



Tax Expenditures for Promoting Investment Applied to Corporate Income Tax

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Abstract^{*}

This report was commissioned by the Inter-American Development Bank's Fiscal and Municipal Management Division of the Institutional Capacity and Finance Sector within the framework of the project Tax Expenditures: Reducing Abuse and Increasing Effectiveness (RG-K1137). It tackles controversial questions regarding the interpretation, criteria, and estimation methodologies of tax expenditures in the field of corporate income tax aimed at encouraging investment. It is intended to provide the basis for a dialogue, which could be further developed, leading to the future establishment of tax expenditure estimation directives for Latin American and Caribbean countries, and thereby contributing to the comparison of tax expenditure measurement processes.

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1 Introduction

At the closing ceremony of the International Seminar on Tax Expenditures (TE) that took place in November 2008 in Washington D.C., it was stated that three main messages could be drawn from the presentations and discussions that had taken place there. The first was that great progress had been made in dealing with this question within the region, especially concerning the estimation of tax expenditure magnitudes, as well as in the cross-country exchange of mutual experiences. Although variations had been observed between the methodologies employed, the estimates were, in general, based on the ex post methodology, or foregone revenue, with some efforts made to calculate the ex ante or equivalent expenditure. The second message is that the fundamental utility of employing tax expenditures is found in the advantages gained by improving transparency in spending, as well as in the use of spending as a tool for improving resource allocation efficiency, equity, regional development, and tax collection for countries in the region. In this respect, it was noted that although variations exist between the different approaches, regional consensus exists concerning the transparency approach.

The third message was that although much progress has been made, there is still a long way to go, with many challenges to face and goals to be met. Some of these challenges are internal to each country such as, for example, moving from calculating tax expenditures on a federal level to a subnational level. Other challenges, however, require regional consensus aimed at generating greater and better-quality information on this subject, which would allow cross-country results exchange and comparisons to be carried out on more homogenous bases than those presently employed.

To ensure the continuity of these analyses, progress must be made in the systematic drafting of tax expenditure estimates based on: a) adequate tax expenditure identification and b) the development of specific estimation methodologies. With this aim in mind, this paper deals with tax expenditure estimation criteria within the field of corporate income tax, insofar as they are granted for the purpose of promoting investment. Controversies inherent in the calculation of existing tax concessions in various tax systems have therefore been identified, irrespective of their state of development, which are linked not only through possible differences in their estimation methodologies, but also in the very concept of the benchmark tax against which these calculations are made. All previous studies that draw conclusions

from the comparison of tax expenditures present in the multiple tax systems reviewed concur that that not only is it necessary to make calculation methodologies compatible with each other, but also to harmonize the concept of the benchmark tax used in each country. This will make it possible to arrive at unequivocal conclusions regarding the possible economic effects of tax expenditures, and thereby go beyond a mere descriptive elucidation of them.

However, choosing a normative standard against which to measure incentives requires numerous explanations of all the component aspects of the tax's structure. These aspects reflect each country's inherent and sovereign political definitions, and it is extremely difficult to reach a consensus based on them, even if only to determine indicators of the magnitude of the compared tax expenditures. Once the arguments about identifying tax expenditures with certain economic objectives—promoting investment, in this case—have been examined, the controversy regarding the interpretation of the concept “tax incentive” *vis-à-vis* the concept of “tax expenditure” is tackled, along with the need to discern between the two if an adequate measurement method is to be chosen.

Although both concepts represent concessions in relation to a certain benchmark tax, the definition of the benchmark might differ in each approach, given that each approach is guided by different principles. Therefore, whereas a “tax incentive” is defined by the objective which its application is designed to pursue, a “tax expenditure” is defined by measurement in terms of resource allocation and, therefore, in spite of the coincidence of both being identified as counterparts to a benchmark tax, there are certain tax incentives that cannot be classed as tax expenditures, and *vice versa*. An example of this might be the way that dividends paid abroad have been treated as part of a comprehensive income tax definition, resulting in their computation as negative tax expenditures. At the same time, the distance between these two concepts also depends on the normative scope of the criterion by which the framework for tax expenditure definition is generally defined. In this sense, insofar as these concessions are contrasted against a narrow definition of the benchmark, which is itself close to the general existing tax code, might mean that there are tax incentives that cannot be identified as tax expenditures, because they are themselves included within the tax regulations, in spite of the fact that the concession's economic effects do not effectively represent a stimulus towards a certain behavior.

This is the case regarding the treatment given to accelerated depreciation and incremental corporate income tax rates (among others), defined within the United States Treasury Department's “benchmark tax” approach, which required further clarification of the two concepts. Mention was made of two alternative reference frameworks; one closer to that

laid down in the tax code (Reference Tax Baseline) and another of a more normative nature (Normal Tax Baseline). Likewise, it was also noted that the choice of measurement methodology can never be entirely free from the conceptualization of the tax expenditure to be quantified given that, insofar as the intention is to estimate the revenue that might be gained under the general tax treatment—if tax expenditures are appraised from a fiscal transparency budgetary approach—then the use of the ex ante or “revenue gained” methodology will be required. When evaluating the cost of tax incentives aimed at “attracting investment,” however, the fact that the proposed objective must be stipulated beforehand means that the corresponding budgetary amounts must be set aside, and therefore estimated using the ex post or “foregone revenue” method. Therefore, once these conceptual restrictions have been expounded, common patterns in ways of measuring and defining tax expenditures in both developed countries and in Latin American and Caribbean (LAC) experiences are identified, showing the diverse instruments for promoting investment identified in each country.

Apart from the United States, which publishes additional estimates concerning the existing legal framework alongside simultaneous measurements of a wide-ranging tax on spending, the rest of the OECD countries calculate their tax expenditures with reference to a comprehensive income tax, considering the particularities of each country. Ex post calculation methodologies appear in all cases, however, based on the short-term approach. Moreover, measurements based on equivalent spending have been discontinued in the United States. In the exhaustive examination of tax concessions aimed at promoting investment in the United States and Canada, the existence of various tools is identified, ranging from rate reductions, tax deferrals, and tax loss carry-forwards—according to the size, the sector, or the region in which the investments were based—to tax credits for specific investments, “expensing,” and accelerated depreciation, among others.

Amongst the LAC experiences, it is apparent that the majority of countries analyzed utilize their own existing tax legislation as a framework for estimates, except for Chile, which chooses a strictly theoretical framework, and Mexico, which adopts a “normative” criterion based on world income levels. In terms of methodology, the majority of countries have up adopted the foregone revenue method, to which Chile alone adds assumptions about taxpayer behavior (total constant spending). Furthermore, Chile, along with Mexico and Peru, constitute special cases in the region by utilizing a short-term approach for their estimates, in contrast with the rest of the countries analyzed. Regarding the instruments identified, these vary significantly between countries, although all instruments include exemptions,

deductions, and differential tax rates, and there seems to be a wide consensus (motivated by questions of data availability) about the use of the corporate income tax returns as a primary source of information for the estimation of tax expenditures. Moreover, there are differences in the implementation mechanisms of the tax concession, ranging from benefits that enterprises can adopt almost automatically (according to area, activity or investment made), to others, whose approval depends upon the intervention of an administrative organ. Although transparency is favored in the first case, greater information can be obtained in the latter about project costs ex ante the effective implementation of the incentives. Estimation methodologies in this case can be based on assumptions regarding objective investment parameters, as in the case of Argentina, where investors have to make a calculation of the “theoretical costs” of each project approved by the relevant authority, based on normal profitability rates (opportunity costs) divided by own capital invested. The investors thereby provide information a priori that, although preliminary, might help to avoid the fragility of ex post estimation based on the presentation of tax returns.

Finally, it must be mentioned that, given the varied experiences of corporate income tax in the LAC region, and the choice of strict benchmarks that adhere closely to the existing legislation in each country, the comparison of tax expenditures in the region is of little use for drawing economic conclusions about their existence. However, from the budgetary transparency perspective in each country, which aims for better citizen awareness of public policies and accounts, the estimation of tax expenditures against the existing legislation becomes an instrument that could contribute a great deal to democracy and institutional development in the region.

This paper is organized in the following manner. The first part contains a conceptual discussion, and the various existing tax incentives in the field of corporate income tax that might be considered as tax expenditures are identified. The second part offers a review of the regional countries’ experiences in these matters, and the final part proposes a methodology capable of estimating the impact on revenue of the incentives granted.

2 Analytical Framework

The identification and estimation of tax expenditures, and subsequent cross-country comparison, is controversial for various reasons, which are not only related to differences in calculation methodologies, but to other, deeper, reasons associated with political definitions regarding what constitutes the desired tax system or benchmark. Even though a broad

consensus now exists in the definition of tax expenditures as the revenue that the government foregoes due to the application of benefits or special tax regimes, their identification requires a “general benchmark” that goes beyond technical objectivity, because it demands the inclusion of normative prerogatives within the definition of the basic tax system.

Difficulties of international comparison exist even within the group of more institutionally-advanced countries. This is illustrated by the fact that despite the exhaustive study carried out by Polackova Bixi, Valenduc and Swift (2004) for the OECD member countries, the differences found in benchmark taxes were so pronounced that the authors decided not to present the data revealed by each country in comparative form, thereby throwing into stark relief the scale of the trade-off existing between rigorous methodology and the exposition of data arising from cross-country analysis to be found within the field of “tax expenditures.” This is due to the possibility of hasty conclusions being drawn if the pertinent methodological warnings are not observed.¹

Although another recent study also dealing with the same group of countries did make progress towards comparative presentation of tax expenditure estimates, it did so from the pragmatic perspective that it is not necessary to establish a benchmark or identify an ideal country to obtain “better policies” (with an implicit suggestion that tax expenditures are bad), but that it suffices to simply identify tax expenditures, so that each one can thereafter be subjected to parliamentary appraisal to decide its application or elimination (Minarik, 2008). To this end, and with an explanatory aim in mind, the aforementioned study seeks to paper over the differences between estimated tax expenditures found in every country’s budget classification, in order to present them in a comparative format, although emphasis is placed upon the diversity of calculation methods and on the concept of the benchmark tax system.

The report also stresses that although the divergence of criteria is not so pronounced as to obstruct comparisons of budgetary classifications, some differences can be detected regarding the definition of tax expenditures and the scope of the taxes and jurisdictions included (such as subnational taxes), as well as in the drafting of the benchmark and the measurement methodology for the concepts identified. The report therefore reiterates the precautions needed regarding the economic interpretation of the data presented in the international comparison of the homogenous budget classification obtained. In this sense, both studies, albeit from different standpoints, implicitly suggest the need to make the

¹ It should be pointed out that although the “foregone revenue” tax expenditure calculation methodology does not permit the aggregation of diverse tax concessions, a homogenous conception of the benchmark would at least allow for international item-by-item comparisons.

measurement methodologies and, furthermore, the conception of the taxes involved compatible. As such, the particular estimates of each country can be internationally collated and economic conclusions can be drawn about the possible effects of the existence of tax expenditures.

3 Tax Expenditures or Tax Incentives? Clarifying the Terms

In the majority of countries in the world, differing classes of tax incentives are applied that, according to diverse justifications, seek to attract investment from overseas. This was clearly shown in the exhaustive study presented to the United Nations Conference on Trade and Development in 2000. This study, after having examined 50 countries from all regions of the planet, found that all the countries surveyed, regardless of their state of development, use incentives to promote investment. The same study points out, however, that in developed countries there was a greater incidence of other political instruments, basically of a financial nature such as loan guarantees or subsidized credits. However, in developing countries the stimuli were generally applied through the use of fiscal incentives not requiring the direct use of governmental funds.

Tax incentives are thereby more widely applied in those countries that require greater flows of direct investment, both domestic and external, than can be generated by the market. Given that tax incentives are, by definition, designed to regulate investment projects by creating distortions in the “pure” operation of the market, their justification is only acceptable from the economic efficiency perspective if the faults that might occur in such an allocation mechanism are corrected.² Therefore, under the umbrella of the positive externalities that the promoted investments provoke, regional tax incentives have been established, alongside others aimed at projects with an intense use of technological research and development, or that suffer great losses in terms of human capital.

Tax incentives can therefore be defined as “any stimulus that reduces the corporate tax burden in order to induce companies to invest in particular sectors or projects” (UN, 2000). Given that incentives constitute exceptions to the general tax code, they are usually associated with tax concessions or expenditures, which are generally approached from the standpoint of budgetary transparency. However, from the investment promotion perspective, there are differences between them, both in terms of conception and of estimation. Both tax incentives and tax expenditures represent concessions relative to a benchmark of the tax

² Mechanisms aimed at attracting investment in the short term are often applied to stabilize the economy.

under consideration. The definition of the benchmark, however, cannot be the same in both approaches, given that their conceptualization arises from clearly distinguished objectives.

In effect, whereas the concept of an “incentive” is defined by the objective for which it is applied, such as “ (...) any measurable advantage accorded by Government (or at its behest) to specific companies or categories of companies in order to stimulate them to behave in a certain way” (UN, 2000) the notion of “tax expenditures” is defined by their measurement in terms of resource disposition, and is generally understood to be “those losses of resources attributable to articles of federal law that permit special tax treatments such as exclusion, exemption or deduction from gross revenue, or provide a special credit, a preferential rate or deferrals from tax obligations” (GAO, 2005).

Although both concepts represent tax treatments that deviate from the general nature established in the existing tax legislation, the concept of a tax expenditure has budgetary roots, and is aimed at achieving greater fiscal transparency and political responsibility in the adjudication of tax concessions. However, tax incentives are only justified insofar as the instruments maintain a relationship with the objectives to be achieved through their implementation (stimulus for specific companies or regional zones, for example).

This leads to a series of questions. First, do some tax incentives for investment represent tax expenditures? The answer is yes in most cases. In this sense, every loss of fiscal revenue directed towards stimulating investment by companies themselves, or promoting a particular economic activity or a specific geographical area, among others, satisfies both of the aforementioned conditions and thus constitutes the fundamental analytical element of this paper. Examples of tax exemptions, deductions, and special treatments can be found in the majority of countries and in diverse forms and manners.

Second, are all tax expenditures also tax incentives, given that all political instruments that imply a loss of the fiscal revenue laid out in the legal normative give rise to a specific stimulus that allows certain companies to increase investment or modify their current performance? The answer, in this case, is no. The reason for this lies in the diversity of objectives for which the government would be willing to forego real revenue already envisaged in the existing laws.

In the same way that the government can promote certain activities or geographical zones, it can also forego the availability of certain revenue amounts by opting to economically favor specific taxpayer groups, or to stimulate consumption of a given type of good or service within its territory. For example, a reduction or exemption from the rates applied to basic goods such as meat or milk, to a service such as passenger transport, or a

reduction in Social Security contributions for workers with certain characteristics are all cases where the loss of revenue is justified by the counterweight of important positive externalities for the citizenry, and bears no direct relation to fiscal incentives given to a specific productive activity. Another case that might be cited is the application of differential tariffs on different kinds of combustible fuels to stimulate a specific kind of consumption for environmental reasons or to pursue strategic geo-political objectives, for example, or the treatment accorded to dividends paid overseas as part of a comprehensive income tax definition (in which earnings should be encumbered once only), all of which should be considered as negative tax expenditures.

Finally, are there cases in which the government offers a certain corporate tax incentive that does not imply an end loss of tax revenue, compared to what would have accrued according to provisions stipulated in existing tax legislation? The answer here is yes, albeit with fewer applicable cases given the greater complexity in their design and implementation. Some of the most common examples are those tax incentives that cannot be identified as tax expenditures because they are already included within the tax regulations, in spite of the fact that, if economic effects are considered, the aforesaid concessions do effectively represent a stimulus towards a certain type of behavior. It will later be argued that this would be the case with the treatment applied to accelerated depreciation, and incremental corporate income tax rates (among others) that form part of the US Treasury Department's "benchmark tax" approach, which necessitated further elucidation of the aforesaid concepts and a reference to a "normal tax baseline" alternative approach.

In spite of the coincidence of their respective measurement against a tax benchmark, certain tax incentives should therefore not be classified as tax expenditures and vice versa. This paper, as previously mentioned, will concentrate its analysis on the "common ground" between both concepts: the tax expenditures designed for promoting investment through specific tax treatment of corporate income tax. Bearing this in mind, both terms will be used indiscriminately throughout this paper, taking into account the previously developed conceptualization.

4 The essence of Corporate Income Tax and its Effects upon the Definition of Tax Expenditures

Beyond the discussion as to whether companies are the passive subjects of income tax or merely instruments through which natural persons obtain their earnings (transparency), corporate income tax contributes to the general functioning of the tax system as a withholding tax on revenues obtained through entrepreneurial activity, and by generating an egalitarian relationship between the companies' distributed and nondistributed earnings in tax environments in which only real earnings are assessed (as is most commonly the case). This function, withholding at source during the current period of income generation, offers not only greater systematic equity compared to what would exist if only distributed earnings were assessed, but also provides fairer treatment regarding the incomes of resident and nonresident persons in the source country.

In this interpretation of the "withholding function" of the tax assessment, the tax base would be constituted only of retained income, to such an extent that the dividends would not only be assessed per capita according to natural persons, but would also constitute the remuneration of the capital factor arising from the company's activity. In turn, from an economic efficiency perspective, in the event that dividends and all the other components used to obtain the deductible earnings from Gross Income (GI) were valued at their economic opportunity cost, the tax would become a tax on extraordinary income. It would thereby be neutral regarding resource allocation in both the short and long term.

Given, however, that international tax laws allow the source country to impose its own primary laws on domestic income, and even to assess those dividends distributed overseas via the residence principle, the deduction from dividends in the jurisdiction of economic activity might represent only a transfer of revenue towards the country of residence, in cases in which there are treaties designed to avoid international double taxation in the aforesaid jurisdiction. Consequently, source countries have legal as well as financial and economic justifications for the nondeduction of distributed dividends from the corporate income tax base.

$$Renta = IB - co - int - dep$$

where:

Renta: (*Income*) Taxable income

IB: (*GI*) Gross income for the period

co: Operating costs (manpower, raw materials, etc.)

int: Interests paid for loans

dep: Depreciations (economic or tax)

In this way, revenue from general tax is the product of the application of a tax rate to the tax base established by the existing normative which, generally speaking, usually incorporates additional elements that might or might not represent differential treatment regarding both the theoretical or notional tax, and the general tax code.³ Therefore, in the absence of State compensatory mechanisms for that proportion of the tax rate imposed on cash losses in the current fiscal period, there are usually mechanisms to offset losses against earnings obtained in the future or the past: tax loss carryforward and tax loss carryback respectively. There are also special treatments for investments through tax depreciation (allowing for depreciations to be deducted either completely within the fiscal period or in accelerated fashion regarding economic depreciation) or tax credits (TC) applied to the payable tax in relation to the investments. Consequently, the tax revenue can be expressed in the following way:⁴

$$T = t(IB - co - int - dep - carry.Fw/back) - CT$$

where:

T: Corporate income tax payable

t: Nominal tax rate

carry.Fw/back: Transfer of the negative tax from previous or later years to the financial period in question.

CT: Tax credits provided for investment

³ For a more detailed analysis of tax incentives, see OECD (2001).

⁴ The extent to which tax depreciation and tax loss carryforward/back constitute deductions from the tax base will determine the extent to which their application relates to the tax rate structure, whereas tax credits for investment relate only to the amount of tax due (in the event that tax credits greater than the tax obligation are not permitted). These aspects will be dealt with in greater depth in the section on investment incentive mechanisms.

However, measurement difficulties and consequences for the effective average and marginal contribution on capital can be found even within this summarized tax structure. These are related to the arbitrariness of the legislation regarding the decision, for example, to calculate earnings on an accruals basis or on real earnings, and whether this is done in either real or nominal terms. The financial period in which earnings are taken into account (tax loss carryforward/back, calculation of depreciation, mandatory vs. discretionary claims), and the criteria with which depreciation and other deductions (linear, accelerated, economic, etc.) are dealt with. The decisions taken about the aforementioned aspects will not only establish the real level of income tax, and consequently the difference in treatments that exist in different tax systems, but will also be important from the tax concession or expenditures measurement perspective, to be included in the analysis of budgetary transparency.

5 Basic Considerations for Defining the “Benchmark”

5.1 The Scope of the Base

The first decision is to characterize tax expenditures as tax treatments that deviates from the existing general legal framework or, alternatively, that deviates in relation to a comprehensive definition of the tax established as a normative benchmark. In the first case, the general tax laws existing in a given country are not called into question, and the decisions and criteria adopted in tax matters are fully respected, even though they impede international comparison of tax expenditures due to the discrepancies in legal rules that might exist between different countries. On the other hand, under this criterion the assimilation of the concept of tax expenditure with that of tax incentive would be severely contradicted, given that the inclusion of any tax expenditure within the body of the law would lead to its negation as an incentive mechanism.

At the other extreme, although choosing a comprehensive notional tax reference system does reduce the conceptual differences between tax expenditures and incentives, political sensibilities regarding the existing tax regime might be affected. In effect, normative choices concerning the benchmark tax would become much more evident, insofar as each tax system is contrasted with that defined as ideal. The resulting differences, which under this methodology would be defined as tax expenditures, could be interpreted as being critical of the existing legal framework, or rather as implicit proposals for tax reform.

5.2 Defining the Tax

If one opts to submerge oneself in the normative discussion about the benchmark, even while still subscribing to the analysis of direct taxation, then the discussion concerning the final assessable tax base will be found in the definition of the form of the benchmark: comprehensive income tax or broad-based consumption tax. In the first case, the comprehensive definition or economic concept of income generally adopted as a reference is the one defined by Haig-Simons, which might be summed up as the increase in real credits between two points in time. In this way, increments in wealth are assessed, independently of real earnings, whether or not they are related to market transactions or whether they arise from a return on capital or as a result of labor. Consequently, the capital losses and gains (adjusted for inflation) will be included in the fiscal reference period, in the same way that business investments, casual losses, and depreciations should also be deducted. All income sources in the same period are thereby assessed all at once, which goes clearly against the separate application of corporate income taxes that leads to double taxation on the profits arising from this source. However, this wider concept harbors certain conceptual ambiguities, as well as problems for measurement and tax administration, that would make its pure application difficult in any of the existing tax systems.⁵

For its part, under the concept of the broad-based consumption tax, the benchmark tax can be synthesized as a comprehensive tax on basic income with deductions on net savings. Consequently, the deviations from this treatment that give rise to the calculation of tax expenditures will result from the sum of a) those obtained through deductions in certain types of income, and b) overpayments or negative tax expenditures, derived from the impossibility of deducting certain savings from that tax base. As a result, the ambiguities and complications in tax administration matters found under the comprehensive income concept will also be present in the analytical framework of the consumption-based tax, although in some cases they might even be more severe.

⁵ A good example of this is found in the U.S. Office of Management and Budget (2008) (Appendix, Table 1, p. 324) where the lengthy enumeration of items that differentiate the calculation of tax expenditures in the budget for the 2009 financial year in the United States, relative to what would occur under the comprehensive vision of income, says a lot about the hybrid nature of the concept of tax on real income.

5.3 The Components of the Tax

Although it is true that the discussion regarding the benchmark tax is less disputed in the case of corporate income tax (due to the wide consensus generated by the theory of balance), the identification of tax expenditures in such an assessment must confront the choice between the concepts of either income-based or consumption-based taxation. At the same time it must involve itself in the definition of the taxable subject (different tax treatments for diverse legal forms of company), of the scope of the tax base (theory of balance in conjunction with the correspondence between costs and earnings) plus an economic performance considered as standard (where liabilities are considered as deductible), and of the tax rate structure (preferential treatment for small businesses). There is no doubt that any definition reached concerning the aforementioned components of the tax will result in an arbitrary decision. If this decision were taken following a homogenous cross-country comparison of tax expenditures, then it would lose all validity in so far as the decisions behind the methodology did not coincide with the political directives of each country's tax system.

On the other hand, the pure application of such benchmark tax systems is not, in practice, found in any of the comparative studies carried out, and even though the deviations are considered to be tax expenditures under this methodology, they do not necessarily give rise to less efficient situations than those found under the full operation of the normative benchmark. For example, certain deviations regarding the application of comprehensive income tax might be justified from an efficiency perspective, to achieve a greater rate of growth, or justifiable in other cases to correct market failures (externalities, merit goods, etc.).

This paper deals with methodological aspects of measuring tax expenditures in order to promote investments and, consequently, will center its attention on the identification of those items subject to corporate income tax that might be attractive for stimulating investment, independently of whether or not they can be classed as tax expenditures. The distinction drawn between both concepts; however, it will assume great importance when it comes to choosing the methods of measurement, as the following section demonstrates.

6 Methods of Measurement and other Methodological Considerations for Quantifying Tax Incentives

With regard to the measurement of tax expenditures aimed at promoting investment, some other considerations should also be examined that arise from the disparate nature of tax expenditures and tax incentives. The three calculation methodologies generally employed for the measurement of tax expenditures, whether these are estimated on an accruals or a cash basis, can be summed up in the following:

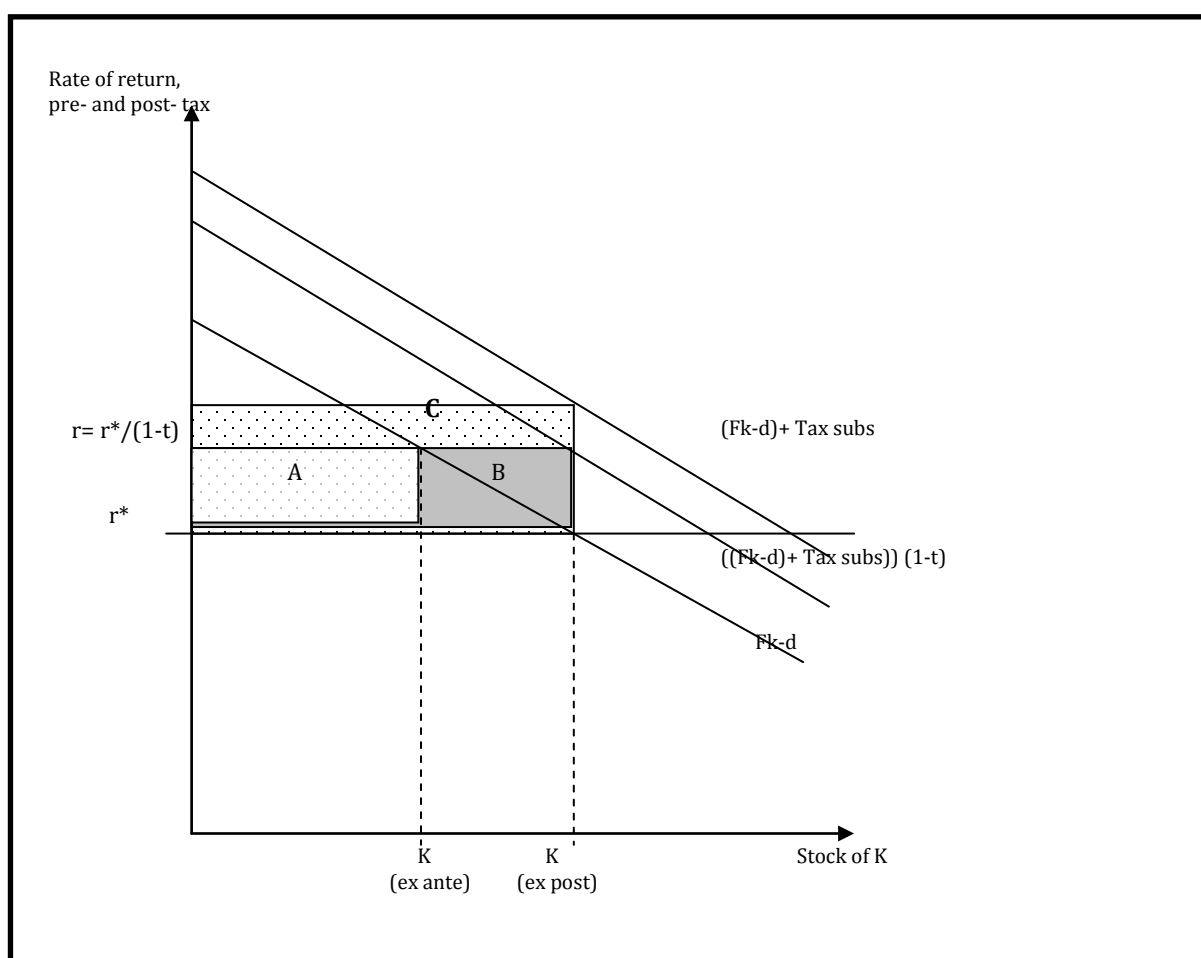
- i. The method known as “foregone revenue” (ex post), which estimates the ex post revenue that the State foregoes due to an identified tax treatment and, consequently, the financial benefit received by the taxpayer;
- ii. The method known as “revenue gained” (ex ante), which measures the revenue that might be obtained by eliminating a certain benefit and takes into account or stimulates the taxpayer’s change in economic behavior due to the loss of a tax benefit;
- iii. The so-called “equivalent spending” method, which seeks to measure the financial cost of replacing the differential tax treatment with an explicit expenditure, in such a way that the taxpayer ends up receiving exactly the same benefits.

This last criterion incorporates the existing relationship between spending and taxes, because it takes into account the greater payment of some taxes that must be confronted as a result of the granting of subsidies within the general taxation reference system. Consequently, the “equivalent subsidy” in terms of tax benefit will be greater than that which results from differential treatment, in the amount of taxes upon which the aforesaid subsidy would fall within the benchmark tax system.

In synthesis, in spite of the fact that the estimation of the equivalent subsidy would be greater than that which would be obtained via the revenue gained method, the revenue finally ceded will be the same, given that the excess of the subsidy relative to the ex post measurement is made up of the excess revenue that the taxpayers must contribute. Figure 1 shows the differences in the estimates according to the ex post, ex ante or equivalent spending methods, in order to point out the contrasts in tax concession measurement, which arise by accounting for the taxpayer’s change of behavior. Consequently, the definition of the estimation model must also stipulate the objective of the tax concession measurement, because in the case in which a country decided to use it to determine the resources that could be collected under the general regime, then the *ex ante* methodology (surface A) would be more appropriate, whereas in the estimation of existing tax incentives aimed at promoting

investments, their measurement will be more clearly identified by the ex post method (surface A+B),⁶ given that the resources foregone are related to the existing capital stock, once the corresponding tax benefit has been granted.⁷ Although the majority of countries use the ex post methodology, this generalization is due more to the difficulties faced in obtaining the required data on elasticity for predicting taxpayer behavior, rather than firm convictions about its use, given that when confronted with the impossibility of making reliable estimates through the ex ante method, the other represents a good approximation of revenue foregone under the supposition of low or nonexistent taxpayer elasticity.

Figure 1. Divergences in the Estimation of Resources at Stake in “Equivalent Spending,” “Ex Post” and “Ex Ante” Measurement



Source: Authors' elaboration.

⁶ In this sense, reference is made to measurement of the incentives that are operating at the time of calculation.

⁷ In order to evaluate the possibility of granting future incentives, the estimation should also include changes in behavior (ex ante methodology), but in the opposite direction to that depicted in the diagram (from K [ex – ante] towards K [ex post]).

Therefore, in order to measure the benefits bestowed to stimulate any kind of private investment, the “foregone revenue” method will be the most appropriate for estimating the resources at stake, given that it effectively measures the required incentive in relation to the objective sought (surface A+B).

For its part, the application of the “equivalent subsidy” method turns out to be the best indicator when the aim is to compare “tax expenditures” with the equivalent “exhaustive expenditures,” but it will, by definition, come up with an overestimation with regard to tax incentives (shown in the following figure as surface C, Figure 1), despite the fact that the financial resources at stake would be the same under the ex post methodology. Consequently, in spite of the fact that, from both the budgetary standpoint and the provision of economic incentives for attracting investment perspective, there must be prior knowledge of the resources at stake, the correct use of the measurement methodology itself depends upon the specification of objectives.

Therefore, in the event that an estimate of the revenue that could be collected by the application of the general regime is required (for example, for a tax expenditure designed to favor a specific consumption) then the “revenue gained” ex ante method should be employed. But, to identify the resources ceded to the private sector to achieve the economic objectives set out for such instruments (for example, for attracting investment) then the use of the “foregone revenue” ex post methodology is more appropriate. In this way—although from the tax expenditures study perspective reference is generally made that *X* amount of revenue would have been collected under the general tax regime—, when evaluating the cost of tax incentives for “attracting investment,” the fact that the proposed objective must be specified will mean that greater budgetary amounts will have to be set aside. This in turn will have to be estimated using the “ex post” method. Likewise, in the event that a possible substitution of “tax expenditures” by “exhaustive expenditures” is evaluated, application of the “equivalent spending” estimates should be considered, to determine the amount of the subsidy, and the ex post method used to estimate the revenue actually foregone.

Other questions concerning the measurement of the revenue at stake are related to determining the “time of imputation” (accruals or real earnings basis) and the choice of a “measurement period” for the tax expenditures. The second of these cases refers to the fact that the resources involved in the tax concessions can be evaluated over the short term or the long term, when the tax expenditures are either identified in each current term or for the duration of the projects, respectively.

In the event that long-term measurement is chosen, the benefits derived from deferred payments must be set to one side, given that the companies would have been permitted to effectively postpone the payment of the tax (tax deferrals), alongside the advancement of the foreseen deductions regarding the general tax regime (accelerated depreciation or investment discounts). In each of these cases, the deferrals will not be considered as tax expenditures, as there are no nominal losses involved during the company's useful life. The recognition of these mechanisms as incentives for investment, however, requires the opportunity cost of the postponed revenue to be included in actual values, and the resultant discount for the aforesaid resources involved to be chosen.

On the other hand, the choice of a short-term measurement period will mean that any of the tax deferrals in the current period are considered against the theoretical values of the taxes due. This means that they are considered as tax expenditures during the first periods when these incentives are applied, but must then be considered as negative tax expenditures for those periods in which greater revenues are due to the State than those accrued during the fiscal period.

Finally, it is important that appraisals concerning the total measurement of diverse individually-calculated tax expenditures are made, given that (under any of the three aforementioned calculation methods, or by utilizing the alternatives to evaluating the times of imputation, or by the measurement of present or current values) the correct evaluation of tax expenditures in individual form and taken in isolation is incompatible with the measurement of the combined effects of tax packages that contemplate the elimination of various existing concessions.

The latter is due to the possibility of interaction between the taxes as a consequence of the application of deductions from certain taxes in the tax bases that are already subject to other deductions. As a result, the combined effects of eliminating various tax expenditures, reached by adding together all the calculations made from evaluating individual instruments, could result, in most cases, in an overestimation of their fiscal cost, even in the event that the effects of the taxpayer's behavior were taken into consideration using the ex ante measurement methodology.⁸

⁸ Details of a budget year for some of the tax expenditures applied in the United States can be found in Altshuler and Dietz (2008).

7 The Tax Instruments for Promoting Investments that are Applicable to Corporate Income Tax

Bearing in mind the existence of certain restrictions and determinants on tax expenditure effectiveness that the growing international integration in commerce and capital imposes upon the nations that attempt to use them, the incentives applicable to corporate income tax aimed at promoting investments can be classified into two categories: on the one hand, those that reduce the nominal corporate tax rate in regard to the general rate and, on the other, those that point towards improving the cost of recuperating the investment (the so-called internal rate of return).⁹

7.1 Incentives that Affect the Tax Rate

This is the reduction in the rate of corporate income tax in relation to the general rate to stimulate certain sectors or marginalized geographical areas. These incentives can furthermore be restricted to overseas investors or targeted on all investments in a particular activity sector or region.

- Temporary Exemptions (so-called tax holidays): The new firms that qualify for receiving these will be exempt from paying the tax during the time period set out by the legislation. However, the disappearance of the effective tax during this period will mean that other deductions will not be applied. This means that the definitive result of the incentive will depend upon the kind of activity or structures of the companies supported.
- Preferential Rates: In this case, reductions are granted to the corporate tax rate for those businesses that fulfill the required characteristics for receiving the incentive. This could have a temporary or a permanent character.
- Tax Loss Carryback/forward: This mechanism reduces the effective tax rate, through the possibility of applying losses carried over from other financial periods in the form of deductions in those years in which taxable profits are made. Generally speaking, only a portion of said losses can be transferred either towards future earnings (*carry forward*), or imputed to past earnings

⁹ This refers, on the one hand, to the restrictions imposed by the fulfillment of the multilateral trade agreements signed under the auspices of the World Trade Organization (WTO) and their implications for investment incentives and, on the other, to the necessity to agree on certain tax treatments, related to the profits of non-resident companies, that the application of legal principles imposes for the elimination of double taxation of the results of internationally-invested capital.

(*carry back*). This mechanism is of vital importance for the stimulation of projects that mature slowly, in which an initial period of losses is expected before full integration into the marketplace can happen.

- Preferential treatment for dividends paid overseas: With the aim of increasing profits for nonresidents' investments, reduced tax rates are often applied to dividends paid overseas that, once the possible revenue transfers between States have been settled via agreements with the country of residence (in order to avoid double taxation) represent incentives for the attainment of dividends in the source country. It should be mentioned, however, that although the stimulus towards these investments grows along with the reduction in the tax rate applied to the dividends, the incentive to remit the dividends regarding reinvestment of profits into the company also grows.
- Preferential treatment for long-term capital gains: In some countries, a reduced tax rate is often applied to the capital gains arising from the increase in value of the assets held by companies, which has occurred in a longer period of time than the minimum established limit. If capital gains obtained during a shorter period than the established limit are assessed using the general corporate income tax rate, then the measure represents an incentive to maintain the funds for longer periods.
- Tax deferrals: This gives the taxpayer freedom to postpone for a set time the payment of a fiscal obligation. The delay in payment is generally conditioned by the carrying out of investments of greater amounts than the taxes that are differentiated in the incentives regime. These benefits are usually subject to prior approval of the project promoted and by the presentation of a series of guarantees in the State's favor for the amounts that are not deposited, and as previously explained, these are only considered as tax expenditures when the short-term estimation approach is employed (for one financial year).

7.2 Incentives that Influence the Cost of Recuperating the Investment

Through this kind of instrument, an attempt is made to offer a differential benefit in capital cost after tax, relative to that which businesses qualifying for the benefit would have obtained through the general tax regime. By nature, they attempt to modify the intensity of capital use,

given that they stimulate investment in plant and equipment, for which they are therefore often recommended in the case of correcting market failures that generate a lack of capital, or to take advantage of the possible externalities that this factor represents for the entire economy. These kinds of incentives are present in both developed and in developing countries and can be set out in the following individual instruments:

- Deduction of investments: This consists of the deduction of a proportion of the costs of new investments from the corporate income tax base in the same financial period in which the expenditure on the benefited capital was carried out.¹⁰ Given that the actual value of the deduction for the company will depend upon the moment in which its application is permitted, the possibility of applying the deductions in the current fiscal period represents a financial incentive. In some countries, however, it is permitted to transfer the unused depreciation forwards to be applied to future tax obligations. In the event that this were not permissible, then the treatment of the tax losses becomes of critical importance regarding the incentive's effectiveness, with a greater influence on projects that mature in the long term.
- Investment tax credits: In this instance, a proportion of the investment cost can be applied as an investment credit against the payment of the corporate income tax assessment that would have been due in the absence of the benefit. In this case, warnings should be given regarding the possibility of benefit transfer in the event that it cannot be taken advantage of, due to an absence of tax benefits to which the credit can be applied.

Although in both cases the objective of the incentive is to diminish the real price of capital acquisition for the investor—given that in the first instance the deductions are realized against the tax assessment base, whereas in the second they are realized against the effective payment of the tax—the value of the applicable investment deductions will depend on the legal tax rate, whereas the tax credits will be applied directly against the amount to pay, irrespective of the tax rate.

- Accelerated depreciation: This benefit consists in allowing businesses to discount capital costs in a shorter period of time than that dictated by the general tax regime. Although this method of depreciation does not alter the total amount deducted during the good's useful life, shortening the expiration period allows the deductions to

¹⁰ This way of deducting investment costs as if they were consumption costs is usually known as “expensing.”

advance in time, thereby increasing the project's present value. Taken to extremes, when the totality of the good is deducted within the period of its purchase, it becomes the equivalent of the investment deduction method.

- Incremental deductions: In this instance, companies are permitted to deduct a greater value than the real investment cost, in such a way that the State pays part of the investment costs through the permitted tax deduction..¹¹

8 Analysis of Various Countries' Experiences in the Computation of Tax Expenditures Applied to Investment Promotion

8.1 The Experience of Developed Countries

A study carried out by Minarik (2008), that focused on the homogenization of tax expenditure budgetary classifications within the OECD countries, describes a large part of the relevant methodological questions in tax expenditures for Canada, France, Germany, Holland Japan, South Korea, Sweden, the United Kingdom, and the United States. The report stresses that although each country makes up both its own definition of the benchmark tax and its own estimation method, the following stylized facts could be drawn:

- In all experiences analyzed, the notional tax, against which the treatment of income tax concessions is compared, is constituted by a "tax on income" (the scope of which differs in each country), except for the discussion regarding the treatment of savings, which relates to a "broad-based tax on consumption."
- Depending on each country's peculiarities in interpreting the benchmark, any relief provided to avoid double taxation for company dividends might be considered to be a tax expenditure, or not.
- In the same way, any depreciation mechanism that is more generous than true depreciation will be considered as a tax expenditure, although there is no agreement about the correct measurement of the concept "true depreciation."
- There is no instance in which "adjustments for inflation" are considered for results measurement, tax deductions, or tax credits in real terms.
- With regard to the methods of measurement, with the exception of the United States, which up until a few years ago carried out estimations using the

¹¹ The possibility of accounting for tax deductions of more than 100 percent of the investments is usually applied to other costs that are sensitive to the State's objectives. These cases are usually related to research and development costs, manpower training or export marketing.

“equivalent spending” methodology based on “current values,” all of the other countries studied use the “ex post” or “foregone revenue” method, also based on “current values” for the computation of their tax expenditures.

However, the discussion of tax expenditures in this study does not particularly identify those related to investment promotion. Therefore, in order to exemplify the treatments applied by the most developed countries to these matters, the cases of Canada and the United States will be examined.

8.1.1 Canada

Tax expenditure estimations are carried out in this country for personal and corporate income tax and for the general tax on goods and services. With regard to corporate income tax, the taxpaying unit is the corporation of companies (in such a way that the losses suffered by one business can be compensated by the corporation’s earnings, although compensations between corporations, or between the same economic groupings, are not allowed). The measurement period is one financial year and the variables are taken into account at their current or historical value (without adjustments for inflation).¹² As is the case for personal income tax, the benchmark is an income-based tax and, given that the treatment of double taxation for dividends is included in the benchmark tax, dividend growth and credit, and their nontaxation within the intercompany distributions, are not considered to be tax expenditures.

Canada, however, does not only present a list of, and the calculations for, tax expenditures, although it does so for all the other concessions within the tax system that might probably have also been similarly treated. These tax components, considered to be “structural,” are presented annually in a separate form as *memorandum items* (among which are mentioned the treatment of dividends and the calculation of tax loss carryforward) in such a way as to permit legislators to make their own appraisals of the array of tax expenditures on offer. With regard to the estimation methodology, despite the statement that “the estimates and projections are intended to indicate the potential revenue gain that would be realized by removing individual tax measure,” the foregone revenue (ex post) method is employed, assuming that the tax expenditure will not produce a change in either taxpayer behavior or in the levels of economic activity (Department of Finance Canada, 2008: 10). Measurements are carried out, in turn, on the basis of real annual revenue, choosing a short-term approach in which the deferrals are treated in net form relative to the theoretical revenue for that fiscal

¹² However, indexations of tax credits and the personal income tax rate structure are taken into account.

period, in such a way that those corresponding to the current period represent a positive tax expenditure, whereas the recoveries from past deferrals will represent negative tax expenditures in the current fiscal period.

8.1.2 The United States

In the definition of the benchmark for income tax, a “comprehensive income-based tax” is established, understood as being the sum of consumption plus variations in wealth occurring during the reference period. This follows the Haig-Simons criteria, although in recent years those tax expenditures that would have existed under the concept of the “broad-based consumption tax” are also descriptively set out. In turn, the evolution of budgetary institutions and of the discussions centering on the notional tax employed has meant that simultaneous estimations exist within the Treasury Department regarding the two benchmarks: the *Normal versus the Reference Baseline*. Although both are centered on a comprehensive income tax, the second is nearer to the current legal framework, limiting the tax expenditures to only those special concessions pertaining to public policy programs.

Both the Joint Tax Commission (JCT) and the Office of Tax Analysis (OTA) define the normal income tax structure by assuming the separation of persons and businesses, establishing the “individual” as the subject of personal income tax and the “corporation” as the tax unit for corporate income tax. In the United States’ case, although nearer to the theoretical tax of the kind defined by Haig-Simons, the normal tax as defined by both the JCT and the OTA differs from that concept. The first controversial aspect arises from the integration of personal and corporate income. Although credits for taxes paid overseas and deductions for dividends received at the corporate level are foreseen within the structure of the normal tax, the double taxation arising from the exercise of personal and entrepreneurial activities is not taken into account.

Another separation is represented by the time of imputation insofar as capital gains are only computed at the time of earning, meaning that this deduction will therefore not appear in the estimates. Neither are the concepts referred to in real values, but rather, faced with a lack of indexation mechanisms, the results shown will be the result of nominal variations. On the other hand, although the tax loss carryforward does form part of the benchmark, the existence of “minimum taxes” levied both on persons and on companies adds an additional rupture to the long term neutrality that the comprehensive tax aspires to, insofar as not only are losses not adjusted over time, but they also end up being altered by the

limitations of these minimum payments. Additionally, with regard to the treatment of depreciations, the OTA attempts to approach the concept of the theoretical tax through economic depreciation estimates as part of the normal benchmark, whereas the JCT calculates the deviations regarding the linear depreciation mechanisms. The Treasury introduced the concept of the “benchmark tax” in 1983 to delimit the discussion about tax expenditures and the theoretical concept of the benchmark. Under this conception, the following two conditions are required in order for a certain concession to be considered a tax expenditure:

- It must be a “special treatment,” in the sense that it affects a certain kind of operation or taxpayer group.
- There must be a general standard to which the special concession is a clear exception.

In this way, in spite of the fact that accelerated depreciation relating to economic estimation would be considered as a tax expenditure under the normal tax regime, it will not be so in the calculations made against the benchmark tax, owing to the fact that accelerated depreciation is held to be the general rule of depreciation for goods used in productive activities. However, this kind of concession is exhibited in the general list by a reference in the appendix in which tax expenditures are calculated against the normal tax (all types of accelerated depreciation, income deferrals for selected companies, gradual corporate income tax rates and certain “expensing” included in the rules). The other concept causing controversy between the two approaches is the incremental rate scheme existing in corporate income tax. Tax expenditures caused by the reduced rates on earnings that are inferior to those reached by the maximum general rate are therefore included in the estimates carried out by the Treasury, with the caveat that they should only be considered under the *normal tax* approach. As a consequence, the United States Federal Government has different tax expenditure estimates, which are presented in comparative form in the budget, alongside the corresponding explanations regarding the benchmark tax chosen for their drafting. Finally, it should be mentioned that the JCT, following on from a study carried out by its staff (JTC, 2008) in which the discussions revolving around the establishment of a theoretical tax were reconsidered, announced a change in the way that tax expenditures were classified.

In order to adjust its analysis more closely to that presented by the Treasury Department through its *reference tax base*, the JCT duly interpreted that the approach corresponding more closely to that laid out in the Budget Act of 1974 is the one that presents the “general tax rules of the current legislation” as the general framework against which tax

subsidies are to be measured. This new, notional category refers to those tax concessions identifiable as clear deviations from the general rules of the current tax law, and which represent a loss of revenue.¹³ Therefore, with regard to the estimation methodology, both offices responsible for drafting the different tax expenditure estimations measure their value using the “foregone revenue” (ex post) method, calculating the revenue foregone as a result of the granting of each individual concession, and presupposing the unaltered behavior of the affected taxpayer groups. However, each one of the aforesaid offices uses diverse sources of information. These are collated by the OTA, based on the same samples and methodologies used for drafting the annual general budget estimates. This office also used to carry out alternative calculations based on the “equivalent spending” method, but these practices have been recently discontinued. However, for some selected tax expenditures in which estimates based on the short term might give rise to false impressions, calculations in current values are presented in order to evaluate the net impact of the concessions in the long term.

8.2 The Experience of Latin American Countries

During recent years, tax expenditures have become one of the tools of tax policy most employed by governments around the world as a mechanism for encouraging investment, promoting growth in certain economic activities in the national interest, or to provide better living conditions for selected economic sectors or specific groups. However, the studies that have attempted to measure the relative magnitude of this instrument have been developed only much more recently and in some regions, such as Latin America, the results have not been as satisfactory as expected. In particular, and in contrast to what happens in the OECD countries, the administrations of the majority of Latin American countries have not managed to homogenize the methodological criteria that would allow for a comparative analysis to be carried out on a regional level with consistent results.¹⁴ The governments of these countries, however, have dedicated greater combined efforts during the past decade in regard to the drafting of measurement-oriented reports and estimations, and to analyzing the efficiency of current tax expenditures. This has permitted the identification of some common, and some

¹³ The new category allows for the denomination of Negative Tax Subsidies in the event of an increase in revenue.

¹⁴ Generally speaking, these reports include direct taxes, both corporate and individual, indirect taxes and taxes on capital. Some of them are grouped according to the economic sector that benefits from the preferential treatments. Appendix 2 of this paper, based on the information contained in the aforementioned reports, contains a deeper analysis of the basic criteria that the majority of Latin American countries have utilized for the identification and subsequent measurement of those tax expenditures that can be considered as incentives relative to corporate income tax.

distinct, characteristics concerning the application of these public finance policy tools in the following countries surveyed: Argentina, Chile, Colombia, Ecuador, Dominican Republic, Guatemala, Honduras, Mexico, Peru, and Uruguay (see Table 1).

Table 1. Comparison of Tax Expenditures in Latin American and Caribbean Countries

Country	Methodology	Approach	Benchmark	Types of tax expenditures
Argentina	Foregone revenue (ex post)	Long-term	Tax legislation	Exemptions, deductions, reduced and differentiated rates, special regimes, and tax credits
Chile	Foregone revenue (ex post) with assumed change in behavior (total equivalent spending)	Long-term	Theoretical or normative	Exemptions, deductions, differentiated rates, special regimes, and tax credits
Colombia	Foregone revenue (ex post)	Long-term	Tax legislation	Exemptions, deductions, discounts, and exclusions
Dominican Republic	Foregone revenue (ex post)	Long-term	Tax legislation	Total or partial exemptions from the tax base, accelerated depreciation, total or partial rate reduction, and tax credits for investment
Ecuador	Foregone revenue (ex post)	Long-term	Tax legislation	Reinvestment of profits, tax loss carryback, deductions through special laws, and dual taxation agreements
Guatemala	Foregone revenue (ex post)	Long-term	Tax legislation	Exemptions, deductions, tax credits, tax relief for tariffs, and franchises
Honduras	Foregone revenue (ex post)	Long-term	Tax legislation	Exemptions, deductions, reduced rates, exclusions from the tax base, and special regimes
Mexico	Foregone revenue (ex post)	Short-term	Theoretical or normative	Exemptions, deductions, differential rates, tax credits, and subsidies, special regimes
Peru	Foregone revenue (ex post)	Short-term	Tax legislation	Tax holidays and tax relief, deductions, deferrals, reduced rates, tax credits, free trade zones
Uruguay	Foregone revenue (ex post)	Long-term	Tax legislation	Exemptions, tax holidays, deductions, differential rates, tax credits, promotional regimes, free trade zones

Source: Authors' elaboration, based on reports from the respective countries.

Firstly, and with reference to the methodology employed, it was found that the majority of countries have up until now used the foregone revenue method, which is an ex post calculation of the application of a benefit based on data collected in previous periods. It is worth mentioning that this method neither incorporates the effect that the elimination or reduction of the benefit will have on the economy of the affected activities, nor its continuity or future level. As a result, Chile has offered some innovations to the general rule by incorporating a supposed change of agent behavior into the methodology itself (total constant spending). Moreover, there seems to be a certain consensus about a long-term approach that takes the tax expenditures into account during the entire life of the project (Chile, Mexico, and Peru are the exceptions), where only those concessions resulting in a definitive loss of revenue are considered to be tax expenditures, whereas those regimes that, while deviating from the general tax code, represent a financial cost for the government in a given period, but where the tax is collected and compensated for in later years with a greater revenue, as is the case with accelerated depreciation and tax deferrals, are excluded.

On the other hand, the countries surveyed emphasize in every case the importance of precisely identifying the tax expenditures in each economy in particular as a basic requisite for any posterior measurement or estimation analysis. Consequently, it is of fundamental importance to specify the frame of reference or benchmark, meaning the normal tax structure, composed of the general treatments in terms of object, subject, base, rate and tariff, and formal obligations, as well as the regime applicable to overseas residents. In this sense, the great majority of countries analyzed utilize their own existing tax legislation as the frame of reference when making estimates from which tax expenditures can be calculated and this framework, consequently, varies from country to country. Chile and Mexico are the exceptions to this case: the former adopts a strictly theoretical frame of reference in order to define tax expenditures, based on normative principles of income tax; the latter is another exception to the group, given that, whilst adopting a general “normative” criteria, it applies the principle of worldwide income, among others, to define the normal structure of said tax.

Finally, it must also be pointed out that the types of tax expenditures vary significantly between countries, although all include exemptions, deductions, and incremental tax rates among them. Countries such as Chile, Dominican Republic, and Peru, among others, add tax credits, accelerated depreciation, and deferrals as alternatives to be considered. This is closely related to the kind of approach taken, given that the aforementioned tax expenditures can only be considered as such in the short term because they imply a potential

loss of revenue, without taking into account the future compensation arising from increased income tax. Likewise, there seems to be a general consensus (perhaps motivated by questions of data availability) in the use of corporate tax returns as the primary source of information for drafting tax expenditure estimates related to income tax.

9 A Presentation of the Methodologies that could be used for the Calculation of Tax Incentives Applied to Corporate Income Tax

As previously mentioned in this paper, the advances made in tax expenditure comprehension in Latin American countries in recent years have been considerable, given that nearly all the countries in the region now carry out, to a greater or a lesser degree, tax expenditure estimations. However, as has also been previously mentioned, there is still a long way to go in matters of identification and measurement of their economic effects.

One of the main challenges is therefore managing to obtain tax expenditure estimates that are comparable between countries, estimates that take into account equal identification criteria and homogenous processes of measuring their effects on revenue, based on methodologies that are accepted at the intraregional level. Formulating a tax incentive measurement methodology that is unique and of exclusive application in the entire region does not seem to be, at present, the recommended road to follow, given the existing initial disparities between countries. Therefore, the preferred course has been to put a combination of alternatives up for discussion for each one of the points considered to be crucial, in order to initiate a debate that might lead to agreement on some basic criteria that could finally be implemented.

The first inescapable aspect is the complexity involved in obtaining homogenous results, or ones apt for cross-country comparison. This calls for successive approximations, starting from the actual initial differences. As observed in previous sections, the instruments used are not the same in all cases; the sectors promoted are not only different, but each one of them also has its own idiosyncrasies, and the available sources of information are equally disparate. The process must therefore be undertaken one step at a time. In this regard, an initial consideration would consist in determining whether to adopt the foregone revenue criteria, meaning only the direct effects of the promoted benefits or, on the other hand, whether to follow the revenue gained criteria in which the indirect effects are considered in terms of the changes in behavior or economic agents that would occur if the aforesaid benefits were eliminated. It is obvious that the second option is vastly superior in terms of

analytical and informative richness, but is also the one whose execution demands a greater volume of the kind of analysis, statistics, and estimations that the majority of countries currently lack.

Secondly, it must also be borne in mind that the granting of incentives aimed at promoting investment usually follows diverse procedures in each country: in some cases, the beneficiaries can gain access to the incentives by the simple act of investing in the target sector or the geographical beneficiary area, without requiring previous project authorization from the economic authorities. This means that the incentive regimes are automatically applied. In other cases, conversely, a process of prior consultation, or an administrative act, is required, which authorizes the granting of the benefits contained within the promotional or incentives regime.

Whereas it is clear that in the first case the “transparency” of the actions is enhanced, and possible opportunities for corruption avoided, in the second case, a greater quantity of information is generated, which is useful for tax expenditure measurement. This latter procedure might be termed the “explicit measurement” method, given that by requesting the potential investor to provide information in order to gain approval for the project, it is possible to identify the cost of the incentives corresponding to each of the benefits granted, before they are implemented.

Argentina, as well as other countries such as Panama, has followed this explicit approval procedure, which has been applied to the majority of the promotional regimes, thereby allowing for estimates of the “theoretical financial cost” corresponding to each one of the projects to be made. The continuous application of this marginal measurement approach (project-by-project) permits the total tax expenditure costs corresponding to each and every system of promotion to be obtained.

The measurement is based on the computation of the “own capital risk” in each annual period, whilst the rate of normal profitability that would arise from an alternative investment not favored by the promotional exemptions is estimated. The criteria used for carrying out said estimation must be specified. Thereafter, once the probable profitability of the project has been determined, the benefits to be granted through each of the distinct instruments are considered, whether these are total or partial exemptions from a given tax, percentages of the tax that can be deferred or other benefits to be bestowed on the project. In this manner, the total theoretical cost of the project can be estimated. The kind of information previously requested from the investor to calculate the potential benefit will depend on the type of promotion instrument employed. The processing of this information generates a

database that identifies beforehand the financial costs or the tax expenditures that the State will incur according to the different regimes promoted, for each and every year of their duration. Thirdly, it is noticeable that the procedure usually followed by those countries seeking to measure tax expenditures is not the aforementioned one, but rather the method that uses information arising from the tax returns presented by the tax expenditure beneficiaries themselves, and makes the corresponding calculations based on this information.

With regard to the data that is generated by corporate income tax returns, however, it is conspicuous that the declarations can lead to certain types of error, given the following circumstances:

- The tax returns might not be presented as a whole, given the inexistence of the tax to be paid, and that failure to pay it would represent only a formal infraction with a light fine.
- The information contained within the tax returns might be insufficient to precisely identify the amount of benefits received in each case.
- The recent tendency towards tax simplification may have reduced the possibility of correctly estimating the incentives granted, especially when a beneficiary carries out activities that are partially encumbered and partially benefited by one of the incentives aimed at investment promotion.
- The favored companies might not be able to identify the benefits received with precision as their utility is determined by using internal transfer prices, especially in the case of in-bond industries and free-trade areas.
- The constant modifications that the tax returns undergo might hamper the obtaining of homogenous data for various years.
- The tax administration itself might not be enthusiastic about checking the tax returns, because its efforts will not lead to greater revenue. The taxation processes are therefore not oriented towards monitoring the favored companies.

The above drawbacks, which are borne out by practical experience in the countries themselves, constitute a wake-up call for the need to strengthen the administrative processes, for the purpose of obtaining reliable information that refers to the whole of the tax expenditures granted, and not to only a partial expression of them.

In the fourth place, whichever criteria is adopted, it is vitally important to prepare a register of the beneficiaries of any investment promotion or incentives regime, so that the tax administration is able to provide differential treatment to each one of them, even when they are wholly, or partially, exempt from the levy.

In the fifth place, as previously observed, it seems proven beyond doubt that the “reference system” or “benchmark” must be identified, in order to finally obtain cross-country comparable information. Using comparison with the legal rules expressed within the existing tax code as a criterion might be useful on an internal scale, within a country’s own borders, but it is not easily applicable when international comparisons are sought, given the diversity of tax legislation that exists among the countries.

Overall, agreement should be reached as to whether the approach followed will be the one that analyzes overall project costs, or the costs of the benefits granted, taking a long-term view, meaning that this view considers the net costs of the project in their entirety (lower initial revenue that is partly compensated for by greater subsequent revenue) and this would seem to be the most appropriate approach given the normal life-cycle of projects, or, on the contrary, whether to only take into account the costs of each and every year independently, meaning, by following the short-term approach. Whereas in the first approach the benefits of accelerated depreciation and tax deferrals should not be included as tax expenditures, beyond their financial effects, from the short-term perspective both instruments should be computed as tax expenditures at the moment they originate.

In the sixth place, the discussion regarding the benchmark must be revisited. A series of central characteristics that make up the basic corporate income tax structure should therefore be identified, such as the subjects involved, the concepts of income, the principles of association with other countries, the criteria for determining the tax base and other aspects of tax assessment implementation to ensure that, irrespectively of the way in which the benefits are granted, the “measuring rod” by which deviations from the benchmark are measured is the same for all countries.

Defining the frame of reference or benchmark in general terms is an arduous and extremely complex task. It requires much time and discussion and it must be reiterated that this process should be understood as a series of approximations, without, however, losing sight of the final objective.

In the seventh place, the treatment to be given to corporate income tax must be agreed upon, an aspect already touched upon in Section 4 of this paper. As previously shown, there are two possible approaches: when company earnings form an indissoluble part of the overall income tax, any difference in treatment of the rates applied to company earnings relative to the rates applied to all other revenues constitutes a tax expenditure, and should be computed as such. On the other hand, if company earnings constitute taxable events that are independent from the treatment applied to other revenues, the difference between the rates

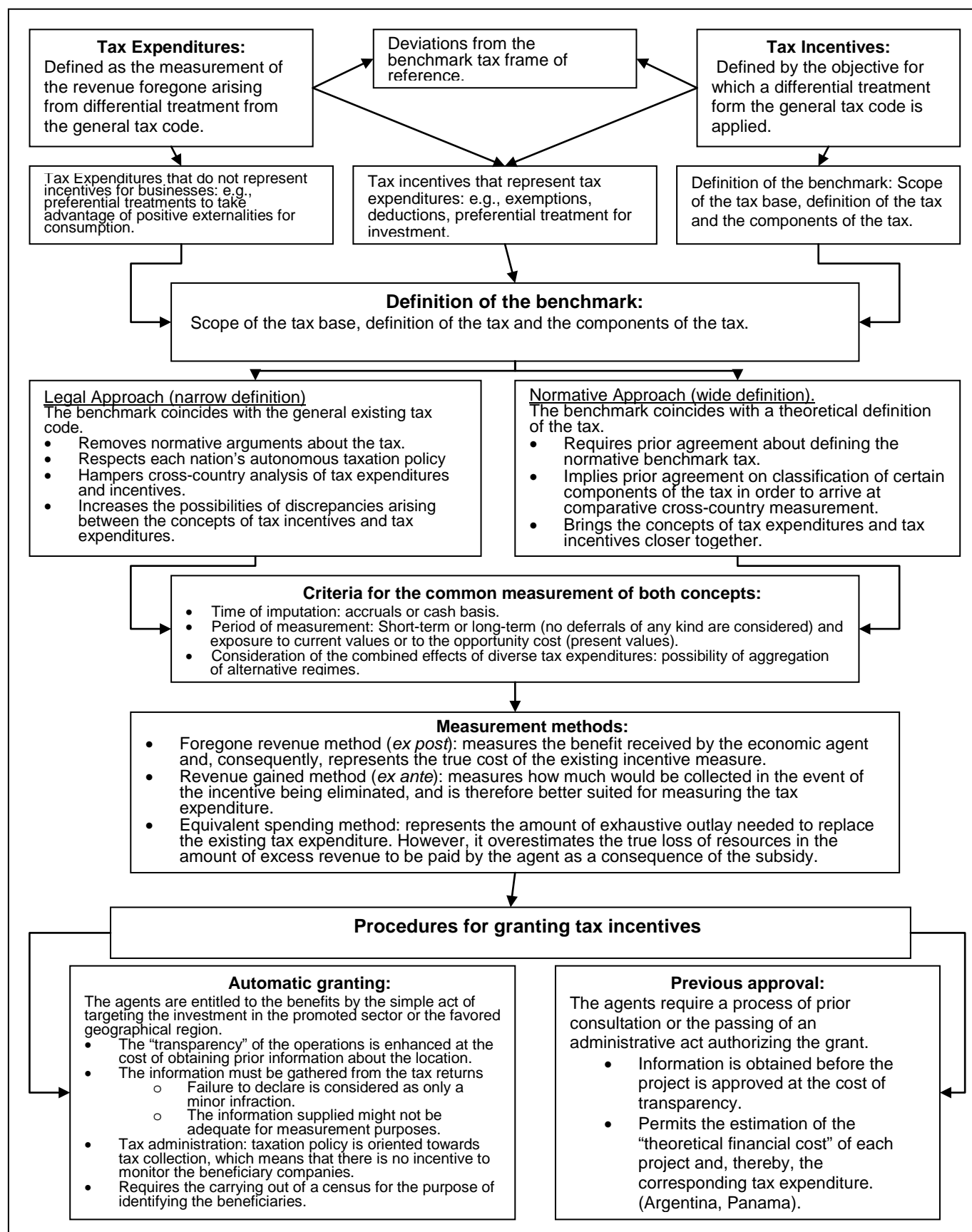
will not lead to their computation. In the latter case, the Haig-Simons concept of income will not be applicable but, rather, income should be referred to under the balance sheet criterion, that is, income as a flow of revenues or the income-product approach.

Finally, it is worth mentioning that in order to formulate a tax expenditure measurement methodology, progress should be made within each one of the alternatives or criteria analyzed towards achieving a general consensus so that, from thereon, estimations can be made in a harmonious and comparable manner.

10 Summary

As Table 2 clearly demonstrates, the concepts developed throughout this paper can be interrelated, thereby giving rise to a scheme for tax expenditures in general and a measurement methodology for them. Therefore, even though the intrinsic characteristics of each country have to be considered in order to correctly design and subsequently calculate tax expenditures aimed at fostering private investment, it is of fundamental importance to concentrate efforts towards obtaining and stylizing, through progressive approximations, a homogenous and precise methodology that offers the possibility of making cross-country comparisons regarding tax expenditure treatment that would, in the final analysis, permit political recommendations to be drafted for each particular country.

Table 2. Methodological Aspects for the Estimation of Tax Expenditures and Tax Incentives for the Promotion of Investments



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Appendix 1: Tax Incentives Granted in the United States.

It is worth mentioning the following incentives, identified in specific sectors of the economy:

- Immediate deduction against costs relating to Research and Development (so-called expensing).
- Tax credits for up to 20 percent of qualified research and development costs.
- Immediate deduction for the costs of development and exploration in the oil industry: in the case of integrated companies, expensing of up to 70 percent is permitted, as well as depreciation for the rest of the aforesaid costs (this also applies to the mining industry).
- Excess percentage of depreciation with respect to so-called depletion costs: instead of allowing the cost of depletion, depending on the amount of mineral fuel extracted, to be deducted, certain percentages are permitted which, in the event of exceeding that cost, would represent a tax expenditure (also available for the mining industry).
- Tax credits for renewable energy ownership: this consists in a credit conceded for a financial period for the use of renewable energies.
- Tax credits for the use of ethanol and bio-diesel as fuels, and for small bio-diesel producing firms.
- Credits for investment in the production of electrical energy via the use of clean coal and gas technologies – the so-called clean coal facilities.
- Immediate deduction of 50 percent for petrol producers that increase their refining capacity up until the year 2012.
- Accelerated depreciation for 15 years for gas distributors, and two years for the geological and geophysical costs of petrol and gas exploration. (For integrated companies, the period is seven years.)
- Tax credits for the manufacture of energy-efficient electro domestic appliances.
- Tax credits for the purchase and installation of solar energy in the home and for productive solar energy infrastructures.
- Immediate deduction for the use of advanced security mining equipment.
- Certain sales in the timber industry can be computed as capital gains rather than as current revenue. Expensing is also permitted for the costs of timber plantations instead of demanding they remain as assets until sold.

- Expensing of certain capital costs in agriculture, as well as in standing stock and plantations over two years old.
- Treatment of certain plantations as capital income.
- Tax reduction for farmers, calculated by classifying the average earnings of the previous three years.
- Possibility of deferring certain sales via agricultural cooperatives if said income is then reinvested in certain qualified properties.

Specifically, the following are found in the Trade and Construction sectors:

- Exemption for the nondistributed income of the credit unions.
- The financial entities that voluntarily keep reserves greater than their historic average of delinquencies can deduct said excesses from their income.
- Deferrals, deductions, and exemptions applied to earnings from life insurance policies.
- Exemptions and differential treatment to other small-scale insurance activities.
- Tax exemptions for insurance companies belonging to exempt entities.
- Exclusion of interest on local and state bonds, when used for the purchase of real estate.
- Tax credits for investment in low-income housing.
- Accelerated depreciation (included within the “normal” tax benchmark) of rented and other properties, buildings, machinery, etcetera.
- Expensing for certain small businesses (only included within the “normal” tax).
- Incremental tax scheme for corporate income tax (only included within the “normal” tax).

In the Transport sector, the following represent tax expenditures:

- Corporate income tax deferrals for maritime companies, for the part of their income used in the construction or improvement of the fleet.
- Tax credits for railway maintenance.

And, finally, the following measures are aimed at promoting regional development:

- Tax credits for the rehabilitation of productive infrastructure.
- Tax credits for investing in certain equipment, tax exemptions for certain financing packages, accelerated depreciation, and tax incentives for capital gains.
- Financial quotas granting tax credits for taxpayers investing in a so-called Community Development Entity (CDE).

Appendix 2: Tax Incentives Granted in Canada

First, it is worth mentioning the general tax incentives aimed at promoting investment in companies:

- Accelerated deductions of capital goods and costs related to renewable resources: This consists in calculating the deferral of the application of accelerated depreciations on certain capital goods, as well as accelerated depreciation of intangible costs associated with activities carried out in the energy sector.
- Tax deferral on reinvested capital gains: This consists of postponing the levy on capital gains that are produced under certain circumstances, and insofar as the said gains are reinvested in the development of the company's activities.
- Capital gains tax on profit-taking: Given the difficulties faced in evaluating operations that do not take place in the market, capital gains are encumbered at the moment of profit-taking. This is considered as a deferral to be included within the tax expenditures.
- Partial inclusion of the capital gains: Here, only a proportion of the aforesaid gains are included within the taxable income, both as a way of promoting savings and investment, and to put the tax treatment on a par with that applied in other countries.
- Immediate deduction (expensing) of publicity costs: Despite the fact that profits arising from publicity costs are usually generated in periods subsequent to their being incurred, both the difficulties involved in measurement and the incentive to invest in capturing new markets justify the deductions being allowed in the current period, as a kind of tax benefit aimed at consolidating investment.
- Tax credits for investment: These are considered as tax expenditures insofar as they are granted to taxpayers who invest in certain activities, such as scientific research or experimental development, or in capital goods within a beneficiary region.
- Deductions for capital goods available before their effective utilization: Both accelerated deduction and the application of tax credits for investment are permitted from the second year of purchase onwards, even though the company has not yet put the good into full operation.

Apart from the above, the Canadian tax system also provides diverse tax incentives aimed at encouraging investment in small businesses, for example:

- Deductions of investment losses: Although under the general system the capital losses arising from profit-sharing arrangements or borrowing instruments would only be deductible against capital gains, a proportion (50 percent from the year 2000 onwards) of the capital losses of this kind reported by small businesses can be utilized against the corporate income tax base, where the non-utilized proportion can be carried back three years, or carried forward for seven years. After the seventh year, the losses become ordinary capital losses and can therefore be carried forward indefinitely.
- Reduced rates for small businesses: A reduced rate of 12 percent is applied to certain select businesses (the so-called Canadian-controlled private corporations), plus a 1.12 percent surcharge on certain of the company's active revenue sources, with the purpose of favoring reinvestment and expansion in those small companies that enjoy the greatest post-tax income.
- Non-taxation of the provincial assistance provided for risk investment in small businesses: Although under the general regime the governmental assistance packages are considered as taxable income, or as reductions of the deductions for the capital goods for which the company received the assistance, small businesses are allowed certain exceptions regarding provincial assistance to help the assistance policies to achieve greater effectiveness.

On another level, certain tax incentives for investment are concerned with the tax system's international aspects, such as, for example:

- Tax exemptions for the so-called International Banking Centers: Those financial institutions that qualify (insofar as their permanent establishment generates its income solely from the operation of deposits from and loans to nonresidents), and are situated in Vancouver or Montreal, will be exempt from paying income tax.
- Exemptions to retention of nonresident incomes (the so-called withholding tax): Based on the internationally accepted principles regarding tax authority at the source of income, the corporate income tax benchmark in Canada includes the withholding of income sourced in Canada obtained by nonresidents, either through interests, rents, dividends, rights and copyright, among others. However, through both the signing of bilateral treaties aimed at avoiding double taxation and through other unilateral measures, reduced rates and exemptions do exist that can be applied to those incomes paid overseas.
- Non-taxation of the Life Insurance companies' worldwide income: This tax expenditure arises from the differential treatment of these companies' income in

relation to the treatment existing for the other Canadian multinational companies, which are assessed according to the entirety of their worldwide earnings.

- Exemptions or tax credits applied to affiliate earnings: When the income originates in countries with which there are no tax agreements, the dividends paid towards Canada are encumbered, but the shareholders of Canadian corporations are allowed to deduct the taxes for income paid overseas.

At the sector level, the tax expenditures conceived as incentives for investment are executed in the following ways:

- Agriculture, livestock, and fishing: As taxable income can be calculated on the “cash” basis, the deferrals regarding accrual values have to be counted as tax expenditures, even though there is insufficient information for their measurement. The same applies to income arising from livestock destruction deferral and by flexibilization of the inventory accounting.
- Natural resources:
 - i) Tax credits (10 percent) and additional deductions for certain exploration projects and other investments (so-called earned depletion) within the mining sector.
 - ii) Deduction of the predicted costs of restoring the natural resources on which the activity depends is also permitted in the mining sector.
 - iii) Tax credits allowed for the refund of petrol exploitation rights in the province of Alberta.
 - iv) Tax credits for explorations funded by the issue of shares.
- Other sectors:
 - i) Exemption from the so-called branch tax for the transport, communications, and mining sectors. This consists of an exemption from the tax on capital gains arising from the sale of nonresidents’ property within the territory of Canada at the moment when the affiliate or branch ceases activity.
 - ii) Reduced tax rates in the case of credit unions and for companies in the manufacturing and processing sectors.

Finally, what are known in the Canadian tax system as “memorandum items” are also included in the published reports. In this way, the mechanisms for integrating corporate and personal income (deductions from corporate investments and refunds of capital earnings and income for businesses), the recognition of certain costs included in income generation (deduction of intangible assets and provincial rights), and the mechanisms of tax loss

carryforward and carryback are therefore displayed, and their inclusion in the benchmark, or their definition as deferrals, can subsequently be discussed.

Appendix 3: The Experiences of Latin American Countries

Based upon the information contained in the reports drafted by each individual country, but without being a strict reproduction of them, what follows is an analysis of the basic criteria that have been used for the identification and subsequent measurement of those tax expenditures that can be considered as incentives with regard to corporate income tax.

Argentina¹⁵

From 2006 onwards, the long-term approach has been employed to define tax expenditures. From this perspective, only those cases that give rise to clear-cut revenue losses are considered to be tax expenditures. This implies that regimes that allow tax deferrals, accelerated depreciation against income tax, and the advanced refund of VAT credits are not considered to be tax expenditures, even when they generate costs of a financial nature for the State, given that the lost revenue to which they give rise during the years of application will be compensated for by the greater tax contributions received in subsequent years.

For tax expenditure identification purposes, the structure of each tax as established in the respective legislation is taken as a reference: its objective, tax rates, general deductions, method of definition, etcetera. The cases that are both included in the structure and singled out for special treatment are then identified.

In particular, in the case of natural persons, income tax is levied on the returns, earnings, or enrichments that are susceptible to periodicity and imply the permanence of the source that produces them. For companies, on the other hand, the requisites of periodicity and permanence of source are not applied. The revenues are considered net of the costs undertaken to obtain, maintain, and conserve them.

The greatest available income tax deductions are not considered as tax expenditures, given that they are of a general character. This applies to the basic tax allowance, and special deductions allowed for personal work, for family responsibilities, for donations to social works, and to private healthcare and retirement plans. However, the tax expenditures that

¹⁵ Based on the report drafted by the *Dirección Nacional de Investigaciones y Análisis Fiscal* (National Directorate for Fiscal Research and Analysis) (2009).

affect income tax make up nearly 30 percent of the total of benefits granted, the most important being interest payment exemptions for financial assets (government securities, bank deposits, and negotiable obligations) and for nonprofit organizations.

Moreover, it is important to point out that the annually-made estimates do not take into account the effect that the elimination or reduction of a tax benefit would have on the economy of the activities involved and, therefore, their continuity or future level. This implies that its removal will not necessarily generate additional resources for the same amount as the estimated tax expenditures. In any case, it can be assumed that there will be a fiscal gain from the alternative taxable use of the resources dedicated to the beneficiary activity. Likewise, the general criteria adopted is that the estimates are directed towards obtaining minimum tax expenditure values, to avoid overestimating the revenue earnings that would be obtained from the eventual elimination or reduction of the special treatment. With a similar aim in mind, the rate of tax evasion presumed to exist in each tax is also calculated.

Chile¹⁶

Chile employs an ex post measurement, based on effective information for a past period, but also applying a supposed change of taxpayer behavior: an assumption of total constant spending. It is true that the elimination of an exemption can affect other decisions made by economic agents that are not considered here; also changes in the tax authorities' behavior and the level of evasion are not taken into account. Despite being a simple assumption, it does permit greater approximation to the net tax expenditure that would arise from the exemption's elimination.

The measurement of the tax expenditure associated with each exemption is carried out in isolation, meaning that the rest of the exemptions are presumed to remain unaltered. It is important to underline this assumption, because many exemptions have a combined effect, which means that the aggregate tax expenditure is not equal to the sum of the individual tax expenditures.

Finally, the cash-flow evaluation approach has been chosen. This means that, in the case of income tax, the current tax year will be considered as the estimation period, in which the earnings received or accrued in the pervious year will be declared. The following series of sectors that are subject to special treatment are worth mentioning:

¹⁶ Prepared based in the reports from Barra and Jorrat (2002) from the Vice directorate of Studies of the Chilean Tax Administration – S.I.I. (2004).

- Presumed income of agricultural enterprises: Farmers whose annual sales do not exceed 8,000 Monthly Tax Units (*UTM*), and who have no other earnings that are taxable under the actual income tax code, can take advantage of this regime (companies, in this case, must be formed only by individuals). The assumed earnings are equal to 10 percent of the fiscal assessment of the real estate. In the case of leasing, the lessee's assumed earnings will be defined as being equal to 4 percent of the assessment, whereas the lessor will be assessed according to actual income. The Corporate Income Tax (17 percent) is calculated on top of these assumed earnings and the Overall Complementary Tax or Additional Tax, applied at the owner, partner, or shareholder level.
- Assumed income for mining companies: Those mining companies whose annual sales volume does not exceed 36,000 tons or 6,000 Annual Tax Units (*UTA*) can benefit from this regime. In the case of copper producers, the assumed income is equal to 4 percent of the net value of sales, provided that the average price of a pound of copper for the year in question does not exceed 191.39 USD cents. If the price does go beyond said value, rates are applied that fluctuate between 6 percent and 20 percent of net sales, according to the scale set out on the article 34 of the Income Tax Law. The Income Tax at the company level, and the Overall Complementary or Additional Tax, at the owner, partner or shareholder level is applied to this assumed income.
- Assumed income for transport companies: Passenger transport companies of any size and freight carriers whose annual sales volume is inferior to 3,000 *UTM* can qualify for this regime. The assumed income is defined as being equal to 10 percent of the vehicle's current market value. The Income Tax at the company level and the Overall Complementary or Additional Tax, at the owner, partner, or shareholder level are applied to these earnings.
- Assumed earnings derived from real estate: The Law also allows for taxation of assumed income deriving from real estate. In effect, the taxpayers who rent out real estate that belongs to them, provided the rental income is less than 11 percent of the tax assessment, can opt to declare an assumed income, estimated at 7 percent of the tax assessment of the property. In contrast to the system of presumption applied to agriculture, mining, and transport, in this case the assumed income is exempt from the First Category Tax and only the Overall Complementary or Additional Tax is levied.
- Taxation based on withdrawals established by Article 14 (A): Article 14 (A) of the Income Tax Law (*LIR*), incorporated into the tax reform of 1990, establishes that

those companies whose earnings have not exceeded an annual average of 3,000 *UTM* can opt to pay either the First Category Tax or the Overall Complementary or Additional Tax on all withdrawals carried out, without distinguishing or considering their origin or source, or whether they are exempt or taxable earnings.

From the tax policy perspective, an interesting question to ask is whether or not these preferential tax treatments have fulfilled the objectives for which they were designed, and also whether these same objectives are still currently valid. A systematic examination is needed to consider all the costs associated with granting exemptions, such as tax expenditures, administration costs, costs of compliance, and opportunities for tax evasion and avoidance.

Colombia¹⁷

Although the majority of countries in the region carry out this kind of calculation, some controversy exists about the concept's relevance, given that the establishment of a normative benchmark tax structure is in itself difficult. In particular, it is not clear how such deviations from the general treatment can be catalogued as tax expenditures, given that the tax itself includes the said differential rate structure. Colombia has not yet arrived at a complete and exhaustive conceptualization of tax expenditures that contemplates the definition of the normative structure, or benchmark tax. As a first step, the principle tax benefits existing in the legislation have been identified, wherever it is possible to measure the fiscal cost, according to the available information.

Acts 788 (2002) and 819 (2003) establish that an estimation of the fiscal cost of exemptions, deductions, and tax discounts must be presented within the medium-term fiscal framework (the reference document for discussion about the budget in the Congress of the Republic). The foregone revenue approach is used to carry out this calculation, which does not contemplate possible changes in the economic agents' behaviors in the event that the aforesaid benefits were eliminated. The information employed for the fiscal cost estimates of the income tax benefits is garnered from the tax returns filed by individuals and corporations for each one of the concepts. The tax returns allow for the general amount of each type of tax incentives to be determined: 40 percent reductions for investment in actual productive assets, exempt earnings and tax discounts. This information is further segregated according to sector,

¹⁷ Based on the document by Parra and Sierra (2009).

subsector and economic activity. The method adopted for the measurement of the fiscal calculation corresponds to an ex post calculation of the revenue foregone due to the existence of these benefits. In this sense, the fiscal cost is an approximation to the revenue foregone.

For the purpose of determining the fiscal calculation for the corporate income tax, the estimation is done for two categories: the respondents and the taxpayers. The latter are understood to be respondents who, in the course of their private tax settlement, generate a tax burden of a value greater than zero.

Ecuador.¹⁸

A tax expenditure, technically speaking, is the product of tax measures or treatments that establish deviations in the tax rates and taxable bases in relation to a tax reference system, base, or benchmark. By comparison with this benchmark, the measures that give rise to the aforesaid deviations are identified, and the amount of revenue that will be foregone because of them can be estimated. The tax system base might be defined as the set of structural characteristics upon which it is itself founded, before the application of measures that benefit a group of taxpayers in particular. Although consensus does exist around this definition regarding the majority of tax measures, there is also a subjective element in this sense that relates to each country's specific tax system.

In Ecuador, tax legislation—Laws and Decrees—, are used as a first step towards measuring the tax expenditures regarding Corporate Income Tax, to subsequently identify the tax relief considered to represent a deviation from the normal tax treatment. Nonetheless, certain deviations from this criterion must inevitably be introduced to examine specific problems of tax administration and other situations. In this sense, the principle loosening of the criterion is the separate recognition of corporate income tax on the one hand, and income tax on natural persons on the other. The estimates have been carried out based on the information obtained from corporate income tax returns for recent financial years. The taxable bases and taxes are recalculated based on the supposition that the tax exemptions and exemption brackets stipulated in the *Ley de Régimen Tributario Interno* (Internal Tax Regime Law) (*LRTI*) have been eliminated. The exemptions considered as tax expenditures according to the *LRTI*, and which have been most recently estimated, include the following headings: reinvestment of profits, depreciation allowed for tax losses from previous periods, deductions due to special laws, and dual tax agreements.

¹⁸ Based on the document drafted by Ecuador's *Centro de Estudios Fiscales* (Center of Fiscal Studies) (2008).

Guatemala¹⁹

The measurement undertaken, despite the limitations imposed by the national statistics system, has been carried out by the *SAT*, with the purpose of fulfilling one of the promises of the *Pacto Fiscal* (Fiscal Accord) and although the methodology employed has evolved over the years, the same procedures have been used in the majority of cases for the period presented, thereby making all the information comparable.

The methodology employed by the *SAT* rests chiefly on the gathering of information about uncollected revenue, based on the tax returns presented by taxpayers. However, in some cases, due to the lack of declarations by some beneficiaries of special treatments, additional estimates are called for, which evince some limitations, especially concerning availability, trustworthiness, and the validity of some of the indispensable statistical data.

Finally, it is important to remember that the following basic concepts have been followed in making the analyses:

- Employment of the ex post method: A tax expenditure is defined as the tax revenue that is foregone as a consequence of the current validity of preferential tax treatments. It is supposed that the taxpayers' behavior remains unaltered, given that only what happened in the past is being analyzed. This implies that the elimination of these exemptions or preferential treatments does not lead to an increase in revenue corresponding to the amount of the estimated tax expenditure, given that the economic agents would react if faced with such measures.
- Legal foundation: This is calculated according to the exemptions contained within the law. The principle of universality is applied in such a way that if all passive subjects of the tax benefit from the preferential treatment, it is considered to be a part of the norm rather than a tax expenditure.
- Fulfillment: There can be no tax expenditure unless the taxable event is formalized.

¹⁹ Based on the document drafted by Guatemala's *Superintendencia de Administración Tributaria* (SAT) (Tax Administration Agency) (2009).

Honduras²⁰

Information provided by the *DEI*, corresponding to the aggregate information according to economic activity gathered from the tax returns of the high-taxpaying corporations (forms 350 V.1 and V.2), was used as the starting point for the purpose of estimating the tax expenditures corresponding to income tax.

The amounts of assessed earnings, deductions, non-assessed earnings and the net taxable income were all indicated by the aforesaid form, along with the amounts of tax determined according to rate, the corresponding deductions through exemptions or reductions, and of credits conceded for employment creation, among other concepts. Additionally, information was made available about the overall balance, broken down into types of assets and liabilities, as well the sums of reserves, depreciation, and increase in investment, and the amounts of capital and of profit.

Given that the principle source of information provided by the corporations refers solely to the tax returns of the highest taxpayers, their participation in the total revenue collected was estimated, based on the tax determined in the tax returns relative to the total revenue collected by the *DEI* from all taxpayers. The resulting coefficient was thereafter used to expand the tax expenditure estimates to include the whole of the taxpayers.

Mexico²¹

The definition of what are to be considered tax expenditures can be directly taken to mean all of those exemptions, reductions, and tax breaks that deviate from the benchmark of any tax, thereby constituting a favorable tax regime for certain types of income or economic sectors, and that have para-fiscal or political-economic objectives.

This definition could further incorporate other measures, such as the application of differential rates, the granting of tax credits and of more favorable deductions, as well as schemes that allow for the deferral of tax payments, among others. Likewise, with regard to the benchmark, concepts should either be specified as forming part of it, or whether they should be considered as tax expenditures. In general, the benchmark is comprised of those measures set out in the tax legislation that represent a fundamental part of its very nature.

²⁰ Based on report by Gómez-Sabañi (2006).

²¹ Based on the report by Mexico's *Secretaría de Hacienda y Crédito Público* (Tax Administration and Public Credit Secretariat) (2009).

During the drafting of the *Presupuesto de Gastos Fiscales* (Fiscal Expenditure Budget) the “normative or referential” structure of corporate income tax is considered to be that which is applied according to the principle of worldwide income, meaning that earnings are accumulated irrespective of the country in which they are generated; that double international taxation is avoided; that entrepreneurial activities are taxed according to a net base with a uniform rate; that the expenses strictly indispensable for said activities can be deducted; and that the deduction of investments in a straight line is permitted.

It should be stressed that the fact that tax expenditures are defined as deviations from the benchmark tax implies that their evolution should not be considered as a measure of the behavior of revenue, given that in the face of an important tax system reform, it might be possible, for example, for the tax expenditures to increase alongside the increase in expected revenue, derived from a new definition of what forms part of the benchmark tax structure.

In Mexico’s case, the foregone revenue method on an accruals basis is employed for the purpose of estimating the Fiscal Expenditure Budget. The estimates contained in the Fiscal Expenditure Budget seek to show the revenue lost during one financial year due to the tax policy applied in the same year, but without considering the effects that such a policy might have in future periods. In the budget, for example, diverse concepts are reported that imply the postponement of fiscal obligations, such as immediate deductions, whose estimation is calculated as a revenue loss that arises in the same year in which the deferral takes place. This does not take into account the future recuperation of resources obtained when the same are reinvested, which would be the effect of the resulting lesser linear deduction in future tax periods, produced by the exclusion of straight line deductions for those assets that have already been deducted in immediate form.

The preceding implies that if fiscal expenditure seeks to reflect the revenue lost due to the tax policies applied in one financial year then, in the case of tax treatments that involve tax deferrals, the estimates should not be considered as approximations to the permanent resources that might be obtained through their elimination. It is important to point out that the sums of the amounts of the preferential treatments presented in the budget seek only to approximate to the dimension of the fiscal loss derived from these treatments, and must not therefore be considered as potential revenue, given that the estimates are carried out independently of each other and the effect that the elimination of one might have on the revenue loss of another is not considered. This means that the simultaneous elimination of various or all of the preferential treatments would not imply the recuperation of revenue commensurate with the sum of the individual estimates.

The information upon which the value of the tax expenditure estimates are made is gathered principally from the tax returns and audits that taxpayers present for tax purposes. In other cases, external sources are employed, such as those that the *Instituto Nacional de Estadística, Geografía e Informática (INEGI)* (National Institute of Statistics Geography and Information Technology) provides or, rather, information that various governmental agencies, among others, provide. Finally, it must be mentioned that the information arising from the diverse tax returns presented by the taxpayers is sometimes rather limited, given that the instruments themselves have been simplified in the pursuit of administrative economies.

Peru²²

The general estimation method employed rests chiefly on the carrying out of simulations that compare the revenue obtained in a reference scenario (with exemptions) to that of the revenue obtained in an alternative scenario (without exemptions). The resulting difference between the two revenues is the estimated tax expenditure. The aforesaid simulations are carried out using statistics from previous years. In the case of income tax, the beneficiaries are those taxpayers who directly apply the corresponding tax benefits. The estimated tax expenditure corresponds to the State's financial loss associated with the greater deduction for annual depreciation due to the use of higher depreciation rates than those applied to the rest of the taxpayers.

The greatest annual deduction for depreciation is estimated by applying the 27 percent (general tax rate) to the difference between the accumulated depreciation reported in the annual tax declarations. To calculate the financial loss, the valid *TAMN* for the year in question was used as the discount factor. The *PDT 678* (Income Tax 2001) and the *PDT 676* (Income Tax 2000) provide the figures employed, owing to the greater profusion of detailed information about fixed assets contained in these forms. For the purpose of calculating the *IRPJ* differential rates, the estimate corresponds to the difference between the promoted rate (for example, 12 percent = 27 percent - 15 percent) of the net third category taxable income of those taxpayers who have declared a positive net income for the financial period and who, at the same time, have declared that they have taken advantage of the benefits offered by the law.

²² Based on a report by *SUNAT* (2003).

Dominican Republic ²³

There is a wide application of incentives, the most prominent being partial or total exemption from the taxable base, although mechanisms of accelerated depreciation, tax investment credits, and reductions in the applicable rate are also employed. These incentives have been mainly established to benefit manufacturing industry, investments in renewable energy projects, tourism, free trade zones and the stock exchange, as well as investments in education and healthcare service provision.

The methodology employed is that which measures the tax expenditure as the quantity of revenue foregone, meaning the tax revenues foregone due to the existence of special tax provisions (concessions, exemptions, tax breaks, tax deferrals, etc.). Likewise, the *Dirección General de Impuestos Internos* (Inland Revenue Directorate) (DGII) database, the *Superintendencia de Valores* (Securities Agency), and the *Presupuesto Nacional* (National Budget), as well as the macroeconomic aggregates published by the Dominican Republic's Central Bank (BCRD) are used.

The following list details the principle tax expenditures aimed at encouraging investment alongside their principle sources of information:

- 100 percent exemption from income tax and deductions of up to 20 percent of the net taxable income from the amount of the investments in tourism projects. Data drawn from the hotels' tax returns held at the DGII are used.
- 100 percent exemption from payment of corporate income tax for 20 years for those companies installed in the special frontier development zone. The Central Bank's macroeconomic aggregates are used here.
- Exemption from payment of corporate income tax on returns generated by investment in the stock exchange. Data gathered from the Securities Agency's statistical bulletins are employed.
- Exemptions from corporate income tax running from 80 percent to 100 percent for operators within the free trade zone, where the percentage of the exemption will depend on the area of the country in which the company sets up business. Data gathered from the tax returns of companies operating in the free trade zone, held at the DGII are used.

²³ Based on a report by the Dominican Republic's *Secretaría de Estado de Hacienda* (State Secretary for Tax Administration) (2008).

- 100 percent exemption from corporate income tax, deductions for reinvestments, mortgage loans, replacement of machinery and equipment, and donations, as well as exemption from the tax for setting up companies or increase in capital for those investments made in forestry development. The Central Bank's macroeconomic aggregates are used, alongside the budget allocations for the nonprofit environmental organizations.
- 100 percent exemption from corporate income tax for enterprises in the textile, furs, leather, and shoe sectors, as well as for individuals or corporations that offer professional services to industrial development projects. Corporate tax returns reported under the industrial competitiveness law and held at the DGII are used.
- Accelerated depreciation for the fixed assets of the industries covered by the law on industrial competitiveness. Corporate tax returns reported under the industrial competitiveness law and held at the DGII are used.
- Five years' exemption of 50 percent of the net taxable income for the fiscal period of the year prior to the investments made in fixed assets for those industries covered by the law on industrial competitiveness. Corporate tax returns reported under the industrial competitiveness law and held at the DGII are used.

Uruguay²⁴

In general, the benchmark is accepted to be the one defined in the legal tax rules and regulations, and this criterion has been adopted by Uruguay. Likewise, it is recognized that some exceptions to taxation established by the law might form part of the normal benchmark tax and, consequently, not therefore be tax expenditures. When income taxes are analyzed, determining the benchmark is very complex, given that agreement must be reached on what constitutes the assessed income, whether the progressivity in the tax rates belongs to the benchmark or not, if the deductions form part of the normal tax, etcetera.

Some tax relief or benefit schemes imply a deviation regarding the normal or benchmark system, but are included under a special regime. For those cases, and provided that sufficient information is available, only the difference between the costs of not applying the measure and the revenue arising from the application of the particular regime is considered as a tax expenditure.

²⁴ Based on a document by Montero, Olmos, and Peláez (2008).

With regard to the case of tax expenditure estimation in Uruguay, the revenue foregone method is employed for the *Impuesto a las Rentas de Industria y Comercio (IRIC)* (Industrial and Commercial Income Tax) and the *Impuesto al Patrimonio* (Wealth Tax). In any case, even when a supposed change of behavior is applied, the method does offer some ex post measurement, because information gathered from previous past periods is used. The sum of all the estimated tax expenditures can be called the actual tax expenditure, a term that is assigned as an analogy for the term actual revenue, which is the actually verified income that has an implicit level of evasion. This means that the determined tax expenditure has already taken into account the existence of evasion in each one of the taxes.

In all cases, the determination criterion for the amount of taxes foregone is that which is accrued during each calendar year for the period between 2005 and 2007. The form and availability of the variables used in carrying out the estimates justify the application of the accruals criterion. Calculations of the different forms of tax relief are carried out through the DGI's administrative registers, or from information gathered from the taxpayers or institutions themselves that, due to their function, possess the necessary data concerning exempt or non-assessed tax bases. In virtue of this fact, it might be supposed that information would be available that, in many cases, already includes the evasion levels of each sector, and that the use of such data can therefore be said to approximate to the actual tax expenditures.

This temporary definition of tax expenditures uses the long-term approach. This implies that only that which produces a permanent loss of revenue is considered as a tax expenditure. Regimes which deviate from the general benchmark and represent a financial cost for the administration, but that allow the tax to be recovered in subsequent years, are not therefore taken into consideration. In Uruguay, this choice affects only the financial cost that arises from the regime known as *Canalización del Ahorro* (Savings Channeling), which is the only current valid income deferral mechanism.

With regard to the temporary aspect, the tax is liquidated annually, and the information available from taxpayers therefore refers to the annual period of income accrual, which does not necessarily coincide with the tax collection period associated with that business year. With regard to the tax's territorial nature, and as established by law, the tax is levied on earnings sourced in Uruguay. All earnings arising from activity carried out, goods situated, and rights exercised economically within the Republic are considered to be of Uruguayan source, irrespective of the nationality, registered office, or residence of those intervening in the operations, or where the legal transactions take place. If the benchmark tax is taken to be that which is imposed by the normative, then tax expenditures, in this regard,

are not determined by the non-application of the worldwide income criteria instead of the criterion of source.

To place a limit around the scope of tax relief, it must first be determined whether the income in question is affected or not by the tax. Those activities that are not levied because they do not satisfy any of the aforesaid hypotheses are not considered as exempt, but rather as not included within the tax's sphere of application and, consequently, will not form part of the tax expenditure calculation. From another perspective, those tax breaks that are contained within the normative body of the tax itself must be distinguished from those that have their origin in a different legal or constitutional norm. The State's own tax immunity, for example, is to be found outside of the tax's ambit, whereby it is declared that the State enjoys immunity from taxation at both the national and departmental level for its goods and activities that are not of a commercial or industrial nature. Also outside of the levy's ambit are a series of legal exemptions in favor of certain persons due to private rights. There are also tax breaks contained within the constitution. This is true of private teaching and cultural institutions, which are exempt from national and municipal taxes, as a form of grant for their services. The religious institutions also enjoy generic tax exemptions.