

Tax Administration

REVIEW



Inter-American Center
of Tax Administrations
CIAT



Agencia Tributaria

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AEAT



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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 disseminate the different tax approaches in force in Latin America and Europe.

An Editorial Board formed by CIAT officials (the Executive Secretary, the Director of Tax Studies and Research, 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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DEMETRIUS M. SOARES

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 (7) articles: The taxation of insolvent companies in Portugal; Future collection and control of contributions to social security before the digital economy changes; Analytics and Big Data: The new frontier cases of use at AEAT; Methods of dispute resolution

in international tax law the mutual agreement procedure and the need for arbitration in Brazil; Progress of the work of the CIAT Permanent Ethics Committee; Internal auditing in the tax or customs administration, an anti-corruption approach; Motivating or demotivating work factors for intermediate managers: Exploratory research in a tax administration organization.

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



THE TAXATION OF **INSOLVENT COMPANIES** IN PORTUGAL

Nuno
De Oliveira Fernandes

SYNOPSIS

With the recent global economic crisis, accompanied by the sovereign debt crisis, the number of insolvency proceedings in Portugal has more than tripled.

Within the scope of the commitments entered into with the Troika, there was a change in the Portuguese bankruptcy paradigm from the

bankruptcy-liquidation system to bankruptcy-sanitation system.

This article, and in view of the legislative amendment that redirects the bankruptcy process for recovery of the debtor, carries out the analysis of the taxation to which a company is subject in Portugal, after a insolvency sentence.

CONTENT

1. Historical review of the bankruptcy process in Portugal
2. Personality of the insolvent society
3. The reporting of Accounts in insolvent companies
4. Taxable subject
5. Tax benefits under CIRE
6. Conclusions
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INTRODUCTION

In view of the increase in bankruptcy applications recently observed in Portugal, the insolvency procedure has become (once again) an unavoidable issue, and it is a matter of attention within the scope of the framework of commitments assumed by Portugal and the *Troika* in 2011.

Because of these commitments, the Portuguese bankruptcy process has experienced structural changes, reorienting itself to the recovery of the insolvent (bankruptcy-sanitation system), and relegating the liquidation for the last stage.

This article intends to analyze the taxation of insolvent companies in Portugal, after this reorientation of the bankruptcy process.

For this purpose, we start with a historical review of the bankruptcy process, in order to understand the legislative changes that occurred in the Portuguese bankruptcy process over time.

Next, the analysis is carried out on the permanency of the insolvent society, aiming to understand if this is an entity susceptible to be part of the legal-tax relationship. Due to the permanency of the personality in the insolvent company, we verified the obligation of the insolvent company to carry out the report of accounts, as well as the obligation to have a Certified Accountant and an Official Auditor.

Subsequently, we proceeded to verify the taxation of insolvent companies, dividing the analysis into three

groups of taxes – Consumption Tax; Income Tax; and Taxes on Assets.

We conclude this work analyzing the tax benefits of the Code of Insolvency and Recovery of Companies.

1. HISTORICAL REVIEW OF THE BANKRUPTCY PROCESS IN PORTUGAL

From the historical analysis of the bankruptcy process, we found that in earlier times, the bankruptcy process was directed at the person and not at his assets, i.e., how to coerce the debtor to pay his debts, focused on the measures applied to him, and not in the execution of his assets.

This paradigm was only changed around the thirteenth century, in the Republics that gave birth to Italy¹, where they began to seize the debtor's assets to pay the debts. In Portugal, the first written references to bankruptcy proceedings appear in Title II, Book II, of the Afonsine Ordinances of 1454, under the *"Of the ordinance that the King's tax collectors must have, and any others who, by their grace, may auction for debts, as well as those of The King"*.

In 1595, the Philippine Ordinances, in the Third Book, Title XXXII, came to distinguish between fraudulent delinquency/bankruptcy, and casual bankruptcy, and in the case of fraudsters – *"public robbers"* - the applicable penalty, in addition to loss of property, was exile and scourging, i.e., the same penalty given to thieves (with the exception of the death penalty).²

¹ Republics of Genoa, Florence and Venice

² Book V, Title LXVI, of the Philippine Ordinations.

The Decree of November 13, 1756 was promulgated by Marquis of Pombal, following the Lisbon earthquake. In order to “(...) *remove from trade the procrastinators and cheaters who, being at any time incompatible with the trade activities, become absolutely intolerable at such a critical juncture (...)*”³, it determined that as soon as a Business Man failed to make a payment, he should appear immediately, or no later than the next day, at the Board of Trade. He had to surrender the keys of his warehouses, and of the office in his possession. In addition, he was obliged to deliver a general ledger, which should include, in addition to all commercial purchases and sales carried out in chronological order, all expenses incurred with his person and house, under penalty of being accused of fraudulent bankruptcy.

If the bankruptcy was classified as fraudulent, the penalty was the prohibition of access to the office of merchant (*Business Man*), in addition to the penalties already provided for in the Philippine Ordinances.

According to Macedo (1968) apud Duarte (2003: 54), the bankruptcy process was for the first time systematized in the Ferreira Borges Code (Commercial Code of 1833), and in 1888 was transferred to the Code of Veiga Beirão (Commercial Code of 1888).

By Decree of July 26, 1899, the first Portuguese Bankruptcy Code was approved, which had 186 articles, but in spite of the expectations, this legislation did not bring great innovations in relation to the previous regulations (Commercial Code).

In 1905, the Code of Commercial Procedure came to annex the Bankruptcy Code in its regulations, without reforming the regime that had been in force until then. In 1932, the Decree No. 21:758, of October 22, created the bankruptcy institute of the non-merchant debtor.

By Decree No. 25981, of October 26, 1935, a new Bankruptcy Code was published, regaining the required autonomy of the normative. The great innovation brought about by this legislation was the change in the definition of bankruptcy: it ceased to constitute a presumption resulting from the cessation of payments, to become based on the impossibility of the merchant to execute its commitments (Article 1).

The effective change of the bankruptcy paradigm in Portugal (from the bankruptcy-liquidation system to the bankruptcy-sanitation system) only occurs with the changes introduced by Decree-Law No. 44129, of December 28, 1961. This legislation introduces preventive means to the declaration of bankruptcy, which have been given priority, thus constituting a preferable alternative to judicial liquidation. It was argued that by acting earlier, it would be easier to adopt adequate measures for the recovery of the insolvent, thus preserving the business network.

With the accession of Portugal to the European Economic Community (EEC), there was a reinforcement / increase of the insolvency institute. Thus, by Decree-Law No. 177/86 of July 2, the Special Process for the Recovery of the Company and Protection of Creditors was instituted, in which the insolvency recovery was carried out in three ways: concordat, creditors' agreement or controlled management.

By Decree-Law No. 132/93, of April 23, the Special Code of Procedures for Company Recovery and Bankruptcy (CPEREF by its acronym in Portuguese) was approved, entitled: “(...) *completing a historical turning point, which is particularly significant in various aspects in the area of executive civil procedures, with serious and beneficial repercussions on the economic life of the country.*” The great advantage brought by CPEREF undoubtedly was

3 Free translation of the author.

the unification of the recovery and bankruptcy regimes under one single heading.

Decree-Law No. 53/2004 of 18 March, has established the Insolvency and Business Recovery Code (CIRE by its acronym in Portuguese), and its cornerstone is reducing the judicial aspects of the insolvency procedure.

In this way, several acts are no longer in the jurisdiction of the Judge, which are now practiced by the Insolvency Administrators, namely the liquidation of the debtor. Such *non-judicial procedure* brings with it greater agility, and consequently the expectation of greater celerity.

Another important point is the anticipation of the moment in which the sentence of declaration of insolvency is pronounced. Thus, while in the CPEREF the bankruptcy was pronounced after the various steps related to the recovery of the company, in the CIRE the sentence of declaration of insolvency is pronounced *a priori*, i.e.,

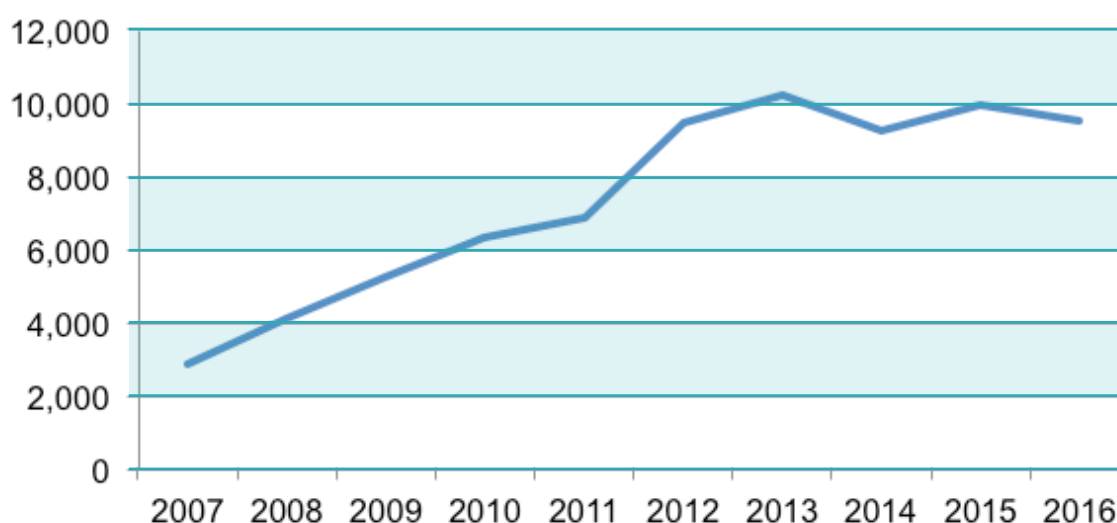
soon after the filing of the request, the economic viability of the insolvent company is analyzed at a later stage.

However, it should be pointed out that, despite the change in terminology used from CPEREF to CIRE (bankruptcy to insolvency), in fact there was a setback in the bankruptcy process. Thereby, while CPEREF referred to bankruptcy, giving primacy to the recovery/viability of the companies, the CIRE referring to insolvency, in practice, it was giving priority to the liquidation of the company.

In summary, there is an interchange of terminologies between these legal texts.

In the recent Portuguese history, through the global economic crisis of 2008, the number of insolvency proceedings had a substantial increase (about 350%), making the bankruptcy process an unavoidable aspect in the economic scenario:

Companies in process of bankruptcy/ restructuration in Portugal



Source: Adapted from the Raciús Observatory - Business statistics in Portugal Retrieved on August 1, 2017 <<https://www.racius.com/observatorio>>

On May 5, 2011 was approved the Memorandum of Understanding between Portugal and the Troika, by the Council of Ministers⁴.

Within this framework of commitments, one of the measures contained in the Memorandum of Understanding on Economic Policy aimed precisely at changing the paradigm of bankruptcy contained in the CIRE.

Thus, because of the legislative amendments operated by Law No. 16/2012, of April 20, the Portuguese bankruptcy paradigm was modified and the insolvency process became more focused on the recovery of the debtor. Liquidation became the last option, and used only when it was more advantageous for the recovery of credit by creditors.

This amendment recreates the bankruptcy-sanitation system, with the “*Insolvency Code*” becoming effectively aimed at the recovery of the debtor, becoming in accordance with the adopted terminology.

2. PERSONALITY OF THE INSOLVENT SOCIETY

Articles 12 and 13 of the Constitution of the Portuguese Republic provide that:

- All citizens enjoy rights and are subject to duties;
- Legal entities enjoy rights and are subject to duties compatible with their nature;
- All citizens have the same social dignity and are equal before the law;

- No one may be privileged, benefited, disadvantaged, deprived of any right or exempt from any duty due to his or her (...) economic situation.

The legal personality is attributed for the implementation of these provisions.

As regards companies, Article 5 of the Commercial Companies Code (CSC by its acronym in Portuguese) stipulates that: “[s]ocieties have legal personality and they exist as such from the date of the definitive registration of their constitutive act (...)”.

It also states that Article 6 (1) of the CSC provides that “[t]he capacity of the company includes the rights and obligations necessary or desirable for the pursuit of its purpose, except those which are prohibited by law or are inseparable of the individual personality.”

As regards the death of companies (the end of legal personality), the Article 160 (2) of the CSC states that a company is considered to be extinct only by the registry of the liquidation act.

Regarding the tax personality, the Article 15 of the General Tax Law (LGT by its acronym in Portuguese) establishes: “[t]he tax personality consists in the susceptibility of being subject to tax legal relations.” In addition, the Article 16 (2) of the LGT that “[u]nless legal provision stipulates otherwise, anyone who has a tax personality has a tax capacity.”

Article 18 (3) of the LGT determines that the taxable person “(...) is the individual or legal entity, the estate or the de facto or de jure organization which, under the law, is bound to comply with the tax duties, whether as a direct, substitute or responsible taxpayer.”

⁴ The term Troika is used as a reference to cooperation between the European Central Bank, the International Monetary Fund and the European Commission.

Still with regard to companies, of Article 141 (1), section e, of the CSC states that the company is dissolved by the declaration of insolvency. On the other hand, Article 146 (1) of the CSC stipulates that the dissolved company is immediately in liquidation and Article 146 (2) of the CSC provides that: “[t]he company in liquidation maintains its legal personality (...)”.

Thus, a company that has been the subject of a declaration of insolvency and until the closure of the insolvency proceedings after the final apportionment [Article 234 (3) of the CIRE] keeps its legal personality, and consequently its tax personality, being susceptible to be subject of tax legal relations.

Possessing a tax personality, the insolvent company will be a taxable person in the tax relationship, as long as by the use of its tax capacity, it realizes a fact that is typified, abstractly, in the tax law as a taxable event. This is an essential condition for determining the taxable amount and determining the respective tax assessment⁵.

In sum, we observe that the tax legal relationship is constituted through the tax event, and that the occurrence of any tax event depends on the existence of the tax capacity, resulting from the tax personality and that this in turn results from the legal personality, which does not cease existing by the of insolvency sentence. Thus, we conclude that an insolvent company, until the registry of the closing settlement, is a taxable person in the tax relationship.

3. THE REPORTING OF ACCOUNTS IN INSOLVENT COMPANIES

With the declaration of insolvency (insolvency sentence), an Insolvency Administrator is appointed. The Insolvency Administrator is, among other obligations, namely to present a plan for the recovery of the insolvent, in charge of carrying out two types of accounts reporting for the insolvent company:

- Reporting of Accounts before the Court;
- Reporting of Accounts in accordance with the Commercial Companies Code.

The **Report of Accounts before the Court** must be filed at the end of each three-month period after the date of the report examination assembly. It consists of a document containing a brief information on the state of administration and liquidation⁶. The accounts are prepared in form of current account, with a summary of all income and expense, intended to portray succinctly the situation of the insolvent estate⁷.

Thus, we note that this presentation of simplified accounts aims to inform about the performance of the Insolvency Administrator in the scope of the liquidation process, and not the accountability of a company in liquidation.

However, Article 65 (1) of CIRE states: “[t]he provisions of the preceding articles shall not prejudice the obligation to prepare and file the annual accounts in accordance with the legally binding terms for the

⁵ According to Article 36 of the General Tax Law (LGT)

⁶ Article 61 of the CIRE.

⁷ Article 62 (3) of the CIRE.

debtor.” Therefore, the Insolvency Administrator – the person in charge of representing and directing the insolvent company – is also bound to carry out the **Reporting of Accounts in accordance with the Commercial Companies Code**.

Article 2 (2) of the same legal provision states that: *“[t]he declaratory obligations referred to in the preceding paragraph remain in the sphere of the insolvents or their legal representatives, who remain bound to comply with their tax obligations, and responsible in case of breach.”*

Thus, despite the accountability that the Insolvency Administrator is required to provide in the insolvency proceedings, the Insolvency Administrator must also report on the management and submit accounts, as defined in Article 65 of the CSC.

As regards the date for carrying out this rendering of accounts, Article 155 (1) of the CSC states that liquidators must account for the settlement within the first three months of each calendar year and that these accounts must be accompanied by a detailed report on the state of the liquidation.

Article 155 (2) of the CSC states that *“[t]he report and the annual accounts of liquidators shall be organized, evaluated and approved in accordance with the terms prescribed for the administration’s accounts, with the necessary adaptations.”*

It should also be noted that Article 3 of Decree-Law No. 158/2009 of July 13, which establishes the Accounting

Standardization System (SNC by its acronym in Portuguese), does not provide for any exception for insolvent/dissolved companies, therefore, the SNC is mandatory for all companies covered by the Commercial Companies Code.

Thus, whether via the CIRE or through the CSC, we note that the insolvent company is obliged to prepare financial statements in accordance with the applicable accounting framework. Moreover, this is also the understanding of the Accounting Standardization Committee (CNC by its acronym in Portuguese) transcribed in annex to Circular No. 10/2015.

As a result of the obligation to have submit organized accounts⁸, the insolvent company is obliged to have a person responsible for technical regularity, in the accounting and tax areas – a Certified Accountant - under the terms defined in Article 10 (1) of the Statute of the Order of Certified Accountants (Law No. 139/2015, of September 7).

In the event that the insolvent company, prior to the insolvency sentence, is subject to the Legal Certification of Accounts (CLC by its acronym in Portuguese), this obligation is maintained until the liquidation act is registered, or until the assumptions previously involving the CLC cease to exist. Therefore, the insolvent company is also required to have an Official Auditor (ROC by its acronym in Portuguese) – Decree-Law No. 224/2008, of November 20.

8 Obligation resulting from Article 65 of the CSC and Article 65 of the CIRE.

4. TAXABLE SUBJECT

As has already been mentioned, the bankruptcy procedure in Portugal begins with the declaration of insolvency, and the effective liquidation only takes place with the resolution of the Creditors' Assembly that determines the closure of the insolvent company⁹. Thus, up to that point, there is no specificity applicable to insolvent companies.

In this way, the following analysis concerns the insolvent companies, for which the Creditors' Assembly has already determined the closure of the establishment, and consequently they are already in their liquidation phase.

4.1 Consumption Tax

With the resolution to close the activity of the establishment, which took place in accordance with the Article 156 (2) of the CIRE, and after its communication by the court, the AT automatically promotes the unofficial cessation of activity of the insolvent, in the scope of the **Value Added Tax (VAT)**. This suspends the obligation of the Periodic VAT Declaration (DP in Portuguese) – VAT tax return form – regular delivery, provided for in Article 29 (1), section c, of the VAT Code (CIVA by its acronym in Portuguese).

However, and because of the unofficial cessation, under Article 34 (3) of the CIVA (inserted by Law No. 82-B/2014, of December 31), the insolvent is not prevented from proceeding to the delivery of DP. He is even obliged to proceed with the delivery of DP whenever there are active taxable transactions, and

when regularization must be carried out in favor of the State, (namely those provided for in Article 78-B (9) of the CIVA – Regularization of unrecoverable debts).

The insolvent may also proceed to the presentation of the respective DP whenever he wishes to exercise the right to deduct the VAT paid, in the terms defined in Article 19 of the CIVA. However, in this respect, it should not be forgotten that the right to deduction, in addition to the respective formal conditions, is also conditional on the expenditure being used to carry out taxable transactions (in accordance with Article 20 of the CIVA).

As regards the payment of VAT, Article 27 of the CIVA provides that taxable persons be obliged to pay the amount of the tax payable within the period provided for in Article 41, at the collection points legally authorized. This is under penalty of a debt certificate to be extracted, under the terms and for the purposes of the provisions of Article 88 of the CPPT – establishment of a Tax Enforcement Procedure related to the recovery of the tax credit.

In view of these legal provisions, the insolvent party must pay the tax calculated in the DP, in which case this tax will be considered as debt of the insolvent estate, under the terms set forth in Article 51 (1), section c, of the CIRE. The payment must be made within the terms legally established, in accordance with Article 172 (3) of the CIRE.

It is important to note that, during the liquidation and sharing of the insolvent estate, the transfer of assets included in the insolvent estate takes the form of a judicial sale (even private negotiated sale – see the

⁹ Resolution taken pursuant to Article 156 (2) of the CIRE

Circular 22/2009). Therefore, the settlement should be carried out in accordance with the provisions in Article 28 (5) of the CIVA, i.e., the liquidation and payment of the tax must be made in the tax services, through the pay document P2¹⁰.

In the aforementioned pay document (P2), the Tax Identification Number (NIF by its acronym in Portuguese) to be indicated will be the NIF of the acquirer. Accordingly, and together with the transference certificate issued by the Insolvency Administrator, under the terms provided for in Article 827 (1) of the Code of Civil Procedure – CPC (which must contain the elements referred to in Article 36 (5) of the CIVA), the acquirer will be entitled to deduct the VAT paid, in accordance with Articles 19 to 22 of the CIVA.

In view of the described procedures, the VAT resulting from judicial sales (although substantiating taxable transactions) should not be mentioned in the DP delivered by the insolvent.

4.2 Corporate Income Tax

Article 117 (1), section b, of the Corporate Income Tax Code (CIRC by its acronym in Portuguese) states that taxpayers of the **Corporate Income Tax** (IRC in Portuguese), or their representatives, are required to submit a periodic statement of income, in accordance with Article 120 of CIRC.

Article 120 of CIRC provides that such tax return form must be submitted annually, by electronic transmission of data, until the last day of May (or until the last day of the 5th month following the end of this taxation period,

where this does not coincide with the calendar year), regardless whether that day is worked or not.

In addition, no. 10 of the same legal provision states that “[t]he elements contained in the periodic statement must, where appropriate, be in complete agreement with those in the accounts or in the books of registers, according to the situation.”

Thus, until the official cease of activity, which for the IRC will be coincident with registration of the liquidation [Article 8 (5), section b, of the CIRC and is better explained in Official-Circular 20.063/2002], as this is the moment in which the company is considered extinct, as consigned in Article 160 (2) of the CSC, even though there is a dissolution [and it will not be forgotten here that the declaration of insolvency is a cause for immediate dissolution – Article 141 (1), section e, of the CSC], the insolvent is required to file the income tax return form – Model 22.

With regard to the liquidation of companies, and in the IRC scope, it is regulated in Subsection V, Section VI, of Chapter III of the CIRC (Articles 79, 80, 81 and 82).

Article 79 stipulates that the taxable profit of the companies in liquidation is determined with reference to the whole liquidation period, and for that purpose, a closing of accounts must be made with reference to the date of entry into liquidation, with a view to separate the taxable profit determined in the taxation period.

However, the obligation to make the annual income tax return form, which is provisional in nature, is maintained and may be replaced by a global tax return form of the

¹⁰ Article 4-A, section b, of Decree-Law No. 229/95, September 11: “Model payment Guide P2, DUC (single pay document), approved by Order No. 92/2004, of January 23”

liquidation period, if this does not exceed two years. If the settlement period exceeds two years, then the income tax returns form already delivered become final. It should also be noted that, despite the provisional nature of the income tax returns form delivered annually, they have to be the subject of the corresponding payment, if applicable, under penalty of a Tax Enforcement Procedure to be instituted in order to collect them¹¹.

Article 79 also establishes that deduction of losses occurring in periods prior to liquidation can only occur if the liquidation is closed within the same two years period.

With regard to insolvent companies, and with regard to the obligation of filing the declaration, Article 65 (3) of the CIRE provides¹² that with the decision of closure of the company activity, i.e., the entry into liquidation, all tax obligations are extinguished as well as submission of tax return form. This provision is not in accordance with Article 79 of the CIRC, which requires the annual delivery of the income tax return form.

Accordingly, and in order to *harmonize* these two regulations, with the court's decision to close the insolvent establishment, the Tax and Customs Authority (AT) promotes its unofficial cessation¹³, allowing them not to file the annual income tax return form.

However, this non-obligation to submit the income tax has a condition – the non-performance of active operations in the respective financial year¹⁴.

Thus, in the tax year in which the insolvency company is decided, there is always an obligation to file the income tax return form, since this periodic statement always includes a period in which the company was not in liquidation.

In the following years, and until the closure is registered, the insolvent company is only required to deliver the income tax return form if it carries out active operations. As far as the notion of active operations is concerned, it should be noted that this is not restricted to the transactions for which there is a tax to pay, but rather transactions that constitute tax events¹⁵.

4.3 Taxes on Assets

Under the **Municipal Property Tax** (IMI in Portuguese), Article 8 (1) of the Municipal Property Tax Code (CIMI by its acronym in Portuguese) states that “[t]he tax is due by the property owner on December 31st of the calendar year”, with no exception being created for companies in liquidation, so that if the insolvent company is the owner, or usufructuary, of a property on the last day of the calendar year, it is obliged to pay the IMI in the following calendar year¹⁶, even if the building is disposed of before the respective pay day.

Thus, the IMI due for the property / usufruct of the building will be considered as debt of the insolvent estate, under the terms set forth in Article 51 (1), section c, of the CIRE, and payment must be made within the legally established deadlines, in accordance with the terms of Article 172 (3) of the CIRE.

11 Article 110 (4) ex vi Article 109, both of the CIRC.

12 Drafting provided by Law No. 16/2012, of April 20, because of the framework of commitments assumed by the Portuguese State and the Troika.

13 Article 8 (6) of the CIRC.

14 Article 8 of the CIRC establishes that, as a rule, the tax period coincides with the calendar year, and taxable persons may adopt an annual tax period different from the calendar year, and the taxable event that generates the tax is considered the last day of the tax period.

15 An example of an active transaction, which does not give rise to a tax payable, but which requires the delivery of the income statement is the execution of an onerous transfer of a tangible fixed asset that causes a loss.

16 Article 120 of the CIMI establishes that the tax must be paid: a) in one payment in the month of April, when the amount is equal to or less than € 250. b) In two installments, in the months of April and November, when the amount exceeds € 250 and € 500 or less. c) Three installments, in April, July and November, when the amount exceeds € 500.

Law No. 42/2016, of December 28 (State Budget Law for 2017), revoked stipulation no. 28 of the General Stamp Tax Table (TGIS in Portuguese), replacing it with the **Addition to the Municipal Property Tax** (AIMI by its acronym in Portuguese), which is levied on the sum of the taxable amount of the urban buildings located in Portuguese territory, detained by the taxable person.

The persons who are taxable persons of the Municipal Property Tax (Article 135-A of the CIMI) are taxable persons of this Addition to the Municipal Property Tax; however, urban edifices classified as “commercial, industrial or service” and “other” (Article 135-B (2) of CIMI) are excluded.

This AIMI differs from IMI on the date of the tax event, which occurs on January 1 [Article 135-G (1) of the CIMI], and the payment date is the month of September (Article 135-H of the CIMI).

In this way, and in the same way as IMI, regardless the corporate status of the taxable person, the Addition to the Municipal Property Tax will be charged on the sum of the tax assets of the properties, and thus the insolvent company will have to make the due payment for the property, or use and benefit of the buildings, as of January 1, in which case this tax will be considered as debt of the insolvent estate, under the terms set forth in Article 51 (1), section c, of the CIRE.

Once again, payment must be made, within the legally established terms, under the terms provided for in Article 172 (3) of the CIRE.

With regard to the **Single Circulation Tax** (IUC in Portuguese), Article 3 (1) of the Single Circulation Tax Code (CIUC by its acronym in Portuguese) states that “[t]axable persons are owners of vehicles, as such, individual or legal entities, whether public or private, on

whose behalf they are registered.” Section 2 adds that “[f]inancial lessees, holders of deeds, and other holders of purchase option rights under the lease are treated as proprietors.”

Article 4 of CIUC states that the taxation period corresponds to the year beginning on the date of registration, or each of its anniversaries, resulting from its annual periodicity. The IUC is due till cancellation of registration.

As for the taxable event, we find that it is constituted by the ownership of the vehicle [Article 6 (1) of the CIUC], and the tax becomes chargeable on the 1st day of the tax period [Article 2 (6) of the CIUC] and must be paid by the end of the month in which it becomes chargeable [Article 17 (2) of the CIUC].

Therefore, the IUC, as in the case of IMI and AIMI, must be paid for the property, financial lease, or other holders of leases with option of purchase under the leasing contract, the first day of the tax period (in the year beginning on the date of registration or each of their anniversaries), in which case this tax will be considered as debt of the insolvent estate, under the terms set forth in Article 51 (1), section c, of the CIRE.

The payment shall be made, within the legally established time limits, in accordance with Article 172 (3) of the CIRE.

5. TAX BENEFITS UNDER CIRE

Before starting the analysis of the benefits provided by the CIRE, related to tax matters, it is important to remind the concept of tax benefit, included in Article 2 (1) of the Tax Benefits Normative (EBF by its acronym in Portuguese): “[e]xceptional measures imposed to

protect relevant extra-fiscal public interests, which are greater than the taxation itself, are considered tax benefits.”

Thus, we observe that these exceptional measures aim to encourage specific behaviors of the taxable persons, by means of the reduction of the taxation that would fall on them, if there were no such benefit.

5.1 Corporate Income Tax

The tax benefits related to income taxes are enshrined in the Article 268 of the Insolvency and Business Recovery Code (CIRE by its acronym in Portuguese), which may be subdivided as follows:

- Capital gains resulting from donation in compliance and the transfer of assets to creditors;
- Positive changes in assets as a result of the reduction of financial liabilities;
- Expenses for the year due to the reduction of financial assets.

The **tax benefit related to capital gains** realized by the insolvent is enshrined in Article 268 (1) of the CIRE. It states that *“[c]apital gains realized as a result of the enforcement of the assets of the debtor and the assignment of assets to creditors are exempt from taxes on the income of natural and legal persons and do not contribute to the determination of the debtor’s tax base.”*

Thus, we verify that the capital gains obtained by the insolvent, under the terms set forth in Subsection VI – Regime of capital gains and losses, of the CIRC (Articles 46 to 48). Their implementation may be the donation in compliance (enforcement), or transfer of assets, and when the acquirers are creditors of the insolvent and / or

creditors of the insolvent estate do not contribute to the determination of the taxable profit established in Article 17 of the CIRC, pursuant to the provisions of Article 268 (1) of the CIRE.

In practical terms, this accounting capital gain calculated for the insolvent will be calculated on the Model 31 Map – Map of Capital Gains and Losses, contained in the Tax Dossier, in accordance with the provisions of Administrative Rule No. 92-A/2011, of February 28. Since this income will be recorded in heading 78 - Other Income and Gains, its amount must be deducted in Field 767 of Table 07, of the income tax form – Model 22, in order to extinguish the Taxable Profit / Loss of the capital gain obtained.

With regard to the **positive variation in assets** resulting from the changes in their debts provided for in the bankruptcy plan, payment plan or recovery plan, Article 268 (2) of the CIRE states that they are not part of the collectable assets of the debtor.

Thus, as usually in the Special Revitalization Process (PER) (Articles 17-A and following of the CIRE), or in the Recovery Plan (Articles 192 and following of the CIRE), and with a view to rehabilitating the insolvent society, the reduction of the amount owed by the insolvent, or the reduction of the interest due (as a result of the moratorium), the gain obtained by the insolvent derived from this debt reduction will not contribute to the taxable result.

This reduction of the debt of the insolvent also has repercussions in the patrimonial sphere of the creditor, reason why the discharge of the corresponding financial asset, on the part of the creditor of the insolvent, will generate an **expense of the exercise by reduction of the value of the credits**.

Acceptance of this expense as a tax expenditure is not expressed in the CIRC, so it is only through the tax benefit, set forth in Article 268 (3) of the CIRE, that this expense is accepted for tax purposes.

5.2 Municipal Tax on Paid Transfers

In many situations, the reason for verifying the insolvency situation, according to Article 3 of the CIRE, results from the imbalance between the insolvent business structure and its economic reality.

Therefore, whenever the Insolvency Administrator verifies this imbalance, at the Creditors' Meeting, provided in Article 209 of the CIRE, he must propose the readjustment of this same corporate structure, and in case the proposed Insolvency Plan come to be approved, in the terms of Article 210 of the CIRE, it "(...) *gives effect to any legal acts or transactions provided for in the bankruptcy plan (...)*", in particular for the creation of the new company(ies) and for subsequent the transfer of goods and rights.

In order to encourage insolvency recovery, the legislator chose to grant a tax benefit in the framework of Municipal Tax on Paid Transfers (IMT by its acronym in Portuguese), when such a recovery involves the transfer of real estate.

Thus, article 270 (1), section a, of the CIRE, provides that the transmissions of immovable property that are destined to the constitution of new company(ies) and the fulfillment of its capital are exempt from IMT.

The same legal provision, in its paragraph 1, section b, establishes that the transmission of real estate that is destined to increase capital in the insolvent company is exempt from IMT. It should not be forgotten here that cash contributions to incorporation pursuant, due the Article 10 of the Council Directive 77/91/ EEC, are subject to a strict legal regime and must be evaluated by a Official Auditor with no interest in the company (Article 28 of the CSC).

Section c, of the same paragraph 1, also establishes that the transfer of real estate property, integrated in an insolvency plan, shall be exempt from IMT, "(...) *when they proceed from a donation in compliance with the assets of the company and the transfer of assets to creditors.*"

Thus, in the IMT, as in the case of IRC capital gains, the legislature intended to continue to privilege the extinction of the obligation for the delivery of the assets to the creditors, encouraging the creditors of the insolvent to acquire the property, thus solving the debt, or part thereof.

Also regarding benefits in the IMT framework, no. 2 of the same legal precept establishes the IMT exemption for "(...) *acts of sale, exchange or transfers of the company or its establishments integrated into the scope of insolvency plans, payment or recovery or carried out in connection with the liquidation of the insolvent estate.*"

Through Circular 4/2017, the AT clarifies that this benefit does not depend whether the product sold, exchanged or

transferred to provide a universal cover to the insolvent company or its establishment, but that “[t]he acts of sale, exchange or transfer of real estate or properties from the company are exempt from IMT, provided that they are included in the context of insolvency plans, payment or recovery procedures or are carried out in connection with the liquidation of the insolvent estate.”

5.3 Stamp duty

As a result of the reduction of taxation regarding the a Stamp Duty¹⁷, the legislator intended to exempt, and consequently smooth, the performance of several acts that are frequently observed in the insolvency proceedings.

These incentives are intended to expedite the recovery of the insolvent, or its discharge upon liquidation.

Thus, several acts are exempt from stamp duty when inserted in an insolvency proceeding, such as:

- Modifications of financing terms or interest rates on insolvency credits (stipulation 17 of the TGIS);
- The issuance of bills or promissory notes (stipulation 23 of the TGIS);
- Capital increases, capital conversion, the incorporation of new company(ies) (stipulation 26 of the TGIS – repealed by Law No. 3-B/2010, of April 28);
- Transfers of services activities or operation (stipulation 27 of the TGIS).

¹⁷ Article 269 of the CIRE.

6. CONCLUSIONS

This article intends to disclose the taxation of insolvent companies in Portugal, in the liquidation phase.

For this purpose, we began by describing the evolution of the bankruptcy process, centralizing the analysis on Portugal. As a result of the commitments made with the *Troika*, under the Memorandum of Understanding on Economic Policy Conditionalities, signed on May 17, 2011, the bankruptcy-sanitation system was reinstated.

As a result of this change in the bankruptcy paradigm, the taxation of insolvent companies was changed, in particular as regards the obligation to issue tax returns form.

In this sense, an analysis was made of the personality and tax capacity of insolvent companies, and it was concluded that they are able to carry out tax acts, and consequently are liable to taxation.

The next step was to analyze the obligation of the insolvent company to carry out the report of accounts, observing that this obligation is divided into two: the reporting of accounts before the court (insolvency proceedings), and the reporting of accounts under the Code of Commercial Companies (CSC).

Due to the obligation to carry out the reporting of accounts under the CSC, it was also observed that insolvent companies must have a Certified Accountant, as well as an Official Auditor, if they were obliged to do so, at a date preceding the bankruptcy statement.

As a result of their ability to carry out tax facts, the taxes to which insolvent companies are subject were analyzed. For a better understanding, we chose to divide between consumption tax, income tax and taxes on assets.

With regard to the consumption tax – Value Added Tax – we verify that, with the decision of closing down the insolvent establishment, the AT promotes its unofficial closure, suspending the obligation to proceed with the regular delivery of periodic VAT tax return form. However, there is an obligation to submit VAT tax return form whenever the insolvent company carries out active operations.

With regard to the Corporate Income Tax – IRC – we also note that, with the resolution to close the insolvent establishment, the AT promotes its closure on an unofficial basis, which ceases to be the obligation to file regular income tax return form – Model 22. However, this obligation is maintained in the period in which said deliberation occurs, and in subsequent periods whenever the insolvent company carries out active operations.

Furthermore, the temporary nature of the taxable profit was verified, as well as the possibility of deducting losses prior to the decision of closure of the insolvent establishment, if the liquidation is completed before two years have elapsed.

As regards taxes on assets, it was observed that, since the insolvent company is the owner of the assets at the date of the taxable event, it will be on

the insolvent entity that the respective tax will be due, regardless of the maturity date of the obligation to pay by the insolvent company, which is no longer the owner.

Finally, and given its relevance to taxation in the liquidation of the insolvent, the tax benefits provided in the Insolvency Code and the Recovery of Companies (CIRE) were analyzed. This analysis followed the separation adopted by said normative.

As a result, capital gains arising from the transfer of assets of the insolvent company to its creditors, for the extinction / reduction of debts, are exempted from taxes.

The exemption of taxation as a result of the restructuring of the insolvent debt was also noted, both in terms of the gain obtained by the insolvent and the acceptance, at the tax level, of the expense incurred by the creditor.

In the scope of the Municipal Tax on Paid Transfers of properties, the exemption granted in the restructuring of insolvent companies (creation of new companies and capital inflows in the insolvent company) was verified, as well as the exemption in the sale, insolvency, payment or recovery plans or carried out in connection with the liquidation of the insolvent estate.

Lastly, regarding the Stamp Duty, the tax exemption is granted on several acts that are frequent in insolvency procedures, aimed at speeding up the recovery of the insolvent, or their discharge at the time of the liquidation.

7. ABBREVIATIONS

AIMI	Addition to the Municipal Property Tax
AT	Tax and Customs Authority
CIMI	Municipal Property Tax Code
CIRC	Corporate Income Tax Code
CIRE	Insolvency and Business Recovery Code
CIUC	Single Circulation Tax Code
CIVA	VAT Code
CLC	Legal Certification of Accounts
CNC	Accounting Standardization Committee
CPC	Code of Civil Procedure
CPEREF	Special Code of Procedures for Company Recovery and Bankruptcy
CPPT	Process and Tax Procedure Code
CSC	Commercial Companies Code
DP	VAT tax return form
EBF	Tax Benefits Normative
IMI	Municipal Property Tax
IMT	Municipal Tax on Paid Transfers
IRC	Corporate Income Tax
IUC	Single Circulation Tax
LGT	General Tax Law
NIF	Tax Identification Number
PER	Special Revitalization Process
ROC	Official Auditor
SNC	Accounting Standardization System
TGIS	General Stamp Tax Table

8. BIBLIOGRAPHY

Menezes Leitão, Luís Manuel Teles (2011). *Direito da Insolvência*. (3a ed.) Coimbra: Almedina.

Ordenações Afonsinas. 1454. Recuperado em 12 maio 2017 de <<http://www.ci.uc.pt/ihiti/proj/afonsinas/l2p317.htm>>.

Ordenações Filipinas. 1595. Recuperado em 12 maio 2017 de <<http://www1.ci.uc.pt/ihiti/proj/filipinas/l3p616.htm>>.

Decreto de 18 de setembro de 1833. Código Commercial Portuguez (Código Ferreira Borges). Recuperado em 12 maio 2017 de <<http://www.fd.unl.pt/Anexos/Investigacao/3972.pdf>>.

Carta de Lei de 28 de Junho de 1888. Código Comercial (Código de Veiga Beirão) Diário do Governo. 203 (1888-09-06) 1965 - 1987.

Decreto de 26 de julho de 1899. Código de falências. Diário do Governo. (1899-07-26) 199 - 218.

Decreto n.º 21:758. Diário do Governo. Criação do instituto da falência do devedor não-comerciante. I Série 248 (1932-10-22) 2061 - 2063.

Decreto n.º 25:981. Novo Código das Falências. Diário do Governo. I Série 248 (1935-10-26) 1556 - 1585.

Decreto-Lei n.º 44129. Introdução de meios preventivos à declaração de falência. Diário do Governo. I Série 299 (1961-12-28) 1783 - 1962.

Diretiva do Conselho n.º 77/91/CEE. Tendente a coordenar as garantias que, para proteção dos interesses dos sócios e de terceiros. Jornal Oficial das Comunidades Europeias. L026 (1977-01-31) 0001-0013

Decreto-Lei n.º 177/86. Cria o Processo Especial de Recuperação da Empresa e da Proteção dos Credores. Diário da República. I Série 149 (1986-07-02) 1560 - 1572.

Decreto-Lei n.º 132/93. Código dos Processos Especiais de Recuperação da Empresa e de Falência (CPEREF). Diário da República. I Série 95 (1993-04-23) 1976 - 2005.

Decreto-Lei n.º 53/2004. Código de Insolvência e da Recuperação de Empresas (CIRE). Diário da República. I Série-A 66 (2004-03-18) 1402 - 1465.

Lei n.º 16/2012. Procede à sexta alteração ao CIRE, simplificando formalidades e procedimentos e instituindo o processo especial de revitalização. Diário da República. I Série 79 (2012-04-20) 2223 - 2231

FUTURE COLLECTION AND CONTROL OF **CONTRIBUTIONS TO SOCIAL SECURITY** BEFORE THE DIGITAL ECONOMY CHANGES



Rodrigo
GONZÁLEZ CAO

SYNOPSIS

This paper identifies trends in digitalization and small assignments economy and their impact on the control and collection of social security contributions by the tax administrations.

This preliminary approach will help to propose a strategic approach for the staff devoted to the

topic because it is indispensable to identify the challenges and outline new strategies on the inner face (de-bureaucratization), interaction with citizens (facilitating compliance through web services) and interoperability with other agencies of Social Security.

CONTENT

1. The challenges to face in a digital economy
2. The Tax Administration in a fluid and complex environment
3. The Tax Administration facing the technology transition to a digital economy
4. Conclusions
5. Bibliography

THE AUTHOR

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INTRODUCTION

The advances of information and Communications Technologies (ICT) rapidly transform the economy, the future nature of work, social interaction patterns and how the Tax Administration collects and monitors internal taxes and Social Security contributions.

In a growing economy of small-scale activities, many people work sporadically on small short-term orders, providing services to clients that hire them through mobile applications and virtual platforms from third parties.

There is a high risk that these work relationships will be informal and will evade the payment of social security contributions, and all taxes. This situation may thwart the traditional financing of a system that was conceived as a contributive model, based on solidarity.

We must anticipate the conflicts arising from these developments in labor relations, consequence of the new technologies, because the digital economy will change all the assumptions on which we conceive the collection and control of public revenues.

This look into the future must consider both the changes in the social context in which we will operate as well as the way in which the tax authorities will react to the rising challenges.

1. THE CHALLENGES TO FACE IN A DIGITAL ECONOMY

1.1 The challenge of expanding the universe of taxpayers

In Argentina, according to report from the Ministry of Labor (MTESS, 2018) to December 2017, 12.37 million

workers were active contributors. From them, 8.75 belong to the private sector, other 3.19 are from the public sector and 419,000 are small social effectors.

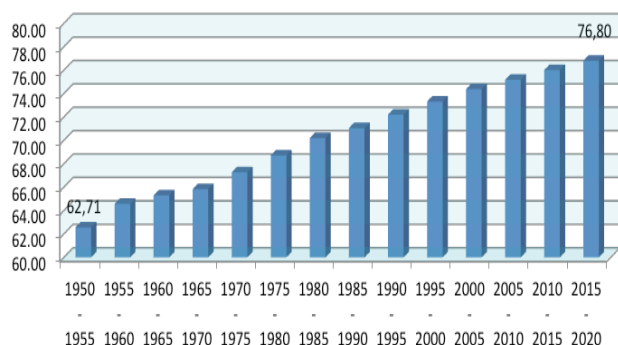
Our current solidarity scheme, contributive and intergenerational, is based on a distribution system in which today's taxpayer finances the benefits of those who were contributing in the past. Consequently, the aging population is one of the most important demographic trends that we must consider. If the beneficiaries grow faster than the taxpayers who finance these conditional economic benefits, the equation becomes unbalanced.

When pension systems were designed in 1950, life expectancy at birth in Argentina was 62.71 years. It was 60.2 for the men and 65.1 for women. On that occasion, the ages for retirement were fixed and the minimal number of years that should be provided on these actuarial figures was determined. These figures explain why, in the first decades, the system registered initial surpluses that lead to the generalization of a "deep pocket" myth.

The UN's demographic studies predict that life expectancy at birth in Argentina in 2020 will increase by 14 years from this starting point, to 76.80 years. By genders, the life expectancies results in 73.6 for men and 81.3 for women. In the Argentine National Census of 2010, this demographic bomb was represented by 10.6% of the population being over 65, and by 2050, that proportion will grow to 19.4%. This is a global trend.

In addition, the extension of the workers' productive life pushes young inexperienced and migrants trying to enter the workforce to accept lower paying jobs or unregistered vacancies in marginal economic sectors, affecting the contributions financing the social security system.

Figure 1. Evolution of life expectancy at birth in Argentina until 2020 (unisex)



Source: United Nations <https://esa.un.org/unpd/wpp/DataQuery/> and ECLAC <http://estadisticas.cepal.org/cepalstat/Portada.html>

As the population ages rapidly, considering the wide coverage of the pension system that has been achieved in Argentina, the cost of the social protection makes that some actors see with concern the growing significant weight of social spending relative to GDP.

Faced with this trend of longer survival of pensioners at the age in which they access the retirement benefit, the social security faces the challenge to expand the population of contributors. The other option, which would limit the purchasing power of pensioners, does not seem feasible socially or ethically, given the rising cost of drugs and coverage of minimum basic needs (i.e.: food, lighting and heating, etc.).

To secure the financing of the system, in addition to the personal contributions of each worker, the legislature has established an employer payroll tax, a charge that is imposed on all employers.

Collaterally, the Treasury may cover possible cash shortfalls, using contributions or special taxes.

The trend to reduce labor costs by reducing the employers' contributions rates, as an additional incentive to avoid unregistered employment, reduces the weight

that future contributions will have on the Social Security financing system.

In the current context, it is not sustainable to secure the financing of the system by increasing the rates of contribution, since this would further increase the tax burden on employers. However, we should strengthen the management capacity of the Tax Administration to improve the controls that induce greater voluntary compliance, broadening the tax base to include the entire target population, which now often operates in the informal sector, to be subject to Social Security contributions.

In addition, and to encourage taxpayers to better fulfill their obligations – apart from seeing their contribution reflected in the expected compensation of quality public healthcare and sufficient pension – the payment should be made easier, providing tools that simplify the management, reducing transaction costs (time and money). The administrative costs of compliance, which still persist despite the widespread deployment of technological solutions, should be reduced, the scattered procedures should be unified and the broad territorial deployment available to the Tax Administration should be better used.

The expansion of the taxpayers' universe requires the State to assume the training of stable inspection bodies throughout the country and with sufficient technological, procedural and legal tools to enforce compliance with social security contributions. Hence the importance of a holistic analysis of employers and self-employed contributors, considering all the aspects of their tax behavior.

1.2 The challenge of adjusting regulations to the future evolution of work

Every day we find the labor market becoming more precarious in large urban agglomerations (i.e.: clandestine textile workshops, fairs selling counterfeit goods, sales of smuggled products).

This precariousness is also verified in the unemployment rates of 8.3% and underemployment of 10.8% (INDEC, 2017a) and, as the Secretary of Economic Policy and Development Planning (2015) points out, more than one third of the population of working age works marginally without contributing to the system.

The formalization of these labor relations will not be achieved only by strengthening the inspection bodies and improving web services to pay contributions to social security.

While the debate today focuses on parametric reforms of existing social security schemes, it is likely that we must also discuss future structural reforms. Such reforms should be reconsidered, by reviewing regulatory codes, the design and financing of schemes in the future context of labor relations and trends on robotization and gig economy.

The Argentine government has set the ambitious goal of reducing poverty by half by 2030, in the Sustainable Development Goals (National Council for Social Policy Coordination, 2017) but to do so, other complementary measures should proactively promoted.

In that sense, although the domestic workers model is an interesting alternative to the formalization of a labor market highly marginalized in which employers elude their responsibilities, generalizing this solution could risk worsening the funding of social security subsystems.

1.3 The challenge of controlling the social security contributions in an economy of small-scale activities

Digital platforms are the way in which technology decreases the services' prices and makes them more accessible through internet. Ranging from buying a product through an e-commerce portal instead of being attended by a vendor in a physical location, such as hiring through an application a vehicle for a journey, to contact the plumber or electrician needed for repair domestic emergency.

We need to understand the models of collaborative business and the intermediary role of these platforms to establish whether there is a covert subordinate labor relation and determine whether these providers are independent entrepreneurs, economically dependent self-employed workers of an organizer, or if they fit the traditional concept of technical, legal and economic subordination of the classic employment relationship.

The audit procedures to detect unregistered employment if the worker performs his activity through telecommuting or a digital platform must be adapted because it will be harder to find if we only use the traditional verification of people in a working attitude in a physical establishment (i.e.: headcount).

According to Accenture (2016), in his analysis in collaboration with the Alliance of Young Entrepreneurs of the G20, these enterprises structured from online platforms have a steadily increasing role in the economy.

In this "gig economy", or economy of small assignments, as defined by the McKinsey Global Institute (2016), the worker is called to perform a service, uses his knowledge about the task, his labor and the necessary means and in return, receives a percentage on the amount paid, then return home to wait for the next call. Likewise, in an increasing number of economic sectors, the P2P working model (person-to-person) is growing. In this working mode, the mold of the usual relation of labor dependency is broken and the worker is hired occasionally for specific works.

That is how, for instance, the transport service Uber operates. A company based abroad offers a virtual platform to hire a transport service but does not bring anything physical: it has no cars, no drivers nor is it looking for the customers. It claims to be only a smart phone application that connects users together, and provides a mere telematics development supposedly not subject to any regulation.

In addition to this trend, re-engineering, downsizing and outsourcing processes are also based on temporary

jobs without employment relationships, and short-term work contracts.

According to the report of the registered employment published by the Ministry of Labor, Employment and Social Security of Argentina (MTESS, 2018) the small self-employed workers (“small single tax payers”¹) are the fastest growing employment segment, growing by 5% inter-annually, versus a 2% increase in total employment. This trend is not positive if it consolidates in the future because permanent employment relationships are met, at best, by contributions from small taxpayers in a regime that should be a transition to the general scheme. Contributions which, as pointed out by Perez Achilli M. (2017), are delayed in their value and therefore do not cover future contingencies for retirement and the increasing life expectancy of the elderly, ensuring only a coverage of minimum pension.

Faced with this trend, the challenge of expanding the universe of taxpayers and the required detection of “tax dwarfism” show, since many of these alleged entrepreneurs attempt to cover appearances with a minimum payment to the “single tax” in order to escape the radar of the tax administration and reduce their costs through the avoidance of their tax obligations. In this horizon, it becomes unavoidable to specialize the tax audit teams in order to ensure a thorough understanding of the new economic relationships and innovative practices of employers and their harmful labor planning.

The economy of small-scale activities is a paradigm shift from traditional modalities that we used to inspect. From the aspect of control of the social security contributions, we must quickly define how we will control these new models of temporary and flexible contracts that grow as long as there is an increasing demand by consumers who hire services through online platforms.

2. THE TAX ADMINISTRATION IN A FLUID AND COMPLEX ENVIRONMENT

In a volatile, uncertain, complex and ambiguous context, the tax authorities should strengthen the tax agreement with the citizens as a part of the social contract that cements the republican government model enshrined in the Constitution.

In this framework, the correct payment of contributions to Social Security ensures the provision of the coverage promised in the constitutional text, since any enunciation of rights without corresponding funding becomes unfeasible.

In addition, the use of macrodata analytical tools allow detecting patterns of risk behavior, on which we can focus efforts against fraud and evasion.

Thus, before the rising tide of unstable labor relations and trends of future generalization of the short-term activities economy, it is urgent to answer the challenge of training properly equipped teams of control.

2.1 The tax pact as part of the social pact

The Social Security system is a contributory regime of solidarity, and as a consequence, the notion of citizenship and the fulfillment of civic duties requires a clear sense of responsibility and participation of every citizen in financing the system.

Collecting the social security contributions reinforces the concept of one single authority to ensure the rights that the state has granted to its citizens (Article 14 bis of the Constitution of Argentina²): “The State shall grant the benefits of social security, which shall be integral and inalienable nature”.

1 The single tax (“Monotributo”) is a simplified regime of taxation for small taxpayers in force in Argentina that allows independent workers to pay, at very low cost, the Personal Income Tax, Value Added Tax, Social Security contributions and pay the National Health Insurance System. In return, the taxpayer receives medical coverage for himself and his family, family allowances and future access to a minimum retirement of around \$ USD 383.

2 Article 14 bis of the National Constitution of the Argentine Republic: “The State will grant the benefits of social security, which will be of an integral and inalienable nature. In particular, the law will establish: a compulsory social insurance, which will be under the management of national or provincial entities with financial and economic autonomy, administered by the interested parties with State participation, without any overlapping of contributions; pensions and mobile pensions; the integral protection of the family; the defense of family property; family economic compensation and access to decent housing.”

Reinforcing the concept of “no taxation without representation”, the recognition of such legitimacy is essential in a republic where the tax system and taxation on payroll is the result of an agreement between citizens and society through their parliamentary representatives.

2.2 The social importance of social security resources

The Tax Administration acts as an interface between the State and the citizen.

In analyzing the nature of public revenues, we can distinguish between internal taxes and contributions on the payroll because of the distinctive features of each of these categories.

Unlike other taxes where payment of the tax claim extinguishes any subsequent effect, the Social Security needs to ensure registration and consistency of the data provided by employers and taxpayers. This is because the compliance of contributions creates a right to receive certain conditional economic benefits, which may be claimed in an uncertain future in the event of any of the contingencies covered (v.gr.: retirement, pensions, health insurance, family allowances, unemployment insurance, life insurance, etc.).

These differences justify the broad powers of verification and control that the laws give to the control of Social Security contributions above the normal tax procedure.

These broad powers are granted to guarantee, as legally protected, the right to social security laid down in THE UNIVERSAL DECLARATION OF HUMAN RIGHTS (1948), THE INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL AND CULTURAL RIGHTS (1966) and the above-mentioned article 14 bis of the NATIONAL CONSTITUTION.

Due to the particular nature of the Social Security resources, the full integration into the strategy of the Tax Administration with a holistic view of the behavior of economic subjects is justified by the importance of a single interface between the State and the citizen. This is a way to facilitate the voluntary compliance and stimulate the compliance with civic obligations.

2.3 The effectiveness of tax control and the segmentation of taxpayers

In Argentina, the Tax Administration interacts with a universe of 13.5 million of active registered taxpayers³ through more than 360 local services centers. This total is composed of around 610,000 companies formally constituted, 5 million registered citizens and 8 million of employed workers enrolled employees in dependent labor relationships.

Due to the profusion of standards and abundance of special regimes, the compliance with the obligations of Social Security has become enormously complex (as well as their control).

In Argentina, 99% of registered employers declare a monthly payroll of less than 350 workers.

When we perform fieldwork in small and medium enterprises, it appears clearly that not all employers have equal opportunities to fulfill their obligations. This is primarily because there are differences in economic and cultural backgrounds that determine their attitude towards the Treasury and this has a strong effect on their behavior.

Given this reality, the administrative and judicial procedures may be so complex that they can only be solved by those with an accounting and legal structure of support. Therefore the legality and equity, both

3 Total of taxpayers registered by AFIP in July 2017.

vertical and horizontal, are mere legal fictions, and we urgently require less bureaucracy and simplify the demands of tax control, adapting them to the characteristics of the taxpayers, based on the size of their payroll or other similar circumstances.

However, it should be clear that simplification of procedures for small and medium enterprises should not reduce the scope and extent of their contributions to Social Security. They are defined and quantified by the general regime, but the administrative simplification that we propose should aim at easing the requirements of voluntary compliance, in certain situations and in relation to certain subjects, without implying a reduction of taxes or contributions.

The measure of the effectiveness of the Tax Administration not only relies on the determination of the debt via audit procedures, but also in the effective collection of such tax claim or in the exceptional case of a counter-claim, the reflection such litigation through justice.

To complete the cycle and ensure the collection of the tax debt makes perceptible socially the non compliance risk, perception necessary to increase the voluntary compliance by taxpayers.

Consequently, the control of the Tax Administration will be effective if it achieves a clear decrease in the number of defaulters and, therefore, strengthens the tax equity.

The effectiveness of fiscal control has an impact on the National Treasury, which benefits from receiving additional revenue resulting from the increase in collection generated by the improved efficiency of the tax administration, and on the agencies responsible of implementing the social security benefits.

2.4 The complete control cycle in a volatile, uncertain, complex and ambiguous environment

The control activity is conceived as a set of tasks aimed at generating risk to reduce the irregular behavior of the taxpayer in breach.

Experience shows that we must strengthen coercive collection if we seek to increase the risk perception against someone trying to evade contributions to Social Security and, in addition, to achieve an effect on other employers, acting as a sounding board that amplifies the echo of the task performed.

In this sense, the traditional model of visiting a workplace to detect undeclared or sub-declared workers by a face-to-face count of workers in labor attitude is currently insufficient.

The employers that organize a harmful labor planning attempt to distort their business reality in order to mislead the Tax Administration and, this way, illegally decrease their contributions to the Social Security.

The control areas, using the analytical tools, should use systemic crosses of the information available in databases to detect maneuvers to erode the pay base and misuse the benefits aimed at reducing cotization rates in promoted sectors. This new perspective will provide greater efficiency, transparency and objectivity to control activities.

How the necessary presence will be obtained and, in turn, increase the risk perception by reluctant taxpayers is the major challenge that inspection bodies have to reach, and this will determine the effectiveness of our fiscal audit work.

3. THE TAX ADMINISTRATION FACING THE TECHNOLOGY TRANSITION IN A DIGITAL ECONOMY

When thinking of the technological transition and the impact of digitalization on our activities, we must analyze, among other things, the simplification of internal processes, the interoperability with other agencies and the relationship with citizens.

The Electronic Government of the United Nations Development Index (UN, 2016) places Argentina in the high-level group, regarding the adoption of ICT and the digital inclusion.

In this aspect, the Tax Administration can be the institution pushing the other agencies with which it interacts.

ICT must be the trigger to introduce innovative solutions with focus on mobile technologies and innovation in e-government.

3.1 Providing services to citizens and not widening the breach

ICT is also transforming relations between the tax authorities and the public. The systematization of some processes and simplification of others facilitate the provision of better services to citizens.

Technology eliminates distances, times and physical obstacles to interact with the tax authorities, regardless of the city of residence of the taxpayer and the distance to the closest attention office.

However, as noted by the then AFIP Subdirector General of Systems and Telecommunications in an interview at the Forum “e-Government” of the Organization of American States (OAS, 2006), it should not be considered that digital solutions are common to all public. It is not the same to interact with professionals (v.gr.: accountants, customs agents) and to do it with

small taxpayers and other citizens, some of which are not part of the formal circuit and usually experience critical limitations on Internet access. Despite progress, this social gap is still present and should not be ignored.

Therefore, if the electronic channel becomes the exclusive link with citizens, those who do not have access to the digital world will become marginalized, and the social divide will increase. In addition, the aforementioned digital and social gaps are powered by the generation gap because many older people use less online services.

The Tax Administration has the challenge of harnessing technology to jump over those barriers and facilitate access to all citizens.

The Tax Administration in Argentina has been a pioneer in providing web access for the personal contributions of workers, monthly presentations employers’ payrolls via digital media and electronic payments, among many other services. To provide information access to citizens, so they can verify it and comply with their tax obligations, the telematics services should be redefined as users-centered, ensuring greater autonomy through the “self-service” at any time and place, which will decrease the physical attendance at local services centers.

3.2 Managing the complexity of interoperability and protection of accumulated data

We often underestimate the complexity of the Social Security processes, and its massiveness. Their information systems and interoperability with other health agencies, pensions and occupational hazards sustain the conditional financial transfers from different contributory schemes.

Improving interoperability between institutions results in optimizing the quality of service provided by each subsystem of Social Security. It also may prevent fraud in the use of benefits that may cost many millions of pesos to the Treasury.

The need to protect the large amount of personal and tax data against unauthorized access should not be underestimated either. Computer security risks, hacking, extortion and theft of personal information grow with the intensification of interoperability and data accumulation.

The increased volume of data collected and their potentially sensitive nature makes essential to prevent the specific threats and potential cybercrime. A good management of interoperability technologies is required, to ensure secure interconnection of systems and institutions.

Trust is central to the future development of e-government in the context of a digital economy. If the citizen distrusts the data storage by the Tax Administration, this may jeopardize all future digital development. New ways of managing identities should be developed to ensure the adequate level of protection.

3.3 Rethinking internal processes and simplification of procedures

On the internal face, ICTs can be useful to improve performance and reduce administrative costs if their development takes place along with streamlining the workloads, reducing errors and detecting fraud. If the digitalization of business processes replicates the vices of the processes that are done manually today, systematization will have no significant impact.

As already noted in “Tesoro, Arambarri and Gonzalez Cao (2002)”, the major obstacles preventing positive impacts through digitalization are not associated with the “digital divide”. Other more critical gaps are of ethical nature (quality of attitudes and behaviors), axiological (moral values), teleological (pursuit of objectives) and praxeological (forms and ways of operating), which are not resolved only with large investments in technological developments.

Digitalization should be an opportunity to reduce bureaucracy and, therefore, rethink unnecessary or

redundant procedures with registration, tax collection, fiscal audits and receiving complaints from citizens.

Accordingly, computer developments should move towards the exploitation of macrodata and predictive analysis for detecting risk behavior and on the other hand, the automation of massive and repetitive operations.

3.4 The exploitation of macrodata

The vast accumulation of data in the Tax Administration's databases is wasted if there is no exploitation strategy of the macro-data.

We can define the concept of “Big data” as the use of huge data sets of different natures (i.e. numeric, text, multimedia, maps, etc.), which are processed by cognitive computer science and analytical technologies, looking for correlations to develop predictive models that allow to extract useful information.

Three aspects to develop in the macrodata exploitation strategy are:

1. To use data mining for selecting cases from information crosses with the aim of improving the effectiveness of controls and the exploitation of information available
2. Using “Analytics” tools to support decision-making on control actions,
3. Exploitation of “Big Data” techniques to use massively the information from electronic receipts and payrolls, sectoral studies and risk prediction.

One of the benefits to the tax administrations of using massive data profiling is to create profiles of risk behavior and perform predictive analysis to detect evasion and fraud, extracting additional value from these macro data.

Because of this systematization, all the antecedents of breaches by an employer should be grouped to induce him to their comprehensive rectification, thus avoiding the continuous repetition of small determinations at the same taxpayer, whose returns are audited repeatedly a few months apart.

This change in the interaction with the audited taxpayers result in reduced costs of inspections but also, by proceeding at once with all the breaches, will also influence a greater perception of risk by taxpayers and the subsequent contagion effect that the economic sector shares or with its close neighbors.

Unfortunately, there is no instruction manual on how to apply these technologies. For this reason, buying software will not allow us to detect the niches of social security contributions evasion if we do not previously know where to point the control strategy without a thorough understanding of each economic sector and its particularities.

3.5 The systematization of routine processes

Another line of work that promises encouraging results is the systematization of routine processes of massive populations.

It is necessary to systematize routine tasks such as the analysis and consequent induction to the regularization of staff remuneration differences or detection of undeclared workers, releasing the human control effort towards tax audits of the most complex or important cases.

The systematization of such massive processes ensure equal treatment of all taxpayers, protection of

personal data, integrity and transparency of the process and automated equal decisions for all similar cases according to predefined rules.

An example of implementation of the new technological possibilities is the new system of Obligations calculations and Inspection Records of AFIP.

This software tool integrates the successive stages of the audit process and manages to automatize the selection of cases from the automatic identification of irregularities detected in enquiries about the personnel. It induces the employer to voluntary correction, then – *in case of negative answer*- the calculation of the tax claim in a similar application that uses the taxpayer to submit their monthly statements. It subsequently registers systematically any appeals and claims before the Treasury and finally includes the computerized tracking of the determined difference in the collection systems until the effective payment.

This systematization allows the tasks carried out by the control personnel to be validated and guided by the tool through a standardized workflow, with definitions of specific roles, also enabling a permanent control management that facilitates the analysis of possible deviations.

Finally, it is important to note that the primary objective of the described initiative is that taxpayers recalculate the risk associated with evasion or avoidance of Social Security contributions, realizing that their historical assessment of risk may be wrong, because of the improvement in the actions of the Tax Administration.

4. CONCLUSIONS

Trends towards digitalization of the economy and its impact on forms of taxation, especially in social security contributions, should encourage the tax administrations to rethink their processes, and mainly:

1. Promoting voluntary compliance through a balance between strengthening telematics services and control mechanisms;
2. Define a clear control strategy by applying an appropriate number of verification actions which enable the due monitoring and consequently measuring results- to try to show active management and thus enhance its effectiveness and risk perception;
3. Critically review procedures, workflows and computer systems of control and services, coordinating programs systematizing controls and make them more objective.
4. Implement a long-term plan of bureaucratic simplification, investment in technology and systems development, betting to the continuous technological updating and best practices; and
5. Strengthen the planning and institutional management scheme as well as the development of human capital and motivation.

The speed with which the changes will occur in an economy of small-scale activities drastically change the traditional figure of the classic employer.

Therefore it becomes necessary to have control strategies to understand that for the “entrepreneurial” employer, contributions are an item of cost and that under this light, they analyze how to reduce it

and even “harmful labor planning” with the aim of reducing its incidence in the income statement of their business.

The taxpayer behavior should be analyzed from a holistic study of the economic universe and of each particular sector. Due to this, it is not logical to treat it in fragmented form but to integrate the stages of production cycle - imported inputs - domestic sales - export - invoicing - income – wages payment - payment of contributions on the payroll - income and benefits - Payment of dividends - financing.

The complexity of certain sectors and economic activities, the profusion of special regimes and collective labor agreements and regulatory dispersion of our system justify investing heavily in the development of specialized inspection bodies.

In addition to this, we need to think a strong interaction between Social Security agencies and interoperability of their computer systems so that citizens perceive a clear link between the tax authorities that charges the contributions and the State that provides benefits, and consequently between the tax due and the financing of social government spending.

The future trends presented here will have considerable financial and institutional implications for the social security systems and the expenditures aimed at Social Security subsystems will represent an increasing proportion of public expenditure and GDP. Accordingly, if the number of taxpayers does not increase, the society must think of a financing based on other resources that originate in internal consumption, necessarily exempting export sectors to prevent a loss of competitiveness against countries that compete by shipping similar products.

5. BIBLIOGRAPHY

Accenture (2016). *The Accenture Report: Five ways to win with Digital platforms*. G20 Young Entrepreneurs Alliance. Beijing. Recuperado de https://www.g20yea.com/images/reports/FINAL_9.1.16_G20YEA_Long-Report_Digital-PDF_Low-Res-1.pdf

Consejo Nacional de Coordinación de Políticas Sociales (2017). *Listado provisorio de metas e indicadores de seguimiento de ODS Argentina*. Buenos Aires. Recuperado de: https://www.argentina.gob.ar/sites/default/files/metadatos_en_indicadores_para_web_0_0.pdf

Instituto Nacional de Estadística y Censos, INDEC (2017a). *Trabajo e ingresos*. Vol. 1, n° 9. *Mercado de trabajo, principales indicadores (EPH)*. Tercer trimestre de 2017. Buenos Aires. Recuperado de: https://www.indec.gob.ar/uploads/informesdeprensa/EPH_cont_3trim17.pdf

Instituto Nacional de Estadística y Censos, INDEC (2017b). *Condiciones de vida*. Vol. 1, n° 12. *Incidencia de la pobreza y la indigencia en 31 aglomerados urbanos*. Primer semestre de 2017. Buenos Aires. Recuperado de: https://www.indec.gob.ar/uploads/informesdeprensa/eph_pobreza_01_17.pdf

McKinsey Global Institute (2016). *Independent work: choice, necessity, and the gig economy*. San Francisco. Recuperado de: <https://www.mckinsey.com/featured-insights/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy>

Ministerio de Trabajo, Empleo y Seguridad Social, MTESS (2018). *Reporte del Trabajo Registrado al 31 de enero de 2018*. Buenos Aires. Recuperado de: http://www.trabajo.gob.ar/downloads/estadisticas/Reporte_trabajo_enero_2018.pdf

Organización de los Estados Americanos, OEA (2006). *Entrevista a Subdirector General de Sistemas y Telecomunicaciones de AFIP*. Portal Educativo de las Américas. Foro de “e-Gobierno”. Washington. Recuperado de: <http://www.educoas.org/RestrictedSites/Curso1/Newsletter-Octubre06/Temadelmes19.html>

Organización de las Naciones Unidas (2016). *United Nations E-Government Survey 2016*. Department of Economic and Social Affairs. Nueva York. Recuperado de: <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2016>

Pérez Achilli M. (2017). *Por qué los monotributistas y autónomos están obligados a planificar su jubilación*. Entrevista en portal iProfesional.com del 06/06/2017. Recuperado de: <http://www.iprofesional.com/notas/250909-Por-que-los-monotributistas-y-autonomos-estan-obligados-a-planificar-su-jubilacion>

Secretaría de Política Económica y Planificación del Desarrollo (2015). *Trabajo no registrado y protección social en Argentina*. Buenos Aires. Recuperado de: https://www.economia.gob.ar/peconomica/basehome/DT%2003_trabajo%20no%20registrado_16.pdf

Tesoro J.L., Arambarri A.J. y González Cao R.L. (2002). *Factores endógenos y exógenos asociados al desempeño del gobierno electrónico: hallazgos emergentes de un análisis exploratorio de experiencias nacionales*. Mención honorífica del XVI Concurso de Ensayos y Monografías del CLAD sobre Reforma del Estado y Modernización de la Administración Pública “Gobierno Electrónico”. Caracas. Recuperado de <http://siare.clad.org/fulltext/0043105.pdf>



ANALYTICS AND BIG DATA

THE NEW FRONTIER

CASES OF USE AT AEAT

Ignacio
GONZÁLEZ GARCÍA

SYNOPSIS

The availability of new technologies for *Big Data*, *Analytics* and *SNA* techniques (Social Network Analysis) has constituted a radical paradigm change for tax administrations. We show the kind

of problems that could not be solved and how they can now be addressed, and examples of ways in which these technologies are being used by the State Tax Administration Agency (AEAT) in Spain.

CONTENT

1. The endless story
2. Cases of use of new technologies
3. Conclusions
4. Bibliography

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INTRODUCTION

The use of statistical techniques in the Administration dates back to the XVIIth century, when John Graunt began using them to estimate populations, as an alternative to the use of census methods; and their use in social sciences was developed by Adolphe Quetelet in the XIXth century. The sampling and inference techniques developed over the past century have been used as auxiliary tools in the fight against fraud, even subject to passing fashions, such as neural networks.

Today the techniques of *Big Data* and especially Social Network Analysis (SNA) have been a radical paradigm shift and allow a capacity of control over taxpayers that was unthinkable a dozen years ago.

The aim of this contribution is to present: i) achievements and shortcomings of traditional techniques such as multivariate analysis or use of neural networks and ii) present real cases of the use of new Big Data and SNA technologies in fraud control. We will display in each case: i) The problem to be solved, ii) The content of the solution and iii) The technology used to solve it.

For reasons of space, data volumes of the processes carried out and the results will not be described; we reserve them for a later article, where the concrete benefits of this change in paradigm will be displayed.

1. THE NEVER-ENDING STORY

In the 70s of last century, databases and teleprocessing systems were deployed for making historical data series reported by taxpayers available to inspectors on a consolidated and detailed basis. With the development of the structured query language (SQL) they could easily perform crosses between the information declared by a taxpayer and the one declared by others parties to

detect falsehoods. To this end, reporting obligations were created, such as the declaration 347 in Spain, compelling business executives, both buyers and sellers, to declare their purchases and sales accumulated by year when they exceed € 3,005.06, or Form 170, which annually compels financial institutions to provide information on checking accounts from taxpayers. To efficiently use these data, mathematical techniques have been used, grouped into four generations.

1.1 First generation

i) Descriptive statistics.

They study, among other objects, the distributions of variables. It seemed reasonable to study tax variables (income, price of goods) or ratios (sales per employee) and detect extreme values (*outliers*). The Customs Department of AEAT added to the electronic transfer a statistical module that warned if the declared prices were inadequate. It was useful but not sufficient because, in the existing statistics, very diverse goods were included. Clearly there are big price difference between two cotton shirts depending on whether one is in fashion and the other not, but it served to detect huge errors and attempted fraud.

ii) Descriptive statistics on data repositories.

To overcome the above limitation, attempts were made to increase the granularity, calculating the statistics, the mean, standard and median deviation, the quartiles for each combination of variables declared by the taxpayer in relation to said third parties. In the case of foreign trade, not only the price per kilo or unit price was reviewed, but also data from many fields. Is it common to import tequila from China? Is it common that an operation with tequila from China enter at this port rather than the other? By combining dozens of these verifications in real time, the system offered instead of a deviation from the mean value expected, a *risk index*, which could be adjusted by port of entry or type of merchandise. The

system was applicable to other taxes, such as corporate income tax or VAT management, since for example, average incomes of restaurants could be obtained, with x employees in the city and in the z neighborhood, for how many square meters or any other combination of variables relevant to any other tax. It was used to implement the technology - oriented data warehouse in columns, namely Sysbase on which the SAIT application was built (Spanish acronym for Tax Information Analysis System) - MARFIL (Spanish acronym for *Tax Risk Allocation Method*) . These systems were a step forward and are useful, but they were not a definitive solution for the fraud detection, for the simple fact that among the odd things, some peculiarities are more important than others.

iii) Systems of rules for TDCMD decision making.

Inspectors, for each type of fraud and for selecting taxpayers, use explicit or implicit rules. There are rules which provide that, *if* a registered taxpayer does not file a return in due time, he must be notified by letter or *if* the event that the income declared in a tax return are lower than those charged by the withholder, then a specific process or other must be initiated. Today, information systems contain hundreds of these coded rules. The decision is made. If the event A happens, the Administration does B.

In other cases, such as when selecting taxpayers for inspection, the actuary must decide among several options taking into account many factors. A passenger chooses an airline according to the ticket price, number of stops and distance to the airport among others, and the criteria of the employer are different from those of the student, and for any of them the criterion is not the same if it is Christmas or if they have an imperious errand. An inspector in a very industrial province can consider appropriate to assess as company's invoicing risk (40%) the period since the last inspection (15%), the tax trajectory (15% etc), while in another agricultural province with fewer resources will select very different

criteria. The mathematical technique that allows knowing the decider's criteria and correctly perform the selection is the *Discrete Multicriteria Decision Theory*. In the 80s, the AEAT introduced a system to allow inspectors to select real-time taxpayers, indicating to the machine which were *their* criteria of importance at *that time*, that could even refer to each cell in a return form. For example: I give 30% of importance to the volume of denatured alcohol that the company has in deposits, 20% to the volume of alcohol shipped to other countries of the European Union and a certain percentage to the difference between the theoretical income and the real one, provided that these conditions are specifically met. The machine, in real time, performed the algorithm and showed the Inspectors which companies they should audit if they wanted to implement their strategy efficiently. The system was used in the control of excise taxes.

iv) Comparison with theoretical distributions.

There are distributions in nature that are known as the distribution of errors caused by the influence of many different factors of similar magnitude, which is the Gaussian curve, the normal curve. There are other laws, empirical, such as Benford's Law, used in audit. This says that if we take the first number on the left of a column of numbers randomly created, not as with phone numbers when the operator decides that they will begin with 6 and have 9 digits, and we calculate the percentage of ones, twos, threes, etc., appearing in the counting, always, remarkably enough, the same distribution is obtained. Instead of, as it seems at first glance that all numbers would be in the same proportion, the 1 appears in the first place in 30% of cases and others to a lesser extent, to 9, the less frequent, which appears 4.5% of the time. There is also the percentage that should appear if two digits to the left are taken, for example, you can know the percentage of the number of invoices starting with 54 in an entrepreneur who is not fraudster. The AEAT Customs Department used it to control foreign trade, although the problem is not

trivial because the figures must be taken at random. For example, invoices that are repeated by decision of the company such as those generated by the provision for a period, every Friday, in the same amount and the same price of a production line must be removed. Once filtered, which is not simple, the tool proved to be useful. The procedure, used in the field of foreign trade, was implemented in 2002 and beyond, and improved the efficiency of selection systems of fraudulent companies, raising the success rate from 23% to 37%, and also the result was increased economic control of the actions, so that inspectors could better anticipate which goods should be reviewed. The value of the average collection shifted from 14,000 euros to 28,155 on average, in investigations initiated through this procedure.

1.2 Second Generation

During the last two decades of the last century, authorities started to consider that it would be possible to use more sophisticated branches of mathematics for tax control.

i) Multivariate Statistics.

It is a generalization of descriptive statistics, in which, instead of trying distributions of a variable, for example, the height of the population, use many variables simultaneously. With these methods we can perform: a) *Estimate*, as in multiple regression ; b) *Classification*. The *Cluster* analysis to find homogeneous groups among the elements of a population, and a particular case allows classifying them between non suspicious and potential fraudsters. The *logistic regression* belongs to this group, which it is used to, given a set of data, really decide to which category a doubtful case should be assigned. Given a data available from a taxpayer who declares that his name is J. L. Perez and lives in a city with zip code 28043 and is 35 years old, the system should automatically be able to decide whether they

correspond to Luis Perez with code 28043 and 70 years of age or José Pérez 35 who now lives in the 35007 and previously lived in the 28043. There are dozens of methods (Hair, J., 1999; Peña D., 2002), such as the main component analysis, the factor analysis, the canonical analysis, that have been used for theoretical studies but have not really helped the fight against the fraud.

They started being used on personal computers, using SPSS or R and currently they are part of all “Analytics” tools; of which the most widespread is SAS and they are used in repetitive tasks such as identifying taxpayers.

ii) Neural networks, genetic algorithms and other machine learning systems.

During the nineties decade, they acquired the prestige that incomprehensible things may reach among non-specialists of neural networks and genetic algorithms. They were oversold, since they were explained using a suggestive idea. Their developers explained that since the human brain works based on neurons that transmit impulses, it was possible to create models that reproduce that performance, for example, to classify.

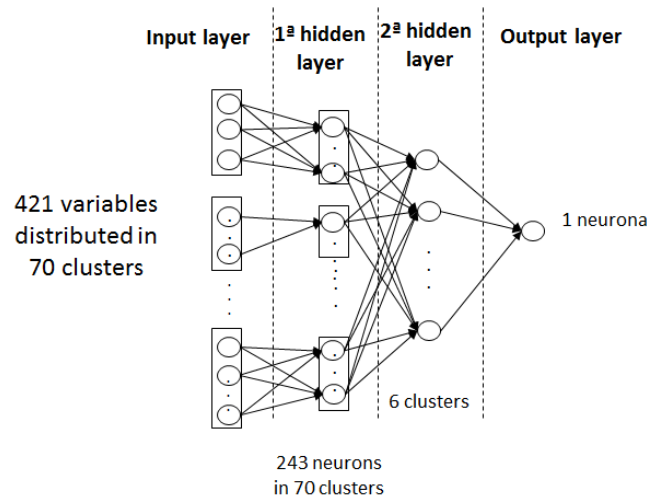
The idea is simple. Let us suppose that we must classify two types of objects, cars and cows, based on their data: weight, length, made of metal or not. To do it, we use a tool, which at that time could be purchased, as a spreadsheet. A file is created, with data from 100 cows and 100 cars, and the researcher marked which ones were cows and which ones were cars. The system had inside some internal variables that initially took zero value to give importance to the weight, to the length, and being of metal. When starting the process, a first runs is made with certain coefficients initialized to zero, bringing to the system random data classified as cows or cars. The system then changed one of the variables a little, gave another run and checked if things were better

or worse, comparing the previous hits with the new ones. In successive steps, variables were adjusted as the system was becoming more accurate. In the proposed example, it happens that in successive runs, if more importance was given to the information "being of metal", the degree of accuracy increased. Quickly we assigned 1 to that factor and the machine would always be correct. (The specialist reader will forgive me for the simplification). In tax cases, there are many variables so the network created to detect the fraudster from the non-fraudster is to be more complex. AEAT created the SERENE system.

It was used for the selection of taxpayers with high probability of VAT fraud. 264 variables were used together with the historical record of the period 1996-2001 and other auxiliaries were computed, such as ratios, for a total of 347. Using data from the historical series, they intended to obtain: a) For each taxpayer a number between 0 and 1, indicator of fraud risk and b) an estimate of the fraud. The results of 109,569 VAT cases inspections from previous years were available and there was a population of 1,880,000 VAT filers, on which the estimate should be applied to select the optimal inspection goals.

A network of supervised learning backpropagation was used, and 421 variables were finally used, as categories grouped into 70 clusters had to be deployed, in a network with two hidden layers and an output as shown in Figure 1.

Figure 1. SERENE Neural Network



To evaluate the behavior of a neural network, the available historical data set is taken and divided into two parts. The first is used to train the network and the second to see if the training is good. A taxpayer is taken and the network is requested to forecast whether or not he or she is a fraudster. Since he has been inspected, we know if he is a fraudster, so we will know whether the network is right and also we can have false positives, when a taxpayer is considered erroneously as fraud, and false negatives, or failures in detection. With these data, the quality is valued. To do so with impartiality, without favor, keep in mind that historical data have not been selected at random but based on criteria which, at that time, the inspection had, so the system is trained with a bias to find what it was looking for, and not to detect new forms of fraud and, on the other hand, inspectors are not infallible, so it might happen that a company in which no fraud was found in the past was in fact guilty, therefore misleading the machine. The results obtained were as shown in Figure 2.

Figure 2. Results obtained with the SERENE system

	Selected taxpayers without fraud (%)	Selected taxpayers with fraud smaller than 600€	Selected taxpayers with fraud greater than 600€	Total hits
Training set	0.63%	1.39%	97.99%	98.79%
Validation set	0.63%	0.81%	98.38%	98.76%

They may seem extraordinary, since having a system that is able to select the VAT taxpayer fraudster in 98% of cases borders on the miraculous, but it is not so. The group of respondents consisted of 1,880,000 respondents. The complex fraud that need intensive monitoring require intensive control. The 109,529 cases correspond to such inspections, approximately 21,900 per year were selected at the time with sufficient reasons. What the machine really learned was to predict who committed fraud of the type already known by the selectors, the reason that caused their selection for inspection. As Einstein would have said, it was a good start ... not little, but not much.

We must distinguish the selection of taxpayers and the inspection. To have a useful tool for those who select, they must deliver better results than those achievable with their experience and fulfill their purposes, among those that can be found concentrated in certain sectors or in emerging frauds. The tool has to be better than the one who selected, so far correctly, the 21,900 cases of out of 1,880,000 possibilities. The selection must take into account other factors, the sectors to inspect, the available resources, the new types of frauds, so a tool that is accurate helps someone who also is competent to select, and has other commitments, but not too much.

To the inspector, as a black box this tool will not provide value because it offers no indication of how fraud is being carried out. The major limitation of these strategies of machine learning is that they are not self explanatory. Suppose we had such a perfect tool that was prophetic

and given the data of a person, could tell us exactly the time he had left to live. If it was manufactured, even being perfect, it would be of some use to the Ministry of Health, but nothing to the family doctor because it may well happen that the citizen would die on the date indicated in a car accident and if sick, it could happen because of the worsening of some something that now suffers or other supervening cause as bird flu. While such tools maybe useful to a tax agencies to prepare their strategy, for the Inspector who controls the company the utility is much smaller

1.3 Third generation

i) Big data.

In recent years, it has become possible to treat vast amounts of data in real time. It is easier to know the progress of the spread of a flu epidemic through the evolution of the consultations for drugs to treat the fever, on Google, than from sales reports of pharmacies, which arrive inevitably delayed and have to be recorded and processed. The set of all these strategies and tools is described under the umbrella "Big data" (Mayer-Schönberg and Kenneth Cukier, 2013).

Progress has been made possible by the use of clusters with hundreds of processors, similar to a personal computer and a huge memory capacity, which allow processing all the available data very quickly rather than treating slowly the population samples. The use of new methods is thus permitted.

ii) Social Network Analysis (SNA).

The use of series in mathematics has been common in Econometry, but the graph and chains have been highly technical expertise, used for example in queuing theory. In taxation they had no application.

The spread of the Internet and social networks made that the analysis methods of graphs and multigraphs have become part of the toolkit used by economists in social networks. With the triumph of Facebook and Google, among others, it became common in social networking to answer questions like what is the distance between two people, How do we characterize a person as influential? Who are the people who can connect, bridging two different communities? Thus, concepts such as centrality, intermediarity, betweenness, clic and others began to spread. It seems clear that if it is useful to obtain useful information in social networks, it can be useful to obtain information for tax purposes: New concepts and tools have been developed around the SNA concept (Vega Redondo, 2007).

AEAT developed the TESEO tool, which, using data information repositories built on SAP (which has acquired SYSDATABASE) allows inspectors to create real-time graph of the relationship between taxpayers and operate on it.

The degree of connection between taxpayers is highly variable, as there are nodes with high connectivity such as Social Security or Movistar or Banco Santander, versus individuals with minimal connections, such as minors. The node with most connections has 2,174,433 (2017) and the average 20. The total of arcs (2015) is 530,636,925 and 49 types of them express relationships. Some are personal (to be a son of...) other legal entities (to be an owner of) and other trade (sale-purchase), ownership of accounts (1,308,000) or cadastral property (520 million).

Since 2012, the on-line multigraph treatment is available, with 49 types of arcs today, whose vertices are the taxpayers (over 71 million).

1.4 Fourth generation and beyond

It is also possible to use all these technologies on new platforms that allow parallel processing in hundreds of computers simultaneously, parallelizing the process, as does Apache Spark, with new file systems like Hadoop. All this makes feasible the use of strategies that years ago were unthinkable.

The subject of the next section is to explain how the AEAT is using these new methods and how they can be used in the fight against fraud.

Trying to be as clear as possible in such a specialized theme, we have chosen to present the strategy of using business cases, showing in each case the necessary tools and the methods used.

2. CASES USED

The following describes three cases of use of techniques that are today called Analytics and Big Data platforms, indicating in each case: i) their content; ii) their objective; iii) the technology used.

In all cases, a technology platform has been used, that we will describe below. AEAT operates corporate database systems (DB2) as a repository for their transactional processes, but their analysis systems have been built on new technologies, allowing massive distributed processes. In the cases that we will present, the platform is a cluster of 16 machines with 756 physical cores (cores) and 4 TB.

In all cases presented, the following programs are used: i) *Apache Spark*. It is an open source software that can run on different operating systems, including Windows, which provides the infrastructure to work in a distributed manner on *clusters* of computers; ii) *Graphx*. It is a Spark component that is used to treat graphs, in our case taxpayers networks.

Case 1. Hiding assets in family networks

SPARK technology, GRAPHX, GraphFrames

a) Problem to solve

Sometimes the assets of a taxpayer are hidden to the administration through their placement under the name of a relative. While in cases of simple fraud goods are traded on behalf of the other of the spouses, when the goods have been obtained through corruption or other crimes, the properties are hidden more deeply, appearing on behalf of the in-laws or minor children of couples. Family relationships other than those between spouses or dependent children are not included in the tax returns, so the detection of unexplained wealth associated with a family under investigation requires the development of new data structures.

b) Contents of the solution

We used the data from the State Tax Administration Agency in Spain (AEAT). It has Information on 71,276,975 taxpayers, of which 60,515,280 are individuals and 7,006,844 are active legal entities during the research year (2016). The rest are dead people or companies no longer active. All citizens and legal entities are identified by a unique tax code necessary to perform any economic activity and all should be considered as goods can be registered in the name of dead people or disappeared companies.

Social networking technology has been used to build the network of family relationships. We use the notation G_x (n° nodes; n° arcs), where x is replaced with capital Latin letters that identify the content and where nodes are taxpayers and arcs (edges) relations between them. An example is the graph of taxpayers **GC** (71,935,522; 376,068,546) whose nodes are taxpayers (71,935,522) and where the arcs are relations of any kind (48 are possible among which are family relationships, and also legal (administrator, owner, etc.) between them (376,068,546).

An *extended family network* (**GFE**) has been built to relate each taxpayer with their families. Data from Income tax returns of Individuals, and taxes on donations and successions tax have been used as a base. With them we have obtained the *declared family network*, or **GFD**. Other family relationships, such as brother or brother-in-law must be obtained in successive steps. If we want to have the following relationships: i) *Relatives declared*; ii) *Calculated current*, formed by the relationships as brother or nephew can be derived algorithmically from the above; iii) *Calculated historical* (Ex), as existing with former spouses and their relatives; iv) *Calculated for second and third degree* as the parents-in-laws or brothers-in-law; v) *Deducted*.

The taxpayer maintains relations with domestic partners and their descendants, which can be deduced from the existence of economic relations, as the shared account opened on behalf of a minor, child of another person, which is listed at the same address. The details are shown in Table 1.

Table 1. Family relationships

DECLARED		OBTAINED	
Spouse	21,843.117	Calculated	137,745.421
Ascendency	29,124.847		
Descendency	36,649.985	Deducted	32,629.192
	87,617.949		170,374.613
TOTAL EXTENDED			257,992.562

We parted from the *declared relationships* (87,617,949), including current spouse (21,843,117) and their parents and descendants. A person can be part of more than one relationship, for example being husband and ascendant). After the process, the **GRE** graph is obtained (60,515,280; 257,992,562) formed by the sum of the relations declared plus those obtained (170,374,613).

Different strategies are used to find two types of relationships: i) *Calculated*. the historical series, ten years, is used to find the former spouses (5,119,808) and associate their ascendants and descendants. Undeclared relations are obtained, such as "being brothers" (56,785,717) or "stepchild" and then we combine several generations to find relations of nephew/nieces (4438120) or uncle/aunts (4438525) or brother-in-law or the father-in-law, or cousins; ii) *Deducted* (32,629,192) as the possibly existing couples with children under or similar cases that require the use of decision rules on *big data*.

c) Procedure

The information stated in the databases of the AEAT is available. The following steps are performed: i) the data is read and loaded using Sqoop in Grapx placing data in *Hadoop*, which is a characteristic file system of Big Data techniques; ii) the network is loaded and built (graph) in Graphx; iii) We used *GraphFrames*, which is an extension of Graphx to work on the graph building arcs representing the different relationships as brother or nephew, iv) data are downloaded to the query system inspectors, a data warehouse supported in Sysbase, a database oriented in columns, currently maintained by SAP.

Case 2. Concealment of wealth in business schemes

SPARK, GRAPHX, Pregel technology

a) Problem to solve

Sometimes, the wealth is hidden in intermediary companies. The taxpayer creates several companies with a small capital, which in turn participate in others, which in turn are involved in other, forming a network of dozens of companies with cross-shareholdings so that beyond the fifth level there is a society where are all the assets to hide. Conventional systems make possible to

relate taxpayers with these companies hidden behind the instrumental network societies only after a long investigation. We want to allow an immediate connection between each taxpayer and all its corporate wealth.

b) Contents of the solution

There are 7,006,844 legal entities in the country belonging to 24 types (e.g. corporations, religious congregations, owners' communities..). Some of them are commercial companies, as Ltd. (483,284) or limited liability (3,026,153).

The control of a society can be achieved by: i) Control of the shares, ii) by influence, putting forward a figurehead, with our model through the family network. Here we deal with control through shareholdings. We use four declared relationships: i) Participation; ii) invested society; iii) "is a partner" and iv) "Society in which he or she is a partner". The process has two phases. In the first phase, relationships exclusively between companies (corporate network) are studied, using the first two types of relationships (participating and participated). In the second, we connect the corporate network with individuals considering the relationship "being a partner" and "shareholder of a society".

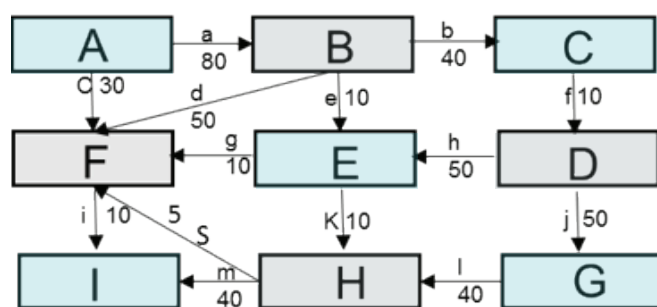
We begin using the 9,178,732 relations declared in the Corporate Income Tax in which each company declares the societies where they are involved when their shareholding is above 5% (1% for the companies listed in the stockmarket) and who are their shareholders. Starting from a company, we know, from the submitted information, in which companies they participate, and repeat the process with those participated indirectly by the taxpayer. In the process, recursively successive levels are investigated, using the the concept of jump and way that we explain below with the help of Fig. 3.

In considering the relationship between a taxpayer and a company, we must distinguish: i) The shortest *path* that unites them for a given relationship; ii) The way in which

the taxpayer reaches the maximum shareholding in the company; iii) The longest path and from the perspective of this shareholding, iv) the percentage of participation by the shortest path, v) the maximum; vi) the sum of the shares. If this one exceeds 50%, it will dominate, through participation, the company concerned.

We describe the process for calculating the shares with the example of Fig.3. We depicts an individual who creates an interposed company (A) and 8 companies in which he has a stake. If we consider only companies, (the ratio of A to B is as partner), there are three situations: When Company B is involved and not owned and has a partner, the company I is owned and is participated and not participating, and all the other are participating and participated. Among the companies there are 28 possible *paths*. Twelve of them are direct (b, c, d) and the relationship between these two companies is produced in a single *jump*. In other cases, two jumps are needed to get from the initial company to the investee, for example, between B and D on the road bf and cases where the shortest path requires three jumps and between B and G through the *bfj* path.

Figure 3. Calculation of shares



Taxpayer A, individual, owns shares in several companies. If we consider the one existing with the company F, the shortest way is c (30% shareholding). Crossing, the distance is 1, it is made in one jump. There are other ways. The longest are *abfhkj* or *abfklj* by F, which is six jumps from A.

Participation in each path is obtained by multiplying the successive participations. The one obtained by the shortest route is 30%, the maximum in this case is the

one obtained by the path *ad*, which is $100\% * 50\% = 50\%$ and the total is the sum of those obtained by all accessible paths. In this case $ac (30) + ad (40) + aeg (0,8) + abfhg (6) + abfkls (0,00032) + aeks (0,004) = 70,964\%$.

The process has also been performed in reverse order to know who are the owners of each known company. We should consider: i) that individuals do not complete the tax returns of societies so that the relationship “participate in” is declared but the one of “being affiliated” must be calculated and that a statement of participation may be declared by one of the parties and not the other. The graph thus obtained if **GPE**, the extended graph of affiliated companies (59,954; 6,505,636).

Case 3. Estimation of wealth

SPARK technology, GRAPHX, Pregel, GraphFrame

The wealth of each taxpayer, considered as UBO (ultimate beneficial owner) is expressed in the statements (income tax, wealth, etc.). One problem is to check the veracity of the statements, for which we cross with the statements of third parties, for example, with information from 1,308 million current accounts, and another to assess their wealth at updated prices and market prices, as it could be that, having declared certain amount of real estate and stakes in companies, the declared value is not the market value.

A better estimate of the wealth of each taxpayer could be obtained in two steps. i) Obtaining the participation (shareholding) that each taxpayer owns in companies, even considering the intermediary companies to the tenth level and ii) updating the real estate values declared (520 million land records) and adding the assets of the participated companies.

To do this, we must combine technologies developed above: i) each taxpayer is considered; ii) data from the family frame and equity interests are combined to know the wealth of each taxpayer, including the one directly under his name as well as those controlled through the

extended family fabric and iii) Estimation is adjusted to market prices.

Obtaining corporate wealth is not trivial. The assets of a company is derived from its stated accounting. (Equity = assets - liabilities) but the data should be adjusted. We must be aware that real estate is accounted for in many cases at acquisition values and generally expressed with varying degrees of depreciation. Moreover, the liabilities include the debts of the company that must be deducted from the assets to obtain the equity understood as wealth. Generally, part of the liabilities must be eliminated, particularly those who do not have a bank, commercial or occupational origin. When calculating the assets of each company for calculation purposes, we must differentiate the process given to assets linked to the commercial activity from those unrelated.

Case 4. Assets located abroad, including in tax havens

SPARK, GRAPHX, Pregel, GraphFrame technology

A taxpayer can send capital abroad fraudulently, transporting the cash. But it is more normal, at least among tax fraudsters, that the incorporation of capital to other jurisdictions take place, at least to avoid detection at borders and to avoid procedures of money laundering controls, through a family plot, creating in turn a web of companies, so that some of them hide the actual UBO, participating in a company incorporated in another jurisdiction.

In the case of the AEAT, information is available regarding companies abroad shared or owned by nationals. Assets abroad have been analyzed. In the case of the AEAT, information has been obtained and analyzed information from more than 1,500 companies incorporated in tax havens. With technology presented clearly shows how they are created through intermediate companies, with the usual types of structures employing at least four layers between the taxpayer and the controlled company.

Case 5. Patterns of fraud

WINDOWS technology; Python; C; Graphtools

Individuals create private plot hiding wealth, sometimes spontaneously and sometimes helped by professionals using prefabricated versions of schemes for a particular type of fraud. The nuclei of these systems can be detected. The AEAT Tax Agency is developing technology to identify these schemes through supervised learning (machine learning).

As a representative case among those investigated, we can mention the location of mazes of highly cohesive companies, with large numbers of trade relations between them, and few with outside clients and where we note a important number of controlled or family relationships between them.

The system analyzes the network of companies in the country by detecting these mazes and systematically calculate in each, the conglomerate of which it forms part using the mathematical notion of K_{core} , which is a mathematical measure of the interconnectedness of members in a group.

This raises an area where the "peaks" shows the value of the k -core of each cluster. The higher denser the plot. A group of companies may have many customers, which it is normal and desirable, or very few. If they have few external clients, if they do not sell, it is not reasonable that there are so many purchases and sales between relatives or intermediate companies if not with reasons worth investigating. The following indices are obtained: i) *Insulation*: Percentage of internal purchase or sale relations of more than ten thousand euros against the total and ii) *Cohesion*: Proximity of taxpayers in the commercial thread.

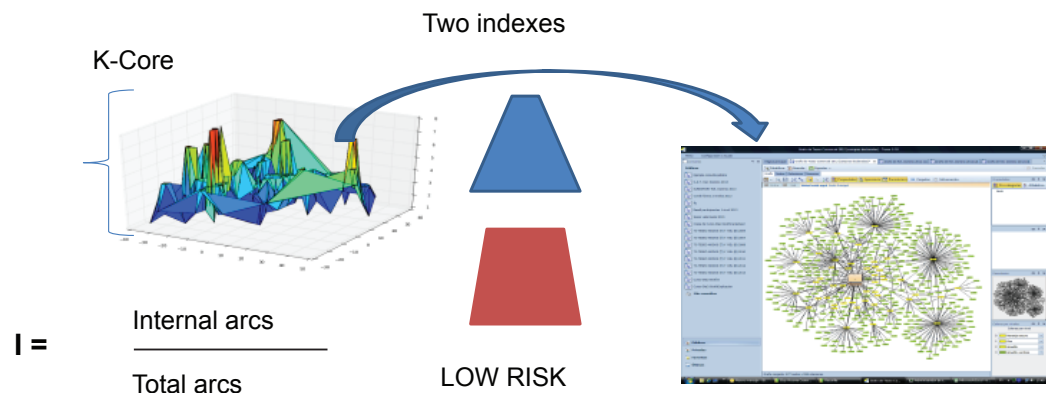
The intention, in summary is that the machine automatically detects, gangs or clusters of companies, groups of companies with very high connectivity of

personal and legal and commercial relations relations within the frame (k-core high) while having few external relations, either because they are hidden or because their business does not make sense.

If we build, in a three dimensional graph the two indices on the x and y axes, and the k-core in the z,

we can view conglomerates, of which, like very high and steep mountains are the groups of companies with high potential of fraud, which can be viewed by the inspectors, who now can consult and select candidates with a detailed knowledge of the structures created to fraud.

Figure 4. Cluster detection



In this case the technology used to implement the solution is *graphtool*, which is a tool built on C++ (programming language). It is a module *Python* (another programming language) that offers many features,

including the calculation of the k-cores, by paying the price of work on only one machine, because working with graphs is not efficiently parallelizable.

3. CONCLUSIONS

1. It is possible and convenient to use new findings of mathematics and statistics in the fight against fraud, particularly developed in the field of SNA, *Big Data and machine learning*.
2. The deployment of these tools requires adequate computing platforms, which are in fact the most efficient on the market.
3. *Open source* software allows the use of these technologies.
4. The new paradigm for fraud control does not consist in taxpayers' risk analysis, *but on the risk analysis of taxpayers' social networks*.
5. The concepts used in the field of social networks such as PageRank, may or may not be useful in the field of taxation, and it would be desirable to develop a mode of cooperation that would share scientific evidence about its usefulness. International cooperation remains essential.
6. For data engineers, it is very easy to apply classification or selection techniques with spectacular results, but without a clear benefit for inspectors. We need to create a common framework of thought that makes comprehensible to the inspectors the possibilities of these technologies and make the real needs of inspectors understandable for the data engineers, avoiding the construction of solutions whose only benefit is for the show. The profile of the tax inspector with knowledge of big data will become increasingly necessary.
7. In a next article the benefits of the techniques developed by the AEAT and described herein will be quantified.

4. BIBLIOGRAPHY

Hair, Joseph, (1999) *Análisis multivariante*, Prentice Hall

Mayer-Schöenberg, Viktor y Cukier, Kenneth (2013) *Big data*, John Murray: London.

Peña Daniel (2002) *Análisis multivariante de datos*, McGraw-Hill Interamericana de España.

Vega Redondo, Fernando (2007) *Complex Social Networks*, Cambridge University Press.

METHODS OF DISPUTE RESOLUTION IN INTERNATIONAL TAX LAW

THE MUTUAL AGREEMENT PROCEDURE

AND THE NEED FOR ARBITRATION IN BRAZIL



Narcélio
MONTENEGRO GONDIM

SYNOPSIS

The mutual agreement procedure - MAP is provided for in all agreements to avoid double taxation of which Brazil is a party. However, due to lack of regulation and disclosure, to date, a resident has never sought a mutual agreement procedure in Brazil. Thus, Brazil published the RFB Normative Instruction No. 1669 of November 9 2016, aiming to fill the deficiency of regulation on

the subject of the mutual agreement procedure. This study will demonstrate the Importance of the mutual agreement procedure, but also the need for arbitration as a consequence and a complement of the mutual agreement procedure when the mutual agreement procedure does not succeed.

CONTENT

1. Tax sovereignty and tax competence
2. Of international double taxation (definition, causes and consequences)
3. Measures to avoid international double taxation
4. International agreements to avoid double taxation
5. Conclusions
6. Bibliography

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INTRODUCTION

INTERNATIONAL TAXATION

The study of international taxation can be started with a thought on the different conceptions involving internal law and international law. Two doctrines separate opinions on the matter.

The monistic doctrine understands that there is only one legal order. Domestic law and international law form a single order in a single system. Therefore, a rule of international law would automatically be incorporated into the system, just to be part of a whole.

The dualist or pluralist doctrine understands that international law and domestic law are part of separate, distinct and independent legal systems, to have different valid grounds and audiences. National law would be different from international law because its standards are produced differently and it is applied to regulate internal relations. While international law has been developed to regulate relations between international entities.

Brazil has adopted the moderate dualism viewpoint, since international conventions signed by Brazil are subject to approval by the National Congress and ratification by the President of the Republic to be incorporated into the Brazilian domestic law.

Reminding that taxation is an internal state activity inherent to state sovereignty, it is natural to conclude that each state produces its own internal rules governing taxation. However, in some situations they will affect the resident abroad, causing an internal taxation of income from an external entity that will also be taxed internally in its country of residence for the same income.

With the development of transportation and communication, higher international mobility of people, capital, goods and services occurs nowadays. Thus, the situation alluded to above, in which an external entity causes an event of internal taxation in more than one State, occurs more frequently.

This increased mobility causes problems related to international double taxation, tax evasion and tax avoidance. Whereas the International Tax Law aims precisely to solve problems related to international double taxation, tax evasion and tax avoidance, this work will focus on the international double taxation, its causes, its consequences, and its history and possible solutions.

1. TAX SOVEREIGNTY AND TAX COMPETITION

The idea of sovereignty is related to the idea of the State exercise its power over its citizens and residents, as well as its ability to establish itself as an independent entity to the other States.

From the concept of state sovereignty derives the concept of tax sovereignty. It relates the state territorial sovereignty to the state's ability to impose a tax system on those who reside in or transit through its territory.

Tax competence is the ability, as a possibility, that the State must establish taxes to subject individuals within their jurisdiction. This jurisdiction would be related to the idea of taxing people who, at least in theory, would benefit or be related to the presence of the state.

The doctrine classifies direct taxes and indirect taxes. Indirect taxes are those using the criterion of origin or destination. Direct taxes are related or with the principle of territoriality or the principle of universality. Under the principle of territoriality, the State used the fact that people are in its territory or that operations have occurred in its territory and therefore they are taxed. In addition, under the principle of universality, the state taxes all income, whether internal or external, related to their residents or nationals. This principle brings to mind two criteria: that of nationality, in which the state use the rationale of people's nationality, and therefore tax them, whether or not they have remained in their territory, whether the income was produced in their territory or

not; or residence, where the State tax those who are not yet nationals, albeit residents.

Countries often use both criteria of territoriality and universality. In Brazil, the principle adopted was always the source principle, and the criterion of residence was also adopted in Brazil by Law 9.249 of December 26, 1995.

2. OF DOUBLE TAXATION (DEFINITION, CAUSES AND CONSEQUENCES)

HERBERT DORN¹ apud BORGES defines that the double, or multiple, international taxation occurs when several independent tax sovereignty holders tax the same taxpayer, for the same object simultaneously, for one tax of the same species.

The Fiscal Committee of the Organization for Economic Co-operation and Development (OECD) defines international double taxation as the collection of similar taxes in two or more States, on the same taxpayer for the same taxable material and for the same period.²

BORGES³ defines the international double taxation as simply the phenomenon that occurs when two States subject a person to the payment of taxes due to the same generating event. He also concludes that international double taxation generally occurs because a person resident in a State receives income produced in another state, and that both States tax the same income, the first taxing by adopting the criterion of residence and the second by adopting the source criterion.

For BORGES⁴, international double taxation is detrimental to international economic activities,

interfering with the movement of capital and people, technology transfers and exchanges of goods and services.

3. MEASURES TO PREVENT INTERNATIONAL DOUBLE TAXATION

States can eliminate or prevent double taxation in two ways: either by unilateral measures, or by international measures.

3.1 Unilateral measures

In order to eliminate, prevent or mitigate double taxation, the State of residence of the taxpayer, sometimes adopts unilaterally the method of imputation, or the method of exemption or a reduction of tax rates or deduction of taxes paid abroad, from the calculation basis.

The imputation method is based on the taxation of the taxpayer's global income, but accepting credit for the tax paid in the source state. In some cases, this credit may be subject to limitations. In ordinary imputation, the credit granted by the state of residence is limited to a fraction or part of the actual tax to be collected from the taxpayer. In the integral imputation, the State of residence authorizes the deduction of the total amount of tax actually paid in the source State.

The method of exemption is based on exempting, wholly or partially, income from foreign sources earned by the taxpayer. Therefore, the complete exemption or progressive exemption are possible. In the case of the integral exemption, income derived by the taxpayer abroad are exempt and are not considered at all in the calculation of the internal tax. In the case of progressive exemption, income earned abroad are considered

1 DORN, Herbert. Diritto Finanziario e sulle doppie questioni fondamentali imposizioni. Rivista di diritto Finanziario e Scienza delle Finanze, Milan, 1938, p. 131.

2 Model double taxation convention on income and wealth: report 1977 of the Tax Committee of the Organization for Economic Cooperation and Development. Madrid: Institute for Fiscal Studies, 1978, p.15

3 BORGES, Antonio M. Direito Noções of International Tax. Forum magazine Direito Tributário - RFDT No. 26, Belo Horizonte, 2007, pp 55-91.

4 Ob .. cit ..

exempt for taxation purposes, but form part of the basis of calculation for determining the rate of internal taxation.

There is also the possibility for the State of residence to tax the external income with a reduced tax rate.

3.2 International measures

Through conventions, States Parties to the Convention prevent, mitigate or eliminate double taxation.

Conventions against double taxation are usually the most effective measures taken by both sides. Multilateral conventions exist but are insignificant in number and with little coverage.

Conventions to avoid double taxation often only mitigate the problem. Taxpayers are not free of problems by the mere existence of an international convention, because the taxpayer who is aggrieved cannot appeal to an international court of law to settle the issues arising from the agreement. If the double taxation remains in disagreement with the international convention, one path available to taxpayers could be the mutual agreement procedure.

In fact, the conventions do not resolve all problems related to international double taxation, but through them States grant tax relief to taxpayers, imposing limits on tax powers more widely than they would accept to do unilaterally.

4. INTERNATIONAL CONVENTIONS TO AVOID DOUBLE TAXATION

4.1 History

Since the nineteenth century, states concluded agreements to avoid double taxation.

After the First World War, the flow of economic relations between countries increased and some states shifted from income taxation based on the territorial income to income taxation based on worldwide income (worldwide taxation) where not only the income produced in the country, but also the income produced abroad, are taxed.

This new tax system created a coexistence of tax jurisdiction of more than one State on the same generating events (overlapping tax Jurisdictions).

On the one hand, a state was taxing the income produced within their territory, whether from residents or non-residents; On the other hand, the other State was taxing income of its residents produced both in its territory and abroad.

Thus, the possibility of occurrence of double taxation grew, as two or more States simultaneously tax the same taxpayer, because of a same legal act.

4.2 Concepts

The Federal Constitution of 1988 has no general clause to ensure supremacy or hierarchical superiority of international conventions relating to internal law except in cases of fundamental rights and guarantees.

Two lines of doctrinal thought guarantee the conventions to avoid double taxation. They are the special laws conventions and not violating the *pacta sunt servanda* principle.

According to KREPEL⁵, Article 31 of the Vienna Convention on the Law of Treaties states that the international agreement should be understood in good faith and under the common sense attributable to the terms in their context and in light of its objectives and purpose.

5 Krepel, Marina. M. S. DISPUTE Solução nas Convenções Internacionais against tributação duo. Dissertação of Mestrado. USP. 2015

4.3 Purposes

The basic objective of conventions to avoid double taxation is to eliminate or at least mitigate double taxation with the consequence facilitate transactions and international investment.

Other objects can be listed, such as standardizing the legal terms, overcoming bureaucratic barriers to information exchange, preventing avoidance and international tax evasion, ensuring greater stability in relations and international investments, increasing global production, eliminating discrimination towards foreigners and their businesses and investments, standardizing the taxation system, establishing administrative cooperation between the signatory States and the possibility of establishing the mutual agreement procedure for resolving disputes concerning the interpretation and application of the dispositions of the Convention.

4.4 Mechanisms for dispute settlement in international conventions

International agreements are not always sufficient to resolve and provide solutions to all conflicts involving double taxation. Sometimes it is necessary to use dispute settlement mechanisms in international conventions.

The mechanisms of dispute resolution are interesting because they reduce the number of lawsuits brought to the judiciary, increase the efficiency and speed of solutions and provide taxpayers with legal certainty regarding the taxation of their international income.

Among the resolution mechanisms are arbitration and mutual agreement procedure.

The mutual agreement procedure was always recommended as a means of dispute resolution, but although it is expected in several conventions of

which Brazil is part, Brazil has never started a mutual agreement procedure to resolve an international tax issue.

The arbitration was only established in the OECD convention in 2008 and it recommends allowing it only when all judicial and administrative remedies under the domestic laws of the contracting States have been exhausted and when the taxpayer has waived the right to appeal to the judiciary of his country to avoid conflicts of jurisdiction.

According to SANTIAGO⁶, among all mechanisms offered by the law for the settlement of international disputes, only three have proved suitable for the treatment of issues related to taxation conventions: direct negotiation, arbitration, and appeal to permanent courts. It is unlikely that a tax dispute justifies international diplomatic intervention of third parties.

4.4.1 The Mutual agreement procedure as possible solution

Although included in various provisions of conventions signed by Brazil, to date Brazil has not started a mutual agreement procedure as a possible solution.

The mutual agreement procedure often does not settle the dispute, so the OECD recommends arbitration as a complementary mechanism for resolving litigation at international level. The OECD Model Convention conditions the start of the arbitration to the failure of obtaining an agreement through the mutual agreement procedure.

4.4.1.1 Concept and history of the mutual agreement procedure

According to MONTEIRO⁷, historically the power to solve any disagreements arising from the implementation of double taxation agreements through direct negotiation

6 SANTIAGO, Igor Mauler. Solução two methods Conflitos Founded em Convenções Contra Dupla Tributação International. Available in www.sachacalmon.com.br com accessibility em 11/28/2016

7 MONTEIRO, Alexandre. L. M. R. A Arbitragem Suplementar as a mechanism of dispute Solução us Acordos Contra hair Bitributação Concluded Brazil. USP. SP. 2014

between States is attributed exclusively to the mutual agreement procedure under Article 25 of the OCDEMC and UNMC. This is a sui generis species of diplomatic mechanism, with the specific goal of eliminating taxation in discrepancy with the text of the convention.

The United States pioneered the formulation of such clauses by inserting voluntary arbitration in the agreement with Germany in 1989. However, they never used the mechanism, second TURNER⁸ apud MONTEIRO.

In the mutual agreement procedure, there is no obligation to obtain a determined result. This method is established as an obligation of means and not of results. In this system, the states seek to engage in conflict resolution but without the obligation to reach a specific outcome.

For SANTIAGO⁹, the OECD understands that the State that receives a complaint from the taxpayer and cannot give unilateral solution would be obliged to initiate the mutual agreement procedure, therefore inviting the other country.

SANTIAGO¹⁰ clarifies that the negotiations, if started, will not be maintained by the diplomatic corps of the States involved, but by the tax authorities.

The implementation of the agreement obtained at the end of a mutual agreement procedure is strictly subject to the consent of the requesting taxpayer. In case of refusal, OECD recommends that adjustment becomes obsolete.

In SANTIAGO's vision¹¹, the mutual agreement procedure produces an administrative agreement and

therefore cannot go against the will of the taxpayer or aggravate their situation.

In the view of Professor ZAICHENG¹², the taxpayers are always responsible of providing the authorities with competent comprehensive, timely and accurate information for a uniform understanding of the facts, shortening the time of negotiations and increasing the efficiency of the mutual agreement procedure.

4.4.1.1.1 Mutual Agreement Procedure in Brazil

The mutual agreement procedure is included¹³ in all thirty-two agreements or conventions to avoid double taxation (DTC) signed by Brazil.

Although the mutual agreement procedure is forecasted in the international agreements, it is only since 18 August 2016, through the Public Consultation RFB No. 008/2016 that the government's interest in disclosing this instrument to resolve double taxation issues was made public. As stated in the text itself, the proposal of Normative Instruction will give greater transparency to the mutual agreement procedure to the taxpayer and encourage individuals and companies resident in Brazil, to enjoy the benefits of DTCs.

RFB Normative Instruction No. 1669 of November 9, 2016, came to inaugurate the regulation of the mutual agreement procedure in the scope of the Receita Federal of Brazil.

For an instrument so widely expected in Brazilian international agreements and conventions, there was so far no case initiated by a taxpayer resident in Brazil that gave rise to a mutual agreement procedure. In a globalized and dynamic commercial world, and Brazil

8 TURNER, Geoffrey S. Canada - US Competent Authority MOU: first steps to mandatory arbitration? Tax Notes International, V. 39, n. 13, p 1229, Sept. 2006.

9 Ob .. cit ..

10 Ob .. cit ..

11 Ob .. cit ..

12 ZAICHENG, YI. Problems Os Estudos do Procedimento amigavel two Acordos to avoid Dupla Tributação of Macau.

13 África do Sul, Argentina, Austria, Belgium, Canada, Chile, China, Coreia, Denmark, Equador, Slovakia, Espanha, Finland, França, Hungary, India, Israel, Japan Square, Luxembourg, Mexico, Norway, Baixos, Peru , Portugal, tcheca Republic, Sweden, Trinidad and Tobago, Turkey, Ukraine and Venezuela.

counting with thirty-two agreements, one would assume that this would interest some taxpayer to discuss amicably the international taxation agreements on their behalf.

It happens that since there was no regulation, it would be very difficult to obtain in practice a mutual agreement procedure without the bureaucratic provision.

The study of ANNUNZIATA¹⁴ makes clear that there are two types of effects expected from the mutual agreement procedure, depending on whether the taxpayer introduces it along with administrative action or with judicial action to defend their interests.

For ANNUNZIATA¹⁵ the State must suspend any credit that has been offered or requested administratively until the conclusion of the mutual agreement procedure, and adjust the administrative decision on the same line as the mutual agreement procedure. There would be no point for the State to sign an international agreement following a line of thought and make the administrative decision based another line.

However, the issue is divergent as to the judiciary. Because the 1988 Brazilian Constitution guarantees access simultaneously to the judiciary to defend the rights and also binds the State to follow the decisions issued in court. Therefore, once the taxpayer appeals the courts to which he is entitled, it opens a possibility of judicial decision that will make unworkable any mutual agreement procedure solution.

Aware that a court decision would make impossible an agreement of mutual agreement procedure, section I of §1 of article 8 RFB Normative Instruction No. 1669 recommends that the request for mutual agreement procedure should not be admitted when a judicial

decision already exists on the same point, even if appealable.

4.4.1.2 Types of mutual agreement procedure

The mutual agreement procedure can be classified into three (3) types of procedures: a) Individual mutual agreement procedure *sensu stricto* (specific case provision). b) interpretive mutual agreement procedure (interpretation provision). c) integrative mutual agreement procedure (integrative provision / legislative provision).

To meet the requirement of a specific taxpayer, the individual mutual agreement procedure seeks the solution of a specific case.

Interpretive mutual agreement procedures deal with discussions about the interpretation and application of the International Convention to avoid double taxation, seeking to clarify any incomplete or ambiguous term, as well as resolving issues concerning legislation changes.

The integrative mutual agreement procedure seeks to address cases still not covered by the agreement to avoid double taxation, equivalent to a general authorization for supplementing the Convention; it must be instituted *ex officio* by the authorities.

4.4.1.3 Possible limitations to the mutual agreement procedure

For KREPEL¹⁶, limitations and criticism of the mutual agreement procedure in tax matters in the country may refer to various possibilities: violation to the principle of legality; the unavailability of tax credit; the inability to forgo government revenue; the illegitimacy of agreements and arbitral decisions eventually obtained

14 ANNUNZIATA, Marcelo S. , Procedimento amigavel e Seus Efeitos Internal Direito not. Tributário Direito Internacional. MP Editor. São Paulo, 2006, p.189 / 202

15 Ob .. cit ..

16 Krepel, Marina. M. S. DISPUTE Solução nas Convenções Internacionais against tributação duo. Dissertação of Mestrado. USP. 2015.

without the observance of the constitutionally required procedures; or the impossibility of excluding a judiciary oversight in disputes representing lesion or legal threat.

In the view of KREPEL¹⁷, the adoption of the mutual agreement procedure and of the arbitration does not violate the principle of legality, because these methods do not involve actual causes of extinction of the tax liability. They would be just a means by which a specific individual standard is introduced into the legal system, acting as a vehicle by which the extinction of said obligation can be verified.

In the event that the compounding of interest by the mutual agreement procedure or arbitration does not affect the unavailability of tax credit, often the very existence of the credit is already doubtful.

According to this viewpoint, the mutual agreement procedure can be used independently of the remedies provided by the national law. It is only recommended to suspend the judicial procedure during the course of the mutual agreement procedure, to avoid obtaining conflicting orientations.

4.4.1.4 Inadequacies of the mutual agreement procedure - The case of Macao

Professor YI ZAICHENG¹⁸ points out as main failure of the mutual agreement procedure that it contains no specific time provision. Clarifying that without clear time limits, any procedure may be delayed without decision and become inefficient.

In his study, he indicates that the initiation of the mutual agreement procedure and outcome of the procedure are not binding in relation to the parties. Moreover, as taxpayers do not have the status of direct participant to the mutual agreement procedure, they do not have

the mean to control the initiation, progress and outcome of the mutual agreement procedure. He reminds that since there is no third party arbitrating or controlling the procedure, the states or regions can treat with coldness, or reject, the taxpayer's request.

Yet, if they reach an agreement, taxpayers do not know how the competent authorities reached this agreement. Due to the confidential nature of the procedure, taxpayers cannot obtain information on all these issues and procedures, the mutual agreement procedure is therefore lacking transparency.

4.4.1.4.1 Solutions identified in the case of Macao

This lack of transparency, in the opinion of Professor ZAICHENG¹⁹, causes that the taxpayer hesitates to initiate the mutual agreement procedure.

If the main objective of the mutual agreement procedure lies in resolving tax disputes between the international taxpayer and the competent authority, to determine the status of the taxpayer in the mutual agreement procedure it is to determine the relationship between the taxpayer and the competent authority.

Request from the competent authorities frequent exchange of information with taxpayers ensures the fastest and most reasonable resolution of disputes.

The taxpayers is the most directly interested party in the case of the mutual agreement procedure, however, it is often difficult for him to participate in the procedure, if he is excluded from the process after the initial instructions of the mutual agreement procedure.

Professor ZAICHENG²⁰ reminds that whatever the dispute resolution mechanism, if there is only one

17 Ob .. cit ..

18 Ob .. cit ..

19 Ob .. cit ..

20 Ob .. cit ..

form of resolution, the mechanism will be suspected of being arbitrary. In the field of international trade and international investment, the arbitration of international commercial issues is a tradition with a long history and is a model for the resolution of disputes easier to be accepted and adopted by the parties.

ZAICHENG²¹ believes that international arbitration should occupy a place in resolving international disputes over taxation. He notes that a survey by the European Commission on the Member States in June 2000 indicated that in the 1995-1999 five years period, the arbitration procedure started in at least 162 cases. He concludes that arbitration is a procedure complementary to the mutual agreement procedure.

4.4.1.4.2. Arbitration as an improvement of the mutual agreement procedure

According to SANTIAGO²², Brazil does not insert the arbitration in any of its conventions. He reports that all treaties subordinate the inception of the arbitration to a failure of the mutual agreement procedure, which reflects the preference of States for political solutions over those that produce binding decisions.

Santiago reminds that the initiative is exclusive to the states, there is no tax treaty conferring legitimacy to the taxpayer to start the arbitration procedure. In most existing treaties, the arbitration is optional, depending on the ad hoc consent of both states involved.

4.4.2. Arbitration as possible jurisdictional solution

4.4.2.1 Characteristics of the arbitration

In most existing treaties, arbitration is optional, their initiation depend on consent of both States. The only exception is the European Convention on Transfer Pricing, which requires the states to initiate arbitration in case of failure of the mutual agreement procedure.

According to SANTIAGO²³, the tax treaties adopting arbitration do not clearly define the election of the judges and do not provide means to overcome the inertia of one the parties.

The cost of arbitration will be settled as provided in the treaty or, as SANTIAGO reminds²⁴, if the treaty is silent, arts. 57 and 85 of the Hague Conventions of 1899 and 1907 determine that the parties support their own costs and an equal share of the expenses of the tribunal.

Almost all tax treaties require the consent of the taxpayer for initiating the arbitration and imposes the arbitral decision as binding as a condition for the start of the arbitration.

4.4.2.2 An international tax court or the recourse to standing international courts

SANTIAGO reminds²⁵ that forming an international tax court is an old idea, more than a century! Already

²¹ Ob .. cit ..

²² Ob .. cit ..

²³ Ob .. cit ..

²⁴ Ob .. cit ..

²⁵ Ob .. cit ..

in 1895, in Germany, Von Bar proposed the creation of a supranational body to resolve the double taxation issues. However, the proposal did not obtain any practical results.

Given these difficulties for creating, establishing and selecting an arbitration court, SANTIAGO²⁶ argues that the most effective solution would be the creation of a Permanent Court of International Tax Arbitration, similar to the Permanent Court of Arbitration at The Hague.

States are reluctant to do so, claiming that the costs of maintaining a permanent court would not justify its standing.

The interest on debating the establishment of an international tax court has been weakened, whether by the lack of empathy by the States, whether because of the potential maintenance costs that would result compared to the little work that an international tax arbitration court would supposedly have.

4.4.2.3 The difficulty of enforcing International arbitral and judicial decisions

The outcome of the arbitration and international judicial decisions will document the violation of the treaty and leave to the State the adoption the appropriate corrective measures in their exact terms.

The foundation of the binding character of the arbitral decision is the will of the parties, reviewable by them.

Noncompliance with the mandatory decision does not open to the winner the path of execution (since there is no supranational body authorized to enforce that) but simply gives rise to a new international litigation, that the parties will have to resolved by any of the peaceful methods offered by the current international law.

In Brazil, the tradition of our Constitutions in regard to armed conflict is preventing these, including, if appropriate, submitting to international arbitration or, more broadly, to the peaceful settlement of conflicts.

²⁶ Ob... cit ..

5. CONCLUSIONS

In this beginning of the twenty-first century, the world is quite globalized and the evolutionary state of communications technology and transport show that we live in a borderless world, or almost.

Under the International Tax Law, Brazil has in force thirty-two agreements and conventions to avoid double taxation. Due to the velocity of transactions and mutations in the world today, some clauses of the agreements and conventions require to be occasionally revised or clarified. This is provided for the mutual agreement procedure as a method of conflict resolution.

Brazil published on November 9, 2016 a regulation on the subject in the form of Normative Instruction RFB No.1669, expected to encourage residents in Brazil to defend their rights through the mutual agreement procedure, since although included in all international agreements avoid double taxation,

no resident in Brazil has ever triggered a mutual agreement procedure. This is probably due to the lack of a legal instrument to streamline the topic.

However, the mutual agreement procedure is not able to solve all problems. That being the case, it would be advisable that Brazil issue rules accepting and regulating the procedure of arbitration as a natural and complementary step to the mutual agreement procedure.

The same Article 12 of the IN RFB 1669 recognizes the possibility of the impossibility to reach a solution through a mutual agreement procedure, but it does not indicate what remedy should be used in this case.

Brazil gave a very interesting step by regulating the mutual agreement procedure through IN RFB 1669, but now needs also a regulation towards the international tax arbitration of its agreements.

6. BIBLIOGRAPHY

ANNUNZIATA, Marcelo S., *Procedimento Amigável e Seus Efeitos no Direito Interno*. Direito Tributário Internacional. MP Editora. São Paulo, 2006, p.189/202

BORGES, Antônio de M. *Noções de Direito Tributário Internacional*. Revista Fórum de Direito Tributário – RFDT nº 26, Belo Horizonte, 2007, pp55 a 91. Available in www.ucb.br/sites/000/90/nocoeddireitotributariointernacional.doc com acesso em 03/12/2016

DORN, Herbert. *Diritto finanziario e questioni fondamentali sulle doppie imposizioni*. Rivista di diritto finanziario e scienza delle finanze, Milano, 1938

DUARTE, Francisco Leite. *Direito Tributário Aplicado*. São Paulo: Editora Revista dos Tribunais, 2013

KREPEL, Marina. M. S. *Solução de Controvérsias nas Convenções Internacionais contra dupla tributação*. Dissertação de Mestrado. USP. 2015 Available in www.teses.usp.br/teses/disponiveis/2/2133/tde-08122015-090032/ com acesso em 03/12/2016

MACHADO SEGUNDO, Hugo de Brito. *Processo Tributário*. 7ª edição. São Paulo: Atlas, 2014

Modelo de Convenio de Doble Imposición Sobre la Renta e el Patrimonio: informe 1977 del Comité Fiscal de la Organización para la Cooperación y Desarrollo Económico. Madrid: Instituto de Estudios Fiscales, 1978, p.15

MONTEIRO, Alexandre. L. M. R. *A Arbitragem Como Mecanismo Suplementar de Solução de Controvérsias nos Acordos Contra a Bitributação Celebrados pelo Brasil*. USP. SP. 2014 Available in www.teses.usp.br/teses/disponiveis/2/2133/tde-10122014-133105/ com acesso em 01/12/2016

NAVARRO, Sacha Calmon. *Curso de Direito Tributário Brasileiro*. 9ª edição. Rio de Janeiro: Forense, 2006

SABBAG, Eduardo. *Manual de Direito Tributário*. 4ª edição. São Paulo: Saraiva, 2012 .

SCHOUERI, Luís Eduardo. *Direito Tributário*. 3ª edição. São Paulo: Saraiva, 2013.

SILVA, De Plácido e, *Vocabulário Jurídico* / atualizadores: Nagib Slaibi Filho e Gláucia Carvalho – Rio de Janeiro: Forense, 2003.

SANTIAGO, Igor Mauler. *Métodos de Solução dos Conflitos Fundados em Convenções Contra a Dupla Tributação Internacional*. Available in www.sachacalmon.com.br com acesso em 28/11/2016

TURNER, Geoffrey S. Canadá - U.S. *Competent Authority MOU: first steps to mandatory arbitration?* Tax Notes International, V. 39, n. 13, p 1229, Sept. 2006. Available in https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1126929 com acesso em 03/12/2016

ZAICHENG, YI. *Estudos Sobre os Problemas do Procedimento Amigável dos Acordos Para Evitar a Dupla Tributação de Macau*. Available in www.saftp.gov.mo/safppt/download/WCM_012860 com acesso em 03/12/201



PROGRESS OF THE WORK OF THE CIAT **PERMANENT ETHICS COMMITTEE**

Juan Francisco
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SYNOPSIS

The first CIAT institutional declaration was made at the General Assembly held in Santo Domingo, Dominican Republic in 1996. It was entitled: “Minimum necessary attributes for a sound and effective tax administration”.

This article analyzes CIAT’s development and works dealing with the promotion of the ethical

performance of the tax administrations, which still continues at present through the Permanent Committee on Ethics. The latter was re-established in 2016 and presented its first works at the 52nd CIAT General Assembly held in Ottawa, Canada last May.

CONTENT

1. Background
2. Conceptual framework of the Permanent Ethics Group
3. Integrity Frameworks in the tax administrations
4. Transparency and Accountability
5. New assignments and challenges of the Permanent Ethics Committee
6. Bibliography

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1. BACKGROUND

The first institutional declaration in CIAT's history was made at the General Assembly held in Santo Domingo, Dominican Republic in 1996 and it is not by chance that it refers to the **“Minimum necessary attributes for a sound and effective Tax Administration”**¹.

In this solemn manner there thus begins a path—continued in subsequent General Assemblies- and, above all, in profound initiatives dealing with the promotion of ethical performance in the tax administrations which continues up till now with the Permanent Ethics Committee that was restructured in 2016 and which presented its initial works at the 52nd CIAT Assembly held in Ottawa, Canada last May.

In fact, the first Working Group on the Promotion of Ethics in the Tax Administration carried out its activity between 2003 and 2007. It was sponsored by Canada, with the participation of Argentina, Brazil, Canada, Spain, Trinidad and Tobago and the CIAT Executive Secretariat. Its main outcome was the **CIAT Model Code of Conduct**² which is a document that serves to guide and compare the development, review and/or improvement of the Code of Conduct of a Tax Administration. The CIAT Code establishes a series of obligations and what it promotes is their “appropriate” compliance. The general objective of the CIAT Code is to provide a reference framework to officials with respect to the expected behavior and to promote the importance of integrity in a sound and effective tax administration. The aspects it considers are:

- Compliance with the Law
- Personal commitment

- Relationships with interested parties
- Relationships with the public
- Bribery
- Gifts and hospitality
- Conflict of interest
- Public declarations
- Confidentiality and use of official information
- Use of organizational resources
- Acquisition of governmental property by the staff
- Working environment
- Behavior outside the working environment

A series of tools of special practical value were added during Phase II of this Working Group. Worth noting is the **Self-Diagnosis Guide**³ which is useful for diagnosing the strengths and weaknesses in the ethical infrastructure of a tax administration; for identifying, first of all, the key elements of an integrity strategy in the tax administrations and diagnosing the improvement processes. Secondly, it attempts to provide a practical methodology for assisting the managers in the evaluation of strategies and identification of areas for improvement and, finally, describes the practical measures for implementing this integral strategy.

Also worth mentioning is the **“Support Manual for Facilitators”**⁴ whose purpose is to serve as guide for facilitating officials conducting the self-diagnosis process included in the Guide. There is also a proposal on the **“Organizational structure for the Management of an Ethics Program”** and for the

1 CIAT. (1996). Minimum necessary attributes for a sound and effective tax Administration. Dominican Republic: CIAT. Available at: <https://ciat.org.sharepoint.com/:b/s/cds/EUv3VMWfippOubmNMscI0zcBbZIlj7nJqwpjCuDitxKXQ?e=Xqc6sj>

2 CIAT. (2005). CIAT Model Code of Conduct. Set of Tools for the Promotion of Ethics. Panama: CIAT. Available at: <http://biblioteca.ciat.org/opac/?v=825>

3 CIAT. (2007). Self-assessment Guide for the Tax Administrations. Set of Tools for the Promotion of Ethics. Panama: CIAT. Available at: <http://biblioteca.ciat.org/opac/?v=2127>

4 CIAT. (2007). Guide for Facilitators and Application Team. Set of Tools for the Promotion of Ethics. Panama: CIAT. Available at: <http://biblioteca.ciat.org/opac/?v=2128>

implementation of a “**Communication and training Strategy**”⁵ for the management of the Program which endeavors to promote the importance of ethics in the tax administration among the CIAT member countries.

Following the two phases of the Working Group in 2008 and again under the sponsorship of the Revenue Canada Agency, CIAT established a **Permanent Committee on Ethics and Tax Administration**, chaired by Canada, with the participation of the CIAT Executive Secretariat and Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, France, Kenya, Mexico, New Zealand, the Netherlands, Panama, Spain and Sweden. The purpose of this Committee was to arrive at the establishment of a permanent forum for the exchange of experiences on the subject, that could benefit from the contributions of the CIAT member and nonmember countries that would be in charge of compiling, classifying and systematizing innovative practices for the promotion of ethics and complement them with new proposals and carrying out analysis and research tasks for developing a conceptual framework.

Within the context of the ever more complex, interconnected and changing world, the excellent work carried out in the past called for a new thrust. To that end, in early 2016, CIAT relaunched the Permanent Ethics Committee to respond to the new needs and demands of the member countries and carry out its activities in the most effective manner. On the occasion of the 50th CIAT General Assembly a workshop was held in Mexico City for obtaining feedback from the participating countries regarding the current and emerging priorities dealing with ethics and the tax administration. Thereafter, a

working meeting of the Committee was held in Ottawa, Canada in April 2017. On that occasion, the working methodology was focused on having three countries leading each of the groups to which the other CIAT countries were invited. The Committee meetings and written communication takes place in any of the four CIAT official languages; namely: English, French, Portuguese and Spanish with the use of the so-called “*KSP- Knowledge Sharing Platform*”⁶. The working groups shall carry out the specific projects and tasks of the Committee, each one guided by a member of the central permanent Committee, as established in the approved working program.

According to this new method, three Working Groups were formed: a first group headed by Canada, in charge of reviewing and updating the existing materials with representatives from Canada and the United States; a second group in charge of reviewing the Internal Control Manual formed by representatives from Spain and Chile and a third one in charge of preparing a document on transparency in the tax administrations formed by representatives from Brazil, Netherlands, Portugal and Spain.

2. CONCEPTUAL FRAMEWORK OF THE ETHICS PERMANENT GROUP

There are three types of theories⁷ that explain why corruption arises: because of the institutions –or rather the lack of institutions that promote adequate behavior; the cultural roots and insufficient moral development and finally, inequality and poverty. These three sources

5 CIAT. (2005). Communication and Training Strategy. Set of Tools for the Promotion of Ethics. Panama: CIAT. Available at: <https://biblioteca.ciat.org/opac/?v=2131>

6 <https://www.ksp-ta.org/>

7 Executive summary of the conference by Manuel Villoria Mendieta on How to improve integrity in our organizations. 2017-2018 Regional Academic Program of the CLAD Ibero-American School of Administration and Public Policies

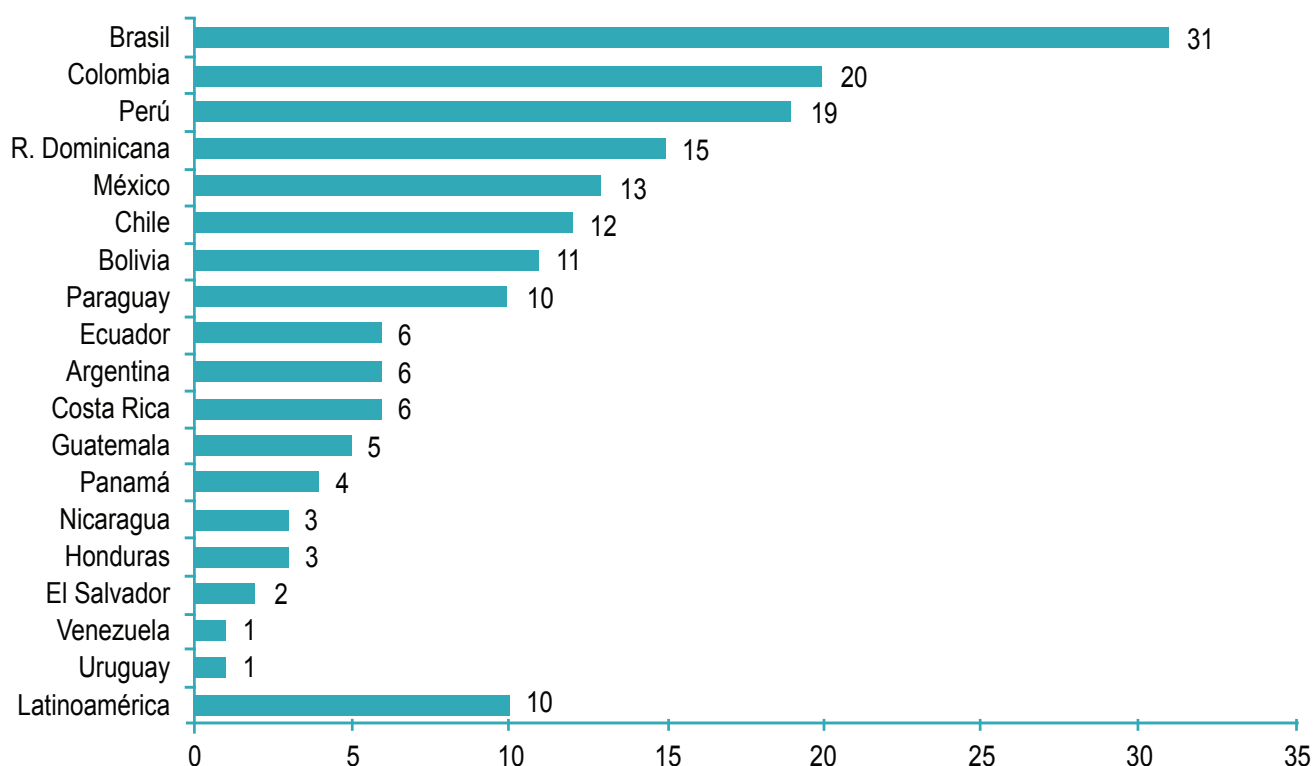
mutually combine and provide themselves feedback to arrive at a phenomenon such as corruption, whose profiles go beyond the simple collection of commissions or bribes to public officials.

Corruption is classified as a phenomenon that exceeds that which is purely ethical and affects the very essence of democracy, stability and economic growth⁸. Corruption, in addition to adopting various forms⁹ and aspects may take place at very different levels. If we turn to the surveys carried out by Transparency International¹⁰

we may observe that there is a relationship between corruption and economic development. In addition, and in spite of the efforts made, in the Americas the perception index continues to be high.

The 2017 *Latinobarómetro*, for example, shows that in Brazil corruption is perceived as the country's main problem, with 31%. In Colombia it is also the main problem with 20% and in Peru, the second problem with 19%. In Mexico corruption is in third place with 13%.

Corruption as the country's most important problem. 2017 Totals by country



Source: 2017 *Latinobarómetro*

⁸ United Nations Convention against Corruption of October 31, 2003.

⁹ In this regard, see article 15 and subsequent ones of the United Nations Convention against Corruption,

¹⁰ https://www.transparency.org/news/feature/corruption_perceptions_index_2017

The World Bank¹¹ analyses insist on alerting about the seriousness of this issue which is evidenced in the persistent high indexes of perception of corruption and the huge costs they involve. Recently, the IMF calculated that a significant increase in corruption reduces

the per capita GDP growth rate by half a percentage point¹² and reduces investment by 1.5 or 2 percentage points. The World Bank itself calculates that corruption at the world level may represent 2 per cent of the global GDP; that is, 10 times the amount of the aid for development.

From all of the foregoing one may infer corruption as a phenomenon that goes beyond the individual behaviors of individuals or enterprises and which negatively impacts the very essence of the institutions, the democratic values and the possibilities of economic development. In this context, consideration should also be given to the tax fraud phenomenon to which corruption is strongly linked.

In fact, the existence of corruption and the sensation of impunity undermine voluntary compliance with tax obligations, protect the corrupt individuals and provide easy and simple arguments to the tax evader for justifying his behavior or incurring in greater breaches.

Tax administrations cannot remain unaware of this phenomenon, not only because it negatively impacts voluntary compliance with tax obligations and reduces legitimacy to the application of the tax system, but also because the tax administrations, with regard to their own mission, values, functions, volume of information at their disposal and specialized resources are called to

assume a leading role in the struggle against corruption at the internal level as well as outside the administration.

3. INTEGRITY FRAMEWORKS IN THE TAX ADMINISTRATIONS

In view of what has been stated above, it is essential that the tax administrations be capable of building an adequate structure for developing integrity policies based on strong leadership and commitment, to promote integrity, render difficult the corrupt activities and disband systemic corruption.

The document entitled: **“Reference framework for ensuring the integrity and the values in the tax administrations”**¹³ was presented to the Ethics Committee at the meeting of the Permanent Group of Madrid held last February. It analyzes in detail these issues and is focused on the following key ideas:

- 1.- It is necessary to agree and adopt regulations and a set of values shared and declared within the general framework of principles and values of good governance to guide the behavior and actions in the field of integrity which should count on the explicit commitment of High Level Management;
- 2.- It is necessary to develop and apply suitable policies and strategies, designed according to the most critical risk factors of dishonest behaviors and corruption, by identifying the potential opportunities, the lack of controls, by evaluating the probability and the impact that the risks and causes that promote them may become a reality;

¹¹ <http://www.worldbank.org/en/topic/governance/brief/anti-corruption>.

¹² <https://blogs.imf.org/2018/04/22/shining-a-bright-light-into-the-dark-corners-of-weak-governance-and-corruption/>

¹³ Garde, J. A; Luelmo, A. In collaboration with the members of the Internal Auditing Service of the Tax Agency of Spain. (July 3, 2018) . Integrity and Values in the Tax Administrations [BLOG] CIATBLOG. Available at: <https://www.ciat.org/integrity-and-values-in-tax-administrations/?lang=en>

3.- It is essential to ensure that these policies and strategies are integral and constitute a systemic model, since the isolated instruments may be ineffective; and

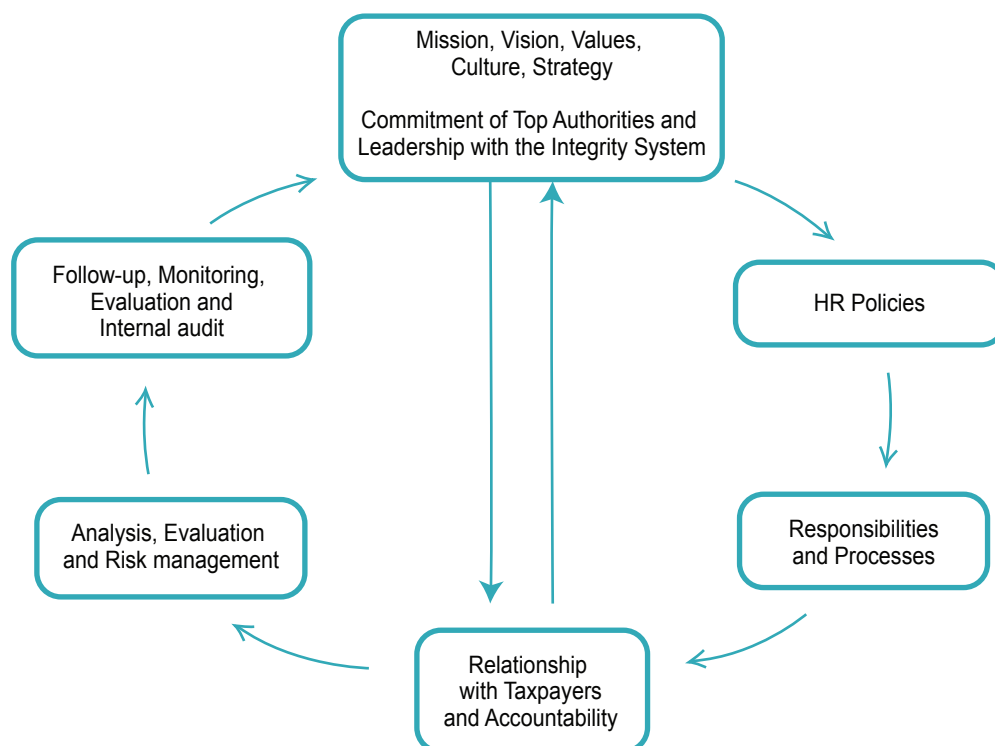
4.- It is convenient to adopt a balanced approach that may create trust within the tax administration, as well as among the taxpayers and citizens.

As stated in the aforementioned document: *“The objective is to arrive at a point where values may be internalized, regulations may be explicit and turning to enforced application may be the last resort. Good governance is synonymous with ethical administration.”*

To this end, 7 basic actions are proposed:

STANDARDS AND STANDARDS	RESPONSABILITIES	INTEGRITY	COMMUNICATE	MONITOR	STREAMLINE	ANSWER
The organization must formally establish the expected behaviors of its employees in relevant matters of ethics and integrity using norms and standards from CIAT and from International Organizations	The Management must monitor the effectiveness of the integrity compliance program. Process management responsibilities must follow up / Internal Audit assume its Control responsibility	Tax administrations should avoid assigning positions of responsibility to persons who have committed bad practices or behavior incompatible with an effective program of compliance and ethics.	Communicate periodically and practically and train with the aim of ensuring that employees know and understand what is expected of them	Periodic evaluation and audit of the elements implemented in ethics and compliance. Periodic evaluation of the effectiveness of the program implemented. Define a confidential system for reporting bad practices	Evaluate risks and align the program accordingly. Establish incentives and ensure the adoption of disciplinary measures, with consequences in case of non-compliance	Once a bad practice is detected, the organization must do everything possible to eradicate it and prevent it from happening again in the future, ensuring that the ethics and compliance program remains updated

It also describes a “Corporate public integrity system”:



4. TRANSPARENCY AND ACCOUNTABILITY

As stated in the Mexico CIAT Assembly of 2003: *“Transparency as a principle and social control as a method constitute outstanding supports for the struggle against corruption”*. For this reason, one of the working groups established in the Permanent Ethics Committee¹⁴ prepared a document on **“Transparency and Accountability”**¹⁵ as an absolutely critical subject when we talk about an integrity and ethical performance framework. In fact, the 2030 Agenda includes in its seventeen Sustainable Development Objectives (SDO) goal 16.10 whose purpose is to: *“Guarantee public access to the information and to protect the fundamental freedom, in accordance with the national legislation and the international agreements”*.

By late 2016, 109 of the 193 member states of the United Nations had adopted laws that guarantee public access to information, the majority of them, only in the last ten years. In 2017¹⁶ UNESCO states: *“Except for Bolivia, Costa Rica, Cuba, and Venezuela, almost all the Latin American countries have laws that guarantee access to official information. Latin America has advanced more in this field than any other region of developing countries, and in certain aspects, more than the countries of the European Union”*. In this sense, the efforts undertaken by the countries in favor of transparency and reinforcing organizational ethics require new thrusts since, as we have seen, corruption continues to appear as one of the main problems of the region.

¹⁴ Formed by María Teresa Missionario from Portugal, Rosa da Conceicao from Brazil, Vera Sijben from the Netherlands and Juan F. Redondo from Spain.

¹⁵ CIAT. CIAT Permanent Ethics Committee. [2018] Transparency and Accountability. Panama: CIAT. Available at: https://ciat.org.sharepoint.com/:b:/s/cds/Ee8L_P8Z95tOq8jXM1alfhgBoKml-6BpJgaLuKsOquMNpw?e=ddUEa2

¹⁶ Access to Information: Lessons from Latin America. Science Regional Office of UNESCO for Latin America and the Caribbean, UNESCO Office in Montevideo, 2017.

The document explains how compliance with the ethical and legal requirements arising from the principle of transparency and ethical performance as well as the need to advance in good tax governance are the basic and inspiring principles of the operation of the tax administrations. It thus becomes a key element for allowing taxpayers, businesses and citizens in general to participate in structuring a modern, effective and efficient tax administration, thereby favoring a greater acceptance of its action and voluntary compliance with the tax obligations.

The document presented at the 52nd CIAT General Assembly in Ottawa, Canada in addition to analyzing the conceptual framework of transparency, analyzes in detail the tools developed by various international organizations for evaluating and examining ethics and public transparency of the tax administrations, among them TADAT, ISORA and the Guide for developing ethics of the World Customs Organization-WCO¹⁷. It makes an effort for systematizing a series of **best practices**¹⁸ in this area, which definitely constitute a list of instruments at the service of transparency and ethical performance that should be taken into consideration when trying to implement these policies:

1.- Institutional information on the management of the Administrations which should be available and freely accessible to the public and covering such aspects as the knowledge of the organizational structure. Such aspects as the clear definition of functions is the basis

for the clear definition of institutional as well as individual responsibilities and accountability; the appropriate identification of holders of managerial positions that represent the administrations; the advertising of the institutional directorates; the publication of strategic and operational plans –with the reasonable level of aggregation-; the dissemination of annual reports of results and their presentation to the parliamentary assemblies; the dissemination of tax revenue statistics, in compliance with reutilization requisites; publication of the result of actions of struggle against tax fraud and evasion and the preparation and dissemination of letters from the services or holding of citizen information campaigns.

2.- Promoting ways of citizen participation through public consultation prior to the adoption of legislative and regulatory acts; the establishment of forums of large businesses which not only allows for bringing the tax administration closer to the taxpayers who contribute the most revenues, but also to know the specific difficulties, proposals and expectations that affect them most; the promotion of seminars and meetings; carrying out satisfaction surveys, adequate treatment and on-time solution of suggestions and claims; the use of information and communication technologies in the tax administrations for greater proximity to the taxpayer; taking advantage of the possibilities offered by the digitalization of the tax administration; the publication of tax inquiries and binding information or the rendering of information services regarding the status of procedures.

17 Tax Administration Diagnostic Assessment Tool. TADAT is a global tool promoted by the IMF which may be used by the countries to identify weaknesses and strengths of their tax administration. International Survey on Revenue Administration (ISORA) is an information tool developed jointly by the IMF, CIAT, IOTA and OECD which offers TA data through a unique and homogeneous survey addressed to revenue administrations of 148 countries.

18 CIAT. CIAT Permanent Ethics Committee. [2018]. Survey on Transparency. Panama: CIAT. Available at: https://ciat.org.sharepoint.com/b:/s/cds/ESs_8oeXO-g1Hid-CykvzyQB7XNTofc0vOPsqIAZIPXr7w?e=DbbZFb

3.- Reinforcement of internal control entities and the role of **internal auditing**, dealing with complaints and denunciations and finally, improvement of relationship with external auditing entities.

5. NEW ASSIGNMENTS AND CHALLENGES OF THE PERMANENT ETHICS COMMITTEE

The Committee has a detailed series of actions for the future, among which are the updating of the “tools at the service of ethics” which are already available at CIAT, as well as the CIAT Model Code of Conduct, the adaptation to current times of the Declaration on the Promotion of Ethics in the Tax Administration and the Self-Assessment Guide for the Tax Administrations. The aspects that need to be updated and modernized have already been identified and shall be disseminated in the future. Likewise, the review of the Internal Control Manual published by CIAT will be undertaken.

Apart from the details of these specific actions, there are still many queries and challenges to be faced. The

promotion of ethical performance and the struggle against corruption imply the necessary adoption of key strategic decisions and calls for the tax administrations to consider fundamental issues such as the organizational mechanisms and instruments for reinforcing cooperation with specialized organizations in the struggle against corruption or the necessary systematization and follow-up of the actions to be carried out by the auditors in detecting cases of corruption during the course of the examination actions.

In order to carry out all these tasks successfully, it is more necessary than ever to support the works of the CIAT Permanent Ethics Committee, promote the participation of the countries and tax administrations members of CIAT therein, achieve maximum coordination with the efforts of international organizations to undertake common actions in this area and take advantage of the opportunities of such networks as the “*Network of Tax Administrations – NTO*” with which common working lines will be established, by taking maximum advantage of the excellent work carried out throughout these past years by CIAT¹⁹ as pioneer organization in this area.

¹⁹ This article is based on documents prepared by the CIAT Permanent Ethics Committee formed by: Kerrie Lawn -CRA of Canada; Virginia Tarris -IRS-USA; Juan Antonio Garde and Alejandro Luelmo, AEAT of Spain; Marcelo Freyhoffer Moya, SII of Chile; María Teresa Missionario, TA of Portugal; Rosa da Conceicao, Receita Federal do Brasil; Vera Sijben, Ministry of Finance of the Netherlands; Pablo Chalar, DGI of Uruguay; Ana Patricia Domínguez, SAR of Honduras; Laura Marronetti, AFIP of Argentina; Juan F. Redondo, Ministry of Finance of Spain and Alejandro Juárez -CIAT.

6. BIBLIOGRAPHY

CIAT. (2018) CIAT Permanent Ethics Committee. Transparency and Accountability. Panamá: CIAT. Recuperado: https://ciat.org.sharepoint.com/:b:/s/cds/Ee8L_P8Z95tOq8jXM1alfhgBoKml-6BpJgaLuKsOquMNpw?e=ddUEa2

CIAT. (2018). Permanent Ethics Committee. Survey on Transparency: CIAT. Recuperado: https://ciat.org.sharepoint.com/:b:/s/cds/ESs_8oeXOg1Hid-CyxvzyQB7XNTofc0vOPsqlAZIPXr7w?e=DbbZFb

CIAT. (2005). Inter American Center of Tax Administrations (CIAT) Model Code of Conduct. Promotion of Ethics Tool Kit. Panamá: CIAT. Recuperado: <http://biblioteca.ciat.org/opac/?v=825>

CIAT. (2005). Self-Assessment Guide for Tax Administration. Promotion of Ethics Tool Kit. Panamá: CIAT. Recuperado: <http://biblioteca.ciat.org/opac/?v=2127>

CIAT. (2005). Guide for the Implementation Team and the Facilitators. Promotion of Ethics Tool Kit. Panamá: CIAT. Recuperado: <http://biblioteca.ciat.org/opac/?v=2128>

CIAT. (2005). Communication and Training Strategic. Promotion of Ethics Tool Kit. Panamá: CIAT. Recuperado: <https://biblioteca.ciat.org/opac/?v=2131>

CIAT (1996). Minimum Necessary Attributes for a Sound and Effective Tax Administration. Panamá: CIAT. Recuperado: <https://ciat.org.sharepoint.com/:b:/s/cds/EUv3VMWfippOubmNMscIOzcBbZlIj7nJqwpjCuDitxKXQ?e=Xqc6sj>

Escuela Iberoamericana de Administración y Políticas Públicas. Resumen ejecutivo de la conferencia del Dr. Manuel Villoria Mendieta sobre ¿Cómo mejorar la ética de integridad de nuestras organizaciones? Programa Académico Regional 2017-2018

Garde, J. A; Luelmo, A. (3 de julio de 2018). [Blog]. Recuperado de: <https://www.ciat.org/integrity-and-values-in-tax-administrations/?lang=en>

Naciones Unidas. (2003). Convención de las Naciones Unidas contra la Corrupción. Nueva York: Naciones Unidas. Disponible en: https://www.unodc.org/pdf/corruption/publications_unodc_convention-s.pdf

Lagarde, Christine. (22 de abril de 2017) **Shining a Bright Light into the Dark Corners of Weak Governance and Corruption.** [Blog]. Recuperado de <https://blogs.imf.org/2018/04/22/shining-a-bright-light-into-the-dark-corners-of-weak-governance-and-corruption/>

Transparency International (2018). Recuperado: https://www.transparency.org/news/feature/corruption_perceptions_index_2017

UNESCO (2017). Access to Information: Lessons from Latin America Oficina Regional de Ciencias de la UNESCO para América Latina y el Caribe.

Montevideo: UNESCO World Bank Group (Septiembre 26, 2017) Recuperado: <http://www.worldbank.org/en/topic/governance/brief/anti-corruption>



INTERNAL AUDITING IN THE **TAX OR CUSTOM ADMINISTRATION** AN ANTI-CORRUPTION APPROACH

Diana Lucía
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SYNOPSIS

A common purpose of public administration at the international level is to understand how the corruption phenomenon seizes the processes of a governmental entity, to thus adopt the corresponding preventive measures.

The internal auditing areas play a significant role in this purpose. It is for this reason that this document

reviews the elements that could be used for facing the risks of corruption in the sphere of tax and customs administration, considering the importance of combining tax auditing noncompliance risk management with internal auditing for determining anti-corruption strategies.

CONTENT

1. Risk Management
2. Corruption Risks
3. Corruption risks in a tax/customs administration
4. Identification and evaluation of corruption risks
5. Discretionality in the tax/customs function and ethical management
6. Conclusions
7. Bibliography

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INTRODUCTION

Auditing has been historically used by organizations to ensure that their processes, in particular the financial ones are operating correctly and thus to know for certain that their economic resources are protected and that the obligations to disclose information to the partners, stockholders and authorities are being fulfilled.

The different efforts of expert accountant associations that are reflected in the International Auditing Standards (IAS), eventually became the standards of reference for auditors throughout the world, to evaluate the operations of a company and generate recommendations that may avoid the loss of resources or noncompliance with the internal bylaws or public regulations. They also constitute the base for evaluating compliance with the International Financial Standards-IFS.

Generally, the evaluation of economic results also discloses problems in the operational processes, thus giving way to the internal auditing concept, which extends the examination activities to the other operations of an organization, different from the financial ones.

The practices recommended by such organizations as the Committee of Sponsoring Organizations of the Treadway (COSO) and The Institute of Internal Auditors (IIA), are the current references for implementing and measuring the internal control systems. Currently, these practices recommend several lines of defense and it is thus that we find ourselves with external auditing and the risk management theory.

According to its special mission, if an organization wishes to apply an international technical standard as those defined in different areas by the International Organization for Standardization (ISO), it must implement management systems that may be evaluated with its own auditing techniques.

In spite of the strictness and specialty with which all these systems are implemented and evaluated, in the current world context, fraud and corruption seem to be unstoppable and thus, the controls and auditing in all their facets are considerably subjected to analysis for not achieving results.

Given these cases, auditing is executed more from the financial forensics standpoint to detect what happened and disclose the mechanisms uses for committing the offense, thereby disregarding the importance of prevention. In its defense, auditing will argue that it is impossible to cover all fronts and that it is important to increase efforts for promoting the culture of transparency, ethics and self-control. It has thus been understood by the international community and different efforts that are evident in the laws on transparency, ethical policies and accountability.

In spite of the fact that the data which have now become evident as a result of these policies of access to information are disclosing significant cases of corruption, there are also increased ethical questions being made to the public administration and its officials. Given the general consensus that "ethics is taught at home", if it is a matter of re-educating officials and leaders, we see that it is very difficult to re-direct the course of public administration. If to this scenario one adds the fact that in some cases there is the lack of the legal and moral sanction to the persons involved, as society we end up in a state of despair which only leads us to wait for the next case of corruption.

If the problem of internal audit areas is the low operational capacity to face the phenomenon of corruption, there would be two instruments that could contribute in this regard; on the one hand, risk management and on the other, the alignment of its control objectives with those established by the institution in its mission objectives.

This article reviews the international risk management technical standards and their application to the risks of corruption, to then propose a methodology that may allow the tax/customs administrations to identify and evaluate their corruption risks.

To this end, the technical evolution and scope of the international standards mentioned throughout the text were analyzed; vis-a-vis the characteristics of the management models and objectives of a tax/customs administration, to propose the baseline that will assist these entities in identifying their own corruption risks.

Likewise, an evaluation is made as to how the tax and customs authorities could combine their managerial mission based on noncompliance risk management and behavior profiles with the corruption risk management and ethical management activities.

1. RISK MANAGEMENT

Much like the switch from financial and accounting auditing to the internal auditing of control systems, risk management has experienced its own evolution in the corporate world and in public administration.

In 1992, the first COSO Report on the implementation of internal control systems, defined Risks as the factors that prevent the achievement of the objectives of an organization, and pose the importance of identifying and evaluating those factors to create an adequate control environment.

In the same decade, there appeared the AS/NZ 4360:1995 standard, developed by the Australian / New Zealand Standard Committee, as a generic tool so that any economic sector could identify, analyze and evaluate its risks, as well as to determine the corresponding treatment and monitoring. This standard was updated in two subsequent versions and thus gave origin to the ISO 31000 risk management technical standard, which was adopted in 2009 and is

currently the basis used by different public and private administrations to implement their risk management systems.

In 2004, the second COSO report raises the hierarchy of risk management to the level of an integrated system, adopting guidelines of the Australian standard. Thereafter, in 2013, a third report gives risk management the characteristics of a strategic planning tool. That is, risks went from being considered a factor within a corporate system which must be controlled so as not to hinder the achievement of the goals, to a strategic direction tool that allows for identifying opportunities for achieving those same goals.

The Australian / New Zealand Standard Committee's intention which motivated the creation of a generic tool that could be useful to any type of organization implied that the technique should not point out in detail how to identify the risks, because precisely that would be each company's task according to its specialty. Therefore, although the steps for implementing a risk management system are clear and standardized, in principle, said steps were not shown at the required level of detail for an entity to relate them to its mission.

The economic sector that undertook this task and showed the initial results of standardization was the banking and insurance sector. Through the Basel Committee it has generated different risk management models, such as those of portfolio (SARC:2002), the operational (SARO:2006), market (SARM:2007), liquidity (SARL:2008), moneylaundering and terrorism financing (SARLT:2008).

Currently, different types of risks are known: health and safety in the workplace (HSEQ), natural disaster prevention, health, computer technology, financial, juridical, operational, noncompliance risks of the tax administrations, etc. In each sector there are particular references for their identification and treatment.

Although there are significant advances and auditing has specialized itself in evaluating the different types of risks which each sector presents, the pending issue is to ensure that these techniques may be made available to corruption risk management. This implies that after having achieved a corporate scenario where everything is standardized, measured with indicators and evaluated by means of controls, it may be necessary to understand that corruption precisely occurs outside the technical and juridical order, which calls for going beyond the linear analysis of integrated systems, to a more complex one of parallel correlations that are attempted to be adapted in an organization.

Even though risks may have a level of acceptance by entrepreneurs in the private sector, in public administration, the level of tolerance in particular with corruption risks must be zero, since the materialization of one of these risks generates an immediate social impact, on leaving the rights and services to citizens without guarantee.

Finance is one of the public administration sectors where there are frequent cases of corruption, in particular in the tax administrations (TAs). In all organizational, operational, managerial, strategic and political levels, institutional legitimacy is constantly challenged by events where there is proven abuse of power evidenced in influence peddling, alteration or loss of files, fraud in tax assessment data, fraud networks, deviation of public resources, etc.

As it is known, the loss of trust in the tax administration is automatically reflected in public finances. Kaufmann (1998) proposes that evidence has already proven that corruption reduces internal and external investment, affects tax revenues and social expenditure, with the resulting impact on the distribution of revenues. From that there follows the importance of strengthening the anti-corruption mechanisms in these entities and to this end, it is necessary to understand the dimension of the corruption risks and the way in which they must identified and treated.

2. CORRUPTION RISKS

The health, health and safety in the workplace (HSEQ), financial, computer, operational risks, etc., represent the groups of undesired events in different areas or sectors. Bearing in mind that the international technical standard ISO 31000, affords a standard for identifying risks in an organization, without specifying a particular sector, each of these economic or social areas has advanced in pointing out common risk events which may be standardized and recognized by experts on each subject.

Public administration shares or evaluates several of these risks since it is designed to respond to the needs or supervise each sector. Likewise, with respect to the governmental internal organization, since there are national guidelines that determine their processes, these give way to the specific operational risks of the public sector.

However, corruption by itself, is not a sector or area. Thus, this gives way to the difficulty for identifying corruption risks and these may end up being established by intuition or subjectivity of the public manager in charge of conducting a public process and reducing all risks of corruption to a “sensation of danger”, without being clear as to what should be done in this respect. Some public managers are even afraid of identifying a corruption risk, inasmuch as they consider that determining the dimension of such a risk would make them appear before others as dishonest, since even managing to think how a corrupt official would do it, makes it potentially dangerous.

This difficulty lies in the fact that risk management, as it has been technically defined, begins with ensuring the result of a procedure and since corruption does not involve executing an official specific procedure, nor is it the purpose of the public administration, the technique developed up till now for identifying risks is not directly applicable to the acts of corruption.

Unlike the management processes of a public entity, corruption is not a series of activities organized for achieving an organizational product made available to the citizens as a service or procedure. Instead, corruption consists of a series of joint but complex events, normally carried out through several processes and its result is the deviation of public resources or obtaining particular benefits by way of bribes, favors, sops or advantages in favor of a public official or third party, which is normally considered an offense for corresponding to actions against the law.

In managing risks, ISO 31000 provides as main activity the generation of an exhaustive list of events which, together with their respective causes of action or omission, would prevent compliance with the institutional goals and objectives. Thus, a corruption risk could consist of *actions or omissions whose consequences, in addition to affecting said objectives, would imply the deviation of public resources or generation of particular benefits by way of bribes, favors, sops or advantages in favor of a public official or third party.*

3. CORRUPTION RISKS IN A TAX/CUSTOMS ADMINISTRATION

Tax/customs administrations provide a service which calls for coordinating a series of processes through which, those responsible therefor may fulfill their obligations, either voluntarily or coercively and request services and/or assistance.

There are several operational risks that may occur in the tax/customs service, such as erroneous assessment of amounts to be paid, collection of taxes already paid or erroneously calculated amounts, loss of a juridical process due to errors in the legal guarantees, failures in electronic services or errors in information management that could infringe their confidentiality or integrity.

On the other hand, if these operational problems are used to alter a taxpayer's balances, deviate public

resources, fraudulently withdraw a taxpayer from a tax/customs control or collection process, modify a juridical decision in a file, irregularly avoid, speed up or slow down examinations, procedures, services or juridical processes or manipulate and extract information, we are faced with *corruption risks in a tax/customs administration.*

The Royal Academy of the Spanish Language (RAE 2018), provides two definitions for corruption, one related with the action of damaging or ruining a relationship or habit, and the other, in the sphere of the public organizations as "consistent practice in the use of their functions and means, for the economic or other benefit of their managers".

The relationship that unites those subject to the tax or customs obligation with the State is the juridical relationship. In that sense, it could be said that a risk of corruption in that sphere, *is an act or omission that hinders the tax/customs control or increase of voluntary compliance and which imply the deviation of public resources or the generation of particular benefits by way of bribes, favors, sops or advantages, in favor of a public official or third party.*

The theory of the fraud triangle developed by Donald Cressey in criminology, poses three elements that are commonly combined in an offense. These factors are pressure, rationalization and timeliness. This theory is currently used in auditing to identify corruption risks and the controls that should be evaluated for ensuring the processes. If these factors are observed in the organization, there is a high probability of materialization of corruption risks.

Pressure is understood as the need or desire to resolve a situation, usually of an economic or social nature, a situation that would motivate fraud or abuse of power; and timeliness, is the low perception of risk of being discovered due to the lack of control or the prevailing organizational culture and rationalization is the means which the person finds to justify his action.

In the tax/customs sphere, in addition to the internal pressure that would motivate an official to abuse of his power, there are external pressures that motivate the taxpayer/user to agree to a bribe or to attempt extorting an official. Therefore, motivation is not only from the internal jurisdiction but of the intention of a debtor to fail to comply.

Said noncompliance intention becomes threats and are mainly expressed in four basic forms that motivate the act of corruption:

- Interest in reducing an obligation.
- Interest in increasing a balance in favor.
- Interest to avoid control.
- Interest in favoring oneself in a procedure.

Tax/customs noncompliance involves such consequences as sanctions and costs that must be assumed by the guilty party. Therefore, the configuration of a corruption risk in this sphere, in addition to being expressed in actions that alter information or modify processes, also implies breaking the juridical bond that unites the taxpayer and the administration, so that subsequently there will be no more legal economic consequences of greater impact. Therefore, the taxpayer that is ready for corruption is also motivated by the interest in altering the juridical obligation to make it nondemandable.

Said bond is the juridical-tax relationship, consisting of the taxable event, the tax collector and taxpayer, the tax base and the rates. In this sense, an act of corruption in the tax administration would imply affecting said relationship, altering or eliminating some or several of the elements that comprise the juridical bond.

Although these concepts are part of the tax/customs sphere, their administration depends on common basic actions of any area of public administration which are observed in four general elements:

- Actions for calculating the amount of the obligation/benefit.
- Actions for determining the existence or not of the obligation/benefit.
- Actions to ensure or support the assessment and calculation of the obligation/benefit.
- Actions to select and prioritize control and services subjects/objects.

The actions to calculate or assess the amount of an obligation/benefit, imply the application of information and data parameters and formulas which result in the amount of the public resource to be received or paid.

The actions to determine the existence or not of an obligation/benefit take into consideration all the processes, procedures, formats, instructions and legal, economic or institutional criteria taken into account when carrying out the tax/customs inspection, examination or auditing processes.

The actions to ensure or support the assessment decisions and the result of the quantification of the obligation/benefit, are those reflected in minutes, documents, resolutions and any other administrative action and public or private document that may be necessary for establishing the juridical relationship between the citizen and administration.

The actions that are reflected in policies, minutes, official documents and any administrative action are those necessary for establishing the criteria for identifying, classifying, prioritizing, selecting and assigning subjects/objects of control or services/procedures.

All these actions are carried out either in manual or computerized, massive or individual processes, by information systems, officials or third parties on behalf of the administration.

In this line of thought, although there are different forms in which one may evidence the materialization of a corruption risk in a tax/customs administration, the interest that motivates corruption by a taxpayer is expressed (consequence) in the intention to alter in his favor a tax obligation or benefit, or avoid a control which may detect his faults and is materialized (risk) in the impact exercised by a public official in relation to the

decisionmaking criteria for determining the existence or not of the obligation/benefit, the quantification of the obligation or benefits and the documents that support his decisions. In practice, the corruption risk may be materialized if the decisions, the data and documents that allow for establishing the juridical relationship are not safeguarded (cause).

Graph No. 1

Base line for the identification of a corruption risk



Source: Prepared by the author

There are different techniques for securing the information that may be applicable in the tax/customs sphere and said level of security determines the conditions wherein the opportunity factor of the fraud triangle may be shaped, inasmuch as a lower level of security represents a lower level of perception of being detected.

Essential elements for determining the risk probability are the level of systematization of operations, progress in the implementation of quality management processes and the organizational culture of a tax administration, given the significant amount of information that must be processed.

Because of the the tax/customs administrative dimensions, the security costs are high and if corruption risks are not correctly identified, one may only be controlling operational risks. The identification of events that involve operational as well as corruption risks should be the priority of an administration considering scenarios of limited resources for assurance and in decisions to simplify processes.

4. IDENTIFICATION AND EVALUATION OF CORRUPTION RISKS

To identify corruption risks in a tax/customs administration, it will then be necessary, as stated in ISO 31000, to generate an exhaustive list of events which, with their respective causes of action or omission

may be reflected in: i) obstacles to compliance with tax control mission objectives and increase in voluntary compliance; and ii) the deviation of public resources or the generation of particular benefits by way of bribes, favors, sops or advantages, in favor of a public official or third party.

Following the recommendations of ISO 31000 itself, it will be necessary to be previously aware of all operational risks through a review of the administration's procedures, to then identify therein those events (activities) which if undertaken with intentions of corruption may bring about as result: i) the reduction of an obligation; ii) the increase of a benefit; iii) the withdrawal or deviation of a tax/customs control action; and iv) the alteration of a procedure or service. All of the foregoing regardless of the way in which the irregular benefit received by the official or third party is materialized.

Since the administrations may have in their structure financial areas in charge of the collection of taxes, risks of this nature must also be considered inasmuch as deviations of public revenues also can be structured there.

Having identified the activities that could be threatened by corruption, one establishes the variables which, on being manipulated, altered, concealed or eliminated could bring about some of the results described in the previous paragraph.

Some examples of Corruption Risks are:

Chart No. 1

PROCESS	ACTIVITY THREATENED	EXTERNAL	RISK OF CORRUPTION	CONSEQUENCE	VARIABLE TO BE SECURED
Electronic collection	Treasury bank account record receiving collection through the electronic system	Capturing public revenues	Modification of the bank account number in the electronic collection system	Deviation of public resources	Electronic collection system
Authorization of electronic invoicing operator	Reception of support documents proving requisites	Participate in a process for which the term of application has expired	Untimely receipt of requests	Alteration of a procedure or service	Official system for receiving and registering correspondence
Recovery of tax debts	Assignment of portfolio risk profile	Reduce risk level and avoid coercive measures	Alteration of risk profile of debtors portfolio	Withdrawal or deviation of a control action	System for classifying debtors
Customs inspection	Assignment of risk profile to customs users and operators	Entering goods to customs territory without inspection	Alteration of risk profile of customs user or operator	Withdrawal or deviation of a control action	System for selecting operations to be inspected
Refunding of balances in favor	Calculation of balance in favor to be returned to the taxpayer	Capturing public monies	Alteration of amount to be returned to the taxpayer	Increase of a benefit	Refunds system
In Tax Auditing	Tax noncompliance report	Conceal an event that must be sanctioned	Omission of punishable events in tax auditing report.	Reduction of an obligation	Tax auditing process

Source: Prepared by the author

The securing variables presented in the previous chart refer to a series of elements that are part of each process and wherein representatives of different functional or support areas of the administration usually participate. Said variables must even correspond to guidelines which the national authorities set as management policies for the entire public administration in such areas as information and communication technologies, document management, environmental management, public function, etc.

The concurrence in each process of different management systems, policies and players, in addition to those responsible for the tax/customs administration is what allows the administration to count on different levels of institutional support and rationalize the costs. However, it is this same condition that allows, when there are corruption scenarios, that they take place in a somewhat more complex framework.

Since the tax/customs administrations periodically review their internal control and management systems to adapt them to regulatory, organizational or economic changes, this review should include the adjustment and evaluation of the operational and corruption risks. Important in this process is the participation of experts in each functional area and of those who must support tax/customs management; that is, the identification of corruption risks is an activity that requires the transversal and committed participation of the entire entity.

In this review, the determinant action of the internal auditing teams is focused on the evaluation of the risks identified. This evaluation allows for deciding on

the actions to be taken to treat the risk beginning with the status of the controls and the measurement of the probability of occurrence.

Determining the probability of an operational risk begins with establishing what would happen if the administration does not act to avoid the occurrence of an undesired event, or what would happen even if it acted. The indicator measurements allow for specifying these evaluations. In the case of the corruption risks such precision would depend on historical data that are not readily available and the level of dispersion of players intervening in the management of processes and systems that support the administrative activities.

In that sense, the evaluation of corruption risks will call for understanding the interaction of all these procedures, systems and players, to thus establish in terms of that stipulated by the fraud triangle theory, how power is concentrated and which controls are active for mitigating this concentration, to thus avoid a potential rationalization in favor of corruption.

The risk probability would be established according to the level of exposure of an activity to a corruption threat, in keeping with the level of control applied to the variables to be secured. A lower level of security increases exposure and viceversa.

Continuing with the examples presented in the previous chart, shown below is an analysis of the factors to be evaluated for establishing the probability of some of the corruption risks:

Chart No. 2

CORRUPTION RISK	VARIABLE TO BE SECURED	PLAYERS	PROCEDURES	SOFTWARE	TRACEABILITY
Modification of the bank account number in the electronic collection system	Electronic collection system	Who are familiar with the account updating procedures? Which authorizations do they have in the system? May third parties access the procedure and the system?	Is there a protocol for updating the bank account in the system, are there computerized controls, alert systems, dual controls?	Are the principles of security of the information of the collection system complied with and controlled? Is the administration or third parties responsible for the software's governability?	Is it possible to determine who, how, when and from where are changes made to the banking account? Are decisions regarding changes of players, procedures and controls or software variations documented?
Untimely reception of requests for authorizing electronic invoicing operators	Official system for receiving and registering correspondence.	Who are the participants in the process of authorizing an electronic invoicing operator, as of the time of receiving, manipulating, analyzing and physical and digital filing? May third parties access the procedures and the system?	Is there a protocol for receiving documents? Is there a document management procedure? Is there a procedure with authorization criteria?	Are the principles of security of the information of the collection system complied with and controlled? Is the administration or third parties in charge of the governability of the software?	Is it possible to identify who, how and from where does document management take place? Are decisions regarding the authorization of operators and the receipt of requests and their support documented?

Source: Prepared by the author

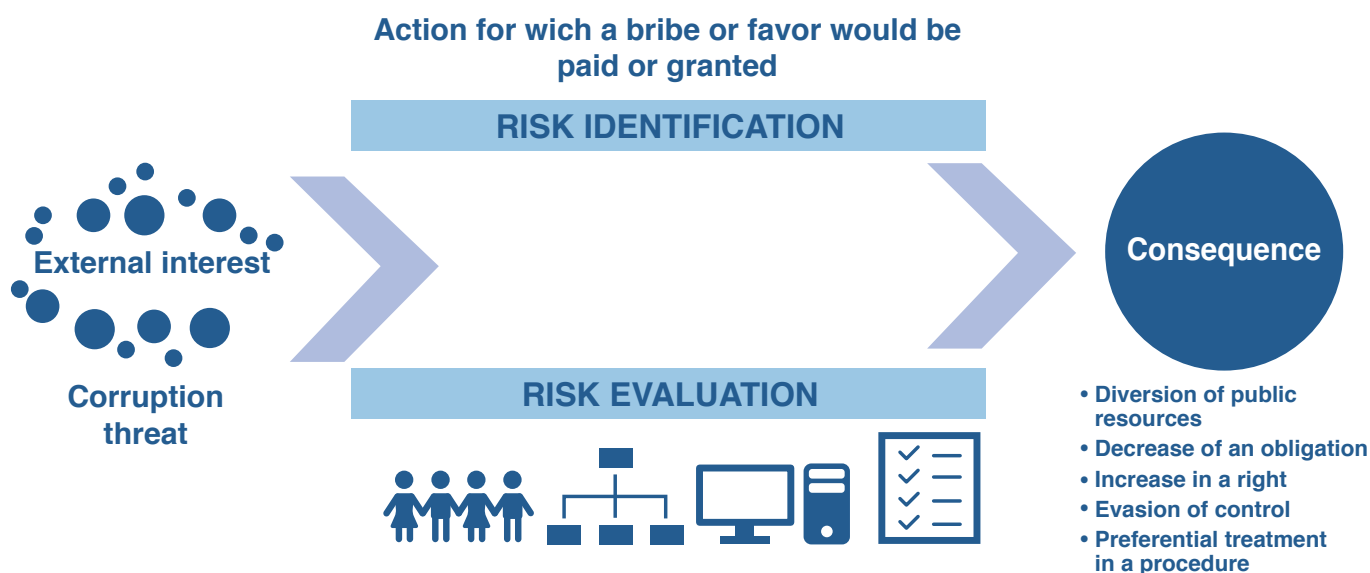
Evaluating who interacts in the process to be secured, implies determining to what extent the power is concentrated in one or several persons. In the analysis of the procedure one may observe whether it mitigates or not such concentration of power. This power deals with the capacity for carrying out some of the activities that would lead to materializing the corruption risk, from within or outside the procedure and the entity.

Evaluation of the software supporting the procedure and how the trace of each event is registered, allows

for determining whether there are opportunities so that in a case of rationalization of fraud or corruption it may be possible to detect and avoid it. Likewise, it allows for determining where operations are being carried out.

As may be observed, after identifying each corruption risk, one must establish all the variables whereby they may be evaluated, by securing not only through controls that will be activated during the execution of the procedure, but also adjusting the procedure itself for preventing a corruption event.

Graph No. 2



Source: Prepared by the author

5. DISCRETIONALITY IN THE TAX/CUSTOMS FUNCTION AND ETHICAL MANAGEMENT

The third element of the fraud triangle is rationalization, the most difficult one to prevent, since it is precisely where the ethical component is asserted regardless of the existing level of pressure and opportunity. It is in rationalization where the official decides whether he

superimposes the particular interest over the public interest thereby misusing his position.

How can the corruption risks be mitigated by a tax/customs administration lacking robusts information systems, certified processes with high quality standards and the operational capacity for implementing a risk management system, or even though having them, continues to show inadequate behaviors?

The Finance sector, in particular, in tax/customs administrations is one of the public administration sectors where frequent cases of corruption occur. In all organizational levels, operational, computerized, managerial, strategic and political, institutional legitimacy is frequently disputed due to events where there is proven abuse of power evidenced in traffic of influences, alteration or loss of files, fraud in the tax assessment data, evasion networks, deviation of public resources, etc.

As it is known, loss of trust in the tax administration is automatically reflected in public finances. Kaufmann (1998) states that evidence has already proven that corruption reduces internal and external investment, affects tax revenues and social expenditure, with the subsequent impact on the distribution of revenues. From there follows the importance of strengthening the ethics of the tax authorities.

Tax administrations as public entities, must incorporate in their organization the administrative development concepts which include the structuring of an ethical culture.

Some codes of ethics of tax administrations of the Americas were taken as examples to identify the elements used in their development. Similarities were found in their structure, thanks to the use of guides determined by the World Bank and differentiating elements such as the level of detail used to describe the types of relationship between public officials and third parties.

In codes such as those of DIAN - Colombia (2016) and SAT - Mexico (2016), the principles, values and behaviors are shown as relationship parameters between the official and different spheres of the organization. For example, official – official; official – institution; official – taxpayer; official – other institutions; official – information; officials – public properties; among others.

The code of SII - Chile (2016) additionally presents some examples of application which are in tune with the models applied in the codes of CRA - Canada (2015) and IRS – United States (2015). In addition to providing parameters as guidelines of relationship between different players, there are actions included for undertaking consultations and procedures to act in case of conflicts that are derived from areas in charge of ethical management and/or internal auditing management. Having defined these codes, the socialization strategies with the intention of being integrated in the culture of the entities have been of a varied nature.

Ackerman (2001) from an economic perspective, considers that the self-interest, which includes the interest in the family's own welfare and in similar groups is the main motivating factor of the decisions of a society and its basic values, and that chronic corruption could arise from the spacing out between one's own interest and the common interests. What is then required to integrate common interests to one's own interests?

The causes of corruption and different ways of measuring and combating it have been widely studied by experts, international organizations and nongovernmental organizations. Although they coincide in that the ethical strengthening of the public institutions is one of the elements one must work on, it is not the only one. There is also a need for integral activities sustainable through time that may take into account that such cultural elements as interpersonal trust, inadmissibility of corruption and ethnolinguistic tolerance will allow for changing the environments.

Worth mentioning in this respect, is the application of public ethics suggested by Bautista (2005), as tool for establishing the principles and regulations to be applied by a public official in order to make decisions with discipline in favor of the general welfare. The author himself identifies this as a complex path wherein the public official must "control himself to act for the benefit of his fellow men".

Bearing in mind that the codes of ethics of the tax administrations include the principles and values which each organization commits itself to apply in its relationship with the different players of society; that there are different mechanisms of socialization and internalization of such commitments, nevertheless, even these efforts have not been sufficient to integrate them in the ethical behavior of all the officials and third parties that promote administrative corruption. Thus, it is necessary to further stress the protection of tax resources as an element of social development; that is, as a public interest good.

To include these issues in ethical management it is necessary to render visible how and when said official makes a decision on public resources in a tax administration so that, in turn, these may be understood by society without technicalities of any nature. Thus it will be possible to reach agreements as to how to apply the ethical principles and values given countless situations which may occur and which are unforeseeable when it comes to setting up a code of ethics to finally achieve more connections between integrity and what is public.

If the problem faced by the internal auditing areas is the little operational capacity to face the corruption phenomenon, there would be two instruments that could contribute to its management. On the one hand, risk management which was discussed in the previous sections with a methodological proposal and on the other, through the alignment of its auditing objectives with those set by the institution in its mission goals, which in the tax and customs administration are the ones that make the connection with the public interest and which are discussed in ethical management.

The tax/customs administrations as the great auditors they are, have gone forward in the public aspect to the integration of these two instruments. With respect to tax control, they apply the concept of noncompliance risks to support achievement of its goals in the struggle

against evasion and improve the profile of the taxpayer's behavior. The customs administrations do not stay behind and thus the World Customs Organization-WCO also promotes the implementation of risk management systems, in order to facilitate international trade without sacrificing the control at the ports.

On its part, auditing included the risks concept in its practice to achieve greater efficiency in the annual prioritization of its activities. Likewise, auditing has become the tool par excellence for evaluating risks and this is why currently we talk about risk-based auditing.

The parallel evolution of auditing and risk management until integrating themselves at a single point, allowed the inclusion of different tools in the internal control areas to actively participate in the development of strategic planning of an organization and in securing the processes.

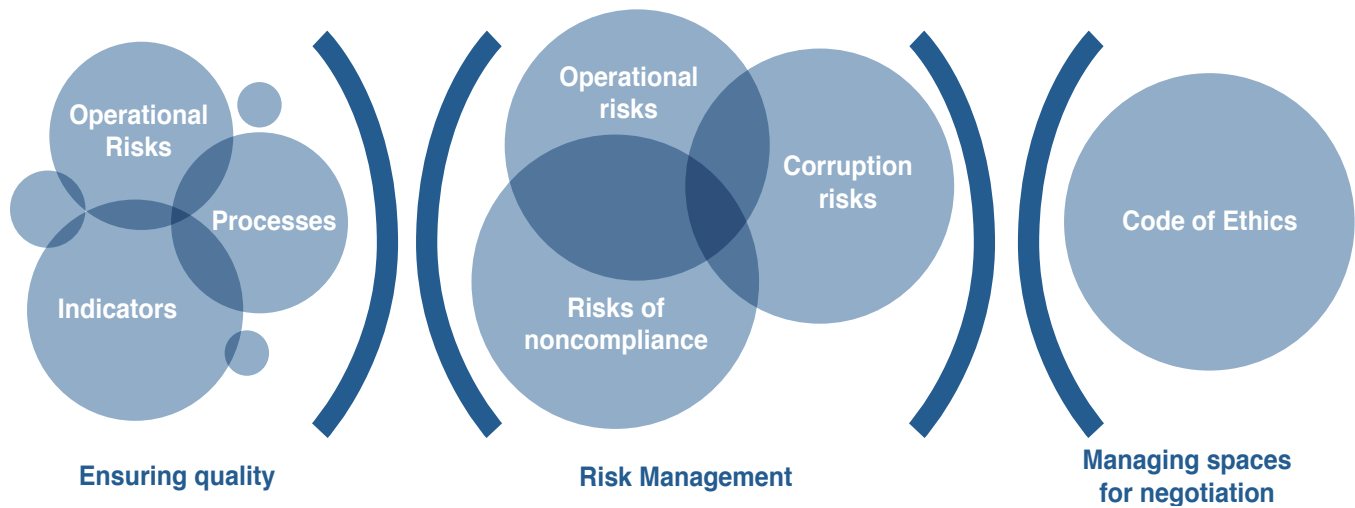
The following stage would then be to combine the internal auditing experts with the noncompliance risk experts in the alignment of anticorruption control and tax control objectives. In this way the taxpayers' noncompliance profile or risk profile of the customs users may become input for the identification and evaluation of corruption risks within each administration to thus harmonize the internal security activities in favor of the mission objectives. This would be with each one in its level of competencies, while maintaining the corresponding Independence level.

This would be by identifying and visualizing those aspects over which the tax administration officials have power and which become an element of "negotiation" with the private interest. That is, those which Ackerman (2001) identifies as sources of bribery or patronage with respect to which it is necessary to limit discretionality. It is important for the administrations to openly discuss ethical dilemmas that may occur in a specific legal, administrative and technical context, and that it may

provide in the code of conduct the corresponding actions indicating how the entity, its officials and third parties should act when faced with these situations.

This level of detail in the codes of ethics and conduct would be part of the actions for dealing with the corruption risk.

Graph No. 3



Source: Prepared by the author

6. CONCLUSIONS

The technical development of auditing and risk management at the international level allows the public administration and within it, the tax and customs authorities to count on tools which, in addition to improving the efficiency and impact of its operations, may identify and secure its processes, procedures and systems, when faced with threats of corruption.

To optimize these tools, it is important that the tax and customs authorities afford risk management the dimension of a system and that such system may become an essential part in the strategic direction processes.

In this line of thought, all the necessary efforts should be undertaken to identify not only the operational but also the corruption risk in all the processes of the administration, by setting the bounds in the internal and external context, in order to adapt the control environment to the financial, juridical, technical and administrative conditions of the entity.

The identification of corruption risks is an essential task in order to adopt the pertinent corrective measures. In this respect, it is important to observe the effectiveness of the entity through the management indicators. However, one must also be aware of the opportunities for corruption found within the context of the entity's environment, given the same organizational conditions that characterize it and the constant threat to which a tax/customs administration is exposed due to the nature of its function.

The internal auditing teams must evaluate the level of organizational exposure to corruption events, in order to determine the probability and impact of a corruption risk, as well as to recommend the assurance actions.

Since the tax authorities are part of public administration, the assurance actions should be

agreed and supported by public management policies at the different institutional levels with their respective authorities such as Information and Communication Technologies-ICT, physical and digital documentary management and the public function, among others.

Given that it is necessary to have mission and expert knowledge of tax and customs affairs, and also the participation of transversal players in public management to identify the corruption risks and determine their treatment, one must be aware that the anti-corruption strategies are an activity requiring the transversal and committed participation of the whole entity, and not only of the internal auditing areas.

Having defined, implemented and evaluated the controls that will mitigate the corruption risks, it is necessary to take into account that there are tax administration and customs activities where the information systems or procedures are not used or brought over. Therefore, controls are less effective. These activities generally involve a discretionality factor that must be considered as a corruption risk and, therefore, requires treatment and monitoring.

To manage corruption risks in activities that afford discretionality to the public official, it is necessary to include ethical management activities in the control environment. These are understood to be not only actions for promoting values and education, but for visualizing the ethical dilemmas faced by the administration in its activity and the agreement with the citizens of the actions to be taken vis-a-vis these possible dilemmas. In the evaluation of the level of transparency of a tax/customs administration, this element should be considered as a measurement factor.

Since the decisions of the taxpayers and users with respect to their obligations also correspond to cultural

and socioeconomic guidelines that require awareness of public ethics and, given that the tax and customs administrations must work for increasing voluntary compliance, risk management based on behavior profiles and the management of corruption risks have a meeting point that would allow for strengthening the treatment, control and assurance measures of the events that would facilitate evasion, avoidance and tax/customs noncompliance, which in turn must be treated as corruption risks.

The administrations that have already documented their processes, measure them and provide treatment to their operational risks and which in addition, apply noncompliance risk management, have already trodden the path of corruption risk management.

Nevertheless, it is necessary to move forward in the integration of these two fronts in order to achieve greater effectiveness of the anti-corruption strategies.

By actively participating in these fronts, internal auditing will actually be complying with that provided by the performance regulations of the International Standards for the Professional Exercise of Internal Auditing (IIA Global, 2017) which states that “the internal auditing activity adds value to the organization and its interested parties when it takes into account strategies, objectives and risks; strives for improvements in government processes, risk management and control of processes and provides relevant assurance in an objective manner”.

7. BIBLIOGRAPHY

Ackerman, R. (2001). *La Corrupción y los gobiernos. Causas, consecuencias y reformas.* Buenos Aires. Siglo Veintiuno de Argentina Editores.

Bautista, O (2005). *La ética y la corrupción en la política y la administración pública.* Available in http://eprints.ucm.es/7816/1/tesis-maestr%C3%ADa_2.pdf

Code of integrity and professional conduct (2015). *Canada Revenue Agency (CRA).* Available in <https://www.canada.ca/content/dam/cra-arc/migration/cra-arc/crrs/wrkg/cdtgrtyprfndct-eng.pdf>

Código de buen gobierno y ética. (2016). *Dirección de Impuestos y Aduanas Nacionales DIAN.* Available in https://www.dian.gov.co/dian/entidad/CodigoBuenGobierno/Codigo_Buen_Gobierno_Etica.pdf

Código de conducta SAT (2016). *Servicio de Administración Tributaria SAT México.* Available in http://omawww.sat.gob.mx/que_sat/Paginas/codigo_conducta.aspx

Código de ética SII (2016). *Servicios de Impuestos Internos Chile.* Available in http://www.sii.cl/sobre_el_sii/codigoetica_sii.pdf

Committee of Sponsoring Organizations of the Treadway (2015). *COSO at 30 Years.* Available in <http://3197d6d14b5f19f2f440-5e13d29c4c016cf96cbbfd197c579b45.r81.cf1.rackcdn.com/collection/programs/sechistorical-041615-transcript.pdf>

Ethic and Conduct Matters: Guidance (2015). *Internal Revenue Service IRS.* Available in https://www.irs.gov/irm/part39/irm_39-001-002


Kaufmann, D. (1998) *Corrupción y reforma institucional: el poder de la evidencia empírica.* Available in http://www.dii.uchile.cl/~revista/ArticulosVol3-N2/06-Kaufmann_s_parr.pdf

Norma Internacional ISO 9001 (2015). *Sistemas de gestión de la calidad: Requisitos.* Bogotá DC: ICONTEC.

Norma Internacional AS/NZ (1995). *Risk Management.* Recuperado en [https://www.saiglobal.com/PDFTemp/Previews/OSH/AS/AS4000/4300/4360-1995\(+A2\).pdf](https://www.saiglobal.com/PDFTemp/Previews/OSH/AS/AS4000/4300/4360-1995(+A2).pdf)

Norma Técnica Colombiana NTC ISO 31000 (2011). *Gestión del riesgo: Principios y directrices.* Bogotá DC: ICONTEC.

The Institute of Internal Auditor (2017). *Normas Internacionales para el Ejercicio Profesional de la Auditoría Interna.* Available in <https://na.theiia.org/translations/PublicDocuments/IPPF-Standards-2017-Spanish.pdf>



MOTIVATING OR DEMOTIVATING WORK FACTORS FOR INTERMEDIATE MANAGERS: **EXPLORATORY RESEARCH** IN A TAX ADMINISTRATION ORGANIZATION

Demetrius M.
Soares

SYNOPSIS

People are the organizations' most important assets. In this sense, this article aims to reveal motivating or demotivating factors in the working environment of middle managers of the RFB. This exploratory study, consisting of a field investigation on those managers, shows that the

administration should pay attention to this issue, since these executives (even professionals with high achievement motivation) are exposed to the same motivating or demotivating factors that affect workers in general.

CONTENT

1. Theoretical framework
2. Method of data collection
3. Analysis of results
4. Conclusions
5. Bibliography

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INTRODUCTION^{1 2}

People are the most important asset of organizations. Although companies invest substantial amounts in physical and technological infrastructure, they will be doomed to failure if they cannot rely on people capable and motivated to carry out their mission and implement their strategy.

This statement applies to both private enterprise and the public sector. If on one hand the reason for the existence of private enterprise is generally the profit, the public sector serves the public interest determined by society. If a public body fails to fulfill its mission or to implement its strategy, it loses legitimacy before the society and therefore its reason to exist.

Regarding the management of human talent, knowledge is not enough to ensure the success and sustainability of the organizations. There is no point to have a qualified and capable workforce if the force of motivation, which must anchor staff skills, is lacking. In this context, the role of the middle management is essential since they serve the important work of facilitating the deployment of the organizational strategy and mobilize the staff towards achieving the corporate goals. “And to motivate others you have to be motivated yourself.” (Urcola, 2011, p. 44)

In that sense, what this exploratory study intends is to reveal the motivating or demotivating factors in the working environment of intermediate managers of the Federal Revenue of Brazil (RFB). The article is based on an investigation by Soares (2017), held at the RFB, submitted to the Institute of Fiscal Studies (IEF) and the National University of Distance Education of Spain (UNED) as part of the requirements for the completion of the Official Master's Degree in Public Finance and Financial and Tax Administration: Specialization in Tax Administration (2016-2017).

The work, which includes a field research centered on those managers, shows that the administration should pay attention to this topic, since these executives (even professionals with high achievement motivation) are exposed to the same motivating or demotivating factors affecting workers in general.

In addition to this introduction, this paper contains several sections. The first presents the theoretical framework considered in the preparation of this article is addressed. The second section focuses on the method used for the data collection. In the third section, the results of the survey distributed to the intermediate management of the RFB are analyzed. The fourth section presents the most important conclusions.

1. THEORETICAL FRAMEWORK

1.1 The concept of motivation

Trechera (2000) argues that, etymologically, the term motivation derives from the Latin *motus*, which means the one that mobilizes the person to perform an activity. The author defines motivation as the psychological process by which the individual sets a target, uses the appropriate resources and maintains a determined conduct oriented to achieving a goal.

In the same vein, Herrera Ramirez, Roa and Herrera (2004) set the definition of motivation as:

“...the process that explains the beginning, direction, intensity and persistence of the behavior directed toward achieving a goal, modulated by the perceptions that subjects have of themselves and the tasks they have to face”. (Herrera et al., 2004, p. 5)

1 RFB - Federal Revenue of Brazil.

2 The middle management to which we refer in this work are in charge of the Work Units, Special Inspection Units and Special Customs Units of the RFB. These managers are responsible for a staff of around 18,700 officers and have the mission of implementing the tax and customs administration goals in the 5,570 Brazilian municipalities.

The abovementioned definitions underly the theoretical perspectives of motivation that are presented here under.

1.2 Motivation theories considered in this article

1.2.1 Taylor's scientific management

Bordas (2001) recalls that the mechanistic era of Taylorism had its initial framework in 1911 with the publication of the book *"The Principles of Scientific Management"*. The author of the work, the American mechanical engineer Frederick Winslow Taylor, proposed the use of methods for managing companies focused on efficiency and operational effectiveness. Regarding the relationship with employees, Taylor believed that his greatest source of motivation was the salary and proposed variable remuneration systems based on bonuses linked to the worker's performance. In this regard, under the vision of Taylorism, it suffices to provide higher salaries to the workers so they consequently would feel motivated and thus would yield a better performance, regardless of environmental and social conditions of their work. (Garcia, 2015)

Garcia (2015) notes that in the nintetene twenties, a change took place in the Taylorist view, which opened to concerns with ergonomics at work and labor welfare. The author notes that from this period the Behavioral Science was developed, through which the study of personality, attitudes and human behavior in the workplace were developed, i.e. it evolved from an individual perspective to a social vision of the worker.

Regarding the remuneration of the worker, Garcia (2015) states that it is:

"A key factor of social integration for people. Accordingly, the compensation system should be able to consistently explain the differences that occur between the wages of workers, so that the remunerations are similar in similar situations and

are differentiated in different cases. " (Flannery, T., Hofrichter, D. and Platten, P., 1996, cited in Garcia, 2015, p. 76)

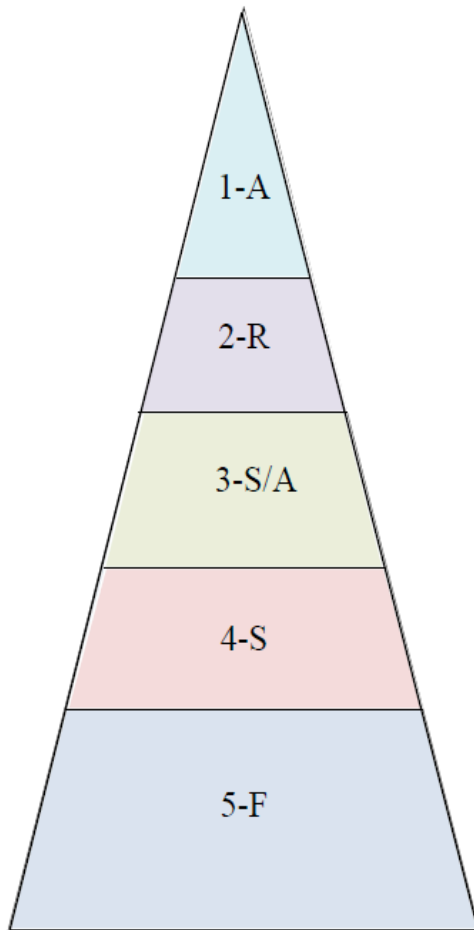
1.2.2 The needs theory of Maslow

Segovia (2012) states that the first theories of work motivation considered meeting the needs of employees as the main explanatory element. The author notes that in that sense, the best known theory is the pyramid of needs of the American psychologist Abraham H. Maslow, who prioritized those needs "from the most basic biological drives, such as the need to eat, to live in a secure environment or relate to others, to the highest goals and the need for recognition and self-realization." (Segovia, 2012, p. 176)

In fact, the article *"A Theory of Human Motivation"* was published in 1943, by which Maslow argued that the human behavior is influenced by a hierarchical chain of needs that are linked to the individual motivation, concept defined by the author as "the process by which an unsatisfied need generates energy and orientation towards a certain goal." (Garcia, 2015, p. 55)

Maslow devised a hierarchy of needs, described as a five levels pyramid, which goes up to the extent that the needs are met. According to Maslow the individual has no interest in meeting the needs of the upper echelon if he or she has not satisfied the needs of the lower echelon. These needs are grouped according to five categories from lowest to highest level, as the issues raised in Figure 1. (García, 2015)

Figure 1: Maslow's Pyramid of Needs



1-A: Self-actualization: self - improvement. full development of personality. Creativity. Solving complex problems. I.e. developing the talent to the fullest.

2-R: Esteem: psychological needs or ego needs. Self-esteem, respect, success, prestige.

3-S/A: Social or belonging needs: group membership in which affection or friendship is given and received...

4-S: Safety needs: protection against threats, prevent damage and risks, stable or permanent employment ...

5-F: Physiological needs: ensure the existence of the individual and species (food, clothing, rest, sleep, breath...0.

Source: Created by author.

Besides the examples of needs identified in Figure 1, Garcia (2015) adds that needs such as salary and other benefits are at the lower level of the Maslow pyramid (physiological needs) . In the second (need for safety) is, for example, the stability at work. In the third (social or affiliation needs), there is a good working environment. In the fourth (need for recognition), a just policy of recognition and promotion. In short, at the top level (need for self-actualization) there is a challenging and demanding work with challenges and objectives to pursue, but always adapted to the personal characteristics of the worker as his/her abilities and expectations (García, 2015).

1.2.3 Adelfer's theory of existence, relationship and growth (erg)

According to the ERG (Existence, Relationship and Growth) theory, there are three basic types of motivations:

- Survival motivations, which correspond to the most basic needs of Maslow's pyramid.
- Relationship or belonging motivations, which constitute the feelings of acceptance by the group, membership, giving and receiving affection.

- Growth motivation, comprising the inner desire for personal development and having a high opinion of oneself.

Garcia (2015) states that a priori it may seem that the theory of Adelfer only sought to regroup or reclassify the needs of the Maslow pyramid. However, the author emphasizes a more relevant difference, the fact that the needs of Adelfers' theory do not follow such a rigid and hierarchical sequencing as in Maslow's theory. For Adelfer, behavior and human behavior move in the direction of meeting from the most specific to the least specific needs. In addition, García (2015) stresses, the ERG theory admits the possibility of the phenomenon of frustration-regression, whereby if the individual fails to satisfy a higher need, he comes back trying to meet a lower-level need.

1.2.4 Needs theory of McClelland

According to McClelland, motivation is "the recurring interest for a state based on a natural incentive, which energizes and select the behavior". (McClelland, 1988, cited in Garcia, 2015, p. 19)

The author classifies motivation according to three motivations or social needs, from the Theory of Personality, of psychologist and professor Henry Murray. According to his approach, where a person has been able to meet his or her basic needs (equivalent to Maslow's physiological and safety needs) their behavior at work becomes dominated by three types of needs (motives) that occur simultaneously until one of them stands out above the others:

- Achievement motive: According to Boyatzis (1982) it is the desire to win, overcoming challenges, achieving goals. The achievement motive is characterized by setting challenging goals and the propensity to take risks and responsibilities.
- Love/belonging motives: the need for individuals to maintain friendly and close interpersonal relationships.

- Power motive: is related to the ability to influence others to achieve the desired results. According to Garcia (2015):

"People with strong need for power enjoy positions requiring leadership competition for leadership, so they prefer places where they can command and lead others, such as managerial positions. Power-motivated people like to be considered important, perform public speaking, be heard and want to gradually gain prestige and status. " (Steele, 1977, cited in García, 2015, p. 64)

1.2.5 Expectation theory of Vroom

According to the Expectancy Theory Vroom (1964), the objectives of individuals are set according to three variables: the expectations of achieving results, value or importance of the results and instrumentality, i.e. the relationship between expectations and value. For the author, the multiplication of these three variables produces a motivating force that leads people to perform certain tasks and avoid others.

The following highlights some important points of the theory of expectations: (García, 2015, pp. 69-70)

- Every human effort is made with the expectation of some success.
- The professional believes that if the expected return is achieved, then certain favorable consequences emerge for him.
- Each professional has a certain idea of the performance level that he is able to achieve in the task.
- The professional expects that those who perform the best works achieve the best rewards (equity).
- The motivational strength of a person in a situation is equivalent to the product between the value that the

person assigns to the reward and the expectation of possible achievement.

In short, Segovia (2012) points out that it is important to identify expectations and interests of employees and to design compensation systems not only based on economics but also corresponding to those expectations and interests, and at the same time collaborating with the organizational objectives.

2. DATA COLLECTION METHOD

The data collection instrument used to carry out this research was *Google form*³, with which a questionnaire was drawn⁴ up⁵, containing 46 closed questions that were provided to 142 middle managers of the RFB (target audience of the research). Considering that 73 managers answered the survey, equivalent to about 51% of the target population, a highly representative sample was obtained.

3. ANALYSIS OF THE RESULTS⁶

3.1 Compensation

In the section of the questionnaire entitled “COMPENSATION” We sought to capture the presence of motivating or demotivating factors specifically related to the economic compensation of managers. In that sense⁷, it was observed that 76.7% of respondents declared themselves extremely or moderately satisfied with the remuneration for their position (Auditor). However, with respect to the bonus (additional

remuneration) paid for the exercise of the executive position, a certain level of dissatisfaction was observed, 51% of respondents saying they are extremely or moderately dissatisfied. In short, with respect to the values of the allowance paid for transfers due to work, it was observed that more than 82% of managers are moderately or extremely dissatisfied.

3.2 Equity

With respect to the section of the questionnaire entitled “EQUITY”, it was observed that, generally, the respondents consider the selection criteria of middle management in RFB as fair or very fair (78%). However, a high level of perceived unfairness (67%) was observed about the compensation for occupying a managerial position in a unit other than the original unit of the executive, including compensation for relocation, remuneration and bonus. This result is consistent with the fact that the majority (75%) of survey respondents have not moved from their hometown to occupy the managerial position. However, paradoxically⁸, it was observed that the majority (63%) of respondents admitted having interest in participating in a selection process for the post of Commissioner or Chief inspector in another unit or acceptance of a hypothetical invitation to take up a senior position in the Superintendency or the Central Administration, when they complete their current term⁹. This is possibly derived from the high achievement motivation characteristic of those managers and this indicates some potential for mobility or rotation of those executives.

In short, an indication of dissatisfaction was also observed with respect to the proportion between goals

3 <https://docs.google.com/forms/d/e/1FAIpQLSej4WlhJiU0vZAumFOvQTqJyRcAJ39rc3F0NDDj4lCfxh3Mw/viewform>

4 The survey questions are ordered according to the motivational factors present in the various models mentioned in the theoretical framework of work.

5 In accordance with the Annex.

6 See Annex.

7 In particular, at the Federal Revenue Secretariat of Brazil (RFB), only Auditors (Censors) are allowed to occupy managerial positions of intermediate level.

8 The RFB is structured in the Brazilian territory through ten superintendences, which are responsible for the 142 decentralized units managed by the middle managers referred to in this work.

9 The terms of the middle managers of RFB reach a maximum of eight consecutive years in one unit.

and resources allocated to the various units, and 26% of managers consider that proportion unfair or very unfair, although 45% consider it fair or very fair.

3.3 Work Infrastructure

With regard to labor infrastructure, it was observed that most managers are comfortable with or very comfortable in the work environment (73%) and consider the technological infrastructure of the unit adequate or very adequate (71%).

3.4 Well-being

With respect to labor welfare, the majority (92%) of respondents said they feel satisfied, very satisfied or extremely satisfied in their work environment. The fact that most managers are satisfied with the work infrastructure contributed to this result. They consider that they have a good level of autonomy, a dynamic or highly dynamic work, and value as highly qualitative or extremely qualitative the relationship they have with their subordinates and immediate superior.

As the stress level, most (63%) of managers showed a reasonable condition with respect to that emotional state, claiming these viewed that in a typical week and not feel stressed at work on any day (16%) or feel in one or two days (47%). However, you should not ignore the 22% who said stressed in most of the week or the whole week.

Most respondents (67%) believes that it is easy, very easy or extremely easy to reconcile work and family or personal life, although one should not forget the 33% who said it is difficult (30%) or very difficult (3%). Whereas only 22% of managers who said they are stressed most of the week or the whole week, the survey revealed that

75% of this subgroup consider difficult or very difficult to reconcile work and family or personal life and 87.5% consider their workload as high or very high, suggesting a possible need for improving the ability to manage time efficiently and effectively.

3.5 Expectations

As for the section of the questionnaire entitled “expectations”, it was observed that, generally, the middle management of the RFB consider realistic or very realistic the expectations of their subordinates (93%) and their immediate superiors (94%) with respect to their performance. In addition, these executives also said they consider realistic or very realistic, generally, their expectations regarding their own performance (93%). Therefore, the existence of conflicts of expectations was not observed in the work of these managers.¹⁰

3.6 Challenges

With regard to the section of the questionnaire entitled “Challenges” it was observed that all managers consider as challenging both the goals set for their unit and their own work. As for the goals set for the unit, 59% of respondents consider the goals very or extremely challenging, while 84% of them see their own work as very or extremely challenging. However, 91% of managers said that the goals set for their unit are always or almost always achieved.

3.7 Tasks characteristics

With regard to the characteristics of their tasks, it was observed that managers mostly consider that they have moderate or high autonomy in their tasks (90%), which is very beneficial for self-fulfilment and professional growth, in addition to requiring a high level of self-

¹⁰ If the opposite result would be observed, this would suggest some instability in interpersonal relationships, incompatibility between the structure or design of the organization and work processes or a quantitative or qualitative work overload, which would entail negative consequences on health and welfare of the managers and consequently their motivational state.

direction and self-control. Most managers also consider their work as dynamic or highly dynamic (93%) and all believe that the outcome of this work is effective or very effective. However, the respondents overwhelmingly believe that, generally, their workload is high or very high (66%) and a significant percentage (59%) feel that sometimes they lack competence (knowledge, skills and attitudes) to perform their work.

3.8 Personal/professional development

With regard to the section of the questionnaire entitled “PERSONAL/ PROFESSIONAL DEVELOPMENT”, it was observed that the majority of the RFB middle managers (83%) consider that their competencies (knowledge, skills and attitudes) have been implemented with great or extreme effectiveness, besides considering the position they occupy has been very or extremely useful for their personal (83%) and professional (86%) development. Ultimately, most of these managers (78%) feel very or extremely accomplished.

3.9 Recognition

As for the section of the questionnaire entitled “Recognition”, it was observed that, generally (90%), the managers consider as positively valued the image of the organization to society and widely consider that the position they hold is valued by their subordinates (75%). They managers have the perception that their contributions are recognized almost always or always by their subordinates (64%) and also by their immediate superiors (74%). Although these percentages favor the motivational state of those executives, we should not ignore the high percentage of managers who believe that only sometimes their contributions are recognized by their subordinates (32%) or their immediate superior (22%). In this regard, it was observed that a high percentage of managers also consider that only sometimes they receive feedback from their subordinates (47%)

and from their immediate superior (49%), suggesting a possible relationship between the perception of recognition and the feedback received by managers.

3.10 Interpersonal relationship

With regard to the section of the questionnaire entitled “INTERPERSONAL RELATIONSHIP”, it was observed that the middle managers of RFB value as very or extremely qualitative their relationships with subordinates (84%) and with the immediate superior (80%), which contributes to the labor wellbeing of those officers and consequently to their good motivation.

3.11 Feedback

As for the section of the questionnaire entitled “Feedback”, it was observed that most managers believe that they only sometimes receive feedback from their subordinates (47%) and their immediate superior (49%), while 17% consider that they rarely or never receive feedback from their subordinates and 18% felt that rarely or never receive feedback from their immediate superiors. This result possibly derives from the fact that public administrations are usually characterized by a pyramidal and prioritized communication even if the internal communication channels should be bidirectional (Pedruel and Piper, 2017). However, taking into account the feedback is a factor that favors managing expectations (Alcover, 2012) and the working environment (Rufas and Piper, 2017) in organizations, special attention is needed on this important instrument of management.

3.12 Other organizational aspects

With regard to the section of the questionnaire entitled “OTHER ORGANIZATIONAL ISSUES”, it was observed that almost all (99%) of respondents to the survey considered their work in line with the strategic

objectives of the organization and all are committed to organizational goals . Regarding work security, another aspect that influences the work motivation, managers feel overwhelmingly (78%) very confident or extremely confident in the position they occupy. This result is possibly related to the fact that these managers consider the expectations of their immediate superiors (regarding performance) realistic, keep with them relationships of high quality and, usually, the units under their direction reach their goals .

With respect to the feeling of satisfaction and honor, 87% of respondents consider themselves very proud or extremely proud to occupy the intermediate level management position in the organization; this contribute favorably to the good motivational state of those executives.

With respect to the feeling of satisfaction and honor, 87% of respondents were told very proud and extremely proud to occupy the intermediate level management position in the organization, contributing favorably to good motivational state of those executives.

On the other hand, although 62% never or almost never consider requesting to leave the managerial position, the fact that 27% consider it sometimes and 10% almost always consider it deserve attention.

4. CONCLUSIONS¹¹

From this paper's analysis, and from theoretical framework considered, we can draw the following conclusions:

- There are several motivating or demotivating factors present in work activities in general, according to the theoretical models being considered. Financial compensation, attention to the needs, opportunities for development and perception of organizational justice, for example, are factors that influence the staff motivation. Managers, who usually are professionals with high achievement motivation, are also exposed to these factors.
- In particular, it was observed that middle managers of the Federal Revenue of Brazil (RFB) are reasonably satisfied with the compensation they receive, they feel the selection of managers is fair, they are satisfied with the work infrastructure and interpersonal relationships, feel satisfied at work, consider very challenging the targets set for their units and like their own work, think that they have considerable autonomy and that their work is dynamic and efficient, believe that their position and their contributions are reasonably recognized by their subordinates and their immediate superiors, feel safe or stable in their position and proud to occupy it. All these factors, according to the investigation framework, contribute to a positive motivation of these managers.
- However, according to the above findings, some harmful factors to good motivational state of those executives also emerged from the research. For example, a certain perception of inequity in the allocation of targets and allocation of resources between units, overload of work, some difficulty in reconciling work with personal and family life, sense of lack of competence to carry out activities in some cases, a certain weakness in the practice of feedback between managers and subordinates and also between managers and their immediate superiors.

In short, this exploratory research has revealed a reasonable presence of the motivating factors in the work environment of the RFB middle managers, but also showed demotivating factors which deserve the attention of the administration, since such managers have the important work to facilitate the deployment of the organizational strategy and mobilize the staff towards achieving the corporate goals.

¹¹ The findings of this study do not necessarily reflect the opinion of the Federal Revenue of Brazil (RFB) on the subject.

5. BIBLIOGRAPHY

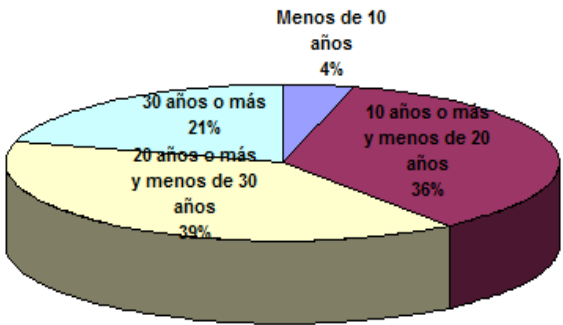
- Alcover de la Hera, C. M. (2012).** La estructuración del trabajo. Organización material, temporal y social, en Alcover de la Hera, C. M., León, J. A. M., Segovia, A. O. y Cantisano, G. T. *Psicología del trabajo*. Madrid: UNED, pp. 36-86.
- Bordas Martínez, J. (2001).** Evaluación y seguimiento del clima laboral en empresas industriales, en Martínez Quintana, V. (Coord.) y Lucas Marín, A. (Coord.). *La construcción de las organizaciones: la cultura de la empresa*. Madrid: UNED. pp. 303-335.
- Boyatzis, R. (1982).** *The competent manager: A model for effective performance*. New York: John Wiley & Sons.
- García, R. V. (2015).** *Motivación y Competencias en la Evaluación de Directivos: Propuesta de un Modelo* (Tesis Doctoral). Universidad Pontificia Comillas, Madrid, España.
- Herrera, F., Ramírez, M. I., Roa, J. M. y Herrera, I. (2004).** Tratamiento de las creencias motivacionales en contextos educativos pluriculturales. *Revista Iberoamericana de Educación, Sección de Investigación*, 37(2). España. Recuperado de <http://www.rieoei.org/investigacion/625Herrera.PDF>
- Rufas, M. y Gaitero, F. (2017).** *La Dirección de la Administración: El Talento Humano, el Directivo Público y las Políticas de Gestión de Calidad*. Madrid: Universidad Nacional de Educación a Distancia – UNED, Madrid, España.
- Segovia, A. O. (2012).** Como motivar en el ámbito del trabajo, en Alcover de la Hera, C. M., León, J. A. M., Segovia, A. O. y Cantisano, G. T. *Psicología del trabajo*. Madrid: UNED, pp. 174-204.
- Soares, D. M. (2017).** *Factores motivadores o desmotivadores del trabajo de los directivos de nivel intermedio de la Secretaría de Ingresos Federales del Brasil* (Trabajo de Fin de Máster). Universidad Nacional de Educación a Distancia – UNED, Madrid, España.
- Trechera, J. L. (2000).** *Introducción a la Psicología del Trabajo* (2ª Edición). Bilbao: Desclee de Brouwer.
- Urcola, J. L. (2011).** *La motivación empieza en uno mismo: Aspectos básicos para motivar a los demás y motivarse a sí mismo* (3ª Edición). Madrid: ESIC Editorial.
- Vroom, V. H. (1964).** *Work and motivation*. New York: Wiley.

ANNEX

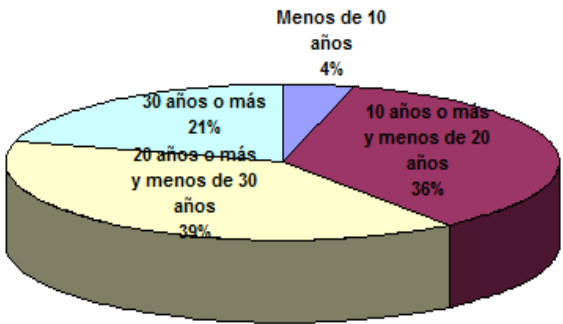
CONSOLIDATION OF RESPONSES PROVIDED BY 73 INTERMEDIATE MANAGERS OF RFB ON THE MOTIVATING OR DEMOTIVATING FACTORS OF THEIR WORKPLACE

PRELIMINARY QUESTIONS

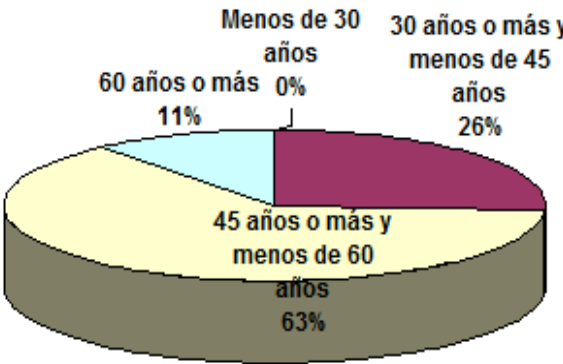
1. How long ago have you been working in the public service? (Including federal, state or municipal level)



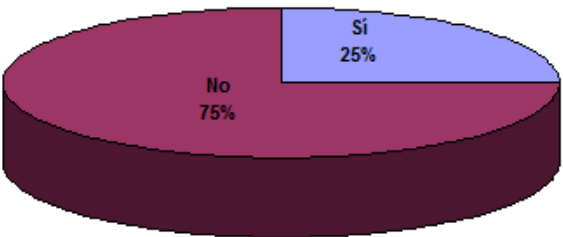
2. For how long have you been holding the current position of Commissioner or Chief inspector?



3. How old are you?

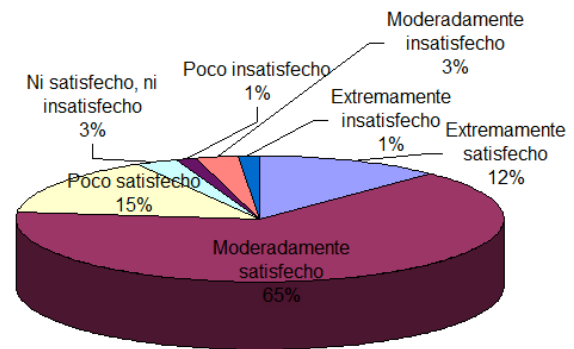


4. To hold the current position of Commissioner or Chief inspector, did you have to move from your hometown?

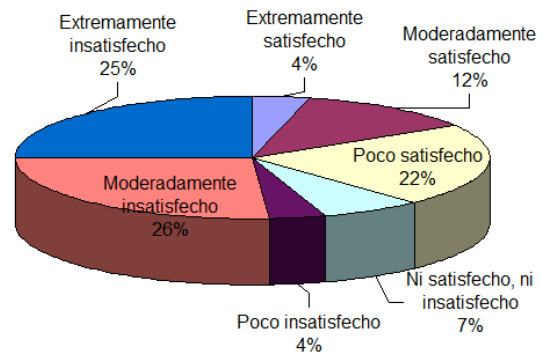


REMUNERATION

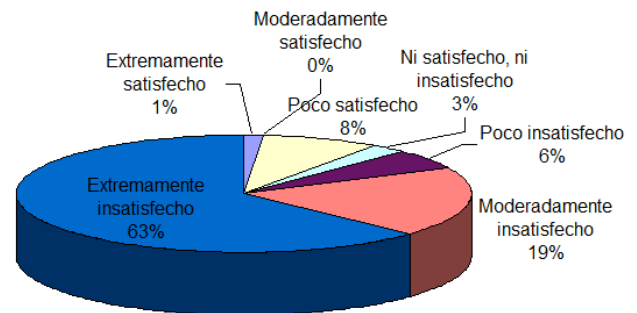
5. Regarding the position, how satisfied or dissatisfied are you with your remuneration?



6. Regarding the position of Commissioner or Chief inspector, how satisfied or dissatisfied are you with the bonus (additional remuneration) paid for the exercise of the position esto (FCPE/DAS)?

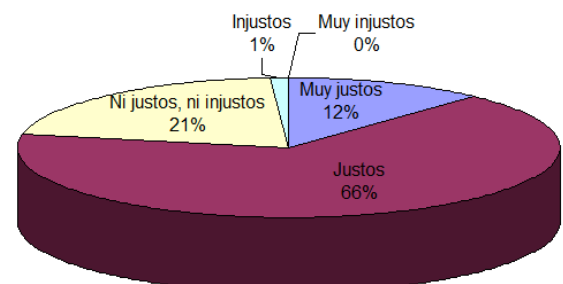


7. How satisfied or dissatisfied you regarding the value of the bonus paid for your work transfers?

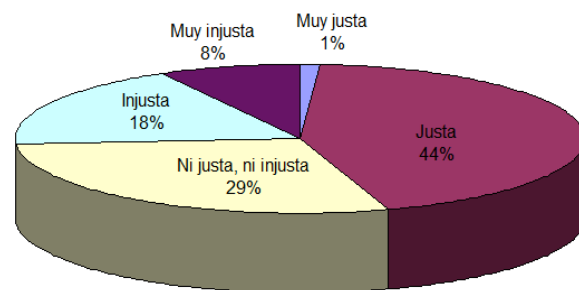


EQUITY

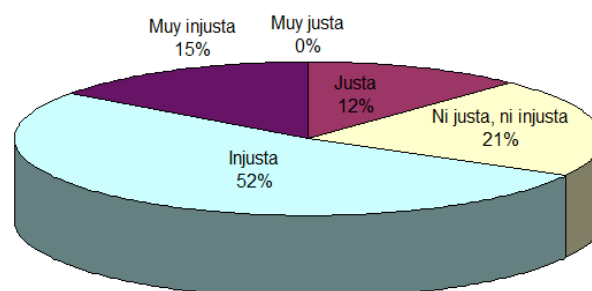
8. How do you consider the selection criteria for Commissioners and Chief Inspectors



9. In general, do you consider the goals/resources relation of your unit, comparing it to that of the other units in your tax area:

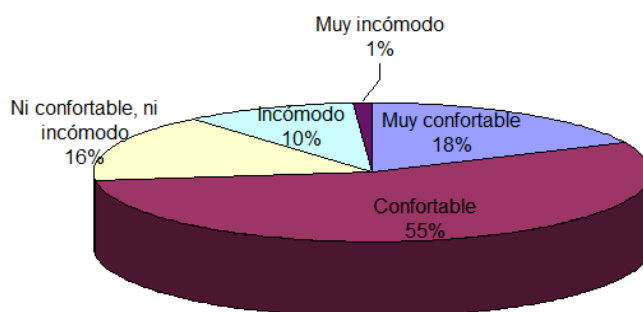


10. How do you usually consider the compensation to hold a managerial position in a unit other than the source unit of the executive:

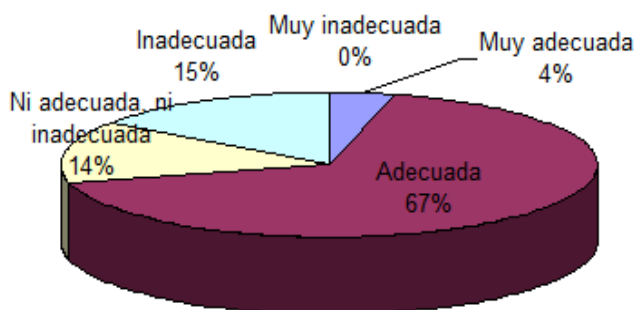


WORK INFRASTRUCTURE

11. How comfortable or uncomfortable do you consider your work environment?

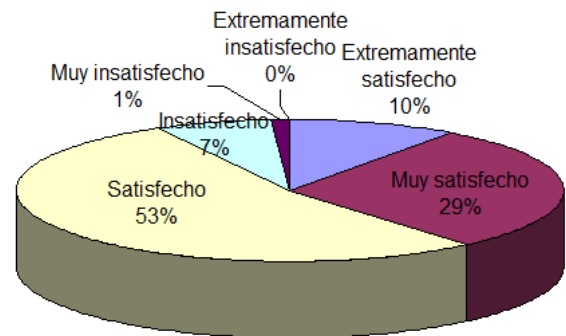


12. How adequate or inadequate do you consider the technological infrastructure (hardware, network performance, etc.) of your unit?

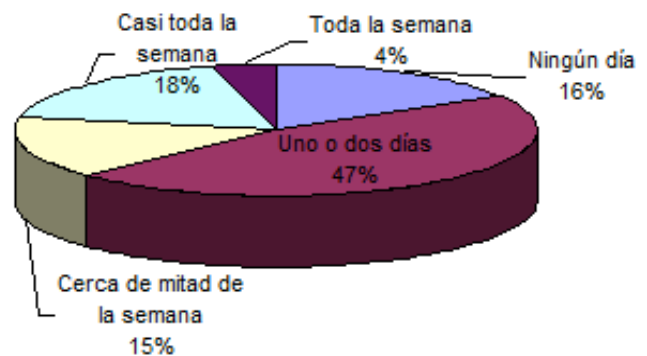


WELL-BEING

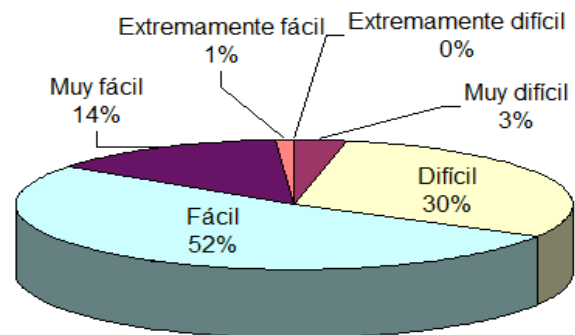
13. Generally, how satisfied or dissatisfied do you feel in your work environment?



14. In a typical week, how often do you feel stressed at work?

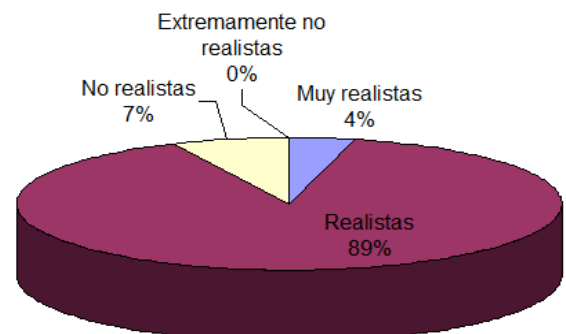


15. How difficult is it for you to reconcile your work with your family / personal life?

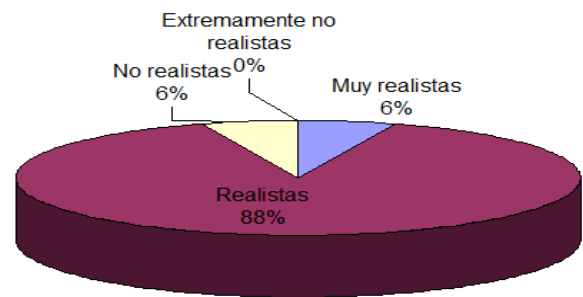


EXPECTATIONS

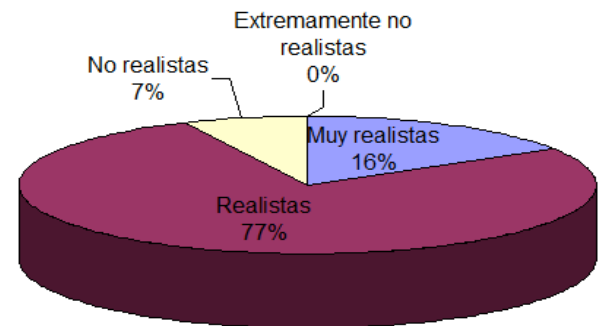
16. Usually, how realistic or unrealistic do you consider your subordinates' expectations regarding your performance?



17. Usually, how realistic or unrealistic do you consider the expectations of your immediate superior regarding your performance?

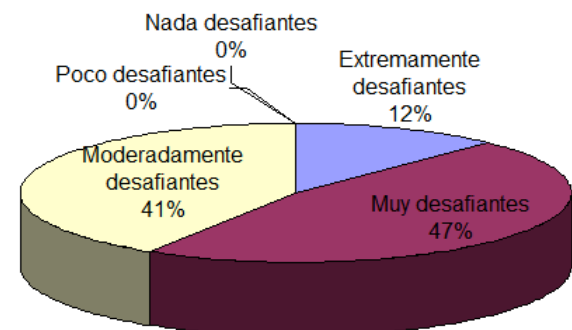


18. Usually, how realistic or unrealistic do you consider your own expectations regarding your performance?

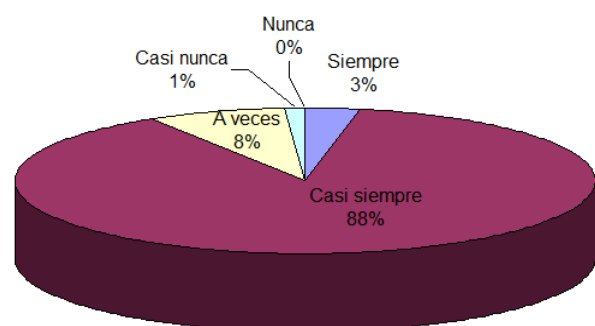


CHALLENGES

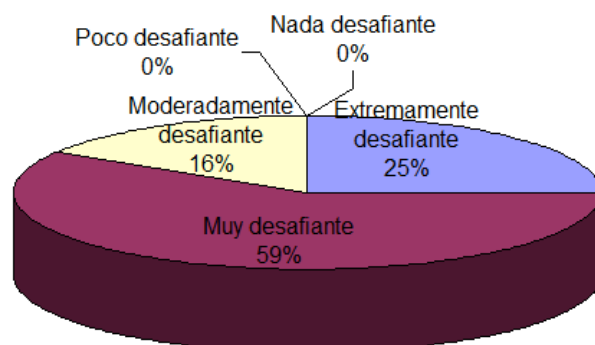
19. Usually, how challenging do you consider the goals set for your unit?



20. Usually, how often are achieved the goals set for your unit?



21. Usually, how challenging do you consider your work?

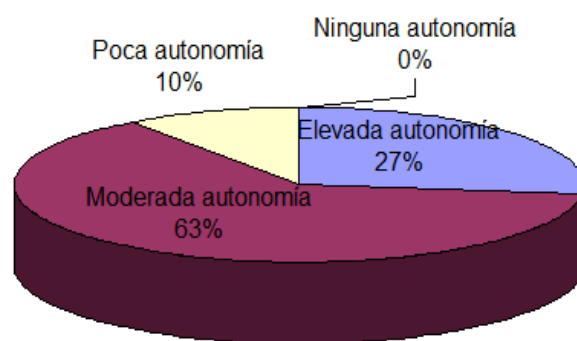


22. In your opinion, how effective was your latest management project submitted for the extension of your term in the post of Commissioner or Chief Inspector (section II, Paragraph 2, Art. 6 of RFB Order No. 1987, August 6, 2012)?

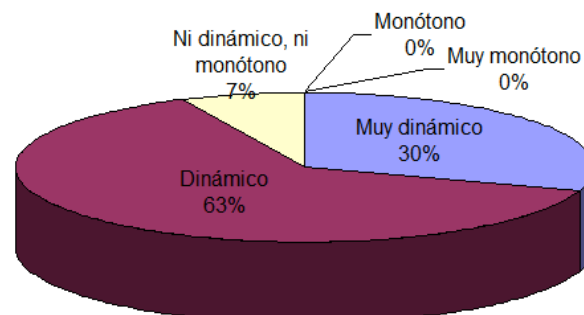


CHARACTERÍSTICAS OF THE TASKS

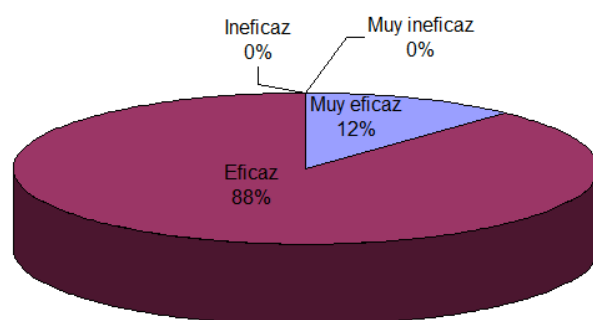
23. In general, what level of autonomy do you have to complete your tasks?



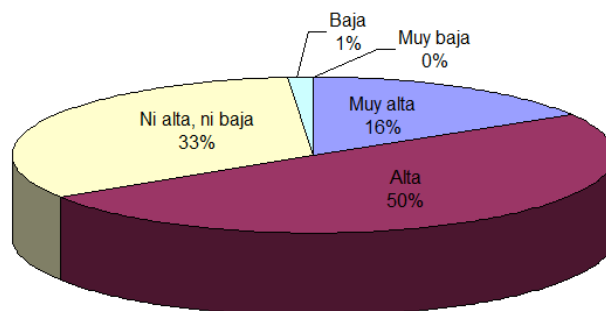
24. How do you usually consider your work?



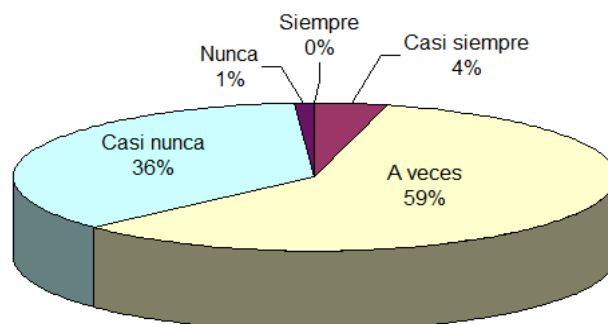
25. How do you usually consider the result of your work?



26. How do you usually consider your workload?

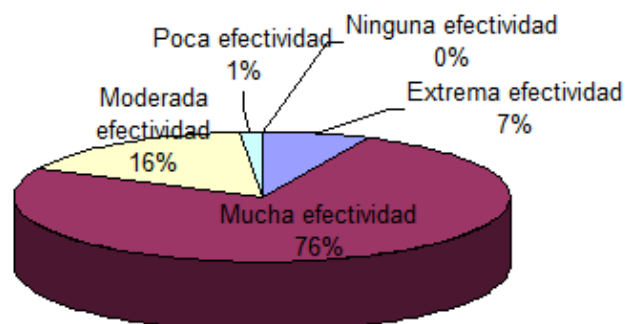


27. How often do you feel that you may lack some competences (knowledge, skills and attitudes) to perform your duties?

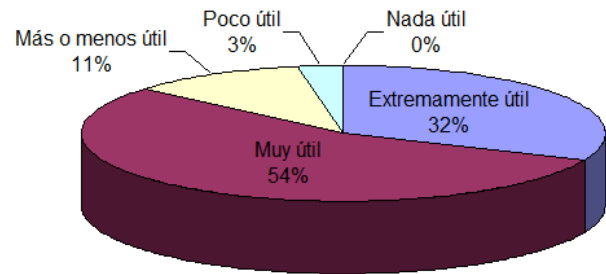


PERSONAL/PROFESSIONAL DEVELOPMENT

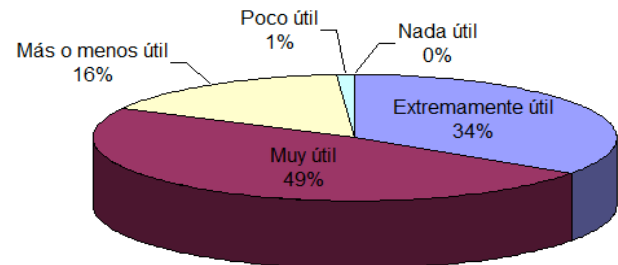
28. Consider your competences (knowledge, skills and attitudes) taking into account the position you occupy. How effectively have they been put into use?



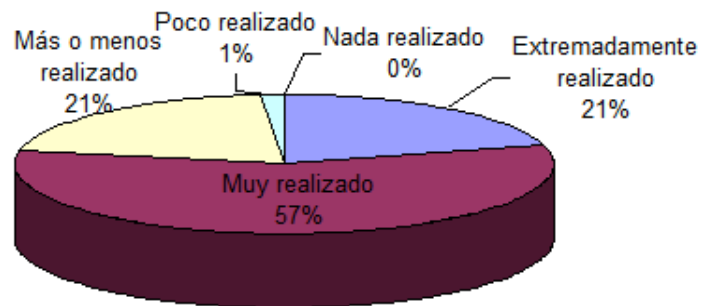
29. How useful, in your opinion, has been the position that you occupy for your professional development?



30. How useful, in your opinion, has been the position that you occupy for your personal development?

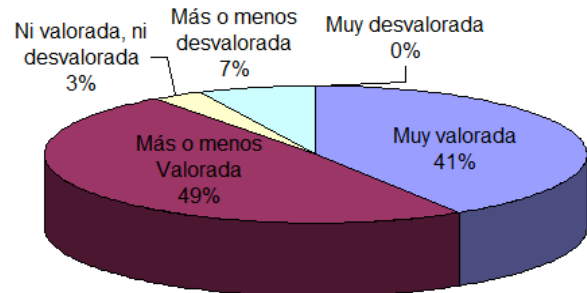


31. With respect to your work, how do you feel?

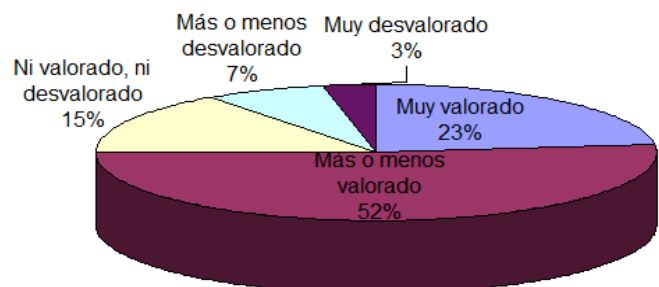


RECOGNITION

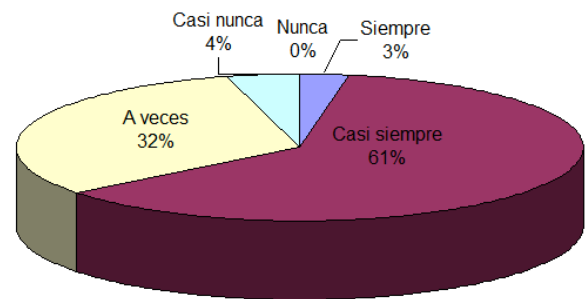
32. Usually, how much in your opinion is the image of RFB valued before the society in general?



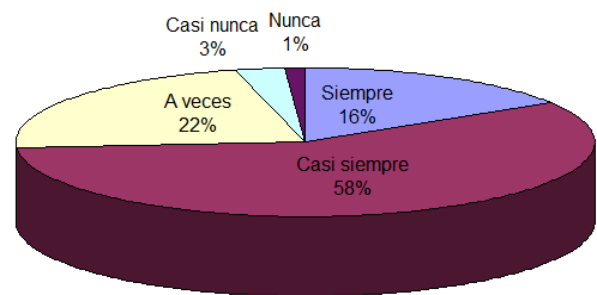
33. Usually, how much in your opinion is the managing position that you occupy valued and appreciated by your subordinates?



34. How often do you feel that your contributions are recognized by your subordinates?

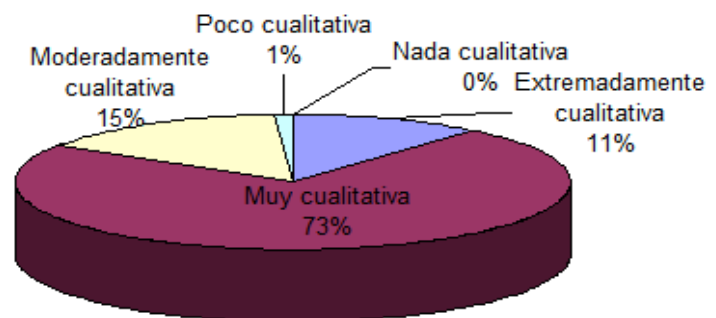


35. How often do you feel that your contributions are recognized by your immediate superior?

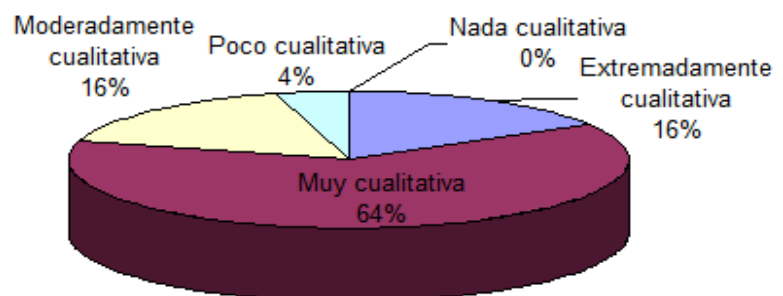


INTERPERSONAL RELATIONS

36. How qualitative do you consider your relationship with your subordinates?

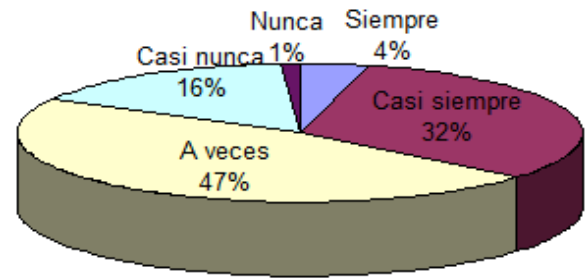


37. How qualitative do you consider your relationship with your immediate superior?

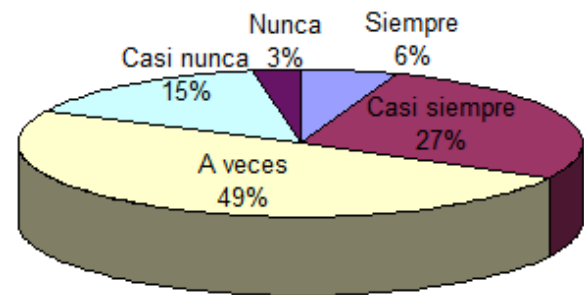


FEEDBACK

38. How often do you receive feedback from subordinates?

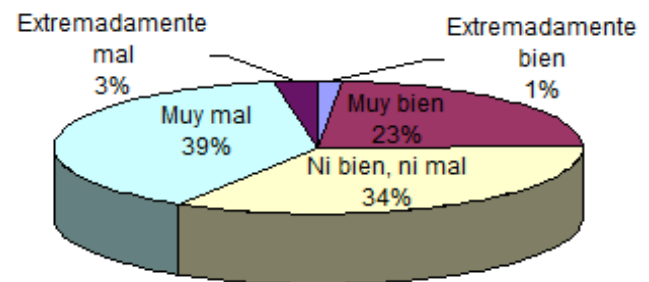


39. How often do you receive feedback from your immediate superior?

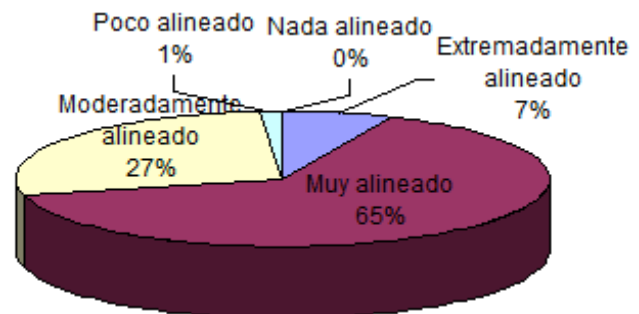


OTHER ORGANIZATIONAL ASPECTS

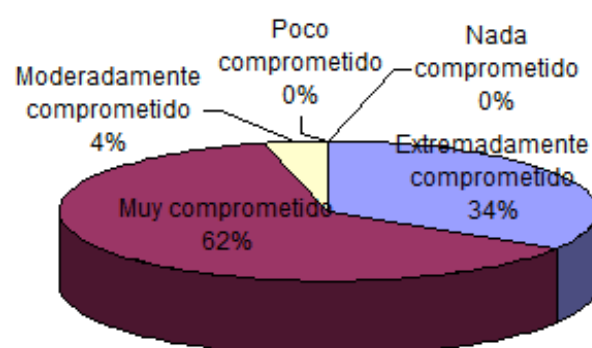
40. Generally, how you consider that the RFB communicate the organizational strategy?



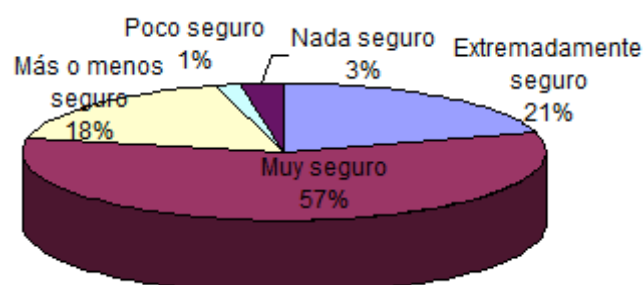
41. How aligned do you consider your work with the strategic objectives of the RFB?



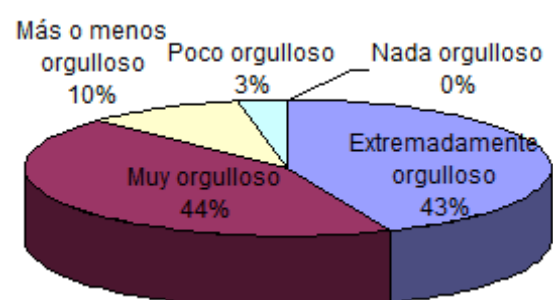
42. How much do you feel committed to the organizational goals?



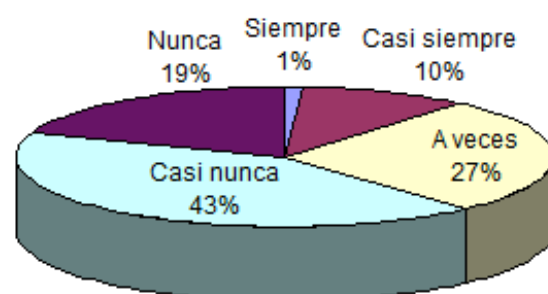
43. How safe (in the sense of stable) do you feel in the function of Commissioner or chief inspector?



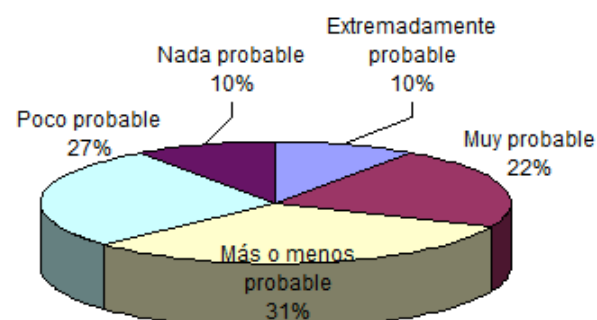
44. How proud do you feel, of assuming the charge of Commissioner or Chief-Inspector at the RFB?



45. How often do you consider leaving the post of Commissioner or Chief-Inspector?



46. What is the likelihood that you take part in a selection process for the post of Commissioner or Chief inspector in another unit or accept a hypothetical invitation for a management position (taking into account your experience) in the Superintendence or the Central Administration, at the end of your current mandate?





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