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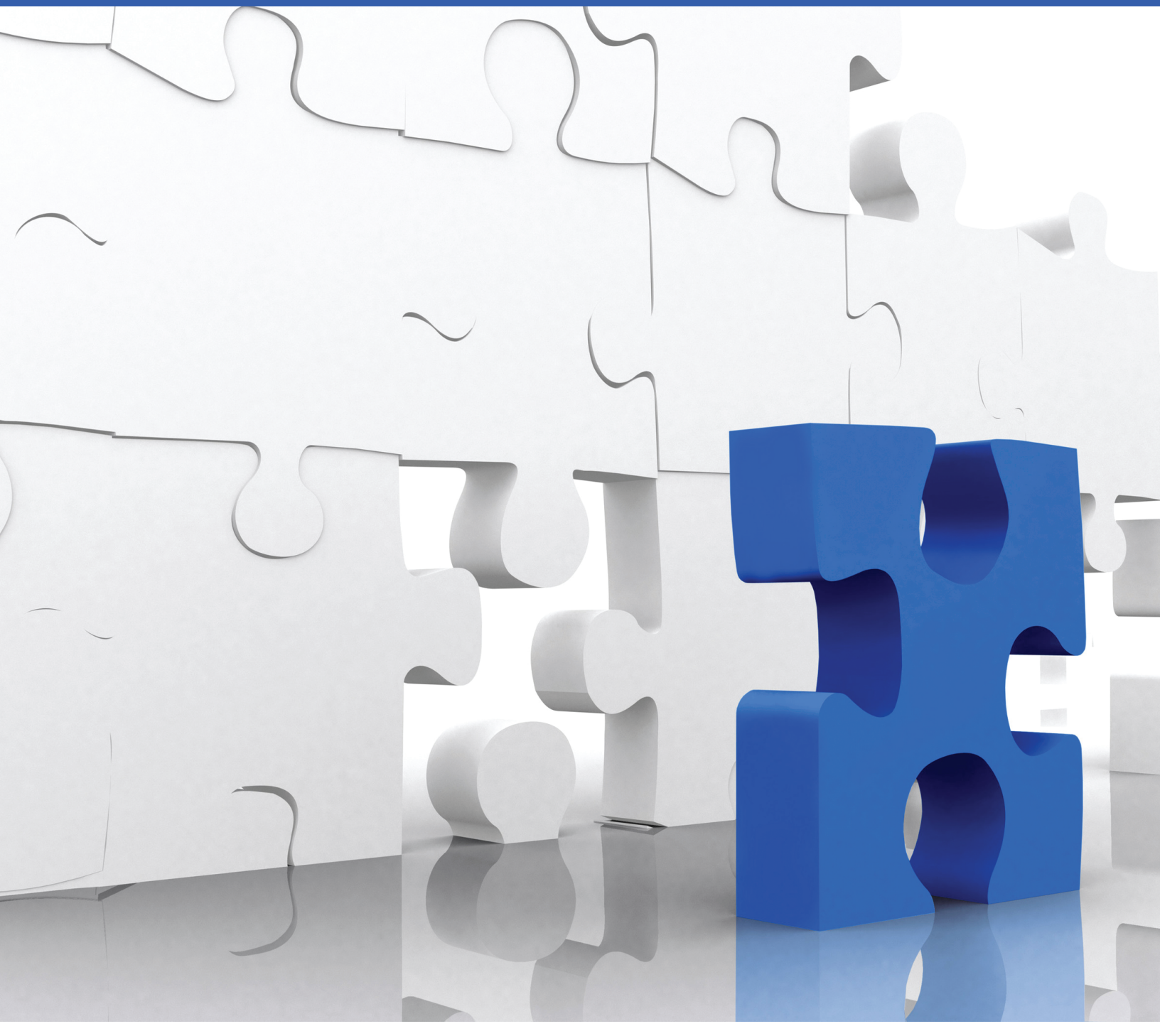

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Inter-American Center of Tax Administrations - CIAT

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Editorial Policy

The Technical Cooperation Agreement signed by CIAT and the State Secretariat of Finance and Budgets, the State Agency of Tax Administration (AEAT) and the Institute of Fiscal Studies

(IEF) of Spain, provided for the commitment of editing a review that would serve to disseminate the different tax approaches in force in Latin America and Europe.

An Editorial Board formed by CIAT officials (The Executive Secretary, the Director of Tax Studies and Research, a Consultant and the Heads of the Spanish and Italian Missions) is responsible for determining the topics and select the articles for each edition of the Review.

The articles are selected by the Editorial Board, through a public announcement made by the CIAT Executive Secretariat for each edition of the review. It is open to all officials of the Tax, Customs Administrations and/or Ministries of Economy and Finance of the CIAT member countries and associate member countries. Likewise, those members of the MyCIAT Community not belonging to any of the aforementioned entities may also participate, following evaluation by the Editorial Council

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Editorial

Dear Readers

This edition of the Tax Administration Review reflects the maturity and diversity of the tax debate in CIAT member countries. It is a debate that constantly crosses the imprecise and changing barriers between administration and politics, between the national and the global, and between the various disciplines of knowledge and social practice.

Various topics are covered in this opportunity. The articles are united by the need to contribute to comparative knowledge and provide methodological tools for better tax policy decision-making and management in our countries.

One article analyzes the timeframes required to determine and to demand payment of tax debts in CIAT member countries. We are pleased to see the fact the author points out that "... most of these regulations follows, very closely, the guidelines contained in the CIAT Tax Code Model".

Two other articles address issues critical to tax management: one on the estimate of tax evasion, in the case of excise taxes in Chile, and the other deals with information systems for management. Evasion analysis should become a permanent practice in all tax administrations because its reduction is a central goal for all of them.

Three articles deal with the use of tax policy to stimulate specific economic sectors: the agriculture in OECD countries, the generation of energy from renewable sources in Argentina, and investment and employment in Uruguay. These are issues that go beyond tax management, reaching the economic policy debate. The big question in these cases is whether intervention is justified with regard to other available alternatives, including no intervention. The systematic description of the current regulations is a contribution of these articles. So is the effort of measuring "tax expenditures" in two cases – a tax cost that should be part of the debate on the net benefits of intervention. In the published works, the authors do not hide their political preferences but provide the reader with an overview of existing practices and some of their costs and benefits. It is an area where tax administrators may make a significant contribution to those responsible for policy decision-making.

The transfer pricing methodology, and particularly the one developed by Brazil, is also addressed in this issue of the review. It is trivial to repeat that globalization provides new opportunities for all. It also affords opportunities for tax evasion, and therefore the countries and international organizations have begun to develop methodologies to regulate and control the assessment of transactions within large companies. This article presents and defends the option developed by Brazil, based on recognizing the particularities and interests of developing and emerging countries.

Please send your comments and suggestions. I invite you to take advantage of this medium of communication to foster dialogue on issues of common interest .

Márcio Ferreira Verdi
Review Director

Tax Incentives and Renewable Energies

Hernán D. Cruells and Edgardo H. Ferré Olive

SUMMARY

Tax incentives are particular treatments that the State grants to certain activities or regions, in order to attract investment and development; quantifying them measures the loss of tax revenue resulting from their implementation, and is denominated Tax Expenditure.

The purpose of this study is to develop the tax expenditures applied to the activity related to the so-called "clean" energies or renewable energies, and aspects related to the implementation of the Kyoto Protocol, proposing to study these incentives and their socio-economic application.

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CONTENT

With the growing economic activity, and the application of complex production processes that affect the environment, the emission of greenhouse gases (GHG) has been increasing.

Climate change and Energy are interrelated: much of the GHG emissions come from the energy sector in various forms (including transportation).[1]

An international mitigation strategy is needed, but the magnitude of the economic costs should be considered, this is related to the features and options of economic development in the coming decades.[2]

In this sense, we must optimize the uses of energy, reducing the uses of fossil fuels by replacing or substituting them with energy sources called "renewable"-a term used to contrast them with the non-renewable resources such as oil-in order to protect the environment.
For such purpose, certain tax incentives must be applied for promoting the use of "renewable Energy"-some of them related to technologies and so-called "clean" activities regarding conservation of the environment.[3]

The purpose of the present research is particularly to develop tax expenditures applied to "biofuels", Wind, Solar energy, etc. activities, and other aspects related to the implementation of the Kyoto Protocol, by studying these incentives and their social and economic application.

1. *There are other alternatives to mitigate GHG emissions for the Energy sector, in addition to renewable Energies, mainly energy efficiency, and also the use of more efficient fossil fuels regarding GHG or captures and storage of carbon, even though there are other extra-environmental reasons for developing renewable technologies (energy security, positive effects on the economy, etc.) in Labandeira, Xavier, Pedro Linares and Klaas Würzburg " Energías renovables y cambio climático ", ICE Revista (Spanish Trade Information), No 83, first semester 2012, page 37.*
2. *In this regard, ECLAC considerss that the economies of Latin America and the Caribbean in the twenty-first century will face the challenge posed by climate change, including adaptation and mitigation costs, and must simultaneously address other outstanding issues, such are sustained economic growth, employment generation or poverty reduction, in the "La Economía del Cambio Climático en América Latina y el Caribe, Síntesis 2009", Summary 2009, United Nations economic for Commission Latin America, 2009, page 9.*
3. *Mateo states that renewable energies can not completely replace fossil energies, considering the world population increase (the population will double around to year 2050) and maintain the existing living conditions of our species. But these renewables energies can provide significant relief to the Energy balance of Humanity, in Mateo, Ramon Martin "Medidas fiscales para apoyar las energías renovables", Environmental Taxation, Edited by Ana Yábar Sterling, Cedecs Editorial, Barcelona, 1998, page 123*

1. TAX INCENTIVES

Before introducing our topic, it seemed appropriate to provide a summary on "tax incentives".

Tax incentives are special treatments granted by the State to certain activities or regions, making them more attractive for investment and development, and they constitute one of the tools within the policies for promoting a specific sector, region or economic activity, that may or may not be related to environmental protection.

Tax incentives are instruments through which the behavior of economic actors can be modified with limited fiscal cost.[4]

Their common objectives are, among others, to increase investment, the regional development of zones with natural, social or economic disadvantages, the promotion of exports, the industrialization, employment generation, environmental conservation, technology transfer, diversification of the economic structure and human development.

Within these regimes, the most related to renewables energies in Argentina are the following:

Table 1
Tax energy regimes and incentives

REGIME	DETAIL OF TAX INCENTIVES
Law N°25.019 on Wind and Solar Energy	• Investments of capital with payment deferrals in Value Added Tax (VAT) tax for 15 years from the promulgation of the law. • Preferential price per kwh for a period of 15 years from the request for benefits. • Fiscal stability for 15 years (except VAT and Social Security Contributions)
Law N° 26.093 of regulation and promotion for the sustainable use of biofuels	• Under the regime, there is possibility of recovering the anticipated VAT (with the other tax credits or refund request to AFIP). • In the Corporate profits Tax, the option to accelerate the depreciation of goods. • The projects assets will not be included in the tax base of the Minimum Presumptive Income tax.
Law N° 26.123 on Hydrogen Promotion	• Anticipated VAT refund and accelerated depreciation system under Law N° 25.924. • Assets from the promoted activities will not be included in the tax base of the Minimum Presumptive Income Tax, until the closing of the third year, even after starting the respective project. • The hydrogen produced by project holders will not be included in Liquid Fuels and Natural Gas taxes, or by Gasoil tax nor by the Hydric Infrastructure tax. The regime will have a validity of 15 years from the year following the one of publication of the law, and a tax voucher is issued for these promotional benefits.

4. *As stated by Jiménez and Podestá, tax incentives can take different forms: a) temporary tax exonerations (tax holidays) and reduction of rates; b) incentives to the investment (accelerated depreciation, partial deduction, fiscal credits, tax deferral), c) special zones with privileged tax treatment (import duties, income tax, value-added tax) and d) other incentives (reductions in labor taxes), in Jiménez, Juan fiscal Pablo and Podestá, Andrea "Investment, incentives and tax expenditures in Latin America", Cepal, United Nations, Series Macroeconomics of development 77, Santiago of Chile, March of 2009, page 16.*

Law N° 26.154, Promoting hydrocarbons exploration and operation.	• A regime of anticipated VAT refund applies, accelerated depreciation in the Profit Tax (in three annual, equal and consecutive quotas) and the exemption in payment of import duties and all other duties, special taxes, excise tax or statistic tax - excluding services fees - for the introduction of capital assets, or parts, that are not made in the country and which are necessary for the activities included in the regime. • Assets owned by holders of permissions of exploration and concessions of operations under the regime of this law, will not integrate the tax basis of the minimum Presumptive Income Tax , until the third year, even after the date of attribution. • The benefits established in this law will be applied for a period of 10 to 15 years according to article 2° from the law, establishing an annual voucher of promotional benefits.
Law N° 26.190. National Promotion for the use of renewable sources of energy for the production of electrical energy.	• Anticipated VAT Refund and accelerated depreciation system under Law N° 25.924. • Assets from the promoted activities will not be included in the tax base of the Minimum Presumptive Income Tax, until the closing of the third year, even after starting the respective project.
Law N° 26,270 Promoting the development and production of modern Biotechnology	• * Accelerated depreciation in Corporate Profit Tax for capital assets, special equipment, parts or component elements of these assets, acquired for the promoted project. • Anticipated VAT refund corresponding to the assets invoiced to the owners of the project. • Exchange of FIFTY PERCENT (50%) of the amount of contributions to the social security into fiscal credits vouchers, which they have been paid to the social security system included in Laws 19,032 (National Institute of Social Services for Retired and Pensioners), 24.013 (Law of Employment) and 24.241, (Argentinian Integrated Prevision System) on the project's workers payroll. • The mentioned assets will not be included the Tax base in the tax base of the Minimum Presumptive Profit Tax, from the approval of the project by the competent authority and during the established period. • Exchange into credit vouchers, FIFTY PERCENT (50%) of the expenses for Research and development services with instruments of the national public science, technology and innovation system. • (These bonds do not apply for goods and/or services production projects). The fiscal credit bonds are non-transferable and will last TEN (10) years from the date of approval of the project, and will not be considered with in the tax base corresponding to the Profit Tax
Law N° 26,360 Promoting Investments in Capital assets and Infrastructure	• Anticipated VAT refunds • Option of accelerated depreciation regime in the Profit Tax (considering the option of sales and replacement, article 67 of the tax law). • Accelerated depreciation benefits and anticipated VAT refund for investment projects exclusively for the export market and/or included clean production or sustainable industrial reconversion plan approved by the competent authority. • An annual tax voucher is established.

2. TAX EXPENDITURE

Tax incentives must be quantified; in order to measure the tax cost of the incentive, the governments have progressed in the collection loss measurement loss by the implementation of the so-called Tax Expenditure.[5]

The Tax expenditure includes the amount of income that the state treasury fails to collect when granting a particular tax treatment, with objective is to benefit certain activities, zones, taxpayers or consumers.

At least three reasons are recognized, justifying to study the tax incentives or tax expenditures:

a. they constitute the main instrument of governmental expenditure policy;
b. at domestic level, the incentives affect the local allocation of resources, and
c. at international level, they can cause distortions in competitiveness, affecting the international resources allocation.[6]

Their measurements are carried out through estimation of expenses, being the "Tax Expenditures Estimates for the years 2010 to 2012" the last report in Argentina issued by the Ministry of Economy and Public Finances.[7]
These expenditures estimates have as main purpose, contribute to a more transparent tax policy, by analyzing which public policies are financed through the granting of preferential tax treatments, instead of being financed through direct expenses, and when considering the tax amounts that the State stops receiving as a result of the application of these policies.[8]

On the other hand, it provides necessary information to measure the potential efficiency of the tax system and the performance of its administration.

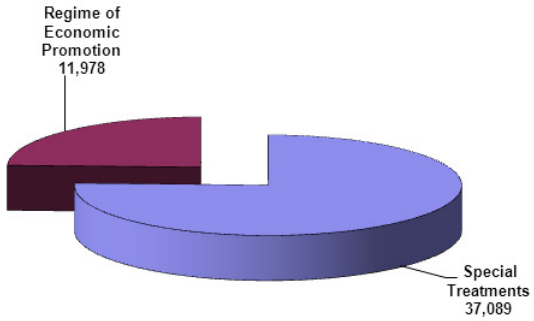
The Tax Expenditure Calculation Method considers the structure established for each tax in the legislation - its general object, aliquot, deductions, exemptions, etc. -, the cases that benefit with a special treatment being indicated.
In relation to tax incentives and their application to alternative energies, the Republic of Argentina considers that only cases that cause definitive losses in collection are Tax Expenditure. Tax

5. *On this matter, see the Manual issued by the Inter-American Center of Tax Administration (CIAT) in which the experiences in the measurement of tax expenditures in a group of Latin American countries, with the coordination of the CIAT Studies and Investigation Director, Econ.. Miguel Pecho Trigueros, in "Manual of Best Practices in Tax Expenditures Measurement: a Latin American experience", CIAT, 2011. In this document, a conceptual framework is developed, the classification of the tax expenditures, their practical application, the best practices and the proposed conventions in the analyzed countries. In relation to best practices, in Chapter 4 the most relevant topics for the quantification of the collection loss by the State due to tax expenditures are developed, and aspects related to the sources of information and the methods of measurement are analyzed (page 59).*
6. *Simonit, Silvia "Main Trends on Tax Expenditures from an International Perspective", IX Public Economy Encounter, Vigo, 2002. This author also states that all government management must tend towards a greater tax transparency, and tax expenditures implemented by means of the tax system give a shade of opacity, by contrast with direct expenses programs that are subject to legislative approval, even though the objectives are similar, in Simonit, Silvia "Incentives and Tax Resignation", United Nations, 2001.*
7. *Report by the National Direction of Investigations and Tax Analysis, Secretariat of Finances, Ministry of Economy and Public Finances, National Presidency, Argentina.*
8. *On this matter, Villela, Jorratt De Luis and Lemgruber Viol consider that it is essential to perform a political economy analysis and its relation with tax expenditures, in order to limit their proliferation, integrating tax expenditures in the budget and limiting these expenditures the same way as direct expenses are limited. in Villela, Luis; Michael Jorratt de Luis, Andréa Lemgruber Viol, "Challenges for the Measurement of Tax Expenditures", CIAT General Assembly CIAT N° 44, Montevideo Uruguay, 2010, published in "Serie Temática Tributaria 9, Gasto Tributario, March 2011, page 29.*

payment deferrals, accelerated depreciation in the Tax on profits and anticipated refunds of tax credits in the Value Added Tax are not considered Tax Expenditures, because the loss of collection to that they cause in the years in which the benefits are provided are compensated with greater payments of taxes in later years.[9]

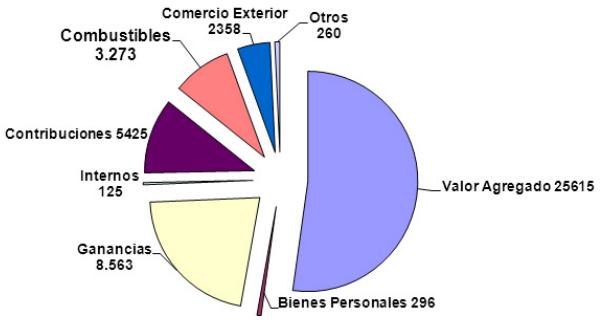
A general criterion used is that the estimations should be directed to obtain a minimal tax cost value, with the objective of not overestimating the collection amount that would be obtained from the possible elimination or reduction of the special treatment. (The evasion rate presumed to exist for each tax was not considered either).
The amount of tax expenditures considered for the year 2012 reaches $ 49,067 million, equivalent to 2.35% of the GDP and 7.30% of the national taxes collection and projected contributions to the social security for that year. $ 37,089 million of this amount correspond to special treatments established in the respective tax laws and $ 11,978 million to benefits granted in the diverse regimes of economic promotion. (See Graph 1.)

Graph 1
Tax Expenditures Estimate
(in millones of pesos)



Graph 2 shows the total composition of the tax expenditure estimate for the year 2012.

Graph 2
Detail of tax expenditures by type of tax
(in millions de pesos)

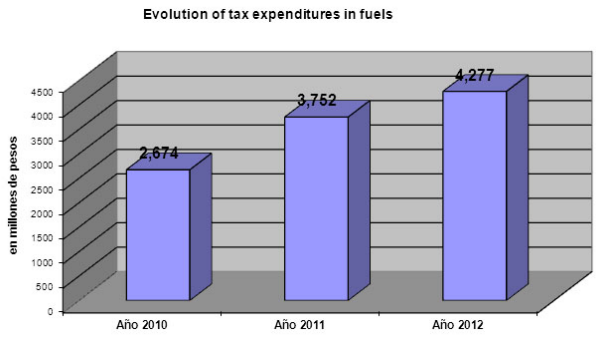


9. *From the Report mentioned in (7) it appears that these incentives generate a financial cost to the State, but that it is usually not reported as Tax Expenditure. With respect to the accelerated depreciation in the Profit Tax , in a document by the Organization for the Cooperation and Economic Development (OECD), a study of Tax Expenditures took place in ten OECD countries, which includes in its Part II a comparative analysis for seven of them (Canada, Germany, Korea, Netherlands, Spain, United Kingdom and United States). This analysis shows that in three countries a percentage of tax expenditure has been determined in the tax on profits by the application of the "accelerated depreciation", in the measurements for Korea (2006): 0,05 %; United Kingdom (2006): 6.56% and United States (2008): 3,40 %. In the rest of the analyzed countries in this Part of the study, no tax expenditures are indicated under the same concept, in "Tax expenditures in OECD Countries", Organization for Economic Cooperation and Development, page 226.*

In relation to the Tax on Fuels, the tax expenditure increase was approximately 40% between the years 2011 and 2010 and 14% resulting from the 2012 and 2011 inter-annual comparison. The total tax expenditure shows an inter-annual increase of 21% for the 2011/2012 period.

Graph 3 shows the increase that tax expenditures in fuels has been experiencing from year 2010 to 2012.[10]

Graph 3



These expenses represent participation of the order of 0.21% to the Gross Domestic Product for the year 2012.

Regarding the Tax on Fuels, the most important tax benefit is granted by the Production and Use of Sustainable Biofuels Regime. Bio-ethanol and bio-diesel are exempted from taxes on fossil fuels. The remainder of the Tax Expenditures in this tax originates from the aliquot difference on petrol, diesel oil - only car consumption is considered -, compressed natural gas and those exemptions used the Southern part of the country.

3. RENEWABLE ENERGIES

To decrease the use of the traditional sources of fossil fuel (coal, oil and gas) has become necessary since they are non-renewable and damage the environment.

Within this process of substitution of energy sources, the tax policy should at least stimulate renewable and non-polluting alternative activities, or at least, those that causes less pollution.[11]

The alternative energies are bio-diesel, aeolian energy, solar energy, hydrogen, biomass, geothermal and nuclear magnetic energies.[12]

10. *Data that arise from the report mentioned in (7).*
11. *In the European scope, the 2009/28/CE European Parliament and Council Directive, of April 23, 2009 (Official Journal N° 140 of June 5, 2009) establishes guidelines related to the promotion of energy coming from renewable sources, with the objective for the Community to obtain a global quota of energy from renewable sources. In Spain, Law 2/2011 of Sustainable Economy (BOE 5/3/2011), in its Title III on Environmental Sustainability, Chapter I, develops a sustainable power model, with objectives of power saving and participation of renewable energies.*
12. *On the matter, an interesting treatment of the applicable tax incentives for these alternative energies (electrical solar, wind, bio-fuels hydrogen energy sources) is developed by Sanmartín Sobré, Ignacio "Tax Incentives for alternative sources of energy", Revista Impuesto, Editorial La Ley , Argentina, N° 16, August 2007, pages 1538/1551. In relation to the tax treatment of the photovoltaic solar energy in Spain, Lasarte Lopez and Diaz Ravn develop it in the different taxes (Income Tax, Taxes on Societies, non-resident personal income tax, documented Taxes on patrimonial transmissions and Legal transactions, VAT, and in the scope of the local taxation), in Lasarte Lopez, Rocío and Diaz Ravn, Nicholas "Some questions on taxation of the electrical energy production by means of renewable sources", pages 503 to 524, in "environmental Taxation and local properties", Collective Work, Direccion Serrano Anton, Fernando, Editorial Civitas-Thomson Reuters, Madrid, 2011.*

These alternative sources will coexist with the traditional energy sources[13], that given the power crisis at world-wide level in the medium or short term their consumption should decrease, to be replaced with nonrenewable sources.

National Regime for solar and wind energy

This regime of alternative and sustainable energy is established in Argentina by Law N° 25.019, which declares as national interest the generation of electrical solar and wind energy in all the national territory, establishing an exemption of tax duties and a preferential price per generated Kwh using these renewable energy sources. The competent authority is the Secretariat of Energy.[14]

It states that capital investments for to the implementation of wind or solar power stations and/or equipment will be able to defer the Value Added tax payment for fifteen (15) years from the promulgation of the Law. These deferrals will be cancelled in fifteen (15) annuities from the expiration of the last deferral.

This activity will benefit from fiscal stability for a period of fifteen (15) years from the promulgation of the Law N° 25.019, whenever this energy is used in wholesale markets and/or is provided to public services (by the Decree N° 1.597/99 the contributions to the Social Security and the Value Added Tax are excluded).

Biofuels

The bio-fuels include bio-ethanol, bio-diesel and bio-gas, produced from raw farming, agro-industrial or organic materials.

13. *The following tax regulations are applied in Argentina to these traditional energy sources: Law N° 2.966, Chapter I, Title III (Taxes on Liquid Fuels and Natural Gas), Law N° 26.028 (Tax on the Transfer or Import of Diesel oil), Law N° 26.181 (Hydric Infrastructure Fund), Laws. 15.336 and 24.065 (Electrical energy). In relation to the subject of the environmental taxation related to the hydrocarbons sector, there is an interesting document of Roccaro, Isabel and Fernandez, Edgardo "environmental taxation and tax aspects of the hydrocarbon sector, the Argentine case", in IEFPA, Criterios Tributarios, Year XXIII N° 154, Edition April 2008, Argentina, pages 112 to 143 Rodriguez Luengo develops hydrocarbon taxation aspects as an instrument to the service of the reduction of carbon dioxide emissions and climatic change. This special tax on hydrocarbons is an environmental tax since it complies with the two requisite established by the definition of EUROSTAT (Statistical Office of the European Communities) - OECD : its tax basis is defined in physical units and tax an energy product with a proven negative impact on environment, since the hydrocarbon combustion generates polluting emissions, among which carbon dioxide stand out as a gas with antropogenic effect considered in the Kyoto Protocol, and main cause of the climatic change, in Rodriguez Luengo, Javier "the special tax on hydrocarbons and environment", Institute of Fiscal Studies (IEF), Spain, Document 6/04. Another document of interest is the one developed by Durán Cabré and Gispert Brosa that includes proposals for Spain in environmental taxation of energy, that includes a comparative analysis with other European countries, in Durán Cabré, Jose Maria, of Gispert Brosa, Cristina "environmental Fiscality on energy: proposals for Spain", Institut d´Economía de Barcelona, Centre de Recerca en Federalismo Fiscal i Economia Regional, Document de treball 2001/10. In relation to non-renewable natural resources, Scalone develops the role of the state and taxation on natural resources, and particularly the complexity of the tax treatment of the non-renewable resources, in Scalone, Enrique L., "Taxation on non-renewable natural resources", in Tratado de Tributación, Volume II, Politica y Economia Tributaria, Volume 1, Director Vicente Or. Diaz, I capitulo VI , La Tributación Medioambiental", Editorial Astrea, Argentina, pages. 533 to 593.*
14. *Bernardelli develops the treatment of the Thermodynamic Solar Energy in Latin America (the cases of Brazil, Chile and Mexico), which are the three countries of Latin America which present the ideal geographic conditions for the efficient development of projects of electrical generation by means of concentrated thermo-solar source, and the author states that the potential benefits are still not developed, in Bernardelli, Federico "Thermodynamic Solar Energy in Latin America: the cases of Brazil, Chile and Mexico", CEPAL, United Nations, Document of Project, 2010. In relation to Wind Energy, in Spain two laws have been created: law 8/2009 of regulation of wind energy in Galicia and creation of a wind energy code and a Compensation fund; and Law 9/2011 of creation of wind energy regulation and the Fund for the Technological Development of the Renewable Energies and Rational Use of the Energy in Castilla-La Mancha.*

These fuels do not produce greenhouse effect gases[15] and constitute an activity in full development, and our country has provided them with a regulation that includes tax incentives.[16]

The Law N° 26.093 on bio-fuels establishes a 15 years period of fiscal stability from its promulgation.

The incentives of this regime include the implementation of a "mandatory mix" which is a mixture of bio-fuels with fuels of fossil origin. With validity from 1/1/2010, the oil gas or diesel oil must be mixed with the "bio-diesel" in a minimum of 7% proportion, measured on the total amount of the final product - for the naphtha the procedure is applied but the mixture is with "bio-ethanol" -.

Tax incentives include:

- The possibility of anticipated VAT payments refunds (with credit from other Federal Administration taxes or request for refund),
- In the Profit Tax, the option of accelerated depreciation of assets and
- The assets affected to the projects will not be included in the base of the tax to the Minimum Presumptive Profit Tax.[17]

The products promoted in the regimes of the Laws N° 26.093 (Biofuels) and N° 26.334 (particularly Bio-ethanol) are also exempted from certain taxes such as the Tax on Liquid Fuels and, under certain conditions, either do not contribute to the Hydro Infrastructure Fund nor the Additional Tax on Gas Oil, differentiating the tax treatment by considering if the bio-fuels are pure or mixed and the products are or not promoted.

15. *In agreement, Cambra writes, "in fact, the bio-fuels almost emit the same amount of carbon dioxide as fossil fuels, but unlike these last ones, they return to the biomass through the photosynthesis process", producing a "carbon cycle", not creating gas accumulation, in Cambra, Santiago A. "Nuevo régimen de promoción para biocombustibles", Editorial La Ley Online, Professional Practice 2006-25.*
16. *Walsh, Juan "Política Ambiental y promoción de energías alternativas y biocombustibles: articulaciones necesarias para el desarrollosustentable", Revista Derecho Ambiental N° 16, Abeledo Perrot, Argentina, 2008, pages 179 to 225, performs an analysis of the bio-fuels and renewable energies in the European Union, the United States of North America, Latin America, Mercosur and Argentina, considering the existing dilemma between the food production, the energy production, and the environmental benefits of the bio-fuels in terms of their power balance and the GEG (Greenhouse effect gases) emissions reductions. In a document of the ECLAC, a "Keyboard" for the promotion of the bio-fuels in Argentina is developed, on the basis of seven axes that determine seven key bio-fuels aspects of the bio-fuels: institutional, energy, agricultural, economic and social, environmental, industrial and technological. In the axis VI - environmental - the authors state that the environmental impacts of the biofuels production are: a) Soil degradation effect, b) effects on biodiversity and unique or fragile ecosystems (for example due to the deforestation), c) effects on global greenhouse gas emissions throughout all their life cycle and d) other local emissions and environmental effects (i.e., atmospheric contamination by agrochemicals, atmospheric emissions), in Chidiak, Martina and Stanley, Leonardo ""Keyboard" for the biofuels production in Argentina", Eclac, United Nations, 2009.*
17. *On the matter, and in agreement with the Report mentioned in (7), "Deferrals of tax payments, accelerated depreciation on the Profit Tax and the anticipated refund of fiscal credits in the Value Added Tax are not considered tax expenditures, considering that the loss of collection that they generate in the years in which the benefits are not collected is compensated with greater payments of taxes in later years". The measurement to perform is the one related to the Minimum Presumptive Income Tax, but in the evolution of tax expenditure cost 2001-2009 by the Ministry of Economy, since the year 2004 the values appearing are inferior to 0.01% of the GDP.(Web: www.mecon.gob.ar).*

4. KYOTO PROTOCOL AND RENEWABLE ENERGIES

A protocol is an autonomous international agreement but related to an existing treaty.

It means that the protocol on climate shares the concerns and the principles established in the Climate Change Convention. It takes it as base and adds new engagements, which are more binding, complex and detailed than those stipulated in the Convention.

The Protocol of Kyoto has created a Trading Emissions Regime. Countries that limit or reduce their emissions more than required in the established targets can sell their credits of emissions to countries that meet more difficulties or face higher costs to meet their own targets.[18]

Through the Clean Development Mechanism- Article 12 of the Protocol - credits will be provided to finance projects for the reduction or suppression of emissions in developing countries. This mechanism the governments and the private companies are offered new ways to transfer clean technologies and to promote sustainable development. This mechanism will be governed by the parties through an executive Council, and the reductions will be certified by one or several independent entities.

With the Decree N° 1.070/05 the "Argentine Carbon Fund (FAC)" is created, with the purpose of facilitating "Clean Development Mechanism (CDM)" in the Argentine Republic, the Secretariat of Environment and Sustainable Development of the Ministry of Health and Environment being the competent authority.

The Protocol of Kyoto includes three mechanisms based on the market: the exchange of emission quotas between the Protocol Members, the joint application of projects between those countries and the Clean Development Mechanism- CDM- (with non-member countries).[19]

As stated in the regulations related to bio-fuels in Argentina[20], the projects qualified and approved will benefits from the Protocol of Kyoto mechanisms.

18. *This is considered as a license to pollute, since it constitutes a productive "input", endorsing the use of non-renewable raw materials and fossils fuels, in Ferré Olive, Edgardo Héctor, "Impuestos Ambientales", Boletín Impositivo AFIP, N° 146, September 2009, page 1583.*
19. *In a study for Latin America and the Caribbean, Acquatella develops flexible mechanisms under the Kyoto Protocol, the Clean Development Mechanism(CDM), the potential size of the market and the application of the Clean Development Mechanism for the region, in Acquatella, Jean " "Fundamentos económicos delos mecanismos de flexibilidad para la reducción internacional de emisiones en el marco de la Convención de Cambio Climático (UNFCCC)"", Cepal, Series Environment and Development N° 38, Santiago de Chile 2001.*
20. *The article 17 of the Law N° 26.093 establishes: "All the projects described and approved by the competent Authority of Application will benefit from the mechanisms - Emissions Reduction Rights, Carbon Credits and any other title of similars characteristics- of the Protocol of Kyoto and the UN Convention on Climatic Change of 1997, ratified by Argentina by means of Law N° 25.438 and the effects of the future law regulating the mechanisms of clean development. " The regulation (article 21 of the Decree N° 109/2007), establishes: "The Secretary of Environment and Sustainable Development, under the Council of Ministers will have to take the necessary decisions to assure the compliance with Article 17 from the Law N° 26.093. To such effects it will advise the Competent Authority for the approved products to benefit from the Law N° 26.093 on the conditions, programs and benefits in Article 17 of the Law N° 26.093, so they can be capitalized by the beneficiaries."*

5. PROJECTS PRESENTED

In the Argentine Republic certain projects related to Renewable Energies are being developed, such as the Photovoltaic Energy Plant of San Juan I (Solar Energy) and the Aeolic Parks Rawson I and II in Rawson, Chubut, Production of Bio-gas and Bio-diesel in Colon, Entre Rios, among others.

Projects under the Clean Development Mechanism have been presented.[21]

*Proyect N° 5, Park of Wind Energy Antonio Moran in the Patagonian Region, Argentina, Approved in National Instance (IN) on 19-07-2005 and registered in International Instance (II) on 29-12-2005.[22]

Objective: generation and distribution of electricity produced by the plant with a capacity of 10.56 MW, trying to replace the acquisition of energy by the Patagonian Regional System, which generation is mainly by Thermal power stations supplied by natural gas and Hydroelectric power stations, (Reduction of total emissions: 185.483 ton CO2 eq in 7 years).

*Project N° 11, Bio Energy in General Deheza de Electrical Generación from peels of peanut and sunflower. Approved (IN) 11-10-2006 and Registered (II) 9-4-2007.

Objective: the project implements electrical generation within General Oilcan Deheza Plant, using biomass residuals for energy generation and for the exchange with the Argentine electrical system. (Total Reduction of emissions: 585.760, 9 ton CO2 eq in 21 years).

*Project N° 22, Electrical Energy Generation Plant with Forest Biomass, Approved IN) the 18-3-2008 and Registered (II) 25-6-2011.

Objective: generation of electrical energy by building a co-generation 4MW Plant which will use biomass as fuel. (Total emissions reduction: 491.127 ton CO2 eq in 21 years).

There are some projects which are in process of approval at National level (Wind Farm Diadema Project; other are suspended (for example two Biodiesel Plants for auto-consuming, a Wind Park Jorge Romanutti Project) and some are in evaluation (Aeolian Parks Loma Blanca, Koluel Kayle, photovoltaic solar parks project in La Chimbera, etc.)[23]

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21. *As on secretariat of atmosphere website, www.ambiente.gov.ar, consulted on 10-5-2012. . Fronti de Garcia analyzes the approved projects presented in Argentina and approved in international instance, and states as characteristic of the projects of clean development: 1) they must promote sustainable development in the countries where greenhouse gas is not limited by the Kyoto Protocol; 2) they must be supervised and approved by the United Nations Development Projects Executive Council , as well as the designated National Authority for each one of the countries that take part in this project, and 3) the reduction of emissions for each activity of the project must be certified by the designated Operational Entities, this being a necessary condition that the reduction of emissions is additional to those that would take place in absence of project activity, in Fronti de Garcia, Luisa "Industrial Environmental Management and the Climatic Change". Clean Development Mechanism in Argentina, page 23, Documents of Social Accounting, Research center in Social Accounting, Faculty of Economic Sciences, University of Buenos Aires, 2010.*
22. *Project in which the participant of the organizing country is the Popular Limited Cooperative Society of Commodore Rivadavia and the participant of the project in the country, as investor, is the Japan Carbon Finance Ltd. (private entity).*
23. *The secretariat of atmosphere information website, www.ambiente.gov.ar, consulted on 10-5-2012. . To July of 2008 five biofuels MDL projects have been presented, four of them for the production of biodiesel (two in Thailand with oil base of palm and sunflower, respectively; one in India from arboreal species, mainly Jathropa and another one in China, using used kitchen oil). The fifth project is of ethanol and has been developed in Thailand from sugar cane, in Go'mez, environmental Jose Javier, Jose Luis Samaniego, and Mariana Antonissen, "Considerations around liquid biofuels", Eclac, UNDP, Series Environment, N° 137, Santiago of Chile, 2008, page 36. These authors state that the main causes for the no-approval of the projects correspond to methodology difficulties related to the change in the use of soil (to verify that the project will not produce negative impacts on soil use, like deforestation) and to double accounting (to verify that the consumers of the produced biofuel will not be countries on the Annex I or other beneficiaries which could register the consumption as a GHG reduction).*

6. CONCLUSIONS

With the objective to develop Renewable Energies, the analysis of tax incentives effects hat to be deepened.

Tax Expenditures measurements should include tax incentives effects towards the Power Sector, marketing them with for the social acceptance of these incentives considering their importance for sustainable development.

A sustainable future implies, on one hand to reinforce the power saving, and on the other hand to support technologies with low or zero CO2 emissions of, especially renewable energies.

Solar energy, Aeolian Energy and Biofuels are among the alternative energy sources developed in Argentina.

Solar and Aeolian energy projects are developed with private capitals and using the MDL that arise from the Kyoto Protocol.

The environmental aspects, along with energy diversification objectives and agricultural development, usually support the policies that promote the use of the liquid biofuels for transportation.

The dimension of the benefits associated to CO2 emissions reductions depends, among other factors, from the sulfur content of fuels and the age of the vehicle park; the greater the sulfur content and of the average vehicle age are, the greater the potential benefit of the introduction of Biofuels is.

Biofuels have experienced a constant growth in last years and the projections show that the produced volumes will keep growing due to the replacement of fossil fuels.

The development of the bio-fuels industry and the increase of the worldwide demand, were noticed by the energy authorities, which have offered an appropriate regulatory framework for their growth, including tax incentives regimes.

We must consider as an environmental risk the occupation of natural areas for the culture of biofuels raw materials, either in direct form, or as effect of the substitution and the displacement of other cultures, since this situation can generate the loss of natural areas, that play an important in the provision of environmental goods and services and contribute to the increase of the greenhouse gas emissions by changing the use of soil.

We can state that the reduction of the dependency on fossil fuels, the reactivation of agriculture and the reduction of emissions of local polluting agents are the main reasons to promote the use of the biofuels in developing countries.

Considering that these countries are not subject to commitments of reduction of their GHG emissions, the potential interest of this aspect of biofuels stems from the possibility of obtaining financing to promote their biofuels projects through the Clean Development Mechanism, one of the flexible mechanisms to reduce GHG emissions established in the Kyoto Protocol.

The projects developed through the Clean Development Mechanism must contribute to the sustainable development of the receiving country by transfers of technology and ecological improvement, without causing negative environmental impacts.

Renewable energies allow the large scale reduction of the GHG emissions if they become technically viable economic alternatives to the conventional fossil power sources, de-carbonizing the electrical sector and partly leaving the use of fossil fuels to the other economic activity sectors.

The Tax Expenditures Measurement in relation to the renewable energies must try to use all the mechanisms and procedures for obtaining a greater fiscal transparency in their measurement.

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INFORMATION FOR THE MANAGEMENT

Jose Luis García Ríos and Rosa María Vásquez

SUMMARY

The quality of the information received by the tax administration is highly dependent on the efficiency of the validation process used in the detection and deterrence of errors in data entry; on the socio-cultural factors and the strategies chosen to induce society to declare with transparency its economic reality.

Socio-cultural factors are parameters for non–inhibitory management of smart actions that induce modification of behaviors; therefore success in risk management must be understood as depending on the reliability of the information validation processes.

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CONTENT

The fulfillment of the objectives of the tax administration responds mainly to the quality of information available.

The quality of the information depends on the prevailing tax culture, the social vocation for compliance, the assistance that taxpayers receive to present information on their economic activity, the implemented validation processes and the timely feedback of the tax noncompliance.

The submitted information must pass through validating processes that link it to the Census register and historical databases in verifications and calculations that purged them from errors and inconsistencies to finally be stored at database of control processes, free of errors in which lack of culture and tax fraud are hidden.

Such processes determine the need to integrate the analysis of input and the databases validation in a global concept that identify and locate the responsible subjects and those that store their economic activity.

The integration or omission of any of the databases in the analysis of their development will affect the overall efficiency of the information system definition, or its reengineering.

The present document reviews the information input processes by insisting on some elements that could improve their quality.

1. CENSUS INFORMATION

Some administrations use the concept Single Registry of taxpayers to refer to all persons, individuals or registered legal entities that have tax obligations and are subject to control. This definition could leave out people to whom the law grants certain tax benefits and who are not taxpayers.

In several countries, the regulation establishes benefits of tax refund or exemptions for certain groups such as the elderly and disabled

These special treatments require the administration to have a registry of information of those who perceive them in order to verify that they comply with the requirements established by law. Some administrations have separate databases which are not integrated to the massive validation processes or information crossing of people that do not pay taxes.

The census database must be unique and contain information from individuals or entities that somehow interact with it as taxpayers or beneficiaries.

The census information of persons integrates basic data, indications and self- generated information.

Basic Data

They are those submitted by persons counted at the time of their registration and/or provided or confirmed by entities or agencies such as

- The civil registry of persons, which provides information on the identity of nationals or naturalized foreigners;
- The registration entities of foreign people that register information about identity, nationality and type of visa for foreigners;
- The institutions responsible for creating legal entities that register their data registration and their changes;
- The entities or agencies responsible for authorizing the performances of certain economic activities;
- Professional associations or entities that certify professional qualifications;
- Customs, which provide information about the people who carry out foreign trade operations and
- The social security institutions that register workers and the companies employing them.

The basic data are reflected in the census of the administration and must be available for internal and external consultation.

Tax Identification

The legislation defines different obligations according to the type of person: individual, corporation, charity, non-profit association, state entity, agency or international diplomatic missions. The identification and the type of person in the census are very important for the determination of the corresponding tax treatment.

To verify the identity and the type of person, a confirmation can be requested to the entities responsible for registering births, according to whether they are individuals or legal entities by the transmission of online or deferred information.

Keeping a record of reliable and up-to-date information on people requires the active participation of these institutions, with which exchange of information and collaboration agreements can be signed.

The tax identity of individuals who are nationals should be expressed with the identity number given by the civil identification registry institutions, which will facilitate obtaining and validating their data with the civil registry and with other public or private institutions that have information related to their activities.

In the case of foreign individuals and legal entities a self-generated number can be assigned. Other public and private institutions should use the same identification number.

The registration of foreign nationals requires the confirmation of the entity that regulates their permanence in the country and the type of authorization assigned to exercise economic activity. Nonresident registration processes should register their expiration according to the granted visas or facilitate the follow-up and control of their immigration status in order to avoid impunity in the case of tax fraud.

Tax Domicile

One of the main problems facing the administration is the high percentage of taxpayers whose homes cannot be located. The errors and false addresses begin with the registration, when the necessary tools to validate their registered addresses are not available.

The availability of digital geographical map allows to automatically confirming the consistency of the declared domiciles at the time of registration. The verification in place of the domicile is an option, although more expensive.

The standardization of the addresses, supported by digital maps, will allow the selection in the system of names of cities, neighborhoods, streets or avenues, without the need for digitalizing them, thereby reducing the possibility of errors.

The standardized domiciles information offers diverse alternatives to improve the management, such as the interventions programming considering the variable of geographical location; the use of georeferencial location systems for the definition of optimal routes and field operations follow ups and activities of the controlled subjects; the implementation of notifications or the crossing of properties or rental of real estate information with the municipal cadastres, among others.

Many municipalities and public and private institutions, have geo-referenced information of the registered properties, which facilitates the exchange of information.

Economic activity Sector

The economic activity sector in which they operate is declared by individuals at registration and for legal entities is the registered statute. Its veracity is subject to verification through field activities or by information provided by third parties.

The economic activity sector included in the records is relevant to the determination of tax obligations of persons or the benefits and exceptions that corresponds to them in accordance with the law. Omissions in the economic activities information can result in omissions in the returns and payment of taxes.

The administration should clearly establish the responsibility of the registration of certain economic activities, especially because their databases are an important source of information for State institutions, financial institutions and private companies.

Taking into account the difficulty for verifying the information quality of the economic activity sector informed by taxpayers, their veracity should be validated prior to the registration.

Such is the case of the academic title and license of people registered as professionals (engineers, lawyers, among others); the authorization by the competent authority of companies listed as interprovincial cargo transportation or the registration of informal activities including from the exercise of the trade to the exploitation of non-renewable natural resources such as mining.

In some countries the economic activity declared by the taxpayer is a requirement that must be included in the invoice and other documents used for tax purposes such as remission guides and retention vouchers.

Whatever the situation, it is evident that the administration is interested in the existing legal order and must have control over the exercise of economic activities in coordination with public entities responsible for their follow ups. In this regard, declared economic activities must be validated, for reasons of differentiated tax treatment or for their high sensitivity for the national interest.

The implemented registration system should be able to analyze if the economic activity declared by the person requires from any public or private institution an authorization to operate and, if this is the case and if there is legal basis, the registration will depend on the corresponding authorization.

Tax Vector

The fiscal information that allows to define the taxpayers registered according to the obligations and benefits that the law establishes for them is called tax vector.

The tax vector mainly includes:

- Taxes which control corresponds to the Administration, both for the obligations and the benefits derived from them: e.g. refunds, exemptions or preferential terms for the submission of returns.
- The substantial and formal obligations with their respective expirations. Among them corresponds to include the obligation to keep accounting for all persons who carry out an economic activity, indicating the scope of that

obligation: full accounting, books of income and expenses and their registration: manual or computerized, electronic books; type of documents used according to the current invoice regime, depending on the type of taxpayer or tax regime to which it is subject to (general or simplified).

The construction of the tax vector starts from the returns signed by taxpayers where they expressly recognize the obligations and conditions enabling them to benefit from situations of exception, without prejudice to the validation or correction performed by the administration.

Indications

They result from the information provided by third parties that complements the basic data of the registration. Even though automatic modifications are not secure, they are very useful for updates, with complementary actions.

Information from indications come from different sources, voluntary or mandatory; periodical or occasional, among them are the following:

- Third party information.
- Public institutions with which the administration has signed or must sign agreements for information exchange
- Municipalities which can inform location of properties, identification of owners, economic activities, etc.
- Customs for foreign trade operations.
- Tax administrations of other countries with which there are agreements for the exchange of information.
- Public or private entities providing massive services.
- Operating Units that serve taxpayers and update the registered information.

Self-generated information

A third type of data is referred to information that allows to subjectively conceptualize the person based on certain qualifiers such as risky, not risky, large, medium, small or other aspects necessary to differentiate the treatment in the control or services processes, on the basis of available historical data.

Risk Profile

The generation of risk profile of registered taxpayers is carried out from the evaluation of the fulfillment of formal and substantial obligations both in the internal taxation and customs, and by information from other external sources such as the risk centers in the financial system, both criminal and judicial background of individuals or the responsible for legal entities, among others.

The risk profile is fed among other criteria with tax information behavior of individuals, legal entities linked to them, partners, shareholders, legal representatives; commercial and financial credit evaluators, risk centers; equity situation; economic activity; criminal records of individuals and legal representatives in case of legal entities.

The customs information is especially relevant in the determination of the risk profile since it refers to significant foreign trade activities in the countries of the region which explains much of the illicit tax.

If at the time of registration there is no information of the individual, an initial risk profile can be assigned based on the place of origin, age, sex, marital status, profession or business, among others. For the case of legal entities, the initial risk profile can result from the information of their partners, shareholders, legal representatives and accountants.

The risks management allows to assure that the control strategies are oriented towards major noncompliance sectors with the least opportunity cost. Their efficiency depends on the quality of the available information.

Feedback of Management processes

The quality of the data must be a concern and a task of all the administration areas, even when there is a specific area with the responsibility to maintain the information updated.

Service areas, which have constant contact with taxpayers, should be included as routine in their processes permanent verification of census data such as domicile, telephone and economic activity.

This routine can be included automatically in the processes, whether they are run personally, by phone or Internet. In the case of submission of returns by Internet, the software may condition the completion and submission of the forms, to the confirmation of the records.

Electronic invoicing and invoicing printing authorization systems are excellent mechanisms to improve the quality of data, conditioning the authorizations for use of documents to updating the census information or submitting the returns.

Taxpayers can collaborate to improve the quality of data validating in the administration systems the information of the documents issued by their suppliers and demanding the update of their tax records to ensure the tax credit.

Field actions must include procedures to verify the accuracy of the registered census data and those found on sales voucher and other tax documents.

In the attention of claims for non-recognized debts or requests for tax refund or payment facilities, in addition to the data verification of the applicant, it should be verified that the person presenting the request as responsible or legal representative is the one registered in the administration registry. If there are differences, the data base should be updated.

3. TAX ECONOMIC INFORMATION- RETURNS

Most of the information contained in the taxpayers' databases is from their returns.

The returns are the information support of the taxpayers' economic movement that allows determining their tax liability. They are the most important information basis of the administration; they are manifestations of tax responsibility, "confession" of results of the economic activity and the main tax testimony to consolidate the income and verify compliance with the obligation or object and determine the differences that result from them.

They are also the most frequent communication vehicle between the administration and the society, in an interactivity that can be exploited to update and improve the quality of the records through the entrance of entrance of news in their data in their data, identity, home, or activity.

Detailed Information

The so-called "annexs of information" join to returns that the administrations require to taxpayers with detail of customers and suppliers of globalized economic facts in their returns. This information is useful for feeding crosses with the purpose of detecting informal transactions and to determine omitted tax amounts.

Consistency Verification of reported information

The returns should be arithmetic and logically validated prior to their storage in the database. If there are no validation errors they go to the control stages and reach the audit programs, which are not sufficient for their verification, meaning a high opportunity cost to the administration.

The process includes the universe of returns submitted and they must be developed immediately after the deadline, their errors and inconsistencies can be corrected with less specialized resources of the administration in offices, supported on systems, through massive treatments

A major problem is the omission of submission of returns that should be detected at the expiration time, immediately claimed and sanctioned.

The omission of submission of returns must not be included in auditing programs up to a reasonable period in which previously operate recovery programs with successive actions without results which may lead to conclude in the contempt of obligation.

The refusal to submit returns, which can hide intentional misbehaviors, is ratified in the rejection of attempts to obtain them, is one of the higher costs, the noncompliance intention, inhibits signs allowing to anticipate the denied results, by subtracting the search in external or third parties information; the use of legal presumption algorithms and a sanctioning regime sufficiently onerous to deter them.

Informative statements, should find the first filter in the Census, the data must be confirmed, invalid data presumes a lack of veracity and represents an important inducer of audit programs..

The taxpayer assistance in the submission of returns and the provision of validation programs that show the errors prior to the submission are resources that improve the quality of the data entered.

Information needed for submitting the returns

The Administration can persuasively induce the preparation and submission of returns by anticipating the economic activities of taxpayers, placing at their disposal the information obtained by crossings or internal inferences or it may develop drafts to confirm them or raise their objections.

For that purpose, the information base should be updated prior to the expiration of the obligations.

If the taxpayer does not respond to the induction, the information available can become the alleged basis for the ex officio determination of the taxable matter.

Any of the cases requires the existence of third party information crosses and exchange with external sources, to feed the databases, as well as an administration with enough computing capacity for input, validation and data storage.

The procedure has several advantages for the administration: objective induction to compliance, it offers an alternative to reduce the volume of omissions both in submission as to veracity and can be operated like the validation process, by a trained team, with a lower opportunity cost and appropriately supported by computer applications.

4. INFORMATION AND DEBT REGISTRATION

The debts are generated by information in the submitted returns by taxpayers and by control activities carried out by the administration, the quality of their balances is highly dependent on the arithmetic, logical or consistency validations made when submitting returns.

Reporting errors about debts constitutes one of the biggest collection problems and tends to generate discredit for the administration systems.

Validations and verifications carried out prior to audit actions and accompanied by immediate

and specific claim actions, in the cases in which inconsistencies are detected, allow to recover lost credits at low cost.

A common practice in some administrations, are audit actions performed without having exhausted the previous validation stages, which induces the generation of significant volumes of debts that are recorded in the systems and are translated into very low percentages of collection with high debugging costs, attention of claims and collection.

The same results are from the accounting of debits generated by determinations of auditing without having a timely record of the legal and administrative appeals brought by taxpayers who ensure the certainty of the debt, the haste in their determination entails complications for collection.

5. INFORMATION INPUT PROCESSING

The input of information is linked to the service and control systems for assigning tasks, for communication with the taxpayers, to perform validations, to search the institutional archives or to feed them.

Such link is not exclusively through the computer processes, but mainly by the functional relationship of the procedures that constitute the tax control.

Efficient registration of the information input requires more than just accumulation of data; it must provide for the interaction between the different service systems, verification and payment to obtain sufficient feedback to ensure quality.

Interaction

The analysis of the interaction starts with the systematic management of the requirements and the selection of the processes involved, establishing the linkages ensuring the quality of information. The interaction with external systems to share or exchange information with the administration is of great importance.

Once such links are established, the validation processes with the census, must feed the review processes of arithmetic and logical character and those which made consistency control with the information derived from crosses with the third party informants and with the institutional bases of background for the final storage in the database that audit programs have to provide.

Crossing data management systems and those of external entities allows generating information on behavior patterns of taxpayers useful for selection of those who must be entered into follow ups and control programs.

From this point of view, as we have seen, the identity, location, activity, responsibility and risk provided by the census are insufficient and only their link with the information processes associated with the service and control, ensures the path toward the purposes pursued.

The Census registration information and the economic activity statements fed by management processes must be integrated into a complete and accurate database to evaluate and qualify the risk profile of taxpayers, a useful qualification to define gradual control actions and also to ensure the reliability of the economic operators as citizens.

Use and functional application of the information strategy must be defined from this global concept and implemented in management policies.

Institutional Infrastructure

Once the information structures are defined and the processes needed prior to its systematization

are identified, comes the analysis of institutional conditions on which implementation of analysis procedures will be based.

Pressure to install technology hides its disadvantages. While it is true that it facilitates the overcoming of organizational and infrastructural constraints, processes must not be developed without knowledge the bases that have to support them.

Procedure objectives supported by information systems:

a. minimize the total time from information input until its storage in the control bases,
b. reduce the number of processes,
c. optimize recovery error methods and
d. develop proper protocol services

The handling, sealing or marking of the documentary support of requests for registration and returns that are verified in manual processes or “un-friendliness” of electronic administration processes, affect the operation of the system.

The system must adapt to peaks and overloads of information volumes entering in established expiration and adjust to them without idle capacity.

If the taxpayers’ service and the reception of data are personalized, the system should assist the resistance with which some physical and psychological factors of applied resources affect its dynamics and affect the speed of services provided and the good service required. Monotony imposed by the routine, temperature conditions, noises in the spaces for processing, and the stress of continuous production for the operator, are factors adversely affecting their ability for service.

Automatizing procedures to control the negative effects of the environment and processes with minimal or no participation of operators are considered advantageous.

The technological availability of management must be provided in compatibility with that used by external agencies linked in their purposes and adequate to overcoming constraints to the legal administrative inter-agency exchange of information.

General guidelines for the design of information systems

According to the information structure and the evaluation of the characteristics and environmental conditions that have been analyzed and evaluated, we can move towards the definition of the appropriate electronic system.

Configuration

It begins with the proposal of a single data structure, interrelated computer systems and systematized data entry: single data structure, relational type, centralized, implemented on a single physical database and operated by the database manager, with large storage capacity and high volumes of data processing.

The interrelationship between different systems is established through two mechanisms: the first through shared data, and the second through their interconnection in execution times, allowing the actions of a system to affect the others. Of the interrelatedness of systems should be a single, generic system to resolve common to various systems functionalities.

This characteristic should stimulate the entire system in the processing of information, interrelating data entry applications: register of taxpayers, returns and payments of taxpayers with the control of administrative management.

Parameters

Data included in the system tables, configurable, must allow making changes without the need for reprogramming by policy changes or new requirements of users.

Historical registry

Any modification of the taxpayers' data must de registered in the system, indicating date and identification of the responsible for the input.

Taxpayer service

The registration procedures, update, and low of census data; the submission of returns, and any other proceedings before the administration, must be able to be done through various service channels of the administration: personalized, via the Internet, by email and by telephone, in order to comply with the submission of returns require Internet services, both for the support, as for the presentation.

In the particular case of corporations, the registration, data update, and deletions from registry should be carried out through the institutions responsible for their creation and control.

Integration with other systems

The system must provide to all administration systems the identification and tax situation of all those who interact as a taxpayer and simultaneously receive information from them by linking their processes in order to feedback or incorporate information.

From census information system the information of the taxpayer should be available in the system and the input of returns and payments to know which were filed by period and tax; which periods were omitted when submitting; what debt appears on the module's collections; what claims have been presented, what refund requests have been presented, and the risk profile, among other information.

Use of Web tools

The system developed using web applications facilitates their operation and Internet update to the administration users, the taxpayer compliance, the implementation of their economic activities and the entities responsible for authorizing the creation of corporations and to provide useful information for the control.

Access keys

They are necessary to access any Internet application available to the administration.

In the case of institutions and responsible for the creation of corporations or authorization of the economic activity, they must have two keys: one as taxpayers and other as special users of the system.

Taxpayers and the special users of the system should have the possibility to develop secondary keys for their employees for a better control over the changes that are carried out.

Electronic signatures

Their incorporation allows to ensure the quality and the legal basis of the information received

Electronic transmission of information

The institutions responsible for the creation of companies and for authorizing economic activities must perform electronically massive exchange of information, validations, generate identity numbers for each one of them and sending of information to the institution.

Alternatively it should be possible to develop applications on the Internet to enable the registration of information with backup in case of failure. These applications will also be used for the timely and massive transmission of information for these cases.

Electronic notification

Individual and massive electronic notifications generated by the system or by other systems of the institution with which it is integrated must be provided.

Massive notifications must be able to be forwarded to registered email addresses in the system as to the electronic mailbox of each registered person.

Electronic notifications allow greater interaction between the taxpayer and the Administration to improve the quality of information.

Document filing

The generation of batches and folios by type of users to the physical file of documents and the possibility to recover them must be provided.

Reports and statistical information

The issuance of reports that allow knowing and assessing the administrative management must be possible.

6. CONCLUSIONS

Complete and correct information facilitates the systematic and objective selection of taxpayers for checkout processes for audits. The input of errors and inconsistencies in the processes prior to audit degrades their efficiency and increases their opportunity costs.

The massive processes prior to the storage of information to obtain the missing one, correct the defective one and ensure consistency in which it does not have, can be managed by less specialized resources if there are procedures and computer support that facilitate them.

The central axis of the data input is the Census registry of Taxpayers so that its definition requires the joint analysis with processes that assist the taxpayer in the preparation and submission of returns, those of control and claim of omissions of presentation, the validation of mathematical and logical errors of information in returns and those which provide feedbacks and update the information available.

To generation and make available the taxpayers' databases and the development of simulations of statements to be confirmed by the taxpayer with information from its known economic activity through third parties, constitute incentives for collection models regarding the quality of the information to ensure deterrence.

The use of technology of information currently available on the market, facilitates the overcoming of restrictions in infrastructure, institutional and cultural that characterize the state administrations when they are evaluated in its ability to follow the tax social behavior

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TAX EVASION ESTIMATE IN EXCISE TAXES: THE CASE OF CHILE

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SUMMARY

The purpose of this paper is to propose a methodology to estimate tax evasion in excise taxes, and apply it to the case of Chile. The proposed methodology estimates the theoretical potential from surveys that measure personal consumption of the taxed products. The application to the case of Chile shows that, during 2011, the tax evasion to tobacco and alcohol, plus its indirect effect on other taxes, represented the equivalent of half a point of GDP.

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CONTENT

Excise taxes on Tobacco and alcohol consumption are part of the tax structure of the vast majority of countries. These taxes are classified within the so-called Pigovian taxes, which aims to correct the negative externalities caused by consumption of taxed products[1]. From the economic point of view, they have the virtue of not causing efficiency losses, as the income tax and consumption do. Additionally, the demand for these products is fairly inelastic, so the collection is not significantly affected with economic cycles. For this reason, there is a consensus among experts on increasing their relative importance in tax structures, and gradually reduce the share of taxes that produce distortions.

Nevertheless, in order for these taxes to play the role assigned to them in theory, it is essential that there is an adequate control, which minimizes tax noncompliance, which occurs through smuggling, under-reporting of production or other evasion schemes. To do this, to have evasion estimates is essential.

Indeed, to have evasion estimates allows the tax administration to better target their control. If there are tax evasion estimates by evasion mechanisms, geographical area or economic sector it could better allocate resources for the control, thereby improving its effectiveness. Also, to measure the results of audit plans and make changes when necessary. Finally, the evasion rate is one of the best indicators of the effectiveness of the tax administration.

In recent decades, many Latin American governments have adopted the practice of measuring compliance. However, these estimates are mainly concentrated on VAT and, to a lesser extent, income tax. To date there are no estimates of excise taxes, at least it is not publically known. In that sense, the objective of this study is to propose a methodology to estimate tax evasion in excise taxes on cigarettes and beverages, and apply this methodology to the case of Chile.

The study is organized as follows: Chapter 2 discusses the noncompliance modes of the excise taxes, Chapter 3 assesses the available methodologies for measuring evasion, Chapter 4 estimates the evasion on cigarettes, Chapter 5 estimates evasion on beverages and finally, Chapter 6 summarizes the results and discusses the advantages and disadvantages of each method.

1. *In the case of alcoholic beverages, the main externalities are crimes, car accidents, absenteeism and public spending caused by the above. In the case of Tobacco, they are the diseases on passive smokers, induction into the habit in adolescents and the associated expenditure.*

1. NONCOMPLIANCE MODES ON EXCISE TAXES

The goods subject to excise taxes bear a higher tax burden than most products in general, especially in the case of cigarettes and alcoholic beverages. This determines a higher propensity to tax fraud, since the return of tax noncompliance is higher than other cases. This is why products such as the ones previously mentioned are often subject to various practices of underreporting, smuggling and falsifications, in higher magnitude than in other massive consumption goods.

The noncompliance modes can be classified, in the first place, according to the origin of the product. Thus they can be domestically produced goods or imported goods. Second, they can be classified based on the formality of the operators performing noncompliance actions, who may be authorized (formal) or unauthorized (informal). The above ratings are summarized in the following diagram, which shows four quadrants.

Diagram 1
Noncompliance Modes

Operator	Unauthorized	(3) Smuggling of unauthorized or falsified products	(4) Illegal sale of unauthorized or falsified products
	Authorized	(2) Smuggling of authorized products	(1) Sub-product tax authorized
		External	Internal
		Origin	

In the first quadrant operators are authorized to produce taxable goods within the country. These are formal enterprises that register their start-up activities with the tax administration and, therefore, do not comply with taxes through practices such as under-reporting of production and sales, the over declaration of exports to hide domestic sales that have not paid taxes or by the export of products that later are re-introduced for sale in the domestic market, among others.

The smuggling of authorized products is in the second quadrant. In this case, they are goods produced by companies formally incorporated abroad, which are exported to the country, but which are introduced without being declared at Customs and thus, without paying tariff duties or taxes. Generally, it occurs in three alternative ways: (i) through the entry of goods from neighboring countries through uncontrolled pathways (ii) by concealing goods in containers that formally enter through customs, but with a false statement of content, and (iii) sub-stating the quantities or values of goods formally entered through customs.

In the third quadrant appears smuggling of unauthorized or falsified products. That is, goods that are produced abroad, by unauthorized companies, that usually falsify brands. The entry forms of these goods into the country may be the same mentioned in the case of smuggling of authorized products.

Finally, the illegal domestic sales of locally manufactured products, developed by informal or unauthorized manufacture is in the fourth quadrant. In this case, they may be formally established companies, but that are not registered as excise taxpayer at the tax administration, as they develop the activity in an undercover form. It includes both falsified brands and private label production.

The different available methodologies for measuring evasion allow measuring noncompliance to a greater or lesser extent in all four quadrants, issue that will be addressed in the next chapter.

On the other hand, there are a number of factors that determine the frequency of these practices, among them the following should be noted:

Effectiveness of control

The effectiveness of the control action, both by the internal tax administration and customs, is summarized in the probability of detection of non-compliance. In turn, this probability depends on a number of factors, such as human, physical and technological resources that are available for audit institutions and the extent of the borders, in the particular case of smuggling. A special control challenge is the counting of products introduced in the country or produced within the country and to verify if they have paid the corresponding taxes.

Tax burden of products

As previously mentioned above, the higher the effective tax rate for products, the greater the incentive for noncompliance, since the profitability that it is possible to obtain from the illicit trade in goods is higher.

For example, according to information obtained from the BAT SA website, the illegal trade in 2010 would have increased by 45% from 2009, this amount is deducted from seizures in both years[2]. Particularly, in the metropolitan area the increase would have been by 100%. One explanation for this remarkable increase would be the increase of taxes on Tobacco, which came into force in August of that year.

Tax burden in neighboring countries

It is very frequent that smuggled goods come from neighboring countries. This situation is exacerbated in countries where tax rates on products are lower than those applied domestically. This makes profitable even the entry of products that have paid taxes in the country of origin.

Free zones

The free zones allow the entry of duty-free and duty. Once admitted, there are two possible destinations: transshipment to other countries or importing to the rest of the country. A common practice is that part of the goods allegedly finishes illegally entering to the rest of the country, before being marketed either in formal establishments or through informal trade.

Sanctions

No doubt that the level of sanctions is crucial in the frequency and magnitude of the noncompliance. Higher penalties deter evader behavior. But not only is the level of sanctions important. So are the legal accuracy of the judgments, the timelines for implementation and effectiveness of collection.

2. *It should be specified in any case, that increased seizures are an indication of greater noncompliance, but not necessarily a good measure of it, as in they can affect other variables. For example, a change in the control strategies.*

2. REVIEW METHODOLOGIES FOR MEASURING TAX NONCOMPLIANCE AND THEIR APPLICABILITY TO EXCISE TAXES

Noncompliance measurement is a complex task, since indirect ways must be used to observe their magnitude. Indeed, to directly ask taxpayers is futile, since they hardly reveal how much tax they have not paid in a given period, even if they are guaranteed complete anonymity.

The literature on the subject shows that there are two most widespread methodological approaches to accomplish this task. A first approach is the 'theoretical potential', which uses variables to approximate the revenue that would be obtained if all taxpayers pay their taxes, which can then be compared to the actual collection to determine evasion. Methods using national accounts aggregates to estimate the potential revenue and those based on surveys are part of these approaches. A second approach is audit sampling methods that use the capabilities of the tax administration to detect noncompliance, overseeing a representative sample of taxpayers and then extending their results to their universe. The following reviews the advantages and disadvantages of each of them, in their application to excise taxes.

2.1 Theoretical potential method using surveys

One way to estimate the potential tax collection is through surveys that measure consumption, household income, spending and other. This method has been applied to the non-compliance measurement on personal income tax.

In the case of personal income tax, the estimate is performed first, by calculating the tax that each respondent individual should have paid with the rate scale according to their annual income. Then, the collection is grouped by income percentiles calculated and compared with the actual return submitted to the tax administration at the same level of income percentiles. The comparison is made 'by matching' groups of individuals and not by each of them individually, because there is not enough information to make it[3].

The noncompliance estimate of consumption taxes, first, estimates the tax base, taking as a starting point spending reported by households for each product. An adjustment that must be made to these amounts is deducting the effective collection, since the surveys collect the estimate value at consumer prices. Subsequently, the theoretical collection should be estimated, applying the respective tax rates to the consumption values for each product covered by the survey. Finally, the results should expand the universe, using the expansion factors provided by the same survey.

To estimate noncompliance of excise taxes it is possible to use the survey results to estimate the buying behavior for the products subject to these taxes. This type of survey use widely accepted statistical techniques, and are often used by industries for determining market shares or potential market sizes, as well as the government sector to measure the prevalence in consumption.

The main limitation of this method refers to the sub-statement of the amounts of income and expenses by respondents, as well as the omission of some items, especially income. The under-reporting may result from memory errors, respondents conditioning or tiredness due to the length of the questionnaire. Normally, to correct

3. *Tax administrations are subject to tax secrecy, while entities conducting surveys apply statistical confidentiality, so it is not possible to make a match at the level of individuals.*

the under-reported income, the survey values are compared with the revenue figures of the National Accounts System. Thus, a correction factor for microeconomic survey data for each source of income on the basis of macroeconomic data from national accounts can be obtained. A similar procedure can be followed to adjust sub-statement in consumption.

The issue of under-reporting consumption has received considerable attention among specialists. For example, Tseng et al (2012) analyzed the U.S. Quarterly Consumer Expenditure Questionnaire (CEQ), in order to measure the direction and magnitude of the measurement error. For this purpose, 115 individuals were interviewed, who in a first interview were asked to answer a questionnaire on consumer spending based on memory, and then asked them to gather the receipts or endorsements of such expenses and contrast them with the first. The conclusion was that 37% of respondents underestimated the costs, 33% overestimated and 30% reported spending relatively coincide with reality.

The magnitude of response errors on consumption also depends on the method used in the survey. A first method is to recall, in which the respondent is asked about the quantities purchased and / or the amount spent on a particular product during a recent period. A second method is to ask the respondent to record, in a book given for that purpose, all expenses undertaken for that product for a specified period. The last method is normally applied in the Household Budget Surveys that are intended to determine the basic consumption basket for measuring inflation.

In general, there is a belief that surveys based on memory of expenses are subject to more errors than surveys based on the record of expenses in a notebook, which are considered more accurate. Ahmed et al (2010) compared the two methods, using the Food Expenditure Survey in Canada (Foodex), which asks respondents to remember their food expenditure in the previous four weeks and then requests them to record expenditures for the following two weeks, thus providing an ideal opportunity to directly compare the two methods. The analysis of the responses shows that the recall method gives expenditure figures higher than the registration method. The usual interpretation of this result is that the recall method produces a significant overstatement. However, when analyzing more carefully the data, it shows that the expenses registration method produces a tiredness effect on respondents, which shows that the expenses listed in the book tend to decrease over the days. Therefore, the difference can be explained rather because registration costs leads to a significant underreporting. This phenomenon has also been observed in other studies[4].

To this must be added that many people have an impulsive buying behavior, which is slowed by the mere fact of record purchases. That is, the meter determines purchase behavior.

The issue of under-reporting is particularly relevant in the consumption of cigarettes and alcohol. Several studies show that, given the nature of these products, there is a tendency to hide the true quantities consumed. To determine the accuracy of self-reporting by cigarette smokers of Mexican origin in the United States, Perez-Stable et al (1990) compared the self-reported quantities with cotinine concentrations in a sample of 547 participants in the Health Hispanics Nutrition Survey (HHANES). They found that the percentage of under-reporting ranged between 2.2 and 24.7% of individuals, depending on gender and the number of cigarettes smoked per day.

In another study of this type, Hatziandreu et al (1989) compared for the United States, self-reported cigarette smoking in prevalence consumption surveys, with adjusted consumption

4. *For example, Stephens (2003) reported a similar phenomenon in the expense register of U.S. Household Budget Survey (CEX).*

data obtained from the excise tax on cigarettes and estimates from the Department of Agriculture (USDA), the above for the period 1974-1985. It concludes that during this period the sub-statement of self-reported values was on average 28%. The ratio between both consumptions do not undergo significant changes over time, from which it follows that, at least during this period, there were no increases in the percentage of underreporting by consumers.

The dynamics used to query respondents about their use of Tobacco and alcohol can also lead to significant differences in the rates of under-reporting. Thus, this rate may be much higher when the household has access to the answers provided by the respondent, since many individuals want to hide their real consumption habits of those products to their relatives. This is a particular problem for the Household Budget Surveys made by countries to determine the consumption baskets of the population, since the methodology used consists in the delivery of a booklet, where the family group should record their daily consumption.

The characteristic described above leads to discarding the Household Budget Surveys as a source to estimate noncompliance of excise taxes on cigarettes and alcoholic beverages. If this method is used, the independent source of information should be a consumer survey specifically designed to measure the consumption habits of these products and to guarantee complete anonymity, especially with respect to the respondent's household.

2.2 The theoretical potential method using national accounts

Many tax administrations have resorted to national accounts estimates mainly VAT evasion and to a lesser extent in the income tax. Overall, this method is to estimate the potential revenue from a tax-i.e., that which would be obtained if it were zero-evasion from an independent source of information, taken from the National Accounts. Subsequently, this potential collection is compared with the actual or effective collection, getting a gap that is attributed to tax evasion.

Overall, the main limitation of this method of measurement is directly related to the degree of reliability of the information used for National Accounts. Some features of this information, which might question its reliability for measuring evasion in excise taxes, are as follows:

- The use of accounting information of enterprises in certain economic sectors or production surveys, which may contain parts of the evasion causing noncompliance estimates to be underestimated.
- The use of tax information to estimate the product for those sectors that are measured by activity and not by current assets, such as the service sector and the industrial sector.
- The change in inventories is an adjustment variable, so that if consumption is underestimated, evasion would be underestimated and undeclared consumption would be attributed to changes in inventories.
- For some sectors the annual estimate of National Accounts assumes that productivity remains constant, i.e. equal to that estimated for the base year. If the productivity increases, this would lead to underestimate the theoretical value added, and thus evasion.
- Some assumptions used by the National Accounts System may result in the non-applicability of the method for certain products. For example, in the case of cigarettes, the supply table of the Central Bank of Chile allocates a trading margin of 1.5%, in circumstances where the industry applies a margin of 8.3%.

Now, in the construction of National Accounts, data from various sources are reconciled. If in independent sources of information (e.g. consumer surveys and flows of goods) the quantities traded and their prices are effectively captured, it is possible that the underestimates or overestimates are not such.

Another limitation of this method is that the estimates are typically available with a delay of about one year and, in general, enables measurements in aggregate form. Therefore it is a not a very useful tool for making decisions about the allocation of government resources or to evaluate the progress of control programs. In addition to this, the latest figures from National Accounts often have a provisional character and are adjusted periodically. This aspect becomes important because the estimated evasion rate is quite sensitive to revisions of figures held in the Central Bank.

Overall, it is considered that evasion studies using the theoretical potential method using National Accounts are useful to determine evasion magnitude orders and their evolution, even when it is not possible to assess how reliable they are.

On the other hand, the application of this method to the noncompliance estimate on excise taxes requires some detail of information which is not always available. It is necessary to use tables for offer and consumption that include separate rows for the products subject to the tax.

Another important limitation of this method for the purpose of this study is that National Accounts use as input for the estimation of household consumption, results from the Consumer Expenditure Survey, which as explained in the previous section, are subject to significant underreporting in the case of cigarettes and alcoholic beverages. While it is true that in their construction, a number of sources are harmonized, including data production and imports of these products, there is uncertainty about how such errors can influence the final result of the consumption estimate.

2.3 Sampling Methods

The most straightforward way to obtain noncompliance estimates of a certain tax is through audits to a random sample of taxpayers. The quality of the results of this method depends on the depth and knowledge of these audits, since they only allow discovering a portion of the total evasion. The percentage of non-compliance identified in the audits will depend, among other factors, on the experience of the auditors that perform them. The representativeness of the sample is also important. The main advantage of this approach is that if it is properly performed, statistical techniques to define levels of confidence and accuracy to the results can be applied, to sort them by categories, validating assumptions, etc... Unfortunately, available audit results statistics in audit departments generally are not useful to estimate evasion, as they have a selection difficult to correct (audited taxpayers are those estimated to have a greater possibility of evasion). Consequently, estimating evasion annually through this method would be costly, as it would imply to audit a specially designed sample of taxpayers.

2.4 Selecting a method

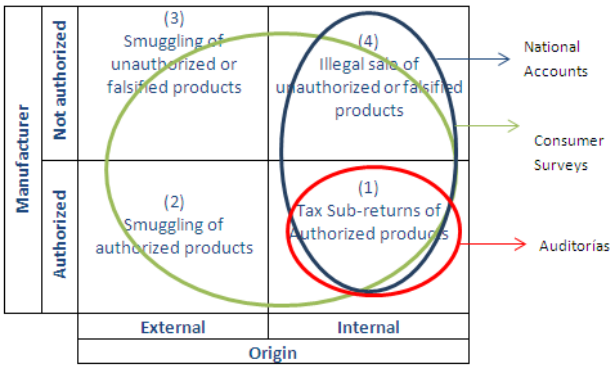
For the selection of a method the estimation coverage achievable with each of them will be considered, as illustrated in diagram 2. From this point of view, the more limited method is offered by the audit sampling methods. Since only formally constituted companies can be audited, the results of such estimate only cover part of the quadrant 1, sub-tax return of authorized products. With this method it is not possible to cover neither the smuggling nor the informal domestic production. Furthermore, the application of audits requires the active participation of the tax administration, which is outside the scope of this paper.

Secondly, the theoretical potential method using National Accounts allows a reasonable noncompliance estimate generated in domestic production, but not of evasion in imports, since national accounts take as true customs information. Also, based on consumption reported by the Consumer Expenditure Survey, an underestimation of cigarette smoking and alcohol, for the reasons listed above is expected.

Accordingly, this method would allow a partial noncompliance estimate associated with quadrants 1 and 4.

Finally, the theoretical potential method using consumer surveys is the one allowing the best coverage, covering the four quadrants. However, underreporting typical in consumer surveys suggests that the noncompliance numbers from this method correspond to an underestimate of the true amount of tax evasion. Consequently, in subsequent chapters this method will be applied to noncompliance estimate on cigarettes and alcoholic beverages.

Diagram 2
Estimates coverage under various methods



3. EVASION ESTIMATE ON TOBACCO TAX

In Chile, the sale of packs of cigarettes are taxed with VAT, which current rate is 19%, and with a specific tax, which has two components: a tax equivalent to 0.0000675 monthly tax units per cigarette and a rate ad-valorem of 62.3%, which is applied on the sale price to the consumer, including taxes, for each pack.

Tax evasion corresponds to the difference between the theoretical collection, defined as the revenue that is possible to collect with a one hundred percent compliance in the tax payment, and effective collection. In that sense, whatever the methodology used to measure evasion should be estimated, first, a theoretical tax base, taking as its starting point some source of independent information that allows approaching the legal definition of the tax base. Second, the theoretical collection is calculated, applying the fee structure corresponding to the theoretical tax base previously estimated:

Theoretical Collection = Theoretical Tax Base* Taxable Tax Rate

Then, the evasion magnitude can be approximated by calculating the difference between the theoretical collection and actual collection from the following calculation:

Amount of Evasion = theoretical collection - effective collection

It also defines an evasion rate, corresponding to the estimated evasion as a percentage of the theoretical tax collection:

Evasion rate = (Evasion Amount / Theoretical Collection) * 100

To measure the Tobacco tax evasion, the Theoretical Potential Methodology Using Consumer Surveys will be used. For such purpose, the results from a consumer survey will be used, which nationally projects the units of cigarettes consumed per year by brands, which are then valued at current prices, thus allowing to estimate the theoretical tax base.

In this case, the source of independent information to estimate the theoretical collection is the estimated annual consumption of cigarettes, obtained from the Sizing Study on cigarettes and Alcoholic beverages consumption in Chile, survey done by the company IBOPE Intelligence. This survey was conducted nationwide, with the aim of measuring the consumption of cigarettes, beer, wine and other spirits.

The study used a random sample of 1,200 people, including residents of urban households in the country, aged 14 and older, which produced a margin of error of 2.8%.

The sample design considered the selection of people living in urban areas in seven regions of the country. By extrapolating to the total national consumption, considered the population projection to 2011 and assumed similarity between the per capita consumption in urban and rural areas.

The survey projected annual consumption of cigarettes equal to 14.864 million units, equivalent to 743 million packs of twenty units each. To measure this consumption in pesos; the average price of a pack of cigarettes must be multiplied. To estimate this price, the survey results were used, in terms of consumption rates by brand, and retail prices prevailing in 2011 and published on the IBS website. The calculation yields an average price equal to $ 1,861 per pack (see Table 1).

Table 1
Determining the average price of a pack of cigarettes in 2011

Brand	Percentage of people who consume	Price in 2011
Belmont	34.9%	1,850
Pall Mall	32.7%	1,700
Lucky Strike	14.0%	2,067
Kent	11.5%	2,200
Viceroy	5.9%	2,200
Derby	1.7%	1,800
Latin	1.5%	1,000
Malboro	1.3%	1,950
Foxtrot	1.1%	1,500
Phillip Morris	0.9%	1,100
Hilton	0.5%	1,100
Other	1.1%	1,500
NS / NR	0.1%	1,500
Weighted average price		1,861

Once the estimate of consumption in pesos and units is obtained, it is possible to estimate all theoretical taxes. The specific tax rate on Tobacco is estimated as the average in pesos expressed in 2011 is multiplied by the number of cigarettes consumed. The ad-valorem tax corresponds to the consumption expressed in pesos multiplied by the rate in effect in 2011, equal to 62.3%. Finally, the theoretical VAT is calculated by multiplying the consumption expressed in pesos by the rate of 19% and dividing the result by 1.19.

The detail of the theoretical tax and evasion estimate, are shown in Table 2. The results show an evasion of $ 155,592 million in tax on Tobacco and $ 38.011 million in VAT taxes, giving a total of $ 193,603 million (U.S. $ 388 million), representing an evasion rate of 17.3%.

Table 2
Evasion estimate in cigarette sales in 2011

Item	Formula	Value
Millions of cigarettes smoked per year	to	14,864
Million packs consumed per year	b = a / 20	743
PM price per pack ($)	c	1,861
Estimated annual consumption ($ mm)	d = bxc	1382792
Specific tax ($ / cigarette)	and	2.58
Theoretical tax ($ mm)	dx f = 0.19 / 1.19	220,782
Theoretical specific tax ($ mm)	g = exa	38,415
Theoretical ad-valorem tax ($ mm)	h = dx 62.3%	861,480
Tabaco theoretical tax ($ mm)	i = h + g	899,894
VAT cash ($ mm)	j	182,771
Snuff Tax cash ($ mm)	k	744,302
Tax Evasion	l = f - j	38,011
Tabaco Tax Evasion	m = i - k	155,592
Tax Evasion + IT	n = l + m	193,603
Evasion rate	o = n / (f + i)	17.3%

4. ADDITIONAL TAX EVASION ESTIMATE ON ALCOHOLIC AND NONALCOHOLIC BEVERAGES

Alcoholic and nonalcoholic beverages are subject, in addition to VAT, to additional fees applied on sales and imports. Like the VAT, the tax is levied on the value added at each distribution and marketing stage, but only until the pre-last stage. That is, in retail sales tax is not charged. Currently, there are three rates: 13% for nonalcoholic drinks, 15% for wine, beer and similar and 27% for liquors, piscos, whiskey, brandy and spirits.

For measuring evasion as a source of information the same independent consumer survey as for the case of cigarettes will be used, which also contains information on the consumption of beer, wine and other spirits.

The methodology is the same as described for the case of the tax on Tobacco. The main difference is the major difficulty in this case to determine the weighted average price of each product. This is because, unlike what happens in the Tobacco market, where there is a low number of brands and retail prices are set by the tobacco company in the market, in wine and beer there is a great diversity of products and the prices differ between outlets. Nevertheless, the survey also shows that consumption is fairly concentrated in few brands.

By the tax logic, it is also necessary to exclude from the tax base the retail margin. As the survey does not provide information on this margin, the2008 estimated percentage in the input-output matrix was applied.

The survey provides information on the annual consumption in liters, nationally, for beer, wine, pisco, rum and other spirits. The method requires the estimation of an average price per liter of each type of beverage, multiply by consumption in liters and thus obtain an estimate of consumption valued at user prices.

The survey provides information on brand preferences of consumers, for beer, wine, pisco and rum. A price was assigned for each brand corresponding to that observed during June 2012 and expressed in pesos per liter, yielding an average weighted price that was then deflated to express it in average pesos of 2011, by using the CPI of each type of beverage, estimated by INE. The results of this procedure are shown in Tables 3, 4, 5 and 6.

In the case of other liquors, as there is not consumption by brand estimate, an average price equal to the average estimated prices for pisco and rum was assumed.

Table 3
Estimated weighted average price of beers

Brand	Consumer Participation	Price ($ / liter)	Particip. x Price
Glass	38.1%	1,054	401
Shield	24.7%	1,114	275
Crown	15.2%	1,933	294
Becker	9.9%	871	86
Heineken	8.7%	1,551	135
Baltic	6.5%	826	54
Royal Guard	4.2%	1,348	57
Kunstman	3.2%	2,947	94
Austral	3.0%	2,502	75
Stella Artois	1.9%	1,370	26
Gold	1.8%	809	15
Paulaner	1.0%	1,511	15
Brahma	0.9%	922	8
Other	4.6%	1,414	65
Weighted Average Price ($ June 2012)			1,294
Deflator			0.9859
Weighted Average Price ($ 2011)			1,275

Table 4
Estimated weighted average price of the wines

Brand	Consumer Participation	Price ($ / liter)	Particip. x Price
120 Santa Rita	33.0%	3,322	1,096
Clos de Pirque	19.4%	1,422	276
Cat	16.4%	1,803	296
Cellar	7.0%	1,422	100
Casillero del Diablo	6.5%	5,540	360
Tocornal	5.6%	1,422	80
Misiones de Rengo	5.2%	3,720	193
Concha y Toro	4.3%	1,724	74
St. Helens	4.1%	2,028	83
Santa Carolina	3.6%	2,679	96
Santa Emiliana	2.7%	2,456	66
Errazuriz	2.1%	4,653	98
San Pedro	1.8%	1,986	36
Carmen	1.7%	3,187	54
Others	18.9%	6,946	1,313
Weighted Average Price ($ June 2012)			3,190
Deflator			0.9724
Weighted Average Price ($ 2011)			3,102

Table 5
Estimated average price of pisco

Brand	Consumer Participation	Price ($ / liter)	Particip. x Price
Alto del Carmen	27.6%	4,490	1,239
Artisans Cochiguaz	10.3%	3,557	366
Bauza	12.9%	4,653	600
Belfry	12.9%	2,990	386
Capel	36.5%	3,290	1,201
Control	2.6%	7,787	202
Mistral	38.3%	5,987	2,293
Route	0.8%	2,843	23
Other	0.5%	4,450	22
Weighted Average Price ($ June 2012)			4,447
Deflator			0.9246
Weighted Average Price ($ 2011)			4,112

Table 6
Estimated average price of the ron

Brand	Consumer Participation	Price ($ / liter)	Particip. x Price
Barceló	29.9%	5,987	1,790
Flower cane	16.3%	4,909	800
Pampean	13.9%	7,193	1,000
Sierra Morena	12.0%	5,320	638
Havana Club	11.1%	6,490	720
Mitjans	10.0%	3,665	367
Bacardi	8.3%	6,920	574
Timber	7.3%	3,587	262
Grandfather	5.6%	6,055	339
Old Cape	2.1%	5,320	112
Cacique	1.9%	6,640	126
Dominica	1.9%	4,600	87
Varadero	1.8%	4,387	79
Matusalem	1.0%	13,053	131
Weighted Average Price ($ June 2012)			5,707
Deflator			0.9916
Weighted Average Price ($ 2011)			5,659

The effective tax and the retail margin must be deducted from the consumption valued at user prices, to obtain the consumption at wholesale prices, which is the additional tax base. The additional effective tax is obtained from the SII tax revenue statistics. The effective VAT is unknown as there are no statistics of this tax revenue by product. Therefore, it was estimated from the number of actual collection of the additional tax, adding to this last one the tax base of the retail margin, multiplied by the rate of 19%.

In turn, the retail margin is obtained from the 2008 input-output matrix expressed as a consumption percentage at user prices.

Subsequently, the additional theoretical tax and theoretical VAT are calculated by multiplying the pretax consumption and retail margin by the additional fee for each type of drink and the VAT rate of 19%, respectively.

The results are shown in tables 7, 8 and 9. An evasion rate of 20% is estimated for beer, 18% for wine and 34% for pisco and other spirits.

Table 7
Estimating evasion in beer sales in 2011

Item	Formula	Value
Liters consumed per year	to	509,913,716
Weighted average price per liter	b	1,275
Consumption user price ($ mm)	c = a x b	650,353
Additional effective tax	d	55,844
VAT cash	and	79,793
Retail Margin	f = cx 7.33%	47,671
Consumption before taxes and retailer margin	g = c - d - e - f	467,045
Additional tax theoretical	h = gx 15%	70,057
Theoretical VAT	i = gx 19%	88,739
Additional tax evasion	j = h - d	14,213
Tax Evasion	jx k = 0.19 / 0.15	18,003
Total Evasion	l = j + k	32,216
Evasion rate	m = l / (h + i)	20.3%

Table 8
Estimating evasion in wine sales in 2011

Wine liters consumed per year	to	136,283,179
Weighted average price per liter	b	3,102
Pu wine consumption ($ mm)	c = axb	422,810
Consumption wine, champagne and girl pu ($ mm)	d = c / 0,94	452,072
Additional effective tax	and	37,996
VAT cash	F	57,542
Retail Margin	g	49,547
Consumption before taxes and retailer margin	h = d - e - f-g	306,988
Additional tax theoretical	i = hx 15%	46,048
Theoretical VAT	j = hx 0.19 / 1.19	58,328
Additional tax evasion	k = i - e	8,052
Tax Evasion	l = kx 0.19 / 0.15	10,200
Total Evasion	m = k + l	18,252
Evasion rate	n = m / (i + j)	17.5%

Table 9
Estimating evasion and pisco liquor sales in 2011

		Pisco	Rum	Others	Total liquor
Liters consumed per year	to	30915636	49028267	19202783	99146686
Weighted average price per liter	b	4,112	5,659	4,886	
Consumption pu ($ mm)	c = axb	127,123	277,455	93,825	498,403
ILA cash	d				52,384
VAT cash	and				55,272
Retail Margin	F				96,890
Consumption before taxes and retailer margin	g = c - d - e - f				293,857
Additional tax theoretical	h = gx 27%				79,341
Theoretical VAT	i = gx 19%				55,833
Additional tax evasion	j = h - d				26,957
Tax Evasion	jx k = 0.19 / 0.27				18,970
Total Evasion	l = j + k				45,927
Evasion rate	m = l / (h + i)				34.0%

5. DISCUSSION OF RESULTS AND METHODOLOGIES

5.1. Summary of the results

In the present document, the evasion in excise taxes on cigarettes and alcoholic beverages has been estimated. For such purpose, the theoretical potential method using a cigarette and alcohol beverages survey was used, which quantifies the annual consumption of these products.

Table 10 shows the tax loss by this tax evasion. In this quantification, revenue loss associated with evasion of excise tax has been included (tax on cigarettes and additional tax on beverages) and VAT, plus the indirect impact that this evasion has on the evaders' companies' income tax. The estimated revenue loss in the income tax is that the tax bases in unreported excise taxes are not included in the statement of direct taxes. Thus that the evasion in the First Category has estimated 17% of the underreported tax base, while global Complementary or Additional evasion has been estimated at 18% of the same base. It is then assumed that the partners or shareholders bound to support enterprises that evade an average rate of 35%.

In order to have an evasion magnitude order on all products, for the case of nonalcoholic beverages an evasion rate equal to the average rates of vasion measures for alcoholic beverages has been assumed, namely, 24.1%. It must be reminded that the consumer survey used only consulted consumption on cigarettes and alcohol beverages.

In conclusion, in 2011, around US$ 1,200 million in evasion of excise taxes and other taxes payable would have not been received by the treasury, representing half a point of the GDP.

Table 10
Summary of Fiscal Impact of Cigarette and Beverage Evasion by Consumption Survey Method

	Cigarettes	Pisco and other spirits	Wines	Beer	Soft drinks	Total
Excise Tax	155,592	26,957	8,052	14,213	27,842	232,657
VAT	38,011	18,970	10,200	18,003	40,692	125,876
First Category	34,010	16,973	9,126	16,108	36,409	112,626
Complementary and Additional	36,010	17,972	9,663	17,055	38,550	119,251
Total tax loss	263,623	80,872	37,041	65,379	143,493	590,409
Total tax loss (U.S. $ million)	527	162	74	131	287	1,181
Evasion rate	17.3%	34.0%	17.5%	20.3%		

5.2 Advantages and limitations of the survey method

The survey method has the advantage that it is based on a survey designed exclusively to measure the consumption of analyzed products. As the respondent unit is the individual, unlike the EPF where the unit is home, the underreporting of consumption is less frequent or of less magnitude, because the respondents do not disclose their consumption to the rest of the Family Group.

Another difference is that the survey used is based on the memory; however the EPF, which is remembered as an input for the construction of national accounts, is based on the journal of daily purchases made by households. While the memory is misleading, the supposed advantage of the daily record is not clear, in light of the research and was referenced in Chapter 3. Thus the journal leads to an underestimation of consumption due to the effect of "exhaustion" of the respondent, which leads to the reduction of registered amounts with each passing day.

From the point of view of the estimate method used from the availability of survey data, the limitations are mainly with the assumptions that are needed. Indeed, the survey provides a good estimate of the amount of consumption of cigarettes and alcohol, but not worth the money consumption. Therefore, it is necessary to estimate the consumption value making assumptions about the prices paid per output unit, which clearly leads to an approach that may contain some error degree.

Furthermore, the survey consultation is regarding consumed brands, but necessarily must include an "other" category, which prevents a precise allocation of consumer prices of that category. The memory effect can also lead to errors in responses on consumed brands, which can be particularly relevant in those products with less brand loyalty.

However, the limitations of the Household Budget Surveys, which are used as input in the estimates of national accounts consumption, lead to the conclusion that it is more appropriate for the purposes of estimating evasion in cigarette and alcoholic beverages to use Consumer surveys especially designed for this purpose, as the one used in this case.

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TAXATION OF AGRICULTURE: SPECIAL REFERENCE TO OECD AND SPAIN

Gemma Patón García

SUMMARY

Agriculture is one of the economic sectors experiencing greater uncertainty due to factors beyond the control of governments. It is for this reason that taxation is used as an incentive to favor the agricultural sector. This paper deals with the economic conditions that influence the agricultural sector according to the OECD, in particular with the case of Spain where there is a special constitutional protection for the agricultural sector. This aspect has resulted in different tax benefits from the direct and indirect taxes borne by the farmers.

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CONTENT

If we place ourselves within an international context, we may decide that according to the OECD (2005), the greater part of member countries afford preferential treatment to the agricultural sector, although it is always difficult to quantify the potential tax benefit.

In any case, our analysis should begin with the legal basis that justifies a specific tax treatment for the agricultural sector, vis-a-vis other economic sectors. After considering this aspect, one must then observe the economic relevance of the sector within the territory in which it is applied. This is so, because undoubtedly, the agricultural activity's contribution to the gross domestic product of a country will depend on such intrinsic factors as entrepreneurial investment, the technology incorporated, labor specialization, as well as on extrinsic ones such as climate conditions, types of crops, etc. In sum, political and economic conditions come together in the expansion of this economic sector.

1. ECONOMIC RELEVANCE OF THE AGRICULTURAL SECTOR IN THE OECD COUNTRIES AND THEIR TAXATION

It is evident that agriculture is an economic sector wherein the prices of products and, therefore, the profitability of production is subjected to greater risks and uncertainties for the producers, consumers and governments in general. Thus, the economic data originating from the agricultural sector is significantly dependent on unforeseeable climate conditions, but as well, on other factors such as the level of inventories that mitigate the differences between demand and supply; energy prices (transportation, bio-fuels, etc.); the rate of exchange that may affect the local prices of basic products; restrictions on imports and exports which increase the volatility of prices in international markets, etc. In this scenario, public investments in research and development in the agricultural sector acquire an essential dimension.

Nevertheless, the agricultural sector's situation must be considered within the framework of the crucial issues arising from the current economic crisis. In this sense, the trend is toward the increase of the prices of basic products, due to fewer crops in key producing areas, while low inventories reduced the supply available and the recovery of economic growth in developing and emerging economies increased the demand.

The OECD-FAO Report: "2011 Perspectives of agriculture" states that some higher prices are a positive signal for a sector that has been for decades experiencing real decreases in the price of basic products, and will involve an incentive for investing in improvements to productivity, as well as increasing production to make up for the increasing demand for food. However, the supply's response is conditioned by the relative costs of inputs, while the incentives resulting from higher prices at the international level do not always reach producers due to the high transaction costs or the national protectionist policies. In some important producing regions, the increase in the rates of exchange has also

affected the competitiveness of its agricultural sectors, thereby limiting the effects in production.

Thus, it is expected that the agricultural production will increase within short term, as a result of the expected response of the offer to current high prices. The prices of basic products should decrease from the maximum ones of early 2011, although it is expected that in real terms they may in average be 20% higher for cereals (corn), up to 30% for meats (poultry), in 2011-2020, compared to the last decade The increase in price of basic products is being displaced through the production chain toward the livestock products. It is anticipated that the world agricultural production increase in average, 1.7% annually, although there would be a lower growth in oleaginous crops and secondary cereals, with greater production costs and less improvements in productivity. With respect to the demand, per capita food consumption will increase faster in Eastern Europe, Asia and Latin America, where revenues increase and the population growth diminishes, with dairy products, sugar and meat standing out as products that should experience greater increase in demand.

In any case, even though the agricultural sector appears to show greater resistance to the world economic crisis, the truth is that economic contraction could cause greater difficulties in the sector, since economic recovery does not seem to take off and this could be a cause of concern as stated in the OECD-FAO "2009-2018 Agricultural Perspective" Report[1] .

The following chart shows representative data of the agricultural sector in different OECD countries:

Table 1

	Agriculture o/ GDP (%)	Agric Employ. /Work. Active Population	Agric. Export. /Total Exp	Agricultural M. / Total M.
EU - 15	1,9	5,0	3,6	3,5
U.S.A.	1,7	2,7	7,3	1,8
AUSTRALIA	3,2	5,2	17,7	1,1
N. ZEALAND	7,0	8,4	36,3	2,9
CANADA	1,5	5,0		
JAPAN	1,9	5,3	5,6	2,9
OECD MEAN	2,1	8,2	3,2	4,7

Source: OECD

Governments are aware of the need to use the tax instrument to favor the agricultural sector. Thus, according to the OECD, the greater part of member countries provide differential treatment to the agricultural sector, and although it is always difficult to quantify the potential tax benefit, the percentage of developments potentially benefitting from the special systems is lower in France and Germany than in Spain[2].

The agricultural taxation method varies significantly among OECD members as well as among members of the European Union. However, almost all the governments consider some type of differentiated treatment of direct and indirect taxation of the agricultural sector. The OECD (2005) provides some comparative data in this respect. In income tax there are frequently different estimation systems, generally based on standards rather than on detailed accounting based systems. This is the case, at least, of Austria, Belgium,

1. *Vid. OECD-FAO Report in the Web site: http://www.oecd.org/site/oecd.faoagriculturaloutlook/48186264.pdf.*
2. *OECD, "Non-sectorial Policies for the agriculture and the agro-food sectors: taxation and social security", 2005.*

France, Germany, Italy, Poland, Spain and the United States. It cannot be assured that in all cases these systems imply a preferential treatment, but undoubtedly, they do reduce the accounting and filing costs. In the area of Value Added Taxes it is even more difficult to define the international panorama. There are frequently special systems for agriculture and it is difficult to evaluate whether those systems result in overcompensation.

In France, Income Tax includes, in addition to the general real normal or simplified system, a "special forfait system" for farmers whose business figure does not exceed 76.000 Euros. In this system, which is applied to approximately 60% of the group, the amount of tax is determined from the sum of an element calculated at the Department level as collective reference and an element derived from the characteristics of the producers, according to the land surface available, number of animals, etc. With respect to VAT, there is a special system for farmers with income of less than 45,700 Euros and which is applied to 25% of farmers who file. In this case, farmers pay the VAT on their purchases and receive a lump sum payment from the State for their sales. On the other hand, there is a preferential fuel tax for the use of diesel oil in agriculture.

In Germany, the types applied to income are the same as in other businesses, although there is a special deductible type for income on agriculture, when the gross income of married farmers does not exceed 61,400 Euros. Likewise, farmers may benefit from a lump sum benefit calculation method for those who develop less than 20 hectares, as well as other parameters for livestock products or other activities, in general, less than 25,000 Euros of benefits. Thirty five per cent of the developments are in this situation. With respect to VAT, farmers sell their products at an increased lump sum price which starting in 1994, was set at 9%. There is also a reduced type for the use of diesel oil in the agricultural sector and a tax exemption for vehicles used in the development.

In the United Kingdom, the income tax system for farmers is the one generally applied to the rest of the activities. Bi-annual average calculations are allowed for reducing the impact of progressiveness when agricultural revenues are very variable. In the case of VAT, the applicable system is also the general one, although with zero rate applied to almost all sales, for which reason the farmer may recover the VAT paid for his purchases. There is also a reduced tax rate on the use of diesel oil for agriculture, as well as reductions in the annual rates of agricultural vehicles.

The tax system applicable to the agricultural sector in Spain began to be differentiated from the rest of the economic sectors in 1977, with the establishment of the constitutional period, whose coordinates were aimed at introducing modifications in the tax treatment of this sector, that would allow for adapting it to the reality of the sector and responding to the economic development needs of the entire primary sector. Nevertheless, the essential objective behind incorporating the sector to a specific tax system is to facilitate compliance with formal obligations by the taxpayers which, on many occasions are small or medium-sized family developments with scarce tradition with respect to documentation.

2. TAX SYSTEM OF AGRICULTURAL ACTIVITY IN SPAIN

2.1 Constitutional basis of the taxation of agriculture

It is the very article 130.1 of the Spanish Constitution which provides the basis for framing an individualized treatment for the agricultural sector on urging the public powers to "modernize and develop all the economic sectors and in particular, agriculture, cattle raising, fishing and crafts, in order to put all Spaniards in the same life level". This constitutional recognition for special promotion of the primary sector is based on the active duty for encouraging the modernization and development of the sector and in a qualitative consequence which is to pursue the increased level of living of those who carry out their activity in this sector.

In any case, as has been stated in the White Book of Agriculture and Rural Development[3], the tax discrimination that is being offered by the legislator to the agricultural sector is explicitly supported by a constitutional rule, which has led to the following normative milestones in Spain which are highlighted below:

- Act 49/1981, December 24, Agricultural Family Development and Young Farmers Statute.
- Act 19/1995, of July 4, on Modernization of Agricultural Development – hereinafter, MADA.
- Act 20/1990, of December 19, on tax system of cooperatives – hereinafter, TSCA, including the agricultural cooperatives within the system of "specially protected" cooperatives.

Likewise, every Autonomous Community has undertaken a normative development on this subject with different tax measures to support the economic sector and related to taxes that involve the agricultural activity, especially the Tax on Net Worth Transfers and Documented Juridical Acts – hereinafter; TNWTDJA – the Estate and Gift Tax – hereinafter, EGT.

uch constitutional basis is reinforced by article 129.2 of the Spanish Constitution, which in addition to the duty of public powers of promoting "effectively the various forms of participation in the company" also calls for promoting cooperative companies". The cooperatives corporate model represents an essential instrument of social economy, whose importance in the agricultural sector is fundamentally intensified, among others, for two reasons: 1) according to the regional influence of agricultural cooperatives in their commitment to the environment, to the extent there are no escape of developments to other territories, in spite of obtaining minimum profitability; and 2) undertaking the task of rendering agricultural cooperatives socio-culturally dynamic by providing professional training to their members and social values education in the rural world.

According to these premises, the tax's "main objective of obtaining the necessary revenues for supporting public expenditures" may also "serve as general economic policy instruments and contribute to achieve the principles and objectives established in the Constitution" (art. 2.1.2nd paragraph). Therefore, along with the main function of every tax, which is to collect public revenues, it may also serve as technique for promoting the general economic policy. In any case, most taxes have a component or motivation which is not strictly fiscal. Tax figures have gone from a neutral institution exclusively

3. *White Book of Agriculture and Rural Development, Ministry of Agriculture, Fishing and Nourishment, Madrid. 2003. May be consulted at the web address: http://www.libroblancoagricultura.com/publiccion/pdf/Cap01a10:T2.pdf.*

devoted to collection, to an instrument that allows for achieving a whole series of objectives set by society.

However, it may happen that its use for nonfiscal purposes may lead to a denaturalization of the tax. An enforced net worth benefit ceases to be a "tax" benefit when its contributive or, more generically, collection essence is annulled or substituted by whatever nonfiscal purpose. The tax's institutional guarantee requires that the nonfiscal purposes pursued with it, do not end up denaturalizing the typical function, which likewise characterizes this juridical principle, it being essential that there be minimum congruence between the mechanism selected and the function assigned to it.

Likewise, from the subvention side, the change of fiscal benefits into traditional taxes of a strictly collection nature has progressively flooded its juridical configuration in order to protect other constitutional purposes. Nevertheless, it must be warned that the redistributive and economic policy function entails the risk of "totally increasing the principle of contributive capacity as principle of equality", if the legislator's discretionality were taken to the extreme of having economic policy as the only reasonable element, which matter in the case of these assumptions, is based on the constitutional principle of special treatment of the agricultural sector.

On the other hand, the tax incentive, applied under any of the juridically possible modalities, implies an "encouragement which in relation to a specific behavior may result in the recognition of a tax benefit"[4]. Thus, the introduction of fiscal benefits to the tax burden of specific tax figures while a behavior prone to environmental protection is adopted, possibly bears with it a promotion, support or stimulus function that is instrumental to the agricultural sector, but at the cost of a collection reduction that would be assumed by the citizens, and whose introduction should be undertaken cautiously. In principle, the tax measures approved which affect the agricultural sector, more than disencumbering techniques, constitute authentic tax benefits. Thus, the first ones are a pure reflection of the tax base determined by the legislator, in contrast to the tax benefits that constitute an exception to the regular tax system, a more favorable treatment for specific de facto assumptions, with principles of its own based on promotion functions[5].

Therefore, there is a trend to limit the developments, since the adoption of juridical measures for supporting the sector goes through the need of protecting the active population, which it occupies in times of economic crisis with high rates of unemployment in the Western countries. In any case, the weaknesses of productivity of the agricultural sector continue to be found in the reduced dimension of the developments, as well as the well-known subjection to climate contingencies.

We thus propose the following as unavoidable challenges faced by this sector:

1. Increase in investments in the agricultural productive sector; 2) the search for competitiveness in prices and product innovation; 3) the configuration of tax instruments to stimulate the agricultural sector.

The tax treatment received by the agricultural sector can at no time be excluded from the economic relevance which it represents for the territory wherein it will be applied, since the economic source of such measures will be evaluated.

4. *SOLER ROCH, M.T., Incentivos a la inversión y justicia tributaria, Civitas, Madrid, 1983, pág. 49.*
5. *FICHERA, F., Le agevelazioni fiscali, Cedam, Padova, 1992, pág. 56*

Table 2
Spain: GDP by economic sectors (in %)*

Year	Agriculture and fishing	Industry and energy	Construction	Services
1970	11,0	34,0	8,8	46,3
1980	7,0	28,6	7,9	56,5
1990	5,5	25,1	8,8	60,6
2000	4,4	20,9	8,3	66,4
2005	3,1	18,4	11,6	66,8
2009	2,5	15,1	10,7	71,7
2010	2,7	15,6	10,1	71,6

*** Source:** Author's own preparation with data from INE National Accounting

Table 3
Spain: Structure of employment by economic sectors (%)*

Year	Agriculture and fishing	Industry and Energy	Construction	Services
1970	29,3	25,3	8,9	36,5
1980	18,6	27,2	9,3	44,9
1990	11,5	23,7	9,9	55
2000	6,6	20	11,2	62,3
2005	5,3	17,3	12,4	65
2009	4,2	14,4	9,7	71,7
2010	4,4	14,2	8,5	72,8

***Source:** Author's own preparation with data from INE's Active Population Survey

2.2 Tax and financial effect on the agricultural sector

First of all, it is necessary to make a terminological clarification since, generally, taxation of the agricultural sector comprises three fundamental activities of the primary sector (agriculture, cattle raising and fishing). Although the tax rules applicable to these economic activities have a specific regulation, they do not include forest activities –in keeping with the scope of application of the community regulations. However, it must be pointed out that taxation of the agricultural sector is not identical for farming and cattle raising activities, since there are significant differences in specific cattle raising activities.

The following chart illustrates the tax and financial effect on the agricultural sector on which we will provide a brief overview, to subsequently consider in greater detail the contents of the agricultural activity's tax system.

Table 4

State taxes	Autonomous taxes	Subsidies and public aid
Individual Income tax • Objective estimation system	Tax on Net Worth Transfers and Documented Juridical Acts	Community Agricultural Policy
Value Added Tax • Special system	Estate and Gift Tax	
Corporate Tax • Cooperatives • Agricultural Transformation Corporations		
*Self-prepared by author		

As may be seen, IIT and VAT are taxes which afford the agricultural activity a differentiated system and constitute a specialty with respect to each of their general system. In addition, if the agricultural activity is organized in different corporate forms such as cooperatives, in particular, the corporate benefits resulting from the agricultural activity may also take advantage of a "specially protected" Corporate Tax-CT system. In subsequent sections, we will discuss the main elements of the fiscal effect on these taxes.

From the standpoint of other transactions related to the agricultural business, we will refer to its transfer, where we will find specific rules applicable to TNWTDJA (onerous transfer) as well as to EGT (free transfer).

Thus, since the beginning of an agricultural activity, the mere acquisition of an agricultural development in its totality and provided that the buyer continues to exercise the same entrepreneurial activity of the transmitter (art. 7.1a)) it is not subject to VAT by exception to the general rule of subjection to this tax of all transactions carried out by businessmen and professionals. It must be pointed out that this non-subjection to VAT calls for the transfer of the totality of the seller's entrepreneurial net worth and the purchaser thereof must be a single person, corporation or entity and the latter must continue the same activity of the transferor. If any of these requirements were not fulfilled, the transaction will be subject to VAT. On the other hand, the purchase-sale of the totality of the agricultural development will also not be subject to TNWTDJA in accordance with article 7.5 of the TRLITPAJD.

Now then, the TNWTDJA provides for certain exemptions that are related to the agricultural sector. This is the case of the plot concentration, the forced exchange of rural farms; the voluntary exchanges authorized by the Agricultural Reform and Development Institute, etc., in order that the fiscal cost will not be an obstacle to its fulfillment[6].

However, it was the MADA which introduced a significant part of the differentiated tax treatment in this tax. Thus, the MADA provided for the exemption of the DJA tax on the first copies of the articles of incorporation, modification or cancellation of mortgage loans subject to VAT, when these are granted to holders of priority developments for improvement plans and holders of developments which, although not being priority, might reach such consideration through acquisitions financed with the loans. Likewise, the transfer or acquisition in any capacity, onerous or lucrative, inter vivos or mortis causa, of fee simple or usufruct granted for life of an agricultural development in its integrity, in favor or by the holder of another development that may be a priority or which may achieve this consideration as a result of the acquisition, will enjoy a 90% reduction of the base of the tax encumbering the transfer of acquisition of the development, provided that the priority condition of the purchaser's development is not changed, with the reduction being increased to 100% if the surviving spouse continues the development. On the other hand, article 20 of the MADA provides that the transfer or acquisition will be exempt in the case of a young farmer or an agricultural wage earner for his initial installation in a primary development, while the general reduction will be increased by 10 percentage points if the purchaser is a young farmer or agricultural wage earner and the transfer or acquisition is made during the 5 years following its initial installation.

In addition, if the crop has been classified by the respective Autonomous Community as a "priority agricultural development", it will be entitled to the application of tax benefits, according to economic

6. *MARTÍN FERNÁNDEZ, F.J., RODRÍGUEZ MÁRQUEZ, J., La fiscalidad en el sector agrario, Instituto de Estudios Económicos, Madrid, 2004, pág. 50.*

parameters and requisites, number of agricultural workers employed, income of reference and viability of the agricultural development. Using the example of the Castilla-La Mancha region, Law 9/2008, of December 4, regarding measures on assigned taxes, provides in its article 13 deductions on onerous transfers of agricultural developments subject to TNWTDJA:

- A 100% deduction of the TNWTDJA rate is established for transactions referred to in articles 9, 10, 11 and 13 of Act 19/1995, of July 4, regarding the Modernization of Agricultural Developments, provided that the requisites established in the aforementioned law are fulfilled.
- Taxable events related to the agricultural developments of a unique nature defined in article 4 of Act 4/2004, of May 18, on Agricultural and Rural Development in Castilla-La Mancha will have 50% deduction of the fee.
- The taxable events provided in article 10.1 of this Law, related to the preferential agricultural developments defined by article 5 of the Law on Agricultural and Rural Development in Castilla-La Mancha. The deduction of the tax rate will be 10 per cent.

Another way of acquiring ownership of an agricultural development is through free transaction inter vivos; that is, through its donation, in which case the acquisition will be subject to the Donations Tax, regulated by Act 29/1987, of December 18 of the Estate and Gift Tax. On the other hand, article 20 of the Law provides for a tax base reduction of 95% of the value of an individual enterprise, professional business or participations in enterprises or rights of enjoyment thereof, on fulfilling the legal requirements, unless the pertinent Autonomous Community may determine otherwise. Just as in the case of the TNWTDJA, the EGT is an assigned tax and therefore, the Autonomous Communities have the power for determining tax benefits in this respect, and in fact, a good number of them have done so.

Lastly, agricultural subsidies originating from the Community Agricultural Policy (CAP) are very important as financial instrument of the agricultural activity; however, we will not consider this issue in greater depth, since it is a direct support mechanism –not an indirect one, such as taxes which is the subject of our analysis. Nevertheless, it may be said that successive CAP reforms have been aimed at structuring a sustainable agricultural model through a complex juridical system that takes into account the agricultural activity, according to its ecological implications. Likewise, the announced CAP reform –intended to enter into force in 2014- would seem to be oriented toward conditioning 40% of the agricultural aid to the environmental factor.

2.3. Special agricultural system: IIT and VAT

In general, the agricultural and fishing sectors are subject to a special system essentially involving IIT and VAT – hereinafter, AGFSP. Above all, this system is aimed at reducing formal obligations, to thus incorporate to the tax system the largest possible number of agricultural developments, including the most numerous small and medium-sized ones.

The differentiating element with respect to IIT in agriculture involves the objective estimation of income as a percentage of the value of production, specifically for each product. This method is incompatible with the direct estimation system and its relinquishment leads to the relinquishment of the special VAT system.

With respect to VAT, article 124 of the VATL allows for applying to holders of agricultural, forest, cattle raising or fishing developments the exemption from formal and material obligations of the general system. This system implies that, given the inability to deduct the VAT incurred, the farmers abiding by the system will be given a lump-sum compensation for VAT payments incurred or paid for goods acquired or services rendered.

Recently, the latest regulatory changes due to increase in the VAT rates, provided in Royal Decree-Law 12/2012, have affected agricultural food products, while also including an increase in VAT compensation (article 130, par. 5) starting in September 2012[7]. Thus, although the cost of production is increased due to the increase of the VAT rate, it is compensated with the VAT which the taxpayers may apply. Nevertheless, the claims of the sector have not been considered, given that there is a distinction between the agricultural and cattle raising activities, of which the latter has a lower compensation VAT[8].

A characteristic of this special system is thus its great simplicity, in a clear attempt at adapting the tax to the reality of a sector, such as the agricultural one which is less prepared to comply with the demands of the general tax system. Therefore, the reasons justifying this system are: 1) the nonexistence in the agricultural sector of the necessary administrative organization for fully applying the tax, an issue considered in the Guideline that allows for granting the agricultural producers a lump sum system that tends to compensate the tax burden paid for the acquisition of goods and services by farmers subjected to the lump-sum system, and 2) a technical reason based on the very operation of the tax, whereby the compensation system for the tax burden borne from the acquisitions or services received by the farmers, allows that the compensations be deducted from the fees incurred for the transactions carried out[9].

IIT: Special system

The purpose of the IIT objective estimation system (article 31 of the IITL and article 32 of the IITR), is aimed at assessing the net yield, exclusively, of entrepreneurial activities that are subjected to it, generally small businesses. These net yields are assessed through indexes, signs or modules that result from the statistical analyses and studies on yields from entrepreneurial activities included in the system that have been carried out by the Ministry of Economy and Finance.

Accordingly, the resulting net yield has nothing to do with the actual results of the different entrepreneurial activities included in the system. This is so, to the extent that the profits that could have been obtained as a result of the existing differences between the actual yields and those derived from the modules, can never be subject to the tax and are thus exempt from taxation.

In keeping with this objective, formal obligations of the entrepreneurs included in the system have been reduced to the necessary minimum for applying the few controls which the very system specifies. Likewise, article 101.5, paragraph d) of the IITL provides a 2% withholding on yields resulting from the activities, in the case of yields originating from agricultural or cattle raising activities –except for pig raising and poultry farming activities wherein 1% will be applied – which implies a very reduced advance of the

7. *The regulatory modification has included, as said, a generalized increase as of September 2012 which has been applied by means of two measures: first, an increase in rates, general and reduced (from 18% to 21% and from 8% to 10%, respectively), while the over-reduced rate continues unchanged (4%); second, a group of specific products and services which until now were taxed at the reduced rate, will not be taxed at the general rate. Specifically, the VAT increase in agricultural products has not affected basic food products (bread, flour, milk, cheese, eggs, fruits, vegetables, potato and cereals) which continue to be applied the 4% rate. The rest of foods (meat, oils and transformed products), phytosanitary products, seeds, fodder, veterinary services, water, and services rendered to holders of agricultural, forest or cattle raising developments (planting, sowing, fertilization, tilling, etc.) increase from 8% to 10% and the means of production of farmers and cattle raisers (energy, fuel and agricultural machinery) are taxed at 21%, instead of 18%.*
8. *Thus, while in cattle raising the compensation goes from 8.5% to 10.5%, in the agricultural sector the rate applied goes from 10% to 12%.*
9. *ROMERO GARCÍA, F., "El IVA y la actividad agraria. Régimen especial de la agricultura, ganadería y pesca" en La fiscalidad de la agricultura y la ganadería, CISS, Madrid, 2007, págs. 172-173.*

payment than for other activities subjected to the objective estimation system[10].

On its part, the simplified VAT system (art. 122 of VATL and 34 of VATR), as well as that of the IIT objective estimation has been considered as a system for the objective estimation of the Tax payments, for small businesses as well, with the same characteristic of reduction to the minimum expression of formal obligations of the entrepreneurs, whose activity is included therein. In accordance therewith, Resolution DGT nº 2551/2005, of December 22, it was stated that the VAT simplified system is a special system that consists of the objective estimation of payments for current transactions, with deduction of payments actually made or to be paid in exercising the activity. Therefore, the payments made for such current transactions are not the ones which the taxpayer has actually paid on his transactions, but rather are calculated on the basis of modules according to the activity involved.

The aforementioned increase in tax rates has caused that Order HAP/2259/2012 of October 22, include the review of the modules of the simplified system in order to update its amount accordingly. With respect to IIT, the number of modules, the net yield indexes of agricultural and cattle raising activities and application instructions are maintained. The 5% reduction of the net yield of modules derived from the agreements reached in the Autonomous Working Table is also maintained. It is worth noting that the special system has become more attractive following the incorporation of six additional provisions by means of this Order.

In the first one, in order to promote the hiring of workers without this implying a greater fiscal cost, in relation to the IIT objective estimation system, it is provided that, if in 2012 there would have been an increase in the "wage earning" module, compared to 2011, the zero coefficient will be applied to said positive difference. In the second it is provided that taxpayers beginning their activity in 2012 and determining their net yield through the objective estimation system, they will reduce said yield in the period when the activity was initiated and in the subsequent one by 60 and 30 %, respectively. The reduction will be 70% in both periods in the case of disabled taxpayers, with a level of disability equal to or above 33%. Interesting for the production of agricultural foods is the third Additional Provision of the abovementioned Order which determines the application of the 0.173 index for 2012 to agricultural activities involving tomato, broccoli, peach and asparagus intended for industry and which determine their net yield through the objective estimation system. The fourth one covers a general reduction for 2011 of 5% applicable to the calculation of the net yield through the objective estimation system in all economic activities compiled in annexes I and II of the Jurisdictional Order 13/2011, of February 8. The fifth provides for modifying for the year 2011, in relation to the objective estimation system, the indexes of specific agricultural and cattle raising activities that are undergoing special economic difficulties. Finally, the sixth reduces for the year 2011, specific signs, indexes or modules applicable to the transportation of goods by road.

There are certain limiting quantitative criteria when it comes to applying the corresponding module, in such a way that the magnitude applicable to the series of activities shall be in keeping with articles 31 and 32 of the IITL and article 122 of the VATL:

a. 450,000 Euros of annual revenues for the series of economic activities. The following will be calculated: 1) The transactions that must be registered in the sales and revenues registry

10. The application of limits to the objective estimation method for agricultural and cattle raising activities has not changed following modifications thereto (art. 31 of the IIITL) through Law 7/2012, of October 29 regarding the modification of tax and budgetary regulations and adaptation of the financial regulations for intensifying actions in preventing and combatting fraud.

(art. 68.7 IITR) or in the registry provided for such purpose (art. 40.1 VATR); 2) Likewise, transactions not previously calculated will be included; that is, those for which the entrepreneurs are obliged to issue and maintain invoices, according to the provisions of the invoicing Regulations, article 2, except for transactions comprises in article 121.3 of the VATL, as well as real estate leases that do not qualify a yields from economic activity.

b. 300,000 Euros of revenues from the following activities: Independent cattle raising; cattle breeding, care and fattening services; other works, services and accessory activities carried out by farmers or stockbreeders which are excluded or not included in the special VAT agricultural, cattle-raising and fishing system; other works, services and accessory activities carried out by incumbents of forestry activities which are excluded or not included in the special VAT agricultural, cattle-raising and fishing system. Also, products that correspond to the assignor in agricultural activities carried out under the partnership system; products that correspond to the assignor in forestry activities carried out under the partnership system; agricultural or cattle raising business susceptible of being included in the special VAT agricultural, cattle raising and fishing system; Forestry business susceptible of being included in the special VAT agricultural, cattle raising and fishing system; processes involving the transformation, elaboration or manufacture of natural, vegetable or animal products that need to be registered in the section corresponding to industrial activities in the IAE Rates and which may be carried out by the incumbents of the developments from which such natural products are directly obtained.

When dealing with entities under the income attribution system one must calculate not only the transactions corresponding to the economic activities carried out by the very entity under the attribution system, but also those carried out by the partners, heirs, joint owners or participants; the spouses, their ancestors and descendants; as well as other entities in the income attribution system wherein any of the aforementioned persons responding to the aforementioned circumstances may participate.

Also included is the ecological crop condition for determining the net yield of the modules, provided that the production may fulfill the requisites established in the legal regulations of the Autonomous Communities, for which reason they assume the control of this type of production according to RD 1852/1993 of October 22 and Regulations (EEC) 2092/91 of the Council of June 24, 1991 to which a correcting index of 0.95 will be applied.

VAT: Special system

The special agriculture, cattle raising and fishing system –SACFS- was designed for simplifying management by the Tax Administration, which results in a decrease of the corresponding costs and, in turn, a reduction of taxpayer formal obligations, whose essential characteristic is the absolute lack of compliance with said obligations.

At the same time, this system endeavors to achieve compliance with the principle of justice, allowing compensation through a specific mechanism so that the taxpayers may recover the tax borne in the acquisition of goods and services. This is a voluntary system which, nevertheless is directly applied when the requisites established by the VATL are fulfilled, except for express waiver by the taxpayers in the manner and terms provided in article 33 of the VATR. The waiver will be in effect for a minimum three-year period and will be considered extended for each of the subsequent years in which the respective special system could be applicable, unless it is expressly revoked in the month of December prior to the beginning of the year when it should be in effect.

Both systems –IIT and VAT – are coordinated, and thus the waiver of one of them implies the waiver of the other, and its exclusion implies the exclusion of the IIT objective estimation system. The system is applied to the incumbents of

agricultural, forest, cattle raising or fishing developments, provided they fulfill the legal requirements and would not have filed a waiver within the regulatory term therefor (art. 124 VATL). Nevertheless, the taxpayers may be excluded from the SACFS according to the volume of transactions (art. 124 Dos.6 VATL and art. 43.2 VATR), that is, if they exceed:

a. 300,000 Euros during the immediately preceding year, for the series of transactions relative to activities comprised therein, unless the IIT regulations would establish another figure for purposes of the application of the objective estimation system in determining the yield from agricultural, forest, cattle raising or fishing activities, in which case the latter will be considered.
b. 450,000 Euros during the immediately preceding year, for total transactions carried out during said period.
c. The taxpayers which may have exceeded in the immediately preceding year the amount of 300,000 Euros annually, excluding VAT, for acquisitions or imports of goods and services for all the entrepreneurial or professional activities of the taxpayer, excluding those relative to elements of the immobilized.

This system will be applicable to agricultural, forest, cattle raising and fishing developments fulfilling the following conditions (art. 125 VATL and art. 44 VATR):

a. That their products be obtained directly from crops, developments or captures, which implies that intermediate activities are not admissible for obtaining them.
b. That natural, vegetable or animal products be obtained, not subjecting them, therefore, to any type of transformation.
c. That products are obtained for transfer to third parties, as well as to accessory services to such developments to which the VATL refers.

As we have said, the important advantages of this special system are in the simplification of the material and formal obligations of the taxpayers which, in turn, facilitate tax management by the Administration and compliance with the tax by the taxpayers subject to this system (art. 129 VATL and art. 47 VATR). In sum, taxpayers abiding by this system are not subjected to: 1. The obligation to assess, cause effects or pay the tax; 2. the obligation to file self-assessments; 3. The obligation to make the tax payment; 4. The obligation to demand the equivalence surcharge, as appropriate; 5. The obligation to issue or deliver invoices; 6. The obligations to keep accounting or specific records, except for keeping an appropriate registry for entering transactions comprised in the special system.
However, this release of obligations does not exist in the following assumptions:

- Imports of goods;
- Intra-community acquisitions of goods;
- Transactions involving the delivery of real property investments;
- The taxpayer's presumed investments.

In any case, the taxpayers abiding by this special system must fulfill the general obligations of any taxpayer, such as enrolling in the census, requesting the corresponding TIN and, if they carry out other different activities, likewise the obligations legally established with respect to them.

On the other hand, and in direct correlation with the inability that the taxpayers abiding by this special system deduct the payments borne or made for the acquisitions or imports of goods of any nature or for the services which may have been rendered to them, provided that they are used in carrying out the activities to which the special system is applicable and in order not to affect the taxpayers subject to this system, the compensations system is established (art. 130. One VATL).

In spite of the VAT substitutive mechanism which does not have an effect on the farmer who must comply with the compensation system, its differences with the VAT effect are significant.

Thus, the resulting VAT is collected by the entrepreneurs and goes to the Public Treasury, while the amount of compensations goes to the farmer who makes no VAT assessment (or payment). On the other hand, the base used for applying the compensation percentage does not exactly coincide with the VAT tax base because, since the base considered for calculating the compensation is the selling price of the agricultural products, it does not include accessory expenses that are charged separately to the purchaser (packing, commissions, charges, transportation, insurance,...) which, on the other hand, are part of the tax base for VAT purposes in the general system. Lastly, it is worth noting that the percentages applied to the selling price of products delivered by the farmer for the calculation of the compensation, do not coincide with the VAT rates, with the community regulation stating in this respect that the lump-sum percentages will be determined in accordance with the macroeconomic data of the of the agricultural group subjected to the special system in the past three years, with the express prohibition that farmers examined jointly receive compensations that exceed the VAT burden.

As a result of the application of this special agricultural system, the farmer is not the one obliged to transfer the compensation to the purchaser, but rather the purchaser is the one obliged to compensate the farmer, for which reason the issuance of the invoice indicating the compensation made does not correspond to the farmer, but rather to the purchaser of his products.

Thus, according to the compensation system the entrepreneurs abiding by this special system have the right to a lump-sum compensation for the VAT payments incurred or paid for the acquisitions or imports of goods or services that may have been rendered to them, to the extent they use those goods or services in carrying out the activities to which this special system is applicable.

As for the transactions that allow for receiving the compensation, art. 130 Three VATL states:

1. The deliveries of natural products obtained from agricultural, forest, cattle raising or fishing developments to other entrepreneurs or professionals, regardless of the territory where they are established with the following exceptions:
   - Those made to entrepreneurs that abide by this same special system in the territory of application of VAT and which use the aforementioned products in carrying out the activities to which said special system are applied. That is, the compensation must be paid when those receiving the products are not abiding by this special system.
   - Those made to entrepreneurs and professionals who in the territory of VAT application exclusively carry out tax exempt transactions, which do not allow for its deduction.
2. Exempt intra-community deliveries of natural products obtained in said developments, when the purchaser is a juridical person not acting as an entrepreneur or professional and the intra-community acquisitions made are subjected in the member State of destination.
3. The rendering of accessory services to the agricultural, forest, cattle raising or fishing activity, regardless of the territory where those receiving them are established and provided that the latter are not abiding by this same special system as regards the special tax sphere.

There is no right to the compensation when the taxpayers abiding by this special system, in carrying out their activities, make deliveries or exports of natural products to those who do not abide by this special system. This, without detriment to its right to the deductions provided in the general system (art. 130 Four VATL).

With respect to calculation of the amount of compensation, the latter is the amount resulting from the application of the percentage provided by the VATL, to the selling price of products or accessory services rendered to third parties (art. 130 Five VATL). In determining the selling price, indirect taxes encumbering the aforementioned transactions will not be taken into account, nor the accessory or complementary expenses thereto, that have been charged separately to the purchaser, such as commissions, packing, charges, transportation, insurance, financial expenses or others. In transactions carried out without monetary compensation, the aforementioned percentages will be applied to the market value of products delivered or services rendered. In Resolution DGT No. 2394/2008, of October 26 it was stated that the compensation of the special agriculture, cattle raising and fishing system to be paid by a cooperative for the deliveries of grapes made by its partners, will be the result of applying the corresponding percentage to the price of deliveries of grapes received by its associates, regardless of the criterion (fixed and variable expenses) taken into consideration for calculating said price.

As has been previously mentioned, as of September 1st, 2012, there have been some modifications to article 23 of Royal Decree-law 20/2012 of July 13, regarding measures for guaranteeing the budgetary stability and promotion of competitiveness, through a new drafting of section 5 of article 130 VATL, it being that from now on, the lump sum compensation will be the amount resulting from applying, to the selling price of the products and services subjected to the aforementioned special regime, the appropriate percentage from among those indicated below:

- Twelve per cent (10% until August 31, 2012), in deliveries of national products obtained in agricultural or forest developments and in services of an accessory nature to said developments;
- Ten per cent (8.5% until August 31, 2012), in deliveries of national products obtained in cattle raising and fishing developments and in services of an accessory nature to those developments.

In determining the aforementioned prices, indirect taxes encumbering the aforementioned transactions will not be taken into account, nor the accessory or complementary expenses thereto that have been charged separately to the purchaser, such as commissions, packing, charges, transportation, insurance, financial or others.

Finally, taxpayers who have paid the compensations may deduct their amount from the fees earned for the transactions carried out, applying to this effect, the rules established by VAT with respect to deductible fees earned (art. 134.1 VATL and art. 49 VATR). Taxpayers, to whom the special system of equivalent surcharge in relation to acquisitions of natural products intended for their commercialization according to such special system, cannot deduct the compensations, and likewise they cannot deduct in any case the VAT borne on their acquisitions (art. 134.Two VATL). To make the deduction it is required as documentary requisite that taxpayers have the original receipt (art. 134. Three VATL and. 49 VATR).

2.4. The corporate tax system of agricultural cooperatives

According to Law 27/1999, on Cooperatives, a cooperative is a corporation established by persons who join with others in a free adherence and voluntary drop out system, for carrying out entrepreneurial activities intended to satisfy their needs and economic and social aspirations, with a democratic structure and operation. These cooperative organizations considered under article 7.1ª of the Revised Text of the Corporate Tax Law (CTLRT) have a special tax system regulated by Law 20/1990 -CTSL. In principle, agricultural cooperatives enjoy a specially protected system in view of their social purpose and the tax benefits of article 33 and 34 of the CTSL are applied to them.

It is for this reason that compliance with the requirements of the protected cooperatives[11] is subjected to such strict control. In this respect, article 38 of the CTSL was updated recently, stating that the tax Administration is in charge of verifying the necessary circumstances or requisites for enjoying the tax benefits provided in the Law and undertaking the corresponding regularization of the cooperative's tax situation. Likewise, "the result of said actions will be informed to interested Local Corporations and Autonomous Communities to the extent it may have an effect on the taxes they manage"[12].

The tax system of agricultural cooperatives affords a more advantageous tax treatment to cooperative results that are understood to be those listed in article 17 of the CTSL, and which are part of the tax base of the CT, together with extra-cooperative yields and net worth increases and reductions. Thus, tax benefits applicable to agricultural cooperatives are specified in the type of encumbrance applicable to the tax base of the cooperative results which will be 20%, vis-a-vis the general rate that will be applied to the extra-cooperative results. Also regulated is an assumption of freedom of reduction of the elements of new fixed asset, acquired within a term of three years as of the date of its incorporation in the registry of cooperatives and a 50% bonus of the integral CT fee, according to the CTSL, since these are specially protected cooperatives.

3. CONCLUSIONS

As compared to other economic sectors where public intervention finds a generic basis in the Constitution, the agricultural sector allows a public promotion activity that justifies the adoption of more beneficial fiscal measures and this, as well, considered from the tax standpoint. This viewpoint

must be put into practice, according to sound judgment required for more effectively collecting in times of crisis, but also with the conviction that favoring the sector may bring tax resources through increased productivity and the exchange of agricultural products.

On the other hand, it is important that when introducing tax measures in the agricultural sector, the regions be allowed to pay specific attention to certain types of crops or activities that may be more appropriate for each geographical region of the country, in order that it may develop its tax autonomy.

Likewise the parameters of legislative action must bear in mind that the design of the tax system of the agricultural sector must be aimed at promoting the structural transformation and not at solving occasional issues, since it must not be forgotten that the yield from production

11. *Such requisites on the Cooperatives Law have been criticized by ALGUACIL MARI, P., ROMERO CIVERA, A., stating that "although the system is classified as 'protective', it actually does not protect, but rather carries out a series of technical adjustments, especially in the Corporate Tax of cooperatives. On the other hand, it does not offer true 'incentives' in the aforementioned tax either. It would seem more logical that these 'technical adjustment' measures would be gathered in a system of adaptation of Cooperatives to a tax intended for 'capital' corporations under the name of 'special system', in "Requisites for the application of the special cooperatives tax system", Quincena Fiscal Aranzadi No. 21/2011, BIB 2011/1750.*
12. *Final 2nd Provision of Law 7/2012 of October 29 on the modification of the tax and budgetary regulations and adaptation of the financial regulations for intensifying actions in the prevention and struggle against fraud.*

of agricultural developments is framed within a context of open markets, thus calling for facing the economic demands thereof. To this end, a key element is the modernization of agricultural developments, where direct taxation (IIT and CT) may play a relevant role with special emphasis on the diversification of activities according to social demands –connected through environmental protection – and tax stimulus to rural tourism or agro-tourism.

Undoubtedly, in the Spanish case, the treatment given the sector with respect to VAT is the one that may be considered specially generous, not only by facilitating compliance with formal obligations, but also substantially, since even in the current economic crisis situation, the legislator has especially protected the agricultural sector –by accepting the requests of the Autonomous Communities and the main agricultural organizations – an attempting to mitigate the effects of the increase in tax rates that affect agricultural food products with the increase of the lump sum compensatory VAT for the tax cost borne by the products and services acquired by the farmers and cattle raisers. Nevertheless, there is still a difference in tax treatment that has not been sufficiently justified.

It is also believed that the vulnerability of the sector may allow for rendering flexible the taxation of complementary activities such as crafts, or consider the actual participation of different members of the family that are regularly involved in the yield from small developments.
The tax importance of the more beneficial tax system for cooperatives may result in greater disadvantages in relation to the juridical system established for them, which issue may be considered an added difficulty in situations of transformation, dissolution or termination [13].

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13. *It has thus been stated by MARTÍN FERNÁNDEZ, F.J. and RODRÍGUEZ MÁRQUEZ, J., on indicating the differences in treatment in such situations of the cooperatives with respect to commercial corporations, "El régimen tributario de la agricultura en España", en La fiscalidad en el sector agrario, Instituto de Estudios Económicos, Madrid, 2004, p. 41.*

TAX EXPENDITURE: INCENTIVES FOR INVESTMENT AND GENERATION OF EMPLOYMENT IN URUGUAY, THROUGH REDUCTIONS IN THE DIRECT TAXATION OF COMPANIES

Fernando Peláez and Leticia Olmos

SUMMARY

This work seeks to know the profile of the companies that use the benefit, their economic dimension, their level of profitability, as well as their tax burdens before and after the benefit, contrasting them with other companies. In addition the characteristics of these companies are investigated, regarding their use of workforce, their potential as employment sources, and the evolution of their wage levels.

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CONTENT

This article is based on the document presented by the authors for the Prize: Tax Studies Centre of Uruguay, and is developed on the instruments of promotion of the investment in the Uruguayan tax system, specially the regime established in the recent re-regulation of the investments law.

The main objectives, specifically specified in the normative text, are the growth of the investment as a way to strengthen the productive system development process, to improve the amount and quality of employment, applying the benefit to small and medium companies. The quantitative measurement of the tax sacrifice of this promotional regime for the year 2010 reached 0.46% of the GDP, as stated in the Tax Cost Report, so it has an important economic significance.

The systematic and periodic measurement of the tax expenditure, a recent measurement in our country, allows knowing the dimension of the effort by the society to maintain a specific tax policy based on the generation of exceptions in the tax system. Monitoring the implementation of these policies allows corrections in order to better fulfill their objectives, so in addition to the tax expenditure measurement it is necessary to observe their results.

1. INVESTMENT PROMOTION INTRUMENTS IN THE URUGUAYAN TAX SYSTEM

The Uruguayan tax system includes a series of exceptions to the general tax regimes, as a consequence of clearly different policy objectives included in the system. The purpose of some exceptions is to improve the progressive taxation (or to avoid the regressive effects). We can mention as examples of this case the aliquot reduction of the Value Added Tax (VAT) applicable to the consumption basket. Other exceptions are justified by promoting the economic activity and/or employment. These are basically found in the Economic Activities Income Tax (IRAE) and Tax on Assets (IP).

The valuation of all exceptions and the analysis of the budget are made by the General Tax Directorate in the study of the Tax Expenditure .[1]

1.1. Tax Expenditure in Uruguay

Recently, several countries are trying to identify and to estimate the fiscal sacrifice from the general tax regimes exonerations or exemptions. The quantification of these exceptions is usually denominated Tax Expenditure. These estimates are useful to evaluate the cost of certain applied policies, to measure their effectiveness, and this way have more elements to discern if the obtained benefits compensate the associated sacrifice. The publications of these results contribute to provide greater transparency to the system.

The Uruguay presented the first Tax Expenditure Report in 2008, which included the identification

1. *Tax Expenditure in Uruguay 2005 -2010. www.dgi.gub.uy*

and valuation of existing exemptions in VAT, PI and IRAE. In the following updates the estimates have been reviewed and have been incorporated to the study of other taxes. Currently the report of Uruguay also measures the IMESI (specific internal taxes) and the personal income tax exemptions, which jtogether with the three above mentioned taxes make 95% of the collection.

Various methodologies are used in the practice of these studies, which has made institutions such as the Inter-American Center of Tax Administrations (CIAT), to study the best practices in tax expenditure measurements, elaborating the Handbook of Best Practices[2], which includes the experience of Uruguay among other countries. The adoption of a methodology and standardized techniques will be enriching for scholars of this subject, mainly in relation to the homogenization of the results and classifications of the items, facilitating the results' comparisons between the different countries.

The Tax Expenditure study in the Uruguay has adopted a legal approach, i.e., it considers the general definition stated in laws and regulations as the normal tax structure. The calculation was based on the method known as loss of income or ex- post measurement. The study applies the accrual basis for all estimates with a long-term approach so that existing benefits involving a tax deferral are not considered tax expenditures.

While the country already has the study and estimates, this text does not integrate the budgetary laws, as done in other countries of the region and in the world. According to the study results, the fiscal sacrifice from the existing exonerations in the system was 5.72% of the national GDP in 2010.

The following table shows the main results of that study.

Table 1
Tax Expenditure 2008 - 2010.
(In percentage of the collection and the GDP)

Taxes / Year	Tax expenditure as percentage of GDP			Tax expenditures as a percentage of the proceeds from each tax		
	2008	2009	2010	2008	2009	2010
VAT	2.89%	2.75%	2.77%	27.22%	26.27%	27.09%
IRAE = Tax on Economic Profits	1.64%	1.68%	1.74%	61.21%	61.30%	63.05%
IRPF = Personal Income Tax	0.19%	0.20%	0.22%	8.74%	9.48%	10.44%
IPAT = Net Wealth Tax	0.99%	1.10%	0.99%	93.85%	89.81%	89.57%
Total	5.72%	5.72%	5.72%	34.46%	34.68%	35.23%

Source: Based on the Tax Expenditure results according to the 2005 - 2010 Tax Expenditure Report, Asesoría Económica - DGI.

2. *Handbook of Best Practices in Tax Expenditure Measurements. CIAT - 2012.*

We mentioned earlier the need of these studies to have a more exact idea of the economic effort that the State makes, beyond the content of its budget expenditures. It can be noted that the incidence of the tax expenditure is not as important when compared to the real tax pressure of these taxes (in 2010 = 18.9% according to statistical bulletin of the DGI).

Within each tax, through the results, we may know how eroded is the base by the system exceptions, noting the relationship between the tax expenditure and the individual collection of each analyzed tax. The size of tax expenditures in Personal Income Tax is almost equivalent to their collection, while in VAT this relationship reaches 27.09% in 2010.

As for income taxes, taxpayers are able to benefit from amounts which are, in percentage, higher in IRAE exceptions than in personal income tax. This last one has a limited amount of exemptions, both in capital incomes as in work incomes.

With respect to the effective collection of these taxes, tax expenditures represented 35.23% in 2010, mainly due to VAT exceptions, which represent 50% of the total loss generated by the exceptions system.

1.2. Promoting investment through benefits in IRAE . The new investments promotion regime

In the IRAE Tax Expenditure, the basis of economic activity and employment promotion clearly predominate, through the reduction in the direct taxation of companies. Something similar can be said about the exceptions identified in personal income tax. To a lesser extent, some IRAE exceptions seek a greater formalization in particular for those sectors of reduced economic dimension, through exonerations or simplified tax systems, which reduce the tax burden for small taxpayers .[3]

The new tax system incorporated modifications in the exceptions, which give place to the Tax Expenditure. Among the instruments incorporated by the Tax System Reform Law, in order to promote investment and employment, we can mention the improvement of the so-called exoneration for investments[4], the extension of the term losses deferrals from previous exercises , as well as the denominated deduction for employment promotion[6].

3. *Some exceptions to the IRAE have been identified, that although they reduce the administrative costs of the tax determination, generate a higher tax burden, if compared with the option of liquidation by the general tax regime.*
4. *Through this mechanism, companies that make investments in certain capital assets can discount from income tax up to 40% or up to 20% (depending if they are real state or not), as long as certain conditions are fulfilled. The NST allows postponing the non-exempted income up to two exercises when in the acquisition failed to fully apply the benefit.*
5. *NST extended from 3 to 5 years the benefits from losses of previous exercises, lowering the income for the determination of the tax. - This adjustment is considered as part of the IRAE normal system, so it is not included it in the tax expenditure study. -*
6. *By this adjustment, those companies which had a more staff in an exercise with respect to the previous one can make additional income reductions, before the determination of the tax.*

Table 2
Tax Expenditure 2008 - 2010.
(In millions pesos and GDP percentage)

Taxes / Year	Tax expenditure as percentage of GDP			Tax expenditures as a percentage of the proceeds from each tax		
	2008	2009	2010	2008	2009	2010
VAT	2.89%	2.75%	2.77%	27.22%	26.27%	27.09%
Goods at the minimum rate	0.60%	0.62%	0.61%	5.63%	5.92%	5.92%
IRAE = Tax on Economic Profits	1.64%	1.68%	1.74%	61.21%	61.30%	63.05%
Free trade zones	0.67%	0.59%	0.66%	25.12%	21.68%	23.89%
Promoting investments	0.28%	0.45%	0.47%	10.54%	16.30%	16.99%
Exemption for investment	0.09%	0.12%	0.14%	3.20%	4.35%	5.20%
IRPF = Personal Income Tax	0.19%	0.20%	0.22%	8.74%	9.48%	10.44%
IPAT = Net Wealth Tax"	0.99%	1.10%	0.99%	93.85%	89.81%	89.57%
Total	5.72%	5.72%	5.72%	34.46%	34.68%	35.23%

Source: Based on the Tax Expenditure results according to the 2005 - 2010 Tax Expenditure Report, Asesoría Económica - DGI.

The exonerated income generated in the Tax Free Zones[7] is the main instrument of tax expenditure, representing 38% of the IRAE total losses in 2010. Next in importance is the investments promotion regime that has increased since 2008, giving as result for the year 2010 a fiscal sacrifice of 0.47% of the GDP. The exemption regime for investments represents a tax expenditure of 0.14% of the GDP in 2010.

In December of 2007, the denominated Law of Investments[8] was re-written through Decree 455/007[9]. The new regime offers a series of benefits for promoted companies. These include IRAE reductions, exemptions of import taxes, the treatment of exporters by VAT included in acquisitions that are part of the promoted investment and the assets considered as exempt for IP purposes.

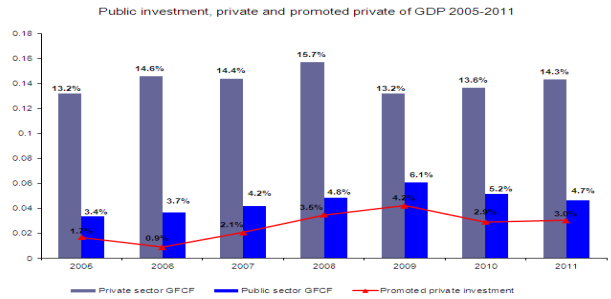
The regulation states that investment growth is the key to strengthen the productive system development process, which must generate an important improvement in employment in terms of the amount of people employed as in their remunerations. With that purpose it is important to adopt measures that allow stimulating that development. They seek to improve the relations with the investor as well as to propose an exemption system based on explicit objective and compatible criteria in line with the law. Regarding the scope of the granted benefits, the

7. *Law 15.921 on Free Zones, national territory areas of public or private property with tax exemptions.*
8. *Law 16.906 of 1998, Promotion and Protection of Investments, declares of national interest the promotion and protection of investments made by national and foreign investors in the national territory.*
9. *It regulates the benefits to grant to the investment projects and specific sector activities. These benefits are associated to the fulfillment of objectives regarding: incorporation of technical progress; increase and diversification of exports (greater added value); generation of productive employment; improvement in productive integration; promotion of the micro, small and medium companies activities; contribution to the geographic decentralization; use of clean technologies. As of 2012, with the promulgation of decree 002/012, some modifications to the regime that imply modifications to the evaluation methodology of the projects are introduced, looking for optimizing the mitigations of the matrix indicators with the purpose of stimulating the investment growth. Modifications are also introduced to apply the benefit that, according to the recitals of the decree, seek to stimulate more the micro and small companies.*

rules specify that the projects will be segmented according to their magnitude and a simplified regime for the small projects will be established, favoring the application of the benefit to small and medium companies, for which the previous regime was inaccessible due to its complexity.

The analysis of the authorization of this benefit allows inferring that in the next exercises the fiscal sacrifice will increase, due to the increasing number of adherents to the regime and to the accumulated amounts which use is pending. The Commission for Application[10] is the entity in charge to evaluate the projects and to determine the benefit granted, through the use of indicators and considering the amount of investment. The benefits can reach 100% of the total amounts, and they are applied directly on the tax quota. The following graph shows the evolution of the FBKF/PIB indicator differentiating the one from the public sector and from the private sector, as well as the evolution of the total promoted investment, for the 2005 – 2011 period:

Graph 1:
Public and private investment promoted on GDP 2005-2011



Source: own sources, based on CCNN and reports of the Commission for Application

The graph shows the evolution of the gross of fixed capital, both public as private, with respect to the GDP. It can be observed that private investment had a maximum registry in 2008, of 15.7% of the product. In 2011 the FBKF reached 14.3% on the GDP, growing 0,7 points with respect to the previous year. On the other hand, the public investment seems to have a different dynamism, showing a continuous growth until 2009. This one grew from 20.4% of the total FBKF in 2005, to 31.4% in 2009. The promoted investment has a fast growth from the years of application of the new promotion of investments regime, reaching 4.2 % of GDP in 2009, amount equivalent to 32% of the executed total private investment in that year.

In the last biennium, a recovery of the private investment with respect to 2009 can be observed, which could make us think that, by encouraging investment, this has been increasing. It is also a fact that part of the benefit is being taken by the structural reinvestment of the pre-existing businesses, and not only by incremental or new investment attracted by the benefit. In an opposite sense one could think that the new promotion scheme implied the incentive to a type of investment of greater productivity, which also could explain the reduction of the ratio of private investment on the GDP. On the other hand the tax cost study show that in the IRAE, the new investments promotion regime is the second highest heading of fiscal sacrifice, since the first exercise of its execution, with an amount of 17.3% on the tax collection in 2010 (a 0.46% of the GDP).

10. Entity created by the Law 16.906, to evaluate the investments that are proposed for their benefit.
11. Public companies.were not included in the analysis

2. EVALUATION OF THE USE OF BENEFITS OF THE NEW INVESTMENTS PROMOTION REGIME AND RESULTS ON QUANTITY AND QUALITY OF EMPLOYMENT

This chapter will seek to analyze if, for the period of the new regime, two of the main objectives specified by the new legal regulation of investments have materialized and to what extent. On one hand it will examine if small companies are taking advantage of the benefit, at least in the same way as the medium and large companies, through the analysis of the tax burden before and after the application of the benefit, segmenting the companies by economic size.

On the other hand the differences in the dynamics of the direct employment generated by the companies beneficiaries of the new regime and if they show differences regarding the employment general dynamics in the all the economy.

Two independent data bases provided by Tax the Main directorate (DGI) provide the information for this analysis.

One of them includes the accounting statements basis for determining the IRAE and the income tax included in the Large Taxpayers (LT) and Special Control of Companies (CEDE) of the DGI groups for the 2006 to 2010 exercises, Financial Statement and Income Statement[11]. The other basis includes a series of variables for these same companies related to employment, such as, the number of workers and the annual remuneration amounts paid to each worker to for the exercises 2008 to 2010.

2.1 Characteristics of the information for the analysis

A specific request of information was made to the DGI[12]. The requested information was:

For period 2006 - the 2008 following lines of form 2149: (11; 13; 30; 100; from 101 to 115; 154; 155; 156; 301; 330)

For period 2008 - 2010 the following lines of form 2149: (61; 13; 30; 160; 161; 162; 100; of 163 to 179; 184; 185; 108; 109; 114; 115; 154; 155; 156; 301; 346; 330)

The information requested for each company, identifying each one with a identifier number different from the Taxpayer Registry Number NIT, with a 5 digits, or 3 in case the number of companies included in the 5 digits form would affect tax secrecy.

It was also received for each company, for 2008 – 2010 period: the number of employees and the annual amounts perceived by each one of them per year. For this base, the RUC of companies was also replaced by an identifier (identical the one of the previous base), as well as identifiers different from the identity card were generated for each employee registered in each company.

2.2 Analysis of the accounting statements

As mentioned before, the information requested is only for taxpayers included in the CEDE and LT groups, which are forced to submit their annual accounting statements, for calculating the balance and tax result, bases for the IRAE and IT calculation.

The complete base includes 47.122 returns by 10,843 taxpayers corresponding to exercises 2006 to 2010, they have 46 accounting statements variables and four characterization of the taxpayers (type, group, class and fiscal department). All the companies that have presented a return at least one

12. The information was requested from to DGI under protection of the Law 18.831 in file N°. 2012 05 005 00 04 6151 of July 2012 .

time are considered for analysis. It is observed that the base includes companies that have presented 1 or more returns in the period, up to 5. 75% of the companies included in the analysis, presented returns corresponding to the 5 exercises.

From the accounting statements variables, other variables are built, which will be the base for the analysis:

Total income (100+101+110+108-109+184-185)
Fixed assets (11+61)
Accounting result (114 - 115)
Fiscal result (155-156)

2.2.1 Ranking Companies according to their economic dimension

With the purpose to measure if the economic dimension of companies affects, and to what extent, the advantage or use of the fiscal benefits for investments, the companies are sorted and grouped according to their economic dimension. To determine the companies' dimensions two variables were selected one of flow and another one of stock.

In the first place the companies are ordered by income (total income), assigning a number corresponding to the position of the company under that criterion of ordering. Next they are ordered by their total assets, following the same procedure. The averages for all the considered period are used for incomes as well as for assets. This way, each company is included in a single group independently of the variations observed in the two variables chosen for the ranking. 8 groups of 1355 companies were formed each one (5 of 1,355 and 3 of 1,356).

2.2.2 Classification of the companies according to the use of the fiscal benefit

Two fiscal benefits by investment will be considered in the analysis: exemption for investments and promotion of investments.

The first of them corresponds to a reduction in the fiscal income up to 40% or 20% of the investments made in certain fixed assets performed during the exercise[13] (or in both previous exercises according to the modifications introduced in Title 4 by the Law 18.083). Through this mechanism the companies can fold income during the life of the asset a percentage higher than the acquisition cost. It is a tax expenditure, which is registered by its tax effect on the amount of the granted credit. It operates as an automatic credit in the tax base determination, i.e.., it is not necessary to request the benefit. If the assets and the companies comply with the characteristics stated in the norm the taxpayer can obtain the benefit.

On the other hand the promotion of investments is the credit in the tax quota (IRAE) by applying the benefits included in the regulation of the Law on investments[14]. Because the analyzed period includes the exercise 2010, the established rule is decree 455/007, the dispositions established in decree 002/2012 are not applied for this period.

According to the application of one, both, or none benefits, the companies were classified in 3 types:

Type 0 = No benefit is applied for investment,
Type 1 = only applies for investment exemptions,
Type 2 = apply promotion of investments (solely or jointly with exemptions for investments).

13. Articles 53 et seq. and Title 4, Ordered Text 1996, with the modifications introduced by Law 18.083.
14. Law 16.906 of national interest, promotion and protection of investments.

The companies are classified in Type 2 if in at least in one exercise they benefited of the promotion for investments, regardless if it was taken together or not (or in another exercise) the benefit of exemption for investments. If the company only used exemption for investments (in at least one exercise) it is included in Type 1.

2.2.3 The users of some benefit are mainly found in the largest economic dimension groups

With these two groups: 8 groups of economic dimension and 3 types according to application of the benefits by investment, we can count the companies that apply for benefit within each group.

Table 3
Amount of returns by group/type

Group / Type	0	1	2	Overall total	N° of affidavits by group
1	4674	54	5	4733	3.5
2	5451	117	6	5574	4.1
3	5647	270	8	5925	4.4
4	5483	491	28	6002	4.4
5	5510	638	44	6192	4.6
6	5191	860	114	6165	4.5
7	4896	1083	242	6221	4.6
8	4324	1396	590	6310	4.7
Total	41176	4909	1037	47122	4.3

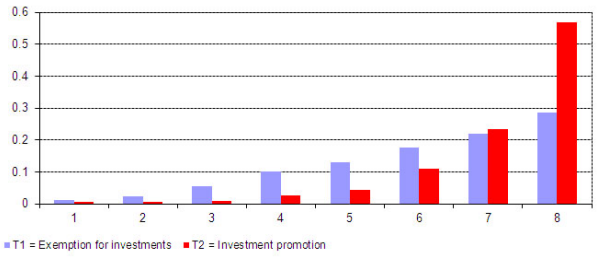
The first column indicates the group in which companies were classified according to their economic dimension and according to the ranking parameters mentioned above, whereas columns 0, 1 and 2 refer the second classification, the types according to the fiscal benefit applied.

The last column indicates the average amount of returns submitted by the companies of each group, in all the analyzed period. The analysis includes 5 economic exercises, so a maximum ratio of 5 could be expected in this column. For a general average of 4.3 returns submitted throughout the period, the economic dimension increases. This fact results from the minimum omission by the largest companies, as well as probably[15] greater duration time of these companies, since in addition to the absences by default, the base also has information of companies that started or finished activities during the period under analysis.

4,909 returns apply for the investment exemption benefit (T1) and 1,037 of taxpayers deducted income for promotion of investments (T2), between exercises 2006 and 2010. In groups 1, 2 and 3 very few cases of benefit type 2 are observed.

There is a low number of returns with application of some of both instruments if compared with the total of returns (a little more than 10% between both benefits). In general, since it is usually part of the companies economic dynamics, the investment and at least the investment exemption regime includes a great number of assets that in general are part of maintenance investment, a greater amount of use could be expected.

Graph 2
Total percentage for each applied benefit, by groups



15. *The received information does not have the registry data referred to the starting or ending dates of these companies' activities, so the second cause proposed as answer to the greater number of returns.*

Watching the amounts related to this benefit, it is observed that this base (CEDE + LT, without public) represents approximately 70% of the reported tax expenditure corresponding to the DGI. The amount of application for the benefit is increasing within the greater economic dimension companies, with very few exemption registries observed for investments in the groups 1 to 3 and very few companies take the investment promotion benefit. Almost 60% of those who had tax reduction for promotion of investments are classified in group 8, which implies a greater concentration than the investments exemption regime.

This observation can tell us that the greater complexity of the new regime of promotion, with respect to the investment exemptions, is an entrance barrier that only those companies with greater economic dimension are able to overcome, because they have a better assessment, or because the high costs of access (fees) are justified only from certain levels of investment, those made by larger companies.

On the other hand the regime of investment exemption, although it is automatic, implies to have a previous knowledge of the existence and forms of the regime, to have accounting and fiscal results sufficient for applying, to have accounting registries sufficient to generate a reserve fund, where such use must be registered, which causes also a certain degree of complexity that, although smaller to the one of the law on investments, causes that all companies do not take advantage of it .[16]

2.2.4 Benefit users show more profitable businesses. Particularly in type 2 from exercise 2008

In order to compare the results of the companies included in the different types, the total profit on total assets of each company, that was defined as the quotient of accounting result (positive or negative) on reported total assets will be analyzed. As for some cases where the variables that give origin to the ratio presented some incongruence, the general formulation was replaced with the following one, which always produces values between -1 and 1.

$$\begin{cases} 0 \text{ if Totals Assets} <= 0 \\ -100\% \text{ if total Results /Assets} <= -1 \\ 100\% \text{ if Results/Total Assets} >= 1; \\ \text{or Results/total Assets} \end{cases}$$

Most of the companies present results greater or equal to zero in the analyzed period, which implies a predominance of profits on positive assets. When de-segregating the results of the ratio by Type of company, we observe that: users of any of the two fiscal benefits for investment have higher profit rates.

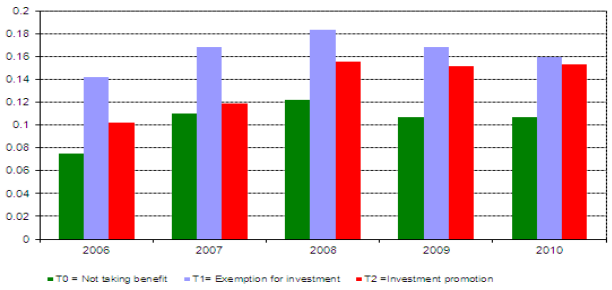
The new investments promotion regime began to be apply in exercises 2008. In that exercise an interesting jump in the profit rate of Type 2 is observed, this presented, until the previous year, a profit rate closer to Type 0 than to type 1.

Until 2008 the average profit rate for each type increased, then in 2009 and 2010 it decreased

16. *the accounting information included in the returns, is the financial balance and the profit statement. Although the first includes the balance of fixed assets, this one is the result of the assets used re-evaluated at the beginning of the exercise; plus the new assets; except the losses; except the accumulated depreciations. This implies the no possibility to extract from that balance the part corresponding to the entry of new assets, or the investment itself. For this, it would have been necessary to have the origins and application statements of funds, where their outflows for acquisition of investment are reported.*

for Type 1 and Type 0, while the profit rate of Type 2, practically stayed constant since the level leap in 2008. For the 2010 exercise the profits on assets increased 10.7%, 15.9% and 15.3% for types 0, 1 and 2 respectively. Throughout the curve of income these results present different valuations.

Graph 3
Profitability by type



At level of the 8 groups of income under analysis, an increase of profitability from the lowest income to the group 4 is observed. From then this, the ratio tends to decrease until reaching a minimum of 8.1% an average for companies located in group 8. This phenomenon, observed in the three types, may be a consequence of a greater intensity in the use of assets in companies with a greater economic dimension, as well as a greater dynamics of activity in the companies showing growth (located in the lowest groups), independently if they are beneficiaries of the promotion regimes or not.

Table 4
Profitability on assets by group/type.
2010 Exercise

Group / Type	0	1	2	Average
1	7.8%	29.8%	19.5%	8.6%
2	11.9%	29.1%	43.0%	13.3%
3	11.6%	24.5%	21.9%	13.1%
4	14.0%	19.7%	22.2%	15.3%
5	12.3%	17.3%	23.7%	13.7%
6	11.3%	13.7%	18.1%	12.3%
7	8.3%	13.2%	18.6%	11.0%
8	4.8%	10.5%	11.4%	8.1%

The columns “Average” in vertical and horizontal are affected by the number of taxpayers included in each group or type. For that reason, the profitability average per group is closer to the results of type 1 companies, whereas the in general, the profitability average of type 1 is greater than type 2, despite of observing a greater amount of higher values in the first type[17].

2.2.5 Those who receive tax benefits for investment reduce the tax burden below the rest of taxpayers. The phenomenon is emphasized in the groups of smaller economic dimension

This section analyses the fiscal pressure on assets, by considering the determined IRAE and IT in the base of returns. First, the specific tax

17. *For example: the value of 43.0% found for group 2 type 2, is the profitability average of 6 companies that integrate that group, which is strongly affected by the results of 2 of them, with high results and low levels of assets. That high value has a low incidence on the general average of type 2.*

pressure is calculated, by adding both taxes on the reported total assets, for each company in each economic exercise. Secondly, the resulting amount of taxes is determined in case one or another benefit (or both) were not applied.

The objective is to observe the potentiality of each regime of benefit as reducer of the tax burden.

Table 5
Tax burden by type

Tipo	0	1		2		
Año	Presión t	Presión t	Presión sin beneficio	Presión t	Presión sin beneficio	Var Pt
2006	5,3%	5,5%	5,7%	5,8%	6,5%	-12,2%
2007	6,2%	6,2%	6,4%	4,0%	4,9%	-22,0%
2008	6,4%	5,9%	6,1%	4,8%	5,6%	-16,7%
2009	6,2%	5,9%	6,1%	5,3%	7,3%	-36,2%
2010	6,2%	5,5%	5,7%	5,1%	7,6%	-47,8%
Promedio	**6,1%**	**5,8%**	**6,0%**	**4,9%**	**6,0%**	**-23,1%**

For all the analyzed period, a tax pressure of 6.1% is observed for those who do not use any of the fiscal benefits for the determination of the income tax (type 0). The results of pressure without benefit are similar for type 1 and for type 2. Although the long term pressure, before benefit is almost equal for the three types, at annual level the type 2 is the one that presents more oscillations with a minimum of 4.9% in 2007 and a maximum of 7.6% in 2010.

Although it is obvious that when applying a tax reducer for the tax burden it will be reduced, what may be noted is that indeed those who take some of the benefits for investment present a lower pressure than those who not. Companies of type 1 obtain a weak reduction from 6.0% to 5.8%. Indeed, A reduction of 2 points is observed for each year on some stable pressure values[18]. Greater profits are obtained by those who reduce the IRAE with promotion of investments, which lowered the tax pressure on assets from 6.0% to 4.9%. These reductions can be observed in both last analyzed years, already a maturation period for the new regime, where these taxpayers lower the indicator to 36.2% in 2009 and 47.8% in 2010.

Interesting is the evolution of the pressure without benefit for the companies of type 2. It increased to 7.3% and 7.6% in 2009 and 2010. We may ask ourselves if this phenomenon can be consequence from a smaller income sub returns, with respect to previous exercises, knowing that this will also lead to a reduction of the burden. If this fact is true and although it should cause an increase in tax pressure, it would also seem prudent to have as a net fiscal loss their smaller final burden, with respect to the control group that, although submitting sub-returns (or not), report greater values of pressure.

Table 6
Tax burden by group/type.
2010 Exercise

Type	0	1		2		
Year	Tax burden	Tax burden	Tax burden without benefit	Tax burden	Tax burden without benefit	Tax pressure variation
2006	5.3%	5.5%	5.7%	5.8%	6.5%	-12.2%
2007	6.2%	6.2%	6.4%	4.0%	4.9%	-22.0%
2008	6.4%	5.9%	6.1%	4.8%	5.6%	-16.7%
2009	6.2%	5.9%	6.1%	5.3%	7.3%	-36.2%
2010	6.2%	5.5%	5.7%	5.1%	7.6%	-47.8%
Average	6.1%	5.8%	6.0%	4.9%	6.0%	-23.1%

In the third column of the Type 2 quadrant are the results from the reduction of the tax burden as a result of the use of the benefits for investment.

18. *It must be noted that a company is included in a type after having taken, at least once, some benefit. This classification implies that comparisons are not always between exercises with benefit for those who belong to any of types 1 or 2. The results would be different if the returns had been classified in each type, and not the taxpayers. This classification selection, even if it would show ampler breaches in the pressure before and after the benefit, would imply difficulties to work at company level, since every year these could be found in one or another type.*

There we observe that the companies included in the lowest groups obtain greater reductions (i.e.... groups 1, 2 and 3 -78,4%, -76,6% and -64,7% respectively.

Although as we saw in 2.2.3 the number of companies type 2 of the lowest groups is low, these results could indicate that these companies make one excellent investment with respect to the dimension of their business which would allow them to lower higher amounts of income, by contrast the companies of the highest groups took advantage of this benefit to incorporate ordinary investment, which does not affect their tax burden. Anyway, it is a fact that the benefit is high for all groups, being the minimum 41.6% of the burden reduction for the companies of group 8.

The companies that only use the exemption benefit for investments (type 1) manage to reduce a maximum of 13.7% ((10,8-9,5) /9.5) the tax burden (those of group 1).

2.3 Analysis of the variables related to employment

As mentioned in section 2.1, for each reported company the specific information was received at level of each employee including the number of months worked in the company and the total amounts perceived in taxed remunerations, for the years 2008 to 2010[19]. On this base the objective is to analyze the different intensities in the use of workforce according to the classification of companies, the variations in the employed staff and the evolution of the quality of the work, measured through the average income, in the analyzed period.

The regulation of the Law on investments specifies an interest in improving the amount and quality of the employed workforce. On the other hand the exemption benefit for investments doesn't, reason why in this analysis types 0 and 1 will be grouped and they will be analyzed together (denominated in this section type 0; 1), and will be contrasted with the results in the companies already classified as type 2. At the level of groups of economic dimension the results will be presented the same as in the previous section, i.e., ascending ranking in eight groups according to incomes and assets. For this reason the companies included in the employment base follow the defined ranking and classification in the base of accounting statements, when they are in both bases.

The base for year 2008 includes 366,556 employees, while the data corresponding to 2009 and 2010 include 518,804 and 537,130 employees respectively. Because to a certain extent the changes in the number of employees are consequence of the apparition of new companies, the disappearance of others as well as questions related to the integrity of the information, the analysis of the number of employees by type/group will be made based on the averages of employees by companies per year/type/group and not on their total value.

2.3.1 The promoted companies are more intensive in the use of work force and have been the one to encourage employment growth

In the base corresponding to 2008 exercise, the problems on the integrity of the information were considered more relevant than in 2009 and 2010 exercises, something that can be observed a priori in the number of employees. Due to this, that year was excluded from this analysis only observing what happened with employment in 2009 and 2010.

Table 7
Number of employees by group/type

Group/ Type	2009		2010		2010/2009	
	0 ; 1	2	Var 0 ; 1	Var 2	Var 0 ; 1	Var 2
1	15	110	16	121	7.6%	9.4%
2	14	79	15	73	8.6%	-7.0%
3	20	23	19	23	-0.7%	-1.9%
4	21	91	21	97	1.8%	6.1%
5	35	39	36	41	3.1%	4.9%
6	40	74	40	86	0.1%	16.2%
7	52	100	55	111	6.0%	11.2%
8	191	341	196	376	2.7%	10.3%
Total	47	221	49	244	3.6%	10.3%
Total employees	381,682	137,122	385,603	151,527	1.0%	10.5%
Total companies	8,093	621	7,889	622	-2.5%	0.2%

The companies type 0; 1 increased their total average of 47 workers in 2009 to 49 in 2012, which implies an increase in employment of 3.6%. On the other hand the promoted companies, type 2, increased from 221 workers in 2009, to 244 workers in 2010 (10.3%). The difference in the use of workforce according to the type of taxpayer is marked, being the relation in 2010 of 4.9 to 1 in favor of the promoted companies under protection of the new regulation of the investments law, with the greater employment increase of this last type that greater application of the labor factor was emphasized with respect to the previous year. This greater use of workforce in type 2 happens throughout all the groups, with greater or smaller differences observed. This can tell us that a company of one or another group can be similar in their economic dimension, other factors referred to the type of activity, or production makes an important difference since the promoted ones require a greater amount of the factor.

2.3.2 The promoted companies generate a slightly superior quality of employment in the general base, with dissimilar relative qualities between both types, especially in the ends of the line of income.

With respect to the quality of employment, we can say in the first place, that diverse economic and non-economic elements coexist in determining the quality of employment, being the work a form of contribution to the material development of the society by which an income is obtained that improves the subsistence conditions of the people. The work provides or can provide personal satisfactions that improve the quality from the perspective of the worker. From the employer point of view, other elements like the security, hygiene and/or comfort can be provided, which do not appear as remuneration, but which make better or worse the work quality for the group of workers of a company.

From the data collected for the analysis we will be able to make some observations on quality only from an economic view, i.e., how much have improved/worse the workers incomes from the diverse types/groups in the analyzed period.

To observe the variations in the quality of employment, in general, the following procedure was followed: in the first place we used the 2008 base and the workers were ranked according to their level of income, 100 groups being generated with the same number of members. The values of cut of each income percentile were adjusted by the general variation of the 2009 Average Wages Index with respect to 2008 and 2010 with respect to 2008. For the years 2009 and 2010 people were ranked based on their real income

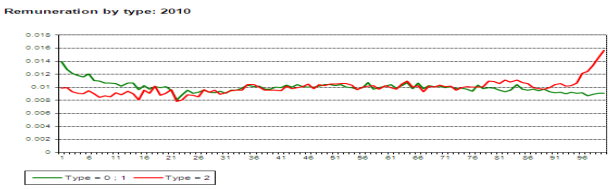
in these new one hundred groups. The objective is to build an income indicator (=50 for the total base in 2008) and to observe its evolution for the following years according to the type/group and class. A greater indicator in type 2 with respect to the rest would give us a greater quality measured through incomes, whereas the increase of this indicator for any type in the later years would indicate us that this one improved with respect to the base period.

In 2010, the workers of the companies with promotion of investments are located in average in the percentile 52,670, whereas the workers of the not promoted companies obtain a location average of 49,305. I.e.: there is a slightly superior proportion of workers over the average in the promoted companies, while there is a greater proportion of below average workers in the non-promoted companies.

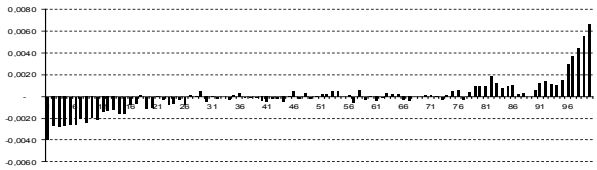
The participation of the total number of workers in each income percentile can be observed in the following graphs. It could a priori show that each percentile had a participation of 1% in the total of its group. The differences on that amount respond more or less to workers located in the group.

In the left superior graph of the following page we observe the weight of each percentile in the total for the types = 0; 1 and types = 2, where it can be observed that although the values are always near 0,01, presenting their maximum accumulation in the inferior end in types 0; 1 and in the superior end in types 2, which largely explains the indicator of 49.305 and 52,670. In 2008 this characteristic was not so noticeable (lower graphs).

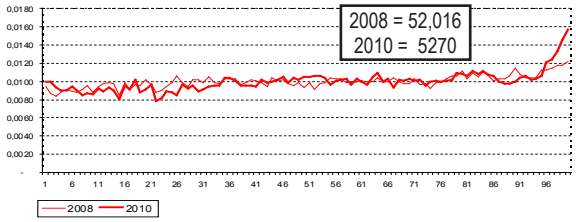
Graph 4
Remuneration by type: 2010



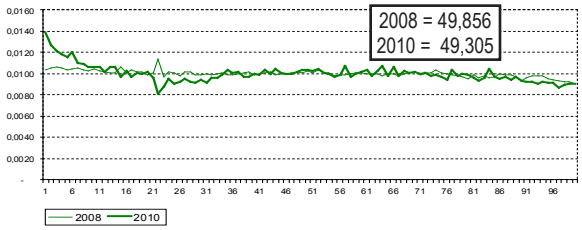
Graph 5
Variations on Type = 0 ; 1 Type = 2 : 2010



Graph 6
Remuneration Type = 2: 2010 y 2008



Graph 7
Remuneration Type = 0 ; 1: 2010 y 2008



Although the differences are very few, we can say that in the non-promoted taxpayers there is a greater accumulation of people in the lowest percentiles, whereas the opposite happens in the promoted taxpayers.

3. CONCLUSIONS

The fiscal sacrifice of Uruguay in promotion of the investment is presented in this work. The main mechanism described is the promotion of investments regime regulated through decree 455 of the year 2007, which main purposes are the growth of the investment as a way to fortify the development process of the productive system, to improve the amount and quality of employment and promote the application of the benefit to small and medium companies. The tax expenditure of this regime for year 2010 represented 0.46% of the GDP.

The information used to estimate the objectives was two independent data bases of the General Tax Directorate. One refers to the accounting statements for the determination of IRAE and IT of the Large Taxpayers Group and Special Control of Companies for the years 2006-2010, and the second have variables related to employment, such as the monthly number of workers and their salaries for the same companies for the years 2008 to 2010.

With the objective to measure if the economic dimension of companies affects the use of benefits, and to what extent, the companies were ranked and grouped according to their economic dimension. The result found is that those companies that took the benefit are found in the highest groups, with 60% of the companies that used the benefit of investment promotion ranked in the higher income group.

Similarly an analysis was performed with respect to the total profitability on assets for each company, and the result is that companies with promotion of investments from the year 2008 increase their profitability. In addition an increase in profits is observed by groups of income from the lowest income to half of the groups.

The fiscal pressure on assets, IRAE and IT on the total assets is analyzed, and the results show that who applies for the investment benefit reduces the tax burden below for the rest of the taxpayers, and those who obtain greater reductions are those of lower income who apply for the promotion of investments.

The objective to measure the improvement in amount and in quality of the employed workforce was made with the mentioned base of employment. Giving as result that promoted companies use more workforce, since the increase between 2009 and 2010 of the promoted companies was 10.3%, whereas for non-promoted it was 3.6%.

In order to measure the quality of employment an analysis was performed, on how much the income of the workers improved/worsened for classified companies promoted or not and by groups of income. The analysis made in percentiles shows that the non-promoted taxpayers have a greater accumulation of workers in the lowest percentiles, whereas it is the opposite in the promoted taxpayers.

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TRANSFER PRICING METHODOLOGY IN BRAZIL: A SIMPLE AND EFFICIENT APPROACH TO THE ARM´S LENGTH PRINCIPLE

Marcos Aurélio Pereira Valadão

SUMMARY

The paper addresses the transfer pricing issue under the Brazilian methodology, which seeks to apply the arm's length principle with a simplified methodology in relation to the traditional OECD approach using RSP and CPM methods, by using margins predetermined by law. The article also explains other aspects of the Brazilian methodology such as a simplified CUP applied to commodities, specific rules for loans, and the use of safe harbors. The article states that this simplified methodology is a feasible alternative for tax administration of developing and less developed countries.

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CONTENT

Transfer pricing is a problem related to international transactions between related parties which affects allocation of taxable profits between countries. It is generally accepted that more than thirty percent of the world trade is performed between related parties, which makes transfer pricing one of the most, or even the most, important issue in international taxation. The importance of the problem is increasing because more and more transactions are becoming international and the companies are becoming more connected in a way or another.

Brazilian economy boomed in terms of international transactions from the 1990s. Before that time, Brazilian economy was more like a closed economy, and there were very few Brazilian companies operating outside the country. The expansion in 1990´s is also part of the phenomenon called "globalization". Then Brazil started to change legislation related to income tax to face the new scenario. Following this trend, Brazil adopted tax law imposing worldwide income taxation in 1995. The change in the law that allowed the taxation on a worldwide basis was made by means of the Federal Law n. 9.249, Dec. 29, 1995, that entered into force in Jan. 1, 1996. The Transfer Pricing law was enacted in 1996, and entered into force in Jan. 1, 1997 (Federal Law n. 9,430/96). The Federal Law 9,430/96 was then modified by Law n. 10,451/2002, and by Federal Law n. 11,196/2005, which introduced a modification to adjust exchange rate appreciation of the Real against foreign currency, and then by Law n. 11.727/2008. More recently, important changes were introduced by Law n. 12,715/2012 (former Provisory Measure n. 563, from April 3rd, 2012, converted into law by the Congress), which introduced a more flexible methodology for adjusting the profit margins to the Resale Price and Cost Plus Methods (RSP and CPM respectively), and established different margins for different economic sectors for the RSP, and a new methodology for CUP method regarding commodities. Most of the changes of Law n. 12,715/2012 to Law 9,430/96 would enter into force in January 1st, 2013; however, taxpayer may apply it in taxable year 2012, by option.

Brazilian regulations for transfer pricing must follow enacted law. It may be an Administrative Rule ("Portaria") issued by the Minister of Finance or through Normative Instructions ("Instrução Normativa RFB"), which is a sort of revenue and procedure ruling issued by the Federal Revenue Secretary, that are detailed regulations on the subject matter. Current transfer pricing rules are detailed in Normative Instruction SRF No. 243, issued in November 11, 2002, modified by Normative Instruction SRF No. 321, issued in April 14, 2003, and Normative Instruction No. SRF nº 382, issued in Dec, 12, 2003. Regulations establishing the procedure of petition for changes of gross profit and mark up margins were established by the Ministry of Finance through Administrative Rule Number 222, issued in Sept., 2008 (previous Portaria MF no. 95, de 1997). There are other Regulations dealing with adjustments to exchange rate appreciation (issued in 2005, 2006, 2007, 2008 and 2011).[1]

This article aims to address current Brazilian TP practices, with focus on the traditional methods (RSP and CPM) with fixed margins, and other particular features of the Brazilian methodology.

1. Law and regulations are available at: www.receita.fazenda.gov.br/Legislacao/LegisAssunto/PrecosTransf.htm (Texts in Portuguese)

1. GENERAL VIEW AND DESCRIPTION OF BRAZILIAN METHODOLOGY

1.1. General view

In general, Brazilian legislation adopts the arm's length principle.[2] However, there are some simplifications of the traditional methodology in order to make it more practical. If this principle is not observed, the law authorizes tax authorities to reallocate income for income tax and social contribution for tax collection purposes. Lack of compliance may result in tax penalty of 75% based on unpaid tax (up to or 150% penalty in case of willful tax evasion or fraud).

The methodology introduced by the law brought the traditional transaction methods (CUP, cost plus method (CPM) and resale price method (RSP)) but denied the use of transactional profit methods (the profit split method and TNMM, both present in the OECD TP Guidelines) and formulary apportionment. Regarding the CUP, for export or imports, the law introduced a methodology that is similar to OECD practices, but Law n. 12,715/2012 introduced a simplification for CUP regarding goods that are considered commodities (for details see Subpart 2.3. below). However, with regard to the cost plus and resale price methods, instead of making use of comparable transactions, the law established fixed margins for gross profits and mark up. Furthermore, Brazilian law establishes different set of rules for import and export, despite of the fact the applicable principles are the same.

PIC (Comparable Uncontrolled Price for Imports) and PCI (Price under Quotation Method for Imports) are variations of CUP Method for imports, and PVEx (Price of Sale for Export Method) and PECEX (Price under Quotation Method for Exports) are variations of CUP for exports. While PIC and PVEx follows the general standards, PCI and PECEX are applicable only to goods and rights available in organized markets through mercantile and futures exchange.

PRL (Resale Price Less Profit Method) for imports, PVA (Wholesale Price in the Country of Destination Less Profit Method), and PVV (Retail Price in the Country of Destination Less Profit Method) for exports are variations of the Resale Price Method (RSP), with fixed margins, while the law establishes differences regarding it is applicable to import or exports, with different profit margins. CPL (Cost of Production Plus Profits Method) for imports, and CAP (Cost of Acquisition or Production Plus Taxes and Profits Method) for exports, are the same Cost Plus Method (CPM) with different set of rules and fixed margins regarding imports and exports.

Thus, there are two set of methods for goods, services and rights (in general), as follows:

For import transactions:

- Comparable Uncontrolled Price Method (PIC + PCI) (CUP)
- Resale Price Method (general 20% gross profit margin (PRL) (RSP) + Other margins

2. *The arm´s length principle is the general standard to achieve the price of transaction between non related parties. The principle is embodied in the art. 9, par. 1 of the United Nations Model Double Taxation Convention between Developed and Developing Countries and the OECD Model Tax Convention on Income and on Capital, and is the central pillar for the OECD Transfer Pricing Guidelines Multinational Enterprises and Tax Administrations (OECD TP Guidelines). See, e.g., Stig Sollund and Marcos Aurelio Pereira Valadao. The Comentary on Art. 9 – The Changes and Their Signifcance and the Ongoing Work on the UN Transfer Pricing Manual. BULLETIN FOR INTERNATIONAL TAXATION, v. 66, n.11, p. 608-611, 2012. However, there are controversies on other methodologies to achieve other acceptable results regarding transfer pricing adjustments.*

for specific sectors (see Part. 3.1.1 for details).
- Cost Plus Method (20% mark up margin) (CPL) (Cost Plus)

For export transactions

- Comparable Uncontrolled Price Method (PVEx + PECEX) (CUP)
- Wholesale Price in the Country of Destination Less Profit Method (15% margin) (PVA) (RSP)
- Retail Price in the Country of Destination Less Profit Method (30% margin) (PVV) (RSP)
- Cost Plus Method (15% profit margin) (CAP) (Cost Plus)

Compulsory profit margins are set between 15 and 40 percent, depending on the Transfer Pricing Method, the economic sector, and they differ for inbound and outbound transactions. The law specifies minimum and maximum profit margins, that is to say, the profit margins are statutorily set in the Transfer Pricing Law and are not dependent on comparable, uncontrolled transactions. However, it is also important to point out that the law foresees the possibility of modifying those margins by an act of the Minister of Finance, ex officio, or through an individual request submitted by the taxpayer. A request to modify a profit margin must be accompanied by documents that prove that the margin used by the taxpayer conforms to normal practices between unrelated parties under comparable circumstances.

There are special rules for financial operations. The interest paid or credited to a related person, due to the a loan agreement, will only be deductible for purposes of determining taxable income to the amount not exceeding the calculated value based on the rate London Interbank Offered Rate - LIBOR for deposits in U.S. dollars for six months plus a margin percentage, as spread, of three percent, which can be changed by the Minister of Finance based on market average rate (within the range of zero to three percent). It may considered a sort of safe harbor for loans.

Brazilian TP legislation does not apply the "best method" approach. There is no preferable method, taxpayer may use the one that better fits (or works) to his/her operation, but cannot use other methods such as Profit Split and TNMM. However, Tax Administration can challenge the taxpayer's option when the taxpayer's does not follow the applicable rules.

1.2. Transactions subject to TP in Brazil

Brazilian Transfer Pricing Regulations apply to juridical persons (companies) and individuals. Under certain circumstances it also applies to transactions performed between unrelated parties. However it does not apply to transactions with royalties and the remuneration for the transfer of technological know-how. Briefly transactions that are subject to TP regulations include:

- Imports and exports of goods, services, and rights with related parties;
- payments or credits for interest paid or received on loans with related parties not registered with the Central Bank of Brazil.

Related parties are juridical persons (legal entities) or individuals that have common interests (branch, controlled companies, participation holders, exclusive distribution rights owners, etc), in accordance to a set o complex rules established by tax legislation. Under TP Regulations, related parties are the Brazilian entity and:

- the parent company when it is domiciled in a foreign country;
- a foreign branch or subsidiary of the Brazilian entity;
- a non-resident individual or legal entity, domiciled abroad, when it holds at least 10 % of the shares or control of the Brazilian company;
- a legal entity domiciled abroad in which the Brazilian company holds at least a 10 % participation or is a controlled company;
- a foreign company that are under common corporate or administrative control, or when

at least 10 % of the shares of each belongs to a common shareholder;
- a non-resident individual or legal entity, domiciled abroad that jointly hold at least a 10 % participation or control a third legal entity;
- an individual or legal entity resident abroad that are associated in any form of condominium, consortium or co-ownership in any enterprise, in accordance with Brazilian Law definition;
- a non-resident individual who is a relative to the third degree of kinship, or is the spouse (legally or by common law) of any director or directly or indirectly controlling partner or shareholder;
- an individual or legal entity resident abroad, that acts as exclusive agent and distributor (or private concessionaire) for purchase and sale of goods, services and rights;
- an individual or legal entity resident abroad, to whom the legal entity in Brazil acts as exclusive agent and distributor (or private concessionaire) for purchase and sale of goods, services and rights.[3]

Transactions examined under Brazilian Transfer Pricing Regulations also include operations performed by individuals and legal entities in Brazil with any individual or legal entity, residing or domiciled in a country that do not tax income or that tax income up to a maximum rate of 20 percent, and operations performed with persons entitled to privileged tax regimes in a foreign jurisdiction, regardless of whether the latter is a related part. This rule also applies to jurisdictions that offers secrecy to the ownership structure of legal entities or does not allow for identification of the beneficial owner. Current Normative Instruction RFB No. 1.037, issued in June 4, 2010, brings a list of jurisdictions that fulfill the aforementioned conditions.

As stated before, Brazilian Transfer Pricing Regulations are not applicable to royalty payments, technical assistance, and scientific and administrative fees (when it represents payments for technology transfer). It is because these expenses are subject to limited deduction (up to five per cent of the turnover derived from it). They are also subject to withholding tax in the remittance of income. These limited deductions replace TP regulations application, and in some cases would lead to an analogous result derived from its application.

Brazilian Transfer Pricing Regulations also apply to transactions between parties that are not related parties in a "uncontrolled transaction" when the transaction is performed through an "interposed person", which is a third party that is not directly associated to the related parties, but is engaged in business (international transactions of the same nature) connecting the two related parties, through a previously conceived scheme. It applies when the interposed person acts as "Conduit Company". Actually, it is an anti-tax-avoidance rule.

It is clear that Brazilian TP rules to define related parties (associated interprises) are broader than the Model Convention. On the other hand Brazilian TP law allows for safe harbor in specific situations (see Part 4 below).

1.2.1. Documentation

Brazilian taxpayers must inform in their annual tax return for juridical person (DIPJ) if there is any kind of relationship with related individuals or legal entities, resident or domiciled abroad. If the tax administration challenges the TP adjustments of the taxpayer, the burden of proof is on the tax administration. Documentation used to demonstrate the TP adjustments must be available for the tax administration for five years (statute of limitations). Administrative TP Regulations issued by the Federal Revenue Secretary does not allow a "basket approach" or intentional set-offs to make TP adjustments.

3. *Art. 23 of Law n. 9.4350/1996.*

Brazilian TP Regulations states that the chosen method must be applied to each good, service or right individually considered in a determined taxable period (for imports and exports). Thus, it does not allow adjustments to be made taking into consideration a basket of products (which allows reciprocal price compensations), or even intentional set–offs that are common when two companies negotiate products and services at the same time.

Regulations require that the following elements be presented as documentation:

- Official publications or reports from the government of the seller or buyer's country of origin, or a declaration of the tax authorities when said country has a tax treaty in force with Brazil;
- Market research performed by a recognized institution or technical publication that specifies the industry sector, period, companies researched, and the profit margins for each selected comparable company;
- Domestic and international stock market price quotes; and
- Research performed under the auspices of international research institutions, such as the OECD and WTO.

1.3. The CUP and the commodities approach (PCI and PECEX)

Price under Quotation Method for Imports (PCI), and Price under Quotation Method for Exports (PECEX) are variations of the traditional CUP Method. This specific methods were recently added by Law n. 12,715/2012 to substitute the traditional CUP method, for imports (PCI) and exports (PECEX), when the prices of the goods and rights are available in organized markets through mercantile and futures exchange.[4] The aim is to avoid discussions on prices when there is a defined market that sets the price globally. This price is deemed to be the arm´s length price. The law defined the methods as follows:

Price under Quotation Method for Imports - PCI is defined as the average daily price of goods or rights subject to public prices in commodities futures and internationally recognized exchange markets.

Price under Quotation Method for Exports-PECEX is defined as the average daily price of goods or rights subject to public prices in commodities futures and internationally recognized exchange markets.

In both cases the Law allows for adjustment of the price regarding the market premium at the date of the transaction. When there is no transaction in the organized market in an specific date, the price to be taken in consideration is the last price information available in the market. When there is no price available at all, the Law allows to the taxpayer and the tax administration to rely on international recognized database for price research.

This simplified CUP method is very useful, saving time on the search for comparable transactions when there is a defined and stable organized market that globally sets the price for certain type of goods.

1.4. Considerations on RSP and CPM with predetermined profit margins

The adoption of the resale price and cost plus methods depends on the publicity (or availability) of certain data, databases or reports and on the determination of the gross profit margin and gross profit mark-up. These last two elements are difficult to be found or determined by the tax authorities and, moreover, by the taxpayer. In fact, as previously mentioned, for conventional transfer pricing methods access to information on comparables is necessary and due to difficulty

4. In this regard, Law n. 12,715/2012 introduced articles 18-A and 19-A to Law n. 9,430/1996.

in getting access to (publicly available) data, in certain instances, other methods may need to be resorted to than those that would seem initially preferred.[5] Moreover, the cost of access to this information and the asymmetry of information may affect the competition between enterprises. Additionally, the applicability of these methods depends also on the development and availability of human resources (economists, accountants and other experts), that may be scarce or very expensive in many developing countries. The referred applicability is influenced by the human technical level about specific matters, such as valuation of risks incurred, assets used, and functions performed.

In other words, especially the functional comparison requires the use of intensive human resources and technical knowledge, which may be scarce in developing countries and that are demanded to be used in other areas in public and private sectors. Thus, the intensive use of many professionals in transfer pricing issues may not justify the benefits, thus they could be employed in more important issues for the revenue tax service or for the economic development of the country. From the tax administration point of view, considering other priorities, some countries may be concerned that tax audit in transfer pricing may be an unjustifiable time and cost consuming task for tax authorities in countries where there is a reduced number of them.

Finally, the conventional use of resale price and cost plus methods implies some uncertainty and juridical instability, since they are implemented by the taxpayer without previous consent nor summary review by the tax authorities. This affects the stability and expectations in economic and fiscal relations.

For these reasons, a country may adopt fixed gross profit margin and gross profit mark up. In this case, neither the taxpayer nor the tax authority needs to determine such margins to find the arm's length price, since they are set forth by law. The company does not have to hire experts to determine the ratio margins to be applied, since they are previously determined by law.

In short, this system is simple, easy to implement and low cost to companies and tax administration. On the other hand, the predetermined margins should be carefully established, in order to accomplish the arm's length principle.

In this sense, countries should establish different profit margins per economic sector and line of business or products to calculate arm's length prices. The profit margins would be then adjusted considering the profitability of specific economic sectors or line of business or products. Each country would verify the normative instrument (statutory law, regulation, etc.) necessary to introduce these profit margin modifications, depending on the how the country´s legal system operates. By using these flexible profit margins, these methods can be also satisfactorily used for services and intangibles (rights).

Additionally, some countries may find appropriate to allow the taxpayers or associations to challenge the profit rates applicable to their specific enterprise. In this case, each country would determine the conditions to this procedure. Among the criticism towards the use of predetermined (fixed) margins by law one will find that the predetermined fixed margins must be carefully selected, in order to correspond to the arm's length principle, and that it is

5. *Tatiana Falcao has stated that "The search for comparables is one of the main concerns of developing countries, which do not have wide and open markets providing accessible information and reports about competing companies commercializing comparable or similar products. Sometimes, a company might be the only producer of a specific type of product, making the search for comparables impracticable if not impossible." In: Brazil's Approach to Transfer Pricing: A Viable Alternative to the Status Quo? TAX MANAGEMENT TRANSFER PRICING REPORT, Vol. 20 No. 20, 2/23/2012.*

necessary to determine different and appropriate profit margins. It is correct, the closer the margin set in the law is of the real margin, the closer is the price derived from the method to the arm´s length price. Indeed the width of the range of the arm´s length price obtained through traditional methodology is a problem; it may be very large, to the point that it is useless for the tax administration.[6] For this reason fixed margins may work very well, when correctly determined.

Other strong criticism is that some enterprises will be taxed at (higher or lower) profit margins not compatible with their profitability, and that it may lead to double taxation, depending on the methodology of the other country where the related party operates. Again, it is also true, however for the same aforementioned reason, taxpayers and tax administrations will probably reach different numbers due to width of the arm´s length range. In other words, no matter the method applied there will always be risk of double taxation. Again, if the margins are correctly determined the fixed margin methodology does not owe to the traditional methodology.

On the other hand predetermined margins methodology (to resale price and cost plus methods) presents remarkable strengths, which include:

- it dismisses the availability of specific comparables;
- it does not distort competition among enterprises in an specific country, since they are subject to the same tax burden, and they are not benefitted with asymmetry of information;
- it is adequate to countries with scarcity of human resources and technical knowledge of specific transfer price issues;
- it is easy to be implemented by tax authorities and taxpayers;
- it stabilizes the expectations for juridical and economic areas;
- the system guarantee equal conditions of competition between companies;
- low cost system to companies and tax administration;
- emphasis on practicality.

Traditional resale price and cost plus methods with fixed margins are applicable to both export and import operations. A more detailed explanation to differentiate the application from import and exports and how to deal with it will be exposed in a specific topic.

6. *As it was put by Michael Durst "In fact, the arm´s-length ranges produced under the flawed methods used today almost are far too wide to provide tax authorities information that is useful in enforcement. The excessive width of what are supposed to be the arm´s-length ranges causes tax administration around the world to leave a great deal of money sitting on the table when attempting to enforce transfer pricing rules… " Fixing Double Nontaxation Under the Transfer Pricing Guidelines", TAX NOTES, May 7, 2012, pages 785-789, as quoted by David Spencer. Will OCDE adjust to reality?, JOURNAL OF INTERNATIONAL TAXATION, n. 23, p. 35-52, 2012, p. 48.*

2. BRAZILIAN METHODOLOGY WITH FIXED (PREDETERMINED) MARGINS FOR RESALE PRICE AND COST PLUS METHODS[7]

2.1. Resale price method with fixed margins

The mechanism of resale price method using fixed gross profit margins does not substantially deviate from the resale price method with margins based on comparables of the traditional methodologies (OECD TP Guidelines). In order to determine the arm's length transfer price, the resale price that the resale company charges to an unrelated company is reduced by a fixed gross profit margin. The remainder is the acceptable transfer price (arm´s length presumption) between associated parties. In exports, this price will be minimum revenue and, in imports, the remainder value will be a maximum deductible expense or cost.

The method is basically the ratio of the transfer price to the product resold value less a proportional profit margin. Therefore, it is possible to elaborate this system to consider the influence of value added costs in one country, when other inputs are combined with the product traded between associated enterprises and the final good is resold.

In this methodology the transfer price would be calculated having regard to the proportional participation of the good negotiated between associated parties in the good resold to an independent enterprise. This is called participation ratio, which is 100% in a simple resale. This methodology reduces the weakness of using the resale price method when the reseller adds substantially costs to the product traded between associated parties. The resale price to be considered shall be that agreed upon the reselling company with an independent enterprise.

The price at arm's length (or deemed to be at arm´s length) would be the difference between the participation value of the sale price of good in the net resale price less its "gross profit margin".

General example: Product A (input) >> imported by Brazilian Company (from a related company) which resale it (same product A) or manufacture it and sale product (namely good "B").

For this purpose, the participation value of an input (A) in the net resale price of the good to be sold (B) would be: the application of the participation ratio of the input to the total cost of the good multiplied by the net resale price of the good.

The referred participation ratio is determined as follows: the ratio of the price of the input (A) to the total cost of the good resold (B), calculated according to the company's cost spreadsheet. The net resale price is the weighted average price of sales of the good resold (B), less unconditional discounts granted, indirect taxes on sales, and commissions and brokerage fees paid.[8] For the calculation of the net resale price some adjustments may be made such as payment term; inventory; quantities traded; guarantees that imply costs related to inspection of quality; and freight and insurance.

The gross profit value of product A (in the resale of product B) is the application of, for example, 20% (gross profit margin) on the participation value as referred above. As mentioned before, under Brazilian methodology, the gross profit margin will be set forth by law. The margin

7. *This part of this article is mainly based on the Chapter 10.1 of the United Nations Practical Transfer Pricing Manual for Developing Countries, which this author also authored, available at http://www.un.org/esa/ffd/tax/eighthsession/Chap10_CPBrazil_%20 20121002_v6_HC-accp.pdf*
8. *"Unconditional discounts" are those that do not depend on future events and that are detailed in the invoice.*

may vary depending on the economic sector of the activity performed by the associated party subject to transfer price adjustments.

In order to avoid distortions between companies of a same country, it is necessary accounting uniformity between the taxpayers of the country. For instance, if certain debts are qualified as operating expenses by some companies and simultaneously qualified as costs of goods sold by others, the system will not be satisfactorily implemented.

Pure resale price (without manufacturing)

If the product traded between related parties is not subject to any manufacturing modification, the formula adopted will be the same and the participation ratio will be of 100%, since the price of input (which now is the good itself) will be equal to the resale cost of good (final product).

General example would be: Product A >> imported by Brazilian Company (from a related company) which resale it (same product or good "A").

In this case the calculation is simple, the arm's length price (charged between associated parties) is the resale price of the same product (charged between independent parties) reduced by: unconditional discounts granted; taxes and contributions on sales; commissions and brokerage fees paid; and a profit margin.

TP (arm's length) = NRP – GPM x NRP,

Where:

- TP (arm's length) = transfer price at arm's length. The maximum price on imports or the minimum price on exports.
- NRP = net resale price
- GPM = gross profit margin = the value of gross profit margin ratio, as determined by law or tax regulations.
- TP(arm's length) = NRP – GPM x NRP = NRP – GPM% x NRP
- TP(arm's length) = NRP (1 – GPM%).

Resale price with manufacturing

General example would be: Product A (input) >> imported by Brazilian Company (from a related company) which manufacture it and sale the production (namely good "B").

The formula for the transfer price in intercompany would be:

TP (arm's length) = PV – GPMV,

Where

- TP (arm's length) = transfer price at arm's length. The maximum price on imports or the minimum price on exports.
- PV = participation value of the good transferred to the associated enterprise in the net resale price = (price of input ÷ cost of production of the good) x (net resale price of the good);
- GPM = gross profit margin = the value of gross profit margin ratio, as determined by law or tax regulations.
- GPMV = gross profit value = GPM x PV = GMP x (price of input ÷ cost of production of the good) x (net resale price of the good)
- TP (arm's length) = PV – GMPV = PV (1 – GPM%)

2.1.1. Fixed margins for the resale price method

For a period of time the fixed margin for the resale price (RSP) method was 20 percent. Later it was changed to 20 and 60 percent (the higher margin applied to transactions when the imports were subject to manufacturing in Brazil). In 2012, the law was changed by adopting different margins for certain specific sectors, but in general maintained 20 percent as a prescribed margin. According to the recent changes in the Brazilian TP legislation the margins for the RSP method for imports are as follows (it includes simple resale operations and manufacturing operations):

- **Forty per cent, for the following sectors:**

a. pharmaceutical chemicals and pharmaceuticals;
b. tobacco products;
c. equipment and optical instruments, photographic and cinematographic;
d. machinery, apparatus and equipment for use in dental, medical and hospital;
e. petroleum, and natural gas (mining industry), and
f. petroleum products (derived from oil refineries and alike);

- **Thirty percent for the sectors of:**

a. chemicals (other than pharmaceutical chemicals and pharmaceuticals);
b. glass and glass products;
c. pulp, paper and paper products; and
d. metallurgy; and

- **twenty percent for the other sectors.**

For exports the margins are fifteen percent when the operation in the export country is a wholesale operation, and thirty percent when it is a retail operation (PVA and PVV methods, as aforementioned).

2.2. Cost plus method with fixed margins

Similarly to the resale price method with fixed margins, the cost plus method may be used with predetermined gross profit mark up. The basic functionality of this method is very similar to the non-predetermined margin cost plus method. The method focuses on the related product manufacturing or service providing company in transfer pricing with associated enterprises. The deemed arm's length price is reached by adding a predetermined cost plus mark up to the cost of the product or services. It will be a maximum value on imports or a minimum value on exports. As explained above, it is recommended that the countries establish different gross profit mark up per economic sector and line of business or products to calculate arm's length price.

The difference in using predetermined gross profit mark up instead of a comparable one is that the taxpayer does not have to determine it. In other words, again the taxpayer does not have to find comparable situations to use this method.

Differently from resale price method, the cost plus method with predetermined fixed gross profit mark up does not require to calculate the ratio of certain input to the final product. Thus, the gross profit mark up is applied to the costs as a whole to determine the arm's length price.

The calculation formula is:

TP (arm's length) = CP + GPM x CP = CP x (1 + GPM)

Where

- TP = transfer price at arm's length.
- CP = Cost of products or services
- GPM = gross profit mark up, as determined by law or tax regulations

This method may be also applied for cases where the product is not subject to substantial modification, that is, where an associated enterprise merely resells the product to other associated enterprise. This method can also be used for services and rights, however the existence of cost sharing agreements in this last case will it make more complex to apply.

Brazilian TP law provides two sets of fixed gross profit mark ups for the Cost Plus Method, regarding import and export operations. For export operations the fixed gross profit mark up is 15%, and for imports it is 20% (which is the required gross profit mark up for the export country). The Minister of Finance, ex officio, or under request, is authorized by law to modify these margins. A request presented by a taxpayer must be fully justified, and supplied with the proper documentation as established in the law.

2.3. Differences of the application of these methods regarding import and export operations

The RSP and CPM with fixed margins are applicable both to export and import operations. However, due to information accessibility, RSP is more suitable for imports and CPM is more suitable for exports, as explained below. Other features regarding the application this method will also be further considered.
Imports

Considering the case where the product resold is subject to value added costs or manufacturing by the reseller associated enterprise, the RSP is normally more useful for imports than to exports for trade and commercial secrecy reasons. The reason for this is that companies normally do not accept to open their production or manufacturing costs, even to other associated companies located in other countries. This aspect would jeopardize the method applicability for exports, because the necessary manufacturing cost data incurred by the associated importing enterprise would be unavailable for the associated exporting enterprise and its tax administration. Even if the enterprises involved have complete access to each other's account book data, there is still a problem of information availability to the tax administration. In addition, the margins may vary from country to country, which make it more difficult to handle.

If the method is applied for import transfer pricing, the manufacturing importer uses its own account book costs to calculate the correct transfer price, with no need to request the cost data incurred by the exporter associated enterprise. Furthermore in case of imports tax administration has full access to evaluate what are the uncontrolled operations (with independent enterprises).

The conclusion is that the resale price method with fixed margins is recommended for import operations.

Exports

For the corresponding reasons pointed to resale price method, the CPM is more useful for exports than to imports for trade and commercial secrecy reasons. Companies normally do not accept to open their production or manufacturing costs, even to other associated companies located in other countries, what jeopardize the method applicability for imports, because the necessary manufacturing cost data incurred by the associated exporting enterprise are unavailable for the associated importing enterprise. Even if the enterprises involved have complete access to each other's account book data, there is still a problem of information accessibility to the tax administration.

If CPM is applied for export transfer price, the manufacturing exporter uses its own account book costs to calculate the correct transfer price, with no need to request the any data. Furthermore, in the case of exports, all necessary information can be accessed and verified by the tax administration of the exporting country

The conclusion is that the cost plus method with fixed margins is recommended for export operations.

3. SAFE HARBORS IN BRAZILIAN TP LAW

It must be clear that Brazilian TP methodology with fixed margins for RSP and CPM is not a safe harbor. Firstly because safe harbors are options to taxpayers, secondly because safe harbors must take into consideration specific situations. It is not the case for RSP and CPM whir fixed margins under Brazilian methodology. Basically there are two types of safe harbors: all inclusive and "de minimis" operations. All inclusive means that a whole set of operations are out of TP regulations if they use a set of standards (let´s say a minimum level of interest rate in intercompany loans); "de minimis" safe harbor means that the operations are not relevant in terms of value or volume, so they should not be submitted to TP regulations. It is considered that the two types of safe harbors are workable. However, the "de minimis" approach will differ from country to country because what is economic relevant in small country might not be relevant in a big country. Brazilian TP regulations apply both types of safe harbors, below a brief description of them is given.

- Brazilian taxpayers which have a net profit originating from export sales to related parties (before taxes on income), taking into consideration the current taxable year and the two preceding years, of at least 5% over such sales, will not have to make TP adjustments regarding income deriving from exports.
- Brazilian taxpayers are not subject to transfer pricing in exports when it is shown that net export revenues in taxable year is equal to or less than 5% of its total net revenues of the same period.
- For exports, Brazilian taxpayers are not subject to transfer pricing regulations if the average sales price in international controlled transactions is equal to or higher than 90% of the average sales price in uncontrolled transactions with unrelated parties in the Brazilian market, during the same period and under similar payment conditions.
- Market conquest special rules. Operations targeted to conquest market for Brazilian goods and services, when previously adapted to certain conditions (such as transactions to be part of an export plan, previously approved by the RFB) are not submitted to TP regulations.
- A 5% gap between prices assumed as uncontrolled prices (parameter price), in transactions between related parties, and the import and export prices in transaction documents is acceptable. It reflects the range approach to arm´s length principle.
- Special rules for intercompany loans may also be deemed to be safe harbor (see Subpart 2.1). It is because once the transaction is performed according to those rules, there is no need for TP adjustments. It is worth mentioning that Before the change in TP law in 2012, the simple registration of loans at Brazilian Central Bank would avoid application of TP rules, thus the previous legislation was indeed a "pure" safe harbor which no longer exists.

It is important to note that the rules set forth in items 1, 2 and 4 are not applicable for sales to related parties established in low tax or non transparent jurisdictions, as defined by Brazilian TP Regulations.

4. FINAL REMARKS

Despite of the fact that lots of the details of the Brazilian TP laws and regulations were omitted here (these details give room to some adjustments for specific situations), Brazilian methodology is far simpler than the OCED[9] Transfer Pricing Guidelines. It is worth mentioning that the recent UN Manual on Transfer Pricing for Developing Countries follows the TP Guidelines, however, it brings four country practices (Brazil, China, India and South Africa), which may be very useful.

The author is sure that the use of traditional transaction methods with fixed margins, which is the Brazilian methodology main feature, due to its simplicity and practicality, is a feasible alternative to developing and less developed countries to deal with the important issue of transfer pricing.

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9. *Accordingly Tatiana Falcao affirmed "Now that developing countries have become significantly more important because of their economic capacity and their economic potential, the OECD could consider modifying its transfer pricing guidelines to accept Brazil's system as an alternative for other developing countries that have not yet been able to implement the OECD's more complex transfer pricing guidelines due to a of lack of resources, qualified personnel, or comparables." Op. cit, supra note 5, p. 8*

THE TIME REQUIRED TO DETERMINE THE TAX OBLIGATION AND TO ENFORCE TAX DEBTS PAYMENT IN CIAT MEMBER COUNTRIES

Sérgio Rodrigues Mendes

SUMMARY

This article is about the time required to determine the tax obligation and to enforce tax debts payment in CIAT member countries. The tax legislation in twenty CIAT member countries was analyzed. The items listed were: term of expiration/statute of limitation, term of expiration/statute of limitation calculation, term of expiration/statute of limitation suspension, term of expiration/statute of limitation interruption, and other observations.

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CONTENT

This article[1] proposes to identify certain characteristics on the determination of the tax obligation and the requirement to pay tax debts in member countries of the Inter-American Center of Tax Administrations (CIAT). An analysis of tax practice in these countries is performed, to facilitate comparison and international harmonization.

The research and compilation, which includes twenty member countries, was based primarily on the tax codes of these countries.

Given the size limitations, this work did not take into account the statute of limitation/term of expiration for the enforcement of accessory obligations, implement and require payment of tax penalties , investigate acts constituting tax crimes, impose jail sentences, and cases of joint liability. Also, only general rules of limitation and expiration are quoted, without reference to exceptions.

1. RESEARCH OF TAX LEGISLATIONS IN CIAT MEMBER COUNTRIES

To prepare this paper, tax laws of twenty CIAT member countries were analyzed as follow:

ARGENTINA[2]

Statute of limitation: the Treasury's actions and powers to determine and require tax payment prescribe: (a) in five years, in the case of registered taxpayers, unregistered taxpayers with no legal obligation to register with the tax administration or unregistered taxpayers who spontaneously regularize their situation, or (b) in ten years, in the case of unregistered taxpayers.

Statute of limitation calculation: from January 1 following the year of the deadline for submitting the returns.

Statute of limitation suspension: one year from the date of the administrative order to pay specific taxes, certainly or presumptively.

Statute of limitation interruption: (a) by express or tacit recognition of the tax liability, (b) by renouncing to the part of the statute of limitation already spent, and (c) by any judicial act tending to obtain payment of the debt.

BOLIVIA[3]

Statute of limitation: Statute of limitation: claims by the tax administration to control, investigate, verify, check and supervise taxes and determine tax debts expire after four years. The term is extended to seven years, when the taxpayer

1. *This article completes a previous article on REFUND OF UNDUE OR EXCESSIVE TAX PAYMENTS IN CIAT MEMBER COUNTRIES, published in the Tax Administration Review n°33, p 71-85.*
2. *Cf. Law de Procedimiento Tax - Law 11683, de 13/07/1998, Articles 56; 57; 65, "a"; y 67. Available on: <http://biblioteca.afip.gov.ar/gateway.dll/Normas/Lawes/%20procedimiento%20Tax/tor_c_011683_1998_07_13.xml>. Accessed on: Oct. 30, 2012.*
3. *Cf. Bolivian Tax Code - Law 2492, de 02/08/2003, Articles 59, I, 1 y 2, y II; 60, I; 61 y 62. Available on: <http://www.impuestos.gob.bo/images/normativa/Lawes/Law2492-cdigoTax.pdf>. Accessed on: 30 oct. 2012.*

fails to comply with the obligation to register or join a tax regime that doesn't apply.

Statute of limitation calculation: from January 1 of the calendar year following the one in which the respective payment period expired.

Statute of limitation suspension: (a) with a notice of initiation of individualized audit of the taxpayer, and (b) by the filing of administrative or judicial proceedings by the taxpayer.

Statute of limitation interruption: (a) notification to the taxpayer with Determinative Resolution and (b) express or tacit recognition of the obligation by the taxpayer or by a request of payment facilities.

BRAZIL[4]

Term of expiration: the right of the Treasury to constitute a tax credit lapses after five years.

Term of expiration calculation: (a) the first day of the year in which the execution could take place, (b) from date where the final decision which could have eliminated by vice procedure or by execution or (c) the date on which the tax credit was notified to the taxpayer of any preparatory measure indispensable to the execution.

Statute of limitation: the action for recovery of the tax credit expires after five years.

Statute of limitation calculation: the date of the final determination of the tax credit.

Statute of limitation interruption: (a) personal notification made to the debtor, (b) by court order mandating the notification of tax enforcement; (c) by judicial protest; (d) by any judicial act that declares the outstanding debt, and (e) by any extrajudicial action that result in the recognition of the debt by the debtor.

CHILE[5]

Statute of limitation: the Service may cancel a tax; review any deficiency in the settlement and transfer of the taxes, within a three years period. The period is six years for the review of taxes subject to returns, when it has not been submitted or if the one submitted was maliciously false. In the same term, the tax collection action to pursue payment of taxes expires.

Statute of limitation calculation: from the expiration of the statutory period in which the payment should have been made.

Statute of limitation suspension: (a) during the period in which the Service is unable to cancel all or part of the taxes which are in a liquidation, which parts or elements have been object of a tax claim, and (b) during the loss or misuse of books, until the date on which the books, legally constituted, are available.

Statute of limitation interruption: (a) recognition or written obligation, (b) administrative notification of a transfer or settlement, and (c) judicial petition.

COLOMBIA[6]

Statute of limitation: the action of collecting tax obligations prescribe in the term of five years.

Statute of limitation calculation: (a) the expiration of the term to submit return set by the national government, for timely submitted returns, (b) submission, in case of untimely

4. *Cf. National Tax Code – Law 5172, of 25/10/1966, Articles 173 and 174. Available on: <http://www.planalto.gov.br/ccivil_03/leis/L5172.htm>. Accessed on: 30 oct. 2012.*
5. *Cf. Tax Code – Decree Law 830, of 27/12/1974, Articles 97, 16º; 200 and 201 available on: <http://www.sii.cl/pagina/actualizada/noticias/2002/dl830.htm>. Accessed on: Oct 30, 2012.*
6. *Cf. Tax Status - Decree 624, of 30/03/1989, Articles 817 and 818. Available on: <http://www.cancilleria.gov.co/sites/default/files/DECREE_624_1989[1]_0.pdf>. Accessed on: 30 oct. 2012.*

submitted return, (c) submission of corrective return with higher values, or (d) execution of the respective administrative decision or discussion.

Statute of limitation suspension: from the issuance of order suspending the proceedings of the auction and until: (a) the execution of the order which decides the prescription, (b) execution of order which resolves the situation referred to in Article 567 of the Tax Code, and (c) final decision of the administrative jurisdiction in the case referred to in Article 835 of the Tax Code.

Statute of limitation interruption: (a) by notification of the payment order, (b) by the provision of payment facilities; (c) by the acceptance of the application of the concordat, and (d) by the official declaration of compulsory administrative liquidation.

Other observations: the statute of limitation will be automatically enacted or upon request.

COSTA RICA [7]

Statute of limitation: the action of the Tax Administration to determine the obligation and to require payment of the tax expires after three years. The term is extended to five years for taxpayers not registered with the Tax Administration or who have submitted returns classified as false or fraudulent or that have not submitted returns.

Statute of limitation calculation: from January 1 in the calendar year following the tax payment date.

Statute of limitation suspension: the calculation of the statute of limitation to determine the tax liability is suspended by the filing of the complaint for alleged fraud or withholding, collection or improper collection of taxes under Articles 92 and 93 of the Standards and Tax Procedures Code, until the said process is finished.

Statute of limitation interruption: (a) notification of an audit of compliance with tax obligations (b) the determination of the tax made by the taxpayer, (c) the explicit recognition of the obligation by the debtor, (d) the request for payment deferrals and installments (e) the administrative or judicial notifications aimed at implementing the debt collection, and (f) the filing of any petition or complaint established by Article 102 of Standards and Tax Procedures Code.

CUBA[8]

Statute of limitation: after five years the right of the Tax Administration to determine the tax liability and the action to require payment of certain tax debts expires.

Statute of limitation calculation: (a) from the date of expiration of the term for filing the relevant statement, or (b) from the date of completion of the voluntary payment.

Statute of limitation interruption: (a) any administrative action with formal knowledge of the taxpayer, leading to monitoring, assessment and collection of the tax debt, (b) the filing of an appeal, either administrative or judicial, and (c) any action of the taxpayer leading to pay the tax debt.

7. *Cf. Rules and Procedures Code - Law 4755, de 29/04/1971, Articles 51; 52 and 53. Available on: <http://www.cesdepu.com/nbdp/cotri.htm>. Accessed on: 30 oct. 2012.*
8. *Cf. General and Procedural Tax Code - Decree-Law 169, of 10/01/1997, Articles 87, "a" y "b"; 89, "a" y "b"; 90 and 92. Available on: <http://www.aeec.cu/doc/doc49.pdf>. Accessed on: 30 oct. 2012.*

Other observations: the prescription will apply ex officio, without need to be claimed by the taxpayer.

DOMINICAN REPUBLIC[9]

Statute of limitation: the actions of the Treasury to require the returns, challenge those submitted, require the payment of the tax and perform the ex officio estimate expire after three years.

Statute of limitation calculation: from the day following the expiration of the tax liability payment deadline, regardless the tax payment date or the filing of the return.

Statute of limitation suspension: (a) by an action, whether in administrative or judicial, in any case, until the decision or judgment has the authority of res judicata, and (b) to the within two years, for failing to comply with the taxpayer's obligation to file tax return, or filed it with falsehoods, and notifying the taxpayer of the onset of the audit or administrative check.

Statute of limitation interruption: (a) by notification of the determination of tax liability to the taxpayer, by the tax administration (b) by express or tacit recognition of the obligation by the taxpayer, whether it is through tax return, request or other, and (c) by any administrative or judicial act leading to the collection of the debt.

Other observations: the prescription must be claimed by the interested party, to the Tax Administration as well as before the courts

ECUADOR[10]

Term of expiration: The administration's faculty to determine the tax liability expires in three years, or six years, when returns have not been submitted, partially or totally.

Term of expiration calculation (a) from the mandatory submission date of the tax return by the taxpayer, or (b) from the expiry date for submitting the return, partially or totally.

Term of expiration interruption: by a legal control notification issued by a competent authority.

Statute of limitation: the obligation and action for the recovery of tax credits expires in five years, or seven years, when returns have not been submitted in whole or in part.

Statute of limitation calculation: (a) from the date the taxes are due, or (b) from the date in which the relevant return was submitted, if it was incomplete or not filed.

Statute of limitation interruption: (a) by express or tacit recognition of the obligation by the debtor, and (b) with judicial request for payment.

Other observations: The power of the administration to determine the tax liability expires without previous request. The prescription must be expressly alleged by those who claim its benefit.

9. *Cf. Tax Code - Law 11-92, de 16/05/1992, Articles 21, "a"; 22; 23, "a", "b" y "c"; 24 y 25. Available on: <http://www.dgii.gov.do/legislacion/CodeTax/Documents/TituloI.pdf>. Accessed on: 30 oct. 2012.*
10. *Cf. Tax Code - Codification 2005-009, of 14/06/2005, Articles 55; 56; 94 y 95. Available on: <http://eva.utpl.edu.ec/door/uploads/379/379/index.htm>. Accessed on: Oct.30, 2012.*

EL SALVADOR[11]

Term of expiration: audit, inspection, investigation and control powers will expire: (a) in three years for the control of the settlement filed within the statutory deadlines in the tax laws, and to cancel the corresponding tax amount; (b) in five years for audit and settlement of the tax, in cases where no settlement has been made, (c) over five years to require submission of assessments of taxes, or (d) in three years for audit of settlements presented officially to settle the tax due, when settlement has been offered outside the statutory deadlines in the respective tax laws.

Term of expiration calculation: from: (a) the expiration of the term for submitting the tax return, or (b) the day after the date of submitting the return.

Statute of limitation: the actions and rights of the tax administration to enforce the tax liability prescribe in ten years.

Statute of limitation calculation: from the day following: (a) the day on which the legal term ended or its extension, for taxes self-assessed by the taxpayer, or (b) the deadline for payment, in the case of informal settlement, determined by the Tax Administration.

Statute of limitation interruption: from the administrative payment request notification to the taxpayer by the Tax Administration.

Other observations: prescription requires claim by the interested party.

GUATEMALA[12]

Statute of limitation: the right of the Tax Administration to make verifications, adjustments, corrections or determinations of tax obligations and enforce payment to taxpayers must be exercised within a period of four years. The deadline is extended to eight years, when the taxpayer has not registered with the Tax Administration.

Statute of limitation calculation: from the maturity date of tax payment.

Statute of limitation interruption: (a) the determination of tax liability, whether it is made by the taxpayer or by the Tax Administration, taking as the date of the act to interrupt the prescription, the submission of the return or the notification date of the decision made by the Tax Administration, (b) the notification resolution from the Tax Administration confirming tax adjustments which include payable amounts, (c) the submission, by the taxpayer , of the appeals available under the tax law, (d) the express or tacit recognition of the obligation by the taxpayer (e) the application for payment facilities by the taxpayer (f) the notification to any party, of the court action promoted by the Tax Administration, as well as the notification of any court decision or measures within criminal proceedings and judgment of criminal offenses related to taxation or customs; (g) partial payment of the tax debt, and (h) any protective order or warranty duly executed.

Other observations: the prescription is considered waived, if the debtor agrees to plead without invoking it or if all or part of the expired tax debt is paid.

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11. Cf. Tax Code - Decree 230, 14/12/2000, Articles 82; 83; 84 and 175, "a", "b" and "e". Available on: <http://www.transparenciafiscal.gob.sv/portal/page/portal/PCC/SO_Administracion_Tributaria/Lawes/Code_Tax_reformas_2011_CSJ.pdf>. Accessed on: Oct.30, 2012.

12. Cf. Tax Code - Decree 6-91, de 25/03/1991, Articles 47; 48; 49; 50, 1 a 8; y 51. Available on: <http://portal.sat.gob.gt/sitio/index.php/Lawes/doc_download/632-Decree-6-91-del-congreso-de-la-republica-.html>. Accessed on: 30 oct. 2012.

HONDURAS[13]

Statute of limitation: the actions and powers of the Tax Administration to review, investigate, conduct any investigation and audit, notify adjustments, and determine and require payment of the relevant obligations will prescribe definitively after five years.

Calculation: from the following day of the submission for the corresponding return.

MÉXICO[14]

Term of expiration: the powers of the tax administration to determine the contributions or benefits omitted prescribe within five years. The term is ten years, when the taxpayer has not applied in the Taxpayers' Federal Registry and presents no accounting for the period prescribed by the Federal Tax Code, as well as the no submission of mandatory return.

Term of expiration calculation: Terms of expiration of five years are counted from the day following: (a) the submission of the mandatory return (b) statement or notification corresponding to a no calculated tax that had to be submitted or notified or for a tax generating event, when there was no obligation to pay them after return. The ten years period is counted from the following day after the no-submission of the aforementioned return.

Term of expiration suspension: (a) when the control powers of the tax administration under Sections II, III and IV of Article 42 of the Federal Tax Code apply, (b) when an administrative appeal or judgment is raised, and (c) when the tax administration can not start the exercise of their control powers due to the fact that the taxpayer has abandoned his tax residence without submitting a notification with the corresponding changes or when a wrong tax domicile has been declared.

Statute of limitation: the tax credit expires at the end of five years.

Statute of limitation calculation: from the date that the payment could be legally required and could be raised as an exception in administrative appeals.

Statute of limitation suspension: when the administrative procedure is suspended, according to Article 144 of the Federal Tax Code. Statute of limitation interruption: (a) for each collection procedure notified by the creditor to the debtor, (b) by express or tacit recognition of the existence of credit, and (c) if the taxpayer has abandoned his tax residence without submitting a notification with the corresponding changes or when a wrong tax domicile has been declared.

Other observations: the declaration of limitation may be performed automatically by the collecting authority or at the request of the taxpayer.

NICARAGUA[15]

Statute of limitation: any tax liability prescribes after four years. The tax liability of which the State has not been informed either by the taxpayer misrepresentation or concealment of property or income, only prescribes after six years.

Statute of limitation calculation: (a) from the date on which it begins to be enforced (four years); or (b) from the date it should have been enforced (six years).

13. *Cf. Tax Code - Decree 22-97, de 08/04/1997, Articles 136 y 139. Available on: <http://www.poderjudicial.gob.hn/juris/Lawes/CODE%20TAX%20(actualizada-07).pdf>. Accessed on: 30 oct. 2012.*
14. *Cf. Federal Tax Code, 31/12/1981, Articles 67, I and II; and 146. Available on: <ftp://ftp2.sat.gob.mx/asistencia_servicio_ftp/publicaciones/legislacion06/CFF06.doc>. Accessed on: Oct. 30, 2012.*
15. *Cf. Tax Code - Law 562, of 28/10/2005, Articles 43; 45 and 46. Available on: <http://www.dgi.gob.ni/documentos/Law_562_CODE_TAX_DE_LA_REPUBLICA_DE_NICARAGUA_CON_SUS_REFORMAS.pdf>. Accessed on: 30 oct. 2012.*

Statute of limitation suspension: (a) non-compliance with the obligation to register (b) the filing of administrative or judicial requests up to thirty days after a final decision was taken, and (c) loss of the books and accounting data by fortuitous event or force majeure.

Statute of limitation interruption: (a) by the determination of tax liability, whether it is made by the Administration or by the taxpayer, taking the date of interruption of notification or presentation of the respective payment (b) the recognition, express or implied, of the tax liability by the taxpayer (c) the application for installment or other payment facilities, (d) by filing lawsuit to require compliance with tax obligations, (e) by the payment of one or more of the granted installments; (f) by notification made to the tax debtor by the Tax Administration for payment of outstanding tax obligations, and (g) any collection action by the TA, duly notified to the taxpayer or to the legal representative.

Other observations: the prescription can not officially be decreed by the tax administration, but taxpayers can appeal to it when an expired tax liability is enforced.

PARAGUAY[16]

Statute of limitation: the action for the collection of taxes shall lapse after five years.

Statute of limitation calculation: from January 1 of the year following the one of the tax obligation.

Statute of limitation suspension: the filing of any administrative or judicial action or petition suspends the course until the final decision is set, or the final decision is notified, or when the judgment becomes enforced, according to the case.

Statute of limitation interruption: (a) by final inspection certificate signed by the debtor or by his refusal confirmed by two witnesses, (b) by the determination of the tax by the Tax Administration, followed by the notification, or by affidavit made by the taxpayer, taking the date of notification of the decision as the date from which the interruption takes place, or if appropriate, the date of submission of the corresponding return, (c) by express or tacit recognition of the obligation by the debtor; (d) by the partial payment of the debt, (e) by request for installments or other payment facilities, and (f) by the use of judicial procedures in order to collect the debt duly notified to the debtor.

PERU[17]

Statute of limitation: the action of the Tax Administration to determine the tax liability and the action to require payment prescribes after four years, and six years for the no submission of the corresponding return.

Statute of limitation calculation: from January 1 of the year following the date: (a) of the deadline for filing the corresponding annual return; (b) in which the obligation becomes due, for taxes that should be determined by the tax debtor, not included in the case of subparagraph (a) or (c) of creation of tax liability in cases of taxes not included in subparagraphs (a) and (b).

Statute of limitation suspension: the prescription period for actions to determine the obligation is suspended during: (a) tax litigation procedure, (b) contentious administrative procedure, constitutional protection appeal or any other judicial process (c) application for compensation or refund,, (d) the period that the tax debtor has the condition of absent,(e) the date set by the Tax Administration for the submission of the taxpayer's books and

16. *Cf. New Tax regime - Law 125/91, of 09/01/1992, Articles 164; 165 and 166. Available on: <http://www.set.gov.py/pset/agxppdwn ?6,18,249,O,S,0,626%3BS%3B1%3B88>. Accessed on: 30 Oct. 2012.*
17. *Cf. Tax Code - Decree Supreme 135-99-EF, de 19/08/1999, Articles 43; 44, 1, 2 and 3; 45, 1 and 2; 46, 1 and 2; and 47. Available on: <http://www.sunat.gob.pe/legislacion/Code/libro1/libro.htm>. Accessed on: 30 oct. 2012.*

records, and (f) the suspension of the deadline for the audit procedure referred in Article 62-A of the Tax Code. The limitation period for the action to require payment of the tax obligation is suspended for: (a) tax litigation procedure, (b) contentious administrative procedure, constitutional protection appeal or any other judicial process, (c) the period that the tax debtor has the condition of absent, (d) the period in the postponing and / or fractioning of the tax debt is in force, and (e) the period in which the Tax Administration is prevented from enforcing the collection of the tax by legal disposition.

Statute of limitation interruption: the limitation period of the power of the Tax Administration to determine the tax liability is interrupted: (a) by filing a refund request, (b) by the explicit recognition of the tax liability; (c) by notification of any action by the Tax Administration leading to the recognition or adjustment of the tax liability or the exercise of the power to control the tax, for the determination of tax liability; (d) by the partial payment of debt, and (e) by application for installments or other payment facilities. The limitation period for the action to require payment of the tax liability is interrupted: (a) by notification of the payment order, determination or resolution; (b) by the explicit recognition of the tax liability, (c) by the partial payment of the debt, (d) by application for installment or other credit facilities, (e) by notification of the decision of loss the postponing and / or fractioning, and (f) by notification for the tax payment in enforced collection and other acts notified to the debtor, within the enforced collection procedure.

Other observations: the prescription can be only declared at the request of the tax debtor.

PORTUGAL[18]

Term of expiration: the right to require tax payments prescribes if the settlement is not properly notified to the taxpayer within four years, unless established otherwise. This period is increased to 12 years if the right to tax settlement respects the following tax laws: (a) country, territory or region subject to a clearly more favorable tax regime, presence on a list approved by the Minister of Finance, which should be declared to the tax administration, or (b) deposit accounts or securities in non-resident financial institutions in member states of the European Union, which existence and identification is not mentioned by the IRS taxpayers in the corresponding income statement in which the tax events take place.

Term of expiration calculation: for regular taxes, from the end of the year in which the taxable event was verified, and for single taxes from the date in which the taxable event occurred.

Term of expiration suspension: (a) notification to the taxpayer of the order or decision in the onset of the action of external inspection, this effect being suspended, however, if its duration of the procedure has exceeded six months after notification, (b) in the case of legal dispute which resolution depends on the settlement of the tax, from its beginning to the final and non-appealable decision, (c) in case of a contractual tax benefits, from the beginning to the end of the contract, or during the period of the benefits, (d) in case of tax benefits conditioned to the submission of the return until the end of the statutory period (e) in case the right to settlement result from appeal, from its presentation to the decision, and (f) with the request to review the tax base, to notification of the respective decision.

18. *Cf. Lei Geral Tributária - Decree-Law 398/98, of 17/12/1998, Articles 45; 1, 4 and 7; 46, 1 and 2; 48, 1 and 4; and 49, 1 and 4. Available on: <http://info.portaldasfinancas.gov.pt/NR/rdonlyres/87CAB3CA-4ED1-411A-9BDE-3E9725C24F21/0/LGT_2012.pdf>. Accessed on: 30 oct. 2012.*

Statute of limitation: the tax debts prescribe, except as provided by special law, within eight years. In the case of tax debts on which settlement is entitled to twelve years, the limitation period is extended to fifteen years.

Statute of limitation calculation : for regular taxes, from the end of the year in which the taxable event was verified, and for single taxes from the date in which the taxable event occurred. Statute of limitation suspension: (a) by legally authorized payments, and (b) while there is no final decision, which end the procedures in cases of complaint, objection, or appeal, when it establishes the suspension of debt collection. Statute of limitation interruption: the notification, complain, administrative appeal, and the application for unofficial review of the tax settlement interrupt the prescription.

SPAIN[19]

Statute of limitation: after four years prescribes the administration's right to determine the tax liability by timely settlement and tax payment requirement for settled and self assessed debts. Statute of limitation calculation:: from the day following: (a) the end of the statutory period for filing the relevant return or self-assessment, or (b) at the end of the voluntary payment period.

Statute of limitation interruption: the limitation period of the right to determine the tax liability by timely settlement, is interrupted: (a) by any action of the tax administration, with formal knowledge by the taxpayer, leading to recognition, regularization , testing, inspection, insurance and payment of all or part of the elements of the tax liability, (b) by the filing of claims or appeals of any kind, by the actions taken with formal knowledge by the taxpayer in the course of such claims or appeals, for the remission of both guilt for criminal prosecution or for filing a complaint with the public prosecutor, as well as receiving a communication on the court to order the cessation of the ongoing administrative proceeding; and (c) by any action by the taxpayer leading to the settlement or self-assessment of the tax liability. The prescription of the right to require tax debts payment is interrupted: (a) by any action of the tax administration, with formal knowledge by the taxpayer, effectively leading to the collection of the tax debt (b) by the filing of claims or appeals of any kind, by the actions taken with formal knowledge required in the course of such claims or appeals, by the insolvency of the debtor or by the exercise of civil or criminal actions directed to the tax collection, as well as by receiving notification from a court in ordering the suspension of the ongoing administrative procedure, and (c) by any action of the taxpayer leading to the extinction or payment of the tax debt.

Other observations: the prescription applies automatically, even in cases where the tax has been paid, without the need to be raised by the taxpayer.

URUGUAY[20]

Statute of limitation: the right to collect taxes prescribes after five years. The statute of limitation is extended to ten years when the taxpayer has committed fraud, does not comply with mandatory registration, does not report tax generating events, does not submit returns, and in cases where the tax is determined by the collection agency, when the fact was unknown. Statute of limitation calculation: from the completion of the calendar year of the taxable event.

19. *Cf. General Tax Law - Law 58, 17/12/2003, Articles 66, "a" y "b"; 67, 1; 68, 1 y 2; y 69, 2. Available on: <http://www.boe.es/diario_boe/txt.php?id=BOE-A-2003-23186>. Accessed on: Oct 30. 2012.*
20. *Cf. Tax Code - Decree-Law 14306, de 29/11/74, Articles 38, I; 39 y 40. Available on: <http://www.dgi.gub.uy/wdgi/agxppdwn?6,4,205,O,S,0,7908%3BS%3B1%3B877>. Accessed on: 30. oct. 2012.*

Statute of limitation suspension: the submission, by the interested, of any administrative or judicial action or resources suspends the term, until final resolution is drafted, final decision is notified or the judgment becomes enforced, according to the case.

Statute of limitation interruption: (a) by a final inspection report, (b) by notification of the decision from the competent entity, resulting in a credit against the taxpayer, (c) by the express or tacit recognition of the obligation by the debtor; (d) by any partial or total payment or provision of the debt, when applicable; (e) by court order; and (f) by all other means of common law.

VENEZUELA[21]

Statute of limitation: the rights to verify, audit, and determine the tax liability expires after four years. The term is extended to six years, in any of the following circumstances: (a) the taxpayer fails to comply with the obligation to declare the taxable event, to file tax returns or to enroll in the Tax Administration registry for tax purposes, (b) the Tax Administration has not been able to detect the taxable event in the case of verification, audit and ex officio assessment, (c) the taxpayer has moved out of the country the assets subject to payment of tax liability, or in the case of taxable events related to services performed or goods located abroad, and (d) the taxpayer did not keep an accounting system, or didn't keep it during the statutory period, or was keeping a double accounting. The action to enforce tax payments expires after six years.

Statute of limitation calculation: the period to verify, inspect and determine the tax liability counts from January 1 of the calendar year following the one of the taxable event. Regarding the action to enforce payment of tax debts, since January 1 of the calendar year following which the determination of the debt.

Statute of limitation suspension: the calculation of the term of prescription is suspended by the filing of administrative or judicial requests, until sixty days after the final decision is taken. The limitation of action to enforce tax debts payments is also set, in case of failure to notify change of address.

Statute of limitation interruption: (a) by any administrative action, notified to the taxpayer, leading to recognition, regulation, control and determination, assurance, testing, assessment and collection of the tax for each taxable transaction, (b) by any action of the taxpayer conducive to the recognition of the tax liability or payment or debt settlement, and (c) by the request for installments or other payment facilities.

2. COMMON CHARACTERISTICS OF THE VARIOUS TAX LEGISLATIONS

From this extensive research on tax laws in twenty CIAT member countries, in relation to the time required to determine the tax obligation and to enforce tax debts payment, the following common characteristics are detailed below

With respect to the statute of limitation, in each of these laws, the period of time varies, in general, from "three years" in three countries (**Chile**, **Costa Rica and the Dominican Republic**) to "ten years" in **El Salvador**, and "five years" prevailed in nine countries (**Argentina, Brazil, Colombia, Cuba, Ecuador, Honduras, Mexico, Paraguay and Uruguay**), followed by a period of "four years" in five countries (**Bolivia, Spain, Guatemala, Nicaragua, Peru and Spain**) and "eight years" in **Portugal**.

21. *Cf. Code Organic Tax - Law 42, of 17/10/2001, Articles 55, 1; 56; 59; 60, 1 and 6; 61, 1, 2 and 3; 62 and 65. Available on: <http://www.seniat.gob.ve/portal/page/portal/MANEJADOR_CONTENIDO_SENIAT/02NORMATIVA_LEGAL/2.2COT/2.2COT.pdf>. Accessed on: Oct. 30, 2012.*

There is also a term of expiration in the following countries: **Brazil and Mexico** ("five years"), **Ecuador and El Salvador** ("three years") and **Portugal** ("four years").

In **Venezuela**, the right to verify, inspect and determine the tax liability prescribes after "four years" and the action to enforce payment of tax debts expires after "six years."

Regarding the statute of limitation calculation, the survey indicated that a majority of eleven countries, it is counted from the date, or from the day following the expiration date for payment or submission of the return, or the submission of the return or that it would begin or should be enforced, as applicable (**Chile, Colombia, Cuba, Ecuador, Guatemala, Mexico and Nicaragua, Dominican Republic, El Salvador, Honduras and Spain**). Seven countries have a different approach in this regard. The initial period occurs from January 1 of the year following that date or in which the taxable event occurs or the debt was established (**Argentina, Bolivia, Brazil, Costa Rica, Paraguay, Peru and Venezuela**) and in two countries the initial term is the last day of the year in which the taxable event occurred (**Portugal and Uruguay**).

Finally, as to the statement of limitation, in ten countries this issue is established in their respective tax legislation, six countries do not allow automatic notification (**Dominican Republic, Ecuador, El Salvador, Guatemala, Nicaragua and Peru**) and four countries explicitly admit that its request or claim by the taxpayer is not necessary to recognize the prescription (**Colombia, Cuba, Mexico and Spain**).

3. CONCLUSIONS

From the analysis and comparison of the different tax jurisdictions in regard to the time required to determine the tax obligation and to enforce tax debts payment, many similarities could be found. These similarities are very clear in showing that most of these twenty tax jurisdictions follow, very closely, the guidelines contained in the CIAT Tax Code Model, namely:

a. **Statute of limitation:** "It establishes a common term for the prescription of the Administrative right to determine the obligations, [...], to require payment of the tax debt and the right of reimbursement or refund for undue payments or credit balances."(only seven countries do not follow this rule: Bolivia, Cuba, Ecuador, El Salvador, Paraguay, Portugal and Uruguay). "The general term for the administrative prescription expands when it involves more difficult situations regarding the exercise of those rights" (only in seven countries this period is not extended: Brazil, Colombia, Cuba, Dominican Republic, Honduras, Paraguay and Spain);

b. **Statute of limitation calculation:** "The period of prescription start to be calculated the following day of situations that may lead to the exercise of a right or action [...] "(in eleven countries, it starts from the date of the event, or from the following day, as applicable: Chile, Colombia, Cuba, Ecuador, Guatemala, Mexico and Nicaragua, Dominican Republic, El Salvador, Honduras and Spain);

c. **Statute of limitation interruption:** "cases for the interruption of prescription refer to actions by the Administration or of the taxpayer regarding the exercise of the corresponding rights or actions" (all countries have options to interrupt prescription. The only exception is Honduras);

d. **Statute of limitation suspension:** "This article provides a case of suspension of the limitation period in the event of an appeal" (thirteen countries have the potential legal suspension of prescription. Except for Brazil, Cuba, Ecuador, El Salvador, Guatemala, Honduras and Spain).

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