Tax Administration REVIEW

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, 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 disseminat 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, the Director of Training & Human Talent Development and Head of the Spanish Mission) is responsible for determining the topics and selecting the articles for each edition of the Review.

The articles are selected, 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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AUTHOR'S RESPONSIBILITY

The opinions expressed by the authors do not represent those of the institutions for whom they work or those of the CIAT Executive Secretariat.

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Content

Editorial

Dear Readers,

We are pleased to present to all the tax administrations officials of the members and associates member countries of our organization and, in general, to the entire international tax community, the Tax Administration Review that is published as part of the Technical Cooperation Agreement that CIAT maintains with the State Secretary of Finance, the Institute of Fiscal Studies (IEF) and the State Agency for Tax Administration (AEAT) of Spain.

This edition presents eight (8) articles: Tax planning disclosure rules: from the european consolidation to landing in Latin America; International experience in the application of behavioral economics to encourage voluntary compliance with tax obligations; The accrual basis for the accounting registry of tax resources in collection bodies: a possible alternative to improve efficiency in the collection of public resources; Tax law readability and tax complexity; Tax effects in the application of IFRS 16 leases; Seasonality of the Sales Tax (ST) in Honduras; Adoption, implementation and development in domestic legislations of the proposed multilateral measures for the taxation of the digital economy; Financial information and its impact on the tax formalization of Peruvian MSES.

We appreciate the great reception given to the call to submit contributions for this edition of the Tax Administration Review.

We reaffirm our commitment to disseminate information of interest that contributes to learning and stimulates the transfer of useful knowledge for the international tax community.

Márcio Ferreira Verdi
Director of the Review

TAX PLANNING DISCLOSURE RULES:

from the european consolidation to landing in Latin America

Guillermo C. **Fernández Lobbe**

SYNOPSIS

The objective of this article is to show the rapid evolution of Action 12 BEPS, in relation to the model of the "mandatory declaration rule" (MDR) that requires taxpayers and / or intermediaries to disclose their potentially aggressive or abusive tax planning structures. The A12BEPS of the OECD, the EU Directive in the same sense, the implementation by some EU countries, the case of Mexico that implemented the MDR in December 2019 and finally, a mention of the Argentine case implemented in October of 2020, as the examples to follow for the rest of the Latin American Tax Administrations.

CONTENT

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INTRODUCTION

Today's international income tax system, inherited from the early 20th century, is now out of date. It allows multinational companies to exploit the complexity, loopholes, inconsistencies, and imbalances in international tax rules to avoid taxes and transfer profits to low or no tax jurisdictions where economic activity is scarce or non-existent. These practices are known as Base Erosion and Profit Shifting[1] (BEPS).

The action plan against BEPS was prepared by the Organization for Economic Cooperation and Development (OECD)[2] at the express request of the G20[3] and was published on February 12, 2013. Said BEPS project took off during one of the most serious economic and financial crises of our time with an ambitious objective: to update the rules to align them with the advancement of the global economy, guaranteeing that profits are taxed wherever economic activities are carried out and where value is being created.

The BEPS Action Plan has the main objective of achieving higher levels of tax compliance through transparency agreements and tax risk management techniques that allow a more efficient allocation of the resources of the tax administration. Said plan identifies 15 actions[4], of which, in this article, Action 12 will be specially analyzed, in relation to the model of "mandatory declaration rule" (MDR, for its acronym in English) that requires taxpayers and / or intermediaries who reveal their potentially aggressive or abusive tax planning structures.

The Final Report of Action 12 "Mandatory Disclosure Rules (MDR)"[5] (hereinafter, A12 BEPS) recognizes that one of the main challenges facing tax administrations around the world is the lack of timely, exhaustive and pertinent information on aggressive tax planning strategies. Timely access to that information allows tax authorities to respond quickly on areas of tax risk. The A12 BEPS was updated in March 2018 with the report "Model Mandatory Disclosure Rules for CRS Avoidance Arrangements and Opaque Offshore Structures"[6], whose objective is to specifically target some types of arrangements and particular structures that taxpayers use, in this case relative to the automatic exchange of information (CRS[7]) and opaque offshore company structures.

Said A12 BEPS takes the experiences of those countries that have a Domestic Tax Planning Information Regime, mainly the US models. (Office of Tax Shelter Analysis - OTSA[8]) and the United Kingdom (Disclosure of tax avoidance schemes - DOTAS)[9], among others, along with Ireland, Portugal, Canada, and South Africa.

1 Base Erosion and Profit Shifting

2 Germany, Australia, Austria, Belgium, Canada, Chile, Korea, Denmark, Spain, United States, Estonia, Finland, France, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Mexico, Norway, New Zealand, Netherlands, Poland, Portugal, United Kingdom, Czech Republic, Sweden, Switzerland and Turkey.

3 Comprised of Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States, and the European Union.

4 Action 1 - "Addressing the challenges of the digital economy for taxation"; Action 2 - "Neutralize the effects of Hybrid Mechanisms; Action 3 - "Strengthening of the regulations on Controlled Foreign Corporations (CFC)"; Action 4 - "Limit the erosion of the tax base through deductions in interest and other financial payments"; Action 5 - "Combat harmful tax practices, taking into account transparency and substance"; Action 6 - "Prevent the abusive use of agreements"; Action 7 - "Prevent the artificial circumvention of the Permanent Establishment (PE) statute"; Actions 8 to 10 - "Ensure that the results of transfer prices are in line with the creation of value"; Action 11 - "- Evaluation and monitoring of BEPS"; Action 12 - "Require taxpayers to reveal their aggressive tax planning mechanisms"; Action 13 - "Reexamine the documentation on transfer prices"; Action 14 - "Make dispute resolution mechanisms more effective"; and Action 15 - "Develop a multilateral instrument".

5 Posted on 05/10/2015.

6 http://www.oecd.org/tax/beps/model-mandatory-disclosure-rules-for-crs-avoidance-arrangements-and-opaque-offshore-structures.htm

7 Common Reporting Standard (CRS)

8 https://www.irs.gov/businesses/corporations/abusive-tax-shelters-and-transactions

9 https://www.gov.uk/guidance/disclosure-of-tax-avoidance-schemes-overview

It should be noted that the MDR model is a true Information Regime. Most of the so-called Information Regimes today are in fact data regimes. By this I mean that they are raw figures, without interpreting or analyzing, which by themselves do not represent any meaning. Once these data are processed, only then do they acquire the characteristic of information, being that set of significant and pertinent data that describes events, which gives us the guidelines for decision-making.

This information in a timely, true and precise manner is a clear need for the Tax Administrations of all countries, since once obtained at an early stage, it can be used specifically to assess the risks, in real time, of international tax planning, made by taxpayers.

In the same sense, on 06/05/2018, the European Union (EU), to prevent and fight in a concerted way against tax fraud based on international tax planning structures, established a new obligation to communicate cross-border mechanisms, through the Directive (EU) 2018/822 of the Council of the European Union (hereinafter, EU Directive) in line with A12 BEPS. Said EU Directive will also be a matter of analysis in this research work, together with an EU country-by-country analysis of the situation of each one before the imminent implementation of this regulation on disclosure of international tax planning. Member States must adopt and publish the EU Directive before December 31, 2019 and apply its provisions as of July 1, 2020. Notwithstanding the different levels of progress in each country, the EU expects by 2020 to be fully integrated with the A12 BEPS.

In Latin America, although the countries have some type of information disclosure standard that affects third parties, Mexico was a pioneer, presenting a Schedule Disclosure Information Regime called “Reportable Schemes Disclosure Regime” in line with the A12 BEPS, making it the first Latin American country to fully adopt this type of standards. In this article, the Mexican disclosure regime will be mainly analyzed, both its proposal and its final text, and the tools available to the rest of the Latin American countries. However, Argentina, in October of this year presented its Tax Planning Information Regime, about which a mention will be made. Finally, a brief conclusion is provided on the main issues analyzed in this article.

1. MODEL OF MANDATORY DISCLOSURE STANDARD (MDR) - OECD

The OECD divides the existing mandatory reporting regimes into two basic categories: A) Operation-based: based on the identification of transactions that the tax administration considers risky. B) Promoter-based: places greater emphasis on the role that promoters of tax planning structures play.

The OECD distinguishes three possible subjects of information required to declare: 1) Promoter: who designs and sells a tax avoidance structure; 2) Tax advisor: who provides technical advice on a tax avoidance structure and 3) Taxpayer: who implements a tax avoidance structure.

Regarding the information to be declared, the OECD recommends filters, among which are the thresholds, which can be of a monetary type, and on the other hand, the distinctive features. These distinctive features are tools that serve to identify those structures, plans or mechanisms that interest tax administrations.

The OECD in the A12 BEPS classifies distinctive features as generic and specific. The generic features focus on common characteristics that aggressive planning schemes usually present, and mainly mention the features of confidentiality (it imposes a limitation that prevents the taxpayer from disclosing the tax treatment, the tax structure of the operation or the resulting tax advantage) and high fees or commissions linked to results (when a promoter or advisor offers a structure, planning or mechanism to taxpayers and receives a very high commission for the value of the tax advice attributable to the tax advantage expected

to be received or is linked to the obtaining it). Other recommended generic features are contract protection and standard tax products.

The specific features reflect the specific concerns of the tax administrations. These include: *Loss structures*; Financial leases (*leasing arrangements*); Structures linked to *employment* (*employment schemes*); Converting *income schemes*; Structures *involving entities located in low tax jurisdictions*; Mechanisms in which hybrid instruments are used (*arrangements involving hybrid instruments*); Transactions *with significant book-tax differences*; Listed operations; Operations of *interest*; among other.

The determination of the **term**, according to the A12 BEPS report, varies depending on who is the subject obliged to declare (promoter / advisor and / or taxpayer). Regarding the term of the promoter's declaration, this report offers two options: a) term linked to the availability of a structure and b) term linked to implementation.

As the A12 BEPS report points out, in the current existing mandatory declaration regimes they require both promoter and taxpayer to declare, or they impose the main obligation on the promoter and only require the taxpayer's declaration when there is no promoter or when it is unlikely that he declares.

The OECD in the A12 BEPS Report recommends the use of reference numbers, combined with the client list to help tax administrations more easily identify the area in which a structure has been used and also ensure that the statement is complete.

In this context, the OECD, in the A12 BEPS Report, and to avoid the problem of **legitimate expectations** on the part of taxpayers, recommends that tax administrations make it clear that the declaration of structures does not imply acceptance of validity, nor the tax treatment obtained by any taxpayer.

The OECD strongly rejects the problem of self-incrimination, arguing that mandatory disclosure regimes were created to obtain early information on aggressive tax planning strategies that take advantage of loopholes or the application of legal provisions for purposes for which they were not designed, focusing on in tax avoidance, unlike tax fraud (or tax evasion) that involves the direct violation of tax legislation and the deliberate concealment of the true state of a taxpayer's situation in order to reduce their tax obligations.

Sanctions should be set at a level that encourages compliance with them and maximizes the deterrent value without being excessively burdensome or disproportionate. The OECD classifies sanctions as monetary, non-monetary, or a mixture of both.

The OECD emphasizes that the information that must be declared is the type of information that a taxpayer would need in any case to comply with their tax obligations and includes details of the operations, name and tax reference number of the promoter and users of the structure .

In reference to international taxation schemes, they usually involve the generation of different tax benefits or advantages in different jurisdictions, so mandatory declaration regimes focused exclusively on national operations may not cover all relevant international mechanisms, since, if you do not have a complete picture of them, the tax benefit generated in a single country may seem irrelevant.

Specifically, the OECD establishes the following design elements of the international mandatory declaration regime[10]:

- remove the threshold requirement for cross-border structures.

- develop distinctive features that focus on the BEPS risks posed by cross-border structures

10 OECD, Final Report 2015 - Action 12, Require taxpayers to disclose their aggressive tax planning mechanisms, October 2015, p. 76.

and are broad enough to capture different and innovative tax planning techniques (cross-border results).

- a broad definition of a structure subject to declaration that includes any mechanism that incorporates a relevant operation with a national taxpayer and that produces cross-border results.

- avoid imposing undue burdens on taxpayers or their advisers, requiring that the declaration be made only in cases where it can reasonably be expected that the national taxpayer or his adviser will have knowledge of the cross-border results of the mechanism.

- require the national taxpayer or his advisor to declare to the tax administration all relevant information about the structure that is known to him, is in his possession or is under his control.

2. CROSS-BORDERS MECHANISMS COMMUNICATION REGIME (MDR) - EU

On June 5, 2018, Directive (EU) 2018/822 of the Council of the European Union was published in the Official Journal of the European Union (DOUE), which modifies Directive 2011/16 / EU that refers to automatic exchange and mandatory information in the field of taxation in relation to cross-border mechanisms subject to communication of information.

Member States must adopt the EU Directive and publish domestic regulations in this regard before December 31, 2019 and apply its provisions as of July 1, 2020. Once the EU Directive enters into force, the authorities of each Member State will exchange the information communicated on a quarterly basis through a central directory. The first exchange will take place no later than October 31, 2020.

Likewise, it is established that all cross-border mechanisms subject to communication whose first phase has been executed between June 25, 2018 and July 1, 2020, will have to be informed, jointly, by both the intermediaries and the interested taxpayers, before August 31, 2020.

The main obligation to declare is the intermediary, secondarily the interested taxpayer. However, the Directive establishes certain conditions to be an intermediary[11].

Likewise, the EU Directive establishes that the obligation to inform will fall on the taxpayer when, an intermediary in a Member State cannot be required to report, due to the existence of a national rule that allows the intermediary to protect himself in professional secrecy. In these cases, the intermediaries covered by the dispensation must notify their obligations to the other intermediaries required to declare, and failing that, the interested taxpayer.

In cases where the intermediary has the obligation to communicate cross-border mechanisms in several Member States, it will communicate such information only in the Member State that appears first on the established list[12].

The EU Directive establishes that when there is more than one intermediary participating in the same cross-border mechanism, the obligation to submit information on the cross-border mechanism falls on all intermediaries.

However, an intermediary will be exempt from informing to the extent that it has proof (in accordance with national law), that another intermediary submitted the information requested by the EU Directive.

11 You must meet at least one of the following: a) Be a tax resident in a Member State; b) Have a permanent establishment (PE) in a Member State through which the services are provided with respect to the mechanism; c) Have been constituted, or be subject to the legislation of a Member State; d) Be registered in a professional association related to legal, tax or consulting services in a Member State.

12 a) Member State of tax residence of the intermediary; b) Member State where the intermediary has a PE from which the services are provided in relation to the mechanism; c) Member State where the intermediary is incorporated or by whose legislation it is governed; d) Member State where the intermediary is registered in a professional association related to legal, tax or advisory services.

The EU Directive establishes that what must be disclosed to the Tax Administration are the so-called "cross-border mechanisms subject to communication of information"[13].

Although the definition of the term "mechanism" is not published, it can be inferred that it is a very broad term that would encompass any agreement, business, contract, project, structure, scheme, etc.

Therefore, cross-border mechanisms are those situations that affect more than one Member State or a Member State and a third country. These are cases where the same taxpayer operates in several jurisdictions with permanent establishments or even without being fiscally established in one or some of them, or several taxpayers are residents in different tax jurisdictions.

However, not all cross-border mechanisms must be disclosed, but only those in which at least one of the "distinctive signs" that appear in Annex IV of the Directive, defined as indicators of a potential risk of circumvention, concur.

Therefore, the EU Directive considers it effective to establish the tax planning mechanisms that must be communicated, through hallmarks, which are a list of facts, indications, elements and characteristics of the operations, which typify the norm and they presuppose the existence of tax avoidance.

The EU Directive, in its Annex IV, dedicates the entire annex to specifying distinctive signs, establishing, on the one hand, the "main benefit criterion", and on the other, five categories of distinctive signs that are in turn classified into general distinctive signs and specific distinguishing marks.

The Directive understands that the criterion of the main benefit will be considered satisfied when *"… it can be determined that the main benefit or one of the main benefits that a person can reasonably expect from a given mechanism, taking into account all the relevant factors and circumstances, it is obtaining a tax benefit".* The general distinguishing marks are found in Category A of Annex IV and must always meet the criterion of the main benefit for the cross-border mechanism to be subject to communication.

Category A of general distinctive signs is subdivided into: 1) Confidentiality: the existence of a confidentiality commitment between the intermediary and the taxpayers not to reveal the way in which the mechanism in question could provide a tax advantage, in short, the prohibition of disclosing tax planning in front of other tax intermediaries and the Tax Administration; 2) Fees: contingent or success fee of tax benefit (high fee); 3) Standardized mechanisms: standardized advice or available to more than one client, which does not require substantial adaptation to the specific case.

Some of the specific distinctive signs must meet the criterion of the main benefit, they are the case of Category B and Category C (1.b) i), 1.c) and 1.d)). **Category B** of distinctive signs is subdivided into: 1) Structures with losses: acquisition of a company that generates losses, the cessation of the main activity of said entity and the use of losses to reduce its tax obligations, in particular through a transfer of said losses to another jurisdiction or by accelerating their use; 2) Income transformation structures: the conversion of taxable income into a

13 It defines a "cross-border mechanism" as "… a mechanism that affects more than one Member State or a Member State and a third country when at least one of the following conditions is met: a) not all participants in the mechanism are residents for tax purposes in the same jurisdiction; b) one or more of the participants in the mechanism are simultaneously residents for tax purposes in more than one jurisdiction; c) one or more of the participants in the mechanism carry out an economic activity in another jurisdiction through a permanent establishment located in that jurisdiction, and the mechanism constitutes part or all of the economic activity of that permanent establishment; d) one or more of the participants in the mechanism carry out an activity in another jurisdiction without being a resident for tax purposes or without creating a permanent establishment that is located in this jurisdiction; e) said mechanism has possible consequences on the automatic exchange of information or the identification of beneficial ownership ".

category of income taxed at a lower level or tax exempt; 3) Circular operations: a mechanism includes circular operations that give rise to the "round trip" of funds (round tripping) when, through intervening entities, without performing any commercial function, the flows of funds related to the operations are offset, mutually cancel or cancel each other, so that the tax burden is reduced or disappears altogether.

Category C of distinctive signs deals with cross-border operations and is subdivided into those that must occur concurrently with the main benefit criterion [Deductibility of cross-border payments between associated companies (C.1.b) i), C.1. c) and C.1.d))] and those that do not (operate automatically) [Deductibility of cross-border payments between associated companies (C1.b) ii), C.2, C.3 and C.4)].

Category D and **E** of distinctive signs do not have to occur concurrently with the main profit criterion either, and cover two very specific issues related to information exchange and beneficial ownership (Category D) on the one hand, and to the prices of transfer (Category E) to the other.

Distinguishing **Category D** is to prevent circumvention of EU law or agreements on automatic exchange of information. Therefore, the distinctive signs refer to the mechanisms that may have the effect of undermining the obligation to carry out the automatic exchange of financial account information or the mechanisms that imply a non-transparent formal or real chain of ownership, through the artificial filing of legal persons, instruments or structures.

Category E of distinctive signs refers specifically to transfer prices and includes: a) Mechanisms that entail the use of a unilateral protection regime; b) The transfer between associated companies of intangible assets and rights over them that are difficult to value; c) A cross-border transfer, between companies of the same group, of functions, risks or assets, if the expected annual net operating result of the payer or payer (s) (EBIT), during the three years after the transfer, is less than 50% EBIT (for its acronym in English) per[14] year if the transfer had not been made.

The EU Directive establishes that intermediaries must submit information within 30 days from the day following the day on which a cross-border mechanism subject to communication is made available for implementation, or is ready for implementation, or has been proceeded to the first phase of execution, whichever occurs first.

On the other hand, when the obligation to present information on cross-border mechanisms falls on interested taxpayers, they must present the information to the Tax Administration within 30 days from the day following the day on which a cross-border mechanism subject to communication is made available for execution, or when it is enforceable by the taxpayer, or the first phase of execution has been carried out, whichever occurs first.

In the same sense as the A12 BEPS Report, the EU Directive indicates that the lack of response of a Tax Administration to a cross-border mechanism subject to communication will not imply in any case that it accepts the validity of the tax treatment of said mechanism.

Regarding sanctions, the EU Directive reserves to the different Member States the prerogative to establish the sanctions applicable in the event of non-compliance, with the only requirement that they be effective, proportionate, and dissuasive.

The EU Directive establishes that the information that must be communicated to the Tax Administration of a Member State must include the following data: 1) Complete identification of the interested intermediaries or taxpayers (name, date, place of birth, tax residence, NIF and persons associated); 2) The distinctive signs that determined the obligation to report; 3) A summary of the mechanism subject to communication of information

14 Earnings Before Interest and Taxes.

(as the mechanism is known and an abstract description of it); 4) The start date (which was carried out or will be carried out in the first phase of the execution); 5) Details of the pertinent national tax regulations; 6) The value of the cross-border mechanism subject to communication of information; 7) Identification of any other person or Member State that may be affected or linked by it.

Regarding the exchange of information, it will be shared with other Tax Administrations of the EU automatically. However, the information exchanged will not be made public and the Commission will only be able to access it to the extent necessary to monitor the correct functioning of the EU Directive.

On June 24, 2020, the Council of the European Union (EU) approved Directive 2020/876 / EU amending Directive 2011/16 / EU to address the urgent need to defer certain deadlines for the presentation and the exchange of tax information due to theCOVID-19 pandemic.

This amendment allows Member States to opt for a postponement of up to 6 months of the deadline both for the presentation and for the exchange of information on cross-border mechanisms subject to the information obligation in accordance with the Directive. Additionally, the possibility of an additional extension of up to three months is established in the event that the States continue to apply extraordinary measures due to the risk situation for public health and the economic disturbances caused by the COVID-19 pandemic.

2.1 EU member countries

Germany

On January 30, 2019, the German Ministry of Finance[15] submitted a proposed MDR legislation[16] for the consideration and comment of the rest of the German Ministries, professional organizations, and associations. The proposed MDR legislation included both international planning and domestic planning. However, on September 26, 2019[17], the German Finance Ministry, after various discussions between political parties, modified the previously published proposal on MDR legislation, excluding the German domestic MDR legislation. The German international MDR proposal is in line with the EU Directive regarding taxes achieved (all taxes except VAT, customs, internal taxes and social security contributions), the definition of reportable agreement, the distinguishing marks, the criterion of the main benefit, the definition of intermediary and the deadlines for reporting. Taxpayers' in-house services cases will be treated as intermediaries. It should be noted the particularity of the German notification system in two steps: 1) The intermediary makes the report, to the German Tax Administration (Bundeszentralamt fur Steurn - BZSt[18]), with a summary of the planning that includes a frame of the distinctive structures and the laws. The BZSt assigns a reference number to the planning report and returns it to the intermediary (or to the taxpayer in the case that there is no intermediary); 2) The next report must have the identification number provided and the taxpayer who will use the tax planning. If the intermediary opposes professional secrecy (lawyers, tax advisers, public accountants, but not banks, etc.), the obligation to make this second report passes to the taxpayer, unless the latter relieves the intermediary of professional secrecy. Regarding the sanctioning aspect, fines are included for non-presentation that go up to 25,000 euros.

Spain

The Spanish Government published on June 20, 2019 the proposal for international MDR legislation[19], which must then be legislatively formalized before its entry

15 https://www.bundesfinanzministerium.de/Web/EN/Home/home.html

16 https://globaltaxnews.ey.com/news/2019-5392-germany-publishes-draft-mandatory-disclosure-rules

17 https://globaltaxnews.ey.com/news/2019-6205-german-ministry-of-finance-amends-draft-mandatory-disclosure-rules

18 https://www.bzst.de/EN/Home/home_node.html

19 https://globaltaxnews.ey.com/news/2019-5822-spain-publishes-draft-proposal-on-mandatory-disclosure-rules

into force, and only covers cross-border agreements. The German international MDR proposal is in line with the EU Directive regarding taxes achieved (all taxes except VAT, customs, internal taxes and social security contributions), the definition of reportable agreement, the distinguishing marks, the criterion of the main benefit, the definition of intermediary and the deadlines for reporting. Although the distinctive signs are the same as the EU Directive, the MDR proposal clarifies each sign with a comment. Regarding professional secrecy, the MDR proposal exempts intermediaries in general, although the scope of professional secrecy only applies to "non-financial private information" and information that may endanger the "good honor of the family". Likewise, intermediaries must notify other intermediaries or the taxpayer (if there is no other intermediary) when they invoke the LLP (for its acronym in English)[20]. Regarding the sanctioning aspect of the Regime, the infractions are of 3,000 euros at least for not reporting the cross-border scheme or for reporting it with incomplete information, being able to go up to a maximum of the fee charged by the intermediary or the value of the cross-border agreement in the case of the taxpayer. The proposal also includes that the Spanish Tax Agency[21] publish the most relevant cross-border schemes. Finally, on October 21, 2019, the Tax Agency published a draft ministerial order, for public consultation, which approves Model 234 of "Declaration of information on certain tax planning mechanisms", Model 235 of "Declaration of update information on certain tradable cross-border mechanisms" and form 236 of "Declaration of information on the use of certain cross-border planning mechanisms"[22].

France

On October 22, 2019, Ministerial Order # 2019-1068[23] that includes the MDR legislation in French legislation was published in the French Official Gazette, in line with the EU Directive on cross-border mechanisms. French MDR legislation only includes the international (or cross-border) level, leaving aside the domestic MDR legislation. The current MDR legislation does not say anything about its scope, so in principle VAT, customs and internal taxes would not be excluded, although it will remain to wait for confirmation from the French Tax Administration[24] in this regard. The French international MDR proposal, in general, is in line with the EU Directive regarding the definition of a reportable agreement, distinctive signs, the definition of an intermediary and the deadlines for reporting. Regarding professional secrecy, only those who have this privilege (lawyers or banks) are exempted, but nevertheless they must report equally, if the taxpayer has lifted the privilege (LLP) mentioned. Likewise, those who enjoy the privilege (LLP) must notify the other intermediaries and / or the taxpayer in case there is no other intermediary. As for the sanctions, the fines have a maximum of 5,000 euros (or 10,000 euros in case of repeated non-compliance during the same calendar year). A cap of 100,000 euros for each calendar year may be applicable to each intermediary or taxpayer for breaches of the Regime.

Ireland

The Irish Government published the proposed MDR legislation on October 17, 2019[25], which must then be legislatively formalized for its entry into force. It should be noted that Ireland has had a domestic MDR regime[26] since 2011 that applies to limited domestic distinctive signs. The German international MDR proposal is in line with the EU Directive regarding taxes achieved (all taxes except VAT, customs, internal taxes and social security contributions), the definition of reportable agreement, the distinguishing marks, the criterion of the main benefit, the definition of intermediary and the

20 Legal Professional Privilege

21 https://www.agenciatributaria.es/

22 https://www.hacienda.gob.es/Documentacion/Publico/NormativaDoctrina/Proyectos/proyecto_om_dac_6.pdf

23 https://www.pwc.com/gx/en/tax/newsletters/eu-direct-tax-newsalerts/eudtg/pwc-eudtg-newsalert-france-implements-dac.pdf

24 https://www.impots.gouv.fr/portail/

25 https://globaltaxnews.ey.com/news/2019-6371-ireland-publishes-draft-proposal-on-mandatory-disclosure-rules

26 https://www.revenue.ie/en/self-assessment-and-self-employment/tax-avoidance/mandatory-disclosure-regime.aspx

deadlines for reporting. Regarding professional secrecy, the MDR proposal exempts lawyers from reporting, but not tax advisors, auditors, and accountants. However, lawyers must notify other intermediaries or the taxpayer (if there is no other intermediary) that the scheme is reportable. Likewise, the intermediary must provide and inform the identification number of the reportable scheme. Regarding the sanctioning aspect, the fines have the particularity that they are mostly applied per day and by reportable agreement with a maximum of 5,000 euros, in cases that are not reported, or the rest of the obligations are breached and are not include the reference number.

Lithuania

In the case of Lithuania[27], on July 30, 2019, the MDR legislation was approved in line with the EU Directive on the Communication Regime of Cross-Border Mechanisms. The Lithuanian Legislation granted the Tax Administration (State Tax Inspectorate - VMI[28]) the power to regulate the disclosure regime of tax planning. However, the approved MDR legislation establishes the effective date of entry into force of the regime, the definition of reportable agreements, the definition of intermediary and interested taxpayer, in line with the EU Directive, leaving it to the Tax Administration to regulate the taxes achieved, the content of the characteristics, the procedures to reveal the agreements and the sanctioning regime.

Luxembourg

The Government of Luxembourg sent the MDR bill to Parliament on August 8, 2019[29]. This proposal must follow the legislative path, which includes the analysis of the text by a special commission of the Parliament and the opinions of the colleges on the matter, to later be approved and published. The German international MDR proposal is in line with the EU Directive regarding taxes achieved (all taxes except VAT, customs, internal taxes and social security contributions), the definition of reportable agreement, the distinguishing marks, the criterion of the main benefit, the definition of intermediary and the deadlines for reporting. As for the intermediary, only those who have a link with Luxembourg have the obligation to report to the Luxembourg Tax Administration[30]. Regarding professional secrecy, the MDR proposal exempts registered lawyers from reporting, but they have to notify, within 10 days that the scheme is reportable, other intermediaries or the taxpayer (in case there is no other intermediary) already the Tax Administration (within 30 days). Regarding the sanctioning aspect of the Regime, the infractions are for not reporting the cross-border scheme, for not reporting in a timely manner, for reporting incomplete or inaccurate information, for not notifying other intermediaries and for not notifying the Tax Administration, with fines that reach 250,000 euros (depending on the circumstances of the case).

Netherlands

The Irish Government published the proposed MDR legislation on October 17, 2019[31], which must then be legislatively formalized for its entry into force. The German international MDR proposal is in line with the EU Directive regarding taxes achieved (all taxes except VAT, customs, internal taxes and social security contributions), the definition of reportable agreement, the distinguishing marks, the criterion of the main benefit, the definition of intermediary and the deadlines for reporting. Although the distinctive signs are the same as the EU Directive, the MDR proposal clarifies each sign with a comment. In reference to intermediaries, the MDR proposal defines them as “someone who meets

27 https://www.ey.com/gl/en/services/tax/international-tax/alert--lithuanian-president-signs-primary-legislation-on-implementation-of-mandatory-disclosure-rules

28 https://www.vmi.lt/index.jsp?lang=en

29 https://globaltaxnews.ey.com/news/2019-6048-luxembourg-submits-draft-law-implementing-eu-mandatory-disclosure-regime-to-parliament

30 https://guichet.public.lu/en/organismes/organismes_entreprises/administration-contributions-directes.html

31 https://globaltaxnews.ey.com/news/2019-5937-the-netherlands-publishes-draft-proposal-on-mandatory-disclosure-rules

one of the four criteria listed in the proposal where the similarity between all of them is that they are Dutch". Regarding professional secrecy, the MDR proposal exempts lawyers and legal advisors from reporting, but they must notify other intermediaries or the taxpayer (in case there is no other intermediary). Regarding the sanctioning aspect of the Regime, the infractions are for not reporting the cross-border scheme, for reporting incomplete information, for not notifying other intermediaries, for not reporting in a timely manner, with fines ranging up to 830,000 euros.

Poland

In the case of Poland[32], the MDR legislation was approved in line with the EU Directive on November 23, 2018, with its application as of 01/01/2019. Polish law is much broader in scope compared to the provisions originally laid down in the EU Directive, where it includes not only cross-border agreements, but also domestic agreements. VAT is also included in the reports in the case of domestic agreements. Polish law listed 24 distinctive signs (instead of the 15 signs proposed by the EU Directive). Polish legislation significantly accelerated the date of entry into force (January 1, 2019) provided by the EU Directive (July 1, 2020). Tax settlements after January 1, 2019 are reportable within 30 days. Professional secrecy does not apply to standardized agreements (those that can be used by many clients with minimal modifications). In the case of personalized agreements, the intermediary protected by professional secrecy must inform the client that it is a reportable agreement, and on the other hand inform the Tax Administration[33] that the client was informed of it. Any failure to report an obligation may be subject to a fine of up to PLN 21.6 million (approx. 5 million Also, taxpayers with income of more than PLN 8 million (approx. 1.85 million euros) must introduce an internal procedure (*compliance*) to comply with the established standard (460,000 euros in the event of a fine for non-compliance). In the case of being convicted of tax offenses for not complying with the obligations to report cross-border agreements, the Justice may, additionally, prohibit the activity of that specific business.

United Kingdom

The British Government published the proposed international MDR legislation on July 22, 2019[34], which was open for comment[35] until 10/11/19, and is currently being analyzed for final approval. It should be noted that the United Kingdom has had a domestic MDR regime[36] (DOTAS) since 2004 that applies to distinctive domestic signs. The German international MDR proposal is in line with the EU Directive regarding taxes achieved (all taxes except VAT, customs, internal taxes and social security contributions), the definition of reportable agreement, the distinguishing marks, the criterion of the main benefit, the definition of intermediary and the deadlines for reporting. The MDR proposal provides a broad definition of "tax advantage." Although the distinctive signs are the same as the EU Directive, the MDR proposal clarifies each sign with a comment. Regarding professional secrecy, the MDR proposal exempts those intermediaries that are reached by the LLP but must notify other intermediaries or the taxpayer (in case there is no other intermediary) that the scheme is reportable. However, the H&M Revenue and Customs hopes[37] that law firms will not invoke the LLP constantly as the information they have to report is not the type of information that would lead to invoke the LLP. Regarding the sanctioning aspect, and following the DOTAS model, the fines are 600 pounds per day and some breaches have a penalty of up to 5,000 pounds.

32 https://www.pwc.pl/pl/pdf/en-ta-mdr.pdf ; https://www.wts.com/global/insights/poland-dac6-directive~publishing/ ; https://tax.thomsonreuters.com/blog/polish-ministry-of-finance-releases-guidance-on-eu-mandatory-tax-reporting-requirements/

33 https://www.gov.pl/web/national-revenue-administration/about-us

34 https://globaltaxnews.ey.com/news/2019-6040-united-kingdom-publishes-draft-proposal-on-mandatory-disclosure-rules

35 https://www.gov.uk/government/consultations/draft-regulations-implementation-of-disclosable-arrangements

36 https://www.gov.uk/government/publications/disclosure-of-tax-avoidance-schemes-guidance

37 https://www.gov.uk/government/organisations/hm-revenue-customs

Fines can be imposed by the HMRC and by the First Level Tax Court[38]. In general, they are determined by the Court, which has the power to increase the fines up to 1 million pounds. Finally, it should be noted that the proposal includes a comment if the BREXIT is finally implemented.

2.2 Latin American countries

Argentina

In Argentina, the Federal Administration of Public Revenues[39] (AFIP), in 2018 analyzed the possibility of implementing a regime of tax planning disclosure[40]. This is reported by the monitoring base of the Inter-American Center of Tax Administrations (CIAT), which aims to disseminate in a general way the progress of the implementation of the recommendations of the BEPS Action Plan in 36 CIAT member countries, with the ultimate goal of identifying good practices, promoting cooperation among peers and generating bases for research work[41].

It is worth clarifying that, the creation of the Foreign Passive Entities Registry, in charge of AFIP, was embodied in article 90 of the Fiscal Honesty Law (Law No. 27,260 - Year 2016). Said norm establishes that *"Taxpayers who are holders of more than fifty percent (50%) of the shares or participations of the capital, directors, managers, proxies, members of the supervisory bodies or those who hold similar positions in companies, trusts , foundations or any other foreign entity that obtains a passive income greater than fifty percent (50%) of its gross income during the calendar year, will be obliged to inform said registry the data that identifies the foreign passive entity and their link with it"*. Likewise, the AFIP is delegated the form, terms and conditions in which taxpayers must comply with the duty of information. On 04/15/2020, the AFIP published General Resolution No. 4697/2020 that ordered the creation of the "Registry of Foreign Passive Entities".

Notwithstanding this, the AFIP, on 10/20/2020, published in the Official Gazette of the Argentine Republic[42] the Tax Planning Information Regime (IPF), becoming the second Latin American country that has this type of Regime of Information inspired by Action 12 BEPS and the EU Directive. The IPF Regime includes both national and international tax planning and the obligated subjects are both taxpayers and tax advisers.

Bolivia

Bolivia is not a member of the Global Forum on Transparency and Exchange of Tax Information[43], nor did express interest in being[44] a member of the OECD.

However, a "Bill to Fight the Use of Tax Havens" PL182/18 was presented, as a result of an investigation carried out by the "Special Mixed Commission of the Panama Papers", where it establishes in its article 10 that *"III. Individuals or legal entities that provide legal, accounting, financial, technical, or other services and advice on management, administration and control to commercial companies or entities established in Tax Havens, must make a sworn statement about the services provided*.

In the same way and in relation to final beneficiaries, the same article 10 establishes that *"II. Individuals, who are final beneficiaries of commercial companies or entities established in Tax Havens, must make a declaration of assets with documentation that reliably proves them, annually"*.

38 https://www.gov.uk/courts-tribunals/first-tier-tribunal-tax

39 http://www.afip.gob.ar/sitio/externos/default.asp

40 IFA Panama, Rapporteurship Topic 2, Buratti, Gabriela I., May 2019.

41 https://www.ciat.org/base-de-datos-monitoreo-beps/

42 https://www.boletinoficial.gob.ar/detalleAviso/primera/236310/20201020

43 http://www.oecd.org/tax/transparency/about-the-global-forum/members/

44 IFA Panama, Rapporteurship Topic 2, Ordoñez Tellez, Pablo, May 2019.

According to the bill, the declarations must be submitted to the Authority for the Supervision and Social Control of Companies[45], which is a decentralized entity whose objective is to supervise, control, supervise and regulate the activities of companies in relation to Corporate Governance, defense of competition, business restructuring and trade registration, therefore, is not an authority with fiscal powers[46].

To date, said bill has not had any momentum.

Brazil

In the case of the Federative Republic of Brazil, the issue was addressed with Provisional Measure No. 685/2015, published on July 22, 2015 in the Official Gazette. It required taxpayers to declare, before September 30 of each year, any measure that results in a tax reduction, in line with the A12 BEPS. By virtue of this, any operation that had taken place in the course of the year prior to its publication and that resulted in the elimination, reduction or postponement of taxes, had to be declared when: 1) the legal acts that the Brazilian taxpayer carried out Their sole purpose is to reduce taxes and there is no other economic or business purpose; 2) the structure that the Brazilian taxpayer adopted to carry out the legal acts is "unusual", uses an indirect contractual transition or deviates from that of a typical contract; or 3) the transactions carried out by the Brazilian taxpayer are part of the list of regulations that will be published by the Brazilian tax authorities. If the Brazilian Treasury did not accept the position adopted by the taxpayer, it would have informed him of all the taxes that he should have paid within the 30-day period. Likewise, the failure to present the information declaration was considered as an intentional omission with a view to committing fraud or evading taxes that would result in the application of interest for not paying and a greater fine of 150%, as well as possible consequences in the field penal.

It should be clarified that the Provisional Measures are valid for a period of 60 days (renewable once) after which they must be approved by the National Congress to remain effective.

In this framework, the National Congress of Brazil did not approve Provisional Measure No. 685 referring to the disclosure of tax planning schemes, and even, during the pension period, the measure was the subject of a direct action of unconstitutionality before the Supreme Federal Court of Brazil, based on the absence of the urgency of the provisional measure, on the violation of the fundamental rights of legal security, free initiative, presumption of innocence, defense, due process and legality in tax matters. However, considering that the National Congress did not approve said provisional measure, the Supreme Court declared the process of direct action of unconstitutionality extinguished[47].

Chile

In the case of the Republic of Chile, although the OECD recommendations regarding the A12 BEPS were not implemented, the Chilean Internal Revenue Service (SII)[48], following a preventive strategy against the erosion of taxable bases, publishes a "Catalog of Tax Schemes", allowing the Tax Administration to make known to taxpayers plans that will be more likely to be audited.

In this sense, the "Catalog of Tax Schemes" aims to describe situations of a diverse nature, not necessarily elusive, involving operations, transactions or schemes, both national and international, which, in the experience of the SII and taking into account the Circumstances involve a potential for tax non-compliance or to which special attention will be paid.

45 https://www.autoridadempresas.gob.bo/70-aemp/informacion-institucional

46 IFA Panama, Rapporteurship Topic 2, Ordoñez Tellez, Pablo, May 2019

47 Teijeiro, Guillermo O., IV International Congress of Direito Tributário do Rio de Janeiro, Painel 17, ABDF 2019.

48 http://homer.sii.cl/

The SII clarifies that the purpose of the "Tax Scheme Catalog" is to offer taxpayers a series of cases that, if implemented, could be reviewed in the respective inspection bodies, thus being able to make more informed decisions. It adds that inclusion in the "Catalog of Tax Schemes" does not imply an a priori judgment in the sense of applying, for example, the general anti-avoidance regulations or other inspection regulations.

It should be noted that the 2018 Cataloged Schemes Manual[49] says that:

1) *"Not all the cases included in the Catalog constitute potentially elusive schemes, although they all share (generic) elements and attributes that will be considered by the SII when assigning its treatment action policy.*

2) *Given the general attributes that are described in each case, their inclusion in the Catalog does not involve a judgment of a priori reproach or predetermine an unfavorable result in specific cases.*

3) *From the point of view of its recipients, the purpose of the Catalog is to provide general information to taxpayers, and preferably to directors, managers or administrators of companies, so that, when deciding on any planning they plan to execute, they take into account consideration of those attributes, elements or eventual anomalies on which the SII will focus its inspection actions".*

Regarding the first question expressed in the Manual, it is observed that the scope of the cataloged schemes is of a general nature, including fiscal planning (economy of choice). The second issue mentioned is the concept of legitimate expectation. And the last issue, if not the most important, is one of the objectives of a mandatory disclosure regime, a *deterrent effect*. This means that taxpayers are likely to seriously consider whether to put in place a structure that must be declared in advance.

It is necessary to make the caveat that, in the Chilean case, it is not the taxpayers and / or tax advisers who provide the information in advance, but it is the Internal Revenue Service of Chile that prepares the catalog of schemes based on investigations or inspections carried out .

Mexico

As part of the 2020 Federal Budget proposal, President Andrés Manuel López Obrador presented a comprehensive tax reform to the Mexican Congress that does not increase existing federal tax rates but is intended to expand the scope of taxable activities and activities. reporting obligations of Mexican and foreign taxpayers.

As of July 2020, the Reportable Scheme Disclosure Regime will come into effect, through which taxpayers and tax advisors will be obliged to disclose "reportable transactions" to the Mexican tax authorities. Reportable transactions will be activities that generate (or may generate), directly or indirectly, a tax benefit in Mexico. But before going into detail about the "Disclosure of Reportable Schemes" regime proposed under the guidelines provided in the OECD's A12 BEPS initiative, let's see what kind of mechanisms Mexican legislation has in place today, in line with proposed by the OECD. To combat aggressive tax planning and abuse, the Mexican tax authorities have included the following mechanisms in their regulations:

1) Non-binding criteria

The Mexican Tax Administration Service (SAT)[50] publishes various non-binding criteria[51], the objective of which is for the tax authorities to report that they have detected certain tax practices (aggressive tax planning or abuses) that they consider improper because they do not have the proper legal support[52].

49 http://www.sii.cl/destacados/catalogo_esquemas/

50 https://www.sat.gob.mx/home

51 Fiscal Code of the Federation, Article 33, section I, subsection h).

52 https://www.sat.gob.mx/normatividad/38346/criterios-no-vinculativos

2) Informative statements on the tax situation

In this case, the Tax Code of the Mexican Federation in article 32-H establishes a declaration of the fiscal situation to certain taxpayers[53], where the analytical integration of national and export sales is requested and the income from services and those from another type; characteristics of the sold merchandise; the inventory of what is produced and distributed; Derivative financial operations with both related and unrelated parties, etc., through the SAT website[54].

3) Informative declaration of relevant operations

As of 2014, the Tax Code of the Mexican Federation in article 31-A, established an informative regime of relevant operations[55] for human and legal persons, through an online statement, with a monthly and / or quarterly periodicity on financial operations of derivatives and underlying assets not listed on the known market of the Income Tax Law; on operations with related parties; on operations involving participation in the capital of companies and changes of tax residence; on reorganization and restructuring operations and other relevant operations (disposals and contributions, of goods and financial assets; operations with countries with a territorial tax system; financing operations and their interests; tax losses; repayments of capital and payment of dividends)[56].

Disclosure of Reportable Schemes - A12 BEPS -

Finally, the Mexican Government on September 8, 2019, in the presentation of the economic package for fiscal year 2020, proposes a regime of disclosure of reportable schemes in line with the Final Report of the A12 BEPS and the EU countries that they have implemented this type of regimes, being the first country in Latin America to implement such an information regime (MDR). It should be noted that the drafting of the Regime has a greater scope than the OECD and EU proposal.

Let us see an overview of the Regime for disclosure of reportable schemes presented by the Executive Power in the economic package:

- **Reportable Schemes:** Article 199 of Title Six of the Federal Tax Code says that a reportable scheme is considered as any that generates or may generate, directly or indirectly, obtaining a tax benefit in Mexico. For the purposes of this Chapter, a scheme is deemed any plan, project, proposal, advisory, instruction or recommendation expressed expressly or tacitly to materialize a series of legal acts. A procedure before the authority or the defense of the taxpayer due to a tax disputes is not considered a scheme. It should be noted that there is an obligation to disclose a reportable scheme regardless of the taxpayer's residence if he obtains a tax benefit in Mexico.

  The draft modification of the Fiscal Code of the Federation defines the fiscal benefit as *"… any reduction, elimination or temporary deferral of a contribution. This includes those achieved through deductions, exemptions, non-taxation, non-recognition of a profit or cumulative income, adjustments or absence of adjustments to the*

53 "I. Those who are taxed in terms of Title II of the Income Tax Law, who in the last immediately preceding fiscal year declared have entered accumulative income for income tax purposes equal to or greater than an amount equivalent to $ 755,898,920.00 in their normal returns, as well as those that at the close of the immediately preceding fiscal year have shares placed among the general investing public, on the stock market and that are not in any other case indicated in this article. The amount of the amount established in the previous paragraph will be updated in the month of January of each year, with the update factor corresponding to the period from the month of December of the penultimate year to the month of December of the last year immediately prior to that by which the calculation is made, in accordance with the procedure referred to in article 17-A of this Code. II. Commercial companies that belong to the optional tax regime for groups of companies in the terms of Chapter VI, Title II of the Income Tax Law. III. The parastatal entities of the federal public administration. IV. Legal entities resident abroad who have a permanent establishment in the country, solely for the activities carried out in said establishments. V. Any legal person residing in Mexico, regarding the operations carried out with residents abroad".

54 IFA Panama, Rapporteurship Topic 2, Pérez Nava, Rocío E., May 2019.

55 https://www.sat.gob.mx/declaracion/11315/declaracion-informativa-de-operaciones-relevantes

56 Income Law of the Mexican Federation for 2019: Article 25, section I.

tax base of the contribution, the accreditation of contributions, the re-characterization of a payment or activity, a change of tax regime, among others"[57].

Generalized reportable **schemes** are understood as those that seek to be commercialized in a massive way to all types of taxpayers or to a specific group of them, and although they require minimal or no adaptation to adapt to the specific circumstances of the taxpayer, the way to obtain the tax benefit is the same. On the other hand, it defines **Custom Reportable Schemes**, as those that are designed, commercialized, organized, implemented, or managed to adapt to the circumstances of a specific taxpayer.

- **Characteristics of reportable schemes:** It should be noted that for a scheme to be considered reportable it must obtain a tax benefit in Mexico and have one of the 29 characteristics (distinctive signs) listed in article 199, including:

- Avoid the exchange of financial or tax information with foreign authorities and Mexican tax authorities (includes CRS).

- Avoid the application of the Income Tax Law (ISR), to preferential tax regimes and multinational companies.

- They consist of legal acts that allow the transmission of tax losses.

- Consider deductible items when they are not deductible in terms of article 28 LISR.

- They involve operations between related parties that do not comply with tax provisions (intangibles difficult to value, company restructuring, unilateral protection regime).

- Involve the interpretation of tax provisions that produce effects like those provided in non-binding criteria by the SAT.

- Avoid creating a permanent establishment in Mexico.

- Involve a hybrid mechanism according to the LISR.

- Avoid identifying the beneficial owner of income or assets.

- Involve changes of tax residence of a taxpayer.

- Integrate operations related to changes in the participation in the capital of companies.

- Integrate disposals of goods and financial assets.

- Operations involving repayment of capital.

- Involve operations whose accounting and tax records present differences greater than 20%.

- There are agreements between tax advisers and taxpayer (confidentiality clause, tax benefit or refund success fee and when the tax advisor is obliged to provide post-scheme legal services in case of controversy).

- **Information from reportable schemes:** the advisor's tax data must be reported; fiscal data of the individuals released from the disclosure of the information; name of the legal representatives of the tax advisers as well as of the taxpayers who must comply with the obligation; In the case of personalized reports that must be disclosed by the tax advisor, the tax data of the potential taxpayer who benefits from the scheme must be indicated; detailed description containing the national and foreign legal provisions applicable to the reportable

57 Article 5-A, of the Project to modify the Fiscal Code of the Federation for 2020.

scheme; tax information on the legal entities that are part of the reportable scheme and indicate whether they have been incorporated in the last two years; the fiscal years are those in which the reportable scheme is expected or has been implemented; a detailed description of the tax benefit obtained or expected.

- **Tax Advisors:** It is established that it is any natural or legal person who, in the ordinary course of their activity, is responsible for or is involved in the design, commercialization, organization, implementation or administration of a reportable scheme or who makes a reportable scheme available for implementation by a third party. Tax advisors are those residents in Mexico or residents abroad who have a PE in Mexican territory. If there are several tax advisers, one of them may disclose the scheme in the name and on behalf of all of them.

  Tax advisers must submit an informative return in February of each year, containing a list with the names, denominations or business names of the taxpayers, as well as their code in the federal taxpayer registry, to whom they provided tax advice, with respect to reportable schemes. The disclosure of the schemes will be made through an informative statement that will be presented through the mechanisms provided by the SAT for this purpose. Likewise, the tax advisor or taxpayer obliged to disclose, will obtain an identification number for each of the disclosed reportable schemes.

- **Taxpayers:** They must disclose the reportable schemes to the SAT if the tax advisor does not provide the identification number of the reportable scheme; if the reportable scheme was designed, organized, implemented and administered by the taxpayer (*in-house service*); if the taxpayer obtains tax benefits in Mexico from a reportable scheme that has been designed, marketed, organized, implemented or administered by a person who is not considered a tax advisor; if the advisor is a resident abroad without permanent establishment in Mexico; if there is a legal impediment for the tax advisor to disclose the reportable scheme; or if there is an agreement between the tax advisor and the taxpayer for the latter to be the one obligated to disclose the reportable scheme.

- **Presentation of the reportable scheme:** In the case of generalized reportable schemes, they must be disclosed no later than 30 days after the day the first contact is made for their commercialization. Personalized reportable schemes must be disclosed no later than 30 days after the day when the scheme is available to the taxpayer for its implementation, or the first legal fact or act that is part of the scheme is carried out, whichever comes first.

- **Special features:**

- The disclosure of a reportable scheme does not imply the acceptance or rejection of the tax effects by the tax authorities for said scheme (legitimate expectation).

- Both the tax advisors and the taxpayer required to disclose will have an identification number for each of the disclosed schemes, as well as a certificate where the scheme identification number is assigned.

- The information provided in no case may be used as a precedent for the investigation for the possible commission of the crimes provided for in the Federal Tax Code, except when taxpayers have acquired, issued or disposed of tax receipts that protect non-existent, false operations or acts simulated legal.

- There will be a **Committee**, made up in equal parts by the SAT and the Ministry of Finance and Public Credit (SHCP)[58], which will oversee analyzing the information presented by tax advisers and taxpayers. The Committee may request more information

58 https://www.gob.mx/shcp

for the analysis of the reportable scheme. The Committee has 8 months to rule on the legality of the reportable scheme, which will be binding on tax advisers, taxpayers, and tax authorities. The opinion issued by the Committee may be challenged before the Federal Court of Administrative Justice or a dispute resolution procedure provided for in a treaty to avoid double taxation may be initiated, when the latter is appropriate.

- **Tax advisors must register with the SAT:**

- In the event that a reportable scheme has been declared illegal through a firm resolution, the tax advisor must notify said situation to the taxpayers to whom it has rendered its services regarding said scheme, so that they do not apply it or stop applying the legal acts that constitute it.

- The term foreseen to comply with the established obligations will begin to be computed as of July 1, 2020. The reportable schemes that must be disclosed are those designed, marketed, organized, implemented or administered as of the year 2020, or prior to said year when any of its fiscal effects is reflected in the fiscal years from 2020.

- **Sanctions:** Sanctions are contemplated for tax advisers and for taxpayers. In the case of tax advisors, Article 82-A contemplates 11 infractions that range from not disclosing a scheme, doing it incompletely, not giving notice, not providing the identification number of the reportable scheme to not registering as a tax advisor, among others. Violations can lead to fines ranging from 15 thousand (US $ 783 approx.) To 20 million (US $ 1,046,000 approx.) Mexican pesos. In the case of taxpayers, Article 82-C contemplates 6 infractions, such as not disclosing the scheme, doing it incompletely, not including the identification number, among others, which impose fines of 50 thousand (US $ 2,613 approx.) up to 5 million (US $ 261,296) Mexican pesos. I. In the case provided for in section I, the tax benefit provided for in the reportable scheme will not be applied and an economic sanction equivalent to an amount between 50% and 75% of the amount of the tax benefit of the reportable scheme will be applied. Obtained or expected to obtain in all fiscal years that involve or would involve the application of the scheme.

After the publication of the economic package for fiscal year 2020, on October 16, 2019, the Finance and Public Credit Commission of the Chamber of Deputies[59], modified Title Six of the Federal Tax Code on the Disclosure of reportable schemes. Although they approved the implementation of a reportable scheme disclosure regime in Mexico, some important modifications were made, namely:

- The **Committee** made up of the SAT and the SHCP, which receives and analyzes the disclosed schemes, whose opinion is binding, is eliminated. The Deputies consider that the Committee's mechanics could pose a serious operational risk for the SAT, since it would have to pronounce jointly with the SHCP, regarding all the schemes presented by the tax advisers and taxpayers, in addition to fulfilling the planned functions for the SAT.

- The **registry of tax advisors** is eliminated, since said data can be obtained from the disclosure regime itself, by identifying the promoters and users of the planning schemes, assuming an unnecessary administrative burden.

- The **definition of tax** advisor is changed, being any natural or legal person, who in the ordinary course of activity "performs tax advisory activities", implying a restriction on the previous definition. Likewise, the word "totality of a reportable scheme" was added, which implies that those tax advisers who have a partial participation in the scheme will not be considered as such by the regulations.

- The following paragraph is added on **professional secrecy**: *"The disclosure of reportable schemes in accordance with this Chapter shall not constitute a*

59 http://gaceta.diputados.gob.mx/PDF/64/2019/oct/20191017-IV-Bis.pdf

violation of the obligation to keep a known secret under the protection of any profession." In this way, tax advisers stand as the main revelers of the information regime, and the main obstacle invoked by the Bar and Accountant Associations, among others, is silenced.

- The **tax advisor's obligation** to notify taxpayers when a reportable scheme has been declared illegal through a final resolution is eliminated.

- An **assumption** is added to article 198 where the taxpayer is obliged to disclose the reportable schemes when there is an agreement between the tax advisor and the taxpayer for the latter to be the one obliged to reveal the reportable scheme.

- The **characteristics of the reportable schemas** are reduced from 29 to 14, eliminating characteristics, unifying some characteristics, and rewriting other characteristics. The Commission considers limiting the scheme only to operations that generate real risks and thus avoid unnecessary administrative burdens.

- A **de minimis threshold** is added to the end of Article 199, which is worded as follows: *"The Ministry of Finance and Public Credit by means of a secretarial agreement will issue the parameters on minimum amounts with respect to which the provisions of this Chapter will not apply".*

- The **period foreseen** to comply with the established obligations is modified, which will begin to be computed as of January 1, 2021. The reportable schemes that must be disclosed are those designed, marketed, organized, implemented or administered as of the year 2020, or prior to said year when any of its fiscal effects is reflected in the fiscal years from 2020. In the latter case, taxpayers will be the only ones obliged to disclose.

- Regarding **sanctions**, those related to the Committee and the registry of tax advisers were eliminated, and in the case of taxpayers the scale of the fine was reduced from 50 thousand (US $ 2,613 approx.) to 2 million (US $ 103,468 approx.) of Mexican pesos.

In the same vein, on October 24, 2019, the Finance and Public Credit Commissions and the Legislative Studies Commission of the Honorable Chamber of Senators approved the Opinion of the Finance and Public Credit Commission of the Chamber of Deputies without modifications[60].

On October 30, the Plenary of the Chamber of Deputies[61] finally approved the Decree modifying the Fiscal Code of the Federation, which was sent to the Federal Executive for constitutional purposes.

On December 9, 2019, said Decree was published in the Official Gazette of the Federation[62], giving effect to the Regime for Disclosure of Reportable Schemes.

Peru

In the case of Peru, through Legislative Decree No. 1422 of September 13, 2018, a presumption was established to attribute joint and several liability to company representatives in cases of aggressive tax planning. Said regulation provides for the only time that the fiscal plans implemented from 2012 to September 13, 2018, and which had effects on the date of publication of the Decree, should have been evaluated by the Board of Directors of the companies and, where appropriate ratified or modified until March 29, 2019[63].

60 https://infosen.senado.gob.mx/sgsp/gaceta/64/2/2019-10-24-1/assets/documentos/Dict_Hacienda_Miscelanea_Fiscal.pdf

61 http://gaceta.diputados.gob.mx/PDF/64/2019/oct/20191030-VI.pdf

62 https://www.dof.gob.mx/index.php?year=2019&month=12&day=09&edicion=MAT

63 IFA Panama, Rapporteurship Topic 2, Juan Pablo Porto, May 2019.

Likewise, through Legislative Decree No. 1372, published on August 2, 2018, the obligation of individuals and legal entities to report the identification of their "final beneficiaries" was regulated. The obligation to identify, obtain, update, declare, preserve and provide the information about the final beneficiary covers both legal entities domiciled and not domiciled in the country, as well as legal entities incorporated in Peru or abroad, including the information related to the chain of ownership in cases where the final beneficiary is indirectly so[64].

64 IFA Panama, Rapporteurship Topic 2, Juan Pablo Porto, May 2019.

3. CONCLUSIONS

To date, many EU countries have adopted (Austria, Slovakia, Slovenia, France, Hungary, Lithuania and Poland) in their legislation the international MDR Regime, and the rest of the EU countries, following the *deadline* imposed by the EU Directive for On 12/31/2019, it is finalizing the details through public consultations and commissions to implement the International Tax Planning Disclosure Regime, showing a true European consolidation regarding the A12 BEPS.

On June 24, 2020, the Council of the European Union (EU) approved Directive 2020/876 / EU amending Directive 2011/16 / EU to address the urgent need to defer certain deadlines for the presentation and the exchange of tax information due to theCOVID-19 pandemic.

This amendment allows Member States to opt for a postponement of up to 6 months of the deadline both for the presentation and for the exchange of information on cross-border mechanisms subject to the information obligation in accordance with the Directive. Additionally, the possibility of an additional extension of up to three months is established in the event that the States continue to apply extraordinary measures due to the risk situation for public health and the economic disturbances caused by the COVID-19 pandemic.

More than 20 Member States have communicated their option to apply the 6-month deferral allowed by the Directive. These states include, in addition to Spain, countries such as Sweden, Luxembourg, the United Kingdom, Ireland, the Netherlands and France. Additionally, Austria has opted for a postponement of less than 6 months.

However, in Latin America, most countries have not implemented an international MDR regime, they have not even officially analyzed it, saving the case of Brazil mentioned above. The exceptions are Mexico and Argentina, which are the first countries in Latin America to implement a Tax Planning Disclosure Regime in line with the A12 BEPS. Although the original Mexican MDR proposal was more ambitious, especially by the Committee, it fully complies with the parameters of the A12 BEPS.

Let us remember that the main objective of an International Tax Planning Disclosure Regime is to obtain enough information in a simplified way about the structures and mechanisms that concern the Tax Administration, quickly identifying risk areas, responding quickly to changes in behavior. of taxpayers, and therefore, dissuading taxpayers from implementing certain structures and mechanisms.

Regarding the particularities of the MDR Regimes in the EU, we can highlight the German double notification system, the simultaneous notifications to other intermediaries, to taxpayers and the Tax Administration of most countries, the sanctions for human persons and entities legal and high monetary penalties in the cases of Luxembourg (up to 250,000 euros), the Netherlands (up to 830,000 euros), Poland (up to 5 million euros) and the United Kingdom (up to 1 million pounds).

A special mention should be made, within the framework of the EU, for Poland, which not only implemented an international MDR regime but also a domestic MDR regime, with 24 distinctive signs, very high monetary fines, non-applicability of professional secrecy for standardized agreements and something that I consider revolutionary, that certain taxpayers (large taxpayers) must introduce an internal procedure (*compliance*) to comply with the regulations.

Therefore, the implementation of a Tax Planning Disclosure Regime in the European Union and especially in Mexico and Argentina is the starting point for the rest of the countries in the Latin American region to begin to analyze and debate the A12 BEPS, an issue that has arrived consolidated from the European Union to disembark in Latin America.

4. BIBLIOGRAPHY

Abal Caamaño, A. (2014, abril). *La Planificación Fiscal Agresiva de las Multinacionales Europeas en el Impuesto sobre Sociedades*, Universidad Pontificia Comillas, Madrid

Atchabahian, A. (2018). *Revista de Tributación* – Número Especial 2018, Asociación Argentina de Estudios Fiscales, Errepar.

Bonilla Montoya, L. E. (2017, mayo). *Análisis de las acciones BEPS, su aplicación en Colombia y su inclusión al sistema tributario*, Revista Instituto Colombiano de Derecho Tributario 76.

Braccia, M. (2019, septiembre). *Derecho Internacional Tributario, Medidas BEPS de transparencia tributaria*, EDICON.

European Comission (2017). *Final Report – Aggressive tax planning indicators*, Luxembourg.

Financial Action Task Force (2014, octubre). *FATF Guidance, Transparency and Beneficial Ownership*.

Lorenzo, A. y Cavalli, C. M. (2017, octubre). "*(In) viabilidad en la Argentina de obligar a informar sobre la planificación fiscal de los clientes*", Consultor Tributario, Errepar.

OECD (2015, octubre). *Mandatory Disclosure Rules*, Action 12 – 2015, Final Report.

OECD (2018, marzo). *Model Mandatory Disclosure Rules for CRS Avoidance Arrangements and Opaque Offshore Structures*.

Sanz Gómez, R. (2016). *Entre el palo y la zanahoria: la comunicación obligatoria de esquemas de planificación fiscal agresiva y su interacción con las iniciativas de cumplimiento cooperativo*, Crónicas Tributarias: Boletín de Actualidad 1/2016, Instituto de Estudios Fiscales.

Serrano Antón, F. (2012). *Fiscalidad Internacional*, Monografías, Tomo 2, 5° edición, Ediciones CEF.

Rodriguez Santos, L. (2001). *Manual de Fiscalidad Internacional*, Instituto de Estudios Fiscales.

Yucra Núnez, Y. Z. (2017). *La incidencia de la Acción 12 del plan de acción contra BEPS, relativa a la revelación de los mecanismos de planificación fiscal agresiva, en la obligación del abogado de guardar el secreto profesional*, Pontificia Universidad Católica del Perú, Lima.

INTERNATIONAL EXPERIENCE IN THE APPLICATION OF BEHAVIORAL ECONOMICS

to encourage voluntary compliance with tax obligations

Pablo **Grande Serrano**

SYNOPSIS

Behavioral Economics tries to understand how and why we, the people, make decisions in a world of uncertainty. Understanding decision-making mechanisms allows us to develop policies that increase the well-being of society. At the international level, there are experiences aimed at increasing voluntary compliance with tax obligations through the application of advances in behavioral economics. This work aims to make a synthesis of existing policies to know about their effectiveness and their possible application in other tax systems.

CONTENT

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INTRODUCTION

With the creation of the welfare state, taxes have become the financial resources necessary for public finances to provide essential public services.

It has traditionally been discussed whether to ensure compliance with tax obligations were more effective repressive and sanctioning measures, or the promotion of voluntary compliance through a collaborative activity.

This research paper aims to analyze the measures developed at the international level to encourage voluntary compliance with tax obligations from the special perspective of Behavioral Economics.

In a first section (section 2), we will make a brief reference to Behavioral Economics, a new perspective of economics that tries to study how people make decisions in a real world of uncertainty where the brain uses mental shortcuts, presenting the advances of Psychology to the field of Economics. If we understand how and why taxpayers make decisions, for example why people are more likely to pay taxes if other people do, we can design new information and assistance measures that contribute to the voluntary compliance.

Once the theoretical bases are defined, we will pass (section 3) to examine public policies or interventions developed in the international scope that apply these advances of Behavioral Economics with the aim of achieving greater voluntary compliance.

The interventions that we will examine have been evaluated to verify their effectiveness, so we will insist (paragraph 4) on evidence-based public policies and randomized controlled trials as a very powerful tool.

The goal is to achieve a fairer, neutral, and equitable tax system. Freeing administrative resources from the tasks of scarce evidentiary value to guide them to the intensive fight against the tax fraud of greater complexity.

1. BEHAVIORAL ECONOMICS

Traditionally, economic theory has studied the behavior of the taxpayer in the face of voluntary compliance with tax obligations through cost-benefit analysis. In this, the taxpayer, at the time of deciding whether or not to pay his taxes, will compare the probability of being discovered, the fee resulting from the liquidation and the possible penalty - the cost - against the tax savings illegally obtained - the benefit -. Among these factors, the most relevant is the probability of being discovered, even more so than the determinants of the tax debt or the penalty itself.

The economic theory, to carry out its analyzes, establishes hypotheses or starting assumptions, the main ones are: (1) the agents have well-defined and objective preferences, (2) these agents are rational and seek to optimize said preferences, (3) their primary motivation is self-interest. This type of economic agent is what has come to be known as *Homo economicus*. However, these postulates are simplifications of reality that are constantly broken by agents in the real world. Thus was born Behavioral Economics, a social science that considers that behaviors that violate the hypotheses of economic theory are identifiable and predictable, for which it brings the advances of experimental psychology to the field of economics.

The starting point is that there is ample scientific evidence that we have limited rationality, we use heuristics that lead to serious and systematic errors –biases–, we have inconsistent temporal preferences or self-control problems.

"The technical definition of *heuristics* tells us that it is a simple procedure that helps us find adequate, although often imperfect, answers to difficult questions. The word has the same root as *eureka*» (Kahneman, 2015)[1]. Therefore, mental shortcuts are configured that help to make quick decisions, to make decisions with limited information and to take them in situations of uncertainty. Risk and uncertainty should not be confused.

1 Kahneman, D. (2015). *Pensar rápido, pensar despacio.* Debate. Barcelona, p. 133..

Uncertainty, unlike risk, refers to the situation in which each of the alternatives is known, and the expected result of each alternative, but not the probability that each result will occur; while in risk the probabilities are known and, therefore, rationally, the probability of the expected result can be calculated and the maximizing option can be chosen. For this reason, heuristic rules are fast - they do not require calculations - and frugal - not all the available information is used - making them useful tools, but dangerous because they can generate errors, also called cognitive biases.

Cognitive biases are errors of judgment that our mind systematically makes, producing a logical dissonance between what is planned and what is done. In other words, the bias is the error, and the heuristic is the mechanism that produces it.

As we will discuss later, Behavioral Economics maintains that as people, we do not seek our own interest, nor are we profit maximizers or cost minimizers, but that in addition to our rationality, our ability to process information and make decisions under uncertainty is also limited; Consequently, most of the decisions we make are not the result of calm deliberation, but are the result of rapidly accessible information in memory, the need to live in the present, our resistance to change, and poor capacity to calculate probabilities; Furthermore, we are incredibly social creatures so we are influenced by social norms. All these limitations lead us to make wrong decisions, even in accordance with our objectives, so that if we had more information and we were not affected by these cognitive limitations, we would have acted differently.

Behavioral Economics is, however, one part of a larger whole that has come to be called *Behavioral Insights*. The term was first coined by the *Behavioral Insights Team* (hereinafter, BIT) to refer to an evidence-based approach that integrates the teachings and methods of the behavioral sciences and that studies how emotional, cognitive, social or psychological factors affect the decisions of people and institutions in various areas of life (OECD, 2018)[2].

The corollary of the above is that it is impossible not to influence people's decisions, the simple order in which the available options are presented before a choice or the way in which an intervention is designed, will guide people's behavior in one direction or the other, even in seemingly irrelevant questions. If we can understand these supposedly irrelevant factors that influence our behavior, if we can understand how we are systematically wrong, we can design policies that improve people's well-being, and that is libertarian paternalism.

The term *libertarian paternalism* was coined by the American economist Richard Thaler, winner of the 2017 Nobel Prize in Economics[3] who, together with the American jurist Cass Sunstein, wrote an article in the *American Economic Review* (2003)[4] defending its use as a way of designing policies that maintain the freedom to choose, but that gently influence people to make decisions that enhance their well-being. Libertarian paternalism is *paternalistic* insofar as it tries to achieve the greatest welfare of the people, but it is libertarian insofar as it does not reduce alternative options, they do not disappear, nor do they hinder them, and it does not force people to act in one way or another.

To implement libertarian paternalism, two tools are necessary: *nudges*[5] and the architecture of decisions. A decision architect is a person who "has the responsibility of organizing the context in which we make decisions" (Thaler and Sunstein, 2009)[6] and is so even though he

2 OECD. (2018)."BASIC - the Behavioral Insights Toolkit and Ethical Guidelines for Policy Makers." OECD Publishing, p. 6.

3 Richard H. Thaler received the Bank of Sweden Prize in Economics in memory of Alfred Nobel in 2017 - known as the Nobel Prize in Economics - for his contributions to Economic Psychology, incorporating psychologically realistic assumptions in the analysis of economic decision making.

4 Thaler, R. y Cass R. Sunstein. (2003). "Libertarian Paternalism". *American Economic Review*, 93 (2): pp. 175-179.

5 "Nudge" means to gently push or tap the ribs, especially with the elbow. In a more general way, it can be understood as a stimulus, incentive, or guide in decision-making. " Excerpted from the editor's note of *A Little Push*; Thaler, R. and Cass R. Sunstein. (2009)

6 Thaler, R. and Cass R. Sunstein. (2009). *Un pequeño empujón: El impulso que necesitas para tomar mejores decisiones sobre salud, dinero y felicidad*, p. 17.

is unaware of it, so a proactive decision architecture is necessary, which be aware of the importance of designing public policies to try to reduce cognitive biases and increase general well-being. As we will see later, the content and the way in which a letter is written to taxpayers is going to be decisive in the response rate, when writing these letters, the tax administrations become decision architects.

In this way, a *nudge* can be defined as that intervention that directs people to behave in a predictable way, but maintaining the freedom to act in a different way, thus becoming an element of the architecture of decisions, but "without prohibit any option or significantly change people's financial incentives" (Thaler and Sunstein, 2009)[7]. Taxes or tax deductions are not incentives, neither are prohibitions or orders since they must be easy to avoid respecting people's freedom of action. However, in the words of the European Commission (2016)[8], the pre-populated tax form is an incentive, which the Spanish tax system provides in the Personal Income Tax, as it simplifies a task and people receive only information, which they may or may not use to make their final tax declaration.

In contrast to the nudges are the sludges (term also coined by Richard Thaler). The term sludge reminds phonetically in English of nudge, but its meaning is quite different. While nudge refers to a slight push to move someone in one direction; the term sludge refers to a viscous, dense mud that makes it difficult to move in one direction and negatively affects people's well-being (e.g., administrative burdens are a type of sludge). Therefore, the most accurate translation in Spanish would be chapapote (a word with a negative connotation that evokes a viscous and dense substance). Thus, for example, letters from the Tax Administration with long texts full of technicalities are tax sludges (chapapotes tributarios in Spanish), just as it is a tax sludge to force the taxpayer to double work (in VAT, manually fill in the data of the annual summary declaration, form 390, when the data have been presented quarterly, form 303).

2. INTERNATIONAL EXPERIENCE

The applications of the behavioral sciences are transversal, and many experiments have been carried out to improve the well-being of people in all areas of life, such as promoting savings for retirement, improving the health system, increasing donations of organs or reducing the emission of polluting gases. However, a brief reference is made below to the experiences developed, in the tax field, in other countries by government agencies or by international organizations[9] that have created units to apply the teachings of Behavioral Economics.

2.1 United Kingdom

The United Kingdom was the first country to promote public policies based on Behavioral Economics. In 2010, the BIT was created, attached to the Prime Minister's Cabinet. It was later partially privatized and is now owned by the UK Government, the Nesta foundation and the employees themselves. As we have seen, this team, also known as the Nudge Unit, coined the term psychological teachings (*Behavioral Insights*) to refer to the advances in behavioral sciences with which to design public policies.

7 Thaler, R. y Cass R. Sunstein. (2009). *Un pequeño empujón: El impulso que necesitas para tomar mejores decisiones sobre salud, dinero y felicidad*, p. 20.

8 European Commission: Joana Sousa Lourenço, Emanuele Ciriolo, Sara Rafael Almeida, and Xavier Troussard. (2016). "Behavioral Insights Applied to Policy: European Report 2016". EUR 27726 IN; p. 26.

9 The European Union has the Joint Research Center, the OECD promotes this type of intervention through the *Directorate for Public Governance* and the World Bank has the Mind, Behavior Integration Unit and Development *(Mind, Behavior, and Development Unit)*. Even the United Nations Organization has implemented programs based on Economic Psychology through the United Nations Development Program *(United Nations Development Program)*.

One of their first experiments was aimed at increasing the collection of tax debt in the executive period (*Hallsworth* et al., 2014)[10]. The trial was conducted in collaboration with *Her Majesty's Revenue and Customs* (hereinafter HMRC). The prior consideration is the power of social norms, that is, people as social animals are greatly influenced by what our fellow humans do. We are conditional cooperators, so we will be willing to cooperate if and only if the rest also cooperate[11]. 100,000 letters were sent, with six different messages:

1. "Nine out of ten people pay their taxes on time" (basic norm).

2. "Nine out of ten people in the UK pay their taxes on time" (country norm).

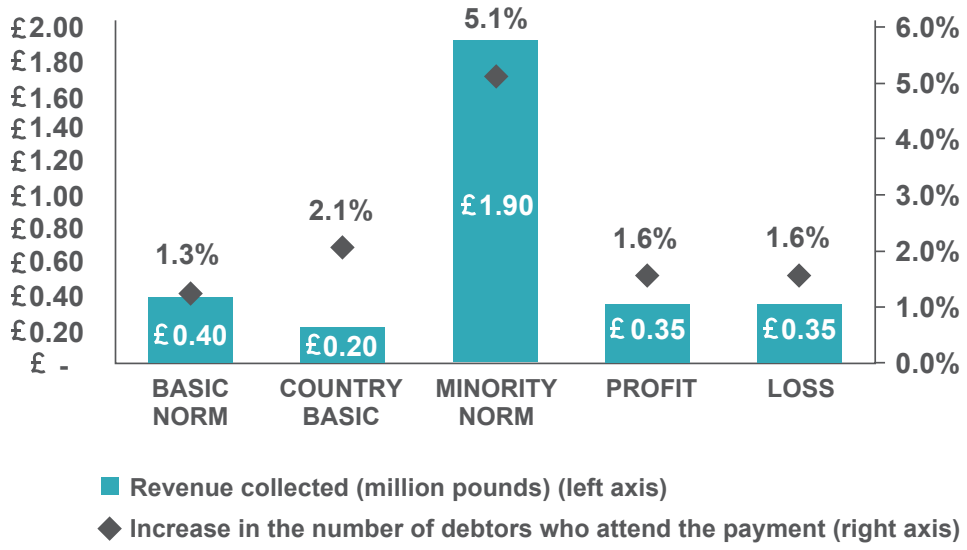
3. 'Nine out of ten people in the UK pay their taxes on time. Currently, you are one of the few people who have not paid us yet" (minority norm).

4. "Paying taxes means that we all get better essential public services, such as the health system, roads and schools" (public goods as profit).

5. "Not paying taxes means that we all lose out with worse essential public services, such as the health system, roads and schools" (public goods as loss).

6. Finally, the control group received the usual letter.

Graph No. 1. Increase in the revenue collected per message, compared to the control group



Source: *own elaboration based on data from Hallsworth et al. (2014)*

10 Hallsworth, M., John A. List, Robert D. Metcalfe, and Ivo Vlaev. (2014). "The Behavioralist as Tax Collector: Using Natural Field Experiments to Enhance Tax Compliance". Working Paper 20007, *National Bureau of Economic Research*.

11 This behavior is also known as gregariousness or dragging effect, that is, the tendency to behave like the collective and adopt prejudices based on the valuations of other people.

Consequently, the use of social norms through short messages is effective in pushing people to adopt a behavior. Specifically, in 23 days 3.2 million pounds were collected solely from the effect of these messages. If the social norm message had been sent to all the debtors, it is estimated that the collection could have amounted to 11.3 million pounds.

Although they were not developed by BIT, it should be noted that similar experiments have been carried out in Poland, which we will see later.

Another experiment carried out jointly by BIT and HMRC tried to reduce the costs or inconvenience of filling out the forms to pay taxes. At first, in the letter that was sent, the web page where the form could be downloaded was added, with this a response rate of 19% was achieved. The intervention simply consisted of putting a direct link to the download of the form, with a response rate of 23% (Behavioral Insights Team, 2018)[12].

To achieve greater voluntary tax compliance, it is convenient to catch the taxpayers' attention. Starting from this premise, the following experiments were developed:

- In the first of them, the BIT (2018)[13] focused on the tax on vehicles. Two letters were designed, in one the message was simplified: "pay your tax or lose your (vehicle brand)" and in another this message and a photo of the specific vehicle were included. Another group - the control group - was sent the traditional letter. The largest increase in the payment rate was among the group of debtors that attracted the most attention[14].

- The other experiment between the BIT and HMRC in 2011 was a campaign targeting more than 3,000 physicians. The goal was to attract their attention with personalized letters to increase tax compliance. Four messages were designed. The first was generic, the second indicated that it was a campaign directed at doctors. In a third message the content was simplified, and it was added that his previous non-compliance would be taken as an oversight, but this time it would be considered an active choice. Finally, the last message combined the simplified one with a moral standard: "A recent survey showed that the majority of people trusted their doctors to tell the truth." While addressing the letter to a group increased the response rate; "Simplifying the message had an even greater important effect" (Behavioral Insights Team, 2018)[15].

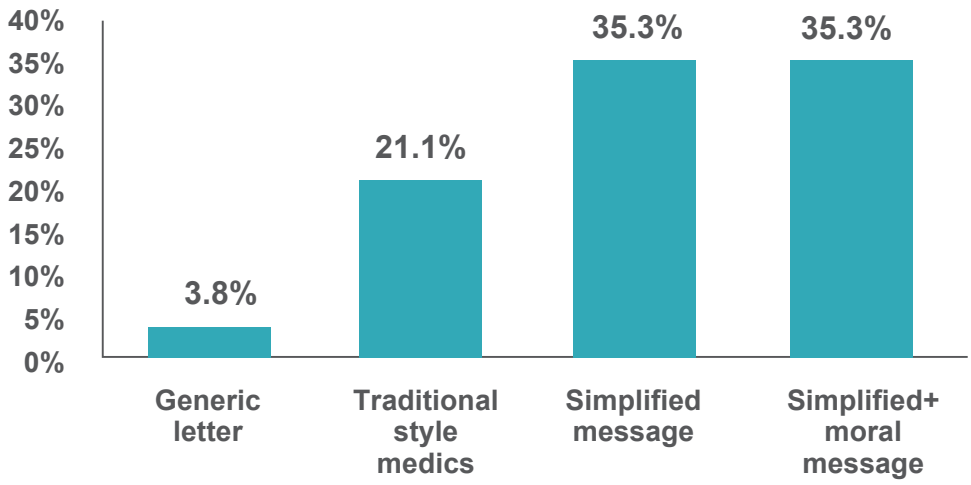
12 Behavioral Insights Team. (2018). "EAST – Cuatro maneras simples de aplicar las ciencias del comportamiento." Cabinet Office, p. 13.

13 *Ibid*, p. 20.

14 Notoriety bias is the tendency to focus attention on items that stand out from others and give them disproportionate importance.

15 Behavioral Insights Team. (2018). "EAST - Cuatro maneras simples de aplicar las ciencias del comportamiento." Cabinet Office, p. 23.

Graph No. 2. Doctor' response rate



Source: *own elaboration based on data from BIT (2018).*

The last of the experiments shows the importance of the architecture of the decisions and that there is no neutral element. BIT, together with HMRC, sought to reduce the problem of self-control by strengthening commitment. At the time of filing a tax return, changing the message that appeared "from a 'thank you for accessing" to a "you signed in" increased response rates from 21% to 25%" (Behavioral Insights Team, 2018)[16].

2.2 European Union

Next, some of the experiments carried out by some countries of the European Union (hereinafter, EU) are analyzed. European institutions have also applied policies based on Behavioral Economics, but within the scope of their powers[17].

In Denmark, as in other countries, there are tax benefits for saving for retirement. Taking advantage of data from the Danish tax on assets and a change in the policy of these tax benefits, Chetty et al. conducted a study on its effectiveness. The results show that the most effective policy to increase these savings is the automatic contribution instead of tax benefits. They point out three reasons: «(1) these benefits induce few people to save, (2) those who are stimulated to do so, basically change their savings from a normal account to a retirement plan, which does not increase total savings and (3) those who respond to the tax benefits are those who already planned to save for their retirement. Specifically, they conclude that 1% of the new savings is due to tax advantages and 99% to automation (Chetty et al., 2014)[18]. These automatic contributions consist of

16 Behavioral Insights Team. (2018). "EAST – Cuatro maneras simples de aplicar las ciencias del comportamiento." Cabinet Office, p. 34.

17 Regarding consumer protection, Directive 2011/83 / EU of the European Parliament and of the Council, of October 25, 2011, on consumer rights prohibits (article 22) the boxes already marked to contract supplementary services to the main - for example travel insurance when buying a plane ticket–, protecting consumers from default bias. This Directive has been transposed into Spanish law, this provision being collected in Article 60 bis of Royal Legislative Decree 1/2007, of November 16, which approves the revised text of the General Law for the Defense of Consumers and Users and other complementary laws.

18 Chetty, R. & John N. Friedman & Søren Leth-Petersen & Torben Heien Nielsen & Tore Olsen. (2014). "Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark". *The Quarterly Journal of Economics*, Oxford University Press, 129 (3), 1141-1219, p. 1186.

amounts that are taken directly from the worker's salary and put into a retirement savings account. This design is applying the default bias[19]–if the worker does nothing, he will continue saving–, the aversion to losses[20]–when the money goes directly from the payroll and he does not have it, it is seen not as a loss, but as an absence of profit - and the present bias[21]- if it were up to the person to plan and save systematically for retirement, they would constantly procrastinate.

In 2016, the Polish Tax Authority conducted an experiment in collaboration with the World Bank through its Mind, Behavior, and Development Unit[22]. 150,000 letters were sent to taxpayers who, having filed the 2015 Polish personal income tax return, had not paid by the end of the voluntary period. Ten different letters were sent:

1. The first type of letter simplifies the message and the language used to make it direct and understandable (behavioral baseline). The rest of the letters include this message and another specific one.

2. "According to our records, [eight] out of ten residents in (taxpayer's region) have already paid the 2015 income tax. You are part of the minority who have not yet paid" (social norm).

3. «Are you aware that 37.39% of your income tax is destined for your municipality? With this tax, your municipality finances schools, roads, and security, benefiting everyone in your municipality including you and your family. Do not be an irresponsible citizen and pay your taxes, defaulter! " (public good positive).

4. «Are you aware that 37.39% of your income tax is destined for your municipality? Without this tax, your municipality will not be able to fund schools, roads, and security, hurting everyone in your municipality including you and your family. Do not be an irresponsible citizen and pay your taxes, defaulter! (public good negative).

5. "Not paying taxes involves an unfair burden on the rest of the taxpayers who have honestly fulfilled their obligation. Consequently, we are more determined than ever to collect taxes from those who did not pay. As part of the enforcement procedures, we can, for example, block your bank account, salary and, in addition, you will have to cover all enforcement costs that arise '(deterrence).

6. "Not paying your taxes involves an unfair burden on the rest of the taxpayers who have honestly fulfilled their obligation. Consequently, we are more determined than ever to collect taxes from those who did not pay. As part of the execution procedures, we can, for example, block your bank account, salary and, in addition, you will have to cover all the execution costs that arise. We enclose an example of the execution order that we send to taxpayers who have not paid on time» (deterrence and execution order).

7. "Until now, we have considered your late payment to be accidental. However, if you ignore this notice, we will treat your behavior as a deliberate and voluntary choice and treat you as a dishonest taxpayer" (omission).

8. "Until now, we have considered your late payment to be accidental. However, if you disregard this notice, we will treat your behavior as a deliberate and voluntary choice and treat you as a dishonest taxpayer. As part of the enforcement procedures,

19 The default bias or status quo bias describes the situation that occurs when having to choose between several options, we tend to choose the option selected by default.

20 Loss aversion describes the tendency to place much more weight on losses than gains.

21 The bias towards the present or hyperbolic discount describes the preference for the short term over the long term, even if the long-term reward or benefit is greater. However, there is no significant difference between the long term and the very long term.

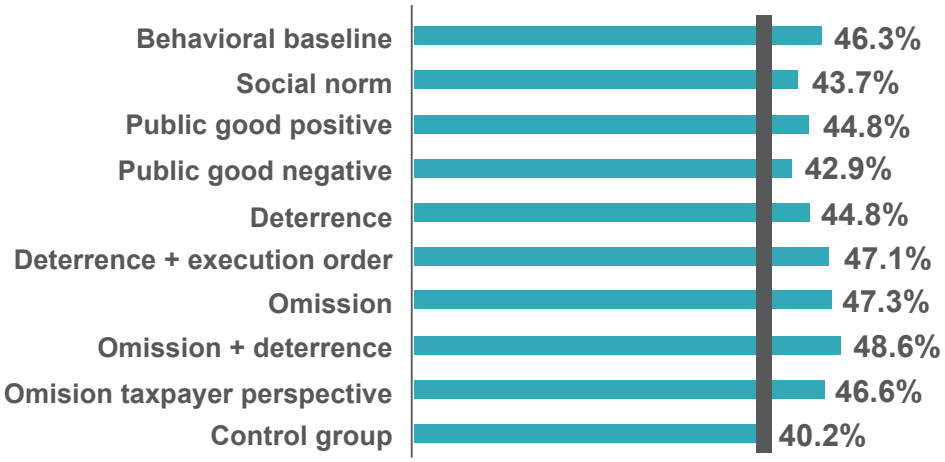
22 World Bank: Marco Hernández, Julian Jamison, Ewa Korczyc, Nina Mazar and Roberto Sormani. (2017). "Applying Behavioral Insights to Improve Tax Collection: Experimental Evidence from Poland." Washington, DC: World Bank Group.

we can, for example, block your bank account, salary and, in addition, you will have to cover all enforcement costs that arise '(omission and deterrence).

9. Until now, you may have considered your late payment to have been accidental. However, if you ignore this warning, you should consider it a deliberate choice and consider yourself a dishonest taxpayer" (omission from the taxpayer's perspective).

10. Finally, another group –control– was sent the usual letter.

Graph No. 3. Rate of payment in response to each letter



Source: *own elaboration based on World Bank data (2017).*

All the messages achieved higher collection than the usual letter, but the most effective messages were those that included a severe tone. Specifically, the most successful message was the one that combined the omission effect - being dishonest by not paying is a deliberate action - and the deterrence effect - trying to generate a sense of guilt, launching a serious threat with concrete examples. It is estimated that if this message had been sent to all taxpayers, the Polish Tax Authority would have collected an additional 56% on their revenue.

The Behavioral Economics behind this message is that people judge infractions less harshly if they are due to omissions than to actions, therefore it tries to qualify the non-payment as a deliberate action and, at the same time, the message tries to make worse the vision we have about ourselves. This, together with concrete examples of possible enforcement measures, suggests – availability heuristics[23]- the possible harm to our behavior, now more real. However, it is interesting to briefly compare this study with the BIT and HMRC experiment, in which the social norm - the minority norm in that experiment - was the most effective, while here it achieves a lower payment rate than the behavioral chart reference. The relevance of this comparison highlights, as we will see later, the importance of conducting randomized controlled trials to test public policies before applying them generally.

23 The availability heuristic is the tendency to overestimate the probability of events if they are available or accessible in memory, due to being recent, due to their emotional charge or notoriety.

One of the measures proposed to promote voluntary compliance in the tax area is to increase the subjective probability of being checked or inspected. Through the experiment carried out in Slovenia in 2014 (Doerrenberg and Schmitz, 2015)[24] we can observe a way to increase this probability and know if it is effective. Letters were sent to small businesses with a single message: recalling the importance of paying taxes and reporting the probability (10%) of being checked. Some companies did not receive the letter –control group–, others received the letter by post and, a last group, received it by hand with a visit from an employee of the Slovenian Tax Administration. The objective was to test the notoriety bias - highlighting the probability of being verified - the importance of moral norms and whether the communication channel was relevant. The results show that both letters increased tax compliance, but the one delivered by hand (20.28% compared to the 12.63% increase for the one delivered by post), did so even more.

In a report published by the European Commission in 2016[25], "Behavioral Insights Applied to Policy", the advances of these behavioral insights, their delimitation with Behavioral Economics and the spurs are analyzed; and a review of measures carried out in different countries in different areas is carried out. In tax matters, as we already saw when talking about the incentives, he cites the State Tax Administration Agency of Spain and the pre-populated personal income tax form as an example of nudge, by simplifying and reducing the effort to prepare the income statement. Other countries are also carrying out simplification measures. In Denmark, platforms have been developed to file tax returns aimed at young people. In relation to this simplification, in 2013 Croatia forced certain businesses - such as restaurants - to have electronic means of payment, which increased declared income by one billion euros (European Commission, 2016)[26].

The European Commission report also refers to the use of tax lotteries which, however, is the subject of a more detailed analysis in another Commission report "Improving VAT compliance - random rewards for tax compliance" (2014)[27]. Although this type of practice has been common outside the EU, the first known tax lottery was in Taiwan in 1951 and also in China, the report studies the cases of Malta (1997), Slovakia (2013) and Portugal (2014). The idea of the VAT lottery is simple. In operations between businessmen and professionals, so that they can deduct the VAT that another businessperson or professional has passed on to them, it is necessary to have the invoice that documents the operation, by which they have an incentive to request it. However, final consumers, since VAT cannot be deducted, have no incentive to ask for the invoice; in any case, the incentive is to ask that VAT not be passed on to them, achieving a lower final price. With the fiscal lottery, the invoices work as tickets to participate in a lottery organized by the State, thus giving an incentive to consumers to request the invoice: the more invoices, the more probability of winning the lottery. In addition, the increase in VAT collected is expected to be higher than the prize awarded, exceeding the cost-benefit analysis measure. The components of Behavioral Economics on which the tax lottery is based are the following, first of all, we are very bad at measuring probabilities, when we have to calculate the probability of a rare event the following «psychological mechanisms intervene: focus of attention, confirmation bias[28] and cognitive easing "[or heuristic of availability] (Kahneman, 2011)[29], so that we will bring to mind experiences in which we remember people winning prizes or lotteries, which will reinforce our preconceived idea of the high probabilities that we have. Furthermore, when faced with a lottery "we tend to focus more on the size of the prize being contested than our chances of winning it, and ultimately, people work harder for random rewards than for certain rewards, even when the expected value of the random reward

24 Doerrenberg, P. and Jan Schmitz. (2015). "Tax Compliance and Information Provision - A Field Experiment with Small Firms". ZEW - Center for European Economic Research. *Discussion Paper.* 15-028.

25 European Commission: Joana Sousa Lourenço, Emanuele Ciriolo, Sara Rafael Almeida, and Xavier Troussard. (2016). "Behavioral Insights Applied to Policy: European Report 2016". EUR 27726 IN; p. 26.

26 *Ibid*, p. 29.

27 European Commission: Jonas Fooken, Thomas Hemmelgarn and Benedikt Herrmann. (2014). "Improving VAT compliance - random awards for tax compliance".

28 Confirmation bias is the tendency to seek information that confirms previous biases.

29 Kahneman, D. (2015). *Pensar rápido, pensar despacio.* Debate. Barcelona, p. 422.

is less than the value of the insurance" (Behavioral Insights Team, 2018)[30].

The procedure and results of the fiscal lotteries available are:

- **Malta:** a raffle is held per month and during every month until the budget is exhausted: 58,234 euros. The prize is one hundred times the value of the invoice with a minimum of 233 euros and a maximum of 11,647 euros. The number of invoices sent to participate has gone from 32.5 million in 2007 to 35.7 million in 2013, an increase of 9.84%. There is no quantitative analysis on the increase in VAT collection.

- **Slovakia:** any invoice of an amount equal to or greater than 1 euro can participate, all invoices have the same probability of winning. The complex procedure is as follows: each invoice participates in three award rounds, if it has not been awarded in any. In the first round, every two weeks, ten prizes of between 100 and 10,000 euros are raffled. In the second round, once a month, an invoice issuer is chosen by lot from each region of Slovakia, then among all the invoices sent that have been issued by the selected issuers, 5,000 euros or a car of the same value are drawn. Finally, in the third round, once a month, the winner is chosen on a television program, in which several people compete for different prizes. The results of the tax lottery are modest: 80,000 people participate in the lottery on a stable basis (Slovakia has more than 5 million inhabitants), some participants are professional players - they send invoices in which they are not involved - only 2% of the invoices received are from the services sector - the most problematic in VAT fraud - and the additional collection is estimated at 8 million euros, with a lottery organization cost of 1.6 million.

- **Portugal:** with the remittance of invoices, taxpayers get tickets to participate, they get a ticket for each fraction of 10 euros. Each ticket has the same probability of being chosen. Two different raffles are held, both on television, one weekly in which an Audi A4 is raffled and the other twice a year in which an Audi A6 is raffled. The exact data of the increase in collection is unknown, however, the operations reported to the Tax Administration increased by 45.4% (Fabri and Wilks, 2016)[31].

The scarcity of data makes it difficult to analyze the experience of these countries, however, the results are apparently positive as they increase the issuance of invoices. However, tax lotteries can have a negative long-term effect, this is what Fabri and Wilks (2016) try to study[32] when considering that "material incentives expel non-financial reasons, such as moral values and civil virtues", from tax compliance. They conclude that, although tax lotteries increase the number of people who request invoices, at the same time, they produce an effect of expelling the will to request them among those who have been doing it. This expulsion effect is concentrated in the part of the population with higher degrees.

Finally, the system of self-assessment of personal income tax that has been established in some regions of Spain is relevant[33]. These are the province of Vizcaya and the Foral Community of Navarra that have adopted an "automatic self-assessment" system consisting in that if the pre-populated personal income tax form - prepared by the corresponding department of the Treasury - results in a refund and nothing is done, It will be understood that it was presented on the last day of the term to file the tax refund and it will be returned; In any case, the taxpayer may express disagreement with the proposal, in which case it is annulled and the taxpayer will have to submit the self-assessment on his own, unless he is not obliged.

30 Behavioural Insights Team. (2018). "EAST – Cuatro maneras simples de aplicar las ciencias del comportamiento." Cabinet Office, p. 25.

31 Fabbri, M. and Daniela C. Wilks. (2016). "Tax lotteries: The crowding-out of tax morale and long-run welfare effects." *Journal of Legal, Ethical and Regulatory Issues*, 19(2), 26–38.

32 Fabbri, M. and Daniela C. Wilks. (2016). "Tax lotteries: The crowding-out of tax morale and long-run welfare effects." p. 28

33 A more detailed analysis of Spain's measures and proposals for the Spanish tax system applying economic psychology can be found in Grande Serrano, P. (2019). "Economic psychology as a tool to encourage voluntary compliance with tax obligations.

This system increases the justice and progressivity of the tax system as low-income people, who in general are not obliged to present the income tax return, but who, because they are low income, would benefit from a refund of the payments made on account, do not present the declaration. This development is a practical application of what is known as default bias.

Regarding the impact of these systems, if we go to the reports of the corresponding Provincial tax agencies, we verify that they have been effectively implemented:

Memory of Bizkaia 2018: "accounts for 46% of all declarations with a differential quota of -110.65 million euros. As in recent years, it is the mode with the highest number of declarations".

Memory of Navarra 2018: "the proposals for self-assessment of personal income tax, which in the year 2018 (tax period 2017) amounted to 181,504 proposals, which had a degree of acceptance of 92% and accounted for 52.52% of the total returns submitted".

2.3 Organization for Economic Cooperation and Development

The OECD has been promoting interventions and public policies based on Behavioral Economics for years, for this it has collaborated with different levels of government, government agencies and public organizations. In addition, it has wanted to serve as a means of transmitting this knowledge, an example of this is the report «Behavioral Insights and Public Policy: Lessons from Around the World» (2017)[34] in which they collect around 100 experiments in areas as diverse as education, energy, consumer protection, health, labor market, environment, telecommunications and, of course, taxes.

Canada has a tax-free savings account, contributions are not tax-deductible, and income is exempt, but there is a maximum limit to the amount to be contributed. The Tax Agency of Canada found that in 2014 there were people who contributed more than allowed and carried out an intervention to correct this situation. They sent four letters, in the first letter they made reference to the social norm –the majority of people contribute within the limit–; Another group was sent a letter simplifying the message and the information; the third message was demanding compliance; finally, the control group received the usual letter. The results show that the behavioral letters were more effective. 47% of those who received the first two messages withdrew the excess contributed, for the third and fourth message the percentages are 41 and 38%, respectively (OECD, 2017)[35].

Between 2012 and 2013 an experiment was conducted in New Zealand. The New Zealand Treasury must collect the taxes, for which it hires teams of people in charge of contacting debtors by phone to claim the outstanding debt. The intervention consisted of providing training to some of the groups in charge of contacting the debtors. The training was aimed at focusing attention on debt and being decisive. The results show that the trained group had conversations a minute and a half shorter and managed to recover 10% more debt (OECD, 2017)[36].

3. IMPLEMENTATION METHODOLOGY

Public policies in the tax system must pursue an improvement in its essential elements: sufficiency, efficiency, equity, and neutrality. The introduction of reforms without prior examination and their subsequent evaluation constitutes, not only a waste of public resources, but also the possibility of harming the population. Thus, it is possible that a specific policy may be well designed, a priori it seems reasonable for the desired ends and, nevertheless, its implementation produces the opposite effects.

Achieving evidence-based public policies is not a great reform, it requires political will, but we have been enjoying its successes in other fields for a long time. The revolution in modern medicine was achieved through

34 OECD. (2017)."Behavioral Insights and Public Policy: Lessons from Around the World." OECD Publishing, Paris.

35 OECD. (2017)."Behavioral Insights and Public Policy: Lessons from Around the World." OECD Publishing, Paris, p. 327.

36 *Ibid*, p. 337.

evidence-based interventions in which randomized controlled trials (RCTs) have been essential.

In a randomized controlled trial, people are randomly assigned to different programs or to different versions of the same program, maintaining a control group –which will not be the object of intervention–; It is important that the allocation is carried out at random so that people can be comparable, also avoiding selection bias[37], in this way, the difference between the groups derives from the effects of the program.

However, the design of action strategies requires a process of calm and detailed deliberation, therefore, it is interesting to cite two tools used to design public policies based on the teachings of economic psychology and on the basis of these RCTs. In particular, BASIC developed by the OECD and the EAST method created by the BIT.

First, BASIC is a tool consisting of five consecutive phases to apply advances in behavioral sciences to public policies developed by the OECD (2018)[38]. These phases are as follows:

1. **Behavior:** the policy to be implemented must be broken down into its behavioral components, determining what behaviors the behavioral insights are going to address and what are the main problems and decision-making processes.

2. **Analysis:** the objective of this phase is to analyze the objective behavior and the architecture of the decisions through behavioral insights, it is necessary to understand why people act in a certain way.

3. **Strategies:** once a behavioral analysis of the policy to be implemented and the target behavior has been carried out, in this phase it is about identifying, conceptualizing, and designing behavioral strategies based on the data collected from the analysis.

4. **Intervention:** in this phase, policies must be implemented to find out what works and what does not through experimentation, as well as contrast the results with the initial hypotheses.

5. **Change:** This last phase is aimed at converting the small interventions of the previous phase that have been successful in complete policies to apply them to the entire target population. However, in this phase those interventions that have not worked should also be taken into consideration to move towards other effective interventions.

On the other hand, the BIT has developed the EAST method, with which it is intended to promote a certain behavior, for this it must be made *simple*, *attractive*, *social* and on *time* (Behavioral Insights Team, 2018)[39], to achieve this they offer the following keys:

1. **Keep it simple, they recommend:**

a. Use the power of default or default options. Taking advantage of the default or status quo bias by which people tend to keep the pre-established option, such as the withholding system on income. An example of the default bias that we have already seen is the automatic self-assessment of Navarra and Vizcaya.

b. Reduce the inconvenience or inconvenience of adopting a service or increase costs to discourage it. As an example, the experiment noted above on including the direct link in the letter to pay the tax.

c. Simplify messages by using simple language, being specific and removing superfluous information.

37 Selection bias is the error made when selecting individuals, groups, or data for statistical analysis, so that the sample is not representative of the analyzed population.

38 For a more detailed analysis consult: OECD. (2018)."BASIC - the Behavioral Insights Toolkit and Ethical Guidelines for Policy Makers." OECD Publishing. The acronym BASIC comes from *Behavior, Analysis, Strategies, Intervention and Change*.

39 Behavioral Insights Team. (2018). "EAST – Cuatro maneras simples de aplicar las ciencias del comportamiento", p. 4. El acrónimo EAST viene de las palabras en inglés Easy, Attractive, Social y Timely.

2. **Make it attractive, which can be accomplished:**

a. By attracting attention through feelings and associations, as well as taking advantage of the salience bias, you can get people to focus their interest on a certain aspect to which they will give more relative importance.

b. By designing rewards and sanctions to maximize the effect, it is intended to go beyond exemptions or deductions and tax penalties, so for example, we can take advantage of the difficulty we have to measure probabilities and establish a tax lottery or use gamification techniques, making behavior attractive through games.

3. **Make it social. For this we can:**

a. Show that the majority are behaving in the desired way. As we have already seen, we humans are cooperative and incredibly social, the power of social norms can expand a behavior that we want to promote. The example already repeated is the sending of letters indicating that the rest of the people pay their taxes on time.

b. Use the power of social networks and encourage people to make compromises with each other. If people are pushed to communicate with their closest environment about a desirable behavior, it is more likely that people will end up following that behavior.

4. **Finally, when is important, for this you must do things on time, like this:**

a. Relevance of when people are most receptive, in that we respond differently depending on the context and how it influences our priorities and moods; Furthermore, we can create these moods through mechanisms.

b. Weighting of costs and benefits in the present, as we saw previously, people suffer from the bias towards the present, so that we weigh much more the immediate consequences of our actions than future ones. If we want to encourage a behavior, we must try to express it in the present. For example, in the case of sanctions, it is about increasing their subjective probability, thus taking into account the availability heuristic, if we highlight the previous sanctions that have already been imposed on a taxpayer, they can be perceived as more probable in the present and this will improve the tax compliance.

This EAST framework is intended to serve as a tool to encourage or discourage a specific behavior, however an action plan is also necessary to put it into practice, and similarly to the BASIC method established by the OECD, the BIT has come to indicate the following steps (2018)[40]: (1) define the objective to be achieved, (2) understand the context and how people behave in it, (3) design the intervention through the EAST guidelines and, finally, (4) carry out the intervention through an RCT to later evaluate, learn and adapt.

40 Behavioural Insights Team. (2018). "EAST – Cuatro maneras simples de aplicar las ciencias del comportamiento.", pp. 43-49.

4. CONCLUSIONS

The central idea behind this work is to understand the effectiveness of Behavioral Economics in promoting voluntary compliance in the tax field through international experience.

Traditionally, incentives for voluntary tax compliance have been approached from an economic point of view, through cost-benefit analysis and the assumption of some ideal hypotheses. However, Behavioral Economics tries to understand how people make decisions in the real world of uncertainty, that is, an evidence-based perspective. To this end, it seeks to incorporate psychologically realistic assumptions into the analysis of economic decision-making, especially tax decisions.

To guide the behavior of taxpayers, we use nudges – i.e. tax nudges - and the architecture of decisions. With the architecture of decisions, we want to adopt a proactive stance in the design of public policies, since no element is neutral. A stimulus is an intervention that uses positive reinforcement to gently push or guide someone's behavior towards a pre-established objective but respecting the individual freedom.

International experiments have shown that the application of Behavioral Economics allows to increase the collection of the tax debt in executive period only with a letter (United Kingdom and Poland). Knowing that some tax benefits established to encourage people's behavior are not as effective as expected (Denmark) or that direct action by the tax administration agents can stimulate voluntary compliance (Slovenia). Behavioral Economicsy has also shown us how simplifying formal obligations means an increase in compliance and fairness of tax systems (United Kingdom and Spain). It also explains the rationale behind tax lotteries (Malta, Slovakia, and Portugal).

According to these considerations, tax administrations in other countries are encouraged to implement these, or other, measures based on Behavioral Economics, but only if a prior evaluation of their effectiveness is made. For this evaluation, it is recommended that randomized controlled trials be carried out, in which people are assigned, at random, to different programs or different versions of the same program, maintaining a control group -which will not be the object of intervention-; in this way, the difference between the groups derives from the effects of the program, and tools used by different international organizations are pointed out.

The objective, in short, continues to be to achieve better and greater voluntary compliance in order to achieve a sufficient, efficient, equitable and neutral tax system and, at the same time, to be able to use the material and human resources available to the tax administrations in the fight against the most complex tax fraud.

5. BIBLIOGRAPHY

Banco Mundial: Hernández, M., Jamison, J., korczyc, E., Mazar, N. and Sormani, R. (2017). *Applying Behavioral Insights to Improve Tax Collection: Experimental Evidence from Poland*. Washington, D.C.: World Bank Group. DOI: 10.1596/27528.

Behavioural Insights Team. (2018). EAST – *Cuatro maneras simples de aplicar las ciencias del comportamiento*. Cabinet Office.

Chetty, R., Friedman, J. N., Leth-Peterson, S., Heien Nielsen, T. and Olsen, T. (2014). *Active vs. Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence from Denmark*. The Quarterly Journal of Economics, Oxford University Press, 129(3), 1141-1219. DOI: 10.3386/w18565

Comisión Europea: Lourenço, J. S., Ciriolo E., Almeida, S. R. and Troussard, X. (2016). *Behavioural Insights Applied to Policy: European Report 2016*. EUR 27726 EN; DOI: 10.2760/903938

Comisión Europea: Fooken, J., Hemmelgarn, T. and Herrmann, B. (2014). *Improving VAT compliance – random awards for tax compliance*. DOI: 10.2778/609727

Comisión Europea: Olaf Weber, T, Fooken J. and Herrmann, B. (2014). *Behavioural Economics and Taxation*. DOI:10.2778/32009.

Doerrenberg, P. and Schmitz, J. (2015). *Tax Compliance and Information Provision – A Field Experiment with Small Firms*. ZEW - Centre for European Economic Research. Discussion Paper No. 15-028. DOI: 10.2139/ssrn.2608118

Fabbri, M. and Wilks D. (2016). *Tax lotteries: The crowding-out of tax morale and long-run welfare effects*. Journal of Legal, Ethical and Regulatory Issues, 19(2), 26–38.

Grande Serrano, P. (2019). *La psicología económica como herramienta para incentivar el cumplimiento voluntario de las obligaciones tributarias*. Revista de Contabilidad y Tributación. CEF, 439, 5-36.

Hallsworth, M., List, J. L., Metcalfe, R. D., Vlaev E. I. (2014). *The behavioralist as tax collector: Using natural field experiments to enhance tax compliance*. Working Paper 20007, National Bureau of Economic Research. DOI: 10.3386/w20007.

Kahneman, D. (2015). *Pensar rápido, pensar despacio*. Debate. Barcelona.

OCDE. (2017). *Behavioural insights and public policy: Lessons from Around the World*. OECD Publishing, Paris, DOI: 10.1787/9789264270480-en.

OCDE. (2018). *Basic – the behavioural insights toolkit and ethical guidelines for policy makers*. OECD Publishing, DOI: 10.1525/jer.2009.4.3.toc.

Thaler, R. and Sunstein C. R. (2003). *Libertarian Paternalism. American Economic Review*, 93 (2): pp. 175-179. DOI: 10.1257/000282803321947001.

Thaler, R. and Sunstein C. R. (2009). *Un pequeño empujón: El impulso que necesitas para tomar mejores decisiones sobre salud, dinero y felicidad*. Taurus. Barcelona.

THE ACCRUAL BASIS FOR THE ACCOUNTING REGISTRATION OF TAX RESOURCES IN COLLECTION BODIES:

an alternative to improve efficiency in the collection of public resources

Sergio Miguel **Hauque**
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SYNOPSIS

The authors intend to deepen the analysis of the systems of “cash basis” and “accrual basis” for public accounting in the field of tax resources. They consider the advantages and disadvantages or criticisms-trying to disprove them- of the application of the accrual basis in accounting registration, especially for tax collection agencies.

The methodology of the article starts from the analysis of the multiple theoretical contributions of different authors in the subject, to contrast them with the experiences of the tax administrations of Ibero-America in relation to the application of the accrual basis method in their accounting systems.

CONTENT

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INTRODUCTION

"We might hope to see the finances of the Union as clear and intelligible as a merchants books, so that every member of Congress and every man of any mind in the Union should be able to understand them, to investigate abuses, and consequently to control them" (Thomas Jefferson, 1802)[1].

Only two hundred years after the desire expressed in the epigraph by Jefferson, a more or less widespread trend began to develop, which determined a greater approximation of public accounting systems to those of traditional "Mercantile" accounting. In fact, until the end of the twentieth century, public accounting systems made a "profession of faith" of the cash-based accounting register, and were generally maintained within single-entry information systems, as opposed to the double-entry on an accrual basis that has always characterized private accounting systems.

The 2001 version[2] of the Public Finance Statistics System compiled by the International Monetary Fund (GPFS[3]) was clearly in favor of using the accrued base in public sector registries[4], replacing the "cash base" it held in its previous 1986 version.

The system of International Public Sector Accounting Standards[5], since the issuance of its first standard in 2001, also stated its support for the use of the accrual system-translated into Spanish as "method of accumulation"- accompanied by the necessary double-entry accounting record. For the public resources, the *International Public Sector Accounting Standard No. 23 of 2006* set specific rules for the use of this criterion in the case of taxes and transfers, which were followed in their general lines by the *European Union Accounting Rule Nro. 17 of 2011*[6].

These trends implied the need for adjustments and changes to traditional approaches for tax administration agencies. Thus, the Manual of Tax Administration of the Inter-American Center for tax administrations (CIAT), referring to the agency model adopted by "many countries", (Alink et al., 2011: 152) expressly states: "the departmental agency must have separate financial management systems and must prepare its accounts *on an accrual basis*" (Op.cit.: 152 and 153. Italics are ours).

Further back in time, the CIAT Manual on Tax collection and Recovery points out that when dealing with the accounting report of income in tax administration bodies that: "in some countries only the values collected are accounted for, and it is advisable to account for the values declared as an income to be received and payments as an income received, the difference constituting the value of an account receivable in favor of the tax authorities. Similarly, the amounts of overpayments and balances to be returned to taxpayers must be accounted for, as a liability in the State accounts. Another item that normally has to be accounted for, is payment plans or payment facilities, because they are medium-term liabilities" (CIAT et al., 2016: 53). Previously, when discussing the advantages of maintaining an express Tax current account: "The records serve as the basis for accounting for tax revenues and determining accounts receivable in favor of the Tax Office" (Ob.cit. 48).

However, in practice, when analyzing the response provided by thirteen Ibero-American tax administrations in relation to their experiences in these aspects (Ob.cit.:

1 In a letter of April 1, 1802, sent to the Secretary of the Treasury Albert Gallatin accessed 16 February 2020 https://founders.archives.gov/documents/Jefferson/01-37-02-0132

2 Criterion ratified in the 2014 Government Financial Statistics Manual

3 Government Public Finance Statistics System.

4 For an analysis of the reasons and advantages of this paradigm shift cfr. among others Efford (1996).

5 Issued by the International Public Sector Accounting Standard Board (IPSASB).

6 The non-traumatic practical transition of cash-to-accrual-based record systems was one of the breakthroughs of these agencies, demonstrated through various transition guides. See. among others International Federation of Accountants (2002).

151 and ssig.) it is noted that while eight of them answer affirmatively to question 38 on the existence of a current account system (Argentina, Brazil, Chile, Costa Rica, Spain, Honduras, Nicaragua and Portugal), the positive responses in the area of resource accounting are much more modest:

- Only 4 include "accounts receivable" when answering question 50 about data included in tax revenue accounting (Portugal, Brazil, Honduras, and Chile)[7].

- Only 3 answer "yes " to question 45 on whether there is an interface between accounting and current account" (Chile, Spain and Portugal).

- Only 3 of them answer "YES" to question 51 "Do the balances of the accounts receivable accounts match the current account delinquent balances?" (Chile, Honduras[8] and Spain).

- Only 1 includes among the data of question 50 included in the accounting of tax revenues to the "contingent liabilities and securities". Spain

- None of the jurisdictions reports that their accounting includes all the elements that would constitute full accrual accounting. (Assets, Liabilities, resources, and costs).

These answers show us that, beyond the advances that existed in these first decades of the Twenty-First Century, double-entry records on an accrued basis in relation to tax resources are not yet fully developed in many of the collection agencies of Ibero-America. We strongly believe that these registration systems provide more and better information on public resources for national and subnational collection systems, so this article will attempt to re-emphasize[9] their advantages and suggest simpler means of implementation. These objectives seek to contribute so that, sooner rather than later, these systems are of widespread application in all collecting bodies of the world.

1. ON THE ADVANTAGES OF DOUBLE-ENTRY ACCOUNTING FOR TAX RESOURCES ON AN ACCRUAL BASIS

The literature and practice of tax agencies emphasize the importance of an adequate "tax current account"[10], without observing a similar emphasis on the maintenance of an accounting system that integrates it. The current accounts of the agencies are actually, within a traditional accounting system, true "special ledgers" of the analytical accounts of each taxpayer within the synthetic account "Taxpayers". **In fact, these special ledgers are a "final" product in an accounting system, which allow the audit of "atomic" accounts, but which always arise from a first entry "Daily" record.**

"When an economic transaction is made[11], the first record is made in the Journal (first entry book) and then the information of the accounts involved is transferred to the general ledger of each of them…(t)he ledgers can be used for different levels of accounts. We can take them to levels of simple or analytical accounts or of collective or synthetic accounts. For the first, we will use the so-called special or analytical ledgers and for the second the general ledger. Every entry in the special ledger must have its correlate in the corresponding collective account (of the General Ledger)...we can have special ledgers for each of our clients in current account" (Di Russo, 2016 128:129).

7 Spain points out that it reports the values collected and those declared, but does not expressly indicate the values to be collected.

8 Despite responding negatively to the existence of interfaces between accounting and current account.

9 See among other previous works, Hauque and Di Russo (2015).

10 See inter alia Alink and other (2011) and CIAT and other (2016).

11 For the accrual and payment of taxes, we refer to the typology of "non-exchange transactions "(Ref. IPSAS 23)

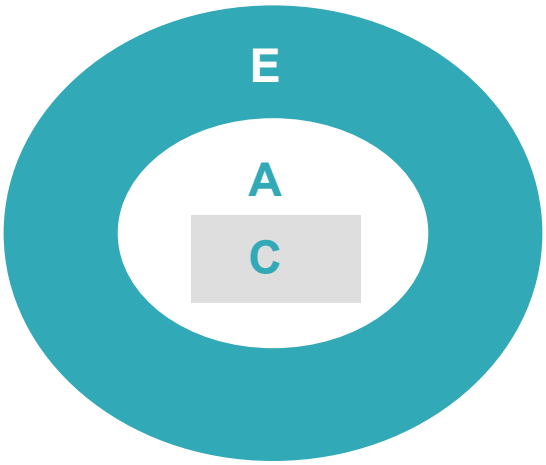
That is to say, if the collection agency maintains information that looks identical to a "special ledger" that each taxpayer or responsible should have in an integrated accounting system of the agency, **it does not seem too difficult to organize the entries in the Journal. With these records, we can obtain the already known advantages of control and consistency that a double entry accounting system provides.**

It should be borne in mind that all moderately complex organizations maintain accounting systems of these characteristics for the fulfillment of the basic function of "accountability", which, in these complex contexts and in need of maximum transparency, can not be obtained through the information of tax revenues obtained through a single entry system.

In this sense, it is pertinent to recall that it in the literature on tax administration it is traditional to analyze its performance based on the so-called "breaches" of arrears[12] and evasion with respect to the amounts collected. The tax policy made up of laws in the formal sense determines the content of the largest "circle" of the chart that follows –in light blue color-, which includes all the taxable facts that tax laws mandate to determine and collect. Within this space is a "circle" of smaller radius, in white color, which includes all taxable facts that are effectively determined and come to the attention of the tax administration body.

The rectangle in the center, in blue color, includes the taxable events in respect of which the collection of taxes actually occurred.

Graph No. 1 Gaps in arrears and evasion



12 We use the term "arrears " to encompass all defined taxes, not yet paid, beyond the fact that not all of these credits are legally in arrears.

Let us analyze the effects of keeping records of resources based solely on the criterion of what is actually collected. If we only have information about the rectangle C, how could the legislative and judicial branches control the performance of the executive function in terms of tax administration? If the Public Accounts only report the amounts collected, how could the public opinion correctly assess the performance of the officials responsible for collecting the public revenues?

The Legislative branch ordered the executive function to carry out a tax collection program determined by the set of tax laws, which, since it is not quantified in the accounting records, does not allow to know the relative weight of the income actually collected on that program that only includes estimates of the income to be received.

Even more so, if we agree with Bird and Casanegra De Jantscher (1992) that in some countries "tax policy is their tax administration", without this information we will not even know the general guidelines of the true "tax policy" of that country. Thus, we consider that the accounting of public resources on accrual basis has much to do with the possibilities of effective control of the tax administrators' performance.

It is true that it is very difficult at present to ensure that an accounting system reasonably accrues the undeclared taxes in cases of self-determination taxes, thus allowing registering the "tax evasion". **However, nothing prevents the use of an accounting system that considers taxes accrued at the time of their determination, either administrative or by tax returns, thus making possible to clearly determine the levels of balances to be collected, due or not, and also the liabilities assumed by the tax agency in the collection process.**

In the practice of the tax authorities -and beyond the doctrinal discussions about the possible times of accruing of the different taxes[13]- it is possible to obtain better information using, as the conventional rule of imputation of such obligations, the time periods at the moment of their determination, whether made by the tax administration or by the taxpayer[14].

Only in that period of time will it be possible to have the elements that allow to objectively measure this value and verify its amount, through the instrument of the tax return.

After a brief analysis of the literature and studies on the subject existing to date, we will enter here into the advantages generated by the accounting information on this approach of the accrued basis for the process of control of the tax administration that must be carried out by the legislative branch and the public opinion.

We believe that a simple numerical example will allow the reader to better understand the positive points regarding the evaluation of the tax collection management that this registration system has[15]:

Let us assume that we have the following data regarding a tax of administrative settlement for the "X" period during which a "moratorium" was imposed on unpaid amounts for periods prior to "X". The maturity of the tax for the period "X" occurred, for example, on the last day of that period and for the first time advances were required on behalf of the tax for the following period:

13 See. among others Hauque, S. (2014).

14 Criterion called "due for payment".

15 We follow here the example used in Hauque S. (2008).

1)	Total settlement amount for period X	100
2)	Collections made in period X for tax capital corresponding to periods prior to X	35
3)	Collections made in period X for interest accrued before period X	5
4)	Condonations of capital and interest made to taxpayers who took advantage of the "moratorium" corresponding to periods prior to the X	65
5)	Collections for the tax corresponding to period X	50
6)	Interest accrued during the period for overdue debts	20
7)	Collection of accrued interest for the period on overdue debts	5
8)	Advances collected on account of the tax corresponding to the period x+1	25
9)	Budgeted collection amount for period X	90
10)	Outstanding balances for principal and interest at the beginning of period X	200

We will focus here on the effects on the evaluation or control of the efficiency of the work of tax administrators:

a) **The management of the administrator in the light of the cash criterion:** in this case, the administrator achieved a total collection of 120[16]. The figure alone does not allow any evaluation of management. If we compare it with the figure foreseen in the budget the management seems good, since it shows a collection one third higher than the budgeted. However, soon after analyzing it we can understand that, in most cases, these differences will essentially depend on the best or worst estimate made before the start of the period. If we try to compare it with the "issued" or "settled" tax, collections have been achieved 20% higher than the amounts corresponding to the period. We could fall into the temptation to immediately "congratulate " the head of the tax administration.

b) **The management of the administrator in the light of the accrual criterion:** from an economic point of view the management of the administrator had to obtain a positive result for the period of 100, a figure equal to the tax corresponding to the year. However, its positive economic result is only 55[17], due essentially to the reflection of the loss by write-off of capital and interest in the context of the moratorium. In fact, it has collected only 50% of the liquidated tax, and 25% of the interest accrued for the period under analysis. From this point of view the tax administrator, the "congratulation" should be reanalyzed.

Note that in the light of the "cash basis" criterion the information available for control is only the following:

Collection of period X: 120.-

On the other hand, seen from the accrual criterion, a comprehensive accounting system can provide equity and income information, at the same time as reporting on the financial flows of collection already seen. Indeed:

16 Summation of concepts 2, 3, 5, 7 and 8.

17 Algebraic sum of concepts 1, 4 and 6.

Balance sheet at the end of Period "X":

ACTIVE		PASSIVE	
Collection in banks	120.-	Advances to tax account	25.-
Receivables	160.-		
		NET WORTH	
		Balance at start	200.-
		Result of the period	55.-
		TOTAL NET WORTH	255.-
TOTAL ASSETS	**280.-**	**TOTAL NW + LIABILITIES**	**280.-**

Statement of income for the period "X":

Resources: period taxes	100.-
Resources: interest for the period	20.-
Expenditure: debt cancellation due to moratorium	(65.-)
Result for the period	**55.-**

From the previous tables, we can conclude that the information provided by this last system is much more complete, it allows a better and more complete evaluation of the management, also including all the information provided by the cash criterion. Keep in mind that the only maintenance of atomic "Tax current accounts" per taxpayer, will not allow having this systematized information, nor the controls generated by a double-entry environment[18].

It should also be noted that the system of what is received that traditionally maintains public accounting prevents the correct registration of the compensations that the taxpayer makes of his tax debts with balances in favor of some taxes or with other claims that he has against the tax authorities when the legal system allows it. Tax compensation has to do with strictly financial and non-economic aspects, so only an information system that clearly separates the two aspects will be able to adequately reflect its effects. Under the cash base, the tax authorities do not register these tax compensations in Public Accounts and can only register them non-systematically in the atomic "tax accounts".

Based on the fact that the generating event is the determination of the tax, the state could separate the economic effects from the merely financial ones. The assets and liabilities of the taxes could be offset according to financial criteria, while the resources would keep their economic amount unscathed by the corresponding concepts.

Another element to consider is that the problem of the non-accounting registration of compensation by

18 The total of 160.- of receivables may be reconciled with the sum of the balances of the individual current accounts of taxpayers and responsible.

tax agencies, which has generated in many cases distortions in the systems of distribution of taxes with specific affectations. Similarly, the incorrect allocation of resources to periods, by not using a reasonable criterion of accrual, also determines distortions in the destination of resources with specific allocation and funds obtained in processes of tax moratoriums and amnesties.

We believe that tax administration agencies especially need to set a full example for all taxpayers, keeping transparent accounting of their assets, liabilities, income, expenses, resources and costs, as required of those who must determine their taxes. How to justify the imposition of ever-increasing formal duties on tax obligations related to their accounting systems for the determination of the tax base, if the tax agency itself does not maintain a complete accounting of its actions? The need for transparency in the registration and management of the huge tax resources that are generated in a modern state, requires that the government accounting systems are maintained complete and open to all citizens.

Beyond the need to advance in an accrual-based accounting system, our proposal aims to ensure that the patrimonial, economic and financial information provided by "agency" bodies **fully integrate** the main function of collection with that of its management, which results in a considerable improvement in the evaluation of management. **In turn, the Central Administration will also have an objective assessment of all assets and liabilities, resources, costs, and financial flows generated by the collection system and the rest of the functions of the agency, which will allow it to include them in its accounting reports**[19]**.**

This accounting would allow to integrate in a single Information System, the data on liabilities that are maintained with taxpayers and responsible systematized in an orderly manner with respect to the refunds or compensations that can be made in this field.

In addition-and as a no less important by-product of this system, it will be possible to account for a reasonable forecast for the bad debts of arrears, together with clear information on the unrecoverable debts produced in each period and their possible recoveries.

If we were to try to summarize the advantages generated by this accounting scheme on an accrual basis at the time of determination, both to increase the useful information available for decision making, as well as for the control process of the tax administration, which must be carried out by state agencies and civil society, it is important to remember that with cash-based systems we only know through the accounting system of the Central Administration, the amounts collected that are reported and turned over by the tax agency, so we can only compare simple financial flows, with the collection estimates made a priori in the budget.

Let us look at some of the additional advantages we get from public sector accounting systems, without losing any of the information we already had[20]:

a) From the accounting of the collecting agency.

- Full integration of general revenue flows with those of the agency's other activities in a double-entry accounting system.

- Balances of tax credits at the beginning and end of each period and their accessories. Totals are reconciled with the individual balances of each special ledger.

19 Let us imagine a possible scenario. A taxpayer dissatisfied with a tax execution trial against him in which he was condemned to pay a certain tax, initiates a repetition lawsuit in which he requests expert evidence on the tax agency's accounting records to confirm whether the executed credit really existed and was included within the assets of the collection entity reported in its records within an accounting system maintained according to the rules of the art, which contains the typical controls of the double-entry. It would not be enough, in this case, to make available an atomic "Tax current account".

20 We are based here on Hauque and Di Russo, (2015).

- Balances of possible tax liabilities at the beginning and end of each period and their possible accessories. Totals are reconciled with the individual balances of each special ledger[21].

- Knowledge of the outstanding balances of tax refunds at each end of the periods and their evolution.

- Separation in specific accounting accounts of the amounts accrued and collected by the capital and the various accessories of each tax.

- Accrued amounts for each period for capital and its accessories.

- Allowances for doubtful accounts and its accessories by period and accumulated.

- Knowledge of specific information on the compensations made in each period, between the different taxes and the transfers of tax credits made between taxpayers.

- Reconciliation of reported tax collection and current account amounts for each period in a double-entry environment.

- The possibility of determining a standard level of bad debts by the Central Administration, allowing excesses above that level to harm the agency's budget or to benefit from decreases above that level.

- Clear determination on which collection costs are borne by the agency and which by the central administration, depending on whether or not they affect the Income Statement of the collection agency.

- Knowledge of the claims prescribed and those that became uncollectible for other reasons in each period.

b) Accounting of the Central Administration.

- Reflection in the accounting system of the net of tax credits of probable realization at each end of the period.

- Knowledge of the amount of accrued resources due for each period.

- Knowledge of the economic loss that the bad loans involve in each clearance through a double-entry accounting system that allows us to record each of the cases in question.

- Knowledge of the economic loss involved in tax amnesties (moratoriums and/or money laundering)[22].

It should be clarified that this proposal does not limit but enriches the possibilities of a budgetary system harmonized with the public accounting information system. Indeed, beyond the legal provisions, it would be very convenient for both the tax agency and the Central Administration to budget information on public resources, not only in the financial aspects but also in the economic and patrimonial aspects. Only in this way will we be able to fully compare the different aspects of the management that were planned, with those that actually occurred, in order to determine the existence and amount of possible deviations.

It is interesting to keep in mind that one of the most important arguments for replacing this cash criterion with that of accruals in the government statistical registration system as of GPFS 2001 was the fact that by registering

21 Money obtained by "moratoriums" and other amnesties, payments on account or advance of future taxes, withholdings for delays in the refunds of taxes collected in excess will not be "mixed" in this way in an unique "flow" of collection without differentiation.

22 On the basis of cash Information, tax amnesties were a financial "blessing", only criticizable from their eroding effects on tax awareness. This system will allow us to put in black and white the amount of economic loss that each of these rules determines for the Central Administration.

for accruals, it is always possible to reconstruct pure financial flows, while exclusively financial registers are not sufficient to obtain accrued data. We understand that both economic and financial data are very useful for different purposes, but the differential advantage of economic records is essentially the fact that from them we can obtain financial information, which is not possible in reverse.

2. ON THE POSSIBLE OBSTACLES TO THE EFFECTIVE IMPLEMENTATION OF THESE ACCOUNTING SYSTEMS

The difficulties and costs of this transition may be significant, but the improvements in the information available from the citizen and the control bodies more than compensate them especially in reference to public resources. (cf. among many others Cardoso and others (2014); Pereira Montero and others (2013); European Commission (2011); Harrison, (2007); IPSASB (2006); TFHPSA (2005); IFAC (2002); Bloem (2000); Efford (1996); contra Wynne (2008))[23].

We believe that it is necessary to analyze the arguments that are often heard to reject such proposals with regard to public accounting on an accrual basis. We will try to systematize here our opinion on these visions. The most observed arguments are[24]:

a) *"This information only confuses the user. A cultural change would be required first".*

Supporting this argument involves offending the ability of the users of public accounting information and of the institutions that train professionals in Economic Sciences. Beyond the fact that a dissemination campaign is probably necessary to clarify the scope of this type of reforms, the minimum contents of the training of professionals include the differences between the financial and the economic approach, their possibilities, and their limits. There would be more useful information at a reasonable cost, that we will simply have to get used to analyzing.

The cultural change is necessary, but the sooner we start, the sooner we will enjoy the benefits of this better and more complete information.

b) *There is an increased risk that expenses will be projected onto income that will never be obtained.*

This is one of the main objections to the accrual basis. It is necessary to emphasize that the reflection within the public accounting system of the patrimonial aspects of the accrual of resources **does not in any way** seek to "execute expenses according to the resources to be collected...that have not yet been made effective" (Las Heras, 2010: 436), nor to disregard the financial records. On the contrary, its objective is to complete the information available to users, seeking transparency and a correct evaluation of a management that can count on a more useful information for decision-making.

The accrual-based registry of resources cannot and should not be an excuse to confuse economic and financial aspects and irresponsibly increase expenditure flows, based on resources that may not be collected.

c) *"The public Sector does not aim for profit, so the accrual approach of private accounting is not applicable".*

This argument stems from the erroneous and old idea that the public Sector is only a consumption agent and not a productive one. From an economic point of view, the public Sector is clearly an entity of production of goods and services, beyond the

23 An interesting summary of the various articles related to the international discussion regarding accrual accounting in Government Accounting can be seen in Hassan, 2013.

24 On the topic see among many others Wynne (2008) and Hassan (2013).

fact that it provides them mostly free of charge in the majority of cases, and obviously it does not obtain profit. This being said, it is very valid to analyze the economic result of this process, without aiming at profitability. Not knowing such a result only manages to obscure an important part of the effects of public activity.

This does not mean that costs should be correlated with income in the same way as is done in the accounting of a private company, nor that economic profitability is the only indicator to be taken into account for the evaluation of the public activity. However, it is very difficult to justify the fact that public accounting completely ignores, among other elements, the set of taxes it has to collect and is executing in court or the amounts it owes its taxpayers, with the sole excuse of pointing out that the state does not seek profit.

d) *"Accrual basis" for Public Accounting is an imposition by international financial bodies in accordance with the neoliberal fashion of New Public Management.*

In fact, the accrual basis, especially for income, is not yet too widespread in the world (CF. Wynne, 2008) therefore does not appear to be an obligation imposed by foreign practice. Whether or not it is within the ideas of a group of international authors and organizations on Public Administration, we should decide its application exclusively from the point of view of pure and simple study of its advantages and disadvantages for our Public Sector and our Civil society. This article tries to convince with regard to its use by highlighting these advantages, without mentioning the demands of foreign or international entities.

e) *It cannot be done. If it could be done, it will be very expensive in relation to the expected benefits.*

The first attempts to move forward on this path had to face the limitations of computer systems and the lack of separation between the time of determination and payment of taxes. That is already ancient history. Advances in this field are exponential and data processing costs have been reduced accordingly.

A new version of this old objection says: is the process of improving the accounting information proposed in this article worth its cost? Are there really no better alternative uses for the resources that would be poured into this new accounting system? A smart way to answer these questions is to change it to the following: Are tax resources important enough to invest resources in the proposed changes? This answer is simple. The public resources managed by any modern state from the twentieth century onwards are enormous, and the information we have about them usually only relates to their financial flows, without integration with any stock. Do these publicly owned amounts not deserve a full accounting of their management, especially when the legal systems normally require it for private actors? Those who support this idea seem to find better accounting information expensive and want to keep "trying ignorance"[25].

We understand that there are not too many elements that are required to take this step. Many are already held in many organizations today, since the existence of an "atomic" current account is actually the last step in the process described.

25 To paraphrase the expression that points out that those who considered education expensive, they should try ignorance.

In addition to the financial data of collections, at least the following elements are required:

- A correct functioning of the Tax current account with a periodic analysis and debugging of credits and debts.

- A correct separation between the categories of the different tax credits.

- The definition of a chart of accounts for the agency that allows defined and implemented policies for bad credits forecasts.

Several arguments agree on granting an important chance to achieve, in Latin America, the so-called "transition to accrual" regarding resources, namely:

a) The permanent computing revolution that allows to get faster and faster, to have more useful information at a lower cost.

b) The need to make as transparent as possible the management and administration of the collection of public revenues, for a full exercise of the citizen's control.

3. CONCLUSIONS

We consider pertinent to start concluding of this article, by reanalyzing the effects of keeping the accounting records of tax resources based solely on the criterion of what is actually collected, especially from the point of view of their influence on some aspects of decision-making in the Public Sector.

In this context, is it not a rational behavior of an official to exaggerate the financial aspects over the economic and patrimonial ones? Is this not a clear incentive to periodically grant tax amnesties that, with regard to financial aspects only, have positive effects, but which significantly harm the assets and economic situation of the public sector? Isn't it more rational, to get better assessments, that tax administrators are directly called "Joe amnesty" instead of "John efficient"?

If the above questions are answered in the affirmative, do we really want the accounting information system to provide incentives for officials to behave in this way?

The effective implementation of the accrual at the time of the configuration of the taxable facts of the taxes[26] appears as a medium and long-term objective, difficult to achieve in the coming years, but which should be the "north" towards which we direct our efforts in the improvement of the system. It is precisely the level of difficulty of the work to be performed, which makes it exciting and challenging. **We do not find sufficient justification to forever resign ourselves to keep making decisions based on incomplete information.**

It should not frighten us that the public accounting system periodically reports on the amounts of taxes that are unpaid or bankrupt to assume for the forecasts to be made. It seems obvious to see that today there are certain amounts of taxes that become unrecoverable and that are not actually collected.

We have already said several times and we repeat it here that, as we learned as soon as we came out of childhood, closing our eyes is not an effective method of solving problems that actually exist and that we should face decisively. Often, that "closing our eyes" prevents us from seeing the mismanagement, inefficiency and waste of public resources that exist in modern states. The control of the citizens and the agencies linked to these tasks is fundamental to achieve the objectives of the common good that are advocated, precisely because we must begin to understand that in reality the state is us, all the citizens.

26 On the topic see IPSAS 23.

4. BIBLIOGRAPHY

Alink y Van Koomer. (2011) *Manual de Administración Tributaria.* IBFD.CIAT Amsterdam.

Bird, R. M., & de Jantscher, M. C. (Eds.) (1992). *Improving tax administration in developing countries* (Vol. 19). Washington DC: International Monetary Fund.

CIAT. Alemania. Sociedad Alemana para la Cooperación Internacional - GIZ. Banco Interamericano de Desarrollo (BID) (2016). *Manual sobre Recaudación y Cobranza de Tributos*, CIAT, Documento Electrónico en https://biblioteca.ciat.org/opac/?v=5480.

Bloem A. (2000). *Recording of taxes in national accounts and government finance statistics.* Statistics Department IMF. STD/NA. OCDE.

Cardoso, Aquino y Pigatto (2014). *Brazilian Governmental Accounting Reforms: IPSAS and accrual accounting adoption* – 11 de julio de 2014 disponible en http://ssrn.com/abstract=2466484.

Castillo Caicedo, I. (2013). *Reconocimiento de los ingresos tributarios del Sector Público*. Contrapartidas Nros. 660 y 662. Marzo de 2013 disponible en http://www.comunidadcontable.com/BancoConocimiento/C/contrapartida_662/contrapartida_662.asp?CodSeccion=107.

Di Russo, L. (compiladora) (2016). *Introducción al conocimiento contable*. Ediciones U.N.L. Santa Fe.

Efford D. (1996). *The case for accrual recording in the IMF´s GFS system*. IMF Working Paper. Julio de 1996.

European Comission (Budget) (2011). European Union Accounting Rule Nro. 17 *Revenue from non-exchange transactions (taxes and transfers)*. Octubre.

Fondo Monetario Internacional. (2014). *Government Financial Statistical Manual*. Pre-publication draft. March 2014.

Fondo Monetario Internacional. (2001). *Manual de Estadísticas de Finanzas Públicas*.

Fondo Monetario Internacional. (2006). *Task force on harmonization of Public Sector accounting*. Final Report. Marzo de 2006.

Harrison A. (2007). *The background to the 1993 revision of the System of Nacional Accounts*. en unstats.un.org/unsd/sna1993/History/backgrd.pdf en Septiembre de 2007.

Hauque S. (2008) *"El registro contable de los recursos devengados como herramienta para el control integral de la administración tributaria"* en Anales del XVIII Encuentro Internacional de Administradores Fiscales IEFPA – AMFEAFIP.

Hauque S. (2014). *Nuevas perspectivas para la medición de los recursos tributarios*. Ediciones U.N.L. Santa Fe.

Hauque S. y Di Russo L. (2015). *Una propuesta contable para contar con más y mejor información sobre los recursos públicos argentinos.* Revista Facultad de Ciencias Económicas - U.N.L.

Hassan M. (2013). *Debates on accrual accounting in the Public Sector: a discrepancy between practitioners and academicians.* Disponible en http://www.apira2013.org/proceedings/pdfs/K102.pdf.

International Federation of Accountants. (2002). *Transition to the Accrual Basis of Accounting: Guidance for Governments and Government Entities*. Study 14. Abril de 2002.

International Public Sector Accounting Standard Board. (2006). IPSAS Nro. 23. *Revenue from non-exchange transactions (taxes and transfers)*. Diciembre de 2006.

Las Heras José María. (2010). *Estado Eficiente. Administración financiera gubernamental Un enfoque sistémico*. Buenos Aires. 3ra. Ediciones Buyatti.

Pereira Montero y Correa Gomes. (2013). *Experiências Internacionais com o Orçamento Público por Regime de Competência en Revista Cont. Fin.* – USP, São Paulo, v. 24, n. 62, p.103-112, maio/jun./jul./ago. 2013.

Task Force on Harmonization of Public Sector Accounting (TFHPSA). (2005). *Tax revenues and tax credits.* Of the 1993 SNA – Issue No. 35. Issue Paper for the meeting of the AEG. Julio.

Terkper Seth. (2008). *Accounting Challenges for Semi-Autonomous Revenue Agencies in Developing Countries*. IMF Working Paper 08/116. Fiscal Affairs Department. May 2008.

Wynne A. (2008). *Accrual Accounting for the Public Sector - A Fad That Has Had Its Day?* International Journal on Governmental Financial Management – 2008 p.117.

TAX LAW READABILITY

and tax complexity

Antonio **Lopo Martínez**
Raimundo **da Silva**

SYNOPSIS

The poor readability of the legislation is a possible cause of tax law complexity. To addressed this point empirically, the study adopted the most traditional measures of readability analysis: i) Flesch readability ease score (FRES) and ii) average sentence length (ASL) to evaluate the readability of three tax norms in Brazil. The results show that the selected piece of legislation has a low level of readability, predominant of long sentences and words, which requires law readers to have a high-level education. Improving the readability of tax norms, reduces the complexity of tax law, creating higher tax compliance.

CONTENT

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INTRODUCTION

"The hardest thing in the world to understand is income taxes," a quote attributed to Albert Einstein, physicist (available in https://www.irs.gov/newsroom/tax-quotes, retrieved on February 27, 2020). Tax complexity is not a new problem; Shackelford and Shevlin (2001, p. 324) observe that the lack of understanding about law's subtleties represents a barrier to increase the number of accounting researchers studying taxes.

In the study of Hoppe et al. (2019), between 100 countries, Brazil ranks first in terms of the tax complexity index, which is the most tax complex country overall. The tax complexity is a multidimensional construct characterized through the two subconstructs, tax code and tax framework complexity, each of which covers various dimensions. Tax code complexity describes the complexity that is inherent in the different regulations of the tax code.

Felício and Martinez (2019) conducted research exploring Brazilian professionals' perception of working now with the tax system, the level of efficiency, complexity, and justice of the tax law. The authors applied a questionnaire and found that more than fifty percent of respondents considered the tax system more complicated than 5, 10, 15, or 20 years ago. When assessing the factors responsible for the tax law complexity, the respondents in the research by Felicio and Martinez highlighted the "poor legislation drafting" (76.3%) and "continuous legislation change" (90%). When the authors asked, "how complex is the Brazilian tax system compared to neighboring countries?", 39.3% of the respondents said they did not know about the tax system in other countries, and 57% said that the Brazilian tax system is more complicated than neighboring states. According to the study, the respondents understand that the tax authorities do not primarily aim to reduce tax law complexity.

The literature on the complexity of Brazilian tax law mentions compliance costs as one of its consequences. Da Silva et al. (2015, p. 2) conducted a study at a Brazilian state-owned company to understand managers' perceptions of tax-related areas about compliance costs. The authors applied a questionnaire responded to by managers working in the company's offices at the national and state level, seeking to identify the elements causing compliance costs. Among managers working at the federal level, the most critical cause of compliance costs was the "complexity of tax law/difficulty to interpret norms," mentioned by 19% of the respondents. As for managers working at the state level, the research showed that "complexity of tax law/difficulty to interpret norms" as the element causing compliance costs was mentioned more often, with 31% of the respondents from the North of the country and 35% of the respondents from the Northeast region. Therefore, it is possible to argue that poor readability is one of Brazil's tax law complexity causes. However, studies have not explicitly assessed the degree of its readability.

This study seeks to fill this gap in the Brazilian literature on tax law by exploring the level of readability of *Livro* II (Book II) of the *Regulamento do Imposto de Renda de 2018* (RIR/2018) (income tax regulation of 2018), and the Complementary Law 123/2006, which provides on taxes for micro-enterprises (ME) and *Empresas de Pequeno Porte* (EPP) (small businesses). This work seeks to contribute to the tax accounting research by evaluating the readability level of the norm of the *Comitê de Pronunciamentos Contábeis* (CPC) (Committee of Accounting Pronouncements) CPC 32, providing on taxes on the profit.

This article results from the perception that the content of a law is sometimes not sufficiently understood. The desire is to provide elements to improve the readability of the Brazilian tax law, to establish better communication between tax authorities and citizens and professionals seeking to conform with the tax law.

Readability is the ease with which a text can be read and understood. Readability depends primarily on whether a document is composed of short sentences, whether structures are used to allow the reader to advance through the text's content, whether the keywords are correctly placed, whether the sentences

retain the logical order, among other issues. These aspects significantly contribute to meeting one of the lawmakers' challenges, which is to describe an abstract tax obligation in written language, which taxpayers and accounting professionals can understand.

Based on the literature offering empirical analyses of the tax laws' readability level, this study adopts the Flesch Readability Ease Score (FRES) and the Average Sentence Length (ASL). The texts analyzed showed poor readability, most of them challenging to understand due to long sentences and words, which require a higher education level from the reader.

This paper proceeds as follows. Section 2 provides a literature review on the subject, followed by section 3 that introduces the methodology, including the sample's composition and the tools adopted. Section 4 provides the results and analysis, followed by the last part that summarizes and concludes.

1. LITERATURE REVIEW

Although tax law readability has not yet been addressed in Brazilian literature, the issue is well known internationally. This section introduces the primary international research and their findings regarding the topic, which portrays methodologies and conclusions that may be informative for Brazil's context.

Urbancic and Hsu (2007, p. 29) measured the readability of income tax instructions from western states of the United States that individual tax income. The authors point out that readability is an aspect studied in several areas, including accounting. Research on the issue often adopts formulas that offer a quantitative approach to measuring how easy it is to read the text. According to Urbancic and Hsu (2007), readability is a prerequisite for appropriate comprehension of a document.

The study by Urbancic and Hsu (2007) demonstrated that, in the period between 1990 and 2005, most of the US states analyzed improved the readability in pamphlets with instructions about taxes. However, the improvement was not enough to make instructions readable for a large part of the taxpayers. The level of readability was higher than the adequate for the educational level of 42.3% of the adult population in those states. The authors add that the difficulty of understanding tax instructions puts many taxpayers at risk of penalties for mistakes in their statements.

Umar and Saad (2015, p. 26) examined the level of readability of the 2007 Nigerian Company Income Tax Act (CITA, 2007), the primary source of information on tax for Nigerian taxpayers. The researchers advocate that high readability levels would help taxpayers and tax authorities fulfill their respective responsibilities. The authors argue that simplifying the language of tax laws would result in less consultation and tax-auditing activities. Besides, this simplification would increase overall tax revenue by lowering tax-auditing costs.

Umar and Saad (2015) found that CITA 2007 has low readability due to long sentences and words, requiring high-level education to be comprehended. For the authors, CITA 2007 is very difficult to understand, even by tax professionals, which leads to high compliance costs. They recommend rewriting the Nigerian tax laws to increase voluntary compliance, reducing the administrative costs of taxation. According to the authors, such simplification will help all businesses, especially small businesses, meet their tax obligations. Barney, Tschopp, and Wells (2012) assessed the complexity of the tax law in the Internal Revenue Code (IRC), the Treasury Regulations, and in documents of the Internal Revenue Services (IRS) that provide on income tax over capital gain/loss in the United States. The objective was to assess the complexity imposed by each of the authorities analyzed, based on readability (observing, for instance, sentence and word length). It is the most readily available measure of complexity for review and improvement.

The US income tax law is complicated for several reasons, including its length, the complexity of its wording, and its technical aspects, the latter dramatically increasing the difficulty to understand the legislation. Regarding its writing, the authors observed that the use of long and compound sentences severely hindered comprehension and the use of passive voice. The study

also argues that among the negative consequences of the complexity of tax law, from the individual taxpayer's perspective, are the lack of understanding about tax obligations and the higher compliance costs.

In a study using standardized readability indices, Barney, Tschopp, and Wells (2012) concluded that readability increases as the laws and rules on capital gains are provided from the originating authority (Congress) to refinement (US Treasury) to implementation (IRS regulations). The IRC and Treasury regulations are challenging to read. The IRS instructions, however, are moderately complex. For the authors, the IRS puts some efforts to simplify the capital gains law. While there is room for the IRS to streamline its instructions further, the current information is more straightforward to read than numerous other government documents.

The study by Tan and Tower (1992) reported that in July 1989, the New Zealand Labor Government worked to simplify the country's tax system to achieve a more effective tax structure. The tax reform's stated objectives were to improve the use of resources and introduce more equity to the tax and benefits systems. This determination of the government led the authors to empirically test the effectiveness of the New Zealand government's efforts to simplify tax language and verify if it was successful regarding the intended objectives. As for the tax system's simplification, the Waug Committee (created to conduct tax reforms) recommended simplifying the tax law drafting in many ways. For instance, it should be prepared in plain and unambiguous language to understand the average taxpayer. According to the committee's instructions, an effective and efficient tax system would largely depend on the taxpayer's ability to understand New Zealand's tax law.

The tests compared the legislation before and after the simplification. The comparison was performed only in the bill sections that were rewritten, as the Waugh Committee recommended. The tests covered 30 sections of the Income Tax Act 1976 (ITA) and ten sections of the Goods and Services Tax Act 1985 (GSTA). Tan and Tower (1992) found that the ITA and GSTA sections were tough to read, both before and after the simplification. The results provided strong evidence of the continuing complexity of tax law and the apparent failure to communicate the initiatives of the Waugh Committee to achieve tax simplification. It was possible to observe that the sections were even less readable after the ITA and GSTA.

The research by Smith and Richardson (1999) noted that the length and complexity of Australian tax law led to increased costs for both the taxpayer (in the form of increased compliance costs) and the government (rising administrative expenses). As Australian tax law was considered for many years to be challenging to read and understand, the government established the Tax Law Improvement Project (TLIP) in December 1993. The main task of the TLIP was to simplify tax law by rewriting and restructuring the Income Tax Assessment Act 1936 (ITAA36), to facilitate the taxpayers' understanding.

The authors clarify that two main objectives were underlying the TLIP. The first was to reduce compliance and administration costs resulting from the tax law's complexity. The second was to produce fairer and more comfortable to understand tax law. To simplify the ITAA36, TLIP focused on introducing more straightforward and shorter sentences and using simple English rather than tax policies' ordinary language. This simplification gave rise to the Income Tax Assessment Act 1997 (ITAA97).

Smith and Richardson (1999) conducted the study with the primary objective of empirically testing the effectiveness of the Australian government's attempt to simplify and improve the ITAA36. They analyzed the level of readability by comparing the sections of the ITAA36 with the equivalent sections of ITAA97. The study found that the analyzed sections of the ITAA97 were slightly more readable than the corresponding sections of the ITAA36. However, the results for both the ITAA36 and ITAA97 were well below the acceptable reference standard in a readability index.

The study also found that passive voice in Australian tax law appears to have increased slightly in the

ITAA97, even though it is not excessive. An aspect where the ITAA97 has improved is the number of words per sentence, which are lower than that observed in the ITAA36. Finally, the authors argue that the process of simplifying the Australian tax legislation was still incomplete, noting that the improvement in readability must be followed by simplification in the tax policy.

In later research, Smith and Richardson (2002) report that in August 1998, the Australian government announced a tax reform. As part of this reform, the government proposed a Goods and Services Tax (GST), which came into force on July 1, 2000. However, the apparent confusion resulting from the implementation of the GST suggested that taxpayers were struggling to understand the requirements. The authors conducted an empirical assessment of whether the new GST law was simple or complex, testing the law's readability. The authors collected sections from the GST law for testing and submitted these sections to empirical readability tests. The results indicated that the GST law was, in general, complicated to read and understand. The findings showed that more than 70% of the analyzed GST sections were not adequate for taxpayers that did not have a higher education level.

Smith and Richardson (2002) also compared the results obtained in the GST tests with the results of their previous study on the readability of the ITAA36 and ITAA97. The results showed that the GST law is, on average, less readable than ITAA97. For the authors, the GST poor readability can have implications for the taxpayer company in potentially higher compliance costs. Finally, the study stresses that the tax law (including the GST) is a multifaceted task. Therefore, improving the readability of the GST law's text is a critical aspect to increase simplicity in the taxation system, but other measures must be adopted.

From this literature review, it is possible to observe an agreement that poor tax law readability makes it more complicated for taxpayers, potentially resulting in low tax compliance and high compliance costs for both the taxpayer and tax authorities. This research explores the readability of the Brazilian tax law, particularly the three tax norms that are more significant for the Brazilian field of tax accounting.

2. METHODOLOGY AND SAMPLE

In Brazil, at the federal, state, and municipal levels, all existing legislation regarding a particular tax is compiled into a single document called "regulation". Thus, at the federal level, there are, for instance, the *Regulamento do Imposto de Renda (RIR)* (income tax regulation), and the *Regulamento do PIS/COFINS* (regulation of tax and contribution of companies to finance social security). As for the states, an example is the *Regulamento do ICMS* (goods and services tax regulation). Finally, at the municipal level, the Regulamento does ISSQN (law on tax on various services).

2.1 Sample

As mentioned before, one of the objectives of this article is to contribute to the literature on tax accounting. Thus, the sample was formed with norms around the tax on corporate profits.

It is essential to observe that the Income Tax Regulation (RIR/2018) has its taxation guidelines set out in books. Within each Book, RIR/2018 is divided into *Títulos* (titles), which are separated into chapters. The chapters are then divided into sections and subsections. Table 1 below lists the books of RIR/2018.

Table No. 1. Books of RIR/2018

Book I	Individual tax
Book II	Business tax
Book III	Withholding tax and tax on financial operations
Book IV	Administration of the tax income

Source: *Elaborated by the authors based on Decree 9580/2018*

Table 2 presents the topics addressed in the titles of Book II of RIR/2018.

Table No. 2. Titles of Book II of RIR/2018

Title I	Taxpayers
Title II	Liability for the tax due
Title III	Taxpayer's domicile
Title IV	Taxpayer's registration in the national registry of legal entities (CNPJ)
Title V	Taxpayer's gross revenues
Title VI	Calculation and period of tax calculation
Title VII	Transfer pricing and undercapitalization
Title VIII	Tax using the actual income method
Title IX	Tax using the deemed taxable income method
Title X	Tax using tax authorities' determination of profits
Title XI	Provisions common to actual and deemed taxable income, and tax authorities' determination of profits
Title XII	Rates and other additional charges
Title XIII	Exploration profit
Title XIV	Tax exemption and reduction as an incentive to regional development
Title XV	Tax deduction
Title XVI	Miscellaneous provisions

Source: *Elaborated by the authors based on Decree 9580/2018*

As presented before, this article empirically analyzes the level of readability of corporate tax laws. The study examines Book II titles of the Brazilian Income Tax Regulation that provide on business taxes determined using the actual income method, the deemed taxable income method, and the tax authorities' determination of profits.

The Brazilian tax law also allows companies to choose a simplified system (*Simples Nacional*). This form of taxation is provided by the Complementary Law 123/2006, and it is designed to address the particularities of Micro-enterprises (ME) and *Empresas de Pequeno Porte* (EPP) (small businesses). This law, therefore, is also an object of analysis in this study.

The sample includes the *Comitê de Pronunciamentos Contabeis* (CPC) (Committee of Accounting Pronouncements) CPC 32. The pronouncement establishes the accounting treatment for deferred assets and liabilities resulting from the differences in accounting and tax treatment of corporate income taxes.

2.2 Metrics and readability tests

Inspired by the literature that empirically analyzes the tax law's readability level (Barney, Tschopp, and Wells, 2012; Smith and Richardson, 1999; Tan and Tower, 1992; Umar and Saad, 2015; and Urbancic and Hsu, 2007), the research adopted the Flesch Readability Ease Score (FRES) and the Average Sentence Length (ASL).

The Flesch Readability Ease Score (FRES), as observed by Umar and Saad (2015), is a formula developed by Rudolf Flesch in 1948 to determine the ease or difficulty of reading the number of syllables and the number of words in a sentence. The procedure uses a score range from 1 to 100 to determine a text's readability. Lower scores indicate difficult-to-read text, and standard scores displaying an easy-to-read text are around 60 to 70.

Flesch (1948) clarifies that the formula for analyzing a written piece's readability was first developed in 1943. The author considered that, because of the broad application of the method in several segments, it seemed worthwhile to reexamine it and analyze its shortcomings. In the review, the previous formula was divided into two; one only predicts the extent to which human interest in a given text will make the reader understand it better. The other procedure, which is of interest to this study, measures the readability of a document. It is expressed as FRES = 206.835 – 0.846wl – 1.015sl, where 'wl' represents the word length (number of syllables per 100 words), and 'sl' represents the sentence length in number of words.

Flesch (1948) explains that the formula's significance is easily understood when one realizes that word length is indirectly a measure of word complexity. The extent of sentence length is indirectly a measure of sentence complexity. Therefore, the longer the words and sentences, the harder it is to understand the text.

Flesh (1949) refined his text-readability formula to establish what level of education a reader would need to understand a written piece. The author says that the typical reader for each readability level will usually be found in the next educational range, and this difference maybe even more significant. The rule seems to be that high school readers prefer reading at the elementary school level, high education level readers like reading at the high school level, etc. He further explains that the proof of this principle is the writing found in popular magazines. Because the circulation and advertising departments often know all about education, income, favorite car make, and other characteristics of the typical reader, a magazine's writing provide a perfect check of average reading levels.

It is crucial to point out the observation by Cavique (2008), who argued that although the formula developed by Flesch (1948) was created for the English language, it does not depend on a dictionary and, therefore, it can be used for texts written in Portuguese.

Table 3 shows the FRES Index scores and their respective readability and education levels. The education levels indicated in this table were adapted to the current education levels in Brazil.

Table No. 3. FRES Index

Scores	Readability	Education
90-100	Very easy	4th and 5th grades
80-90	Easy	6th grade
70-80	Fairly easy	7th grade
60-70	Standard	8th and 9th grades
50-60	Fairly difficult	High School
30-50	Difficult	High School and Higher education
0-30	Very difficult	Higher education

Source: *Elaborated by the authors, based on Flesch (1948; 1949)*

The Average Sentence Length (ASL) is an essential measure for determining the complexity of a text. Although sentence length is used in the FRES Index calculation formula, Smith and Richardson (1999) consider it essential to decide on ASL separately in a text's readability analysis.

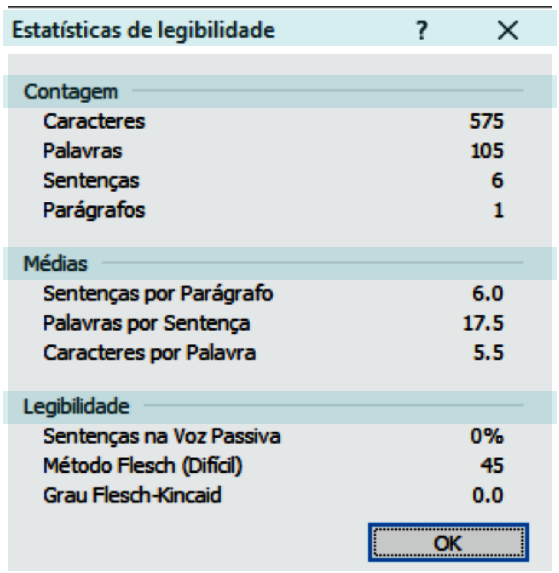
Umar and Saad (2015) emphasize that a text with good readability presents a low number of words per sentence and avoids the use of the passive voice, changing the sentence when possible. The authors complement that long sentences should be replaced by shorter ones, as recommended in the literature on tax laws' complexity. Tan and Tower (1992) point out the same recommendations regarding long sentences and passive voice.

According to Umar and Saad (2015), regarding the ASL, the recommended average length would be 20 words per sentence as short sentences, clear and straightforward definitions, and appropriate headings are necessary elements to help readers. Such measures, they conclude, can bring a written piece to a high level of readability, which may simplify the understanding of tax law and reduce its complexity.

Therefore, tax accounting norms that use short, straightforward, active, and hassle-free sentences will be more readable than criteria that use long sentences and many paragraphs. The readability metrics help to prevent and control the difficulty of written language in tax law.

The readability level tests performed on the sample used the Word 2007® Software, in Portuguese. The following steps were made to access the readability statistics in the software: (i) open the file to be analyzed; (ii) extend the option "office"; (iii) select the item "word options"; (iv) choose the option "proofreading"; (v) check the box "show readability statistics"; (vi) save and submit the text for analysis through the "spelling and grammar" option. Figure 1 shows the result of the readability statistics for Word 2007 in Portuguese.

Figure No. 1. Readability statistics



Source: *Microsoft Word 2007® (Portuguese)*

For data analysis, general information, headings, sections, subsections, tables, and numerical examples were excluded from the texts. Following the literature, law guidelines of less than fifty words were excluded, as these text samples are considered unsuitable for analysis.

3. ANALYSIS OF RESULTS

The results of the readability statistics of the titles of Book II of RIR/2018, of the Complementary Law 123/2006, and the CPC 32 are presented in Table 4, drawing attention to the fact that none of the analyzed titles showed an easy readability level.

Table No. 4 Readability statistics

Sample	Score	Readability	Education	ASL
Title I	49	Difficult	High school and higher education	19.50
Title II	47	Difficult	High school and higher education	18.20
Title III	49	Difficult	High school and higher education	18.50
Title IV	52	Fairly difficult	High school	20.80
Title V	41	Difficult	High school and higher education	16.70
Title VI	60	Standard	8th and 9th grades	19.80
Title VII	48	Difficult	High school and higher education	26.80
Title VIII	50	Difficult	High school and higher education	22.40
Title IX	56	Fairly difficult	High school	23.90
Title X	52	Fairly difficult	High school	23.50
Title XI	67	Standard	8th and 9th grades	18.90
Title XII	69	Standard	8th and 9th grades	16.50
Title XIII	66	Standard	8th and 9th grades	18.90
Title XIV	53	Fairly difficult	High school	26.50
Title XV	52	Fairly difficult	High school	23.50
Title XVI	48	Difficult	High school and higher education	18.50
Law 23/2006	14	Very difficult	Higher education	26.50
CPC 32	30	Difficult	High school and higher education	25.70

Source: *Elaborated by the authors, using Microsoft Word 2007®*

3.1 Book II of the Brazilian income tax regulation 2018 (RIR/2018)

When examining the titles of Book II of RIR/2018, it is possible to observe that 44% of them were classified as "difficult" readability level, which requires its users to have an education equivalent to high school or higher education to understand the information. It is important to emphasize that the quality of the high school required in this case, according to the study by Flesch (1949), would be equivalent to the education offered in high standard institutions.

The titles classified as "difficult" provide taxpayers, liability for tax due, taxpayers domicile, taxpayers' gross revenue, and miscellaneous provisions.

Due to the topics presented and the number of words used, these titles should be easy to read. Title V that deals with taxpayer's gross revenue, for example, has only 205 words.

The tests on Title VII and Title VIII classified their readability level as "difficult". However, when considering the importance of the topics these titles deal with (respectively, transfer pricing and undercapitalization, and tax using the actual income method), these regulations should present a "standard" readability level.

The titles classified as "fairly difficult" (requiring high school education or equivalent) formed 31% of the total sample. This group of regulations' scores was very close to 50 points, which means that their readability level was close to "difficult".

The titles (RIR/2018) classified as "fairly difficult" are Titles IV, IX, X, XIV, and XV. Title IV, which provides on the taxpayer's registration in the CNPJ, should be rewritten to be classified as "easy" to facilitate businesses' registration.

The other titles, providing on tax using deemed taxable income method, tax using tax authorities determination of profits, tax exemption and reduction as an incentive for regional development, and tax deduction, given the importance of the topics, should be rewritten to be classified in the standard readability level.

Book II titles of the RIR/2018 classified as "standard" readability level (i.e., texts that score between 60 and 70, requiring from readers the education equivalent to the 8th and 9th grades to comprehend the content), formed a total of 25% (four titles). The scores of two of the titles classified as 'standard' were very close to 60, almost positioning them in the group of the "fairly difficult".

Of the four titles that are at the "standard" readability level, two should be at the "easy" readability level to avoid tax compliance issues, given the topics they address: calculation and period of tax calculation (Title VI), and rates and other additional charges on tax (Title XII).

The analysis of the average number of words per sentence – the literature recommends an average of 20 words – showed that 44% of Book II titles of the RIR/2018 had an excessive number of words.

The readability statistics for the Book II of the RIR/2018 that provides on business taxes, taking all the titles together, showed that the document is difficult to read. This finding corroborates the arguments that the Brazilian tax law is complex and challenging for taxpayers to assimilate. Besides, the results highlight – confirming findings observed in the international literature on this subject – that corporate taxpayers need to involve more professionals to understand the laws on income tax fully.

Another consequence of poor readability is that tax professionals will use more time to understand and correctly apply the tax laws. More time consequently means higher compliance costs to corporate taxpayers. Also, the tax authority will have to commit more resources to educate the taxpayer and spend more time on tax auditing and tax disputes, increasing its administrative costs (Umar and Saad, 2015).

3.2 Complementary Law 123/2006

In the study of the Complementary Law 123/2006, which establishes the guidelines for tax micro-enterprises (ME) and *Empresas de Pequeno Porte* (EPP) (small businesses), the test resulted in a score of 14.

The complementary law was the only document of the sample that showed a "very difficult" readability level. The average number of words per sentence was 26.50, above the number of references (20). It is essential to clarify that this study did not analyze the several annexes that are part of the law, which would probably reduce the document's readability score.

The low readability level of the law analyzed conflicts with the provisions of article 179 of the Brazilian Federal Constitution, which states that state authorities should offer to micro and small enterprises a differentiated legal treatment to encourage entrepreneurship through simplification of these businesses' administrative, tax, social security, and credit obligations.

Therefore, the readability statistics found in the analysis of Complementary Law 123/2006 suggest the need to rewrite the law to improve its readability.

3.3 CPC 32 (Taxes on profit)

CPC 32, which establishes the accounting procedures when there are deferred tax assets/liabilities, presented a score of 30, i.e., between the "difficult" and "very difficult" readability levels.

To understand the document, the user of the CPC 32 must have higher education or equivalent. Regarding the average number of words per sentence, the readability statistic shows 25.70, above that reference (20). As in the complementary law, the text of the CPC 32 analyzed did not include the annexes and examples provided.

Deferred tax assets and deferred tax liabilities occur when the taxpayer calculates the income tax using the actual income method. Comparing CPC 32 with Title VIII of Book II of the RIR/2018, which establishes the guidelines for tax using the precise income method, it is possible to observe that the accounting pronouncement presents a much lower score than the score obtained in the analysis of the tax law.

Therefore, the CPC 32 is a more complex text and offers more difficulties to its users than the tax law providing on the same topic. This result shows the need to rewrite the accounting pronouncement to facilitate user's compliance with the instructions.

The complexity of the Brazilian tax law confirmed by the findings above is also evidenced in the study by PriceWaterhouseCoopers, World Bank, and International Finance Corporation (PWC, 2012, p. 112), which shows Brazil as the 150th out of 183 countries in terms of ease of tax compliance. The neighbor countries in South America rank in the following positions: (i) Argentina, 144th; (ii) Chile, 50th; (iii) Colombia, 92nd; (iv) Paraguay, 131st; (v) Peru, 80th, which means that Brazil has one of the most complex tax laws in the region.

4. CONCLUSIONS

This study examined the readability level of part of the tax accounting legislation, covering the titles of Book II of RIR/2018, and the Complementary Law 123/2006, which establishes the guidelines for the taxation of microenterprises small businesses. The research also analyses the readability of the accounting pronouncement CPC 32, which determines the accounting procedures to be adopted when deferred tax assets/liabilities are identified. The research adopted a quantitative approach, conducting the readability analysis using the Flesch Readability Ease Score (FRES) and the Average Sentence Length (ASL).

The results showed that 44% of Book II titles of the RIR/2018 were classified as "difficult" regarding the readability level. The titles classified as "fairly difficult" were 31%. In this case, the titles' score was very close to the classification as "difficult" (close to 50). Four titles were classified as "standard" readability level (25%). None of the titles analyzed were classified as 'easy.' Examined together, Book II titles of the RIR/2018 are "difficult" texts to read. This finding corroborates the arguments that Brazilian tax law is complex and difficult to assimilate.

As for the Complementary Law 123/2006 (providing on micro and small enterprises), the text was classified as "very difficult" readability level. This result challenges the provisions of the Brazilian Federal Constitution, which specify that state authorities should give these businesses a differentiated legal treatment, to encourage entrepreneurship by simplifying administrative, tax, social security, and credit obligations.

The score observed for the CPC 32 was 30 FRES index points, which means that the text is on the borderline between "difficult" and "very difficult" readability levels. When comparing the results of CPC 32 with Title VIII of Book II of the RIR/2018, it was observed that the accounting pronouncement is more challenging to read than the income tax regulation that addresses the same topic.

In general, the sample texts have a low readability level, as a consequence of the use of long sentences and words (requiring a higher level of education from users). The study evidenced the need to rewrite the texts analyzed, making them easier to read. All companies, especially micro and small businesses, can voluntarily comply with obligations at reduced costs.

The findings observed in this study lead to some recommendations regarding drafting tax legislation. First, sentences must be short and straightforward. Second, words and paragraphs that do not offer useful information must be avoided, emphasizing the relevant content. Third, it is essential to build sentences using the most common and neutral order of words: subject, verb, and other complementary words. Finally, avoid using unclear syntactic structures that may be obscure, such as passive voice and negatives sentences.

Future studies would contribute to offering comparative analysis with other legislation and discuss different perspectives, such as analyzing who is responsible for editing the norm, either the Congress or the bureaucrats of the tax administration. Another timely study would be

to compare CPC accounting standards with tax norms. Given the result found in CPC 32, and the profile of the most recent accounting standards, it is quite possible that the CPC accounting standards are less readable than the tax norms, which seems to be a tendency in recent pronouncements. Future studies may also explore other readability metrics, verifying the findings identified here.

Finally, the results obtained in this research may enrich the tax literature and encourage tax authorities to be aware of the readability aspects when simplifying the tax law.

5. BIBLIOGRAPHY

Barney, D., Tschopp, D., & Wells, S. (2012) Tax simplification through readability: a look at tax law complexity. *The CPA Journal,* v. 82, n. 12, p. 6-10.

Brasil. Decreto Nº 9.580, de 22 de novembro de 2018. Regulamenta a tributação, a fiscalização, a arrecadação e a administração do imposto sobre a renda e proventos de qualquer natureza. Disponível em: <http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2018/Decreto/D9580.htm>. retrieve 07 mar 2019.

Brasil. Constituição da República Federativa do Brasil de 1988. Disponível em: <http://www.planalto.gov.br/ccivil_03/Constituicao/Constituicao.htm>. Fecha de lanzamiento

Brasil. Lei Complementar Nº 123, de 14 de diciembre de 2016. Institui o estatuto nacional da microempresa e da empresa de pequeno porte. Disponível em: <http://www.planalto.gov.br/ccivil_03/LEIS/LCP/Lcp123.htm>. consultado 07 mar 2019.

Brasil. CPC 32, Tributos sobre o Lucro. Disponível em: <http://static.cpc.aatb.com.br/Documentos/340_CPC_32_rev%2013.pdf>. recuperado 07 mar 2019.

Cavique, L. (2008) Legibilidade de artigos científicos: análise de dados da RCC. *Revista de Ciências da Computação*. v. III, ano III, n. 3, p. 59-65.

Da Silva, J. D., Pessoa, M. N. M., Cabral, A. C. A., Mesquita, R. , Dos Sa, S. M. ;& DA Costa, W. P. L. B. (2015) Custos de conformidade à tributação: um estudo sobre a percepção dos gestores de uma organização pública brasileira.In: XXII Congresso Brasileiro de Custos. ANAIS, Foz de Iguazú/PR.

Felicio, R. & Martinez, A. L. (2019) Sistema tributário brasileiro: análise da percepção dos operadores do direito tributário à luz dos conceitos de eficiência e justiça fiscal. *Revista Ambiente Contábil*, v. 11, n. 1, p. 156-181.

Flesch, R. (1948) Un nuevo criterio de legibilidad. *Journal of Applied Psychology*, v. 32, n. 3, p. 22 –233.

Flesch, R. (1949). El arte de la escritura legible. Nueva York: Harper & Row.

Hoppe, T., Schanz, D., Sturm, S., & Sureth-Sloane, C. (2019). Medición de la complejidad fiscal entre países: un estudio de encuesta sobre multinacionales (SSRN Scholarly Paper ID 3469663). Red de Investigación en Ciencias Sociales. https://doi.org/10.2139/ssrn.3469663

PWC. El pago de impuestos 2012: el panorama global. Disponível em: https://www.pwc.com/gx/en/paying-taxes/assets/paying-taxes-2012.pdf. Consultado el 8 de febrero de 2020.

Smith, D. & Richardson, G. (1999) The readability of Australia's taxation laws and supplementary materials: an empirical investigation. *Fiscal Studies*, v. 20, n. 3, p. 321-349.

Smith, D. & Richardson, G. (2002) The readability of Australia's goods and services tax legislation: an empirical investigation. *Federal Law Review*, v. 30, n. 3, p. 475-506.

Shackelford, D. A. & Shevlin, T. (2001) Empirical tax research in accounting. *Journal of Accounting and Economics*, v. 31, p. 321-387, 2001.

Tan, LM & Tower, G., (1992) La legibilidad de las leyes fiscales: un estudio empírico en Nueva Zelanda. *Australian Tax Forum*, v.9, p. 356-372.

Umar, MS & Saad, N. (2015) Evaluación de legibilidad de la ley de impuestos sobre la renta de empresas nigerianas. *Jurnal Pengurusan*, v. 44, p. 25-33.

Urbancic, FR & Hsu, K. (2007) La legibilidad de las instrucciones para la tributación sobre la renta en los estados occidentales. *Mountain Plains Journal of Business and Economics, General Research*, v. 8, p. 29-37.

TAX EFFECTS

in the application of IFRS 16 leases

Marlon **Manya Orellana**

SYNOPSIS

As of January 1, 2019, the International Financial Reporting Standard IFRS 16 “Leases” entered into force. This transition brings changes at the accounting, financial and tax level for those companies that rent goods for the performance of their economic activities, such is the case of companies that rent most of their assets. This article seeks to provide guidance on the tax effects to which these companies will be exposed to act in this regard.

CONTENT

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INTRODUCTION

The validity of the International Financial Reporting Standard IFRS 16 Leases, which replaced as of January 1, 2019 the International Accounting Standard IAS 17, also called by the same name, implies a substantial change for the lessee from the accounting, financial and tax approaches, but not for the lessor, who will continue to differentiate between operating leasing and financial leasing.

It should be remembered that operating lease contracts are reported in the balance sheet, while financial lease contracts are not reported, they are known as off-balance leases, since they only represent expenses in the Income Statement and are described in the notes to the Financial Statements, which means that for investors and other users it is difficult to accurately identify the leasing assets and liabilities of a company, so they often tend to estimate their effects.

In this sense, IFRS 16 requires that all contracts be reflected in the balance sheet as assets and liabilities, even allowing comparability between companies that choose to borrow to buy assets and those that lease them. It proposes a unique model for accounting leases (with limited exceptions) similar to financial leases, where a right (asset) is recognized for the use of the leased assets, a financial liability is recognized, and depreciation or amortization expenses must also be recognized, as well as interests.

According to Deloitte (2016), the most significant changes when applying this standard are:

- *Operational leases, currently off-balance, come into balance.*

- *They eliminate the difference between financial and operating leases.*

- *A single leasing model in which all rentals are recognized on the balance sheet (plus assets and liabilities), as if they were financed purchases, with limited exceptions for short-term leases and leases of low-value assets.*

For KPMG (2018), *increasing the accounts on the balance sheet will increase level of indebtedness. The impact goes even further because changes will also occur during the term of the lease. In particular, companies must apply an anticipated expense recognition pattern in most contracts, even when they pay constant annual income.*

Those companies that are affected will need to assess the magnitude of the impacts of the standard so that they can understand the implications on their business activity. Focus areas may include: the effects of the standard on financial results, implementation costs, or proposed effects on business practices.

According to Ernst & Young, one of the important aspects is to determine the most appropriate discount rate for the scope proposed by IFRS 16. *Although this standard establishes some general definitions, in practice, it does not specifically indicate how to calculate said rate, leaving its estimation to interpretative criteria. In this regard, there are certain assumptions that could be valid to calculate the discount rate. For example, those companies that have few lease contracts could choose to use the interest rate quoted with the banks to obtain a loan with similar characteristics (term, amount, and currency) to the obligations involved in the lease contract; On the other hand, companies with a high volume of leasing contracts could construct and use a theoretical discount rate whose components reflect both market risk and the risk of the business itself.*

For PricewaterhouseCoopers, *the new standard will affect the most commonly used financial indicators, such as the leverage ratio, current position, asset*

turnover, financing costs, EBITDA, EBIT, operating profit, net income, EPS, ROE, operating cash flow. These changes could affect the coverage ratios included in loan contracts, credit risk indicators, and could result in changes in the needs and behaviors of market participants. These changes could cause many companies to re-evaluate decisions to buy or lease.

1. CONCEPTUAL FRAMEWORK OF IFRS 16 LEASES

Within the Lease agreement indicated by IFRS 16, the figures that must be fully identified are those of lessees and lessors. The first is *"one who has the right to use an underlying asset for a period of time in exchange for a consideration"* (IASB, 2016); that is, who makes the payment for the lease; the second will then be *"whoever assigns the right to use the underlying asset for a period of time in exchange for a consideration"*. (IASB, 2016); that is, the owner of the asset who recognizes that income.

On the other hand, the Lease Contract is known as *"a formal document where the rights of use and exploitation of an asset are transferred in exchange for a stipulated bonus"* (IASB, 2016). The underlying asset is an *"Asset stipulated in the lease on which the right of use has been granted from a lessor to a lessee"*. (IASB, 2016). Lastly, a right-of-use asset is defined as the *"representation of a right that a lessee uses an underlying asset during the term of the lease"* (IASB, 2016).

The stages of the lease model from the point of view of the lessee are as follows:

1. Identification of a lease
2. Separation of components of a contract
3. Term of the contract
4. Determination of the Discount Rate
5. Classification of leases
6. Initial recognition
7. Subsequent recognition
8. Presentation in the Financial Statements

Each of these stages is briefly discussed below:

1.1 Identification of a lease

To identify if the contract has a lease, we must verify if there is an identified asset, if the lessee has future economic benefits; that is, if it obtains substantially all the economic benefits derived from the use, if the lessee directs its use or control of it, if so, the contract contains a lease.

The normative clarifies that the lessee can choose not to benefit from the normative, only in these two specific cases:

- If the lease is short-term, less than or equal to 12 months.
- If the underlying asset is considered of low value.

Likewise, it leaves in consideration of the company the definition of low monetary value, mentioned in the last point; but it suggests considering the value of the asset when it is in condition again.

1.2 Separation of components of a contract

For a contract that is, or contains, a lease, an entity must account for each component of the lease within the contract as a lease separately from the components of the contract that do not constitute a lease. This is called a combined contract.

Regarding the identification of the components, the regulation establishes the existence of several identifiable components with respect to each case to be applied. To do this, there are two options for component recognition:

- Accounting for each of the components of the lease separately.

- Not separating the components and treating all those that are outside the contract as a single component, and account for them.

To determine whether the contract establishes the right to control the use of an identified asset, the company must evaluate whether the customer has the right to:

- Obtain, substantially, all the economic benefits derived from the use of the asset during the period of use.

- Being able to direct the identified asset, which applies if the lessee has the right to direct how and for what purpose the asset is used during the period of use, and if the relevant decisions on the manner and purpose of the use of the asset are predetermined.

1.3 Term of the contract

Under the standard, an entity determines the lease term as the non-cancellable period of a lease, together with:

- The periods covered by an option to extend the lease if the lessee is going to exercise that option with reasonable certainty.

- The periods covered by an option to terminate the lease if the lessee is not going to exercise that option with reasonable certainty.

1.4 Determination of the Discount Rate

For the determination of the discount rate, the standard makes available two options for its recognition:

- Implicit interest rate.

- Incremental interest rate.

It should be noted that the rule allows the use of any of these rates depending on which is easier for the lessee to identify.

If the contract does not establish an implicit interest rate or that its economic information does not allow to obtain said rate, the most suitable interest rate in the market must be used that determines an estimated discount for the term of the contract.

1.5 Classification of leases

A lease is classified as financial when it transfers substantially all the risks and rewards inherent in the ownership of an underlying asset. An operating lease is a lease that does not transfer substantially all the risks and rewards incidental to ownership of an asset.

1.6 Initial recognition

To carry out the initial recognition, it is important to consider the date of signing the contract to be accounted for. The cost of the right-of-use asset will include: Lease liability, initial direct costs, payments for anticipated leases, estimated costs for dismantling, incentives for leases received.

The lease payments included in the measurement of the lease liability comprise the subsequent payments for the right to use the underlying asset during the lease term that are not paid on the contract commencement date.

1.7 Subsequent recognition

After the contract start date, a lessee will measure a lease liability:

- Increasing the carrying amount to reflect interest on the lease liability.
- Reducing the carrying amount to reflect lease payments made.
- Measuring again the liability for leases if there are modifications within the contract.

Therefore, the lessee must recognize the interest on the liability for the lease in profit or loss; and the dividend payments reducing the lease liability.

1.8 Presentation in the Financial Statements

A lessee must present the following details in the Financial Statements or in the explanatory notes:

- The assets with the right to use will be presented in the Statement of Financial Position, differentiated from other assets not included in the lease. Liabilities for leases differentiated from other liabilities not included in the lease will also be presented.
- The financial expense of the lease liability will be presented in the Statement of Comprehensive Income. The depreciation or amortization of the asset for the right to use will also be presented.
- Disbursements attributable to the lease liability, the expense attributable to interest expense for the lease liability, will be presented in the Cash Flow statement, within financing activities. Leasing expenses that are not included in the lease liability will be presented within operating activities.

2. TAX TREATMENT OF LEASES IN ECUADOR

Leasing, like any other activity, is subject to tax laws and, in this case, lessees must abide by the current tax regulations when declaring their income and expenses related to the activity, including enjoying certain tax benefits offered by the regulations. In Ecuador, the taxpayers obliged to keep accounting will pay the Income Tax based on the results that it produces.

2.1 Deductions

Article 10 of the Internal Tax Regime Law expressly indicates that the costs or expenses derived from commercial leasing or leasing contracts will be deductible, in accordance with the relevant accounting technique. Costs or expenses for commercial leasing contracts or Leasing will not be deductible when the transaction takes place on goods that have been owned by the same taxpayer, by parties related to him or by his spouse or relatives within the fourth degree of consanguinity or second affinity; nor when the term of the contract is less than the estimated useful life of the asset, according to its nature, except in the case that being lower, the price of the purchase option is greater than or equal to the balance of the price equivalent to that of the life remaining useful; nor when the rental fees are not equal to each other.

2.2 Real estate rental income

Article 30 of the Internal Tax Regime Law considers that companies and other taxpayers obliged to keep accounts that are engaged in the rental of real estate will declare and pay the tax in accordance with the results of the accounting.

The income received by individuals and undivided estates not obliged to keep accounting, coming from the rental of real estate, will be determined in accordance with the values of the contracts if they were written,

after deducting the relevant expenses established in the regulations. If there are no contracts, they will be determined by the effectively agreed values or based on the prices set as maximum by the Tenancy Law or by the Leasing Registry Office and, alternatively, by the Tax Administration.

2.3 Deductible expenses

Article 28 of the Regulations for the application of the Law of Internal Tax Regime, in numerals 2 and 15, establishes that the costs of services provided by third parties that are used for the purpose of obtaining, maintaining and improving taxable and non-exempt income, such as fees, commissions, communications, electricity, water, cleaning, surveillance and leases.

The balance of the price equivalent to that of the remaining useful life referred to in the Law will be deductible, corresponding to the value pending depreciation of the asset, based on the time remaining in its useful life according to its nature and accounting technique.

The expression "useful life remaining time" must be understood as the difference between the useful life of the asset and the term of the lease. For tax purposes, the useful life may not be less than that resulting from applying the percentages of depreciation of fixed assets established as limits in this regulation.

When the purchase option is not executed in a commercial lease, the difference between the value of the installments paid and the expense generated by depreciation and interest will not be deductible.

2.4 Depreciation or Amortization

Article 28 of the Regulation for the application of the Law of Internal Tax Regime in its numeral 6, states that the depreciation of fixed assets will be carried out in accordance with the nature of the goods, the duration of their useful life and the accounting technique. For this expense to be deductible, it cannot exceed the following percentages:

- Properties (except land), ships, aircraft, barges and the like (5%)
- Facilities, machinery, equipment and furniture (10%)
- Vehicles, transport equipment and mobile road equipment (20%)
- Computer equipment and software

2.5 Other deductions

Article 29 of the Regulation for the application of the Internal Tax Regime Law in its numeral 7, considers that the institutions that provide commercial leasing or leasing services will not be able to deduct the depreciation of the goods given in commercial lease with purchase option.

2.6 Withholding for commercial leasing

Article 119 of the regulation for the application of the Law of Internal Tax Regime indicates that payments or credits in account that are made to commercial leasing companies legally established in Ecuador are subject to withholding in a percentage similar to that indicated for purchases of movable property, on the payments or credits on account of the lease installments, including the purchase option.

2.7 Lease or commercial lease

Article 164 of the Regulations for the application of the Internal Tax Regime Law states that, in the case of commercial leasing with a purchase or leasing option, the tax will be charged on the total value of each rental quota or fee. If the purchase option is effective before the end of the contract period, the VAT will be calculated on the residual value.

3. CASE STUDY[1]

The Ecuadorian passenger air transport company Avion Airlines SA has a lease with Airbus SAS of France, for an airbus A320-214 aircraft since January 1, 2016. Within the contract it is observed that the start date was January 1, 2016, the end date of the contract is January 31, 2021, the monthly fee is $ 270,000. At the end of the contract term, the aircraft must be returned to the lessor or the contract extended if required.

In that case, it is proposed to evaluate the impact of the new IFRS 16 as of January 1, 2019, since, during the first three years, the IAS 17 standard was applied. This effect will be visualized in the accumulated results of the period in which it is adopted for the first time, this is from 2019.

3.1 Accounting under IFRS 16

Appendix C of IFRS 16, paragraph C8 literal a), mentions that to calculate the lease liability, the incremental rate for the lessee's loans must be used on the date of initial application to bring the remaining lease payments to present value (IFRS 16 paragraph C8).

The right-of-use asset will be equal to the book value as if the standard had applied from inception, discounted using the lessee's incremental loan rate on the date of initial application.

3.2 Incremental rate for lessee's loans

The rate used was the maximum effective active rate of the Corporate Productive segment published by the Central Bank of Ecuador, which is 9.33% annual. This rate is a reference rate at which an Ecuadorian bank would lend the money to the lessee to acquire the asset. In the first place, we will show how the right-of-use asset should be accounted for as if the standard had applied from the beginning of the contract, considering the following:

- Annual effective interest rate: 9.33%
- Monthly equivalent effective interest rate: 0.75%
- Number of annual periods: 6
- Number of monthly installments: 72
- Value of the monthly canon: $ 270,000

$$VP = A\left(\frac{1-(1+i)^{-n}}{i}\right)$$

Where:

PV: Present Value of an annuity

A: annuity

i: Effective interest rate

n: number of periods

$$VP = 270{,}000\left(\frac{1-(1+0.0075)^{-72}}{0.0075}\right)$$

$$VP = 14.998.026{,}70$$

We recorded the asset for the right of use for $ 14,998,026 and the liability is divided into the current and non-current portion according to the amortization table (amortized cost method), where the liability for short-term lease is determined for $ 1,977,003; and the long-term lease liability for $ 13,021,023.

1 De la Torre, Jordan, Manya. Analysis of the accounting, financial and tax impact of leasing contracts due to the adoption of IFRS 16 in companies dedicated to the transport of passengers by air that operate in Ecuador. 2018.

Table No. 1 Accounting for initial asset recognition

Details	Debit	Credit
Asset by right of use	14,998,026.70	
Short-term lease payable		1,977,003.46
Long-term lease payable		13,021,023.24

After 3 years have elapsed, the lease payments and interest expense should have accrued during this time, decreasing the lease liability, and recognizing the interest expense in each period:

Table No. 2 Accounting for royalty payment

DETAILS	DEBIT	CREDIT
Accounts payable lease	6,501,583.24	
Interest expense	3,218,415.76	
VAT paid (12%)	1,166,400.00	
Banks		9,720,000.00
VAT Withholding at source (100%)		1,166,400.00

In the same way, the right-of-use asset should have been depreciated during this time according to the guidelines of IAS 16 - Property, Plant and Equipment. IFRS 16 establishes that if it is not certain that the lessee exercises the purchase option, then the useful life of the right-of-use asset will be the shortest, between the term of the contract and its estimated useful life.

For this reason, the useful life will be 6 years, obtaining an annual depreciation of $ 2,499,671 (14,998,026 / 6 years). In the third year, the depreciation expense against accumulated depreciation is $ 7,499,013.

Table No. 3 Accounting for asset depreciation by right of use

DETAILS	DEBIT	CREDIT
Right of use asset depreciation expense	7,499,013.35	
Accumulated depreciation asset right of use		7,499,013.35

Therefore, as of January 1, 2019, the adjustment entry to begin accounting for operating leases under the parameters of IFRS 16 is the following, affected to the initial balance of accumulated results:

Table No. 4 Accounting for initial recognition adjustment 2019

DETAILS	DEBIT	CREDIT
Active by right of use	7,499,013.35	
Accumulated balance	997,430.11	
Short-term lease payable		2,583,601.17
Long-term lease payable		5,912,842.28

3.3 Subsequent recognition

After initial recognition, the right-of-use asset must be depreciated monthly, while the lease debt must keep decreasing, as well as the financial expense being recognized. The accounting entries, on an annual basis, would be the following as of December 31, 2019:

Table No. 5 Post 2020 compensation accounting

DETALLE	DEBE	HABER
Accounts payable lease	2,583,601.17	
Interest expense	656,398.83	
VAT paid (12%)	388,800.00	
Banks		3,240,000.00
VAT Withholding at source (100%)		388,800.00
For leases made during 2019		
Right of use asset depreciation expense	2,499,671.12	
Right of use accumulated depreciation		2,499,671.12
For depreciation expense during 2019		
Long-term Accounts payable	2,824,651.16	
Short-term account payable		2,824,651.16
Short to long term accounts payable adjustment		

3.4 Effects on the accounting accounts throughout the lease contract

Statement of Financial Position

At the beginning of the contract, both the right-of-use asset and the lease liability are accounted for at the same value; however, throughout the contract, it is observed that the right-of-use asset decreases faster than the liability, due to the straight-line depreciation. Therefore, these accounts will not be the same over time.

Income Statement

Under the accounting parameters of IAS 17, the lease expense was constant throughout the contract, while under IFRS 16 the depreciation expense of the right-of-use asset will be recorded, which is constant over time and the expense of interest that has a decreasing trend. The sum of the depreciation expense and the interest expense generates a total expense with a decreasing trend, that is, in the first half of the lease term, the expense will be higher compared to the expense that was recorded according to IAS 17, while, in the second half, the spending decreases. At the end of the contract period, the total expense incurred during the term of the lease is the same in both standards, the difference consists of the proportion in which it is recognized over time.

Table No. 6 Comparative IAS17 and IFRS16

PERIOD	IAS17 ANNUAL EXPENDITURE	INTEREST EXPENSE	IFRS16 DEPRECIATION	ANNUAL EXPENDITURE	DIFFERENCE
1	3,240,000	1,262,996	2,499,671	3,762,667	522,667
2	3,240,000	1,078,542	2,499,671	3,578,213	338,213
3	3,240,000	876,878	2,499,671	3,376,549	136,549
4	3,240,000	656,398	2,499,671	3,156,069	- 83,930
5	3,240,000	415,348	2,499,671	2,915,019	- 324,980
6	3,240,000	151,808	2,499,671	2,651,480	- 588,520
Total	**19,440,000**			**19,440,000**	**0.00**

3.5 Tax impact

In Ecuador, expenses related to operating leases have always been considered as deductible, regardless of the characteristics of the contract. However, under the parameters analyzed in IFRS 16 and pending a pronouncement by the Tax Administration about the expenses generated by the right-of-use assets (depreciation and interest) that the lessee will account, the question would be the treatment who would receive these expenses as deductible or not, for the calculation of income tax.

The lessee must consider that the expense incurred for operating leases will no longer be constant throughout the contract; Consequently, during the first years this expense will be higher, leading to a lower profit and therefore a lower income tax caused. But during the last few years, its effect will be inverse since the expense is gradually reduced. This expense in the first years because of the use of depreciation and interest exceeds the value identified as the canon resulting from the lease; generating a deductible temporary difference; This is a deferred tax asset, as it could be offset over time.

According to the Regulation Draft, PN / 2019/5, which deals with Deferred Taxes related to Assets and Liabilities arising from a Single Transaction, published in July 2019, in the case of leases, these transactions may give rise to temporary differences equal and offset, which, applying the IAS 12 general principle, would lead to the recognition of deferred tax assets and liabilities. However, IAS 12 prohibits an entity from recognizing deferred taxes that arise from the initial recognition of an asset or a liability in specific situations (exemption of consideration).

In that context, the IFRS Interpretations Committee observed differences of opinion on whether the recognition exemption applies to temporary differences that could arise from this transaction. These differences of opinion would reduce comparability between the financial statements of entities with leases. Furthermore, its application would increase the potential for differences that arise because an entity recognizes an asset and a liability for many more leases applying that Standard than when applying IAS 17 Leases.

Consequently, the Committee recommended that the IASB Board amend IAS 12 to limit the application of the

recognition exemption so that it does not apply to these transactions. This would not only increase comparability between entities' financial statements but would also provide useful information for the users of financial statements. The proposed amendments would align the accounting for the tax effects of specific transactions with the general principle in IAS 12, recognizing deferred taxes for all temporary differences.

In the case study proposed, during the tax year 2019, a higher income tax is obtained, because the expense for leasing is lower: that is, in 2018 the expense was $ 3,240,000 while for 2019 will be $ 3,156,069 composed of depreciation expense $ 2,499,671 and interest expense $ 656,398, causing the profit for the year to increase to $ 811,366 and, therefore, the income tax caused will increase. It is from this period on that the tax that the company would have to pay in the first years should be compensated, by considering this excess of expenses resulting from depreciation and interest as a non-deductible expense.

3.6 Other effects

- In Ecuador, there are other contributions that, based on the changes made by the IFRS, are affected in their contribution, such as, for example, 1.5 per thousand on Total Assets typified in Article 553 of the Territorial Organic Code, generating a higher payment of the municipal tax.
- Regarding the contribution to the Superintendency of Companies, the contribution of companies to the entity based on their total assets is mentioned. This contribution is increased by the increase in right-of-use assets.
- Until the fiscal period 2019, in which the figure of the Income Tax Advance for companies is still maintained, the asset for the right of use originates a higher payment of your advance.
- The payments made by the lessee for the canon monthly will have to divide the proportion corresponding to the leased asset and the interest, which are payments subject to withholding at source.
- The asset by right of use originates a depreciation or amortization in the duration of the contract or due to the useful lives estimated according to the Law.
- When collecting VAT, the tax base will be divided into goods and interests. It should be analyzed if the VAT on interest for financial services corresponds.
- The obligation to carry out external audits and the tax compliance report is made based on the assets of the company. In Ecuador, it is done if the amount exceeds $ 500,000 in the year.

4. CONCLUSIONS

- After an exhaustive analysis of IFRS 16, we could conclude that companies provide more information to shareholders with respect to their operations and assets belonging to the company, reflecting the assets to which they have the right to use through a contract lease.

- Once the transition in its leasing operations has been made, the company will be obliged to periodically evaluate the status of its lease contracts, to reflect greater transparency in the presentation of its information. Additionally, it must present each one of the notes and breakdowns applied for the recognition or non-recognition of the lease contracts and the discount rate applicable to each asset underlying the contract analyzed.

- You must have complete knowledge of the standard and the effects that its application causes since it requires much more information and analysis regarding the terms and components of the contracts than required by the previous regulations.

- Regarding the application of the regulations, a detailed analysis of each of the contracts maintained to date must be carried out, to efficiently identify those that contain additional goods or services of the contract, and to be able to detect the corresponding exceptions. In addition, to identify the discount rate applicable to each of the contracts, taking each aspect identified by the applied regulations.

- In the case of Ecuador, it is recommended to include in the unnumbered article after Article 28 of the Regulation for the application of the Internal Tax Regime Law, a new case of deferred taxes, establishing the possibility that the difference determined by the fees paid by operating leases and financial and depreciation expenses given by the referring regulations, are temporary differences, resulting in a deferred tax asset, so that they can be recovered in subsequent periods.

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5. BIBLIOGRAPHY

De la Torre, A. y Jordán Garzón, D. (2018) *Análisis del impacto contable, financiero y tributario de los contratos de arrendamiento por la adopción de la NIIF 16 en empresas dedicadas al transporte de pasajeros por vía aérea que operan en Ecuador*.

Deloitte (2018). *Implementación NIIF 16 - Efectos tributarios e impuesto diferidos*.

Ernst & Young, S.L. (2016). EY. Obtenido de EY: https://www.ey.com/Publication/vwLUAssets/EY-implementacion-niif-16-arrendamientos/$File/EY-implementacion-NIIF-16.pdf

International Accounting Standards Board. (2005). *Norma Internacional de Contabilidad 17 Arrendamientos*. Londres, Reino Unido.

International Accounting Standards Board. (2011). *Norma Internacional de Contabilidad 1 Presentación de estados financieros*. Londres.

International Accounting Standards Board. (2016). *Norma Internacional de Información Financiera 16 Arrendamientos. Londres*, Reino Unido.

KPMG. (2016). *Impactos de la IFRS 16*. Obtenido de assets.kpmg.com: https://assets.kpmg.com/content/dam/kpmg/mx/pdf/2016/11/fs-ifrs-16-arrendamiento.pdf

Mezarina Ruiz, R. A., Guzmán Pérez, S., & Morales Gamboa, S. (diciembre de 2016). Repositorio académico UPC. Obtenido de *Evaluación del impacto financiero y tributario en la transición de la NIC 17 a la NIIF 16 en el sector minero*. http://hdl.handle.net/10757/621966.

PricewaterhouseCoopers (2018). *NIIF 16 Arrendamientos, Está su empresa preparada?*

Servicio de Rentas Internas. *Ley de Régimen Tributario Interno*. Ecuador.

Servicio de Rentas Internas. *Reglamento de aplicación a la Ley de Régimen Tributario Interno*. Ecuador.

SEASONALITY OF THE SALES TAX (ST)
in Honduras

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SYNOPSIS

The Sales Tax (ST), which has the characteristics and functions as a value-added tax, represents the main source of tax revenue in Honduras. To achieve an adequate tax programming, it is very important to analyze its collection and behavior. This study analyses the seasonality of this tax in the Honduran economy and uses a seasonal ponderation to allocate a monthly distribution of collection targets. The seasonal component is usually removed from the time series in the economic analysis, but it provides information on the pace of the economic activity, therefore in this work it is the component of interest.

CONTENT

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INTRODUCTION

Taxes can be divided into direct and indirect. Direct taxes are levied on individuals or companies and indirect taxes on goods or services. It is widely understood that taxes influence people's behavior. According to Stiglitz & Rosengard (2015) a tax is non-distorting (lump-sum tax) if the individual cannot do anything to alter his tax obligations, and in that sense all taxes are distortive (distorsionary tax). Taxes on goods (such as sales tax) are distorting since a person can alter his tax obligations by simply purchasing a smaller amount of the taxed goods; income tax is also distorting as individuals can reduce their tax obligations by working less or saving less.

In Honduras as in many countries, taxes represent the main source of income of the State, and with them the State finances the services that society demands.

The tax structure has implications for the income distribution and economic efficiency. According to Nicholson (2008), many economic approaches stem from the recognition that, in the end, profit depends on the income of individuals and the prices they face, one of the most important is the so-called *lump sum principle*, which implies that taxes applied on the person's purchasing power (income tax) are better than taxes on specific goods, since an income tax leaves the person free to decide how to allocate the income they finally have, while taxes on specific goods diminish the person's purchasing power and distort their choices, because artificial prices enter these processes (same logic applies to subsidies or transfers).

A tax system is called regressive if the percentage of indirect tax revenue is higher than direct taxes. Indirect taxes are regressive because the lower-income tax pays the same in nominal terms as the high-income one, but that payment places a bigger burden (relative to their income) on the poor than on the rich. In the case of Honduras and Latin American countries, as indirect taxes represent the main source of tax revenue, they are said to have regressive tax systems (although regressivity could be lower than that thought of, because of the high degree of informality). In developed countries, generally, the tax structure is different, in them, direct taxes represent a higher percentage than indirect taxes in the collection structure, for example, in the OECD countries (Organisation for Economic Cooperation and Development) in 2014, direct taxes accounted for 65% (of which 26% is a contribution to social security) of collection, while indirect taxes accounted for 35%.

During the period 2007 – 2017 in Honduras, on average, indirect taxes accounted for 66.7% of tax revenues, and direct taxes accounted for 33.3%. As a percentage of GDP, on average for the same period, indirect taxes accounted for 10.6% while direct taxes accounted for 5.3% of GDP. This trend is similar in all Latin American countries; in Central America for 2016, direct taxes, on average, were equivalent to 5.5% of GDP and indirect taxes reached 8.5%. According to CIAT, between 2000-2010, VAT (main indirect tax) in Latin America collected, on average, 4.9% of GDP and CIT (main direct tax) 3.3%.

In Honduras, the Sales tax (ST) is the main tax revenue. During the period 2013 – 2017, the ST accounted for 60% of indirect taxes.

Based on the above and to achieve an adequate fiscal programming, it is very important to analyze in the best way the collection and behavior of the ST. On the basis of the above, this note analyses the seasonality of the ST in Honduras and describes how the *"seasonal weighting"* is used for the definition of monthly tax revenue targets between dependencies of the Tax Administration (Revenue Administration Service). To the extent that this tool works, better cash flow scheduling will be available for the State of Honduras in its public spending allocation.

The allocation of these monthly targets is based on the existence of a global budgeted amount, which is approved by the National Congress of Honduras, and is within the framework of that total short-term projection that the monthly goals are distributed, which as mentioned above are established according to the seasonal behavior of the ST collection series.

In this sense, this analysis uses the monthly (2010-2018) and daily ST collection time series (2017-2018) for the purpose of evaluating behavior throughout the year and within each month.

It is important to mention that within the Honduran tax structure there are different levies that are charged for consumption of goods and services (for different transactions), so when referring to ST we must understand for this that the statutory tax rate is of 15%. On the other hand, there is a tax rate of 18% charged to products of selective consumption (e.g., alcoholic beverages, air ticketing) and a 5% rate that taxes the sale of electronic lottery tickets.

The analysis extends to the monthly and daily series which are disaggregated by their origin, that is, whether it comes from the tax levied at customs or if it is due to the tax generated in the domestic market, since empirical evidence shows that the dynamics between the two are different and are therefore based on different causes.

1. METHODOLOGY

A *time series* is an array of observations x_t (which come from unobserved stochastic processes) of one or more variables over time *t*. In economics, this type of data is widely used for descriptive and inferential analysis, for example, the graphical representation of the evolution of a variable such as the price of raw materials or tax collection, as well as for the development of econometric models that quantify the impact of one variable on another (*Tax Elasticity - Tax Buoyancy*) or to make economic projections based on the past behavior of the variable and its interrelationships with others (Wooldridge, 2010).

A time series is said to be a composition of four types of fluctuations, Persons (1919) defines them as follows:

- **Long-term trend:** considered for a lot of series as the element of growth. In other words, the trend represents the evolution of the series over time (Ladiray & Quenneville, 2000).

- **Wave or cyclic movement:** it overlaps the trend, reaches its peaks during periods of prosperity, and presents its minimums during periods of depression. Its highs and lows constitute the *"business cycle"*.

- **Seasonal movement:** periodic behavior within one year with a characteristic shape for each series.

- **Residual variations:** the result of events affecting a particular series, or exceptional events, such as wars, natural disasters affecting a large number of series simultaneously.

Depending on the purpose pursued by the study of the time series, the time series components will be subject to change or adjustment. Misinterpretation of a time series can result in spurious relationships between variables. (Wooldridge, 2010).

Different ways of representing the breakdown of a time series are recognized in the literature, including the additive and multiplicative scheme described below[1]:

$$X_t = T_t + C_t + S_t + I_t \text{ (additive)}$$

$$X_t = T_t \times C_t \times S_t \times I_t \text{ (multiplicative)}$$

1 In some cases a mixed model "additive-multiplicative" or one "log-additive" is used (Bee & Bianconcini, 2016).

The appearance of an additive and multiplicative composition depends to a large extent on the interaction of the components that make up a series. This tells us that, graphically, the distinguishing feature of these two types of components is that, in the additive case, the series shows constant seasonal fluctuations, regardless of the overall behavior of the series, but in the multiplicative case the size of the fluctuations varies, depending on the overall level of the series, this implies that, as the series increases its magnitude, so will the seasonal component (Kalekar, 2004). This type of functional form is appropriate when the oscillations of the series are proportional to their level, and as this is a generality in the economic time series, this is the functional form that is used on a regular basis. (Villarreal, 2005).

Seasonal (and/or trend and irregular component) adjustments are usually made so that you can compare all the periods contained in the year in the same terms, since seasonality implies difficulties in the specification, estimation and inference of models, however, in this document seasonality is the factor that arises to break down, with the aim of studying the periodic fluctuations that occur in the collection of STs, on a daily and monthly basis and in detailing the reasons that explain these behaviors that are repeated on a recurring basis throughout the year[2].

The causes of seasonality are mainly climatic, economic, institutional, or structural factors, so they cannot be controlled or modified in the short term. Seasonality, however, is not independent of the stages of the economic cycle, when the economy faces periods of boom or recession, seasonal periods are also directly affected.

It is also important to mention that seasonal variations are distinguished from the trend by their oscillating character, from the cycle by being confined within the limits of an annual period, and from irregular ones, by being systematic (Bee & Bianconcini, 2016).

Two aspects are distinguished in the estimation of the components of a series, the non-parametric (or empirical) approach, and the parametric approach. In the first case, the components are estimated without resorting to estimating a statistical model for the time series, under this approach the components are estimated by applying linear filters, which are nothing more than local regressions at mobile intervals over time (X-12-ARIMA). On the other hand, the parametric approach is based on the specification of a statistical model for the series and once the models have been identified, the estimation of the components is carried out using optimal estimators given the constraints imposed by the model (TRAMO SEATS) (Villarreal, 2005).

Estimation of components

This study follows a non-parametric methodology, based on the seasonal adjustment module X-12-ARIMA, which as described above is based on a combination of moving averages, composed of a five-step algorithm that starts from the breakdown of the trend-cycle component and ends with obtaining the seasonally adjusted series (Villarreal, 2005).

Pre-adjustment methodology

A pre-decomposition step of the series with the X-12-ARIMA method is an adjustment to predict series values to extend the number of observations, simulate values prior to the first data in the series, detect and estimate different calendar effects in the series to pre-adjust the series such as “trading days”, seasonal effects, as well as identify and remove outliers. To do this, a

2 In business cycle analysis, seasonal, trend and irregular component components are often eliminated.

seasonal ARIMA model is built, so that the series can be interpreted as the realization of a linear stochastic process (Villarreal, 2005; Cortez, 2010; Granado, 2003). A SARIMA model is used to perform this process[3].

Time series decomposition

The procedure consists of applying the X-12-ARIMA methodology to the monthly ST series (2010-2018), extracting the seasonal component (x_{sf}) and transforming it on a 100 basis to obtain the seasonal weighting of each month, which is multiplied by the annual ST target, which as stated above, arises from the annual budget allocation approved by the National Congress of Honduras or an institutional target. This procedure applies to the ST of internal taxes, which are those administered by the Revenue Management Service (SAR), obtaining the monthly goal (see results table in *Annex No.1*).

Similar to what is described in the preceding paragraphs, this study emphasizes the description of the ST using more conventional techniques, including the development of seasonal charts based on averages (monthly and daily) distinguishing as previously stated between internal, customs and total taxes.

Another way to define the monthly collection goal is to build the weighting of the monthly seasonality, which arises from the ratio between the monthly average and the sum of the monthly averages of the 12 months, using a historical sample of the collection of STs of internal taxes (2010-2018), the formula used to obtain the seasonal average is as follows:

$$P_i = \frac{1}{f}\sum_{t=1}^{f} m_i$$

Where:
P = *Monthly average*
f = *Number of years*
m = *Monthly collection*
i = *1…12 months of the year*

And the monthly *weighting* is equal ρ_i to:

$$\rho_i = \frac{P_i}{\sum_{t=1}^{n=12} P_i}$$

To obtain the monthly distribution, the monthly weight ρ_i are multiplied by the annual collection target (see *Annex No. 1*).

2. RESULTS

Since the main function of the Tax Administration is to collect taxes, it is important to adequately distribute and monitor the fulfillment of collection goals of the month and year, for this the daily and monthly seasonality are two inputs that help to determine in advance the fulfillment of the goals, and thus make the corresponding decisions and actions in the appropriate time.

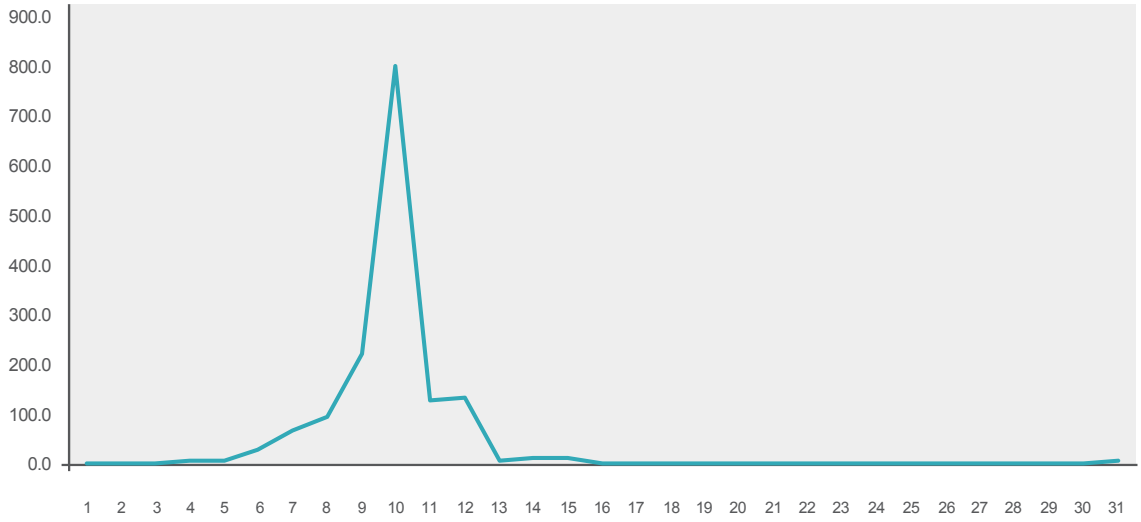
Daily Seasonality

In *Graphs No. 1* and *No. 2*, you can observe the daily seasonality of the collection of STs of Internal Taxes and Customs, respectively. The information for the construction of these charts is a daily series from 2017 – 2018.

3 For more details on the complete time series decomposition procedure see " X-12-ARIMA"s Reference Manual of the US Census Bureau (2011).

Under Honduran regulations contained in *the Sales Tax Act* in Article 11, the tax must be declared and payed within the first ten (10) calendar days of the following month in which the sales were made. This explains why the highest volume of tax revenue from this domestic collection tax is observed between 9 and 11 each month. Identifying this pattern allows the fulfillment of the collection target to be evaluated around the 14th of each month and based on that being able to make the appropriate decisions.

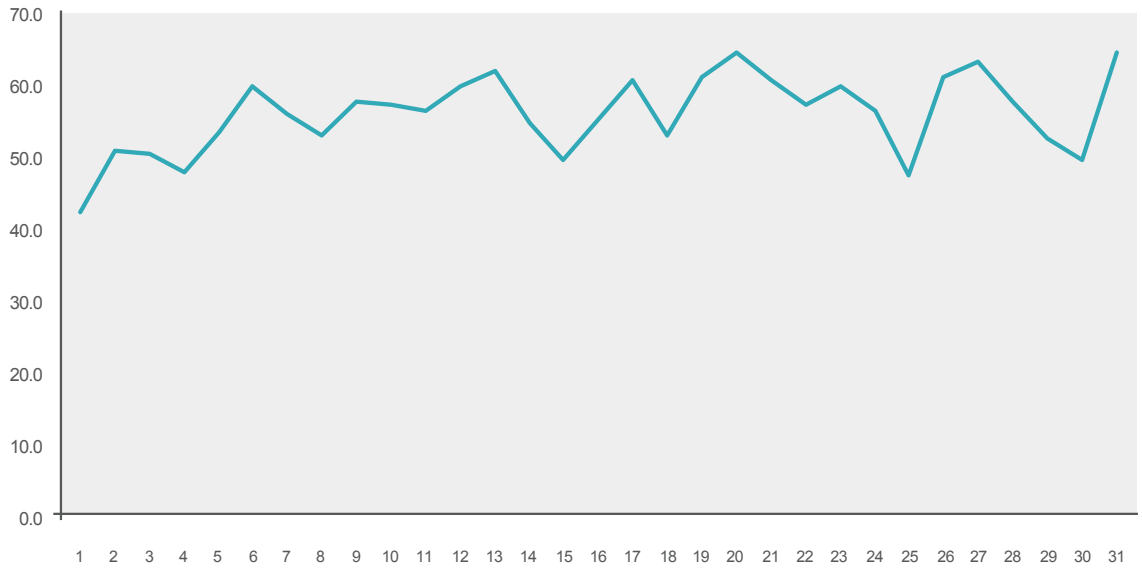
Graph No. 1 Daily Seasonality Collection ST Internal Tribute, Millions of Lempiras



Source: *Own elaboration with SAR information*

The Customs collection shows a different behavior (Graph No. 2) since the collection (declaration through SCD – Single Customs Declaration) is recorded every day and no seasonal pattern is observed. Therefore, in the case of Customs it is more difficult to know in advance whether the goal of the month will be met.

Graph No. 2 Daily Seasonality Customs ST Collection, Millions of Lempiras



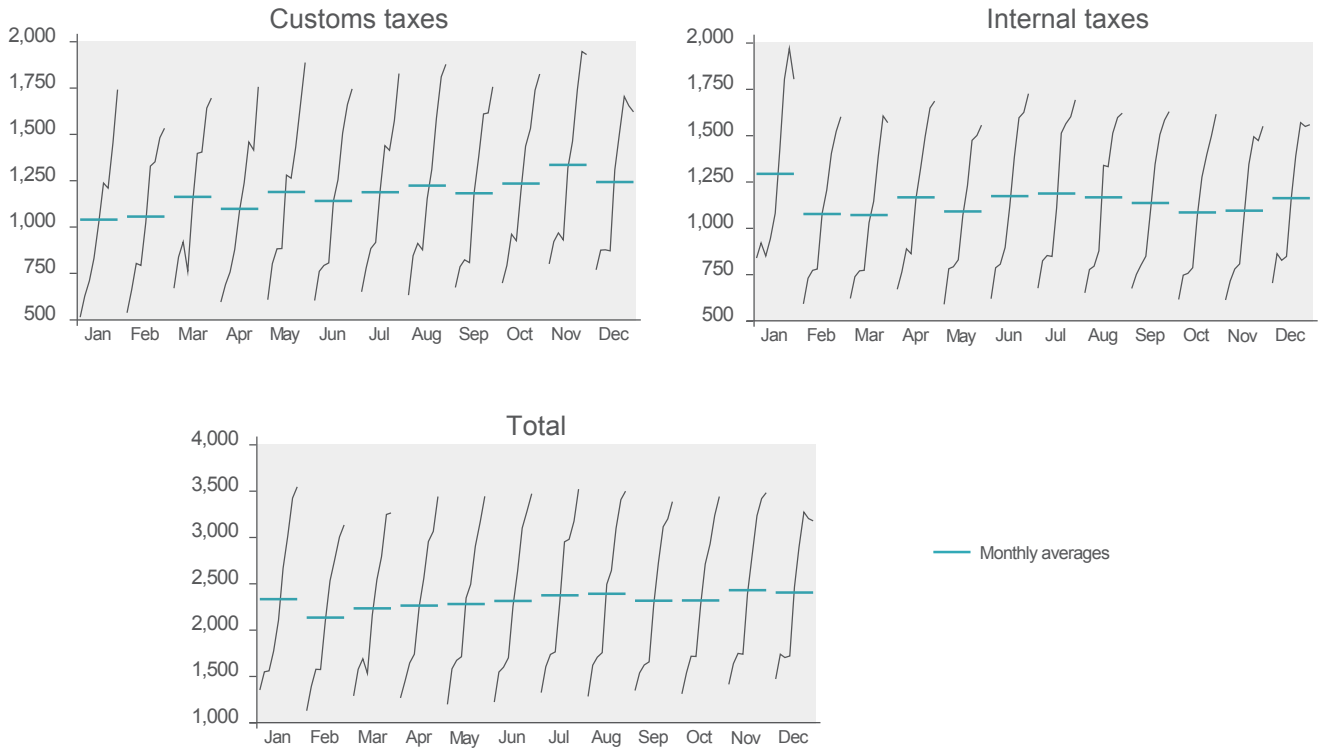
Source: *Own elaboration with SAR information*

Monthly Seasonality

The monthly collection target is defined (once the annual target is set) using monthly seasonality. As noted in the previous section, the annual ST collection target is predetermined, and seasonal weights are used to distribute it among the 12 months of the year, which are obtained by means of two forms, on the one hand, through the extraction of the seasonal factor (ARIMA-X-12) and on the other, as a result of the application of seasonal averages.

The seasonal component is a behavior that is repeated every year, influenced for example by increased economic activity at certain times of the year. The collection of some taxes such as ST responds to that seasonality of economic activity, which implies greater collection in those months.

Graph No. 3 Monthly Seasonal Averages, Millions of Lempiras



Source: *Own elaboration with SAR information*

Graph No. 3 contains the monthly collection and seasonality series[4]. In the Customs collection, it can be noted in a notorious way that the highest-grossing month is November, because in this month taxpayers are preparing to sell in December (the highest financial activity month for the holiday season and 13th month's salary), the month of December is the second highest-grossing month since in the first two weeks of the month, the taxpayers are still preparing for the year-end holidays.

Due to the dynamics of the collection and its tax bases, the collection of Internal Taxes depends on the credits resulting from the imports (decrease) of the previous month and sales as such of the previous month (increase), reflecting in the collection the component with greater weight. The significant customs collection in November (and December) has implications for the collection of internal taxes, as what was paid in that month serves as credit for the following month in the declaration of internal taxes, as you can see the December collection in internal taxes is relatively low compared to other months.

In internal taxes, the highest-grossing month is January as it is declared and paid for in December (the month of greatest economic activity for the holiday season and 13th month of salary), the month of July is the second month of collection, because household receive the 14th month of salary. An increase in the collection is expected from both *Holy Week* and the local *"Morazanic Week"* however, the first takes place between March and April, while the second is recently created[5] (effective from 2015), so in both cases their seasonality is not

4 The blue line represents the month's fundraising series, and the red bars represent the average of that monthly series.

5 Emerged as The Fusion of three civic festivities corresponding to the 3rd, 12th and 21st of October, initially by Decree No. 75-2014 were moved to the last week of October, however, but it was reformed by Decree No. 78-2015 formally establishing the three holidays from the first Wednesday of October.

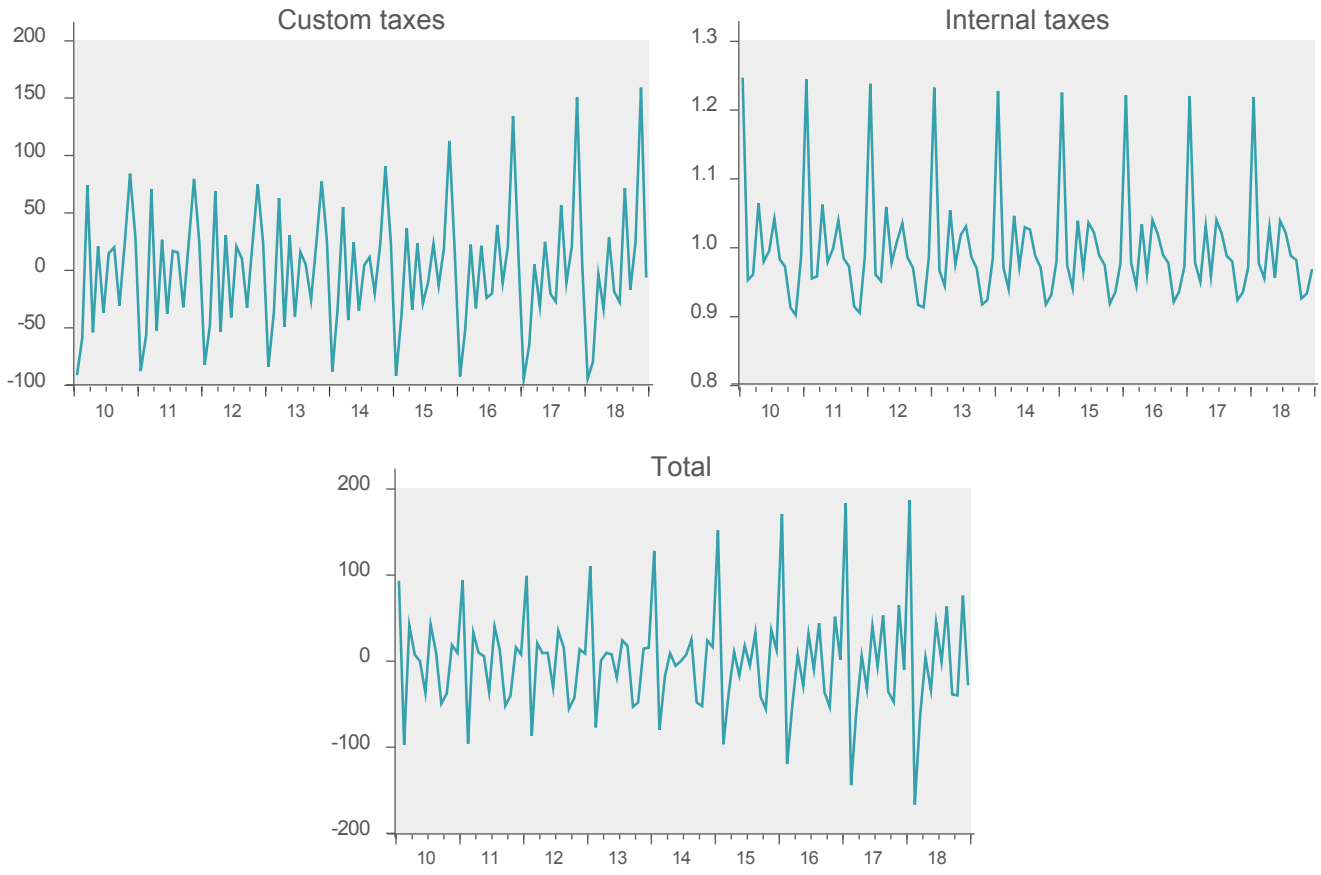
shown directly. But for an ordinary year, the revenue is expected to increase the month after both weeks.

The Total Collection does not present a clear seasonality, but rather a more or less stable behavior over the year compared to the cases seen above, this could be due to the existence of a *"trade-off" among* the effects described in the preceding paragraphs, for example, high collection in January in internal taxes is partially countered by low customs collection.

Graph No. 4 presents the seasonal component of Customs, Internal taxes, and Total series, using the X-12-ARIMA methodology[6].

In the customs collection, the highest peaks (with some exceptions) correspond to December and the lowest to January. In the case of internal taxes, the highest peaks (with some exceptions) correspond to January and the lowest to October and November. For Total amounts, the highest peaks correspond to January, confirming that this is the highest-revenue month, and that December is the month of highest economic activity, while the lowest peaks are observed in February, indicating that this is the lowest-collection month, and that January is the lowest month of economic activity.

Graph No. 4 Seasonal Factor X-12-ARIMA



Source: *Own elaboration with SAR information*

6 The other components are shown from Annex No. 2.

3. CONCLUSIONS

The Sales Tax (ST) is the main source of tax revenue in Honduras, so its behavior analysis, allocation and target compliance are very important for the correct tax and cash flow programming.

To use the procedure described in this note, the annual collection target is first defined, and once defined it is distributed between the different months using the monthly seasonal weighting.

The monthly goal of collecting STs from internal taxes is obtained by two ways, the first is the monthly weighting extracted from the seasonal component, multiplied by the total goal, the other is by means of the monthly weighting that result of dividing the seasonal average by the sum of the monthly averages.

The weight described is based on the 2010 – 2018 series, so when used to define the monthly target, it is evaluated based on what may happen in the particular year.

The only reform on the statutory tax rate of the ST during the analysis period took place in 2013 with entry into force in January 2014 (full year) so it does not affect seasonality with monthly averages.

Seasonality is usually excluded in time series analysis because of the problems it presents in estimation, specification, and inference, but in this note it is precisely the component of interest for allocating monthly collection targets.

The methodology is being evaluated and considered applicable to other taxes that also present seasonality, such as liquor production and consumption, among others. This procedure was first used for 2019.

4. BIBLIOGRAPHY

Bee, E., & Bianconcini, S. (2016). *Seasonal adjusment methods and real time trend-cycle estimation*. Switzerland: Springer.

Cortez Osorio, J. (2010). *Desestacionalización x12 ARIMA con efecto calendario: indice de producción de la industria manufacturera. Revista Chilena de Economía y Sociedad*, 4(1), 65-84.

Decreto No. 78-2015. (2015). *La Gaceta*. Poder Legislativo.

Granado, M. J. (2003). *Series de recaudación tributaria nacional para Argentina: ajuste estacional y análisis cíclico*.

Kalekar, P. S. (2004). *Time series forecasting using Holt-Winters exponential smoothing*.

Ladiray, D., & Quenneville, B. (2000). *Desestacionalizar con el método x-11. Methodologica*(8-9).

Ley de Impuesto Sobre Ventas, C. d. (1963). *La Gaceta*. Decreto No. 24-1963. Jefatura de Gobierno.

Nicholson, W. (2008). *Teoría microeconómica principios básicos y ampliaciones* (9na ed.). México. D.F.: Cengage Learning.

Persons, W. M. (1919). *Indices of business conditions*. *Review of Economic Statistics*, 1(1), 5-107.

Stiglitz, J. E., & Rosengard, J. K. (2015). *La economía del sector público* (4ta ed.). Barcelona: Antoni Bosh.

U.S. Census Bureu. (2011). *X-12-ARIMA reference manual*.

Villarreal, F. G. (2005). *Elementos teóricos del ajuste estacional de series económicas utilizando X-12-ARIMA y TRAMO-SEATS*. Santiago de Chile: Naciones Unidas.

Wooldridge, J. M. (2010). *Introducción a la econometría, un enfoque moderno* (4ta ed.). Ciudad de México: Cengange Learning.

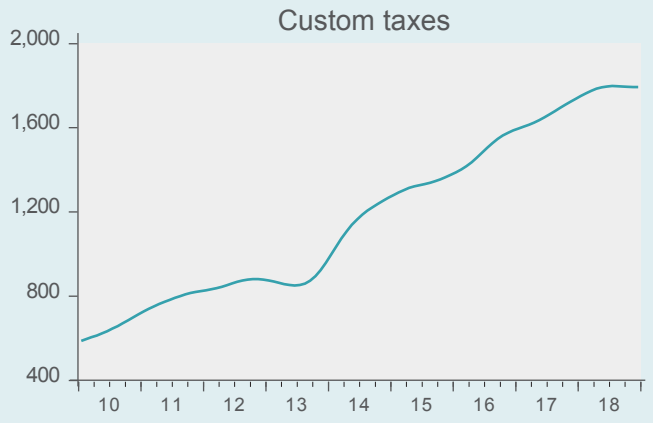
5. ANNEXES

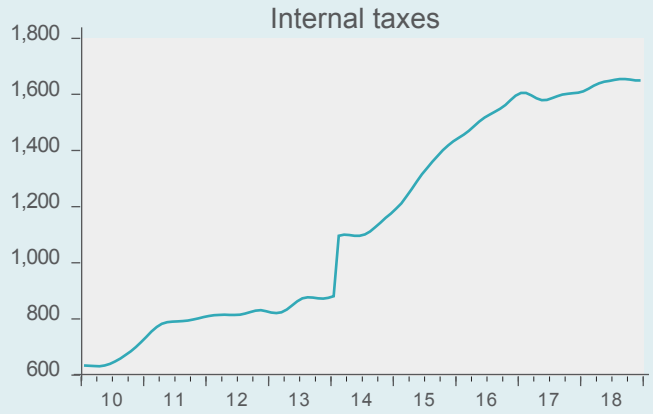
Annex No. 1 Seasonal Weighting ST 2010-2018

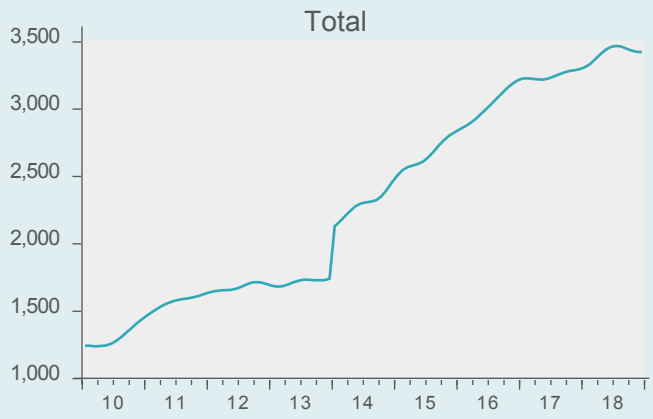
MONTH	SEASONAL COMPONENT (ARIMA X-12)	WEIGHTING ARIMA X-12	SEASONAL AVERAGES WEIGHTING
January	1.19	9.94%	9.44%
February	0.97	8.08%	7.86%
March	0.97	8.06%	7.82%
April	1.06	8.83%	8.51%
May	0.98	8.14%	7.96%
June	1.03	8.60%	8.56%
July	1.03	8.54%	8.66%
August	0.99	8.26%	8.52%
September	0.97	8.12%	8.29%
October	0.92	7.64%	7.92%
November	0.92	7.68%	7.99%
December	0.97	8.10%	8.49%

Source: *Own elaboration with SAR information*

Annex No. 2 Trend-Cycle Component

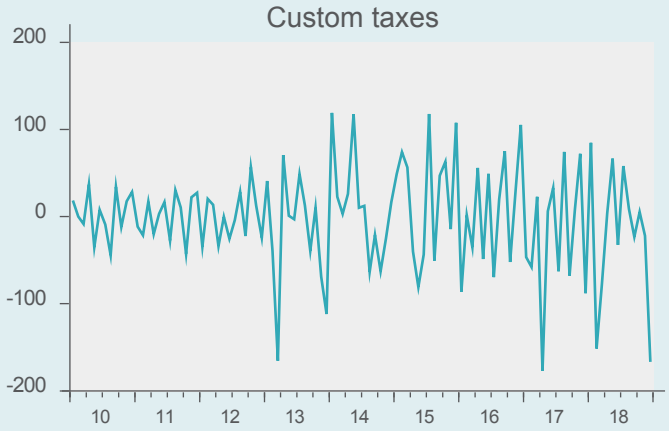


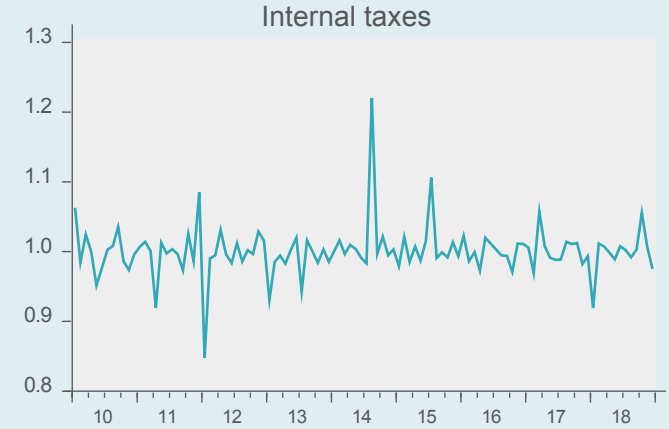


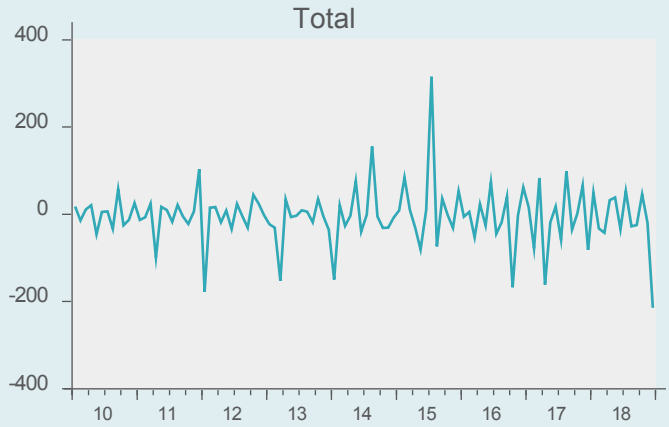


Source: *Own elaboration with SAR information*

Annex No. 3 Irregular Component

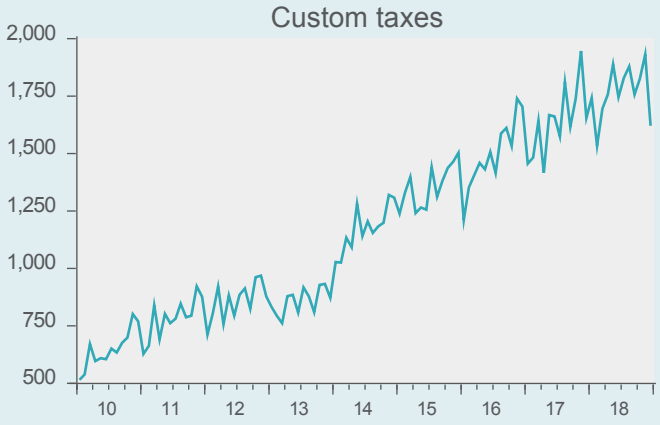


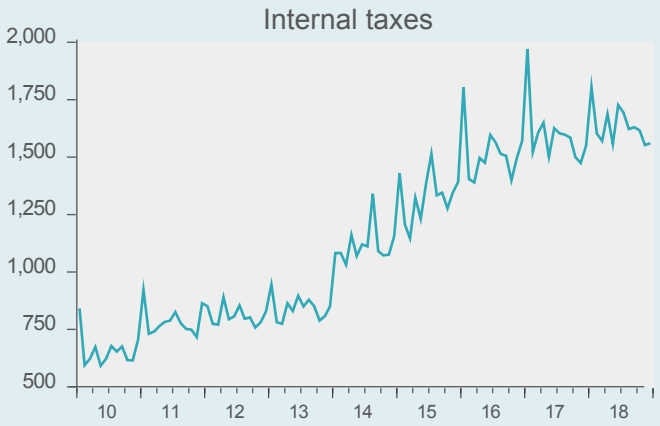


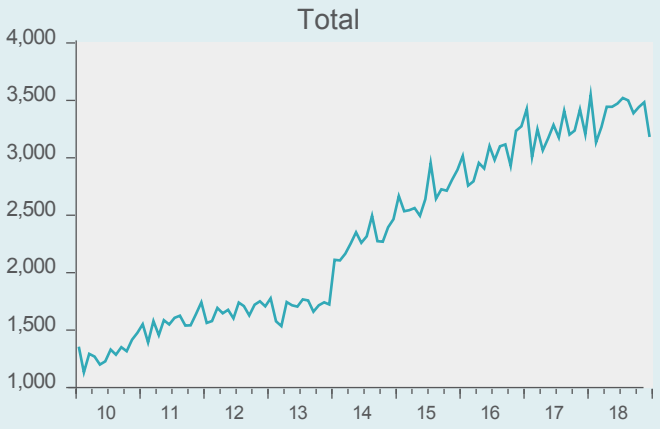


Source: *Own elaboration with SAR information*

Annex No. 4 Original Series

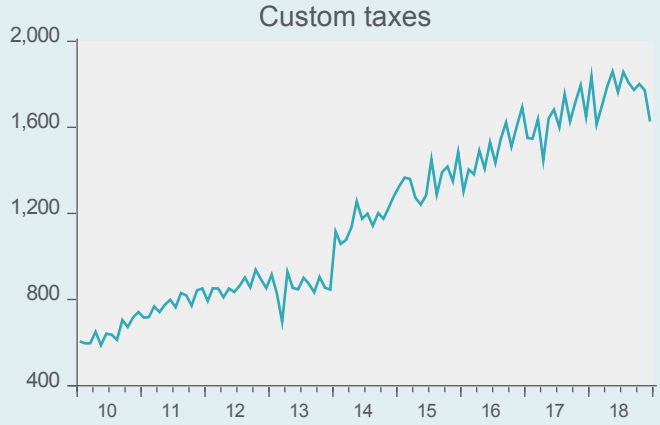


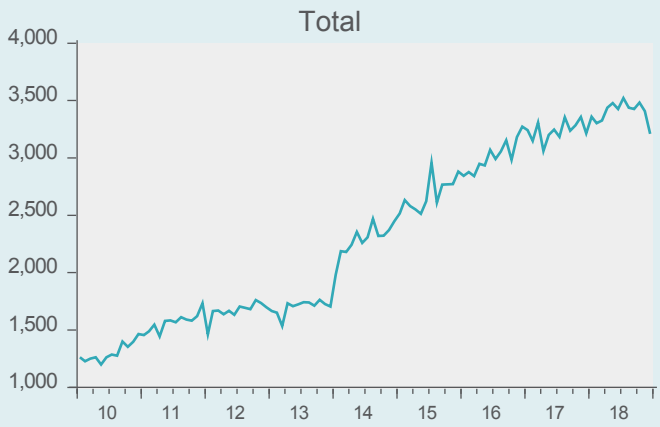




Source: *Own elaboration with SAR information*

Annex No. 5 Seasonally Adjusted Series





Source: *Own elaboration with SAR information*

ADOPTION, IMPLEMENTATION AND DEVELOPMENT

in domestic legislations of the proposed multilateral measures for the taxation of the digital economy

Ana Cristina **Triana Suarez**

SYNOPSIS

The present work aims to identify the multilateral measures proposed to address the fiscal challenges of the digital economy and establish the proportion in which they have been adopted, implemented, and developed in the domestic legislation of the member countries of the European Union, North America, and Latin America.

This work will be developed through the analysis of documents issued by the organization for Economic Cooperation and Development (OECD) establishing the proposed multilateral measures, to subsequently compare them with the domestic legislation adopted, implemented and developed by the countries concerned, identifying their degree of incorporation in the legal systems.

CONTENT

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INTRODUCTION

The international taxation of the digital economy has proved to be a true challenge for the different states, since this new way of doing business is covered by multiple characteristics that hinder their taxations with the current rules of international taxation. For this reason, the OECD has sought to identify different measures to facilitate the correct taxation and to restrict the elusive practices that erode the tax base and shift profits, bringing forward proposals that modify completely the principles of international taxation and on which a consensus is sought. There is no point to agree on multilateral measures that would allow the international taxation of the digital economy, if these are not adopted, implemented, and developed by the jurisdictions in their domestic laws.

This article therefore identifies and compiles the different measures proposed by the OECD and compares them with the domestic laws of the member countries of the European Union, North America, and Latin America, in order to determine their level of incorporation in the jurisdictions analyzed.

This comparison will allow identifying the level of taxation of the digital economy reached by each block of jurisdictions analyzed and to determine the road that still remains to be traveled to reach the level proposed by the OECD, and achieve the true standardization at the global level of international tax rules that would allow and facilitate the taxation of the digital economy under unified criteria, avoiding disputes between jurisdictions, mitigating the adoption of preferential regimes to attract tax bases, as well as abusive practices adopted to reduce or transfer profits, and leaning towards equity and justice in the distribution of the tax income worldwide.

In this perspective, the present work in the first place identifies the measures recommended by the OECD in the past five years, to address the fiscal challenges of the digital economy, subsequently analyze their adoption, implementation, and development in the domestic laws of the member countries of the European Union, North America and Latin America, concluding with the determination of the degree of incorporation of the various multilateral measures proposed in the tax systems of the blocks of countries analyzed.

1. PROPOSALS FOR MULTILATERAL POLICY MEASURES FOR THE INTERNATIONAL TAXATION OF THE DIGITAL ECONOMY

The OECD expert group on Taxation of the Digital Economy (EGTDE), in 2015, in the report on Action 1 of the plan against tax base erosion and profit shifting (BEPS) identifies the challenges of taxation in the digitalization of the economy and sets out some recommendations to address these challenges, including among them the adoption of indirect taxes on goods and services that are transacted virtually (OECD, 2015).

Continuing with the development of the Action 1 of BEPS the EGTDE completed in 2018 the provisional report of the tax challenges arising from digitalization. This report looks at the economic models and value creation derived from the digitalization and identify their characteristics, as well evaluating the possible effects on the current international fiscal framework, concluding that it is necessary to harmonize the criteria for determining the existence of a nexus, and the rules of attribution of profits, as concepts fundamental to the allocation of taxing powers between jurisdictions and, therefore, for the determination of the benefits that would be subject to taxation in each jurisdiction. It also determines some recommendations and describes a conceptual framework for the adoption of provisional measures by those states that want to quickly implement the taxation of the digital economy through direct taxes, suggesting the adoption of a special tax for the provision of certain digital services, which would be applied on the gross value invoiced (OECD, 2018).

In the interim report submitted in march 2019, the EGTDE, in search of the consensus required to find a long-term solution to meet the tax challenges posed by the digitalization of the economy, develops different proposals on the international tax rules applicable to the determination of the existence of the nexus and the rules of attribution of profits, as well as measures relating to the erosion of the tax base and the shifting of profits, which were elevated to public consultation and resulted in the today well-known pillar 1 and 2, which provides for a unified approach (OECD, 2019a).

In November 2019, the unified approach documents of each of the pillars were generated and elevated to public consultation. To date, no definitive documents have been released, but they are expected to be generated in 2020.

The unified approach document under Pillar 1 sets out a proposal to establish by consensus the international tax rules applicable to the determination of the existence of the Nexus and the rules for the attribution of profits. This proposal is generated from the analysis of different elements such as:

- Reassignment of tax rights in favor of the jurisdiction of the user/market, considering the offshoring of businesses that execute their activities digitally.

- Redefinition of the rules on the Nexus, independently of the physical presence in the user/market jurisdiction.

- Transcendence of the arms-length principle and disconnect digitalized companies from the concept of economic group with small cells operating in different markets, towards the concept of an independent entity with a virtual presence in different jurisdictions.

- Strive for simplicity, stability and legal certainty of tax rules and systems.

As well as different positions regarding the businesses on which these new international tax rules should be applied, on the distribution of the attribution of tax rights in the different jurisdictions in which it operates and the nexus of this type of business with the state in which it develops its activity.

As a result of this analysis and in search of a consensual approach, the OECD Secretariat proposes a solution that combined the interest of all members of the Inclusive Framework, identifying and specifying the aspects that would form this solution, among which we can mention:

A. Scope of application. It is essential to identify the businesses on which the new international tax rules on the Nexus and attribution of profits will fall, and to set the respective exclusions.

In this regard, the Secretariat reports that in a globalized economy in which day-to-day business are developed more widely in digital form, different types of business have emerged with a highly technological component that interact with consumers remotely and without the need of physical presence. They delocalize their economic activity, therefore it is considered that the unified approach of pillar 1 proposed to meet the challenges of the taxation of the digital economy must focus on large consumer-oriented companies and which derive their income from the sale of consumer products and provision of digital services oriented to the consumer. A clear definition of what is considered to be business-oriented to the consumer is set out, and determining a threshold of minimum transactions that must be reached by such businesses, as well as the activities and sectors that would be included.

B. New criterion of legal linkage (Nexus). This element establishes the new criteria for linking a business that operates digitally with the country in which it operates. It is shifted from the condition of physical presence (permanent establishment) to the

criterion of significant presence, determined from the level of sales made in the jurisdiction where it operates, for which it is required to set specific thresholds of transactions volumes for each jurisdiction in order to implement a more equitable distribution of income tax at the global level.

These new criteria of subjection and the transaction thresholds that determine the new concept of significant presence should be articulated in the double taxation agreements with the adoption of new provisions. In connection with this aspect, the unified approach of pillar 1 presents a modification to the nexus of physical presence, starting with the fact that companies highly digitalized interact with their clients remotely, without the need of having a physical presence in the jurisdiction where the consumer is located, therefore a new standard on the nexus should focus on the a continued and significant participation in the economy of the market jurisdiction, through the interaction and involvement of the consumer, and this goes beyond the level of physical presence in that jurisdiction.

The significant virtual presence was an aspect initially proposed in the recommendations given in the report of Action 1 BEPS as a criterion of subjection for direct taxes.

This new standard on the nexus could be applicable as a parameter of the threshold of the total value of transactions performed, which demonstrate the continued and significant virtual presence, taking into account within this threshold, the value of transactions generated from services that the consumer does not pay but leads to other income in the same or another jurisdiction (example: online advertising that generates subsequent digital sales), this new nexus does not exclude or replace the nexus of physical presence, it just complements it as an independent standard that is added to the standard of Permanent Establishment, This new criterion of subjection in order to ensure neutrality between the different business models developed in the digital economy, not only the transactions of intangible goods and services, but also including subjection of transactions with tangible goods developed directly or indirectly by highly digitalized companies.

C. New rules on the allocation of profits which go beyond the principle of arm's length. In this respect, a new profit attribution standard is created for highly digitalized companies, independently of the functions performed, although the transfer pricing rules based on this principle are retained and supplemented with new formulas that solve the shortcomings in the face of the new business models developed.

This section seeks to determine the portion of the benefit that jurisdictions can tax, based on the new criteria of subjection, as defined in this unified approach. Currently, the allocation of profits is dealt with in Articles 7 and 9 of the OECD Tax Convention, which bases the allocation on the functions carried out, the risks borne and the assets used in the jurisdiction, parameters that would not apply with the new link of continued and permanent virtual presence, which would transcend the Arm's Length principle with the new rules of attribution of profits.

The unified approach of Pillar 1 considers that the current transfer pricing rules should be maintained and supplemented so that they are applicable to the new subjection criterion and allow determining the amount of profit attributed to the market jurisdiction.

To this end it proposes a mechanism based on three elements:

- **Revenue A.** Market jurisdictions may tax a part of the imputed residual profit of the multinational group by business line, i.e. the profits to be taxed would be a part of the remaining profit after the profit from routine activities is attributed to the jurisdiction where they are executed, this residual profit will be distributed in the different market jurisdictions according to the level of sales they have had, whose percentages must be agreed by consensus among the members of the Inclusive Framework.

- **Revenue B.** The activities in the jurisdiction of the market will continue to be subject to taxation in accordance with the current rules of transfer pricing based on the principle of Arm's length and the attribution of profits to the permanent establishment when it has a physical presence in that jurisdiction, although it is worth to note that the unified approach of pillar 1 provides for within their proposals to set a fixed return to the activities of marketing and distribution, in attention to the multiple disputes between the states about the taxing power on the income generated in these activities, and thus mitigate these, additional to provide legal stability for taxpayers and tax administrations.

- **Revenue C.** The allocation of additional profits determined under the transfer pricing rules as the result of disputes between the market jurisdiction and the taxpayer over additional functions performed and not accounted for by the local entity and not subject to the fixed profitability provided for in Revenue B.

From the above it is concluded that the unified approach of pillar 1 proposes a new taxation right (Revenue A) to the jurisdiction of the market, even when the company that runs the operations does not have a physical presence. The benefits defined in the Revenue B and C are applied only when there is a traditional nexus (physical presence) with the jurisdiction of market. It is clear that what is sought with this proposal of a new criterion of subjection is to prevent and resolve disputes between the taxing powers of the jurisdictions involved in each operation.

With the new right of taxation (Revenue A) by reallocating a part of the profit to the market jurisdiction regardless of the location or residence, it clearly allows mitigating the relocation of economic transactions carried out by virtual means, since it assigns a nexus without the need for physical presence to a market jurisdiction, and defines the attribution of the profits generated between the market jurisdiction and the jurisdiction of residence, avoiding disputes regarding the taxing powers, generating equity in the distribution of the taxable income between the jurisdictions and controlling the transfer of benefits and preferential tax regimes.

It is clear that the definition and implementation of the proposals raised in the unified approach of Pillar 1 require various prior activities to be applicable on an equal basis in all jurisdictions, among these activities can be listed:

- *Determination of business models.* Provided that the unified approach of Pillar 1 involves the application of Revenue A by sector or product line, it is required that each jurisdiction determine the market in which highly digitalized companies operate in order to define the transactions and operations that will constitute the scope of application of the tax rules of nexus and attribution of profits.

- *Definition of revenues.* It is clear that the implementation of the unified approach of Pillar 1 requires consensus to define the magnitude and amount of the profits reallocated to the market jurisdiction. Without consensus, the approach is not feasible, therefore, each jurisdiction must evaluate its internal policies and define what would be that margin that they would be willing to give and/or receive.

- *Elimination of double taxation.* The implementation of the new approach proposed by Pillar 1 requires an evaluation of the existing mechanisms to eliminate double taxation in order to demonstrate whether the identification of the taxpayer on whom these new tax rules would fall and the determination of the taxable benefit to be reallocated allows the operation of these measures effectively and in accordance with its intended purpose.

- *Collection issues.* It is clear that jurisdictions should evaluate, design or adjust the appropriate collection mechanism for residual non-routine profit tax assigned as a market jurisdiction, providing that the taxable taxpayer will not have a physical presence in their jurisdiction. Within these mechanisms, jurisdictions have the tax withholding at the source, which, in the view of the new approach defined by Pillar 1, is the most appropriate for collecting taxes generated by taxation on Income A, the characteristics of which must be harmonized so that their application is carried out on equal terms in all jurisdictions.

- *Modification of multilateral international taxation regulations.* At the global level, the normative of multilateral international taxation has been agreed from the adoption of the model tax convention prepared by the multilateral agencies (OECD and UN) in the bilateral agreements. That is why these models and conventions agreed adopted under this approach must be amended by incorporating this new approach, changes that should be made simultaneously by all jurisdictions in order to ensure the conditions of equality, legal certainty and the minimization of disputes (OECD, 2019b).

The public consultation document of Pillar 2 establishes a global proposal to counter the tax base erosion (GloBe), composed of 4 parts as follows:

A. Income inclusion rule. This rule provides for taxing the income of a foreign branch or a subsidiary if they were taxed at a rate lower than the minimum rate.

B. Sub-tax payments. This rule involves denying deductions or imposing a tax in the source country for payments to related parties, if that payment was not subject to a minimum tax or higher than a minimum rate.

C. Commutation. This rule provides for the inclusion in tax agreements of a rule allowing the jurisdiction of residence to switch from exemption to a method of credit when the profits attributable to a permanent establishment or immovable property are taxed at the effective rate below the minimum rate.

D. A tax that complements the sub-fiscal payment rule. This rule provides for a payment to be subject to withholding or other tax in the country of residence, adjusting eligibility for treaty benefits under certain income items where the payment is not taxable or at a minimum rate.

This proposal will have to be adopted by the different jurisdictions by introducing the respective changes in domestic legislation and tax agreements.

This proposal, like Pillar 1, provides for substantial changes in international taxation rules, the GloBe proposal seeks to ensure that the profits of an intentionally operating company are subject to a minimum tax, thus comprehensively addressing the remaining BEPS challenges, linked to the digitalization of the economy, and even going beyond.

For the correct definition and implementation of the proposal foreseen in pillar 2, it is necessary that the members of the inclusive framework reach a consensus on the minimum tax ratio and the application thresholds, as well as the information that will serve as a basis to be able to determine the intra-group taxable profits and the participation of each of the subsidiaries in said profits, in order to make the distribution of income more equitable with coordinated multilateral measures that mitigate the establishment of preferential regimes that seek to attract the taxable base or shield the taxable base captured, through unilateral and uncoordinated measures (OECD, 2019c).

2. MEASURES INCORPORATED IN DOMESTIC TAX REGIMES

2.1 European Union

In the European Union since 2015, under the parameters of Action 1 BEPS - fiscal challenges of the digital economy, measures have been introduced for the taxation with the indirect VAT tax on online sales, these measures have been developed thus:

A. Initially, indirect value-added taxation was adopted on telecommunications, broadcasting or electronic television (TBE) services provided in the European Union regardless of whether the provider is based in or out of the European Union, which was introduced by the following legal provisions:

- Council Directive 2006/112 / EC on the common system of Value Added Tax. This provision defines telecommunications services, the place of supply of TBE services, and special regimes for non-established taxable subjects providing TBE services to non-taxable persons.

- EU Implementing Regulation No. 282/2011 of the council- Regulation implementing VAT. In this regulation covering each of the TBE services, the provisions for the services provided online, the specific provisions on presumptions for determining the location of the customer and the detailed provisions for the operation of the Mine One Stop Shop (MOSS) system).

- EU Regulation No. 904/2010 of the Council on administrative cooperation to fight fraud in the field of Value Added Tax. This regulation lays down the rules for the automated exchange of information between member states through MOSS.

- Implementing Regulation No. 815/2012 of the Commission. This regulation sets out the standardized provisions on the identification of taxable persons using MOSS and the content of the VAT return.

TBE services were taxed at a VAT rate ranging from 17% to 25%.

B. The second measure adopted was the VAT e-commerce package in 2017, adopted through the following provisions:

- Council directive EU 2017/2555, which modifies the Directive 2006/112/EC applicable to the services TBE, and introduces in this regime the remote sales of national and imported goods that transit using the electronic interface, in accordance with the principle of taxation at the place of destination, considering the entities who made those sales, the taxable subjects holders of the electronic interface that facilitates the remote sale, which must be located in European Union except if the goods sold are imported from a country with which the European Union has a signed agreement of mutual assistance.

- Council regulation of implementation EU 2017/2454, amending EU regulation 904/2010 and broadening the coverage of the rules relating to the exchange and storage of information, covering remote sales of goods and services other than TBE services.

- EU implementing regulation 2017/2459 of the council, amending EU implementing regulation 282/2011 and defining new rules for the location of the customer/consumer of TBE services and other services executed electronically.

C. The third measure was the implementation of the VAT e-commerce package, which was adopted by:

- EU implementing regulation 2019/1995, which amends Directive 2006/112 EC, accommodating same-state sales of goods transacted by an electronic interface.

- Council implementing regulation EU 2019/2026 amends implementing regulation EU 282/2011, which sets out clear and binding definitions of distance selling and the provision of other services via an electronic interface in order to clarify the application scope.

D. The fourth measure adopted was the operation of the single VAT window defined by:

- Implementing regulation EU 2020/194, with this regulation a single interface was made available for the exchange of information in a uniform way and to facilitate the fulfillment of obligations by the taxpayer.

With these measures, the member states of the European Union will obtain an increase in VAT revenues of 7,000 million euros per year, they also reduce VAT compliance costs, facilitate cross-border trade and provide equality between EU and non-EU companies, as well as between member countries companies that carry out their activity in the traditional economy and the digital economy (European Commission, 2020a).

The countries of the European Union except Ukraine, have incorporated in their domestic legislation indirect taxes (VAT) to the digitalized economy, this incorporation took place since 2002 and has been evolving to cover all the business models developed for the year 2020 (KPMG, 2019).

Also, in the year 2018, the European Parliament, in attention to international standards on corporate taxes that are not currently adjusted to the economic modern reality and do not capture the business models that obtain the benefits of digital transactions in a country without being physically present, nor do they recognize the new forms of creation of profit in the digital world, creating a disconnect between the place where the value is generated and where taxes are paid, has developed different proposals for fair taxation of the digital economy, which are:

A. Reform the rules of corporate taxes so that profits are recorded and taxed where the companies have a meaningful interaction with the users of digital channels, which will allow for taxing the tax benefits generated in a state, even if the company does not have any physical presence in that jurisdiction, generating equity with regard to the contribution to public finances, with the traditional on-site companies. To do this, some thresholds were defined to identify when a company has a taxable digital presence- which amounts to determine that there is a permanent virtual establishment in a Member State of the European Union if it meets one of the following thresholds:

- More than 7,000,000 euros in annual income in a member state.

- More than 100,000 users in one-member state.

- More than 3,000 commercial contracts created in the fiscal year for digital services or transaction of goods by virtual means.

It also considers that the benefits would be allocated to the member states, considering the jurisdiction in which the user makes the consumption. The ultimate goal of this measure is to ensure a real link between the place where digital profits are made and where they are taxed.

B. Create an indirect provisional tax for income generated by certain digital activities that are not currently included in the current tax framework, which are those activities in which the user plays an important role in the creation of value, among which can be listed:

- Sale of advertising space online.
- Digital intermediation activities that allows interaction between users and facilitates the flow of goods and services between them.
- Sale of data generated from the information provided by the user.

This tax will be applied in the states where users are located and is applied on companies with total annual global revenues of 750 million euros and revenues in the European Union of 50 million euros and it is estimated that the rate to be fixed is 3%.

With this measure, the European Commission seeks to collect 5,000 million euros a year for the Member States (European Commission, 2020b).

Some countries of the European Union have already adopted and implemented a provisional tax to tax digital services that begins to operate in the next year, among which we have:

- France, with a rate of 3% applied on revenues originating from activities of digital intermediation services, online advertising, and the sale of user-generated data.
- Greece, the general rate of profit tax, applied on income from short-term rentals transacted through digital platforms.
- Italy, with a rate of 3% applied on revenues generated by the execution of online advertising activities and digital interface to buy and sell goods and services.
- Turkey, with a rate of 7.5% applied on revenues from the implementation of digital advertising activities and the supply of digital content (software, applications, music, video, etc.).
- Austria, with a rate of 5% applied to revenues generated by digital advertising services.

Other countries are also in the process of adoption, including:

- Spain, with a rate of 3% to apply on revenues generated by the activities of online advertising services, sale of online advertising and sale of data generated by users.
- United Kingdom, with a rate of 2% to apply on revenue received by search engines, social networks, and online marketplace
- Czech Republic, with a rate of 7% to apply on revenues derived from activities of digital Advertising, sale of data generated by users and interface to facilitate the supply of goods and services.
- Belgium, with a rate of 3% to apply on revenue received from the sale of data generated by users. (KPMG, 2019).

2.2 North America

In North America, Canada since 2018, and the United States since 2019, have introduced indirect taxes on transactions made in the framework of the digital economy, pursuant to the recommendations set out in Action 1 of BEPS – Challenges of the Digital Economy. Canada was the pioneer in adopting indirect taxation measures on supplies made through electronic platforms, which were adopted and implemented through the Special Taxation Act introducing the Goods and Services Tax (GST) on transactions made through electronic means, covering all business models developed in the digital economy (Canada Revenue Agency, 2020).

For its part, the United States introduced the tax on the sales of digital products and services up to the year 2019, this tax is local or statewide, therefore, each state sets the tax regulation applicable. Currently, 27 states have introduced in their internal legislation the indirect taxation measures on digital transactions of goods and services. In these states, this tax falls on the business that record annual sales in excess of $ 100,000 or more than 200 transactions. The payment and collection are carried out only in the state in which the provider of the good or service has a physical presence (IRS, 2020).

With regard to direct taxes, Canada has announced its intention to implement a tax on revenues generated in business models developed in the digital economy, which would apply a 3 percent rate on revenues received from activities of digital advertising services and virtual intermediation services, and the taxable subjects of this tax would be companies that receive global revenues of more than 1 billion USD and have a national revenue exceeding USD 40 million.

The United States, for its part, expects a multilateral solution and opposes the provisional unilateral measures adopted by some states, since they consider them discriminatory, supports the OECD proposal regarding the GloBe since it considers that it is compatible with its Global Intangible Law-Taxed Income (GILTI), a proposal that was introduced in 2017 through the law on tax reduction and jobs. (KPMG, 2019).

2.3 Latin America

According to what is described in the document fiscal Panorama of Latin America and the Caribbean (ECLAC, 2019), the tax measures implemented by Latin American States to address the tax challenges of the digitalized economy have focused on the incorporation of indirect taxes applying the recommendations given in Action 1 of BEPS – Addressing the tax challenges of the digital economy.

The addition of indirect taxes to tax the digital services in the domestic legislation in the region of Latin america have represented a hybrid between the principle of origin and destination, allowing states to tax (VAT sales tax) the import of digital services that are used or exploited effectively in the jurisdiction, this tax applies a rate that ranges between 19% and 21%, and its mechanism of collection differs between the different countries analyzed, some determine that the providers of services must declare and pay directly the taxes collected, and other countries chose the mechanism of withholding at source practiced by the issuers of the means of payment. With the adoption and implementation of the sales tax on the marketing of digital services, Latin American countries expect to raise between 10 and 20 million dollars annually.

The Latin American countries that have already adopted and implemented these measures in their domestic legislation are Argentina, Brazil, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, and Uruguay. For its part, Chile is in the process of adopting and implementing them.

With respect to direct taxes, in Latin America, Peru is the pioneer in the adoption and implementation of measures that are applied to the transactions of the digital economy with the tax on profit (income tax). In 2003, Peru introduced in its legislation domestic a measure according to which the income received for the payment of digital services provided by foreign

companies in Peruvian territory was considered as income from a national source, taxing, therefore, the payment with the general income tax rate, which is collected via withholding at source. Although it is true that this measure does not cover the totality of the challenges posed by the digital economy, it partly meets the challenges, since it does not regulate the level of presence of the foreign supplier, or the contribution of value made by the user and only tax a type of income received.

Likewise, Uruguay in 2017 implemented the tax on the profits of the income received for the transmission of audiovisual content by foreign providers and those received for the administration of digital platforms by residents abroad who have a stake of more than 50%, or who are nationals.

Likewise, Mexico is in the process of adopting in their internal legislation a provisional direct tax, at a rate of 3% applied on revenue from digital marketing activities, the digital interface of the users' interaction and facilitating the provision of goods and services, and the sale of data generated by users, whose taxable subjects are residents and non-residents with a permanent establishment, a measure that would continue to be linked to the physical presence.

3. CONCLUSIONS

From the analysis of the adoption, implementation and progress of the proposed multilateral measures for the taxation of the digital economy in the domestic legislation of the European Union, North America and Latin America, it can be concluded that the multilateral provisions presented by the OECD to address the tax challenges posed by the digital economy have been strongly influenced by the European Commission, as legislative body of the European Union. These measures promote a redistribution of tax revenues generated by digital transactions, taking into account the enactment of new international tax rules that modify the concepts and premises of the determination of the tax nexus and the criteria of subjection by changing from the concept of physical presence to the concept of continuous and significant virtual presence, as well as the attribution of benefits to the different jurisdictions, disengaging from the principle of Arm's length, and turning towards the proportionality of the benefit attributed by virtue of the income threshold obtained and the creation of value generated in the different jurisdictions, and maintaining the principle of arm's length to evaluate the transfer prices agreed in the cases where there is a physical presence.

This new regime is based on the distribution of non-routine residual benefits (Income A) between the jurisdictions of the market according to the proportionality of a variable as the income threshold, seeking an equitable distribution of income among the jurisdictions that generate value, which not only provides a fair measure but additionally allows mitigating the relocation of economic virtual transactions, restricting the transfer of benefits and the creation of preferential regimes of imposition, likewise preventing disputes between the different jurisdictions for the attribution of income and taxing powers.

It is also noted that the European Union has been a pioneer in the implementation of the measures proposed by the OECD to address the tax challenges of the digital economy, since it was the first block of countries to adopt direct taxation on digital transactions, and today it covers all business models developed in the digital economy, and also with respect to the adoption of provisional direct tax measures, adopted and implemented to tax income generated by activities that generate value without the need for physical presence, such as online advertising, the sale of user-generated data and brokerage services, which will begin to apply in some states next year.

In North America, the incorporation of multilateral measures in the domestic legislation of the countries belonging to this region has not developed in the same way, since it is divided in this respect. In the United States, indirect taxes are of local nature and each state adopts its own regulations. This means that the measures will only have been adopted and implemented by 50% of the states in 2019. The United States has also stated that it will not adopt the provisional direct tax measures, since it does not agree with them because it considers them discriminatory, and that it hopes for a global consensus. For its part, Canada had adopted and implemented for the year 2018 in its domestic legislation direct taxation measures that cover all the business models developed in the digitalized economy, becoming a pioneer of such measures in this region, and regarding the provisional measures of direct taxation, to date it has expressed interest in adopting them on the activities of online advertising and intermediation services.

Latin America has been in the shadow of the adoption and implementation of the taxation of the digital economy, some countries have adopted direct taxation

on digital services without achieving a significant development and have only covered one of the business models perfected in the digitalized economy. With regard to direct taxation, the adoption of the provisional measures of direct taxation has not been developed, except in Mexico, although this provides for the adoption of a measure still tied to the physical presence, although some states, such as Peru, Uruguay, and Costa Rica were pioneers in the adoption of direct taxation measures. In their domestic legislation, they considered some income from online activities as income from a national source, subject to income tax in the relevant jurisdiction, without following the recommendations and conceptual framework established in the interim report, fiscal challenges arising from the digitalization, for adopting provisional measures of direct taxation, although it is worth noting that the measures adopted by Peru and Uruguay in their domestic legislation, were provided prior to the issuance of said interim report.

Finally, it can be noted that a lot of progress has been made to achieve a multilateral solution to address the tax challenges of the digital economy and that they can only be mitigated with measures taken from the global consensus according to which all jurisdictions adopt, implement, and develop the same regulations under the same criteria of taxation that provide legal stability and avoid disputes between jurisdictions as well as the erosion of the tax base and the transfer of benefits. Therefore they must be based on equity, proportionality, and justice in the distribution of the attribution of benefits, in order to allow that all the states involved in digital transactions may benefit from the taxation applied to the income generated, in the proportion in which value is generated in each jurisdiction.

Finally, we must highlight the challenge that the adoption of this consensus will bring for the international cooperation and the tax administrations. They must strengthen their relations and improve efficiency and effectiveness in the exchange of information, as well as in the efficient development of big data policies that allow them to collect sufficient information from the market of the digitalized economy in their respective jurisdictions.

4. BIBLIOGRAPHY

Agencia de Ingresos de Canadá. (2020). *GST / HST y comercio electrónico Canadá*. Recuperado de https://www.canada.ca/en/revenue-agency/services/forms-publications/publications/b-090/gst-hst-electronic-commerce.html

CEPAL. (2019). *Panorama Fiscal de América Latina y el Caribe*. Recuperado de https://repositorio.cepal.org/bitstream/handle/11362/44516/1/S1900075_es.pdf

Comisión Europea. (2020a). *Medidas sobre impuestos indirectos – IVA a las transacciones en línea – UE*. Recuperado de https://ec.europa.eu/taxation_customs/business/vat/modernising-vat-cross-border-ecommerce_en

Comisión Europea. (2020b). *Propuestas sobre impuestos directos – a la Economía Digital – UE Fiscalidad justa de la economía digital.* Recuperado de https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en

IRS. (2020). *Centro de Ayuda Tributaria para la Economía Compartida*. Recuperado de https://www.irs.gov/es/businesses/gig-economy-tax-center

KPMG. (2019). *Taxation of the digitalized economy.* Recuperado de https://tax.kpmg.us/content/dam/tax/en/pdfs/2020/digitalized-economy-taxation-developments-summary.pdf

OCDE. (2015). *Cómo abordar los desafíos fiscales de la Economía Digital*. Recuperado de https://www.oecd.org/ctp/Action-1-Digital-Economy-ESP-Preliminary-version.pdf

OCDE. (2018). *Resumen de los desafíos fiscales derivados de la digitalización: informe provisional 2018*. Recuperado de https://www.oecd.org/tax/beps/resumen-desafios-fiscales-derivados-de-la-digitalizacion-informe-provisional-2018.pdf

OCDE. (2019a). *El Enfoque Unificado: La Propuesta del Secretariado relativa al Primer Pilar.* Recuperado de https://www.oecd.org/tax/beps/documento-para-consulta-publica-el-enfoque-unificado-la-propuesta-del-secretariado-relativa-al-primer-pilar.pdf

OCDE. (2019b). *Global Anti-Base Erosión Proposal ("GloBE") - Pillar Two*. Recuperado de https://www.oecd.org/tax/beps/public-consultation-document-global-anti-base-erosion-proposal-pillar-two.pdf.pdf

FINANCIAL INFORMATION AND ITS IMPACT

on the tax formalization of Peruvian MSES

Segundo Eloy
Tuesta Bardalez

SYNOPSIS

This article analyzes the impact of financial information on the tax formalization of Peruvian MSES. The methodology used is based on the documentary and quantitative analysis of the various information and regulations published by the competent state entities.

The results show that the financial information has a direct impact on the formalization of MSES, which represent a great opportunity to expand the tax base (at least 43%). It also shows that there is no adequate financial and tax regulation, showing lax policies with divergent interests, which does not contribute to strengthening the formalization and predictability of the tax collection of the corporate income tax.

CONTENT

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INTRODUCTION

Little has been written about formalization in developing countries with high informality such as Peru. The literature and academic discussion have focused mainly on the analysis of informality from different perspectives, above all, very little from an approach to the inclusion and financial information of the different economic agents, with the largest participation of Micro and small companies (hereinafter MSEs).

This research aims to determine the impact of financial information on the tax formalization of Peruvian MSEs. The methodology used is based on the use of the analytical method - synthetic with a design non-experimental - cross-sectional, using as technique the documentary analysis of the diverse information and regulations published by state-owned entities such as the National Institute of Statistics and Informatics (INEI), the Superintendency of Banking and Insurance (SBS) and the Superintendency for National Customs and Tax Administration (SUNAT).

The organization of this work includes in a first section the International and national background of the variables investigated, in a second and third apparatus, the analysis of the situation of financial information and tax informality of Peruvian MSES. A fourth section of the conclusions according to the general objective investigated and finally the bibliographic references together with an annex containing quantitative information and linear regression analysis of two strategic variables of the Peruvian tax system.

1. ANTECEDENTS

1.1 International background

The figures of the noncompliance (evasion and avoidance) remain one of the main problems of the countries of Latin America. The most recent estimates calculate figures equivalent to 335,000 million of dollars, considering the income tax and the VAT of a sample of 16 countries, including Peru. The tax systems of these countries have adopted different strategies of control of the MSE and economic groups. (CEPAL, 2019).

ECLAC (2018), in its study on financial inclusion in Latin America, states that " the analysis of financial inclusion in Latin America and the Caribbean shows that the region is characterized, on the one hand, by low and unequal access to the formal financial system" (P. 39). In this regard, it is mentioned that a similar situation arises in small and medium-sized enterprises, especially when it comes to financing, as a result of their informality.

The research evidence presents a dual view of informality in developing countries: informal businesses remain informal, hire informal workers, buy their supplies with cash, and sell them with a similar modality. They are extremely unproductive and are unlikely to benefit much from becoming formal, which generates a strong prediction that the cure for informality is economic growth, the evidence strongly supports this prediction: informality declines, although slowly, with the development (La Porta & Shleifer, 2014).

1.2 National background

During the last ten years, the value of the credits for micro-entrepreneurs recorded an increase of 425%, concluding from a sample of 400 micro-entrepreneurs, 73 per cent used for working capital, 39% to expand their premises, purchase of machinery or furniture; 8% for remodeling, or purchasing a local; 5% for the purchase of a vehicle or motorcycle; and 5% for investing in another business. The average of their recent credit is the sum of USD 9,172 USD. (Diario Gestión, 2019).

According to the National Institute of Statistics and ICT (INEI, 2018), the informal economy has two distinct and complementary dimensions: the sector and the employment. The informal sector refers to non-incorporated productive units (businesses) that are not registered with the tax administration (SUNAT), on the other hand, informal employment refers to those jobs that do not include the social benefits established by law.

In this regard, the institutional report notes that, at the end of the year 2017, there were 8 million 245 thousand productive units in the institutional sector of households operating in the country, with 5 million 779 thousand non-agricultural productive units, of which 81% were informal. This is a problem of informality that persists for decades in the tax system in Peru, due to a variety of causes.

According to a study by the Ministry of Economy and Finance (MEF, 2018), the national diagnosis to implement competitiveness and productivity policies states that:

A limited number of companies take advantage of the financial products in the country. According to the 2015 National Survey of companies (ENE in Spanish) only 37.6% of them used some financial product in 2014. These results are corroborated in the Statistical MSE 2015 Annual Report of the Ministry of Production. It states that despite the fact that 95% of the companies in the country are micro and small companies (MSE), which are a backbone of growth, contributing annually about 23% of the National Value-Added, they maintain low levels of productivity, which requires them to be propped up on several fronts, one of them being the funding (p. 29).

Lahura (2016), in his quantitative study of financial information and the tax base of the Peruvian tax system, concludes:

The first result is the identification of 1,840,554 informals who are clients of the financial system, which represent 19.21 percent of the total clients with at least one type of credit in some financial institution. This result shows evidence that informality is not an impediment to access credit in the Peruvian financial system (p. 18).

The policy of financial inclusion in various districts of Peru need to not only act on the formal market, as this does not necessarily lead to an improvement in the use of financial services. The State must facilitate the process of financial inclusion in the country, and therefore, should accompany the agents so that they can migrate naturally to formal financial services and supervision, that is to say, give greater access to the informal agents (Zamalloa, Peralta, and Cairo, 2016).

2. ANALYSIS OF TAX INFORMALITY IN THE PERUVIAN ECONOMY

Considering the methodology proposed, we analyze here under the primary information contained in the periodic reports of the public entities that fulfill various roles in the organization of the peruvian State, as the Superintendency of Banking and Insurance (SBS) and the Tax Administration (SUNAT) to conduct the documentary analysis of the public information according to the objective raised in this research in a cross-sectional period, to the close of the month of September 2019.

2.1 Productive units in the Peruvian economy

Considering the current tax rules, the classification of MSEs is as follows:

Table No. 1. MSE Classification Rules

TYPE OF MSE	ANNUAL SALES	ITU YEAR 2019 (S/ 4,250~USD 1,257)
Microenterprise	150 ITU	S/ 630,000 ~ USD 186,391
Small Business	1,700 ITU	S/ 7,140,000 ~USD 2,112,426
Medium-Sized Enterprise	2,300 ITU	S/ 9,775,000 ~USD 2,892,000

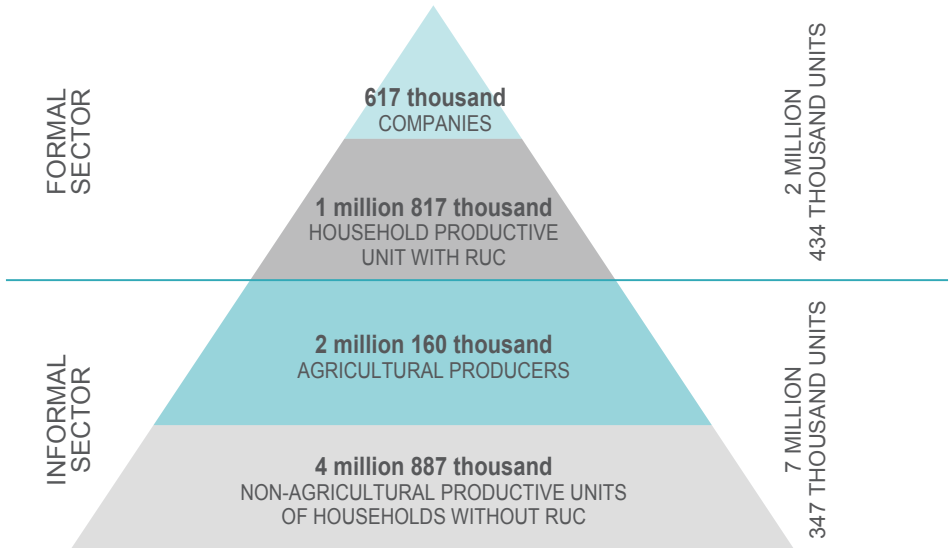
Source: *own elaboration with scope of Law No. 30056*
Note: *average selling exchange rate 3.38 (S / per USD) - ITU: Tax Tax unit*

In this regard, Table 1 shows the current classification of Peruvian MSEs according to the variable sales, leaving aside the classification by sales and number of workers, a situation that is not fully aligned with the tax regimes in force for business income, ranging from the new simplified regime (NRUS) to the General regime of Income Tax (RG), formal tax base structure that will be analyzed in the following sections.

Figure 1 displays information on the tax base of formal productive units – MSEs (25%) registered before the tax administration (SUNAT) and an informal basis, that a greater percentage (75%) represents a potential base of progressive tax-labor formalization before the SUNAT and other relevant bodies, given that they generate daily tax obligations, adding value to the Peruvian economy, and the results are consistent with the various studies cited as national backgrounds in the present research (MEF, 2018; INEI, 2018; Lahura, 2016).

If we look at the tax base that generates the company income, we note that 33.96% is represented by legal entities and the largest base by individuals with business. This last type of productive units is where the tax and labor informality, whose number exceeds 7 million, is 3 times more than the formal base of taxpayers to the tax administration (SUNAT).

Figure No. 1. Formal and informal tax Base

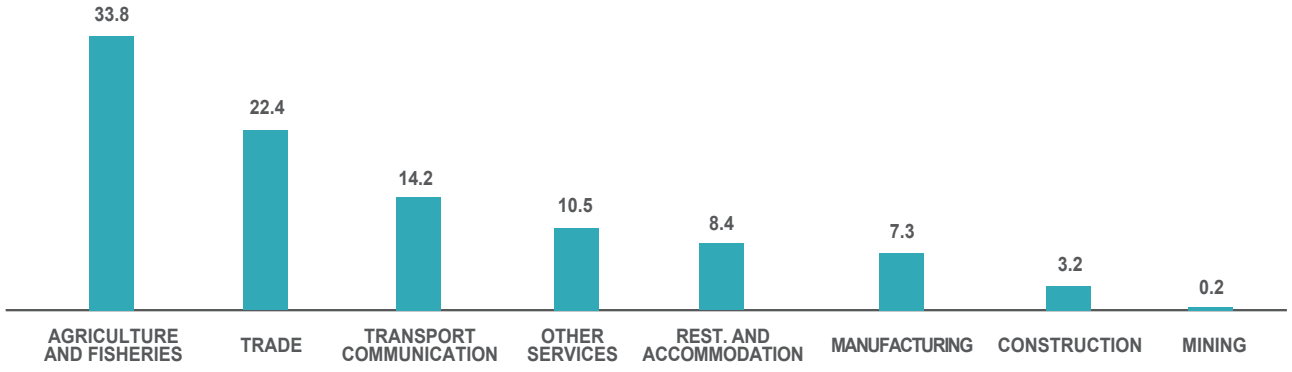


Note: *Adapted from "economic report" by C. Peñaranda (2019), repository of the C. C. Lima*

2.2 Informality estimates by economic sectors

Figure 2 evidence of the percentages of concentration of the informality by economic sector, excluding the agricultural sector. There is evidence of a higher rate of informality in sectors such as commerce and public transport of passengers, the latter informal sector, despite the many tax benefits granted, such as the exemption of the General Tax sales (IGV), return of the Selective Tax to Consumption (ISC), among others. These results demonstrate the low effectiveness of the benefits granted and puts in serious question the tax strategies of the relevant institutions to reduce the informality of the various productive sectors. These results are consistent with the studies conducted by the Chamber of Commerce of Lima, 2017).

Figure No. 2. Informal productive units by economic sector (% of total)



Note: *Adapted from "economic report", by C. Peñaranda, 2019, repository of the C. C Lima.*

In this regard, the Chamber of Commerce of Lima (2019), in its economic report of informality, highlights part of the statistics of informality by sectors and departments (based on INEI studies) and identifies various causes of informality of these productive units, where a (49%) of the total surveyed mentioned that they do not consider it necessary, a second justification consider that their business is small (33%), and a third reason is that the business is part of an eventual work (12%).

2.3 Formal tax Base - SUNAT

Table 2, prepared using information published on the website of the SUNAT (2019), shows the formal tax base (to 31.12.2018) of MEPECOS (medium and small taxpayers), and PRICOS (Main taxpayers), showing the progressive growth of taxpayers subject to the NRUS and the RER, representing, (135%) and (184%), respectively, comparing the years (2018/2008). At another extreme, the RG shows a reduction of -58% of taxpayers attended, due to the migration of these taxpayers to the RMT since its entry into force (01.01.2017). The RMT has eroded the tax base of the GR, having therefore a negative the effect on the formalization or recategorization of new taxpayers.

Table No. 2. Structure of the formal tax base (in thousands)

TX REGIMES	2008	%	2018	%
NRUS- MEPECO	513,200	44.07%	1,207,100	49.56%
RER- MEPECO	140,800	12.09%	400,200	16.43%
RG- MEPECO	495,800	42.58%	208,000	8.54%
RMT-MEPECO	0	0.00%	604,400	24.81%
PRICOS	14,700	1.26%	16,100	0.66%
Tax Base	**1,164,500**	**100.00%**	**2,435,800**	**100%**

Source: *Own elaboration with public information of SUNAT*
Note: *NRUS (new simplified single regime); RER (Special Income Tax regime); RG (General regime); RMT (SME tax regime). The main National Taxpayers (PRICO) represent 16,100 large companies as of 31.12.2018.*

It should be noted that there is evidence of flattening of the tax pyramid. At the end of December 2018, 49.56% was represented by NRUS taxpayers who contributed 0.69% of the total collection for business income in 2018 (amounts detailed in table 5), represented by 1,207,100 taxpayers. We have a tax system whose corporate collection depends on the Large Taxpayers (16,100 taxpayers), concentrated in the mining activity and services that total a large percentage (over 75%) to the national collection for the business income tax and other taxes.

Article 2 of the Political Constitution of Peru (1993) states that every person has the right to:

(…)

5. To request without expression of cause the information required and to receive it from any public entity, within the legal period, at the cost of the order. Exceptions are information that affects personal privacy and that is expressly excluded by law or for reasons of national security. Bank secrecy and the tax Reserve may be waived at the request of the judge, the prosecutor of the nation, or a congressional investigative committee under law and provided that they refer to the case under investigation.

Likewise, the General Organic Law on the financial system and the insurance system and the Superintendence of banking and insurance[1], with regard to bank secrecy establishes:

(…)

Article 140º .- SCOPE OF PROHIBITION

Financial system companies, as well as their directors and employees, are prohibited from providing any information on passive transactions with their customers, unless they have written authorization from them or in the cases referred to in Articles 142 and 143.

In this regard, the analysis makes it possible to interpret that only passive operations are protected by banking secrecy as a constitutional right of persons, that is, those operations where the client (MSE) is a creditor of the financial institution, or rather the financial institution is a debtor to the client, applicable to fixed-term deposits, various savings, CTS accounts, securities in custody, among others, both from individuals and legal entities.

According to the provisions of the law on the protection of personal data[2], its article 14º establishes:

(…)

Article 14. Limitations on consent to the processing of personal data.

The consent of the owner of personal data is not required, for the purposes of its processing, in the following cases:

1. When personal data is collected or transferred for the exercise of the functions of public entities within the scope of their competences.

2. When it comes to personal data contained or intended to be contained in publicly accessible sources.

3. In the case of personal data relating to capital and credit solvency, in accordance with the law. (…)

In this regard, according to the legal issues of this last normative, in section 1 validates the fact that financial institutions share information with public entities for the exercise of their functions, in conclusion, the information

1 Law 27602,1996

2 Law 29733, 2011

of the types of credits granted to the SMEs, including the information of the personal data (business address, number telephone or cell contact, among others, can be shared with the SUNAT for the purposes of formalization and tax compliance since the respective legal authorization exists.

According to the scope of the law of the single registry of taxpayers-RUC[3], based on the scope of the tax code with respect to the tax obligation establishes:

(…)

Article 2.- REGISTRATION IN THE SINGLE REGISTER OF TAXPAYERS

All individuals or legal entities, undivided Estates, de-facto companies or other collective entities, national or foreign, domiciled or not in the country that are in any of the following situations must register for the RUC in the SUNAT:

a. Taxpayers and/or responsible for taxes administered by the SUNAT, in accordance with current laws. (..)

b. That because of the acts or operations they perform, the SUNAT deems necessary to incorporate them into the register.

According to the scope of Article 2 of the aforementioned legislative decree, MSES when exercising this business activity and having credits from the financial system, are obliged to register in any of the tax regimes in force, according to the requirements and conditions established in the relevant tax regulations, having as first option the NRUS tax regime for formalization.

The analysis responds to the assumptions of the tax obligation established in the first book of the current tax code[4].

2.4 Guidelines of international organizations

The Policy of Financial Inclusion[5], highlights the importance of promoting in the country the tools promoting social inclusion and economic development, taking into consideration the promotion of incentive policies of financial inclusion, as cited by international agencies, such as the World Bank, the IMF, the Alliance for Financial Inclusion (AFI), the Organization for Economic Cooperation and Development (OECD), the Group of 20 (G-20), among others.

The need of public policies coordinated due to the fact that many of the factors that influence financial inclusion involving the simultaneous participation of different sectors. This must be addressed in a comprehensive manner, it requires regulatory changes in the framework of a national policy State, remembering that the Peruvian State is in a continuous process of regulatory and operating adjustments to be a member of the OECD, which requires to effectively regulate the financial information to control the compliance of tax obligations, the crime of money laundering, among other economic crimes common in the system.

3. WORKING CAPITAL LOAN ANALYSIS – MSE

3.1 Capital loans- Peruvian financial system

The organization of the financial system in the case of Peru is composed of the banking financial system, which includes the Central Reserve Bank of Peru, the

3 Legislative Decree N.º 943, 2003

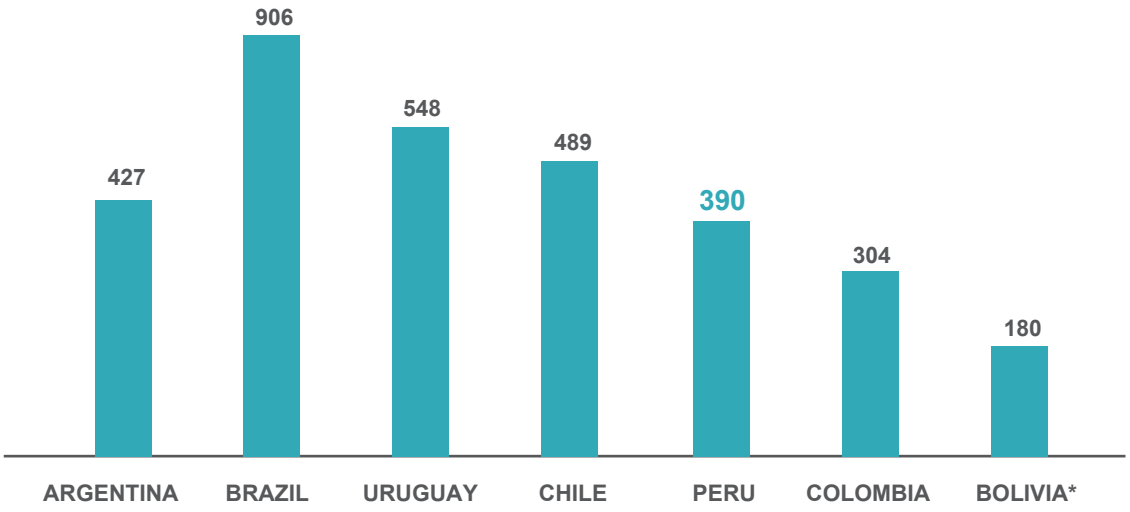
4 Supreme Decree N.°133,2013-EF.

5 Supreme Decree N.°255, 2019-EF.

Banco de la Nación, the banking companies and the Banco Nacional de Fomento en Liquidación. The non-banking financial system includes financial companies, rural and municipal savings and credit banks, savings and credit cooperatives, insurance companies, the Development Finance Corporation (COFIDE), the MiVivienda fund, private pension funds and mutual funds (Central Reserve Bank, 2019).

Figure 3 shows the participation in loans by the adult population in Latin America per thousand inhabitants, in the Peruvian case, we have an average of 390 people with loans from entities of the financial system, that is, as debtors, reporting at the end of 2017, up to 21 offices with financial services per 100,000 inhabitants, one of the highest, only surpassed by Brazil (SBS, 2018).

Figure No. 3. Adult population share in financial loans per thousand



Note: *Adapted from "financial inclusion indicators report of financial systems, pension insurance", Superintendencia de Banca y Seguros (SBS), 2019.*

In this regard, the borrowers are represented by individuals and legal entities. In the case of individuals, it is assumed that they have different types of loans, such as consumer, business, SMEs, among others, and may be registered or not in the RUC of the SUNAT if they generate business income as taxable events with the legal taxes.

In the case of legal entities, it is assumed that they are formal, due to the requirements of the current corporate rules.

Table 3 summarizes the information published by the SBS (2019), with regard to the participation of SMEs credits at the close of the month of September 2019, where the Municipal savings and Financial Companies show evidence that they concentrate more than 60% of the loans granted to the SMEs as working or business capital, that is to say, individuals and legal entities, which together represent more than 3.7 million as MSE credit debtors, highlighting the participation by entities that do not report information to the SBS, as is the case of the Savings and Credit Cooperatives and Non-Governmental Organizations (NGOS), between the two entities added together in the participation of 13%, offer addressed to micro-credit.

Table No. 3. SME financial participation

ITEMS	MICRO BUSINESS	SMALL BUSINESS	TOTAL	%
Multiple Banking	681,505	260,387	941,892	25%
Financial Companies	898,807	142,709	1,041,516	28%
Municipal Funds	817,765	247,623	1,065,388	28%
Rural funds	112,914	25,831	138,745	4%
Ed. MSEs	45,597	11,015	56,612	2%
Cooperative	370,000	-	370,000	10%
NGOs	131,000	-	131,000	3%
Total	**3,057,588**	**687,565**	**3,745,153**	**100%**

Source: *Own production with data from the SBS as of 30.09.2019*
Note: *The information of Cooperatives and NGOs is as of 30.06.2019, obtained from* http://www.copeme.org.pe/Blog/wp-content/uploads/2019/10

According to the analysis of market share in the financial system, the participation of private companies in the banking and non-banking financial system is evidenced, with market shares greater than 90% altogether. If we observe the market share in MSE credit placements in the multiple banking segment, we have the company Mi Banco and Banco de Credito leading (related economic groups). If we analyze the financial companies, we have the entity “Compartamos y Financiera Confianza”; in the case of the municipal banks, we have as leaders the CMAC Arequipa and Huancayo.

It should be noted that these financial institutions have flexible and diverse credit policies (varies depending on the type of institution). They grant significant diverse credits to MSES, assessing the risk, based on field information of customer sales, inventories of goods, cash flows not recorded in accounting books or declared, credit score and guarantees offered complemented by intensive marketing campaigns based on simplicity. This situation is based on free access to credit, free contracting indirectly backed by banking secrecy, and the offer and demand of economic credit itself.

3.2 Tax informality gap estimated based on financial information (SMEs)

Table 4 determines the gap in tax informality of MSEs based on the credit information of the financial system, by a simple subtraction operation, between MSEs credits and individuals affected by third-category income, showing a gap of 1,053,500 informal MSEs with credits that do not comply with their tax obligations, which represents 43% of the formal tax base of informal businesses operating in the Peruvian economy.

It should be noted that the estimates explained have been formulated in an optimistic scenario, that is, that all formal MSES registered in SUNAT have a MSE credit (which is unlikely), and it is necessary to have the complete information that must be reported by financial institutions in order to verify the amount of credits placed without RUC, which can easily be exceeding the 1.5 million informal MSES, as concluded and quantified in the research. (Lahura, 2016).

Table No. 4. Tax informality gap of MSEs with financial products

ITEMS	WITH MSES CREDITS (THOUSANDS)	REGISTERED IN THE RUC (THOUSANDS)	INFORMALITY GAP (THOUSANDS)	NUMBER OF CREDITS (MILLION S/)
Individual with with business	3,020,000	1,966,500	**1,053,500**	32,456,000
Legal Entities	92,000	92,000	0	6,871,000
Total	**3,112,000**	**2,058,500**	**1,053,500**	**39,327,000**

Source: *Own elaboration with the data of SBS and SUNAT (as of 31.12.2018).*

Note: *The information of individuals with business registered in the RUC as of 30.09.2019 (SUNAT, 2019).*

Calculating the tax omitted in the NRUS, in the lower category of S/ 20 soles (~USD 5.92), it would have a monthly collection of S/21,076,000(~USD 6,236,503) and Annual of s/252,912,000 (~USD 74,826,036), income that SUNAT has failed to collect for years and at the same time this represents an opportunity to strengthen the collection. It is evident that from the billions placed in credits to MSEs in a disorderly economy lacking adequate regulation, financial entities have the personal information, the types of credits, the domicile of individuals and businesses, that is, absolute evidence that supports the breach of tax and other related obligations.

4. CONCLUSIONS

The information and policies of financial inclusion have a direct impact on the formalization of the MSEs that exercise economic activity in various productive sectors of the Peruvian economy, given that there is evidence of a high rate of tax informality, which could be representing as a minimum 1,053,500 informal MSE that feature credits in the financial system as evidence that they do not comply with their tax obligations because they are not registered in the Single Registry of Taxpayers(RUC) of SUNAT.

The total amount of Peruvian MSEs with credits in the financial system (to 30.09.2019), represents 3,745,153 debtors, resulting in a great opportunity to expand the tax base (by at least 43%), without ruling out the possibility of a greater scenario of formalization that in numbers figures represents an immediate raise around USD 74 million dollars annually, assuming the formalisation in the lower tax regime (NRUS - payment of USD 5.92 per month).

There is no financial regulation and tax adapted to promote the formalization of the Peruvian MSEs, demonstrating lax policies with divergent interests, these legal loopholes do not strengthen the public finances of the State and the formal base in the tax system of Peru requires an integrative and inclusive regulation, that includes cooperatives and NGOs, with agreements of exchange of financial information that allow better control of tax and other economic breaches of the system.

The MSEs tax rules have fulfilled their cycle, the labor tax reforms - have not contributed to the strategic objective of promoting the formalization of the MSE in the Peruvian economy. Strategic actions are necessary, based on primary field information that, added to the risk actions of the tax administration (SUNAT), should strengthen the effectiveness of the processes and strategies undertaken towards becoming a member country of the OECD, meeting competitive standards.

The financial information can be used strategically by SUNAT, since it is not included in the banking secrecy, including, on merit to its powers, could access the personal data of MSE businesses to design a national strategy for tax formalization and recategorization of tax obligations of the formal taxpayers, for which it must implement an immediate formalization plan, based on assistance and quality information to citizens in relation to their tax obligations, the challenge is to formalize and keep them as taxpayers of the tax system.

It is a great opportunity for the SUNAT to formalize the MSEs with credits in the financial system, given that through the policy of agreements with these entities (and the other conventions that are necessary), we seek to disseminate the electronic tax products that at the same time represent information useful to the financial institutions, taking maximum advantage of the use of Information and Communication Technologies (ICT), promoting the duty of collaboration and with the payment of taxes to the State, resulting in a final a scenario of win – win for all parties, including to assess the high interest costs and commissions to promote financial inclusion through the decrease of financial risks in the system, for which the SUNAT has implemented several electronic reports of fulfillment of the tax obligations that useful for the entities of the financial system. This gives value to the reduction of credit risks of placement, with a direct effect in lower financial costs for a formal MSE.

5. BIBLIOGRAPHY

Banco Central de Reserva (BCR). (Marzo de 2011). *Glosario de Términos Económicos - BCRP.* Obtenido de http://www.bcrp.gob.pe/docs/Publicaciones/Glosario/Glosario-BCRP.pdf

Camara de Comercio de Lima. (5 de Noviembre de 2017). *El Impacto de la Informalidad*. Obtenido de https://www.camaralima.org.pe/repositorioaps/0/0/par/edicion800/edición_800_dig.pdf

Cámara de Comercio de Lima. (20 de Mayo de 2019). *El 75% de las unidades productivas son informales*. Recuperado el 21 de Noviembre de 2019, de https://www.camaralima.org.pe/repositorioaps/0/0/par/r879_1/informe%20economico.pdf

Cardona de Gomez, D., Fernandez Orrego, D., y Zuluaga Duque, S. (2013). *Estudio comparado sobre el acceso a la información bancaria para fines tributarios en América Latina y el Caribe.* Colombia. Recuperado el 06 de Noviembre de 2019, de https://www.ciat.org/Biblioteca/ConcursosdeMonografia/XXIV-2013/xxiv_2_premio_cardona_colombia.pdf

CEPAL. (2018). *La inclusión financiera para la inserción productiva y el papel de la banca para el desarrollo*. Obtenido de https://www.cepal.org/es/publicaciones/44213-la-inclusion-financiera-la-insercion-productiva-papel-la-banca-desarrollo

CEPAL. (2019). *Panorama Fiscal de América Latina y el Caribe 2019*. Obtenido de https://www.cepal.org/es/publicaciones/44516-panorama-fiscal-america-latina-caribe-2019-politicas-tributarias-la-movilizacion

CEPLAN. (2016). *Economía informal en Perú: situación actual y perspectivas*. Obtenido de CEPLAN: https://www.ceplan.gob.pe/documentos_/economia-informal-en-peru/

Diario Gestión. (02 de Diciembre de 2019). *Créditos para microempresarios crecieron 425% en valor durante la última década*. Obtenido de https://gestion.pe/economia/creditos-para-microempresarios-crecieron-425-en-valor-durante-la-ultima-decada-nndc-noticia/?ref=gesr

INEI. (2018). *Produccion y empleo informal en el Perú- Cuenta Satélite de la Economía Informal 2007-2017*. Obtenido de https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1589/libro.pdf

La Porta, R., & Shleifer, A. (2014). *Informality and Development*. Journal of Economic Perspectives, 28(03), 109-126.

Lahura. (2016). *Sistema Financiero, informalidad y evasión tributaria en el Perú*. Obtenido de Revista de Estudios Económicos –Banco Central de Reserva: http://www.bcrp.gob.pe/docs/Publicaciones/Revista-Estudios-Economicos/32/ree-32-lahura.pdf

MEF. (2018). *Principales ejes para impulsar la competitividad y productividad*. Recuperado el 12 de Noviembre de 2019, de https://gobpe-production.s3.amazonaws.com/uploads/document/file/176403/Principales_Ejes_Para_Impulsar_La_Competitividad_y_Productividad.pdf

SUNAT. (21 de Noviembre de 2019). *Estadísticas y Estudios*. Obtenido de http://www.sunat.gob.pe/estadisticasestudios/registro-baseTributaria.html

Superintendencia de Banca y Seguro (SBS). (s.f.). *Estadísticas del Sistema Financiero*. Recuperado el 21 de Noviembre de 2019, de http://www.sbs.gob.pe/estadisticas-y-publicaciones/estadisticas-/sistema-financiero_

Superintendencia de Banca y Seguros (SBS). (s.f.). *Reporte de Indicadores de Inlcusión Financiera del Sistema Financiero, de Seguro y de Pensiones*. Recuperado el 19 de Noviembre de 2019, de https://intranet2.sbs.gob.pe/estadistica/financiera/2018/Diciembre/CIIF-0001-di201

6. ANNEXES

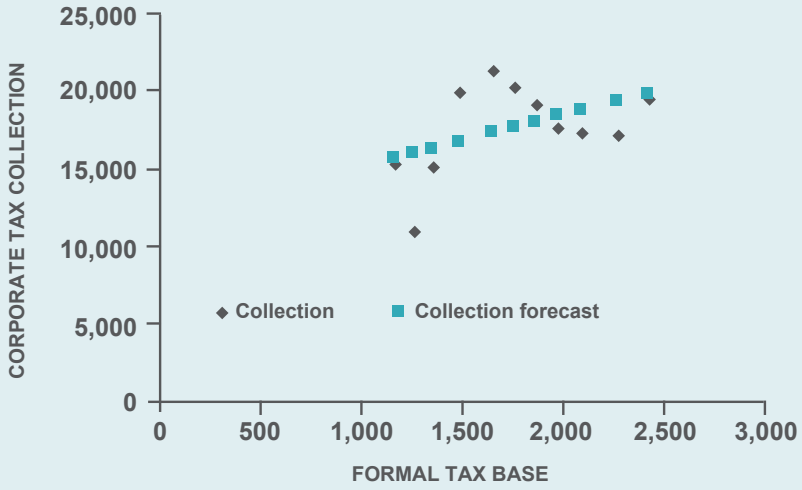
Table No. 5. Information on the Peruvian tax system

YEAR	FORMAL TAX BASE (IN THOUSANDS)	CORPORATE INCOME COLLECTION (IN MILLIONS OF DOLLARS)	TAX PRESSURE
2008	1,164	15,201	15.6%
2009	1,260	10,976	14.4%
2010	1,364	15,025	15.4%
2011	1,494	19,814	16.1%
2012	1,653	21,308	16.6%
2013	1,764	20,212	16.3%
2014	1,874	19,161	16.6%
2015	1,977	17,474	14.7%
2016	2,095	17,231	13.6%
2017	2,271	17,099	12.9%
2018	2,436	19,330	14.1%

Source: *Own production with SUNAT data*
Note: *The formal tax base includes all taxpayers registered in the RUC affected by third category income (business) - natural and legal persons.*

Table 5 and Figure 4 show that there is a weak correlation between the independent variable (formal tax base) and the dependent variable (corporate tax collection), showing that although the tax base has been increasing in the last 11 years, the corporate income tax collection has not grown in a sustained manner according to the economic growth of the country, as shown in Table 5, facts that support the decrease and high variability of the tax pressure of the system.

Figure No. 4. Regression analysis of the tax base and corporate collection



REGRESSION STATISTICS

Multiple correlation coefficient	0.46
Coefficient of determination R^2	0.21
R^2 adjusted	0.12

If we look at the adjusted R^2, it shows that there is no predictable model, given that it presents a weak coefficient of determination (0.21) is not significant, currently it would not be valid to hold, that the greater the tax base of companies, a greater tax collection business, which corroborates to the time in the last 11 years, improving the tax has been dependent on a small number of companies representative - LTs (approximately 0.6% of the tax base), still the informality of the MSE is a historic challenge to overcome for the tax system of Peru, structural and cross-cutting in the different economic sectors, being necessary to the change of strategies of formalization, with tax regimes that are equitable and inclusive, that of greater support to the tax pressure, and mark a clear trend of competitive and fair growth. At the end of 2018, the formal tax base is around 2.43 million and the potential around 9 million, reflecting a large gap of tax informality MSE.

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