; and</li> <li>- all tax expenditures should be time-limited, making them subject to review every 3–5 years, depending on cost.</li> </ul>	

Source: (National Audit Office, UK, 2020)



## 6.2 PREPARING FOR EVALUATION

### IDENTIFYING REQUIREMENTS

6.2.1 To enable a meaningful evaluation of tax expenditures that provides specific feedback for revision of policy implementation as well as policy formulation, following requirements should be given due consideration -

- ✓ The objective of a new tax expenditure should be detailed and clearly formulated. The minimum approach would be for tax-related interventions to be anchored to a policy objective, such as those referenced in Table 24.
- ✓ Information on the projected fiscal impacts of an intervention, the expected socio-economic impacts, and the intended beneficiaries should be documented for future evaluations. The availability of these metrics would provide useful reference points for the evaluation.
- ✓ There should be a commitment to evaluate a specific measure in the short-/medium-term should there not be an overarching requirement on tax expenditure evaluation. Some countries have a legislative requirement to periodically evaluate tax preferences (e.g., the Republic of Kyrgyz and Germany).
- ✓ Governance structure ensuring a level of independence in the evaluation should be in place. This could be a dedicated unit with a tax policy department or an outside party, such as a national audit office or an independent fiscal oversight authority.
- ✓ A common evaluation framework for the review of tax expenditures should be set at the onset and rest on recognized evaluation principles.
- ✓ Careful planning between tax policy and revenue administration authorities should be conducted to ensure the appropriate implementation of the measure to avoid leakages and minimize compliance costs. Both elements can have important and unintended consequences on the results of future evaluations.
- ✓ Maintaining proper data governance is critical. Tax policy and the revenue administration units must ensure that the right data is collected and that they are of quality for future evaluations. This requires planning ahead of implementation.
- ✓ This includes ensuring tax forms capture the right data at the right time and having a process in place to safeguard the information over time (i.e., access to current and historical data is critical for a complete assessment).
- ✓ Data sharing agreements should be in place between revenue administrations and policy units to ensure that evaluators have access to individual-/corporate-level data.

Table 27: Key evaluation requirements

Policy objectives are clearly defined	Metrics on expected outcomes documented
Commitment to a review	Data governance:
Governance ensuring independent review	- Quality data collected
A common evaluation framework adopted	- Data sharing agreements in place

### GATHERING EVIDENCE

6.2.2 Evaluation should begin with the identification of a problem statement to confirm or invalidate the premise for the tax policy intervention. The starting point for an ex-ante evaluation

of a tax expenditure is to gather the theoretical or empirical evidence that could support an intervention. The goal at this stage is not to measure the outcome or effectiveness of the intervention but to determine whether market failures exist, income support is needed, or efficiencies internal to the tax system could be gained. This assessment mainly rests on a comprehensive review of the empirical evidence from other countries' experience and other direct spending programs with similar objective. Valuable intel can also be gathered from consulting with stakeholders. If there is no evidence warranting the intervention, it could provide reasonable grounds to recommend the rationalization of an existing measure or abandoning plans to introduce a new measure. However, when the supporting evidence does exist, an evaluation that entails assessing the costs and benefits/effectiveness of the tax expenditure may be undertaken to determine whether the expected benefits are sufficiently large to justify the costs, and whether the taxation approach is superior to alternatives. Box 12 explains key questions that ex-ante and ex-post evaluations answer.

### Box 12: Ex-ante vs ex-post evaluation of tax expenditures

An ex-ante evaluation is one that takes place before the introduction of a tax expenditure. Such evaluations address issues related to the rationale for the intervention, its expected impact, expected costs, design of incentives, and comparison with alternative policy choices. An ex-post evaluation is conducted after the scheme has been in operation for several years. Ex post evaluation is primarily concerned with questions around the continuing relevance of the scheme and its impact. The quality of ex-ante evaluation in terms of identifying methods for the ex-post evaluation and setting up the necessary data collection processes, can have an important bearing on the quality of ex post evaluation.

Ex Ante evaluations	Ex Post evaluations
1. What objective does the tax expenditure aim to achieve?	1. Is the tax expenditure still relevant?
2. What market failure is being addressed	2. How much did the tax expenditure cost?
3. Is the tax expenditure the best approach to address the market failure?	3. What was the impact of the tax expenditure?
4. What economic impact is the tax expenditure likely to have?	4. Was it efficient?
5. How much is it expected to cost?	

Source: (Department of Finance, Ireland, 2014)

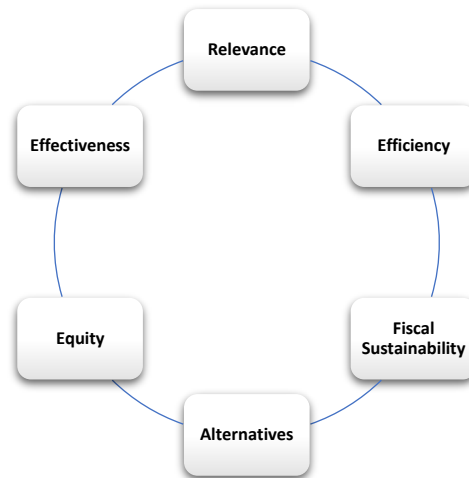
One of the key differences between ex-ante and ex-post evaluations is that while the ex-ante evaluations rely mostly on other countries' experiences, programs with similar objectives and economic/fiscal modeling, ex-post evaluations can be grounded into the empirical evidence from the country's experience with the tax expenditure.

## 6.3 FRAMEWORK FOR EVALUATION

### EVALUATION CRITERIA

6.3.1 Evaluation of tax expenditures should be based on criteria relating to relevance, efficiency, effectiveness, equity, fiscal sustainability, and alternatives (Figure 12). Moreover, relevant country-specific aspects should also be considered when developing an evaluation framework. This can include implications from a country's other levels of government and international considerations, such as competitiveness and respecting bilateral tax treaties. A template for assessment of tax expenditures bases on these criteria may be seen at Annex 1.

Figure 12: Criteria for tax expenditure evaluation



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## RELEVANCE AND ALIGNMENT WITH GOVERNMENT'S PRIORITIES

6.3.2 A measure must serve a demonstrable and clearly defined policy need that is aligned with the roles, responsibilities, and current priorities of the government.

- Information on the specific objective of a tax expenditure at the time of implementation is critical to determine its relevance in the current context. The policy objective should have been detailed and clearly formulated to avoid misinterpreting the intent.
- Understanding the fiscal and socio-economic context in which the measure was introduced is also important to understand the underlying factor that led to the implementation of a tax expenditure. Contrasting this with the current environment context can help determine whether a measure remains relevant.
- In some cases, multipronged strategies are required to tackle wicked policy problems. It is therefore important to take stock of other policy measures, including direct spending programs, that could have been introduced or enhanced at the same time or subsequently. The key considerations related to the assessments of alternatives are discussed below.

6.3.3 Key questions to address when assessing the relevance of a tax expenditure include:

- ✓ Was the policy objective clearly defined when it was introduced? Was it publicly communicated?
- ✓ Was the policy instrument introduced a long time ago?
- ✓ Have the government's priorities shifted away from the policy need that the tax expenditure is meant to address?
- ✓ Did the socioeconomic or public policy context at the time it was introduced justify the intervention? Has the context changed since the introduction?
- ✓ Was the policy initiative meant to address a temporary policy issue?
- ✓ What were the stakeholders' interests and concerns when the tax expenditure was introduced? Have their interests and concerns changed?
- ✓ Have there been other actions implemented to address the policy concern (e.g., direct expenditure programs)? If so, are they still in place? What is the value of support provided by the tax expenditure relative to these other programs?

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## EFFECTIVENESS

6.3.4 A measure is effective when it achieves its policy objective. Evaluating effectiveness provides information on the extent the tax expenditure achieves its policy objective by comparing expected results to actual outcomes. This can be assessed in different ways.

- ✓ Empirical evidence on the impact of a tax expenditure on achieving its objective is a critical aspect of the evaluation. For example, undertaking an empirical assessment measuring the extent a tax relief is generating more investment and jobs, or whether an income support measure is reducing inequality.
- ✓ Tax data can provide information on the number of beneficiaries and the amount of support provided as well as its distribution.
- ✓ Public consultations, in particular with parties affected, can provide valuable insights on whether the measure is reaching the intended population.
- ✓ Policy and subject-matter experts can provide details on the effectiveness of the administration and delivery of the tax expenditure.

6.3.5 Key questions to address when assessing the effectiveness of a tax expenditure include:

- ✓ Are there empirical studies examining the effectiveness of the intervention? If not, is there empirical evidence from other jurisdictions?
- ✓ Are there other programs or external factors that may have indirectly contributed to the outcome of the objective?
- ✓ Do administrative and survey data suggest that the take-up of the measure is appropriate?

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## EFFICIENCY

6.3.6 The costs incurred to achieve the policy objective should be minimized, or alternatively the benefits should be maximized for a given level of costs. Parameters related to cost-efficiency would include the minimization of economic efficiency costs, compliance costs, administrative costs, environmental costs, and other types of costs. Costs incurred by all agents should be considered. Finally, these costs should be reasonable relative to benefits.

6.3.7 Considerations related to economic efficiency costs are important and often difficult to measure. They relate to the reduction in economic efficiency from subsidizing an activity or spending through a tax expenditure. Key questions to address when assessing the efficiency of a tax expenditure include:

- ✓ What are the types of costs associated with the tax expenditure? Is there any information on their magnitude? Are they significant?
- ✓ Are the costs larger/smaller than initially anticipated?
- ✓ Is there evidence that there are significant economic inefficiencies with the policy instrument? Are these inefficiencies significantly damaging the economy?
- ✓ Are there important windfall gains associated with the measure?
- ✓ Are compliance and administrative costs significant relative to the expected benefits?

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## EQUITY

6.3.8 A measure should not give rise to significant concerns relative to equity or fairness, considering the overall distributional impact of the tax system and the objective of the measure. This criterion is not explicitly included in the usual evaluation standards for program

expenditures but can be considered part of the evaluation framework for tax expenditures given that equity is an important tax policy principle. Both the horizontal<sup>18</sup> and vertical<sup>19</sup> equity considerations should be assessed. Key questions to address when assessing the equity considerations of a tax expenditure include:

- Are the benefits distributed equally among taxpayers? Do higher-income earners or other specific groups have a greater share of the benefits?
- Does the measure only benefit a small number of individuals or corporations?
- Is the measure designed to target a narrow group of taxpayers?
- Is the measure perceived to be unfair by the population and stakeholders?

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## FISCAL SUSTAINABILITY

6.3.9 Evaluating the sustainability of a tax expenditure can offer important insights on the extent the benefits of a measure have lasted and are expected to continue to last. As well, the expected long-run benefits should be assessed against a country's long-run fiscal sustainability. Key questions to address when assessing the sustainability aspects of a tax expenditure include:

- ✓ Are there known factors or risks that could significantly change the expected take-up and benefits of the measure?
- ✓ Are the fiscal costs of the measure expected to outpace the growth in revenues?

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## ALTERNATIVES

6.3.10 A measure should be superior to its alternatives (if any exist), including alternative tax measures, direct spending programs, or regulatory initiatives. A measure is superior to its alternatives when, on balance, it does better in relation to the other criteria than the alternative measures, including from a cost-effectiveness standpoint. Key questions to address when assessing alternatives to a tax expenditure include:

- ✓ Do other measures exist to address the same policy issue? Do other levels of government offer similar support?
- ✓ Are there important concerns related to the other criteria (e.g., efficiency and effectiveness) that would lead to the conclusion that it would be unlikely that the tax expenditure is superior to alternatives?

## 6.4 PRIORITIZING MEASURES FOR EVALUATIONS

6.4.1 The evaluation of tax expenditures can be daunting in the presence of many measures deeply engrained in the tax systems and when resources allocated to the evaluation process are limited. For these reasons, a systematic triage of priority evaluations can help focus efforts in areas where the evaluations are most needed – i.e., areas where efficiency/fiscal gains can be large and the path of resistance is lower (i.e., reaching for the low-hanging fruits).

6.4.2 Preliminary assessments of tax expenditures by tax base and/or policy objective can help identify critical areas to assess. A scoring/ranking approach based on questions assessing each of the six evaluation criteria can provide a frame for a preliminary evaluation. A more detailed evaluation could then be undertaken for those not meeting a given threshold. Based on the

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<sup>18</sup> Horizontal equity considerations relate to an outcome where a measure treats individuals in similar situations similarly.

<sup>19</sup> Vertical equity relates to how benefits are distributed across the population. There are several ways to assess vertical equity for a tax measure – including distribution across income and wealth classes, intergenerational equity, gender, family type, sectoral and regional, etc.

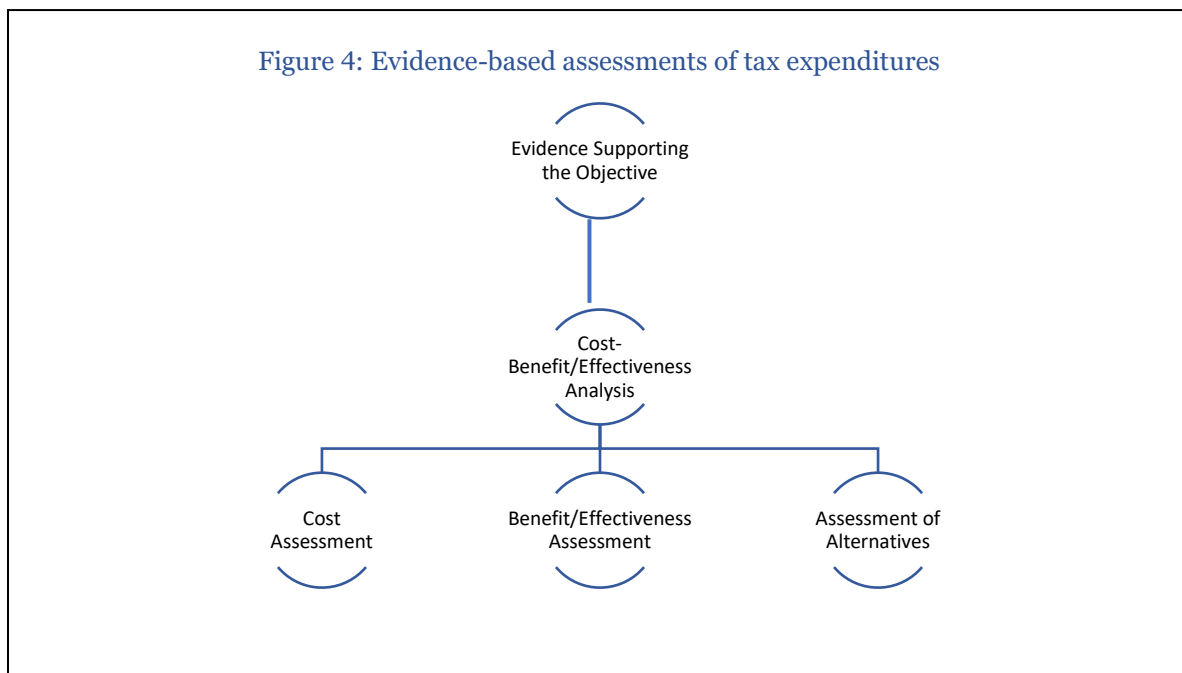
preliminary assessment, measures could be categorized by the type of review to be undertaken. Some measures could be rationalized quickly and independently while the elimination or adjustment of others can take a longer and may be considered in broader reforms. As an example of this type of categorization, a recent review of Columbia's tax expenditures<sup>20</sup> has grouped the measures into the following four groups.

- Category I: No reform is recommended, at least in the short run.
- Category II: Rationalization may be desirable.
- Category III: Rationalization part of broader tax reform.
- Category IV: Unclear whether to rationalize or not. Requires further analysis.

6.4.3 Another important question relates to the frequency, timing, and scope of tax expenditure evaluation. Evaluating each tax expenditure annually is not feasible but also not necessary though it is desirable to evaluate all tax expenditures periodically over a multiyear evaluation cycle (Sebastian Beer, 2022). A broad scope of evaluations allows evaluation to cover a wide range of tax expenditures that may have a common policy objective, say fostering capital investment, and allows policymakers to analyse synergies and redundancies across TEs.

## 6.5 CONDUCTING EVIDENCE-BASED EVALUATIONS

6.5.1 Tax expenditures can be justified to the extent that the social benefits are expected to be greater than the costs, and that they are superior to alternatives. Evidence-based evaluations can help in quantifying such benefits and costs, as illustrated in Figure below. The next chapter will cover such evaluations in detail.



<sup>20</sup> <https://www.dian.gov.co/dian/Documents/Tax-Expenditures-Report-By-Th-Tax-Experts-Commission.pdf>

## CHAPTER 7: COST-BENEFIT ANALYSIS

*In this chapter, we build on the previous chapter on evaluation of tax expenditures and discuss how tax expenditures can be evaluated using Cost-Benefit Analysis or Cost-Effectiveness Analysis.*

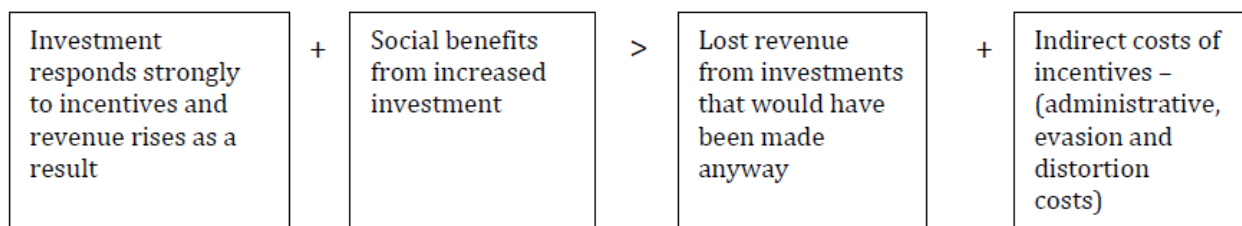
### 7.1 WHAT IS COST-BENEFIT ANALYSIS?

7.1.1 Cost benefit analysis (CBA) is an economic approach that endeavours to bring together all the economic costs and benefits of an intervention after adjusting for deadweight, displacement, and opportunity costs. It enables quantification of the net economic benefit (or cost) of an intervention. If the benefits are greater than the costs, the intervention can be justified, and vice versa. For instance, a CBA could be undertaken for measures with an objective aimed at improving the efficiency of the tax system by, for example, lowering the compliance burden of taxpayers.

7.1.2 Cost-benefit analysis of tax expenditures is one of the ways to assess whether they provide value-for-money. For instance, consider a tax expenditure that lowers taxes for a specific sector (Figure 13). It can induce capital investment that increases revenue from the sector and generates social benefits—but it also reduces government revenue and imposes indirect costs on the economy. So, this type of incentive policy is successful if the lost revenue and indirect costs are more than compensated for by higher revenue and social benefits from the additional investment (James, 2014). Factors to consider include :

- ✓ Higher revenue from (possibly) increased investment.
- ✓ Social benefits—jobs, positive externalities, signaling effects—from increased investment.
- ✓ Revenue losses from investments that would have been made without the incentives.
- ✓ Indirect costs of incentives (such as administrative and leakage costs).
- ✓ For tax incentives, an investment incentive is beneficial if:

Figure 13: Cost-Benefit Analysis framework for investment tax incentives



Source: (James, 2014)

### COST-BENEFIT VS COST-EFFECTIVENESS ANALYSIS

7.1.3 For most tax-related support, however, the benefits cannot be precisely measured, and not enough data can be gathered to conclude on the exact fiscal/economic feasibility of the incentive. For example, the VAT zero-rating of medicines can contribute to a healthier and more productive society, but the exact benefits of these spillovers can be difficult to measure. In these cases, broader metrics providing information on how a certain measure is (or is expected to) influence outcomes as per a stated objective are more appropriate to assess tax incentives in relation to their costs. In this context, undertaking a CEA allows policy makers to compare the outcomes to its costs, as well as to alternatives (McEwan, 2012) (see Box 13).

**Box 13: Cost-Benefit Analysis (CBA) vs Cost-Effectiveness Analysis (CEA)**

CBA calculates the monetary ratio of all costs to all benefits of a program. CBA can help to determine whether a program is worth the investment. The CBA requires several strong assumptions about the monetary value of all the different benefits, including the lifetime benefits of an intervention.

In contrast, CEA is a simple and objective measurement that enables the comparison of programs with common outcome(s) of interest. The measure of outcome could be the incremental amount of investment or spending generated because of the tax expenditure.

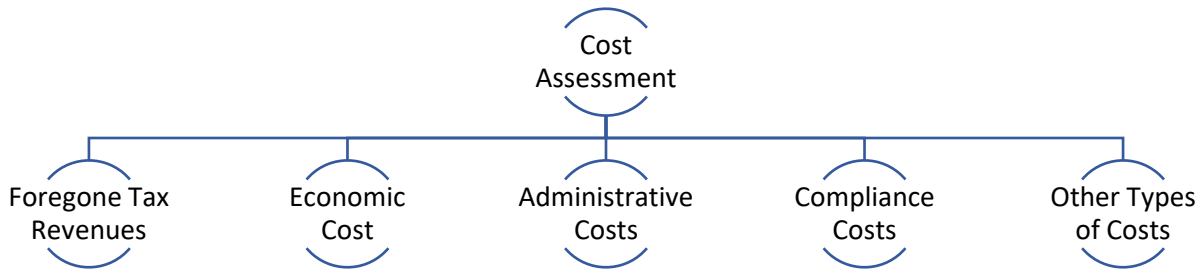
CBA	CEA
$Net\ Present\ Value = \sum_{t=0}^N \frac{Ben_t}{(1+r)^t} - \sum_{t=0}^N \frac{Cost_t}{(1+r)^t}$	$Cost\ per\ unit\ of\ outcome = \frac{Cost}{Outcome}$

7.1.4 The following sections present approaches to measuring the different aspects of the total cost as well as the aspects related to the measurement of the benefits and effectiveness of tax expenditures.

**7.2 COST ASSESSMENT**

7.2.1 All costs related to a tax incentive should be considered in the evaluation (Figure 14). They include the direct cost from the revenue foregone because of the measure as well as economic efficiency costs, administrative and compliance costs, and any other costs.

Figure 14: Cost Assessments of Tax Expenditures



**A. FOREGONE TAX REVENUES**

7.2.2 The estimation of foregone revenues from a tax expenditure is a determining element in the cost assessment. Simulation models are primarily used to assess the fiscal cost of tax expenditures. These models are considered the gold standard as they are based on actual tax data or detailed national accounts data and capture the many interactions between tax preferences and other provisions in the tax system. In the absence of simulation models, other types of data, such as administrative tax data, survey data, and financial information, can be leveraged to determine the expected take-up of a measure and its revenue implications.

7.2.3 In the context of reporting tax expenditures, it is standard practice to not account for the effect of potential behavioral responses on the estimates for simplicity, but also because of the lack of empirical evidence on behavioral responses for many of the measures reported on. The context is different in an evaluation where a behavioral response can have an important impact



on the estimates of the fiscal cost and attempts should be made to account for them in an evaluation. Box 14 presents a stylized example on how incorporating a behavioral response in measuring the fiscal impact of a charitable contribution tax credit can have important consequences on the cost estimate.

#### Box 14: Illustrative Example Charitable Contribution Tax Credit

A government is considering introducing a 20% tax credit to encourage charitable contributions, which stands at 100 million euro. The static fiscal cost of the measure is 20 million euros. It is expected that the tax incentive will encourage more charitable contribution and therefore raise the cost of the measure.

- The price elasticity of charitable contributions is assumed to -1.2.
- The new tax credit will reduce the after-tax price of charitable contribution by 20% and raise contributions by 24% (-1.2x-0.2).
- The fiscal cost attributed to the incremental charitable contribution is 4.8 million euros.

The total fiscal cost of the measure would be 24.8 million euros with the expected behavioral response – or 24% higher than the static estimate.

7.2.4 Behavioral responses can lead to higher take-up of tax expenditures and can generate important effects on the economy and tax base. For instance, an investment tax credit can lead to more FDI flowing into the country, which in turn could generate additional corporate profits, higher wages, and tax revenues. Other examples include the impact of an in-work tax credit to encourage work participation for the low-income individuals, which could have the effect of raising taxable income and taxes. The CBA/CEA should account for these additional revenues on either the cost (netting) or benefit side of the analysis. These considerations clearly connect to the extent the measure is effective in attaining its objective – additional details on these tax-related behavioral responses in the context of measuring results are discussed in the next section.

7.2.5 The fiscal cost should also include interactions with other tax bases should they be expected. For example, generous incentives for small businesses could encourage self-proprietors to incorporate, which would lower the taxable base for personal income taxes. These types of interaction can have important fiscal implications depending on the context. The cost estimates are generally projected to the current year given that there is a lag between the year the evaluation is conducted and the available tax data. It is therefore important to account for macroeconomic developments and other factors to forecast the cost of the tax expenditure to the relevant year. Finally, in broader reviews examining a suite of tax expenditures, it is important to account for the possible interactions between tax expenditure measures. Eliminating one measure could have an important, and sometimes unintended, impact on the fiscal cost of another.

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## B. ECONOMIC COSTS

7.2.6 Tax expenditures come at the expense of lower tax revenues. Revenue foregone due to tax expenditures are compensated through higher taxes, more debt or spending restraints. Thus, the economic cost of tax expenditures goes beyond the amount of foregone revenue.

7.2.7 All taxes impose an economic burden on society, but the costs vary by the type of revenues raised. Raising revenues from value added taxes are generally found to have a lower economic cost as they minimize the impacts on the decision to work, save and invest. At the other end of the spectrum, raising revenues from taxes on capital income, such as corporate taxes and capital taxes, have been empirically found to be more distortionary as they directly impact investment decisions and therefore impact economic growth more strongly. Table 25 explains some of the key economic costs to be considered in CBA.

Table 28: Some key economic costs considered in CBA.

Deadweight	Deadweight is an economic concept that attempts to capture the amount of activity that would have taken place anyway in the absence of the incentive or scheme. The overall benefits associated with a scheme should be adjusted downwards if some, or all, of the observed activity would have occurred in the absence of the support. This ensures that only the benefits that are truly 'additional' to the economy are considered. The higher the level of deadweight, the less the net benefits of the scheme. In estimating a deadweight parameter, several methods can be used including surveys, econometric techniques and studies involving control and treatment groups. Econometric studies are more sophisticated but require a lot of data. Control and treatment group studies look at differences over time in the behavior or performance of beneficiaries (individuals or companies) compared with similar groups of non-beneficiaries.
Displacement	Displacement refers to a situation where some of the benefits associated with the scheme occur at the expense of non-beneficiaries. For example, beneficiary firms operating in a particular market could gain market share at the expense of competing firms or a scheme targeted increase in employment in a particular sector could negatively impact on employment in other sectors. Where displacement occurs, the net benefits attributed to the scheme must also be adjusted downwards.
Opportunity costs	For tax expenditure evaluations two types of opportunity costs should be considered: <ul style="list-style-type: none"> <li>• The opportunity cost of labor - when considering the employment benefits of a scheme (e.g. wages, jobs, tax revenues etc.) the opportunity cost will be the value that the labor used would have earned in the market absent the scheme. The higher this opportunity cost, the lower is the net employment benefit of the intervention.</li> <li>• The opportunity (or marginal) cost of public funds - when a tax expenditure is introduced, one group benefits, but the rest of society must pay additional taxes to compensate the exchequer from the loss of revenue from the scheme. Taxation gives rise to economic distortions by altering the incentives facing economic agents, leading to changes in their behavior (for example, reduced labor market participation) and reduced economic activity. The actual costs associated with a scheme must be adjusted upwards to account for the cost to society of the tax imposed to finance the scheme.</li> </ul>

Source: (Department of Finance, Ireland, 2014)

7.2.8 When governments finance their activities through distortionary taxes, which is almost always the case, providing a tax expenditure means that other distortionary taxes must be increased to finance the same level of government expenditures. The opportunity cost of providing an additional dollar of tax expenditure represents a foregone opportunity to lower personal or corporate income taxes or other distortionary taxes. The marginal benefit from enhancing the tax expenditure must be compared with the marginal cost of public funds (MCF) from these alternative sources of tax revenue. The marginal cost of public funds measures the distortion in the allocation of resources when the government collects an additional dollar of tax revenue from a particular tax base (Dahlby, 2005). The MCF will be generally greater than one because a tax increase leads to tax avoidance or tax evasion, resulting in a less efficient allocation of resources in the economy.

7.2.9 Estimates for the MCF can be obtained from computable general equilibrium (CGE) models. These models have been widely used by governments and researchers to assess the distortions generated by existing tax systems and the extent tax policy reforms can improve welfare. They account for the inter-dependencies between sectors and agents in the economy as well as for the behavioral response of agents (e.g., labor supply and investment decisions). However, CGE models have certain limitations (Box 15).

**Box 15: Limitations of CGE models in fiscal reform analysis**

Although particularly helpful in understanding the welfare impacts of taxation, CGE models do have some important limitations worth noting – some are noted below. Lemelin and Savard (2022) provides a more complete view of the limitations and considerations regarding estimating MCF through the lens of a CGE model.

- Most CGE models assume perfect competition, which may not be the case in some important sectors of the economy where significant rents may exist (e.g., natural resources extraction sector and the financial sector)
- The number of households are usually limited in CGE models. The heterogeneity within the household population in the economy may not be fully captured when measuring household welfare.
- There is no tax planning in CGE models yet activities to minimize tax payable can have an important impact on tax revenues.
- Results are sensitive to assumptions related to behavioral responses – labor supply elasticities and user cost of capital elasticities, in particular. It is important that these be grounded in a robust literature and reflect a country's specificities.

Source: (Lemelin, 2022)

7.2.10 Table 26 presents the MCF for select countries in Africa (Auriol, 2012). Estimates of the MCF are highly variable across countries and dependent of a country's economy and tax system. Average results for the 38 African countries examined in their study suggest a MCF of 1.21, which indicates that a 21% rate of return is required on an intervention to offset the additional welfare loss from taxation. The study finds that extending the tax base to include sections of the informal economy by removing some tax exemptions offers the potential for a low MCF source of public funds, and a lowering of MCFs on other tax instruments.

Table 29: Marginal Cost of Fund\* for Select African Countries

Country	MCF
Benin	1.72
Burundi	1.18
Côte d'Ivoire	1.19
Gabon	1.11
Guinea Bissau	1.17
Mali	1.29
Uganda	1.42
Average – 38 countries	1.21

Source: (Auriol, 2012)

7.2.11 Other studies have examined the efficiency loss in a partial equilibrium framework<sup>21</sup> (Dahlby, 2011). The concept captures the fact that raising an additional dollar of revenue from a given tax base will reduce this tax base to a certain extent as the economy adjusts to the new tax rate. Empirical evidence on the extent the tax base is responsive to tax rate changes – the elasticity of taxable income (ETI) – is critical in measuring the MCF in a partial equilibrium analysis. Although the approach is relatively simple to implement when ETI estimates are available (see Box 16) for the different tax bases, there are important limitations. They do not account for the interdependencies of the economy and is not fully anchored on the concepts of household welfare.

**Box 16 : Illustrative Calculation of MCF in Partial Equilibrium**

To illustrate how the MCF can be calculated in a partial equilibrium setting, consider the following example where the MCF is calculated for a corporate income tax system with a flat tax of 20% and where the ETI (net of tax) was estimated to be 1.1.

- Assuming a 10% increase in the tax rate (to 22%), the after-tax value of a marginal dollar of taxable income (1-tax rate) would drop by 2.5%. The after-tax value of a marginal dollar of taxable income is the basis on which MCF are calculated.
- The resulting change in taxable income (net of tax) would be about -2.75% (i.e.,  $1.1 \times -2.5\%$ ). The 10% increase in the tax rate is therefore expected to reduce taxable income by 2.75% because of the response of corporations.
- Instead of an increase in tax revenues of 10%, revenues would increase by 7.25% ( $10\% - 2.75\%$ ) when accounting for the decline in taxable income.
- The cost of raising that last, or marginal, dollar of tax revenue (MCF) is therefore  $10/7.25$ , or 1.38. At the 20% tax rate, raising an additional dollar of corporate tax revenues would cost \$1.38.

<sup>21</sup> Read (Fullerton, 2008) and (Lemelin, 2022) for more details on the limitations of measuring the MCF in a partial equilibrium analysis.

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## C. ADMINISTRATIVE AND COMPLIANCE COSTS

7.2.12 Although typically less important than foregone revenues and economic costs, the cost to the government to administer tax expenditures should also be considered. This can include the cost of assessing tax returns, ensuring their accuracy and resources allocated to the audit functions. The design of the tax expenditure and the number of beneficiaries will impact the level of administrative costs.

7.2.13 Compliance costs represent the costs imposed on individuals and corporations to comply and access the relief. They can have an important impact on results since a high compliance cost can lead to a lower take-up of the measure. The compliance cost for a particular tax measure can be difficult to estimate as it relates to a marginal cost in the context of broader tax compliance. That said, quantitative and qualitative evidence on compliance costs can be gathered from tax preparers and lawyers.

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## D. OTHER COSTS

7.2.14 Depending on the context, a range of other costs could be included in the analysis. These could include the cost of negative externalities of a tax incentive, such as environmental costs and public infrastructure pressures from attracting more economic activities. Although some of these are difficult to estimate, they should nonetheless be recognized in the evaluation even if the statements are qualitative.

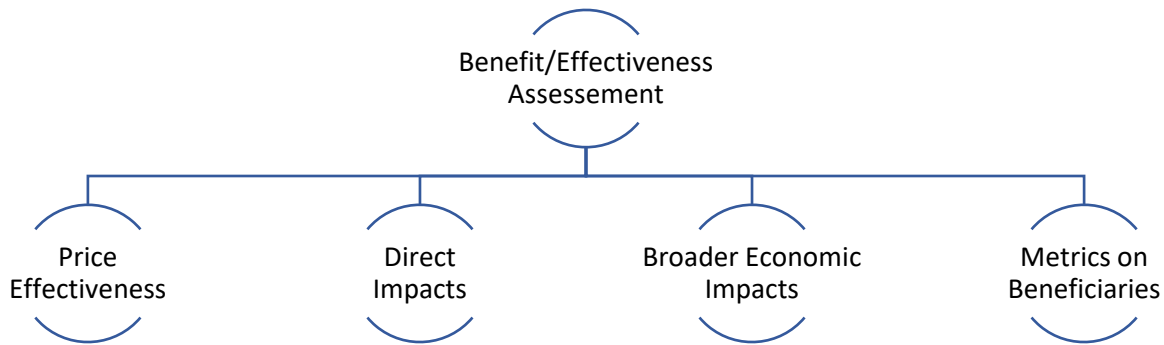
## 7.3 MEASUREMENT OF BENEFITS / EFFECTIVENESS

7.3.1 Measuring the benefits and effectiveness of a tax expenditure ultimately depends on its objective and how success is defined. Evaluation metrics should therefore be carefully tailored to the tax expenditure being evaluated. For instance, the evaluation of the effectiveness of structural tax expenditures would examine the extent these measures are contributing to the internal efficiency of the tax system. Metrics on benefits/effectiveness would be centered around the take-up of the measure and the lower compliance and administrative costs.

7.3.2 Measuring the benefits and effectiveness is generally more elaborated for tax expenditures with an objective to provide financial support (e.g., to meet a social objective such as supporting redistribution) or with an objective to encourage a certain behavior or activity (e.g., attract FDI and encourage work participation). The key considerations regarding undertaking such evaluation are noted in this section including aspects related to the price effectiveness of measures, the measurement of outcomes and broader economic impacts, as well as metrics on beneficiaries (see Figure 15).

7.3.3 Approaches to measure benefits associated with tax expenditures have been discussed in various publications on cost-benefit analysis of tax expenditures by the World Bank, IMF, OECD and the UN (Kronfol, 2020), (Beer, 2022), (IMF, OECD, UN and World Bank, 2015), (Trepelkov, 2018). Following these reports, examples of corporate tax incentives are principally used in this section to illustrate the different aspects of an evaluation since these have been extensively studied. That said, parallels can be made with evaluations of other types of tax expenditure, such as measures with an objective to increase labor supply or charitable contribution, despite difference in scope and the target population.

Figure 15: Benefit/Effectiveness Assessment of Tax Expenditures



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## A. PRICE EFFECTIVENESS

7.3.4 Governments widely implement targeted tax incentives to encourage a certain behavior to achieve a certain outcome. The evaluation of these incentives must examine whether (i) the tax incentives are effectively impacting on after-tax price or return of a targeted activity, and (ii) taxpayers are effectively responding to the price signal.

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### PRICE IMPACT

7.3.5 Decisions on the desired level of investment, savings and work are strongly linked to the rate of return. Determining the impact of the intervention on the prices is therefore a critical element of an evaluation. In the context of capital investment decisions, firms will invest up to a level where the expected return on the last dollar of investment is equal to the marginal cost of undertaking that investment – i.e., the user cost of capital (UCC). The UCC includes costs related to financing, economic depreciation of the asset and taxes. A large body of empirical evidence has demonstrated that investment is highly sensitive to the UCC with a price elasticity of -1.0 or stronger in some cases (Dwenger, 2014). Understanding how taxes influence the UCC is therefore critical in determining whether and how a specific tax incentive impacts on prices and investment decisions in the corporate setting. In this regard, marginal effective tax rates (METRs) and average effective tax rates (AETR) on capital investment have been widely used by governments, thinktanks and researchers as a competitiveness indicator of a country's tax system (Fullerton, 1984) (Devereux & Griffith, 2003).

7.3.6 A METR measures the extra return on a marginal investment required to pay corporate taxes. It combines in a single measure the statutory tax rate that applies to corporate income, provisions affecting the corporate tax base (e.g., capital cost allowances and interest deductibility) and profit-insensitive levies/relief such as capital taxes, investment tax credits and retail sales taxes on assets (see Box 17). Measuring the extent to which a tax incentive is reducing the METR relative to that of other countries can provide valuable insights into the potential incremental investment a country can attract. Similarly, average effective tax rates (AETR) have also been used to assess the effect of taxes on investments. Contrary to METRs, which impacts on marginal investment decisions, AETRs better reflect decisions related to discrete choices in investment decisions (e.g., choosing a location to build a plant or a major expansion) in a situation where rents are expected (e.g., market power, natural resource extraction activities, patent etc.).

**Box 17: Marginal and Average Effective Tax Rates on Corporate Investment**

A METR is a forward-looking indicator of the tax burden on a new investment that captures taxes on the future flow of income produced by an asset as well as profit-insensitive taxes and incentives, such as capital taxes and investment tax credits. It is expressed as the portion of the return required on a marginal investment to cover taxes and the return to investors ( $i$ ). Below a relatively simple corporate tax system can be presented:

$$R = (1 + st)(1 - \theta) \frac{(i + \delta - \pi)}{(1 - \tau)} (1 - \tau Z) - \delta$$

$$METR = \frac{R - i}{R}$$

where  $st$  is the retail sales tax on capital inputs,  $q$  is the investment tax credit rate,  $i$  is the cost of finance, which combines equity and debt financing,  $\delta$  is the depreciation rate,  $\pi$  is the inflation rate,  $t$  is the corporate income tax rate and  $Z$  is the present value of tax depreciation.

The AETR measure the tax burden on investments yielding a return above the normal rate of return. The AETR can be presented as a weighted average of the tax on returns at the hurdle rate of return and the tax paid on returns above that rate, which those profits are taxed at the statutory corporate tax rate.

$$AETR = \frac{i}{i^*} METR + \frac{r}{i^*} \tau ,$$

where  $r$  is the portion of the return that are rents and  $i^*$  represent the overall return of an investment ( $i^*=i+r$ ).

**TAX-RELATED BEHAVIORAL RESPONSE**

7.3.7 Once it is understood that a tax expenditure can influence prices, the evaluation can turn to examining the extent the targeted activity/spending has increased because of the incentive. In the case of ex-post evaluations, empirical studies can take advantage of the natural experiment introduced by a tax incentive to estimate the behavioral response of taxpayers.

7.3.8 These impacts can be statistically measured if the effect on prices is sufficiently large, and statistics techniques are able to disentangle the impact of the intervention from other factors affecting the activity/spending being measured. To this end, several statistical methods have been developed to estimate the impact of a natural experiment – the main methods include the difference-in-difference approach, matching method, regression discontinuity and instrumental variables (Box 18).

**Box 18: Empirical Approaches for the Evaluation of Interventions**

**Difference-in-difference:** Difference-in-differences compares the *changes* in outcomes over time between units that are enrolled in a program (the treatment group) and units that are not (the comparison group). This allows us to correct for any differences between the treatment and comparison groups that are constant over time.

**Matching methods:** Matching uses large data sets and statistical techniques to construct the best possible comparison group based on observed characteristics. The matching methods will enable you to identify the set of non-enrolled individuals that look most similar to the treated individuals, based on the characteristics that you have available in your data set. These matched non-enrolled individuals then become the comparison group that you use to estimate the counterfactual.

**Regression discontinuity design:** Regression discontinuity design (RDD) is an impact evaluation method that is adequate for interventions that use a continuous index to rank potential participants and that have a cutoff point along the index that determines whether or not potential participants are eligible to receive the program.

**Instrumental variables:** The instrumental variable method relies on some external source of variation to determine treatment status. An instrumental variable influences the likelihood of participating in a program but is outside of the participant’s control and is unrelated to the participant’s characteristics.

(Gertler, et al., 2016)

7.3.9 Examples of evidence of a response include the investment response to changes in capital taxation, particularly for FDI and investment in research and development. As well, the economic literature on labor supply has extensively researched the effects of in-work credits on work participation, as well as the impact of marginal tax rates on work effort and work hours. Strong evidence also exists on linkages between charitable contribution and the after-tax cost of giving (Reinstein, 2011).

7.3.10 Measuring potential leakages is an important element in assessing the effectiveness of a tax incentive. A weak behavioral response could signal that the tax incentive may not reach the intended beneficiaries. In these cases, additional analysis should be undertaken to better understand the causes and identify corrective actions. For example, providing financial support targeted at a specific service or commodity will raise the demand for that service/commodity. This will apply pressure on prices to some extent, which would lead to a portion of the relief to be captured by suppliers, or in some instances by tax preparers through higher fees. Addressing the question related to the incidence of a tax expenditure is important for understanding issues with the effectiveness.

7.3.11 Equally important is evaluating windfall gains flowing to activities that would have otherwise been undertaken in absence of the tax incentive, or redundancy. Comparing the amount of the relief captured by these activities to the relief provided to induced activities provide valuable insights into the effectiveness of the measure.

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## B. MEASUREMENT OF DIRECT IMPACTS

7.3.12 The direct impact of a tax expenditure represents the additional amount of spending generated because of the tax incentive, but it can also be extended to represent other metrics such as direct jobs created and increase in the output of the targeted sector. Extrapolating the impacts to other economic variables can be done by relying on empirical studies in which these linkages were measured. Macroeconomic multipliers derived from input/output models (I/O models) can also be leveraged to determine the impact on jobs, GDP, and output.

7.3.13 In the case of support measures with a social objective, the evaluation would examine the impact of a relief in relation to household income or spending, as well as the impact on broader indicators such as inequality indices, poverty rates, improved health scores and food security.

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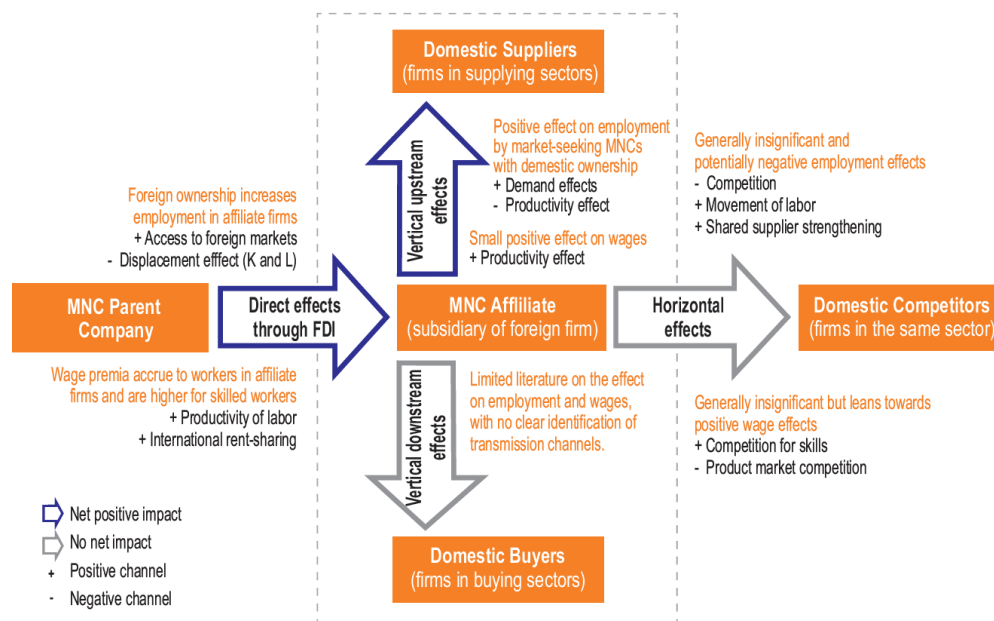
## C. BROADER IMPACTS

7.3.14 Injecting financial support in the economy can generate indirect and induced impacts in the broader economy in addition to the direct economic impacts. For example, higher economic activity because of support for a given sector will cascade to other sectors of the economy through the demand and supply channels. These indirect and induced impacts can be estimated using Input-Output (I/O) models. CGE model can also be used to assess the broader economic impacts of tax expenditures. Results from CGE models would account for the broader welfare gains/losses from a tax incentive.

7.3.15 In addition to the impacts noted above, attracting new technologies through FDI or higher level of R&D spending can lead to efficiency gains that can spillover to the rest of the economy through higher productivity and wages, which may not be fully captured by existing economic modeling strategies (particularly I/O models). These spillovers are difficult to measure since they can take time to materialize, and other government and private initiatives can contribute to the same outcome. In the absence of empirical evidence on spillovers, the potential gains and channels implicated should be considered, at least qualitatively, since they are often at the core of

the objective of the tax expenditure. As an example, (Saurav, 2020) reviewed empirical evidence from 58 countries on the linkages between FDI and employment outcome, including productivity gains. Their key findings are presented in Figure 16 where the authors depict the spillovers and expected outcomes by type of channels noted by the literature. Box 19 contains a review of the literature on spillovers from FDI (IMF, OECD, UN and World Bank, 2015).

Figure 16: Key Findings regarding the Effect of FDI on Employment Outcomes



Source: (Saurav, 2020)

### Box 19: Evidence on Productivity Spillovers from FDI

Empirical studies of horizontal spillovers look at the systematic variation of productivity growth in an industry and its intensity of FDI. Early studies for Morocco, Russia and Venezuela find no support for such productivity spillovers in manufacturing industries; instead, and counterintuitively, they all report negative correlations (Haddad and Harrison, 1993; Aitken and Harrison, 1999; Yudaeva et al., 2003). Gorodnichenko et al. (2007) find that horizontal spillover effects are generally insignificant in an analysis for 17 countries in Eastern Europe and Central Asia. In a meta-analysis of 32 empirical studies on technology spillovers from FDI, Woodster and Diebel (2006) conclude that intra-sectoral FDI spillovers are non-existent in developing countries.

Evidence for advanced economies is usually more supportive of horizontal spillovers. For instance, studies using data for the US and the UK typically report positive correlations between domestic plants' productivity and FDI intensity (Xu, 2000; Keller and Yeaple, 2003; Haskel et al., 2007). Here, spillovers also tend to be more prevalent in high-technology sectors and when own R&D is undertaken, reflecting a greater ability to understand and assimilate new technologies (Griffith et al., 2004). Lack of absorptive capacity may explain why horizontal spillovers are less prevalent in developing countries.

Studies on vertical spillovers usually explore backward effects of FDI to domestic suppliers, again by measuring productivity gains in the manufacturing sector. A study for Zambia, for instance, finds significant knowledge transfers from foreign to local firms (Bwalya, 2006). Similar positive spillover effects are found for Indonesia and Lithuania (Javorcik, 2004; Girma et al., 2007). For the 17 countries in Eastern Europe and Central Asia, Gorodnichenko et al. (2007) consistently report positive backward productivity spillovers. For strategic industries in China, Du et al. (2011) find support for backward and forward vertical FDI spillovers.

Source: (IMF, OECD, UN and World Bank, 2015)



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## D. BENEFICIARIES

7.3.16 Understanding the extent to which a tax relief or incentive percolates to the intended population is another important element in determining the effectiveness of a tax expenditure. Data on the number of claimants, the average relief and the distribution can provide important insights into determining whether a measure is effective in reaching the intended population. In most instances, tax data can capture only part of the story as only limited information on socio-economic/corporate characteristics are generally collected by tax officials. This is particularly true for ex-ante assessment where only limited administrative data are available. Other sources of data, such as survey data and other administrative data, can be leveraged to complement the tax data. Evaluation of US mortgage interest deduction (MID), one of the costliest federal TE (Box 20) casts doubts on the effectiveness of MID based on distributional analysis, which shows that the incentive favors rich more than the poor. Critics suggest that replacing MID with a tax credit could distribute the benefits of mortgage interest relief more directly to homeowners in need of it, rather than concentrating the value to those in the highest income brackets. It would also reduce the revenue foregone by the government.

### Box 20: Evaluation of US mortgage interest deduction

Mortgage interest deduction (MID), available to homeowners in US, is one of the costliest federal tax expenditures responsible for about \$30 billion annually in revenue foregone by the government. Proponents of the MID posit the tax subsidy incentivizes homeownership, which is associated with a host of benefits for households, neighborhoods, the economy, and society, including wealth-building. However, research casts doubt on the MID's effectiveness at encouraging homeownership. The ability to afford a downpayment is the primary barrier to homeownership for low- and moderate-income households, and the MID does nothing to address upfront costs. Critics of the MID claim that, instead of incentivizing potential homeowners who otherwise would not buy a home, the MID encourages larger and more expensive homes, as it allows households who can already afford a down payment to take out a larger mortgage than they otherwise would.

Distribution of MID shows that Higher-income households benefit more from the MID, as they are more likely to own their home rather than rent and more likely to itemize their deductions, which allows them to claim the MID. Just 7.5% of taxpayers making under \$200,000 itemized in 2020, while 45% of taxpayers making over \$200,000 itemized. Among those who claim the MID, higher-income households enjoy a greater average reduction in their tax burden because they tend to have higher-value mortgages and belong to higher tax brackets, both of which translate to larger savings through the MID. White households also disproportionately benefit from the MID compared to Black and Hispanic households, in part because Black and Hispanic households at every income level are less likely to own their home than their white counterparts, who tend to have greater intergenerational wealth to help them afford a downpayment. States with higher home prices, incomes, and taxes—such as California and Washington—also see more benefits from the MID, as people in those states are more likely to itemize and have larger mortgages.

Critics of the MID have promoted replacing it with a new tax credit for mortgage interest payments. Under this proposal, homeowners could claim a tax credit worth a percentage of their annual mortgage interest payments. A new tax credit could distribute the benefits of mortgage interest relief more directly to homeowners in need of it, rather than concentrating the value to those in the highest income brackets. Supporters of replacing the MID with a new tax credit argue it would reduce federal deficits by substantially increasing revenue, though the exact budgetary effect is unclear and would depend on the specifics of the new credit. In 2016, the Congressional Budget Office (CBO) and the Tax Policy Center estimated that replacing the MID with a 15% non-refundable tax credit phased in over several years would increase federal revenue by over \$100 billion (and potentially more than \$200 billion) over a decade.

Source: Bipartisan Policy Center, USA

7.3.17 Metrics on the gender balance of beneficiaries has increasingly been a focus in many countries to understand whether there are implicit and explicit gender bias in the design and delivery of a tax expenditure. Recent OECD and IMF reports<sup>22</sup> found that gender equality is now an important consideration in tax policy design and budgeting. Most of the 43 countries covered by the OECD survey have noted the importance of gender balance considerations when assessing tax policy, and that about half have implemented specific tax reforms to improve gender equity. For instance, the Canadian Gender Budgeting Act requires that the Minister of Finance make available to the public, on an annual basis, analyses on the impacts of tax expenditures in terms

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<sup>22</sup> Details on gender-based tax policy analysis can be found in the OECD report: *Tax Policy and Gender Equality : A Stocktake of Country Approaches* and in the IMF report: *Gender Budgeting in G20 Countries*.

of gender and other identity factors. Some examples on the type of metrics used by reports in select countries to measure the reach of tax expenditures may be seen at Annex 2.

## 7.4 COST-BENEFITS / EFFECTIVENESS INDICATORS

7.4.1 Policy makers can distill the detailed information obtained from the cost and benefit/effectiveness assessments into simpler metrics that allow them to compare the cost-effectiveness of tax expenditures to each other as well as to the broader revenues and the alternatives. Some of the key metrics that can be computed for an evaluation are noted in Figure 17 below.

Figure 17: Key Cost-Effectiveness Indicators for Evaluation

1	Job gains per unit cost of a tax expenditure
2	Output gains per unit cost of a tax expenditure
3	GDP gain per unit cost of a tax expenditure
4	Welfare gain per unit cost of a tax expenditure
5	%-point reduction in METR/AETR per dollar of tax expenditure
6	Distribution of relief
7	Relief as a share of income
7	Gender-based indicator
8	Cost Ratios – e.g., ratio of foregone revenue to total cost, total cost to total revenues
9	Incrementality Ratio – induced activity because of the tax expenditure over total activity
10	Redundancy Ratio

## CHAPTER 8: GOVERNANCE OF TAX EXPENDITURES

*In this chapter we will discuss some key issues in governance of tax expenditures, with a focus on developing economies. We will then discuss some of the key components of a robust governance framework followed by a discussion on role of various institutions.*

### 8.1 KEY CHALLENGES

8.1.1 The challenges related to fiscal management of tax expenditures, which were discussed in earlier chapters, are further compounded if the institutional capacity of a country is weak. As discussed in chapter 6, tax expenditures are often introduced without any ex-ante evaluation and continue to exist without any ex-post impact evaluation to justify their continuation. Instances where tax incentives are not fully embedded in the tax code and are introduced through investment law or fiscal incentives law have been documented in various Public Expenditure Reviews conducted by World Bank. This leads to proliferation of tax expenditures and entail higher costs than those administered through tax laws alone, especially in absence of binding fiscal rules and similar mechanisms. Other studies have documented how the involvement of line ministries in drafting sector legislation of tax expenditures created scope for overlap, low coordination, and significant risks of unmerited recommendations. The lack of specialized tax policy units in most developing economies has been linked to fragmentation in administration and reporting of fiscal costs of tax incentives (IMF, 2019). In this context, stronger governance of tax expenditures becomes necessary to ensuring fiscal sustainability.

### 8.2 FRAMEWORK FOR GOVERNANCE

8.2.1 The governance framework of tax expenditures should be closely aligned with the public expenditure management. The driving principles for such a framework should be transparency, participation by stakeholders, prevention of abuse, rule of law, and accountability. The emphasis on these guiding principles emanates from the fact that tax expenditures are part of tax designs for most countries across the globe, and they will likely continue in the years to come. It is critical that governments institute mechanisms to monitor the process of granting tax expenditures, control their proliferation by adopting fiscal rules, and establish institutions to assess their fiscal impact, including impact evaluations to assess their effectiveness and need for continuance.

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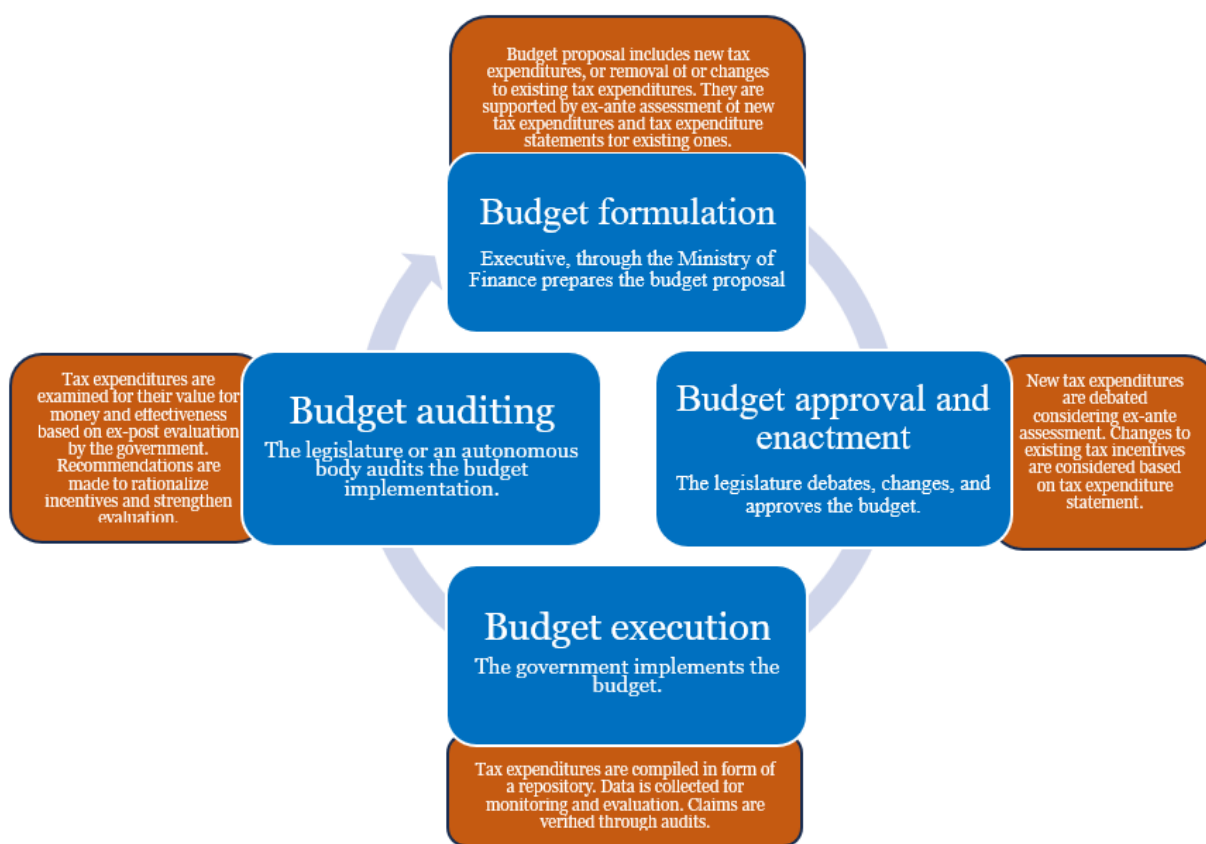
#### TRANSPARENCY

8.2.2 Transparency entails clear approval process, uniform, and unambiguous eligibility criteria applicable to all potential beneficiaries, and a transparent process of reviewing and assessing tax expenditures. Tax expenditures design should allow potential beneficiaries to claim tax incentives based on self-verification and disclose the particulars of their claim in tax returns that are usually filed at the end of tax year. Moreover, integrating tax expenditures explicitly into the existing budget processes can also increase the transparency of entire government spending as part of broader budget reform. Tax expenditures should, therefore, be included in the budget by treating them as equivalent to other forms of government spending (Burman & Phaup, 2012).

8.2.3 The governance framework must integrate management of tax expenditures with the budget cycle (see Figure ). During the formulation stage, the executive, through the MoF, discusses proposals for new tax expenditures with the stakeholders, including line ministries. The MoF prepares ex-ante assessment of new tax expenditures and a tax expenditure statement for the existing ones. Removal of or changes to existing tax expenditures is considered based on ex-

post evaluation. Once the budget is formulated, the executive presents the budget to parliament for approval. Depending on the powers conferred on the legislature in the constitution of the country, it can approve, modify, or make substantial changes to the budget proposal. During this stage, the legislature reviews, debates and amends the tax expenditure proposals and enacts the final budget into law. This stage is known as approval or enactment. Budget execution starts when the government implements the new or amended provisions related to tax expenditures. During the fiscal year, data is collected to measure and evaluate the tax expenditures. Claims for tax incentives are verified by the tax administration through tax audits. To facilitate implementation, eligibility conditions should also be described in the legal framework. In the last stage, auditing, an independent agency, or body reviews execution of the budget to determine whether the resources were used effectively and efficiently. Auditing considers the data collected by the tax administration as well as evaluation results to assess whether tax expenditures provide value for money. Generally, an autonomous audit institution is charged with this duty. Legislature may also undertake auditing process through standing committees. The results of auditing represent a valuable input for proposing changes to tax expenditures for the next year.

Figure 18: Integrating tax expenditures management with the budget cycle.



## EMBEDDING TAX EXPENDITURES IN TAX CODE

8.2.4 To enhance oversight and control of tax expenditures, all tax expenditure provisions must be embedded in the body of main tax code. Thus, the practice of providing them under other legislations such as investment law or through administrative or executive orders should be avoided. Wherever it may be needed, other legislations should refer to the tax expenditure related

provisions in the tax code. In countries that have streamlined the process of managing tax expenditures, MoF has the deciding power in tax matters while the functional or line ministries design the direct spending programs, with a clear distinction being that the former is largely a revenue collection agency, and the latter is an expending entity. For example, TEs in the United Kingdom are provided based on the tax code, which is managed and coordinated by the Treasury and Revenue & Customs. Among developing countries, India grants all TEs through the Income Tax Act, which is administered by the Ministry of Finance. The process of granting TEs is transparent and goes through a rigorous process of legislative scrutiny. Similarly, in Mauritius after a major tax reform in 2006, the government or Minister no longer have discretion to grant TEs.

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## CENTRALIZE AUTHORITY TO GRANT TAX EXPENDITURES

8.2.5 MoF should be responsible for the overall governance of tax expenditures in line with its mandate to manage fiscal policy, design and monitor a fair, broad-based, and efficient tax system, set tax expenditure fiscal rules, and draft all tax related legislation. Centralizing tax expenditure administration with MoF enhances efficiency and reduces the potential for political manipulation. When power to grant tax expenditures is spread across multiple agencies, it creates opportunities for political haggling and favoritism, resulting in expenditures that are poorly targeted and wasteful. Centralization helps in controlling proliferation of tax expenditures and launching comprehensive monitoring and evaluation programs. It avoids duplication of effort and lack of coordination, thereby enhancing their fiscal management and freeing up resources that could be used to fund other government priorities. Centralization would thus bring greater transparency and accountability to the administration of tax expenditures.

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## ESTABLISHING REPOSITORY OF TAX EXPENDITURES

8.2.6 Practically, repository of tax expenditures is a database of all the provisions in law that represent a deviation from the benchmark. As TE reporting should provide the revenue impact of each provision separately, the repository plays an important role in measurement and reporting of tax expenditures. It provides a ready list of TEs to be measured and reported and is helpful in identifying the data requirements. The responsibility to maintain and update the repository should be with the tax policy division in the MoF.

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## ANCHORING TAX EXPENDITURE CEILINGS TO FISCAL RULES

8.2.7 Uncontrolled growth of tax expenditures can lead to fiscal imbalance and threaten macro-economic stability of a country. In Sri Lanka, tax expenditures introduced in 2019 entailed large tax cuts with estimated revenue losses exceeding 2% of GDP (IMF, 2022), one of the leading causes for its economic crisis. Several advanced economies follow a good practice of placing an upper limit on tax expenditures. In Brazil, any new tax expenditure should fulfill one of the following conditions: either it is proven that it does not affect the targets set in the federal budget guideline law, or it should be accompanied with a compensatory tax measure. Tax measures that were implemented to compensate for the creation of tax expenditures in the previous budget must be reported. In South Korea, there is an upper limit of “National Tax Exemption Ratio” as prescribed in National Finance Act, even though it is not compulsory. The National Tax Exemption Ratio is equal to the amount of tax revenue foregone by Tax expenditure divided by the sum of total national tax revenue and tax revenue foregone. The upper limit of National Tax Exemption Ratio is then equal to the average of National Tax Exemption Ratio for the recent past 3 years + 0.5%. Table 27 below provides an example of these calculations.

Table 30: Fiscal rule to control tax expenditures - an example from Korea

	<b>2018 (Actual)</b>	<b>2019 (Estimation)</b>	<b>2020 (Estimation)</b>
<b>National Tax revenue foregone by TE (A, billion KRW)</b>	43,953	50,138	51,910
<b>Total Tax revenue foregone by TE (B, billion KRW)</b>	2,935,704	2,947,919	2,920,391
<b>National Tax Exemption Ratio [A/(A+B)]</b>	13.0%	14.5%	15.1%
<b>Upper limit of National Tax Exemption Ratio</b>	14.0%	13.6%	14.0%

Source: “2020 Tax Expenditure Budget”, Government of Korea (2019)

8.2.8 More stringent fiscal rules could involve legislating for a reduction in tax expenditures by a certain percentage of GDP, and or requirements to publicize tax expenditure reports alongside the budget while detailing each tax expenditure item, legal backing, listing beneficiaries, providing details on the sunset date, estimates of revenue foregone, and impact assessment of the tax expenditures – South Korea, the United Kingdom, and France implement some of these requirements.

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## SUNSET CLAUSE

8.2.9 Tax expenditures typically avoid any kind of regular legislative review. They are, in effect, automatically extended year after year, indefinitely, with no legislative oversight or public review. For this reason, it is necessary to establish “sunset” dates for tax expenditures. Setting a sunset date forces the legislature to choose between allowing a tax expenditure to expire and extending it (perhaps with some changes) through the normal legislative process (Leachman, et al., 2011). It triggers<sup>23</sup> discussions on the effectiveness and relevance of tax expenditures (Deuster, 2022). It also can create an opportunity for public comment and media attention, and for legislators to consider any evaluation of the expenditure included in the tax expenditure report. For instance, Korea enacted a law in 1976 that all tax expenditures will be subject to a five-year sunset and must be re-enacted to continue in effect, which has been helpful in removing several tax expenditures (OECD, 2010 – Tax Exp in OECD countries). In Japan sunset clauses have functioned effectively because they force tax officials and other related parties to review the contents of the Special Tax Measures (or tax expenditures) regularly (see Box 21). In India, several corporate tax incentives were allowed to sunset during the past decade and the new incentives came with an in-built sunset date (see Table 31).

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<sup>23</sup> However, inclusion of sunset clause alone may not be sufficient if the sunset date is routinely extended (see Box xx)

Table 31: Select sunset provisions in Indian Income Tax Act, 1961

Section	Provision	Relevant extract	Sunset date
<b>80-IAB</b>	Deductions in respect of profits and gains by an undertaking or enterprise engaged in development of Special Economic Zone.	Provided that the provisions of this section shall not apply to an assessee, being a developer, where the development of Special Economic Zone begins on or after the 1st day of April 2017.	1st April 2017
<b>80-IAC</b>	Special provision in respect of eligible start-ups engaged in innovation, development or improvement of products or processes or services or a scalable business model with a high potential of employment generation or wealth creation	Eligible start-up" means a company or a limited liability partnership engaged in eligible business which fulfils the following conditions, namely: –  (a) it is incorporated on or after the 1st day of April 2016 but before the 1st day of April 2025	1st April 2025
<b>115BAB</b>	Tax on income of new manufacturing domestic companies to be charged at a concessional rate of 15 percent.	the company has been set-up and registered on or after the 1st day of October 2019, and has commenced manufacturing or production of an article or thing on or before the 31st day of March, 2024.	1st April 2024

### Box 21: Sunset of tax expenditures in Japan

With the aim of enhancing the transparency and accountability of special tax measures, Finance Minister is legally required to review the utilization of special tax measures especially for corporations and to submit the report to the Diet (legislature) on an annual basis. Special Tax Measures are reviewed annually by tax officials of Ministry of Finance, mainly focusing on those that expire in the next year due to sunset clauses. Usually, most of the Special Tax Measures at the national level are stipulated in the Special Tax Measures Laws to have two- or three-year sunset clauses. These sunset clauses have functioned effectively, because they force tax officials and other related parties to review the contents of the Special Tax Measures regularly. Negotiations between tax officials and the requesting ministries over the Special Tax Measures expiring in the next spring (usually the end of March) begin in September, at the same time as with the budget expenditure negotiations. In many cases, each ministry requests the creation of new Special Tax Measures for their policy objectives. The necessity, effectiveness and efficiency of the measures are scrutinized in the negotiations. At the same time, the government Tax Commission, which is an advisory council to the prime minister, deliberates tax policy for the coming fiscal years. From late November to early December, the tax commissions of the ruling parties begin their decisions on tax policies for next fiscal year, including the Special Tax Measures. In this deliberation, the tax officials explain the discussions among the related ministries. In December, Ministry of Finance decides the contents of the tax proposals based on the report submitted by both the government and the ruling parties' tax commissions. The tax bill is usually submitted to the Diet in the next January or February.

Source: (Jacobsen, et al., 2010)

## ANTI-ABUSE PROVISIONS

8.2.10 Anti-abuse rules aim to combat the abuse of tax laws and treaties to prevent taxpayers from obtaining a tax position otherwise inconsistent with the intent of the law or treaty (see Table 28). In this regard, domestic tax laws should include a General Anti Abuse Rule (“GAAR”) or specific anti-abuse provisions. Similarly, BEPS Action 6 ‘Prevention of Tax Treaty Abuse’ outlines the anti-abuse measures in relation to tax treaties. In the context of tax expenditures, the purpose of anti-abuse provisions is to deter unscrupulous taxpayers from taking undue benefit of concessionary provisions in the tax law.

Table 32: Anti-abuse provisions to deter abuse of tax expenditures.

	GAAR / specific anti-abuse provisions	BEPS Action 6
<b>Why?</b>	<ul style="list-style-type: none"> <li>To prevent the taxpayers from obtaining unfair tax advantages</li> </ul>	<ul style="list-style-type: none"> <li>To prevent the granting of treaty benefits in inappropriate circumstances</li> </ul>
<b>When?</b>	<ul style="list-style-type: none"> <li>Absence of valid commercial substance</li> <li>Absence of non-fiscal reasons reflecting economic reality</li> <li>Main purpose to obtain a tax advantage that is not consistent with the intention or purpose of this Decree-Law</li> </ul>	<ul style="list-style-type: none"> <li>Treaty shopping</li> <li>Double non-taxation</li> <li>Main purpose to indirectly access the benefits of a tax treaty between two jurisdictions without being a resident of one of those jurisdictions</li> </ul>
<b>What is the impact?</b>	<ul style="list-style-type: none"> <li>Authority will assess the applicability of anti-abuse rules on any transaction or arrangement of the taxpayer.</li> <li>Tax authorities can adjust the tax liability for any unfair tax advantage obtained</li> </ul>	<ul style="list-style-type: none"> <li>Taxpayers engaged in treaty abuse strategies undermine tax sovereignty by claiming treaty benefits in situations where these benefits were not intended to be granted.</li> <li>Tax authorities can apply the Principal Purpose Test (“PPT”) or the Limitation of Benefit (“LoB”)</li> </ul>

8.2.11 Specific anti-abuse provisions should be built into the provisions related to tax incentives. For instance, Box 1 shows a provision section 80-IAC in the Indian Income Tax Act, 1961, which provides tax incentive to start-ups. Sub-section (3) contains specific anti-abuse provisions that the new company should not be established by splitting up or the reconstruction of an existing business and it is not formed by the transfer to a new business of machinery or plant previously used for any purpose.

**Box 22: Specific anti-abuse provisions - example from Indian Income Tax Act**

**Special provision in respect of specified business.**

**80-IAC.** (1) Where the gross total income of an assessee, being an eligible start-up, includes any profits and gains derived from eligible business, there shall, in accordance with and subject to the provisions of this section, be allowed, in computing the total income of the assessee, a deduction of an amount equal to one hundred per cent of the profits and gains derived from such business for three consecutive assessment years.

(2) The deduction specified in sub-section (1) may, at the option of the assessee, be claimed by him for any three consecutive assessment years out of ten years beginning from the year in which the eligible start-up is incorporated.

(3) This section applies to a start-up which fulfils the following conditions, namely: –

(i) it is not formed by splitting up, or the reconstruction, of a business already in existence:

**Provided** that this condition shall not apply in respect of a start-up which is formed as a result of the re-establishment, reconstruction or revival by the assessee of the business of any such undertaking as referred to in [section 33B](#), in the circumstances and within the period specified in that section;

(ii) it is not formed by the transfer to a new business of machinery or plant previously used for any purpose.

*Explanation 1.*—For the purposes of this clause, any machinery or plant which was used outside India by any person other than the assessee shall not be regarded as machinery or plant previously used for any purpose, if all the following conditions are fulfilled, namely:—

- (a) such machinery or plant was not, at any time previous to the date of the installation by the assessee, used in India;
- (b) such machinery or plant is imported into India;
- (c) no deduction on account of depreciation in respect of such machinery or plant has been allowed or is allowable under the provisions of this Act in computing the total income of any person for any period prior to the date of the installation of the machinery or plant by the assessee.

*Explanation 2.*—Where in the case of a start-up, any machinery or plant or any part thereof previously used for any purpose is transferred to a new business and the total value of the machinery or plant or part so transferred does not exceed twenty per cent of the total value of the machinery or plant used in the business, then, for the purposes of clause (ii) of this sub-section, the condition specified therein shall be deemed to have been complied with.

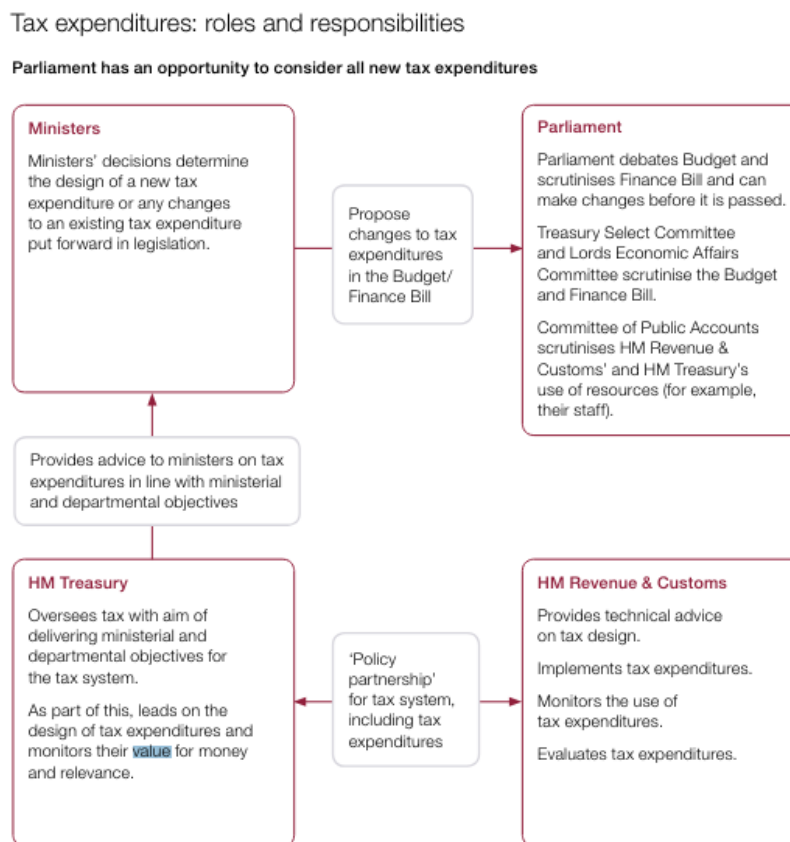


## 8.3 ROLE OF INSTITUTIONS

### ROLE OF THE MINISTRY OF FINANCE

8.3.1 Governance of tax expenditures is a collaborative process which involves consultations by Ministry of Finance with various stakeholders in the public and private sectors, appraisal of proposals for tax incentives, preparation of draft legislation and accompanying rules for legislative scrutiny, preparation of revenue foregone statements, and overseeing the implementation of tax incentives programs. The process should be led by the tax policy agency in close partnership with the tax administration. Figure 18 shows the governance framework for tax expenditures in UK, which establishes clear roles and responsibilities between the HM Revenue & Customs (tax administration), Treasury (tax policy division), Ministers and the Parliament. The HMRC and Treasury work in close partnership to manage tax expenditures. While the Treasury leads the design of tax expenditures, HMRC provides technical advice on design and implements them. Similarly, monitoring tax expenditures for their value-for-money and relevance is led by Treasury while HMRC monitors their use and evaluates them. Treasury is also responsible for advising the Minister on tax expenditures in line with the policy objectives. Minister obviously has the final say on the design of new tax expenditure or changes to existing ones. The proposed changes are then sent to the Parliament for debate and scrutiny before they are approved and become part of law.

Figure 19: Governance structure for management of tax expenditures - an example from UK



Source: National Audit Office

Source: (National Audit Office, UK, 2020)

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## THE ROLE OF TAX POLICY AGENCY

8.3.2 Generally, the primary responsibility to encapsulate the tax expenditures into the federal budgetary process should be with the tax policy agency responsible for analysis, design, review, and promulgation of tax policy. Once a demand for a tax expenditure is received by the MoF, the initial task of the tax policy agency is to screen the proposed tax expenditures to ensure consistency with the criteria that the government has adopted. If the government adopted fiscal rules that include ceilings on overall and annual increments in tax expenditures, then it must be ensured that the proposals fit within those limits. Ex-ante analysis should be undertaken to ensure that the tax incentives offer the best alternative to achieve the policy objectives and there is a clear market failure that the proposed tax expenditure will address. The process of screening and analysis sets the basis for future assessments of whether the tax expenditures are effective in achieving the intended objectives. It also provides an opportunity to document the intended policy objectives, measures of success, and baselines.

8.3.3 Once the proposed tax expenditure meets the criteria, the tax policy agency, as per the budget calendar, should further process the proposal and acquire all internal government approvals, including liaising with the respective legislature Counsel/legal departments to the draft the bill. The tax policy agency is technically in charge of the budget process and very familiar with the annual budget calendar, which makes it easier to align the process tax expenditures screening and review with the annual budget.

8.3.4 At the end of each budget cycle, the tax policy agency should make annual updates of the tax expenditure repository to reflect changes to legislation which might have eliminated or introduced new tax expenditures; update the benchmark tax system; and initiate the process of monitoring the use of tax expenditures. These initial processes are expected to feed into the preparation of an annual statement of tax expenditures; and a comprehensive report on the effectiveness and efficiency of tax expenditures that are presented together with the annual budget to Parliament or legislative assembly.

8.3.5 The other critical role of the tax policy agency, with support from tax administration, and independent researchers, is to prepare impact assessments or reviews, preferably every four to five years. These are ex-post assessments aimed at assessing whether the tax expenditures met the intended objectives or whether the market failures that these tax expenditures were intended to address remain in existence. The review will draw the lessons learned and is intended to pave way for new reforms. It is important for the Ministry of Finance to issue clear guidelines on the timing of evaluations of tax expenditures, such that it becomes part and parcel of the policy making process. One implicit way to do it would be to embed “sunset clauses” in all tax expenditures, which will force a review every four to five years.<sup>24</sup>

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## THE ROLE OF TAX ADMINISTRATION

8.3.6 Tax administrations whether embedded within the Ministry of Finance or run as semi-autonomous government agencies play a critical role in the governance of tax expenditures. They are responsible for the operationalization of the framework that governs these tax expenditures, specifically, tax administration will be responsible for administering all tax expenditures and ensure that the beneficiaries comply with the rules that govern their exclusion from tax.

8.3.7 Tax administrations must be legally required to conduct risk-based audits to verify whether the tax incentives are claimed by the targeted beneficiaries and for the targeted activities.

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<sup>24</sup> A “sunset clause” is the one which explicitly provides a termination date for the tax expenditure, which makes tax expenditures likely to be reviewed as opposed to the to having open-ended tax expenditures that often are not reviewed.

This process involves verification of the data provided in the tax returns of the beneficiaries; these data are subsequently used at the impact evaluation stage of the tax expenditures. These data can equally be utilized to develop regular monitoring reports and keep governments apprised on the developments on the tax expenditure front. Notably, it should be a requirement for every beneficiary to file a tax return as is the case with any other taxpayers. If the regular tax return does not cover all the necessary data, the beneficiary should be required to provide a separate tax expenditure statement to the tax administration. This statement may include but not be limited to: i) total value of tax expenditures utilized; ii) tax types of the tax expenditures utilized; iii) the legislation that backs the tax expenditures being claimed; iv) aggregated values of the remainder of tax expenditures to be used up in the future; and v) the perceived social benefits that have so far accrued from that specific tax expenditure.

8.3.8 Tax administration should design and implement a system that collects and shares the necessary data for effective monitoring, evaluating, and reporting on tax expenditures. These data can provide useful statistics on the usage of tax expenditures, which provide a basis for; identifying redundant tax expenditures, and loopholes that are overly exploited in the existing framework; keeping abreast with the evolving behavior of firms in response to the tax expenditures provided by the country. It might help when tax policy units and tax administrations jointly develop data templates, depending on the tax type, of what data should be supplied on a regular basis.

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#### THE ROLE OF THE LEGISLATIVE ASSEMBLY OR PARLIAMENT

8.3.9 The role of legislature or parliament is critical to ensuring strong legislative control over tax expenditures. Once the legislative proposal to introduce a new tax expenditure or continue existing one with some changes is received by the Parliament, it should be scrutinized by an independent committee that supports the federal budget process (akin to Congressional Budget Office in USA). Parliament should debate the proposals taking into account relevant material including the tax expenditure statement or report of committee.

8.3.10 It is also not rare, especially in developing countries that the legislature, without consultations with the Ministry of Finance, initiates new tax expenditures. In such circumstances, the legislative assembly should be required to ensure that the proposed tax expenditure is referred to the Ministry of Finance for further processing, and/or meet the minimum requirements for incurring the tax expenditure, the tax expenditures must be within the fiscal rules set out by the Minister of finance. The legislature should then support the process by enacting legislation related to tax expenditures.

## CHAPTER 9: FRAMEWORK FOR TAX EXPENDITURE REFORM

*In this chapter we will discuss political economy of reforms, highlighting some of the domestic and external factors that drive tax expenditures reform and propose a framework for tax expenditures reform. We will also briefly discuss how reforms can be managed.*

### 9.1 POLITICAL ECONOMY OF TAX EXPENDITURES REFORM

#### DOMESTIC FACTORS

9.1.1 Ability of countries to pursue reforms can be affected by domestic factors like political environment, resistance by interest groups, corruption, monitoring & evaluation, and civil society. Political environment which is conducive to reforms coupled with institutional reforms that address corruption, strengthens monitoring & evaluation and partners with civil society can act as strong drivers of reform.

#### POLITICAL ENVIRONMENT

9.1.2 Tax reform is among the most difficult and politically charged policies any government can implement. People and businesses alike are rarely inclined to paying higher taxes. Thus, it is not surprising to see over the years that governments in many countries experience serious political difficulties and even fall and lose power when tax reforms are poorly planned<sup>25</sup> and implemented (Martinez-Vazquez, 2021).

9.1.3 While a strong political will can drive tax reforms, there are many factors that go into building it. To begin with, a stable democratically elected government may be an important enabler to take 'tough' decisions without the fear of losing power. Strong governments are those which operate in less fragmented political environments. That said, national elections can be a source of policy volatility when the incumbents seek to use tax and spending policies for re-election purposes (Gupta, 2020). The underlying objective of incumbents is to influence the median voter during the elections. This is because reforms may entail short-term costs while gains can take time to materialize. Consequently, some have found that reforms are less likely before elections and more likely in the beginning of a term (Alesina, 2006) (Bonfiglioli, 2013). In a country with weak fiscal institutions and budget transparency, governments may take riskier election-induced tax and spending decisions that may not be appropriate from a macroeconomic perspective (Gupta, 2020).

#### RESISTANCE BY INTEREST GROUPS

9.1.4 Tax expenditures create strong lobby groups who benefit from tax expenditures and enjoy distinct economic advantage by paying lower taxes. Policymakers with the authority to introduce tax incentives, typically in Ministry of Finance, are always under pressure to give in to the demands of lobbyists that include investors, corporates, and business associations to either provide new tax breaks in form of tax holidays, exemptions, and deductions or to continue the existing ones, particularly when they are nearing their sunset date. Lobbying for tax incentives generally becomes more intense during the period that precedes the annual budget when the

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<sup>25</sup> In a recent example, Liz Truss set the record for the shortest-serving PM of UK due to her failure to defend unfunded tax cuts which disproportionately favored the country's wealthiest, succeeded only in crashing the pound, spooking the markets, and undermining UK's credibility around the world (source: 'Liz Truss has resigned: Here's how she lost control', Newspaper article by Yasmeen Serhan, London, Oct 20, 2022, Time)

possibility to secure them through amendments to the tax provisions is strongest. With each new tax incentive that is introduced, governments either create new lobby groups and further increase resistance to reforms.

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## CORRUPTION

9.1.5 Tax expenditures make tax system complex tax system and motivates taxpayers to engage in individualized strategies to solve their problems, whether through bribery or employing tax advisers (Moore, 2008). Discretionary tax incentives which are available on a case-by-case basis also encourage rent-seeking behavior. In developing countries, where citizens view corruption as a substitute for taxation (Frey, 2004) tax incentives drive unhealthy competition to obtain favors from the government.

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## MONITORING & EVALUATION

9.1.6 Most developing countries do not have a strong monitoring and evaluation capacity due to which it is difficult to assess the effectiveness of tax incentives. Generally, TEs are introduced without any specific or measurable goals and establishing clear baselines due to which TEs may continue to operate in the absence of any evidence-based analysis to assess their effectiveness.

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## CIVIL SOCIETY

9.1.7 The civil society including the academia, researchers, policy thinktanks, and research organisations who may have the capacity and the intent to critically review tax expenditure policies generally have a feeble voice in the policy process, particularly in developing countries. They generally lack access to data and are unable to carry out any meaningful analysis. Tax authorities are reluctant to share taxpayer data, including the data on tax expenditures, and protect such data on grounds of confidentiality. Although, the issue of data privacy can be addressed through data anonymization, very few countries<sup>26</sup> follow a policy of making taxpayer data public. Empowering civil society through data sharing can strengthen their role as policy advocates and in bolstering attempts to push for difficult reforms.

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## EXTERNAL FACTORS

9.1.8 Besides internal factors, external factors can also influence the pace of tax expenditures reform in a country. Through global agreements, including the Global Minimum Tax, Paris agreement, and UN-SDGs, countries have committed themselves to reforms that address base erosion and profit shifting, and climate challenges and help them achieve sustainable development.

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## GLOBAL MINIMUM TAX

9.1.9 Adoption of a global agreement to impose a minimum tax on large MNEs irrespective of its location represents a paradigm shift in tax policy related to corporations and investment tax incentives. In October 2021, a historic two-pillar international agreement was reached among 137 countries of the OECD/G20 Inclusive Framework on BEPS<sup>27</sup> to address the twin challenges of globalization and digitalization. Pillar Two introduces a global minimum effective tax (GMT) for MNEs. Its purpose is to limit the ‘race to the bottom’ by countries to attract foreign investors – a phenomenon which led to emergence of tax havens with zero business tax and proliferation of tax holidays and tax incentives by many countries resulting in a very low effective tax rates applicable to MNEs.

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<sup>26</sup> USA shares anonymized federal tax information with researchers; Norway makes tax records publicly available.

<sup>27</sup> Base Erosion and Profit Shifting which as the name suggests is erosion of tax base by MNEs who shift their profits to no-tax or low-tax jurisdictions through aggressive tax planning, including treaty shopping or round tripping.

9.1.10 The GMT is designed to ensure that large MNEs (annual revenue greater than EUR 750 million) pay a minimum effective tax of 15%. This eliminates the “advantage” of the country that offers low effective tax rates. The GMT will have profound implications on countries’ use of tax incentives to attract investment. With its implementation, certain incentives will no longer be GMT compliant, such as tax holidays and zero-tax zones. However, countries will still have scope to introduce incentives such as unlimited loss carry-forward, accelerated depreciation, and qualified refundable tax credits. Thus, GMT can play an important role in transition of countries from profit-based tax incentives (like tax holidays and reduced rates) to expenditure-based tax incentives (like immediate expensing, and accelerated depreciation) which are better targeted.

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## PARIS COMMITMENTS

9.1.11 Global agreement in Paris<sup>28</sup> (2015) by countries to reduce their greenhouse gas emissions is expected to provide a strong push for reform of fossil fuel subsidies. Subsequently, countries agreed at COP26 in 2021, to accelerate efforts to phase-out inefficient fossil fuel subsidies. A significant part of these subsidies is provided through excise and VAT exemptions or reduced rates. Based on IMF study, fossil fuel subsidies were 6.8 percent of GDP in 2020 at the global level out of which 8 percent reflects undercharging for supply costs (explicit subsidies) and 92 percent for undercharging for environmental costs and foregone consumption taxes (implicit subsidies) (IMF, 2023). Implementation of Paris commitments can potentially play an important role in reform of consumption tax incentives.

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## TAX EXPENDITURES AND UN-SDGS

9.1.12 United Nation’s ‘the Tax for Sustainable Development Goals (SDG) Initiative’, or Tax for SDGs, is an initiative that supports developing countries supports developing countries in increasing domestic resource mobilization (DRM) and achieving the Sustainable Development Goals (SDGs). The initiative helps policymakers to align tax expenditures against SDGs and assess the impact and effectiveness of tax expenditures in achieving development results. Moreover, to help countries broaden their tax base, UN issued *Guidelines on the Tax Treatment of Government-to-Government Aid Projects* (2021) to address tax exemptions related to government-to-government aid projects. These guidelines provide guidance to developing countries on the negotiation of any tax provisions related to such projects. Similarly, the 2015 Addis Ababa Action Agenda on Financing for Development for countries encourages countries to not ask for tax exemptions on goods and services delivered as government-to-government aid. These initiatives also play an important role in supporting tax expenditure reform in countries.

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## ECONOMIC SHOCKS

9.1.13 Economic shocks too play an important role in accelerating tax expenditure reforms at the country level. Post-pandemic and amid the Ukraine war, EMDEs are faced with an extremely challenging external environment shaped by higher food, fertilizer, and energy prices, rising interest rates and spreads, and stagflation risk in advanced economies. Consequently, while countries have higher financing needs to implement their economic recovery and social development plans, they have lower ability to raise additional funding due to rising debt levels and a narrow tax base. In more than 80 percent of EMDEs, government debt is now higher than before the 2008-09 global financial crisis (World Bank, 2023). Projections for growth five years ahead have fallen to the lowest levels in decades (IMF, 2024). Several economies are in an especially fragile condition because they have either defaulted on some of their debts or have debt levels that the IMF considers unsustainable. Many of these economies need to urgently improve

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<sup>28</sup> In 2015, 196 countries adopted The Paris Agreement, which is a legally binding international treaty on climate change with the overarching goal to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels.”

fiscal positions and may consider tax expenditure reforms to enhance their domestic revenue mobilization.

## 9.2 FRAMEWORK FOR TAX EXPENDITURES REFORM

9.2.1 The overall purpose of any tax reform should be to enhance the efficiency, equity, simplicity, and neutrality of the tax system. This is critical to strengthen trust and fiscal contract between the government and public, boost tax morale, and foster voluntary compliance. Research and investor surveys suggest that investors prioritize higher transparency and security over tax incentives (Van Parys, 2012). In general, tax reforms that broaden tax bases and lower rates should reduce the extent to which tax systems distort work, investment, and consumption decisions, increasing output and enabling improvements in social welfare (OECD, 2010). Rationalization of tax incentives that are ineffective could help in broadening the tax base and pave way for lowering the tax rates. It has been argued that the marginal rates in most countries would be significantly lower if tax expenditures were reduced since tax expenditures are a function of tax burdens and are directly proportional. Where tax rates are high, tax expenditures also tend to be high as there is a greater incentive to seek relief.

9.2.2 Most tax reforms in some sense generate “winners” and “losers”; losers are typically more effective in voicing opposition than winners are in offering support, in part because the losers may be concentrated in a smaller group while the winners are widely dispersed in society or in groups less likely to voice their opinions (Ilzetzki, 2018). Thus, the art of successful tax reform is to design packages that can help overcome the resistance of groups that see themselves as losers. A reform that tries to lower tax expenditures without addressing the tax rate will only create losers and therefore runs the risk of being labeled as arbitrary, and vehemently opposed. To further mitigate such risk, taxpayers at large need to be informed and motivated by clear reasons behind reforms such as fairness, less corruption, or more accountability.

9.2.3 Some of the key guiding principles that could inform tax expenditure reforms pursued by countries include – taking a holistic view of tax system, strengthening institutional reforms, and enhancing efficiency and equity of tax system.

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### HOLISTIC VIEW OF TAX SYSTEM

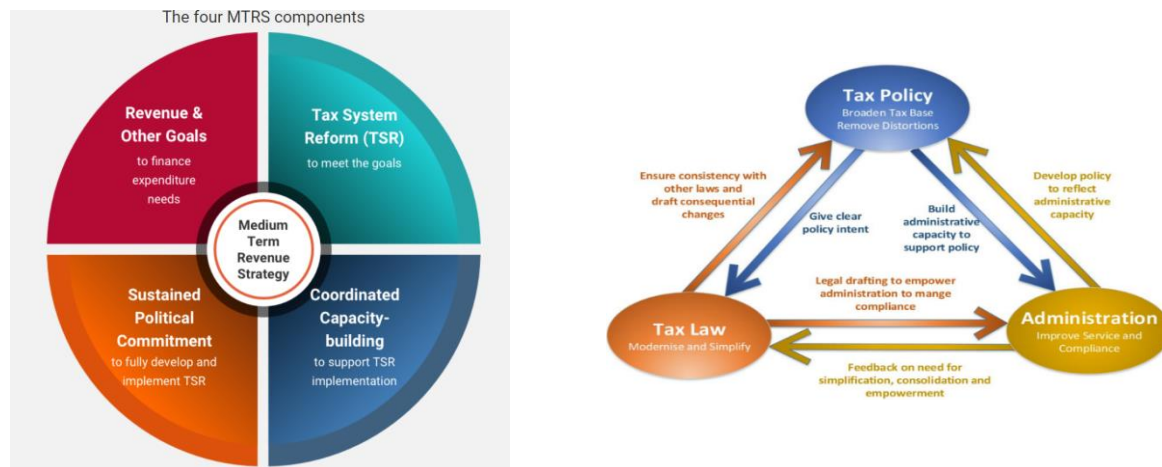
9.2.4 TE reform process should begin by taking a holistic view of tax system rather than attempting to introduce reforms in a piecemeal manner. In practice this means that instead of removing or introducing new TEs in an ad-hoc manner, governments should situate tax expenditures reform in a medium to long term revenue strategy (MTRS). The aim of such strategy should be to answer questions like - how much revenue should be raised in the medium term to finance public expenditures and maintain a reasonable level of fiscal deficit? how can such revenue be potentially raised through various tax instruments? and what role can tax expenditures play in achieving revenue targets while creating appropriate incentives for economic and social development?

9.2.5 MTRS helps the government move away from a short-term focus to a comprehensive reform of tax system (see Figure 19). This brings more certainty and predictability to the tax system and strengthens investor confidence. It also helps government obtain buy-in from key stakeholders and political commitment to pursue reforms in a phased manner. Over 26 countries have already embraced MTRS to reform their tax system.

9.2.6 The process of building MTRS can help in identifying tax expenditures that aren't aligned to policy goals or have outlived their utility and should be phased out. Similarly, provisions that are complex and lead to a wastage of public resources due to litigation should be identified for

simplification or reconsideration. Wherever possible, tax expenditures could complement (rather than compete with) direct public spending by focusing on areas where the latter are deficient.

Figure 20: Tax reforms under Medium-Term Revenue Strategy



## INSTITUTIONAL REFORMS

9.2.7 Institutional reforms, that establish robust processes, rules, and institutions for TE management, are critical to ensuring the successful implementation of policy reforms. Introduction of fiscal rules that are adopted by the legislature to either cap the fiscal impact of tax expenditures or bringing discipline to the process of introducing new TEs could be an effective way to thwart external pressure by lobbyists and investors. Similarly, mandating publication of tax expenditure statements and their laying on the table of the Parliament is an important institutional reform to enhance tax expenditure transparency. TE statements that comprehensively present the revenue and distributional impact of TEs also help in spreading awareness among Parliamentarians and building support for tax expenditures reform.

9.2.8 TE reform is a continuous exercise of managing the stock and flow of tax incentives where the sub-optimal incentives must pave way for incentives that are effective in achieving the desired outcome. This can be achieved by establishing institutional arrangements to regularly evaluate the stock of TEs through ex-post evaluations and new incentives through ex ante evaluations.

## SHIFT AWAY FROM PROFIT-BASED INCENTIVES

9.2.9 International best practices and empirical research can be helpful in identifying incentives that have been found to be effective in other countries. For instance, it is well-established that profit-based incentives such as tax holidays and preferential rates are blunt policy instruments, which are popular due to their visibility to the investors and ease of administration but are highly ineffective in generating new and additional investment. Empirical research finds little or no evidence of impact of tax holidays on new investment including FDI (Allen, et al., 2001), (Klemm & Parys, 2012) (Van Parys, 2012)). Tax holidays by their design incentivize investors to maximize profits rather than investment. Thus, investors are reluctant to make additional investments during the tax holiday period as there is no incentive for doing so. If FDI operates under double taxation agreements, tax holidays simply transfer tax revenues from the country receiving the investments to the investing home country as they enable firms to funnel profits, using transfer pricing (James, 2014). Countries are now shifting towards expenditure-based tax incentives such as accelerated depreciation, or investment-linked deductions or tax credits, which are much more



targeted and directly reward new investment. Implementation of GMT may help in accelerating this shift. However, the role of expenditure-based incentives in generating ‘additional’ investment is not definitive and there is a risk of providing such incentives to firms that would have made such investment during the ordinary course of business even in the absence of such incentives.

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## BROAD BASED VAT WITH DIRECT CASH TRANSFER

9.2.10 Policy objectives intended to be achieved by tax expenditures should closely align with the design and basic purpose of tax instrument. For instance, purpose of PIT is to achieve progressivity whereas purpose of VAT is to raise revenues by taxing consumption. Use of VAT to achieve progressivity, however, has not been found to be particularly effective, as suggested by empirical research. Most low- and middle-income countries (LMICs) offer reduced rates and exemptions on goods and services in their value-added tax (VAT) systems. These policies are often motivated by distributional concerns and target items thought to take up a larger share of the budgets of poorer households. However, research finds that preferential VAT rates are not well targeted towards poor households as the consumption of goods and services that enjoy preferential rates is relatively higher by richer households. Therefore, a broader VAT base without exemptions with cash transfer schemes are better targeted, create larger net gains for the poorest households, and reduce inequality (Warwick, et al., 2022), (van Oordt, 2018)).

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## TAX INCENTIVES SHOULD ADDRESS MARKET FAILURES

9.2.11 Since tax expenditures invoke behavioral response, tax incentives could be an effective policy tool to address market failures. For instance, research and development (R&D) activities, and employee training activities are known to have a positive impact on economic growth by increasing productivity. Several studies suggest that tax incentives are effective in increasing R&D (Hall, 1993), (Hines Jr, 1994), (Mamuneas & Nadiri, 1996) (Bloom, et al., 2002). Such activities have positive externalities as the increase in labor productivity due to training or innovation due to R&D spills over to other enterprises who also benefit from the innovation or higher productivity of human capital. Therefore, knowledge and training, once produced, has the characteristics of a public good and for efficiency reasons, should be distributed to others to use at no cost. However, the private benefit to the enterprise undertaking R&D or training is lower than the total social benefit considering the benefit of the innovation or new knowledge to all other enterprises. Therefore, government must step in address the market failure by providing a subsidy in form of tax incentives to the enterprise that undertakes R&D or employee training. In the absence of such incentives, there is a risk that there may be under-provision of R&D or employee training in the economy. However, incentives design is important to ensure that only genuine, new and additional R&D and training activities are financed by tax incentives and those that would have been undertaken even without incentives.

## 9.3 MANAGING TAX EXPENDITURES REFORM

9.3.1 Managing tax reforms can be challenging, especially when such reforms involve rationalization of existing tax incentives. The process of getting the reforms accepted implemented often must overcome stiff resistance from lobbyists who are trying to protect the interest of rich and powerful people in the society. Unfortunately, there is no one-size-fits-all solution to manage the complexities that reforms processes are faced with. Each country, and indeed each major reform, will, and must, take its own particular path (Bird, 2003).

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## GRANDFATHERING OF TAX INCENTIVES

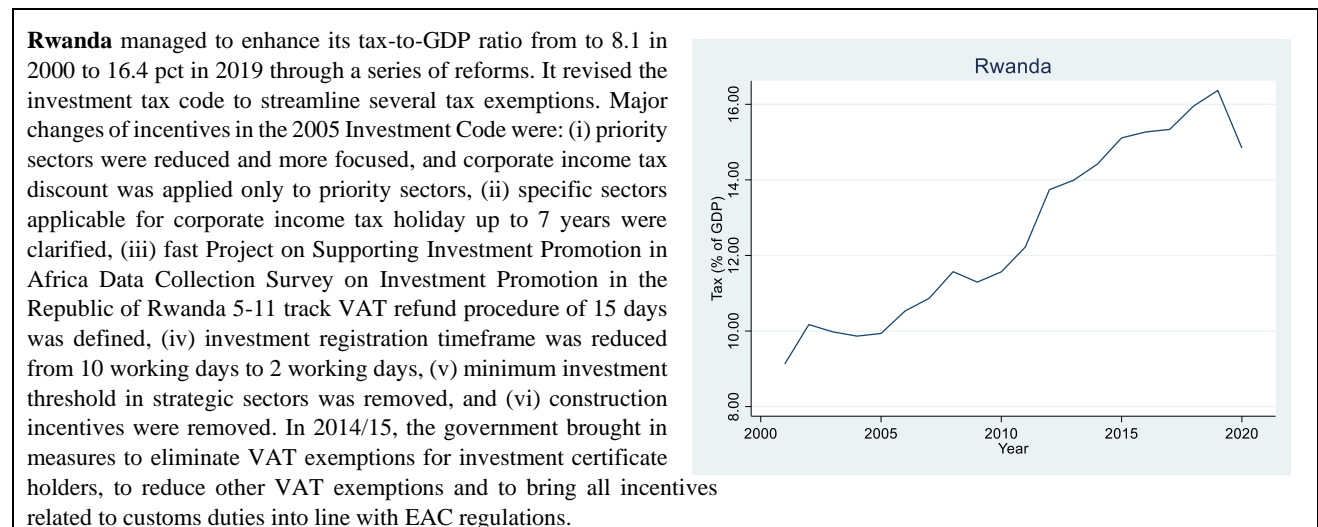
9.3.2 When reforms entail removal of existing tax incentives or their replacement with less favorable ones, it may be important to ensure that the new provisions will not affect the taxpayer's plans, policies and benefits based on the current provisions. In other words, the current beneficial provisions must be grandfathered with the aim to prevent any negative effect on organizations or peoples who have already invested in policies and plans or made commitments based on such provisions. Grandfathering rules indicate that any changes or additional rules will not affect the present policies and their benefits.

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## PACKAGING THE REFORM

9.3.3 As discussed earlier, tax reforms create winners and losers, and managing is successful reform is all about managing their expectations. A broad-based reform that covers multiple taxes provides flexibility to policymakers for creating reform packages that have higher acceptability and better chances of getting implemented. Consider for instance, decision of the Indian government to sunset most of profit-based tax incentives in 2019 budget. The reform was packaged along with reduced corporate rates and Goods & Services Tax (GST) reforms. Corporate rate was brought down significantly from 30 percent to 22 percent for existing companies and 15 percent for new manufacturing companies. During the transition period, companies that benefitted from existing incentives were given an option to forego the incentives in lieu of lower rate, failing which they would still face a higher rate of 30 percent. GST reform was also a significant reform as it is based on principles of VAT, which allowed businesses to claim their input taxes. It also merged several taxes into a single tax. Both the reduced corporate tax rate and GST implementation benefitted many corporates and created many 'winners'. It also created a few 'losers', who were mainly the corporates which benefitted from profit-based incentives. However, the support of many 'winners' as against few 'losers' helped in pushing the reform successfully. Figure 20 highlights select country examples of impactful tax expenditure reforms.

Figure 21: Tax reforms in countries - some examples



**Mauritania** enhanced its tax-to-GDP ratio from 8.6 in 2002 to 13.5 pct in 2019. Some of the major reforms were – PIT reforms: Eliminated the global income tax in 2012 and switched to a dual tax system, with a proportional tax on capital income and progressive taxation of wages; CIT reforms: In 2012, the authorities removed the CIT exemption of the main gold company, contributing in the increase in CIT by 1.3 percentage points of GDP. Furthermore, in 2013 the government implemented a withholding tax of 15 percent on payments to nonresidents to protect its tax base against aggressive tax planning by multinational companies; Excise reforms: Increase in excise taxes on tobacco from 10 percent to 30 percent.

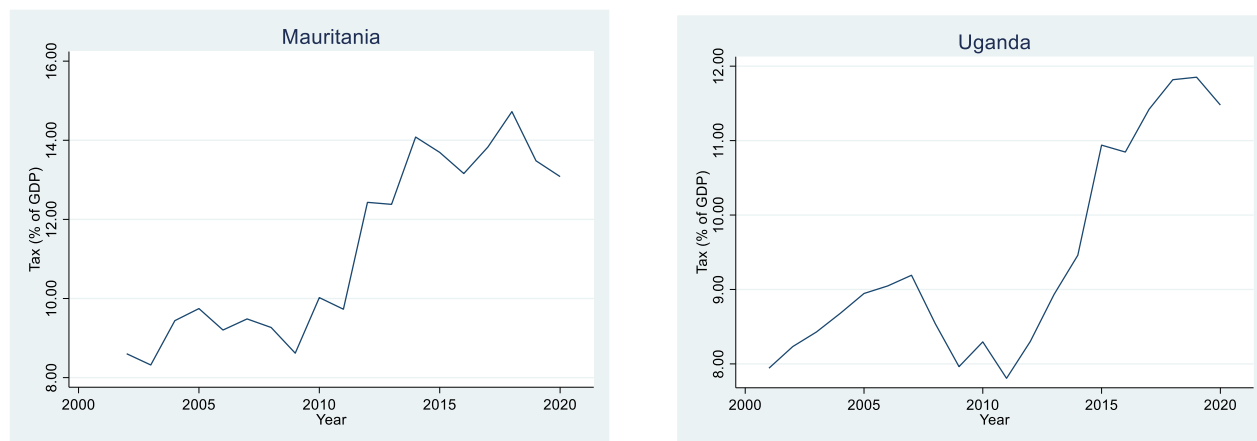
VAT reforms also helped to broaden the tax base. The VAT was extended to cover the mining sector, and mining companies receive reimbursement only if they can prove that their purchases have been acquired from formal domestic suppliers. This provided an incentive for local supplier to register and become formal. The tax identification numbers increased from 1,789 in 2011 to 5,860 in 2013 and allowed to broaden the tax base. Between 2009–2013, the collection of VAT—net of refunds—increased by 2.5 percentage points of GDP inducing an improvement in the VAT C-efficiency.

**Uganda** undertook several reforms covering VAT, CIT, and PIT, which enhanced its tax-to-GDP ratio from 7.67 pct in 2000 to 11.85 pct in 2019.

**VAT:** Uganda’s VAT reform focused on eliminating numerous exemptions. The VAT system was reformed by submitting a new tax code to reduce many VAT exemptions. This included: eliminating VAT exemptions on sales of motor vehicles and trailers; extending VAT to computers; terminating VAT exemptions on hotels; and increasing the VAT threshold. In the 2014/15 budget, the government abolished many tax incentives, notably concerning VAT. The VAT system was reformed by submitting a new tax code to reduce many exemptions (e.g., eliminating VAT exemptions on sales of motor vehicles or trailers, extending VAT to computers), terminate VAT exemptions on hotels, and increase the VAT threshold.

**Excise:** The authorities increased several excise rates with broadening the base, as well as raising PIT rate in top bracket. They increased excise duty on locally produced spirits from 45 percent to 60 percent, and increased excise duty on cigarettes by almost 60 percent in 2014. To broaden the base, they imposed excise duty on imported fresh juices, and increased excise taxes on a variety of products including fuel, sugar, mobile money transfers, and international calls. Furthermore, they increased the PIT rate (i.e., the marginal rate in its top bracket) from 30 to 40 percent, which significantly increased revenue.

**Other tax policy reforms include:** (i) increasing by 10 percentage point the marginal rate (from 30 to 40 percent) in the top bracket of the PIT, (ii) increasing excise duty on locally produced spirits from 45 percent to 60 percent, (iii) increasing excise duty on cigarettes by almost 60 percent in 2014 (iv) imposing excise duty on imported fresh juices and, (v) increasing excise taxes on a variety of products: fuel, sugar, mobile money transfers, and international calls.



Source: (IMF, 2019) (OECD, 2015)

## 9.4 CONCLUSION

9.4.1 Countries are at different stages of economic development, and significantly differ in their capacity to manage tax expenditure reforms. Fiscal management of tax expenditures is a costly proposition and requires significant level of resourcing. This affects the choice of reforms that countries can adopt.

9.4.2 Developing countries with low capacity that do not currently measure tax expenditures should start by investing resources in building institutional capacity to identify tax expenditures, collect needed data, and measure them. As discussed in Chapter 8, they should establish a dedicated team, preferably within the tax policy unit, and provide it resources to prepare a tax expenditures statement as a part of budget process. Measurement of tax expenditures needs good quality data. Resources should be, therefore, be devoted to improving the data collection systems. In data scarce countries, measurement of tax expenditures could be based on basic methods (see Chapter 4) in the short-term. However, in the medium to long term, the team should be mandated to propose changes to the data collection system (including the tax declarations and reporting by line ministries) based on data requirements and the methodologies for measurement. Tax expenditure statements, even if not very detailed, should capture the major tax expenditures and be made publicly available on the official website of the government.

9.4.3 Developing countries that already measure and report tax expenditures based on a reasonably well-established data collection system should invest resources in enhancing the quality of reporting and evaluation. As discussed in Chapter 5, countries should prepare detailed tax expenditure statements that provide disaggregated (or provision-wise) tax expenditure estimates for each major tax type. Benchmark treatment of each provision should be clearly communicated in the report and changes compared to earlier years should be highlighted. The statement should provide rich analysis of tax expenditures by showing how they are distributed by sector, beneficiary, or income. Resources should be devoted to fund ex-post evaluation programs that systematically evaluate major tax expenditures (see Chapters 6 and 7) on a regular basis. As discussed in Chapter 8, evaluation should be undertaken by the tax policy unit in close partnership with the tax administration.

9.4.4 To sum up, quality of tax expenditures reporting, and evaluation can have a strong bearing on the reform process. Communication of fiscal impact of tax expenditures in a transparent manner enables public debate and scrutiny. Similarly, results of impact evaluation based on Cost-Benefit or Cost-Effectiveness Analysis (see Chapter 7) help in identifying tax expenditures that are inefficient or ineffective. Together they support a narrative based on cogent evidence and enabling policymakers to champion sustainable reforms.

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**ANNEX 1: TEMPLATE FOR EVALUATION PRIORITIZATION**

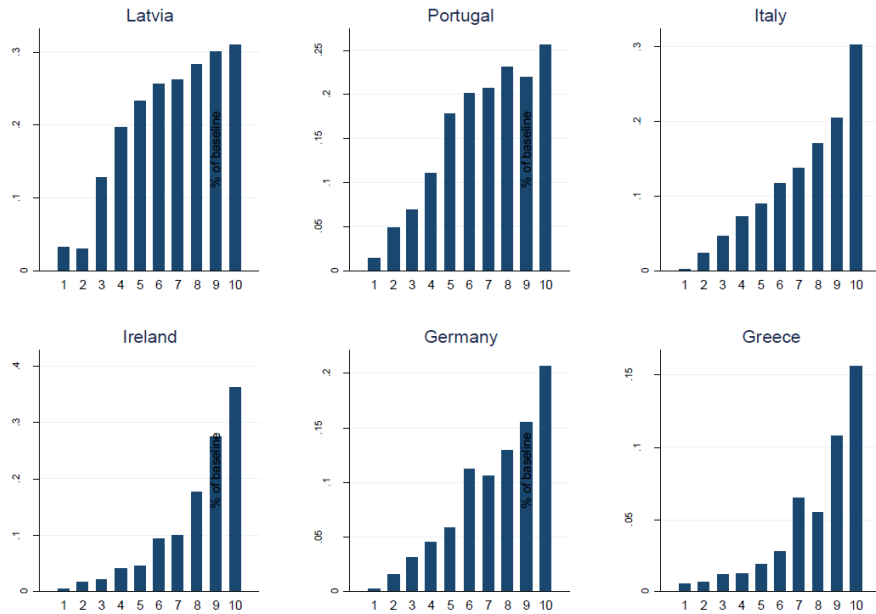
<b>Measure: XYZ</b>		
Cost of the measure:		
Brief history:		
Evaluation Criteria		Preliminary Assessment
<b>1</b>	<b>Relevance</b>	
1.1	Is there a demonstrable policy need for the measure? Is there a sound economic or public basis for the tax expenditure?	
1.2	Was the policy objective clearly defined when it was introduced? Was it publicly communicated?	
1.3	Was the policy instrument introduced a long time ago?	
1.4	Did the socioeconomic or public policy context at the time it was introduced justify the intervention? Has the context changed since the introduction?	
1.5	Have the government's priorities shifted away from the policy need that the tax expenditure is meant to address?	
1.6	What were the stakeholders' interests and concerns when the tax expenditure was introduced? Have their interests and concerns changed?	
1.7	Have there been other actions implemented to address the policy concern (e.g., direct expenditure programs)? If so, are they still in place? What is the value of support provided by the tax expenditure relative to these other programs?	
<b>2</b>	<b>Effectiveness</b>	
2.1	Does the measure achieve its expected outcome?	
2.2	Are there empirical studies examining the effectiveness of the intervention? If not, are there theoretical studies and empirical evidence from other jurisdictions that can determine the effectiveness?	
2.3	Are there other programs or external factors that may have indirectly contributed to the outcome of the objective?	
2.4	Do administrative and survey data suggest that the take-up of the measure is appropriate?	
2.5	Is the incidence of the tax expenditure falling mostly on the intended beneficiaries or are the benefits redirected to other parties (e.g., tax preparers, lawyers, employers etc.)	
2.6	Have there been administrative issues with the design of the measure that weaken its potential reach?	
2.7	Are the population and stakeholders aware of the measure? Is it visible?	
<b>3</b>	<b>Efficiency</b>	
3.1	Is the measure designed, implemented and administered in such a way to minimize costs?	
3.2	What are the types of costs associated with the tax expenditure? Is there any information on their magnitude? Are they significant?	
3.3	Are the cost larger/smaller than initially anticipated?	
3.4	Is there evidence that there are significant economic inefficiencies with the policy instrument? Are these inefficiencies significantly damaging the economy?	
3.5	Are there important windfall gains associated with the measure?	
3.6	Are compliance and administrative costs significant relative to the expected benefits?	
3.7	Are there aspects of the design or administration that make it vulnerable to abuse?	

<b>Measure: XYZ (cont'd)</b>		
	<b>Evaluation Criteria</b>	<b>Preliminary Assessment</b>
<b>4</b>	<b>Equity</b>	
4.1	What was the intended reach of the measure?	
4.2	Are the benefits distributed equally among taxpayers? Do higher-income earners or other specific groups have a greater share of the benefits?	
4.3	Does the measure only benefit a small number of individuals or corporations?	
4.4	Is the measure designed to target a narrow group of taxpayers?	
4.5	Is the measure perceived to be unfair by the population and stakeholders?	
4.6	Is there empirical evidence on the fairness of the measure? If so, what are the broad conclusions?	
<b>5</b>	<b>Sustainability</b>	
5.1	Are there known factors or risks that could significantly change the expected take-up and benefits of the measure?	
5.2	Are the fiscal costs of the measure expected to outpace the growth in revenues?	
5.3	Does the macroeconomic/demographic outlook indicate that the measure could be impacted positively or negatively in the long run?	
	Climate?	
	Sustain goals UN	
<b>6</b>	<b>Alternatives</b>	
6.1	Do other measures exist to address the same policy issue? Do other levels of government offer similar support?	
6.2	Are there important concerns related to the other criteria (e.g., efficiency and effectiveness) that would lead to the conclusion that it would be unlikely that the tax expenditure is superior to alternatives?	
6.3	Could any changes to the measure be implemented that would make it superior over alternative measures?	

ANNEX 2: EXAMPLES ON THE TYPE OF METRICS USED BY REPORTS IN SELECT COUNTRIES TO MEASURE THE REACH OF TAX EXPENDITURES.

1. *The fiscal and equity impact of tax expenditures in the European Union (2016; Figure 12).*

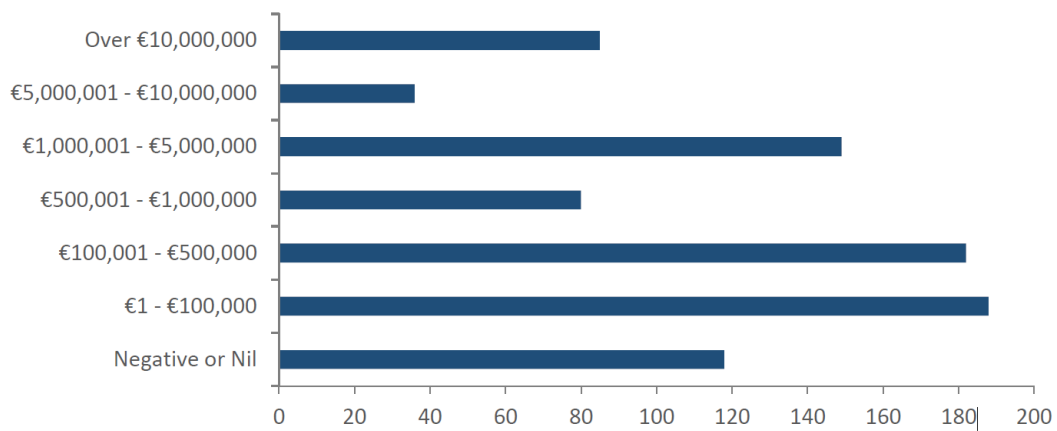
Figure 22: Change in tax revenue over decile groups due to abolishing due to health-related tax expenditures



Note: different scale across countries. Decile groups based on equalised disposable income in the baseline

2. *Review I: Economic Evaluation of the R&D Tax Credit, Report on Tax Expenditures, 2016. Department of Finance, Ireland.*

Figure 23: Number of R&D Credit tax cases by net income (claimed in current tax year), 2014



3. *Gender-based Analysis Plus of Existing Federal Personal Income Tax Measures, in Report of Federal Tax Expenditure – Concepts, Estimates and Evaluations 2019, Department of Finance Canada.*

Figure 24: Ratio of the Share of Benefits Received by Women Relative the Share of Pre-Tax Income Reported, by Age Group and Family Type, 2016

Tax expenditures by type	All	Age group				Family type			
		<30	30-49	50-64	65+	Sole filer without children	Sole filer with children	In a couple with children	In a couple without children
<b>Type 1 – Exemptions</b>									
<b>Lifetime Capital Gains Exemption</b>	0.87	1.07	0.84	0.89	0.81	0.91	0.80 <sup>[E]</sup>	0.88	0.88
<b>Non-taxation of Guaranteed Income Supplement and Allowance benefits</b>	1.52	X	X	2.14	1.34	1.51	1.05 <sup>[E]</sup>	0.41	0.84
<b>Non-taxation of income earned by military and police deployed to international operational missions</b>	0.27	0.28 <sup>[E]</sup>	0.27	0.27 <sup>[E]</sup>	X	0.32 <sup>[E]</sup>	0.62 <sup>[E]</sup>	0.16 <sup>[E]</sup>	0.32 <sup>[E]</sup>
<b>Non-taxation of social assistance benefits</b>	1.20	1.04	1.22	1.28	1.23	0.99	1.15	0.95	1.07
<b>Non-taxation of workers' compensation benefits</b>	0.81	1.28	0.90	0.70	0.83	0.85	0.83	1.06	0.64
<b>Partial inclusion of capital gains</b>	0.96	0.91	0.86	0.93	0.97	1.12	0.99	0.93	0.83

<sup>[E]</sup> Statistics to be use with caution.



## ANNEX 3: SELECT TAX EXPENDITURES FROM HISTORY

The history of tax expenditures is as old as the history of taxation. During the large part of history, taxes were raised by rulers to finance wars and expansion. The earliest taxes emerged in form of inheritance tax, which allowed the rulers to raise revenue by taxing the legacies left to heirs and property or estate taxes that were levied on the wealth amassed by the subjects. However, such taxes were usually accompanied by certain exceptions. In 6 AD, Emperor Augustus of the Roman empire levied a 5 percent inheritance tax '*vicesima hereditation*' on legacies left to legal heirs with exemptions to relatively small legacies and allowed deductions like funeral expenses in computing the value of legacy. Inheritance taxes, property taxes, estate taxes and stamp duty on wills continued to be popular form of tax instruments with carve outs like exemption of tax on property left to surviving spouse, and lower tax on 'direct' heirs. These carve outs were what we refer today as tax expenditures.

Table 33: Tax expenditures - examples from history

Period	Country	Tax type	Tax expenditure
6 AD	Roman empire	Inheritance Tax ('vicesima hereditation')	It exempted the legacies left to direct heirs (children, grandchildren) as well as the legacies of provincial citizens. Also exempted from tax were relatively small legacies. Funeral expenses were deducted in computing the property left as a legacy.
14 <sup>th</sup> century	England	Property Tax	Reduced rates of property tax 'the fifteenth and the tenth' were applicable to the clergy and the nobles who were taxed at a rate of two-thirds the tax on other citizens. This differential in rates of tax reflects the political strength of landed gentry who dominated Parliament over the tradesmen and craftsmen of the towns and villages. The rate differential also reflects the problem of tax collectors – that 'movables' often be hidden from the tax collector's view while real estate remained very visible, hence charged a lower tax.
14 <sup>th</sup> century	Italy	Legacy tax	It was common to exempt legacies of direct descendants, small bequests, as well as charitable contributions, which were otherwise taxed at a flat rate and varied from city to city between 2% and 5% of the value of inherited property.
1796	England	Legacy duty	The ongoing war with France caused England to adopt the legacy duty in 1796. This tax was based on the total value of property-real and personal-received from the decedent. The tax exempted spouses and direct descendants (children, grandchildren) and legacies under £100. A flat rate of tax - depending on the relationship between heir and decedent - was applied to all other legacies.
1894	England	Estate tax	In England in 1894, a progressive estate tax plus a 1 % tax on the value of property at settlement and replaced the previous legacy and succession duties. The new tax, based on the total value of the estate, had 13 rate brackets, and peaked at 8% on estates larger than £1,000,000. As the typical pattern, these rates were increased. By 1910, the top estate tax rate was 10%. World War I would cause further increases in the British estate tax to be as high as 20% on estates in excess of £1,000,000 in 1914, with an exemption if an estate tax had been imposed on the property within the previous five years.
1797	USA	Stamp duty on inheritances	After the Revolution in 1797, US Congress instituted a stamp duty on inheritances. The charge depended upon the size of the legacy with inheritances under \$50 exempt from tax as were amounts received by surviving spouses and lineal descendants.
1825	Pennsylvania (USA)	Inheritance tax	In 1825, Pennsylvania imposed a 2.5% tax on the value of inherited property in excess of the \$250 of exemption. During the Civil War, the federal government instituted a national inheritance tax (1861). This tax exempted legacies of less than \$1,000 and had a differential rate structure depending on the heir's relationship with the deceased.
1920	South Africa	Estate tax	The South African estate tax is noteworthy for experimenting with a 'vanishing exemption' in which estates of under £1,000 were exempt, and this exemption amount was reduced £1 for each £1 of estate value over £1,000. Hence, the full value of estates over £2,000 was taxed.
World war I	France	Inheritance tax	In France during World War I, the inheritance tax rates were increased to as high as 36% for heirs unrelated to the decedent. The rate structure was sharply progressive based on not only the size of the legacy but also the relationship of the heir and deceased and also a granting of a large deduction based on family responsibilities.

Source: (Lymer & Hasseldine, 2002)

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