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# Tax
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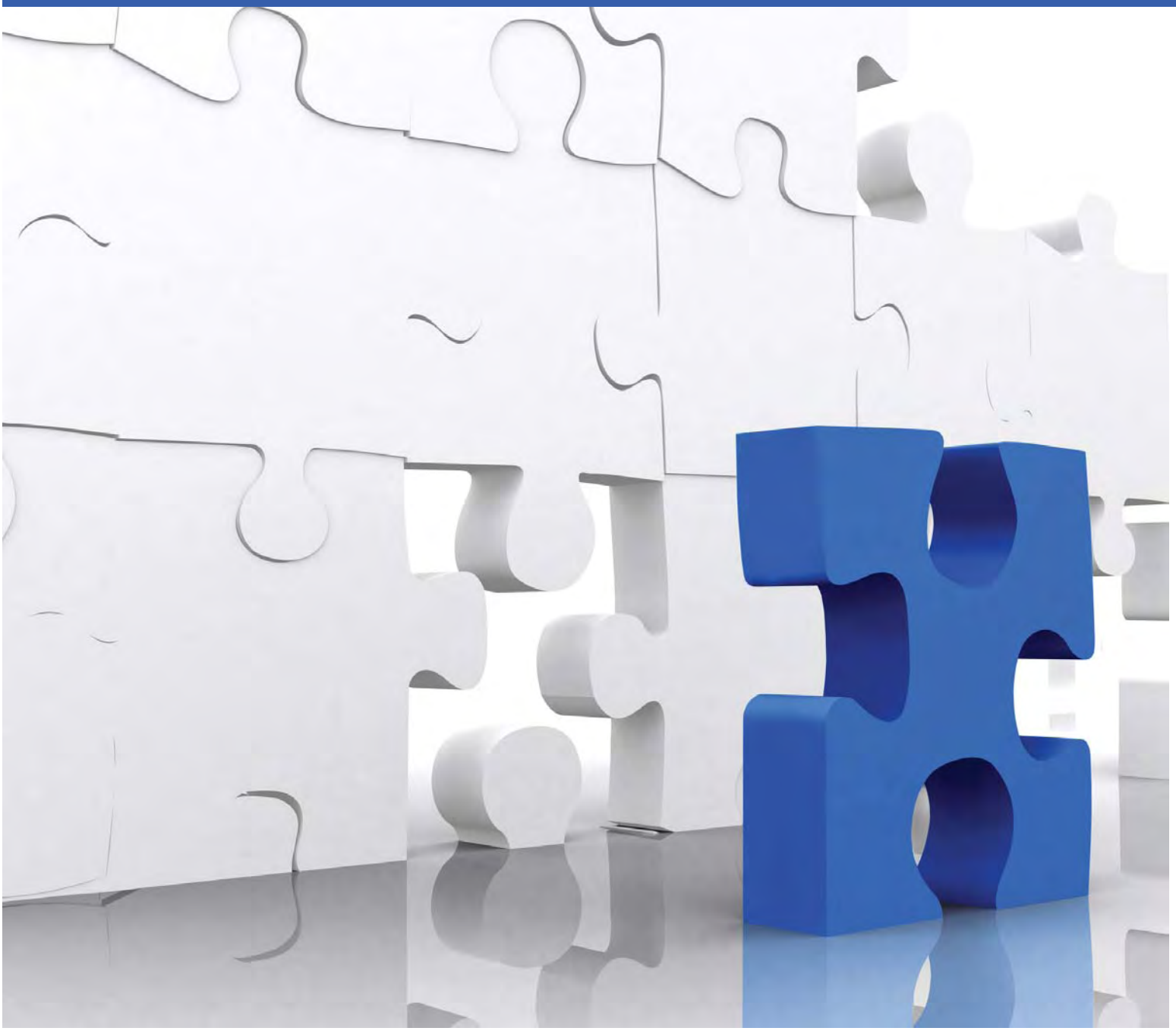

# CIAT/AEAT/IEF
# Tax Administration Review

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The Technical Cooperation Agreement signed by CIAT and the State Secretariat of Finance and Budgets, the State Agency of Tax Administration (AEAT) and the Institute of Fiscal Studies (IEF) of Spain, provided for the commitment of editing a review that would serve to disseminate the different tax approaches in force in Latin America and Europe.

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

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

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# CIAT/AEAT/IEF
# Tax Administration Review

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# Presentation

The Tax administrations world is in transformation. Every day, there are new opportunities and challenges as a result of the globalization and major technological changes.

These technological changes positively affect the administrations, enabling them to improve compliance and have a better control on taxpayers

Large databases allow to have prefilled returns before taxpayers submit them. In some cases, these drafts are delivered to taxpayers so they can review them and submit the final versions. In other cases, governments use them for monitoring and control processes.

The possility to obtain information in real time is another essential development. It is known that the sooner data are registered and the administration has access to them, the more effective the control will be. Access to the financial information system, electronic invoicing and tax printers are some of the instruments that have been most successful.

These opportunities came along also with challenges. One of these complex challenges for tax administrations, due to their public nature, is to keep a technological edge, so that the digital divide will not be exploited to evade or avoid taxes. Another challenge is the international cooperation, so taxpayers with operations (real or virtual) in different countries do not take advantage of the differences between countries, undermining the tax bases.

This issue of the Tax Administration Review shows the diversity of the tasks that all the CIAT member countries are carrying out. This time we have classified the articles in sections; Taxpayer Service, Methodologies, International Taxation, Legal Framework. We hope, in future editions, to include sections on Tax Policy, Strategy and Institutional Development. This edition of the Review includes articles on the use of information technology to improve the taxpayer assistance and the evaluation of services provided

by customs authorities; the development of methodologies for the monitoring and institutional decision making; the state of the debate regarding double taxation and exchange of information; the necessary conditions to have specialized international taxation units; and the regional legal framework on environmental taxation.

I invite readers to send their comments on the articles, which we will send to the authors to promote a dialogue among all.

**Márcio Ferreira Verdi**
Director

# USING ICTS FOR TAXPAYER ASSISTANCE

**Raúl Zambrano**



## SUMMARY

This article analyzes the use of technology for taxpayers' assistance and for facilitating compliance. It begins with an overview of platforms evolution and incorporation of technological developments; it includes issues related to service personalization, adaptation to mobile devices, security requirements and presence in social networks.


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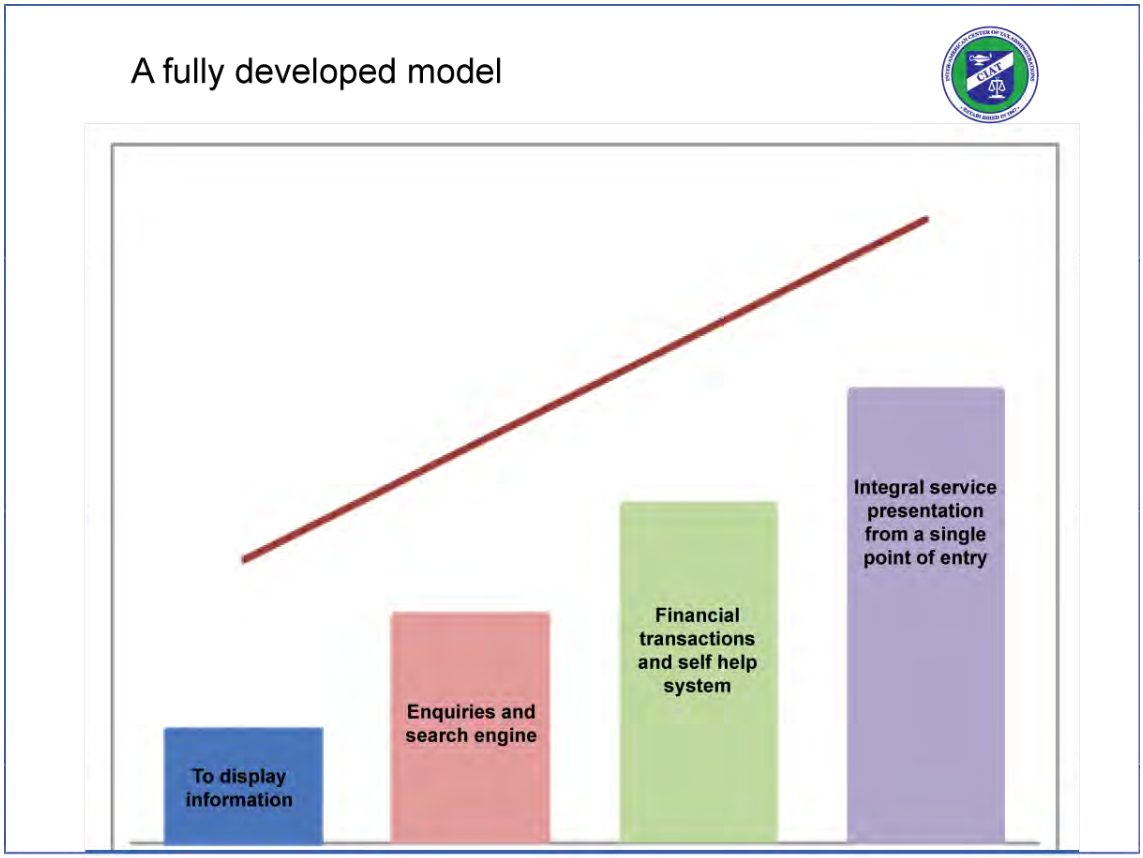
## Content



The Tax Administration mission requires using Information and Communications Technologies. Their use is essential for control processes, where information crossings and risk management through computerized systems are key elements for detecting tax-avoidance behaviors. Information technologies also have a very important role in services for facilitating compliance and assistance to the taxpayer.

This article is about using ITC for facilitating compliance and for the taxpayer assistance processes, particularly in relation to some recent developments performed by tax administrations of CIAT member countries, which do not analyze topics directly related to control; however some of the compliance facilitation services, purposely or not, are subject to increase the administration control capacity, by obtaining information that may be crossed or by detecting non-compliance, or increasing the quality of processes and the reliability of information, which improves the overall quality of the system.

**Graphic 1**



## 1. EVOLUTION OF ELECTRONIC ASSISTANCE SERVICES

Tax administrations have developed services which are supported by technology, resulting in a permanent information quality improvement process.

These Tax Administrations services have evolved from static internet sites with information presented to the taxpayers through links in menu options. The information contents were initially similar to printed boards, pamphlets and printed instructions distributed to taxpayers when they visited the TA's offices and to the officers who worked on the assistance sites.

For example, the SII, in Chile, between 1995 and 1996, showed on their website static information about their administration as well as guides and requirements for the most frequent procedures.

In Brazil, as in other administrations, in 1995 they started to provide information from the Ministry of Finances' website. In 1996, the Federal Revenue released its first internet site.

Later, tax administrations started to add search engines, automatic updates for documents with general information and to deliver offline services, complemented with file transfer options.

Generally at this stage, they added mechanisms to publish the regulation in force, general consultation results, and the taxpayers' obligations by specific profile according to their economic activities. The search facilities provided information through key words, or through document search.

Several administrations created offline applications allowing taxpayers to file their tax returns and generate computer files which could substitute, or in some case, complement the tax return submitted on paper, to ensure that the printed return would include the taxpayer's signature or the representative's signature. In Spain, the Tax Agency in 1997 developed a mechanism in which the printed return included a bi-dimensional bar code in format PDF417 with all the return data.

Tax administrations had available various delivery modes for the files: the submission of returns in floppy disks was very common, with their delivery at the Administration offices, as well as to the tax collecting banks. For example, the AFIP in Argentina established in 1998 that taxpayers who chose to declare through the system "Osiris" would submit their returns in 3.5 diskettes identified with name, trade name and CUIT along with the copy of the return. The receiving bank had the obligation to read and validate the information to confirm that it was the same as the printed one. If the processes used were different from the expected ones, the operation was rejected. The AFIP used information submitted on diskettes since 1994 and for IVA statements since 1997.

In Brazil, in March, 1997, the Federal Revenue started to receive income tax returns by Internet. The returns were pre-filled together with an application distributed for free to taxpayers as well as files with the returns data.

An important processing progress was made by using pre-filled returns through software modules, for the taxpayers' benefits.

Avoiding the manual filling of returns reduces errors: First, it ensures that the correct form is used for every fiscal period, avoiding the use of previous years' forms, resulting in incorrect data. Second, the taxpayer identification and the period of the data significantly improved in quality. Third, pre-filling the returns improved the quality by avoiding errors from taxpayers when filling the fields, such as arithmetic errors in calculations. By being more precise in the determination of taxes, taxpayers improved compliance and avoided sanctions and problems for replacing the returns.

The applications allowed massive taxpayers assistance. Some solutions were reproduced by pre-filling returns on paper, others preferred to develop a guide for taxpayers to help them provide specific information through sequences of specific questions and answers. These could include questions such as: Do you have dependent children, or did you have medical expenses? In order to determine the corresponding deductible amounts; or other questions such as: Do you have income from real estate rentals? , or do you have other income by the independent practice of your profession? This allowed obtaining the values for the corresponding fields. Even the submitted applications similar to the paper versions usually discarded calculated fields and also ensured that pre-filled information data was excluded.

Electronic services and solutions continued to be developed, making possible to complete transactions directly on the administration web site. These transactions were for services that could include processing an individual income tax return, refund processes, request for good standing certificate, and requests for authorization to print invoices or to pay taxes from tax credits.

The new strategy focused on self-service on tax administrations websites. Some tax administrations, under the concept of virtual tax office, have developed a set of internet based services, on which the taxpayer could start, and in many cases, complete their tax administration procedures.

Currently, the highest development level, on which this article will focus, is based on integrated services on different platforms, in which it is possible to identify three important elements:

- A multiplatform support to develop procedures, these options are provided through self-service internet sites, for developing applications for mobile platforms, as well as direct assistance by officials through call centers.

- One single entry and management point for different procedures, along with a common interface. The solutions are moving towards a single entry point even for Inter-institutional affairs.

- Compatibility between the systems and applications from different administration departments, able to exchange information for better services and substantially increase control capacities.

**The main transformations**

Among the electronic services for taxpayers, some transformations must be highlighted.

- **From a static to a dynamic content**

  The electronic services content used today by tax administrations is very different from the first static sites versions, which offered information such as posters, illustrated bulletins, leaflets and informative procedures guides. These were replaced by wider and updated information, with search criteria, segmented by type of taxpayer. Once the user or taxpayer was validated, the systems allowed submitting returns and documents, and next to access documents and account statements.

  But in fact, these dynamic elements go even further: they present the most relevant information based on their own conditions, on the specific time, the geographic location, the device from which it is being connected, and the required access conditions.

  Some examples of these elements are described below:

- **From presentation to interaction**

  Taxpayers' assistance and information mechanisms have also evolved from the presentation of information to progressive interactive sessions. In addition to the possibility for the user to select different options presented on screen menus, the

services and applications can complete complex processes. These interactions can go from a screen presentation, to interaction with tax administration officers using several simultaneous channels. For example, the simultaneous use of Web applications and phone assistance services.

In addition, this interaction includes personalized services such as choosing a communication language, particularly important in multilingual countries, or for communication with a finance officer assigned to the taxpayer, or with specialists on specific subjects, as for example in customs, the tariff classification of heavy equipment.

- **Transactions complexity**

  Another transformation of services is the increased complexity of transactions and procedures. The first transactions made by taxpayers on a self-service platform were simple transactions, such as submitting an original return with calculations validated by the software but without validating the information by the administration. Currently, the procedures supported by self-service platforms are more complex and in many cases they do not only include the submission of substitute returns but also administrative appeals, online processing of payment agreements, the cession of credits, the "factoring" of outstanding electronic invoices, the request of refunds and of course the status of those consultation processes.

  Administrations are continuously implementing self-services through electronic platforms. None of the transactions should be too complex for these channels, or they should at least be started and monitored through them.

- **Implicity of interfaces**

  By contrast, interfaces tend to be more simple and intuitive. The applications incorporate elements from other sectors which decreases the time needed by users to learn how to operate them. Some of those tools are relatively simple, such as completing data fields with potential values, taxpayer numbers and email addresses, and some are more sophisticated as the incorporation of predictive criteria to the interface operation about what the taxpayer probably wants to do.

  Simple interfaces combined with potential complex services allow a growing population segment to use the self-service system. This will increase the direct and effective communication between the administration and taxpayers, and create other challenges for the tax administration. These challenges include the need for immediate answers and the standardization of services in all agencies with the same quality level, and an uninterrupted 24/7 service that taxpayers expect to use.

  For instance, tax administration service allows submission of returns via internet out of the traditional working hours, from the comfort of home or office. Taxpayers may expect that this option of remote self-services available out of working days and hours could be extended to all tax procedures, transactions and services.

- **Service Agreements**

  The extension of electronic internet services allows users to access a permanent service in a minimum time. However, the service evaluation standards are shared with those provided by traditional channels.

  Services agreements are often established and published. Sometimes, these agreements are implicit, when the Administration commits to comply with standards; in other occasions, as in the case of the Internal Income Service, these agreements are signed between the Ombudsman and the head of the administrative unit: for example: the commissioner for wages and investments, the commissioner for large

companies, the commissioner for exempted organizations and public entities. These agreements, their deadlines, the minimum services guaranteed in certain cases are published on the Administration websites.

- **Handling and scaling the issues**

  When giving electronic support to a growing group of taxpayers, there are doubts, difficulties, and problems, which are identified and expressed by users, and they require an appropriate answer in a short time.

  The greater amount of services, the increasing platform access devices and the users' different electronic proficiency levels or skills when using the Tax Administration platform, create complex questions, which require the implementation of an assistance service additional to the self service, such as a help desk with graduated assistance levels and capacity to answer technical and operational problems as well as substantial tax related issues.

  The recommendation from ITIL libraries on the assistance platforms of internal and external services seems to be the alternative chosen by several tax administrations in the short and medium term.

- **Security Aspects**

  One of the most sensitive elements for implementing and using electronic means to facilitate the interactions between taxpayers and tax administrations is related to security aspects.

  On one hand, the user identification is very important. ID requirements are variable, depending on taxpayers. For example, for independent professionals or employees the authentication with user name or keyword can be the best option if it also allows them to access services from different location and through different channels.

  On the other hand, more complex users, who keep accounting books and are assisted by hired or independent accountants, auditors or advisers, have different authentication requirements. For example, in a company, the access related to employees' wages withholdings can be performed by individuals different from those who submit the tax returns on profits or request tax refunds. In these cases, the solutions adopted by the TAs may vary: some have chosen to assign a user name for legal entities, giving the possibility for the management to change the keywords in case of staff changes. In some administrations, especially for large taxpayers, provisional keys are provided, which must be used together with a user name. In other cases, the administrations do not assign users to legal entities but they rather establish relations with individuals who have access to the system by using their own user name, and this way they are able to access on behalf of the legal entity prior authorization.

  Some administrations are already incorporating digital certificates supported by a national structure with public and private keys for users' authentication. This mechanism increases the reliability of the authentication, introducing some factors that must be considered, such as the possibility to connect from anywhere, using different devices which reduce the certificate's costs.

  The other aspect related to security, which worries the administrations as well as taxpayers is the effective storage of the taxpayers' information; this means that third parties should not have access to their information or should not take advantage of system security deficiencies, or should protected from non-authorized access by Administration employees that could potentially disclose confidential information.

## 2. ACCESS TO INFORMATION

One of the main solutions for services and assistance to taxpayer is related to access by the taxpayer to the information held by the tax administration. In this respect, the following elements are essential:

**Personalization**

When accessing information and assistance services, the systems are personalized according to the taxpayers' specific conditions. Obviously, the information, from the taxpayers' registry includes their specific data regarding their identification, domicile, establishments, economic activity, type of companies and the taxpayer's obligations.

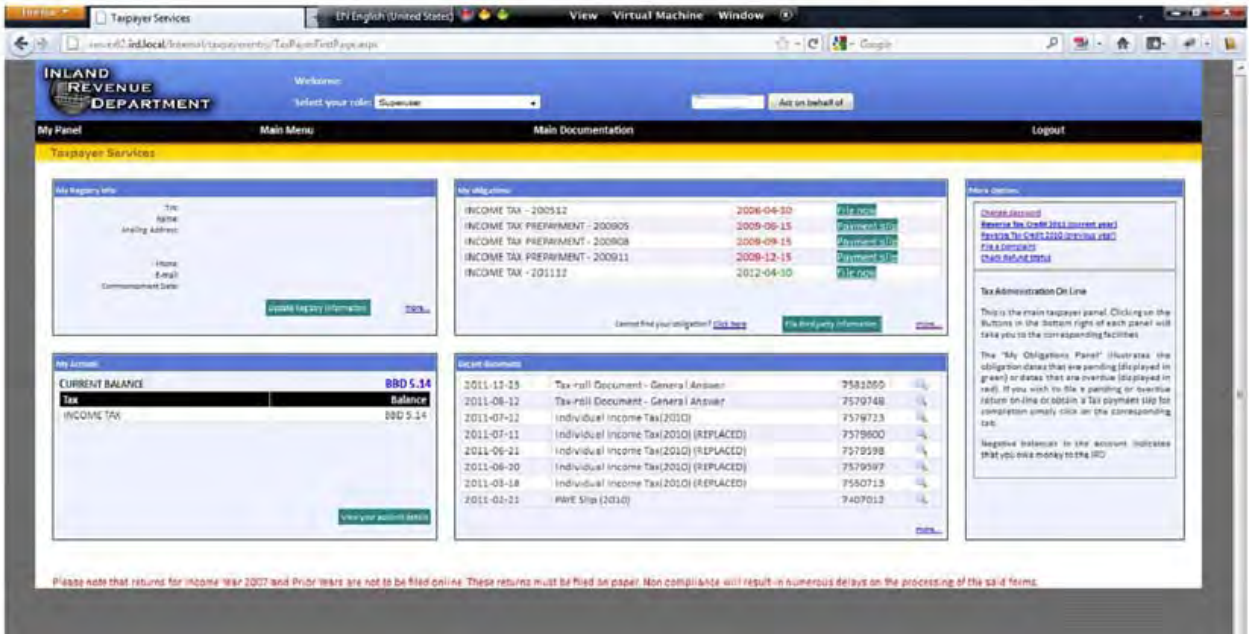
The personalization level does not only depend on the information content but on the behavior, upon available options, and preferences previously established by taxpayers.

When entering the application the taxpayers may have different options. For example, they can see on the main screen different options allowing them to fulfill their obligations, to request certain benefits or to provide additional information, within processes when applicable. The taxpayers' compliance will depend on their specific obligations. The benefits will also depend on taxpayer's special conditions, such as maintaining an income level below a threshold, or an age limit, or the registration in some other public institution.

Smart Computer applications will try "to guess" what the taxpayer probably wants to do: sometimes, when the deadline for submitting the annual return is approaching, the system will offer the submission of the return as a first option, but if the access takes place after the submission was done, the system offers to make a corresponding electronic payment, or to replace the submitted return. However, if the taxpayer is requesting, for example a tax refund, the system's main panel will offer access for consulting the case in process, or for performing some action when applicable.

Personalization levels are not only based on the taxpayer criteria or on the time when they access the system, but they also can be adapted to the access point. On one hand, for example, the size of the screen available in the user access can be significantly smaller in smart phones or in devices for people with special requirements due to disabilities; on the other hand, the location of the person through an IP address or the geo-referencing sources can be available by GPS or provided by Internet service providers, for example, to change the consultation options available for those who access from outside the national territory or even, to identify the nearest authorized bank agency for making a payment.

**Graphic 2**



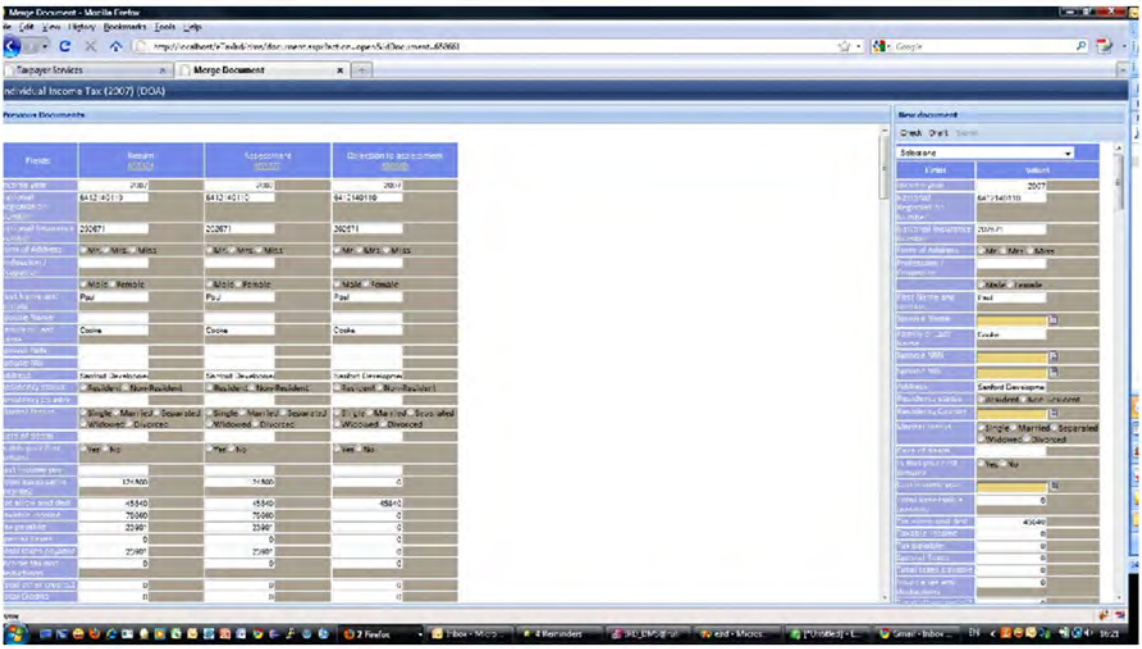

The image shows the screen that the taxpayer will see when accessing for the first time. His data are personalized but the obligation panel and the dynamic menu option (upper left corner) offer the options most probably corresponding to what the taxpayer wants to do.

Additionally, the personalization level is complemented with preferences showed by the user. These preferences are for example, the language that a taxpayer will see when accessing the services, this is important for countries that have more than one official language, and very useful for residents, real estate owners and investors who do not speak the local language. The choices can also change the color combination, for example debit or credit balance of an account, to help people with color blindness.

The most important personalization level relates to the draft of the tax return, or pre-filled returns.

Several administrations, including some CIAT member countries, provide taxpayers with pre-filled information from third parties. Usually these fields include the income wage and withholding, financial revenues and their withholdings, income tax withheld by tax government institutions, and access to some tax credits or exemptions through specific registries.

**Graphic 3**



The image on the left shows a mechanism when the taxpayer having submitted an administrative appeal can see his return, the corrected values and the official transaction prepared by the administration; on the right, the reasons for the claim are explained.

In general, this return can be modified by the taxpayer when he does not agree with the information, because he rejects some income entry, or because of insufficient information. The taxpayer also can have mechanisms to consult the information sources that allow prefilling the fields of those returns. For many taxpayers, the operation is simplified so they just need to confirm the prefilled return, especially those that only have one source of income. For the others, the system clearly establishes the minimum knowledge that the tax administration has and on which it will determine the operation values when they do not correspond with the obtained information.

**Opportunity**

The opportunity to report certain information can be essential for taking actions or providing an answer. Delaying the transfer of information may turn it into irrelevant. The balance of the current accounts that can be consulted must include as much as possible the effects of the completed transactions. The account balance must be determined as soon as a taxpayer makes the payment at a tax agency or collecting bank or when this bank payment is made online.

However, in terms of access information opportunities there are various alerts that administrations can send to taxpayers. Several channels can be used, including a record book for situations and, instantaneous messages, information systems of electronic mail to accounts outside the administration and messages that can be sent off line. A method frequently used is the SMS through cellular phone platform.

The advantages for using SMS networks are clear: great availability, thanks to the deep penetration of the cellular phones network, even outside urban zones, availability of roaming services to cover areas in which a certain supplier does not have support, particularly outside the territory, and there is no need of a data connection for sending and receiving messages.

An example of the importance of this type of messages in several countries is their popularity in case of reports regarding debit and credit cards alerts and for reporting the possible credit cards abuses or cloning.

Today, tax and customs administrations offer several of these services. Some of the most interesting ones are for example SMS messages from the AFIP in Argentina which are sent to indicate when a current account has been blocked due to an outstanding debt, when a payment term is about to expire, or has expired and when a payment has not arrived, or when a container, within a customs operation has been selected for an inspection.

## 3. SELF SERVICE FOR MORE COMPLEX SERVICES

Administrations work daily to provide self-service with electronic services support for more complex services. Today, for example, in some tax administrations it is allowed to submit online administrative appeals against the liquidations performed by the administration. This process allows identifying concepts with which the taxpayer does not totally or partially agree, including the reasons for the appeal. In fact, this would allow the administration to use the information in all the fields of the taxpayer's return.

Other services that can be electronically requested and that in the past required the taxpayer's physical presence, includes the VAT refund request for imports or the requests for different tax credits when legally applicable.

### Orientation Services

The systems and services complexity goes beyond the complexity of the taxation process. They include orientation services which determine the electronic presence of the taxpayer, in order to combine assistance channels for a more specific and better assistance.

Some administrations offer conversation or "chat" services so taxpayer assistance officers may answer questions from a taxpayer when the system detects that a taxpayer is not finding the option he is looking for.

South Africa is an excellent example of this concept. When taxpayers are filing their online return, they can use a service called "Help you e-file". Once they start it, there is an audio communication between an administration official and the taxpayer. At the same time, the official can see on the computer screen what the taxpayer is doing. Some information fields considered to be confidential are not displayed on the official's screen. This way, the taxpayers receive a special and personalized assistance. Based on the information provided by the SARS, the design of the service responded to a survey that showed why some taxpayers did not use the online services for submitting their returns. The general conclusion was that many taxpayers had doubts on the information, due to their importance and implications on the tax determination; therefore they preferred to be assisted by a SARS official trained for such purpose.

### Information standardization through different channels

Accesses to information from corporations and government entities by computer users are characterized by a diversity of technological devices for accessing such information. For example, a frequent airline traveler expects to find the main information on his accumulated miles by using any devices from anywhere and that the information is consistent independently of the access platform. If for any reason, that frequent

flyer must communicate with the customer service center; he hopes that the information which appears on the screen is the same as the one previously consulted. Those users expect that the agents on telephone will have more information. They will not accept contradictory information from what was previously indicated.
The same analogy can be considered for accountholders or cardholders, who expect to find online the details of their credit card balance regardless if they use online banking or a mobile device. Not always users accept to use the banking telephone service for determining if a transaction was fraudulent or not. If they doubt that their card has been cloned, they prefer to go personally to a bank agency. Certainly, the user of the service expects for the bank to have more information on the case.

The users of these services will evaluate online services by comparing them with others and sooner or later, they will request all of them to have the same quality level. Therefore, taxpayers hope that the information from the tax administration that will always be consistent, regardless the channel. They also expect the customer service official to know more than them on the subject.

This reality requires tax administrations to provide a higher level of service. On one hand, regarding internet access, taxpayers expect to be able to use their usual devices and have the same access and network conditions. They also hope that they can use their regular browser to access tax applications and therefore it would be unacceptable that the application requires a specific browser, or that the browser requires a specific operating system. Similarly, access to the systems through browsers with very low screen resolution can make impossible the use of software, particularly when there are some interactive elements with minimum size that exceed the space available on a mobile device.
In practice, the users expect solutions or applications specifically designed for these mobile devices on which the information can be accessed completely with an interface specially designed for smaller screens. It may not be possible that internal or external devices which develop and build these applications are the same, which makes more difficult to maintain all the available applications.

The South African Administration is a good example when applying this type of solutions through multi-channel mechanisms, with their mobile devices applications based on IOS and Android which use an interface adapted for small devices allowing individual taxpayers to submit their income tax return through an Internet browser, which has several pre-filled fields. One of the service advertisements, which can be seen on YouTube, illustrates how taxpayers can submit their returns from their mobile telephone while sitting on the beach.

At the same time, when making these services accessible from any point and from various devices, lifting the restrictions on the configuration of the equipment and software challenges the security regarding the authentication of users and the encrypted communication. For example, the use of some coding mechanisms that requires a minimal version of a virtual java machine would disqualify several navigators and devices. The use of a specific authentication technology or coding related to a navigator or an operating system, such as Internet Explorer or a version of Windows, would leave without option the users Linux or OSX. The use of physical means for identification of users through digital certificate based on a PKI platform or other means of biometrics reading and recognition would work with certain devices, and could even limit the use of equipment on which there is no administration permissions.

Another topic that we wish to analyze here is the need for all taxpayer assistance mechanisms, such as face to face or online, to access all the available information from the taxpayer and this also challenges the Tax Administration, not only for self-service applications but also regarding the strategy of access to information by officials in charge of these tasks. Even though it seems

counter-intuitive, the administrations, at least the largest ones, try to limit that access to a minimum. This way, an administration official cannot access a taxpayer data unless specifically upon request. This makes the systems handle applications for permissions at a non-functional level, so it does not only need to have permission to access tax obligations, but also restrict the access to the taxpayer data managed by the official assigned by the system, so any other official cannot access the same information or information assigned to other officials.

A correct implementation of this requirement should establish a case allocation procedure in two phases, in which at least the first phase, the regarding the taxpayer identification, would be self-managed, and the other phase would assign to an assistance agent access to other individual elements of information.

**Advanced information requests**

One of the first benefits of the taxpayer assistance service was providing information. In many cases, these were based on the publication of frequent questions, rules and doctrines. The search mechanisms were mainly focused on the navigation structure and through the search of document titles.

Later, the search mechanisms improved with the integration of search engines that index a site to look for the content of documents.

Currently, more powerful search engines are needed, due to the increasing amount of information available. The search for a couple of terms can suggest hundreds of links on a tax administration website.

Definitely, the metadata search and key words are also helpful. This way the request for information can specify a certain period or a certain type of legislation. But it is increasingly interesting to offer taxpayers and citizens more powerful search engines. A search for documents which are part of a specific doctrine and refer to certain article of a certain law; search for documents in a specific tax or non-tax law that however establishes conditions to obtain a certain benefit; prioritizing the suggestions depending on who makes the search,, for example, a taxpayer subject to a specific tax obligation may see the results of a search related to that tax law better than the taxpayer not having that obligation; the searches made by a certain taxpayer could may be stored for the taxpayer to access and refine them later.

**Simplicity of interfaces**

Finally, a current characteristic imposed by the technological progresses is the simplicity. For today computers' users, a clean and clear interface and operation based on "pointing and clicking" is not sufficiently easy anymore. Today the computer users do not only expect the applications to be very easy but in addition they expect them to be frequently updated.

Today's system users not only expect to find easy-to-use applications in the various devices but they also require frequent updates for these applications.

## 4. ADMINISTRATION, TAXPAYERS AND SOCIAL NETWORKS

The type of relation between the administration and taxpayers regarding the taxpayer assistance establishes and in some cases limits the type of assistance. Today, among internet users, the participation in social networks is generalized, although not yet universal.

Based on the tax administrations' efforts regarding social networks, for now we can conclude that there is no consensus on how the administrations should deal with the social networks, or even if is convenient to do so.

However, based on personal observation we can foresee that twitter seems to be the platform with the largest consensus.

Several administrations have an official account. This account is used in some cases as an official newscast on some general questions. For example, the DIAN in Colombia uses the twitter account to send reminders on tax deadlines. But other administrations, like for example the SAT in Guatemala, also use their account to respond some precise and simple user questions and even to receive complaints about the services. In other cases, the tax administrators, as it happens for example in the DGI of Panama, are active in that network, to invite to tax compliance and occasionally holding public dialogues with certain taxpayers and opinion leaders.

In my opinion, the use of Twitter will increase because this is a direct communication between the administration and the media, mainly those reporting on tax and economic subjects. Communication for granting extensions, the publication of a regulation, of a change in a procedure, the closing of an agency or the opening of another, calls to press conferences, and messages to the taxpayers who have chosen to become followers can be very effective.

The use of other social networks is less generalized and can be directed to certain population segments. You tube and twitters are mainly used for consolidation of tax culture campaigns.

An OECD report on the use of social networks by tax authorities at the end of 2011 indicates that 16 of 26 administrations had some experience in the inclusion of social networks to their activities, but fewer reported the existence of a strategy for this development: these were Australia, Denmark, the United States, Mexico, Portugal and Singapore.

Among the analyzed OECD countries in the October 2011 study, 13 used Twitter, 6 used Facebook and 13 used YouTube.


Tax Administration Superintendence of Guatemala. Some Tweets are informative; others are answering questions asked by taxpayers. The conversation can be followed using a Twitter account

## 5. CONCLUSIONS

The assistance activities aimed at facilitating taxpayer compliance are and will be much related to the information technologies. Some of these systems call for an extension of the self-service capabilities, with increasingly complex performance options, but with simple interfaces. The taxpayers, individuals, technology consumers, expect to access certain services by computer, tablet, and smart phone and certainly they expect their actions, their keys, and their data to be synchronized in the different media.

Taxpayers, businesses and corporations, also demand more complete and complex services. More important than the ubiquity of all services on all platforms, the highest demands in these sectors are related to security, granularity in assigning profiles and immediacy in the interactive processes. Free applications that facilitate compliance by small taxpayers and strong mechanisms for interconnection and interoperability from system to system for large taxpayers are required.

The time for draft or pre-filled returns and standardized reporting mechanisms for accounting books and balances sheets have arrived and new changes are coming in a near future.

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# EVALUATING TRADE FACILITATION ACTIONS – THE APEC EXPERIENCE

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## SUMMARY

The purpose of the present study is to investigate the Asian Pacific Economic Cooperation (APEC) Trade Facilitation Action Plan II (TFAP II), launched to lower trade costs by 5% among the region economies, for the period 2007-2010. In order to check the claimed results for the TFAP II, the study uses previous literature on trade facilitation and surveys conducted by multilateral organizations to look for evidence that supports the reported outcome, list the main trade facilitation actions adopted, and discuss the key performance strategy index used, and the methodologies available to measure trade costs. The conclusion pointed out the success of the TFAP II and the importance of trade facilitation measures, such as Time Release Study, an Authorized Economic Operator, and Single Window programs as core trade facilitation measures.


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**Content**



The reduction in international trade costs is believed to be an important issue related to trade facilitation measures, economic development, and international trade growth. Hummels (2007) maintained that international trade growth is positively linked to the reduction in international transportation costs. Mankiw (2010) claimed that international trade is a development booster. According to Hummels, Ishi and Yi (2001), trade growth happened with an increasing vertical specialization among countries, with the result that a higher number of export and import transactions were made for every final product. Markusen and Venables (as cited by Pomfret & Sourdin 2010) affirmed that countries with higher trade costs obliterated the specialization potential gains and the development that it brings.

Over the last half century, the world has experienced a dramatic decline in tariff and non-tariff barriers to international trade. According to Sourdin and Pomfret (2012), trade liberalization, when associated with transport cost reductions due to containerization, better airplanes, and logistics, has resulted in a remarkable expansion of international trade. However, international trade is still more costly than domestic trade.

Acknowledging the economic relevance of lowering international trade costs among countries, since 2001 the Asia-Pacific Economic Cooperation (APEC), has launched two trade facilitation action plans, TFAP I and TFAP II, focused on reducing by 5% of the overall APEC[1] members international transactions costs, each. Both plans were successful, as described in Trade Facilitation through Customs Procedures: Assessment of APEC'S Progress (2011). The latter program, TFAP II, creates a list of so-called trade facilitation actions, to be implemented by APEC members; the actions and measures were divided in four sub-areas:

- TRS – Time Release Survey of goods;
- Implementation of standards based on WCO SAFE and APEC Framework;
- Simplification and Harmonization of Customs Procedures based on the revised Kyoto Convention; and
- Automation of trade procedures.

The TFAP II plan uses eight performance indicators as tools for action progress measurement. The key performance indicators (KPIs) are utilized to measure the progress of respective trade facilitation actions. However, APEC (2011) reported a limitation of the nominated KPIs to capture and measure the real impact on lowering costs, from the trade facilitation actions deployed by the region economies.

1. *APE Actual members are Australia, Brunei Darussalam, Canada, Chile, People's Republic of China, Hong Kong China, Indonesia, Japan, Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, The Philippines, Russia, Singapore, Chinese Taipei, Thailand, The United States and Viet Nam.*

This paper studies, together with their respective KPIs, the TFAP II prescribed actions related to the four customs simplification procedures areas, aiming to support the reported trade costs reduction allegation based on qualitative research over trade facilitation literature, finding evidence about a possible connection between the results captured by the KPIs, the trade facilitation actions linked to the four TFAP II sub areas, and the costs reduction reported. The purpose of the study is the collection of evidence to identify and support those trade facilitation actions through simplification of Customs procedures that truly reduced the region trade costs as reported and expected.

## 1. OUTLINE OF THIS RESEARCH

In the first section, this research paper begins by comparing the several definitions of trade facilitation given by international organizations with those used by researchers. The second section will examine the trade costs definition, its theory and method of measure them. The third section will focus on describing of the APEC's key perform indicators. The final section will evaluate the trade facilitation actions associated with the eight KPIs created for assessing the TFAP II. In evaluating the actions related to simplification and harmonization of customs procedures, the research will look for evidence that supports the cause-effect relationship of trade facilitation actions and the lower trade costs achievement reported in the TFAP II.

## 2. COMPARING SEVERAL DEFINITIONS OF TRADE FACILITATION

Trade facilitation has several definitions given by international organizations and academic researchers. There is no one single definition, as the term can be used to describe a wide variety of actions, it can also aims at different focus. For Grainger (2011), trade facilitation is highly focused on the operational aspects of international trade, differing from the traditional trade tariff approach that for long characterized the international trade debate. Trade facilitation tends to be concerned with the trade costs and its deleterious consequences on trade. The first step was comparing the several definitions of trade facilitation given by international organizations such as World Customs organization (WCO) and APEC, or by researchers such as Portugal-Perez and Wilson (2011), that added to the actual concept mosaic, the hard and soft dimensions to the concept of trade facilitation. Some definitions of trade facilitation have a wide range concept, include in their scope all the procedures related to the movement of goods across countries boarders, as well as the payment procedures from the seller to the buyer. Others definitions, however, are narrower, focused on international border procedures and strongly related to Customs performance issues, like clearance time and red tape associated procedures.

The present work studied the definition of trade facilitation, and reviewed the literature that has reported gains associated with trade facilitation measures as did Wilson, Mann and Otsuki (2004) who mentioned an increase in international trade by US$ 377 billion from 2000 to 2001, attributed to trade facilitation initiatives. In addition, Iwanow and Kirkpatrick (date, as cited by Dennis, 2010) suggest that a 10% increase over trade facilitation results in 5% exports gains. Other authors include Hummels and Djankov (e.g.

Hummels, Ishii & Yi, 2001, and Djankov et al, 2010) who are well known for their efforts on producing econometric studies linking trade facilitation actions to estimated trade gains; their findings were gathered together with results from other researchers in the present work.

The world has seen exponential growth of international trade over the recent past; in fact, the international trade has presented higher increasing rates than the ones experienced in the world economy; as a result, this fact brings an increasing transaction volume to international trade, and it has been putting extra pressure on borders agencies worldwide. Among the borders agencies, Customs has important and traditional roles on procedures related to international flow of goods. A major challenge presented by trade facilitation is to address the question on how governs agencies can provide the social desired level of control more efficiency over international trade without imposing any extra burden to the business community. As trade tariffs has been falling around the world, non-tariff barriers to international trade are now seen as a major concern, and addressed by trade facilitation policies. Most areas of trade facilitation are reported to be strongly related to the effort on reducing any extra cost imposed by inefficient bureaucracy or red tape. However, despite this definition, modern trade facilitation actions have incorporated the private sector to the effort, e.g., the WCO authorized economic operator, AEO program; according to the SAFE framework over the customs to business pillar 2, the private sector cooperation is expressly required (from the WCO SAFE Framework of Standards, p. 29):

> "Therefore, companies that demonstrate a verifiable willingness to enhance supply chain security will benefit. Minimizing risk in this way helps Customs in performing their security functions, and in facilitating legitimate trade."

Trade facilitation is, in this way, no longer the only government's responsibility.

Cullinare, Yap & Lam (2006), over the governance of the Port of Singapore, cited another example of the private sector participation on trade facilitation efforts, after 1997 the administration authority was transformed from a public body to a state owned corporate company. The objective was to enhance the port business environment, in order to cope with the global port competition; the enterprise was successful in taking commercial decisions without the bureaucracy associated to public bodies, helping the Singapore port industry competitiveness. Trade facilitation was defined by Portugual-Perez and Wilson (2011, p. 2) as being a "set of policies aiming at reducing export and import costs" and it was considered to be the next way to move on reducing the trade costs in developing countries. Portugual-Perez and Wilson (2011) also brought to trade facilitation two dimensions, hard and soft. The hard dimension is related to: ports, airports, communication and transport infrastructure, and the soft dimension is related to: intangible assets like transparency, customs management and business environment. The proposed differentiation aimed to give better assess the impact of different trade facilitation measures over exports performance in a straight and direct approach; on a simpler definition, Sourdin and Pomfret (2012) considered trade facilitation as a reduction in costs to trade.

Others definitions were found ranging from a narrower perspective focused more over Customs procedures to wider definitions covering all features, or from borders specific issues to out of borders issues including all the ones related to the movement of goods over the international supply chain. Among the international organisms, the wider definitions are the ones adopted by the multilateral ones, such as United Nations (UN) and World Trade Organization (WTO). Keen (2003) on the IMF's Changing Customs - Challenges and Strategies For The Reform of Customs Administration, referred to customs improvement as just one aspect of trade facilitation. United Nations/ ESCAP (2009) defined trade facilitation as a policy that reduces costs, uncertainty and time

expended over international trade of goods, excluding out traditional instruments, like tariffs levied over the international transactions. Woo and Wilson (2000) stated that, for APEC, trading facilitation simply means business facilitation or bureaucracy, red tape, cutting, APEC's own definition of trade facilitation mentioned the simplification and rationalization of customs and other procedures that increase costs of goods to move across borders. OECD stands for that trade facilitation is related to simplifying and streamlining the process in which goods and trade happens at both national and international levels, and that it implies observation to the main core trade facilitation principles, predictability, transparency, simplification and harmonization. The WTO once defined trade facilitation as being simplification and harmonization of international trade procedures. After the world import tariffs have fallen considerably as result of the implementation of successful multilateral agreements, in particular the Uruguay Trade Round, WTO has increased its efforts in other to address trade costs that sometimes can be higher than tariffs themselves. WTO launched negotiations of trade facilitation in 2004 with the objective on clarifying and improving the GATT's articles V, VIII and X that related to freedom of transit, fees and procedures related respectively to international trade and publicity, and administration of trade regulations. Now, in the Doha trade round, the trade facilitation remains on the top agenda, according to Grainger (2011). WTO goal is to ensure through trade facilitation a smooth, predictable and free flow of trade between countries.

The WCO points the enhancing of efficiency and effectiveness of customs administrations, working on the harmonization and simplification of customs procedures, as its mission. This is its core definition of trade facilitation: "*lowering trade transaction costs and creating standard efficiencies*" (WCO, 2011, p. I/4). The WCO, after the events of the terrorist's attacks against the United States in 2001, has also realized that trade facilitation also pass through the role of Customs on delivering and providing security for the world supply chain. This can only be done without halting the international trade, due to endless and unnecessary customs inspections, by modernized Customs services. The WCO SAFE Framework of Standards addressed the security challenge imposed to Customs around the world, and it is an answer to the demand of more security in the international supply chain. WCO considers trade facilitation to be the avoidance of any non-necessary trade restrictiveness, through the use of technology, better harmonized international controls, WCO approach for trade facilitation has a Customs procedures scope. The present study adopts the definition for trade facilitation as the conjunct of actions aimed on lowering international trade costs, allowing a smoother and safer flow of goods across countries boarders.

International agencies and organizations, together with national governments efforts and policies addressing trade facilitation have suffered some criticism; Grainger (2011) said that most of the trade facilitation prescriptions, derived from the policy drivers own view, are generic ideas and recommendations, with a top-down approach and not always backed up on operations focused research.

Assessing trade facilitation is a major issue, there are many studies and surveys over the subject. Shepherd and Wilson (2009) claimed that trade facilitation impact could be bigger than tariff reforms for Asian countries, however the study is focused on infrastructure, trade facilitation hard dimension; Ponfret and Sourdin (2010) concluded that trade costs in Australia are bigger than the country's ad valorem tariffs, and that institutional impact is higher for air or manufactured cargo; they also concluded that poor infrastructure can condemn a country to slow growth. Econometrics studies usually rely on gravity model studies, based on collected data from statistical series or on surveys, like the World Bank – Doing Business, surveys made through direct questionnaires answered by members of the trade community. The study looked after the most relevant outcomes of trade

facilitation initiatives found over the literature, and the expected or measured benefices to trade and growth associated to those practices. For examples, De (2011) found, using an econometric model, that a 10% decrease in border crossing costs can boost a country's exports by 2%, and Persson (2012) stated that cumbersome borders procedures may prevent a country from diversifying its exports. Table 1 shows the most expressive results that the literature shows about the outcomes of measures considered to be classified as trade facilitation measures. The outcomes are usually as expressed in terms of a percentage of gain over the volume of trade, over the volume of exports or imports, over the reduction of trade costs or over the reducing on the time demanded to accomplish a trade transaction. It is important to be aware that many factor are interlinked, and the outcomes, often are influenced by two or more variables, the reason why the assessment of a particular trade facilitation measure is difficult.

**Table 1**

**Literature collection of trade facilitation expected results**

| Reference | Trade Facilitation Premise | Result |
|---|---|---|
| Abe and Wilson as cited by Portugal Perz and Wilson (2011). | Considering the below average APEC countries, the reduction of corruption and increase of transparency to the region average. | Increase in world welfare by US$ 406 billion and intra region trade growth of 11%. |
| Clark, Dollar and Micco (2004). | Moving from the 25th to the 75th percentile of port efficiency. | Shipping cost reduction of 12%. |
| De Prabir (2011). | A 10% drop in transaction costs at borders. | Increase of a country exports by 2%. |
| Dennis (2010). | Extra day delay on the export country. | A 0.5% fall over the import demand by the US. |
| Dennis and Shepherd (2011). | Improved trade facilitation measures, overcoming export costs, market entry barriers and international transport costs. | Appear to have a strong impact on export diversification for developing countries. |
| Djankov, Freund and Pham (2010). | One additional day delay on cargo to be shipped. | Trade reduction of 1%. |
| Francois, van Meijl and van Tonjeren as cited by Pomfret and Sourdim (2010). | Implementation of the Doha Round trade facilitation measures. | Reducing trade costs by 1.5% of the value of trade. |
| Freund and Rocha (2011). | One day travel time saved inland, in Africa. | An increase in 7% of exports. |
| Helble, Shepherd and Wilson as cited by UM/ESCAP (2009). | Reducing direct export costs in Asia by 14%, reaching the OECD levels. | Increase in Asian exports by 11% to 14%. |
| Hummels in Time as a Trade Barrier (2001). | One day saved in travel time for manufactured good. | An average savings of 0.8 % ad valorem of the manufactured good. |
| Iwanov and Kirkpatric as cited by Dennis (2010). | A 10% increase in trade facilitation yields. | A 5% export increase. |
| OECD as cited by Grainger (2012). | 1% trade related transaction costs reduction. | US$ 43 billion increase in trade worldwide. |
| Portugal Perz and Wilson (2011). | Improvement over physical infrastructure. | Greatest impact over exports performance. |
| UNCTAD 1994 and APEC 1999. | Income gain from trade facilitation measures in the medium term. | Ranging from 2% to 3% of the value of goods. |
| Wilson, Mann and Otsuki (2004). | APEC members who performs below average on trade facilitation proxy index achieve half of the APEC average performance. | Increase intra region trade by US$ 254 and raise region GDP by 4.3%. |
| Wilson, Mann and Otsuki (2005). | Applied the same methodology to a set of 77 countries. | Manufacturing trade growth of US$ 377 billion. |

**Note:** Author's compilation.

## 3. TRADE COSTS

Trade happens when two individuals exchange within goods that each one values higher price than the other. The important outcome is that each trader ends better off than before the trade transaction took place in the end. For a simple example, subject A has a car that he/she values at $3,000 and wants to sell it, subject B has $5,000 in cash and values the A's car at $4,000 and would accept to pay up to that price for it. It is possible to say that, there is a good probability on B buying the A's car for a price ranging from $3,000 to $4,000. At the beginning, A and B had total $8,000; after trading, A has $3,000 in cash and B has $2,000 in cash left ($5,000-$3,000), plus a car that he/she values at $4,000. The total sum of the A and B assets after the trade is $9,000, showing an increase of $1,000 in total welfare.

Now what happens if the trade between A and B were subjected to a fee payment, for example, a car sale fee of $200? This fact would not prevent the trade from happening, but the margin left for A and B to negotiate and trade is now narrower, and the maximum gain for A and B would be reduced to $800. The limit point at which a trade could still happen is when the trade fee equals $1,000; after this point when the charged fee is more than $1,000, no space would remain for a trade to happen.

The simple example above can be thought as A and B being countries or regions, and the car sale fee as being the transactions costs that happens in the international trade scenario. High trade costs have a intuitively negative effect on trade flows. In an extreme case, it can prevent trade opportunity. Walkenhorst and Yasui (2009) stated that trade transactions costs are influenced by the type of goods traded, and by efficiency, integrity and transparency of border agencies**.** Calì and Velde (2011) concluded that regulatory quality linked to soft infrastructure, has a negative correlation to costs and time expended on international transactions. Looking after trade costs behind borders, Hoekman and Nicita (2011) estimated for those costs, deleterious effects over a country export capability.

This section examines trade costs definition, its theory and how trade costs can be measured. It is seen as a general assumption that whatever action taken under the trade facilitation label it is likely to be helpful on lowering trade costs, yet the estimation of trade costs itself is reported to be fairly difficult due to the uncertainty of what are the trade costs and to the lack of reliable data. Brooks and Stone (2010) argued that costs can be divided in two categories, direct and indirect. While direct costs such as fees are clear to traders, indirect costs are not; the risk associated to the uncertainty found in indirect costs is a major problem, specially for new comers and small medium enterprises. Hummels (2007) advocated that aggregated value of an international transaction for certain kind of goods can be inferred by the difference between the price on the importing country given by the cost-insurance-freight value, and the free-on-board value given on the exporting country. Sourdin and Pomfret (2012) supported the previous Hummel's work and claimed that the CIF-FOB ratio is a better grounded cost indicator than surveys like the Doing Business - Trading Across Borders (World Bank Publication, 2012).

Economic theory credits to the reduction over trade costs, the phenomenon that allowed international trade to grow and become the pushing force behind the economic prosperity, according to Sourdin and Pomfret (2012). They also cited the work of Samuelson and the iceberg assumption, that was the standard understanding of trade costs on late 20th century and statues that, a portion of the value of a good

melts down while it goes from the export country to the import country. Krugman showed that trade may be affected by factors such as country size and transport costs, as cited by Sourdin and Pomfret (2012). They also reported that Dutch planners developed the gravity equation, powerful tool to explain bilateral trade due to its high explanatory characteristics, the equation became popular after the 1995 and it is highly used in today's empirical trade costs studies.

Since that many factors may be considered or not as trade costs, measuring trade costs is not a simple task. In addition to the traditional costs of freight and Customs clearance, costs can be computed from the exporter producer to the retailer on the import country, computing behind the border costs on the international trade. Looking into an even broader way, due to the constant specialization and fragmentation of world production, cost over imported inputs to future exports could be included. Many studies showed that countries that present larger costs for international trade transaction are lagging behind the actual trend of manufacturing specialization and verticalization. Anderson (as cited by Hummels, Ishii & Yi, 2001) stated that tariffs and costs are an extra burden, if a good is to be produced in a sequence of countries, adding the conclusion that reductions in costs move trade favorability towards verticalization, specialization, and out sourcing.

There are a few ways to measure or to estimate trade costs. Based on the differentiation made by Sourdin and Pomfret (2012), the first method is direct data collection, produced by customs or other governmental agencies over shipping or trade costs. This method has as a down turn the fact that a very few countries actually produce this kind of direct collected data and the sources of information. Importers and exporters may not be so committed to provide the rights figures. Gravity model methodology explains bilateral trade through a relation between size and distance of traders. It is widely used to estimate trade costs. Baldwin and Taglioni (as cited by Sourdin & Pomfret, 2012) explained that, in trade equations, the gravity coefficient reflects part of trade not explained by size and distance of the traders; the method has suffered some reserve over the fact that it uses a gravity model equations and survey based variables, to indirectly measure trade costs.

The CIF-FOB Gap is sometimes referred as transportation costs, cited by Hummels (2007). It is a broader measure of trade costs than the simple adding of freight and customs clearance costs. It may capture the costs of poor infrastructure, transportation market failure, e.g. shipping line monopoly. It has as a down turn the facts that, a very few countries produce the required data, e.g. US, Australia, New Zealand, Chile and Brazil, as pointed by Sourdin and Pomfret (2012). And it does not consider the cost of time to complete a trade transaction. Even so, they considered the method to be the best one available, especially when compared to surveys, e.g. World Bank Doing Business that showed a negative result correlation to the CIF-FOB method. Hummels and Lugovskyy (2006) found, for the matched partner CIF-FOB ratio, a low result on the convergence to direct collected data, and concluded that the method should be used only as a control variable; matched partner CIF-FOB ratio data used on the study was based on International Monetary Fund - IMF statistics data over CIF and FOB world traders. In this way, Hummel (2007) clarified that the main objective of the IMF is to collect statistics for payment balance purposes, not to estimate trade costs. Surveys are the last method to address the measurement of trade costs; one of the most referenced surveys available is the World Bank's Doing Business, *Trading across borders.* It is a survey held within front line operators such as freight forwarders, shipping lines, customs brokers, port officials and banks, asked about the costs and variables regarding international trade operations in almost all countries of the world, as detailed explanations found at http://www.doingbusiness.org/methodology/trading-across-borders.

The survey measures the time and cost, excluded tariffs and bribes, associated with exporting and importing a standardized cargo in a 20 feet container, moved by ocean. The survey methodology bring some assumptions, like, e.g. the cargo value is US$ 20,000.00 and the trader is located in the country's major economic area, those assumptions faces some criticism because of theirs excessive simplification, although, the World Bank's survey was used in assessing results for the APEC TFAP II, as mentioned in APEC (2011).

## 4. KEY PERFORMANCE INDICATORS - KPI

APEC's key perform indicators, according to APEC (2011), played an important rule on the TFAP II. Perform indicators, as cited by the WCO's Comlumbus Programme, are key elements of a strategic plan, allowing to address the question: "How do you know what are you achieving?" (WCO, 2009, p. 2-v). The APEC's KPIs related to: TRS – time release survey of goods; implementation of standards based on WCO SAFE and APEC Frameworks, simplification and harmonization of Customs procedures based on the Revised Kyoto Convention (RKC), and automation of trade procedures; all were analyzed over theirs rule as a management tools for the TFAP II plan. Administrative theory relies deeply on the importance of measuring outcomes and performance. Managing by performance is a technique spreading over government agencies and anecdotal evidence suggest that, the assertion: "you can't manage what you don't measure, you can't measure what you don't define, you can't define what you don't understand and there will be no success without managing"[1] is a common mantra heard in many workplaces. Simple and reliable indexes of performance are linked to management success, the APEC's Key Perform Indicators are performance index by definition, the indexes study were useful to clarify the scope of each trade facilitation action related to the four TFAP II sub areas.

The final phase evaluated the trade facilitation actions associated to simplification and harmonization of customs procedures, the research looked for evidence that helped support the conclusion of the region lowering trade costs achievement, reported as the final result for the TFAP II. APEC utilized for assessment of the plan progress, eight different KPIs, the trade facilitation actions were divided among them, and assessed by each one of the following KPIs:

1. Import clearance time;
2. Export clearance time;
3. Number of Authorized Economic Operators – AEO;
4. Percentage of trade covered by AEOs;
5. Number of documents required by Customs for import operations;
6. Number of documents required by Customs for export operations;
7. Percentage of import lodged and processed electronically and
8. Percentage of export declarations lodged and processed electronically.

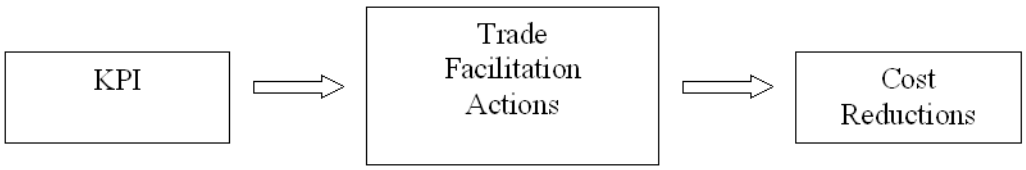
2. *This statement, together with: "In God we trust, all the others must bring data" are attributed, by anecdotal evidence, to William Edwards Deming. The famous American statistician was known as the guru of Japanese management methods, according to Waters (1998). He was famous for the Deming Cycle/PDCA and author of books like, Quality, Productivity and Competitive Position (1982) and Out of the crisis (1986), both dealing with the challenges imposed to American companies facing, management problems and the Japanese companies competition.*

All the KPIs are subjected to evaluation due to theirs effectiveness or how did they perform; theirs efficiency or how much did they cost to implement; and about theirs simplicity or how easy are they to be understood. According to APEC (2011), a revision conducted in 2009 pointed out the necessity of a revision for the KPIs that had been used, based on effectiveness, efficiency, and simplicity criteria.

The present eight KPIs were introduced as APEC considered then to be more effective and simpler to measure transaction reduction costs. Figure. 1 shows the sequential logic with KPI use: the indicators assess the trade facilitation actions implementation, cost reductions is consequence of concrete trade facilitation actions, while the KPIs are management tools.

**Graphic 1**

**Based on APEC (2011)**




For measuring costs, APEC do considers time and port costs, however excludes costs related to tariff and NTB, e.g. quotas, and expenses common to domestic and international trade, e.g. distribution costs. The estimates were based on mid-2011 prices.

### 4.1 Import clearance time and export clearance time KPIs

The two KPIs related to measure import clearance time and export clearance time were a signal over the progress of implementing a time release survey (TRS), by the APEC members. While the KPIs were designed to measure the progress on reducing the time taken to the release of import and export goods, the logical approach is that a TRS plan implementation is a proved measure to help reaching each member, the final objective of release time reduction. A TRS plan is linked to objective trade facilitation measures taken or to be taken, as a consequence of a well implemented TRS plan, progress in reducing release time is expected, resulting at the end, as time can be translated in costs, in lower transaction costs, according to studies previous cited in Table 1.

The TFAP II mentions the term time release survey, while the WCO (2011) made reference to a time release study. No significant difference was identified between the two concepts, APEC (2011) mentioned the WCO TRS process as the basic methodology to be used by its members. WCO efforts over providing a framework to a TRS program started by 2001, according to Matsuda (2012), by the release of the original TRS Guide, while Zang (2009) mentioned the beginning efforts of WCO, over the matter, starting back in 1994, based on initiatives conducted by Japan and United States. So, based on the WCO methodology, the APE TRS core objective were:

- Provide each country with a evaluation tool for trade facilitation own actions;
- Improvement of actions taken; and
- Identifying bottlenecks.

The TRS is a useful tool to measure customs perform and trade facilitation efforts, carried out by customs as well by other governmental agencies, if included in the program scope. TRS is considered important to assess the progress and the improvements that have been made, and was based on the understanding that, if a reform or improvement on anything is desirable; first, you need to measure it. The WCO method advocates that the time to be measured is the interval of time taken between the arrival of goods and their release. This facilitates the observation of bottlenecks caused by other agencies and operators and not only Customs. After years of effort on trade facilitation measures through Customs worldwide, with remarkable gains over Customs process efficiency observed, according to Avis, Mustra and others (as cited by Mustra, 2011), the clearance time is not to be considered as a responsibility of Customs alone. Just the opposite, they reported that the major bottlenecks are not caused by Customs, as Customs appears to held responsibility for only a third of total clearance time. In the same way, Zhang (2009) argued that usually, Customs happens to be found as the most efficient border agency, when a TRS is conducted, nevertheless, the possibility of improvement and increasing cooperation with other borders agencies is an important opportunity not to be missed. United Nations/ESCAP (2009) argued that special attention should be given to allow documents and cargo to be checked by all border agencies at a single point and time . The main objective pointed by WCO (2011), in conducting a TRS, is to find bottlenecks in procedures at borders and evaluate theirs reasons, as well as identify who is the responsible for the delays, Customs, other agencies or even private operators.

APEC (2011) affirmed that, by the beginning of the TFAP II, only six members had a TRS program on going. But, by the end of 2009, twelve members had successfully implemented a TRS program, notwithstanding showing a great range of approach adopted by country to country. WCO (2011) reported that countries with successful TRS implementation, such Japan and Australia, have experienced a reduction over good release times. At APEC (2011), the estimations made by ITS Global are consistent to the WCO report, indicating a reducing of clearance time for Australia figuring 14.3 % for imports and impressive 75% for exports, over the 2007 to 2009 period. The Japanese experience over the systematic use of TRS is also remarkable, with a framework that include other agencies and private sector, Japanese Customs has leaded a process that reports over the period from 1991 to 2009 and AEO cargo not include, a reduction from 168.2 hours to 62.4 hours for sea cargo time release, just to mention one example. APEC Policy Support Unit (PSU), (as cited by APEC, 2011) estimated that the reduction in trade costs for the APEC region for the 2006-2010 period, was 8.1%, due to customs clearance and technical control time saving measures. APEC used the Hummels conclusions to calculate the impact on trade costs made by the time saving improvements, Hummels (2001) estimated an *ad valorem* tax of 0.8% equivalent for every day saved on the transit of the goods traded. The two KPIs related to the TRS implementation were designed to push the members forward, in a direction to implement and benefit from a systematic TRS program.

### 4.2 Number of AEOs and percentage of trade covered by AEOs KPIs

The two KPIs are related to the WCO SAFE Framework, following the principles of, advance electronic information, risk management, Custom to Custom partnership through mutual recognition inspections, and Custom to business partnerships, AEO. The WCO framework aims at the promotion of predictability and uniformity to international trade, providing security to the international supply chain and facilitating the movement of goods on lawful operations. The AEO program is a fundamental stone for the WCO SAFE Framework, WCO (2007), presented it on the program's pillar, customs-business.

APEC reported that, currently, seven[3] of its members have an AEO program, in order to measure the progress regarding the implementation of AEO programs, by its members, APEC has made use of two KPIs:

- Number of Authorized Economic Operators – AEO; and
- Percentage of trade covered by AEOs.

The process of AEO implementation among APEC members is still on going. APEC reported difficulties on estimating the AEO impact on the trade costs at the region. However pointed out that, as mentioned in APEC (2011), the consistency of the TRS done by Japan over the past, combined with Igarashi's work, (as cited in Matsuda, 2012) allowed the organization to estimate for the year of 2009, a 1.9% save on trade transaction costs for Japan, what represents the value of US$ 2.7 billion. Japan reports a 60% faster cargo release time for its AEO cargo than for general cargo. One caveat, this figure passes through the assumption that the Japanese AEOs kept the same share over international trade, 55.8%, observed in 2008.

APEC (2011) reported an increase of the number of AEOs by 26%, for the period of the TFPA II; the number came from 8,322 operators intra region by the year 2007, to 10,502 in 2009. The rationale of the KPIs is to provide a simple and direct measure of the progress over the implementation of AEO programs and the reach of each program, measured by the percentage of trade covered by AEOs.

### 4.3 Number of documents required by customs for import/export operations KPIs

For the sub area, simplification and harmonization of customs procedures, the two KPIs used were:

- The number of documents required by customs for import operations; and
- The number of documents required by customs for export operations.

These plan efforts are related to the standards and recommendations of the Revised Kyoto Convention, RKC, about simplification and harmonization of customs procedures, as showed in (APEC 2011). The sub area overall objective is efficiency improvement, so, the two KPIs are directly related to the cost of time and labor to fulfill bureaucratic demands, measured by the number of documents demanded by Customs, in order to permit an export or import operation take place. Note that at the World Bank survey, Doing Business, the number of documents required to complete an international trade transaction is computed as costs, on the Trading Across Borders Data; although, the World Bank survey considers not only the documents required by customs, adding to the list, documents demanded by other agencies.

APEC considered the number of required document a good measurement about the compliance of the RKC standards by its members. The gathered results showed a trend of diminishing number of documents required to proceed an import or export operation in the region. Based on the World Bank survey, APEC estimated that the costs associated to prepare documents felt 8.7% among members for the period between 2006 and 2010. The reduction of costs associated to preparing and issuing documents logically reflects in a reduction of the overall trade costs in the region.

### 4.4 Percentage of import/export lodged and processed electronically KPIs

The last pair of KPIs is related to the percentage of import and export declarations lodged and processed electronically. Only two APEC's

*3. APEC (2011) reports as having a AEO program, Japan, China, Korea, New Zealand, Singapore, Chinese Taipei, and United States.*

members showed decrease on the percentage, due to the actual high percentage level reached by most of the members, close to 100%. APEC's new goal is the development of single window systems, in order to move forward over efficiency gains. APEC (2011) reported a number of thirteen members[4] with an operational single window system.

## 5. TRADE FACILITATION ACTIONS ASSOCIATED TO THE TPFA II

### 5.1 TRS

The first two KPIs, measuring import and export clearance time, are related to the implementation by the APEC members of a TRS program. The first set of trade facilitation actions taken by the TFAP II was compounded of the time release study, TRS, based on implementing actions such as: Measuring release times, identifying bottlenecks in Customs, getting the right data, developing strategies to address the customs and borders bottlenecks, and to develop a method to measure release time on a non stop basis. The success of the initiative was reported in APEC (2011), it estimated a 8.1% reduction over costs due to better customs procedures and technical control. It was also reported a time reduction for international transactions of 6.2% for the period, the average number of days taken to complete an export and an import fell from 17 to 15 in both operations.

APEC (2011) informed that, although the observed reduction in trade costs due to Customs improvement, what was directly linked to government's orientation actions over the area; time costs verified in Ports and Terminals increased in real terms by 4.3% over the period. However, the increase in costs was off set by the gains over Customs efficiency. APEC (2011) stated as a reasonable assumption the idea that the TRS actions and measures were responsible for most of the positive changes observed in Customs procedures and technical controls in the region.

The two KPIs linked to the sub area were based upon the time taken to clear a cargo. APEC used data from the World Bank Trading Across Borders survey for its assessment. APEC (2011) reported that in 2006, only six economies of the region had conducted a TRS, but this number doubled in 2009. Matsuda (2012) pointed out two APEC members, Japan and Australia that have taken TRS implementation, reporting that both countries have taken advantage of the TRS by been able to identify and address problems related to the release of goods. TRS is considered as a tool for the assessment of trade facilitation measures, according to Matsuda (2012), the WCO TRS guide version 2 brought new aspects, highlighting the use of TRS in the context of: Coordinated border management, customs to customs, and customs to business partnership. The author also indicated that the tool could be utilized to seven finalities:

- To promote structural reform;
- To promote simplification and harmonization of process;
- To identify the efficiency of a specific program, e.g. AEO program;
- For automation procedures;
- For better allocation of resources;
- For improvement over transparency; and
- For identifying capacity building needs, described or related to a methodology to conduct a TRS.

4. *APEC (2011) reports as adopting some form of a single window system, US, Japan, Korea, Australia, Brunei Darussalam, Canada, Chile, China, Indonesia, Malaysia, Philippines, Singapore, and Thailand.*

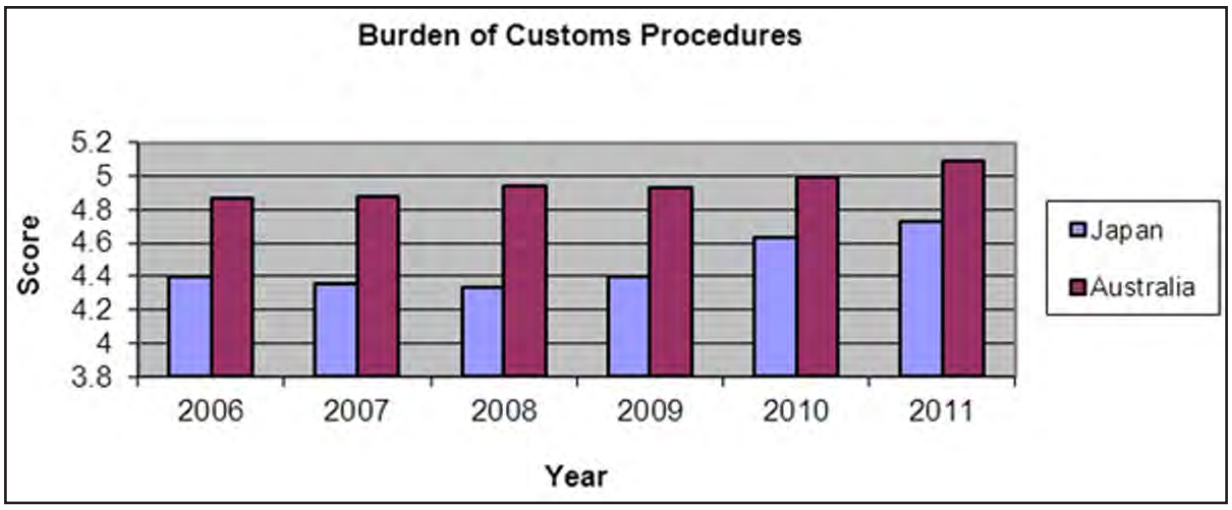
World Bank (2005) mentioned the importance of clear performance indicators availability, the report considered that a time-release indicator can help stakeholders, government and private operators, clearly identify who holds responsibility on delaying the process of cargo release. According to Matsuda (2012), the World Bank was considered the TRS as a component of a trade facilitation plan. An TRS must has as its scope the study of time, taken from the arrival of goods to their release, this involves Customs, other government agencies (OGA), such as the ones dealing with sanitation, license control, technical standards, animal, and plant quarantine, among several others. Customs brokers and other private agents can also be included in the study scope, according to Matsuda (2012). In reality, the number of stakeholders involved in the complex gear mechanism, necessary to move a good from one country to another one, can be surprisingly high. All the ones that pose an action over the release of the cargo procedures on the border can be included in the TRS scope.

Zang (2009) recommended that the TRS program must naturally be led by Customs, the project should have a working group. In this way, some countries had adopting the figure of a steering committee, where the policy makers and private operators can establish an effective communication channel and show strong commitment to trade facilitation implementation. World Bank (2005) mentioned the establishing of a Regional Steering Committee (RSC) as a required measure for the countries that had borrowed money for trade and transport facilitation projects. In addition United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) recommendation number 4, 2001, recommended the adoption of a national trade facilitation body as an important step to move forward in trade facilitation measures. The leading of Customs over the process is justified as, the World Bank (2005) have identified eleven steps taken from the cargo arrival to its release; Customs had direct participation on seven of them.

As an alternative to confirm the results reported by the World Bank Doing Business survey, by the use of another proxy, Figure 2 shows a positive trend over the issue burden of customs procedures reported by the Global Competitiveness Report from the World Economic Forum (2011). Thus, reinforcing the APEC (2011) conclusions and the practical results that might be obtained by the systematic use of the TRS, as a tool for enhancing custom efficiency. World Economic Forum (2011, p. 646) addressed the question: “How would you rate the level of efficiency of customs procedures (related to the entry and exit of merchandise) in your country? [1 = extremely inefficient; 7 = extremely efficient]”, to approximately 15000 executives worldwide, representing business of all the surveyed countries.

**Graphic 2**

**Japan and Australia scores on global competitiveness report from the World Economic Forum**




**Note.** 1-Based on data retrieved from http://www3.weforum.org/docs/WEF_GlobalCompetivenessReport_2010-2011.pdf
2- A score 7 stands for extremely efficient and 1 to extremely inefficient.

Table 2 shows the region progress as its economies show an increasing average score in the World Economic Forum Survey. A positive trend can be observed; the economies average grade increased 4.86% during the TPAF II Program.

For the region economies that have adopted a TRS, the Logistic Performance Index survey, conducted by the World Bank, showed practically unchanged values for the years 2007 and 2010 for the region economies, however, the economies cited as benchmarks by Matsuda (2012) presented some progress. APEC (2011) mentioned that no all the TRS conducted by its members were equal and some economies have just started a TRS program. Graphic 3 shows the results for the efficiency of customs clearance process, a component of the logistic index. The scores range

from 1, low, to 5, high. The results reinforce the possibility of achieving goods results by conducting the TRS approach done by Japan, Australia and New Zealand.

**Table 2**

**Efficiency of customs clearance**

| Country | 2007 | 2010 |
|---|---|---|
| Australia | 3.58 | 3.68 |
| Brunei Darussalam | N/A | N/A |
| China | 2.99 | 3.16 |
| Hong Kong SAR, China | 3.84 | 3.83 |
| Indonesia | 2.73 | 2.43 |
| Japan | 3.79 | 3.79 |
| Korea, Rep. | 3.22 | 3.33 |
| Malaysia | 3.36 | 3.11 |
| New Zealand | 3.57 | 3.64 |
| Peru | 2.68 | 2.50 |
| Philippines | 2.64 | 2.65 |
| Russian Federation | 1.94 | 2.15 |
| Singapore | 3.90 | 4.02 |
| Thailand | 3.03 | 3.02 |
| Vietnam | 2.89 | 2.68 |
| Total | 44.16 | 44.01 |

**Note:** Data retrieved from http://go.worldbank.org/88X6PU5GV0

**Table 3**

**Burden of customs procedures –2006 – 2010.**

| Country | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|
| Australia | 4.87 | 4.88 | 4.94 | 4.93 | 4.99 |
| Brunei Darussalam | N/A | N/A | 4.48 | 4.62 | 4.46 |
| Canada | 4.75 | 4.88 | 4.84 | 4.72 | 4.92 |
| Chile | 5.15 | 5.46 | 5.63 | 5.82 | 5.69 |
| People's Republic of China | 3.95 | 4.21 | 4.46 | 4.57 | 4.53 |
| Hong Kong China | 6.36 | 6.07 | 5.94 | 6.15 | 6.47 |
| Indonesia | 3.53 | 3.01 | 5.26 | 3.70 | 3.86 |
| Japan | 4.40 | 4.36 | 4.34 | 4.40 | 4.63 |
| Republic of korea | 4.82 | 5.89 | 5.03 | 4.55 | 4.53 |
| Malaysia | 4.79 | 4.97 | 4.78 | 4.77 | 4.81 |
| Mexico | 3.44 | 3.60 | 3.60 | 3.66 | 3.87 |
| New Zealand | 5.48 | 5.50 | 5.62 | 5.88 | 5.83 |
| Papua New Guinea | N/A | N/A | N/A | N/A | N/A |
| Peru | 3.57 | 3.49 | 3.29 | 3.81 | 4.47 |
| The Philippines | 2.90 | 3.06 | 2.93 | 2.98 | 3.00 |
| Russia | 2.81 | 2.87 | 2.69 | 2.73 | 2.93 |
| Singapore | 6.37 | 6.43 | 6.45 | 6.39 | 6.30 |
| Chinese Taipei | 5.16 | 5.13 | 5.18 | 5.03 | 5.12 |
| Thailand | 4.07 | 4.32 | 4.08 | 4.06 | 4.14 |
| The united States | 4.63 | 4.30 | 4.47 | 4.58 | 4.48 |
| Vietnam | 2.82 | 3.17 | 3.34 | 3.60 | 3.55 |
| Total | 83.87 | 85.6 | 89.35 | 90.95 | 92.58 |
| Average | 4.81 | 4.51 | 4.47 | 4.55 | 4.63 |

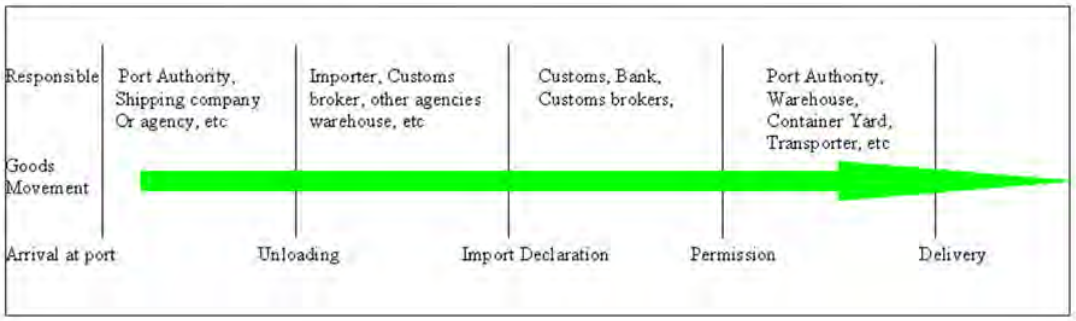
**Note:** Retrieved from data obtained in http://www.weforum.org/issues/global-competitiveness/index.html

TRS can be considered a powerful tool to be used by any country in order to continuously improve over effectiveness on cargo release. However, it cannot be considered as a solution by itself, the progress is dependable over the practical trade facilitation measures taken to address the problems and bottlenecks that a well implemented TRS can identify. Wilson (2009) estimated that a trade increase by 6.3% might happen if there was a 10% reduction in border time. As cited by Zhang (2009), the importance of a TRS lies also on its capability to well point to the stakeholders, government authorities, private sector and donor community, the progress achieved and the need for further actions over border procedures. The Japanese experience over conducting a solid sequence of TRS can be seen as a benchmark, the TRS conducted in 2009 took seven consecutive days, selecting about 5000 samples of sea and air cargo, covering all the Japanese Customs regional branches.

Japanese TRS has the scope frame as shown in Graphic 3:

**Graphic 3**

**Japanese TRS scope**




Note: Based on WCO (2011)

The list of trade facilitation measures used to address problems highlighted by the TRS cycle, done by Japanese Customs, includes: Clearance computerization, parallel documentation examination with other governmental agencies, single window system adoption, 24 hours operation, AEO program introduction, among others, as reported by WCO (2011).

New Zealand is reported by WCO (2011) as having conducted a TRS in 2009 over export operations. The conclusion is that the study provided information on what could be adopted as a trade facilitation measure to help New Zealand exports, in the particular case, the improvement could come by guiding the exporters to store goods to be exported, closer to the exit port. Korea also is reported as a successful example; Korean Customs designed an independent web based TRS system, what allows the study over a complete universe of transactions, instead of a study conducted over a samples. WCO reported for the Korean experience, a reduction of time from arrival to release of goods coming from 14.8 days in 1998 to 2.3 days in 2010, allowing savings of US$ 2.7 Billions a year in logistics costs.

### 5.2 AEO program as a Ttade facilitation action

The TFPA II had two KPIs linked to the adoption of AEO program by the regional economies. AEO program is predicted on the WCO SAFE Framework of Standards. The aim is allowing

private business that show a high compliance to Customs requirements and a serious commitment to provide security to theirs operations, enjoy a faster and simpler procedures to the release of goods, consisting in lower level of physical inspections, expedite release of cargo, and lower fees or charges. WCO (2007) mentioned that a faster clearance with less intervention on the cargo by Customs is the clear advantage of the program.

AEO program is based on a partnership between Customs and the private sector, (den Butter et al., 2011) explained that the AEO program faces the problem arisen due asymmetric information, when one of the parties has more or better information than the other, in reality, each firm knows itself better than the government does. The consequence of asymmetric information may be the happening of adverse selection, e.g. at the end, only bad companies join the program, as issued AEO certificates loses it values in the perspective of good companies and society, the good companies have no incentive to join or to stay in the program. Since joining the AEO program is optional and not cost free for private operators, government should provide to the AEO certificate a kind of quality standard, a signaling, a positive signal of quality and reputation to be shown to others, helping reducing the information asymmetry that naturally happens in the market. The investment on the certificate, or the signaling effort, and the risk of losing the reached status are decisive to keep the private partner aware of his duties. The program must be designed on a way that the cost of cheating or committing fraud is higher than the eventual gains, stimulating the parties, government or Customs and private companies to cooperate with each other, the better way to increase social welfare. According to Abonyi and Slyke (2010), the partnership between government and private sector is crucial to ensure gains and to manage risks in the new globalization era; private business needs governments to promote efficiency gains, enhancing the competition capacity of each country.

APEC (2011) clarified that the SAFE Framework primary objective is related to the security of the international trade, helping protect the national security of its members. The secondary objective is to facilitate trade of low risk private operators. APEC relates difficulties to isolate the outcome of the SAFE Framework measures on transaction costs, as the reduction in time to process an operation is closed linked to each AEO program design. However, using data provided by Japan, estimates that the Japanese AEO program reduced the country transaction costs by 2% in 2009.

### 5.3 RKC related measures

The trade facilitation actions aiming the reduction of documents necessary to complete an import or export operation and the electronic lodgment of declarations to Customs are related to the RKC. Engman (2009) mentioned the Singapore experience in which the single window IT system, TradeNet, is claimed to be responsible for savings of 20-35% on paper work costs, Singapore government credits to trade facilitation, savings of more than 1% GDP each year. APEC (2011) pointed out the already high level of paperless procedures in the region, the move forward is the implementation of single window systems. Grainger (2011) affirmed that a UN and OECD study showed that typically 200 data items are necessary to conduct one trade transaction, from 60% to 70% of data is informed at least twice and 15% is informed up to thirty times. World Bank (2012 ) informed that the Republic of Korea Customs has a well successful experience on single window, reporting overall economics gains equal to $ 3.47 billions for the year 2010, due to trade facilitation actions. The same was reported for Singapore, its single window system, TRADENET, started in 1989, combining more than 35 government agencies was responsible for efficiency gains, with a return of $ 1 for every cent expend by Custom on the system. APEC (2011) reported that the Republic of Korea reduced from 8 to 3 the number of required documents to proceed an

import operation, between 2006 and 2009. The numbers were also reduced for export operations from 5 to 3 in the same period. Wilson (2009, p. 57) estimated, based on the World Bank Doing Business Survey, that: "A 10% reduction in the number of signatures required by the importer may increase trade by 9.9%, while a 10% reduction in the number of documents required by importer may generate an 11.1% increase in trade."

Data from the World Bank Doing Business Survey indicated that the average number of documents required to conduct an international trade transaction in the region fell from to 6.18 documents in 2006, to 5.65 documents in 2011. The efforts of the economies resulted in a reduction of 8.7% in the number of required documents, saving costs in labor and time expended on the fulfillment of administrative and regulatory requirements.

## 6. RECOMMENDATIONS

According to the results found on the assessment of the TFAP II, the main tool for trade facilitation, TRS, is suggested to be a road map to follow in addressing trade facilitation programs and trade cost reduction. Although a TRS is not a trade facilitation measure by itself, its utilization can provide stakeholders information and security on how to act, and where to expend resources aiming trade costs reductions. As trade facilitation measures cited in the TFAP II plan, the AEO and a single window system proved to be economically profitable for the economies that have implemented them, other economies could replicate the successful experience of APEC members. Another important recommendation is the establishment of a policy of real coordination among Customs and other governmental agencies, backed up by high level political decision. Economies that aim on reducing theirs trade costs are advised to implement a continuous TRS program in addition to others well proven trade facilitation measures, such as AEO, single window program and trade facilitation committees. The TFAP II frame, with the definition of a clear cost reduction goal; associated with the use of performance indexes, the KPIs, to assess the measures implementation progress, showed to be highly recommendable as a way to push forward a plan for trade costs reduction.

## 7. CONCLUSIONS

APEC (2011) mentioned the difficulties on measuring the TFAP II results, due to lack of data and experience on how to link to each measure taken, its outcome. However the final assessment brought by APEC showed that the 5% reduction was obtained. The direct assessment of the results was not possible; however, the positive trend, observed in surveys, combined with theory on trade facilitation, corroborates the consistency of the results presented by APEC. The literature does not have specific studies on how each trade facilitation action alone influences trade costs, however it provides theoretical expectative for the always positive overall economic impact of time and cost saving measures. Most of the econometric studies reviewed are based on surveys to assess the impact of trade facilitation, not different from what APEC did to assess the TFAP II. The actions to save time on clearance and the reduction of bureaucratic procedures normally result in more efficiency and competitiveness for the local economy. The difficulties faced by APEC to measure trade costs among a group of 21 economies may not

be faced by a single economy, that can better estimates its own costs by more accurate methodologies, such as the CIF-FOB gap or even direct costs measurements.

The enhancement of the KPI methodology to push forward the trade facilitation plan showed correct, the simplicity and understandability of each KPI were important to guide the region economies to proper launch trade facilitation measures. The conjunct of taken trade facilitation measures permitted the cost reduction goal achievement. This study suggests also that more research is needed in other to isolate the effect of any single trade facilitation measure on overall trade costs.

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# OPTIMIZATION MODEL FOR SELECTING TAXPAYERS TO BE AUDITED. MAXIMIZING EXPECTED EFFICENCY: THE CHILEAN CASE

**Patricio Alberto Duhalde Albornoz**


## SUMMARY

The submitted income tax returns which differ from the information detained by the SII are identified and depending on the magnitude of the difference, the taxpayer is contacted to go to the Regional Unit to explain such inconsistency. By doing so, the proposed optimization model aims to select those taxpayers that maximize the return expected by the Tax Administration by considering the probability of success of reviews, the expected performance of each review, the ability to provide the service in each Regional Unit and other special or heuristic restrictions of the audit.


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**Content**



One of these control processes, which by the way is one of the emblematic processes in the Internal Revenue Service, is the Income Operation Process. In general, this process seeks for individuals and companies to be able to declare and pay their tax income according to the income obtained on the preceding year. The process takes place during April and May of each year. Today nearly 99% of returns are submitted via the internet; about 70% of them are pre-filled returns (from a total of around 2,500,000 returns for the year 2011).

Once the returns are received from the taxpayer, they are subject to various validations and crosses with internal and external sources to verify that the data submitted by the taxpayer is consistent with the reality. After validating the information sent, returns are classified in those that have differences and those that do not. This way, the returns that have no differences are released for refund or for the tax payment as appropriate, while returns which indeed have differences go to a second stage, which examines the origin of the difference and decides to contact or not the taxpayer to explain and clarify the nature of the difference found. This process, called “objection process” is essential since it is the genesis of the post-control processes and services, and therefore prominent in the country’s fiscal resources and efforts.

Due to the importance of the objection decision, the design and implementation of a mathematical model to provide the combination of the objected taxpayers that optimize the control efforts is proposed.

## 1. DESCRIPTION OF THE PROBLEM AND SITUATION ANALYSIS

### 1.1 The process

The Income Operation Process is defined as a massive, systematic and computational control of forms 22 hereinafter F22, on which the taxpayer files the annual tax returns.

In the first stage the income returns are logically and mathematically verified with data from the submitted returns and with information previously collected through payroll or affidavits.

Subsequently, the audit process focuses on verifying income returns that were inconsistent. This way, taxpayers who have differences greater than zero on their F22 and that meet certain conditions (mainly the difference in amount, orientation of the control and ability to review) will be called to the corresponding Regional Unit to clarify such inconsistency.

### 1.2 Filing F22 and the objection process

The critical stages of the process are generated when filing the F22 during the month of April and May, and the subsequent appeal to this return. The appeals levels, i.e., the magnitudes of the differences found between what a taxpayer filed and external sources or third parties information, determine which taxpayers will be called to testify to the Regional Units. These levels depend on the control resources available in the Regional Units

and the nature of the inconsistencies. Then, the typical variables of the process, such as ability to control, type of appeal (found inconsistency), ability of service, ways for filing (Internet, paper, software) and external variables as the segment of taxpayer, quality and consistency of the returns, among others, will determine the amount declarations accepted, observed and possibly in the following process challenged.

Differences are classified according to the tax origin causing them, for example, they can detect differences from the reduction of additional tax, income from real estate, from the presumptive income limits, etc. In total around 200 different origins of differences are found. These origins of differences are referred to as **income operation observations**, so hereafter will be referred to as observations.

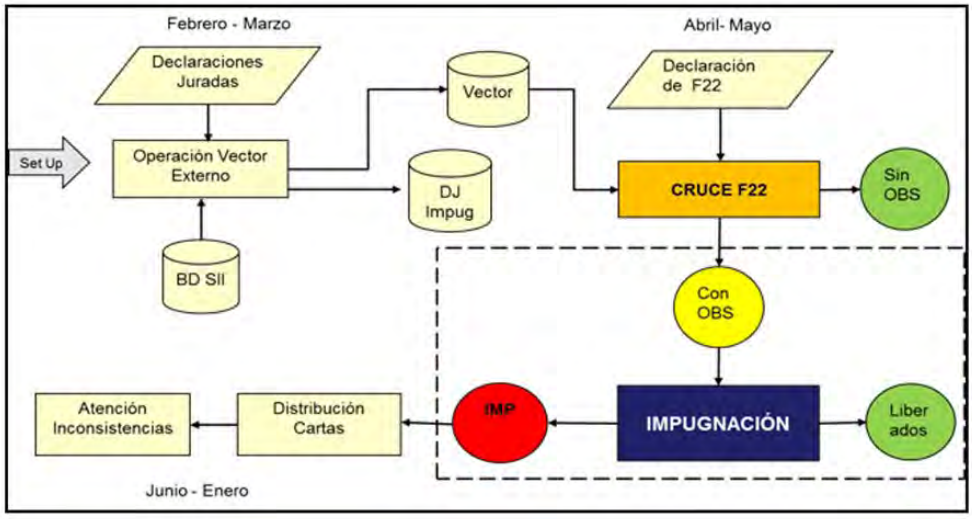
Each of these differences determines a set of taxpayers that file them, which are called **observed taxpayers**. In these sets are taxpayers that have differences from $1 or higher. In recent years, the average of observed taxpayers is approximately 500,000, from a total of 2,500,000 (year 2011) of income returns entering the process.

Observed taxpayers may be contacted, inviting them to amend their returns, which is to resubmit a F22, but with the corrected amounts from the differences presented, or, they may be called to the Regional Unit, which corresponds to the SII Office where the taxpayer is registered and where they perform their procedures in person. Taxpayers called to the regional units or contacted for regularizing their situation are known as **objected taxpayers**.

On the following graphic, the income diagram flow process is described and the critical parts of the process, i.e., the intersection of the F22 and the subsequent objections are highlighted with color.

**Graphic 1**

**Income Operation general process**




**Source:** Report of the Dept. PyMIPE – Operations Department

### 1.3 Matrix of the objection process

The objection process has as input observed taxpayers, i.e., taxpayers with tax differences greater than zero. These differences are classified into a matrix, which is filled based on the number of taxpayers for each observation and Regional Unit. Starting from a referential cutoff level and given that there are enough supervisors available, then this cutoff is manually changed in order to find the best filing combination in each Regional Unit.

Table N ° 1 shows an example of this matrix (with fictitious data), highlighting the cutoff levels selected by observation, for a particular Regional Unit.

**Table 1**

**Example of a cutoff matrix. Number of taxpayers by observation and level**

| | Amount of taxpayer Regional Unit X | | | |
|---|---|---|---|---|
| | Cutoff Level 1 | Cutoff Level 2 | Cutoff Level 3 | Cutoff Level J |
| Observation 1 | **1000** | 500 | 200 | 100 |
| Observation 2 | 500 | **400** | 300 | 100 |
| Observation i | 5000 | **4000** | 3000 | 2000 |

Once the validations are finished, the final objected list is generated, and moves to the next stage where they are contacted to solve their situation.

Based on the above, what the present study proposes is to propose an alternative way to the form currently used for selecting taxpayers according to their characteristics and modify taxpayer objection process currently used, not determining the cutoff levels by observation, which is how it is currently done.

## 2. RESOLUTION METHODOLOGY. MODELING

The objective is to determine, by using an optimization model, whether or not a taxpayer should be objected due to the differences, i.e., if he should be called to the respective regional unit in order to solve them. This mathematical problem is known in the investigation area as a “Backpack problem”, where the aim is a hypothetical journey, enters the most valuable items in the backpack with limited weight and capacity.

To achieve this goal, some criterion must be selected that allows choosing a taxpayer at the expense of another from the same Regional Unit. The main criterion is the benefit-cost that each taxpayer has according to their detected differences or observations after sending their income returns.

This benefit-cost is related to the expected performance associated with the existing observations (benefit), and the estimated control time which is used to verify the taxpayer once in the Regional Unit offices (cost).

This way, the model will seek to “enter” in each Regional Unit those taxpayers who have the

best cost-benefit relationship and that maximize the total expected performance at country level, obviously considering the capacity restrictions in each Regional Unit, i.e. respecting the available hours for controlling.

### 2.1 The mathematical modeling assumptions

- To define the model, the genesis of the most important assumption is described. This is related with making distinctions. An observation distinction is defined as the tax difference found between what the taxpayer filed at first on the F22 and the calculations made by the SII according to their internal and external sources.

- The basic assumption is associated with the relationship between the distinction of a particular observation and its performance. This is quite intuitive since the performance of an observation has as input the information from the particular distinction, since that difference is to be reviewed in the unit and shall be subject to control due to its amount. To do this, the performance and distinctions of the last three years are used.

- Another important factor in the model corresponds to the probability for obtaining successful performances in favor of the treasury or in favor of taxpayers. The last three years performance is also used.

- A performance Factor is obtained based on the historical performance and distinctions, which is applied to the differences submitted by each observed taxpayer, this way, the expected performance from each taxpayer will be the sum of the distinctions, weighted by the performance factors.

- As the expected performance for each taxpayer is obtained, it is calculated according to existing observations, a total estimated time for the service (control cost measured in hours). This time is calculated as the sum of each observation time, multiplied by an adjustment factor.

### 2.2 General optimization model

The first thing is to determine, according to the objectives, which will be the parameters, settings, and variables included in the model. Since it is needed to maximize the performance of the system, the expected performances from observations should be obtained and they should be associated with taxpayers. For this purpose, performance reports from the past three years are used, together with the distinctions of observations from each TA (tax year). The decision variable, as shall be seen in the following points, will solve if a taxpayer is objected or not, then the problem to solve is a whole and binary problem.

### 2.3 Analysis of the objective function

It aims to maximize the expected return considering the observed distinction in the review process, the performance factor and the possibility of obtaining refunds (or losses). It is also necessary that objected taxpayers have certain characteristics. These features will depend on the needs of control for a particular year. In this model, and experimentally, special restrictions were included as control, such as all those taxpayers who had observations related to PPUA1 (payment per utilities absorbed) and tax refund amounts withheld for more than $ 10 million. It is important to note that the selection of these criteria and amounts aim to know how the model operates under certain restrictions and it does not necessarily represent the established operational reality, which by the way is quite dynamic.

The importance to incorporate these restrictions or special situations is the parameterization since it allows conditioned solutions always respecting the maximization criterion.

$$Max\ Rendimiento\ Esp. = \sum_{k=1}^{R} \sum_{i=1}^{N} X_{ik} \times RCA_i \times DR_{ik} + \sum_{i=1}^{N} R\_OBLIG_i$$

**Where:**

**R** = Total number of Regional Units of the system = 18

**N** = Number of observed taxpayers in the system. (All taxpayers with differences greater than zero)

**Xik** = Corresponds to the problem decision variable. Binary variable.

**R_OBLIGi** = Expected performance adjusted from objected taxpayers required, (special restriction) i.e. all taxpayer in which IMPUG_OBLIGi = 1.

**URik** = Parameter that indicates if the taxpayer i belongs to the regional k (matrix of ownership).

**RCAi** = Adjusted expected performance associated to taxpayer i. It corresponds to the performance expected, multiplied by an adjustment factor, which depends on the amount of observations that a taxpayer has. (ANNEX N ° 1. Part a: Objective Function)

## 2.4 Analysis of restrictions

The restrictions of the model are mainly determined by the ability for specific control that regional units have. Each Regional Unit has a staff focused on the revision of these observations, functions that are part of the regional income operation.

To determine the available capacity of each Regional Unit, the effective staffing for the revision of these plans, the daily numbers of hours spend on taxpayers and a percentage of absenteeism is considered. The time horizon for each review, which focuses on 200 working days per year, is also considered.

Thus, the parameters used are:

- FT: Net work factor = 0.8
- DT: N ° of days to work on the observation process = 200.
- HT: N ° of daily hours for providing services = 6
- Fisck = N ° of controllers for providing the service and for reviewing the observations in the Regional Unit k.

Then, the regional capacity is determined by the following expression (right side of the restriction):

$$C_k = Fisc_k * FT * DT * HT$$

The resource **time** used for reviewing each observation is the main input to this restriction. Each observation, according to its nature, can become more or less complex in its review and therefore, it may demand more time. For doing this, a time study carried out within the Organization that allows visualizing the distribution of review times for each observation is used. The obtained times are standards which reflect the complexity for measuring in hours the review per controller. Thus, there may be revisions of minutes, as well as revisions that may include an entire working day.

According to the aforementioned, on the left side of the main restriction, the variable decision "object or not taxpayer i of the Regional k"

multiplied by the review times associated to each taxpayer will be reflected.

**Ti =** Review time of observations "O" of taxpayers i, measured in hours. Then:

An important component of this restriction corresponds to measure or quantify the taxpayers' real possibility to go to the Regional Unit to solve the inconsistency that has been detected. Accordingly, different scenarios that depict the taxpayers behavior were defined and they will mainly depend on the type of observation (if it can or cannot be corrected on the Internet), and if the detected inconsistency corresponds to a higher payment or withheld refund.

**TCi =** taxpayer attendance rate i. This rate is defined in a discreet way according to the following scenarios (annex No. 2. Part b: restrictions):

I. If the taxpayer only has observations that may be attended in distance, this means that the rate tends to be zero.

II. If the taxpayer request a refund has a retained amount greater than zero and in addition has one or more observations that are not correctable by Internet, implying that the attendance rate will be 1. (100% of certainty)

III. If the taxpayer request a refund has a withheld amount greater than zero and in addition all observations are correctable by Internet, implying that it is most probable that he goes to the Regional Unit to ensure their refund, however there is a group that rectifies by Internet. For this case, the attendance rate will be 0.8.

IV. If the taxpayer has a large amount to pay and also has a positive distinction, and all observations are correctable by Internet, this implies that the probability to attend the first call is low. This attendance rate is fixed at 0.3.

V. If the taxpayer has no refund or payment, but has a positive distinction, this implies that the probability to attend the first call is low. This attendance rate is fixed at 0.3

VI. For any other combination, it is assumed that the attendance rate is 1.

In this way, the main restriction, in the first instance, is defined the following way:

As mentioned in the objective function analysis, there are special restrictions that force to object certain taxpayers. These are to be added in the restrictions of the model. In this way:

If IMPUG_OBLIGi = 1 => Xik = 1

Therefore, by forcing some taxpayers to be objected a priori, it is necessary to incorporate this element in the programming in such way that first taxpayers are objected and second, with the ability to control the remaining ones, objection by economic criteria.

(1) )…….Xik * IMPUG_OBLIGi = 0; => while a taxpayer is objected, I should not object him by economic criteria. If he is not forced objected, the model shall decide according to the optimization.

$$(2) \ldots\ldots \sum_{i=1}^{N} X_{ik} * T_i * TC_i \leq Max\{0, C_k - TAjuste_k\}$$

Where:

**TAjustek =** Revision time of Regional unit k associated with forced objected taxpayers.

It is also possible to add other types of restrictions that respond to a situation in which it is necessary, for that particular year, to maintain or protect certain condition as for example, objected taxpayers who present determined behavior, and which make them more risky than others, in terms of tax compliance.

## 2.5 Complete optimization Model

According to the objective function and its respective restrictions, the proposed model is expressed in the following way: (Binary Full Programming Model - Linear Restrictions)

$$\textbf{Max Rendimiento E.Total.} = \sum_{k=1}^{R} \sum_{i=1}^{N} X_{ik} \times RCA_i \times DR_{ik} + \sum_{i=1}^{N} R\_OBLIG_i$$

**S.A**

(1).....$X_{ik}$ * $IMPUG\_OBLIG_i = 0$

$$(2) \ldots \ldots \sum_{i=1}^{N} X_{ik} * T_i * TC_i \leq Max\{0, C_k - TAjuste_k\}$$

$$(3) \ldots \ldots X_{ik} = Binario \qquad \forall\, i = 1 \ldots N \qquad \forall\, k = 1 \ldots R$$

**What in short means:**

(1) Taxpayers who meet certain conditions, such as PPUA and withholdings with significant amounts must be objected first.

(2) The total capacity of the Regional Unit should be taken into account, considering of course the time required by objected taxpayers.

(3) For each taxpayer, the decision variable will indicate if he is objected (1) or not (0).

## 3. RESULTS OF THE OPTIMIZATION MODEL

The AMPL software was used to run the model for modeling the mathematical problem and the CPLEX solver was used to optimize. As mentioned above, it is a programming problem, which features linear restrictions. The restriction N ° 1, aims to not object taxpayers who are forced, then, according to the way the algorithm was written and programmed, there is a lot of restrictions and variables that are removed in a routine called "presolve" and which allows to achieve high levels of efficiency in the implementation of the solution. Below are the main statistics which are obtained from the execution of the optimizer by programming in AMPL.

- N° of variables: 7.097.238 = > 510.100 taxpayers - 18 Regional Units
- N° of restrictions: 18
- N°. objective functions: 1
- N° of iterations Simplex algorithm: 18
- Total execution time: approx. 100 seconds

### 3.1 Main comparative results

In the year 2011, approximately 244.150 taxpayers were objected, using the current process. By using the estimate mechanisms considered in this study, the performance expected for this group of taxpayers is 64,311 million $. The hours used for controlling totaled 281,132. These hours depend on the remaining observations for objected taxpayers and which will finally be called to fix their inconsistency.

The optimal model proposed for the same year in comparison, object 95.937 taxpayers. The performance expected for this group of taxpayers is 65,069 million $. Then, the optimal model allows improving the expected performance in 758 million $ (1.2%) and at the same time, decreasing in 148,213 the objected taxpayers which translate into 60.7% less than the current model.

Ultimately, this drastic reduction in the number of objected taxpayers mainly involves a major release of resources that can allow reinforce or target other key aspects for control.

### 3.2 Model with special restrictions versus pure optimization model

It is important to consider that the proposed model considers special restrictions necessary for the resolution of the real problem, that is, local solutions that must be incorporated in the model in order to bring us closer to the operational reality of the process. The previous chapter explained the genesis of these special restrictions, which basically relate to taxpayers who must be objected, independently from the cost-benefit ratio. In this model, the number of taxpayers who are objected with this characteristic is 25,340.

To quantify the importance in the final result of these restrictions, we proceed to run the model considering only the economic criterion, i.e. only optimize for expected performance and for the ability to serve. For this model, the expected performance is 65,979 million $ and the number of objected taxpayers is 131,095. The associated control hours totaled 158,750.

An increase in the expected performance of 910 million $ is observed on the optimal model with restrictions, equivalent to 1.4%. In terms of number of objected, regarding the objected taxpayers, it can be seen that he objected are in greater number with respect to the model with special restrictions. The foregoing is logic since the objective function is to maximize the expected performance, implying that all the elements which can and which will add up to performance will be input in the Regional Unit. The Model with special restrictions is required to incorporate elements that do not necessarily add up to performance or general objective. (Table N ° 2, results of applied models)

Comparing the model without special restrictions versus the current process model, there is an increase in the expected performance of $ 1,668 million , equivalent to a 2.6 percent increase. The number of objected in this case decreases in 113.055 taxpayers, i.e. 46.3% less objected.

The following table shows the initial results of the model jointly with the alternative of the 100% economic model. This allows analyzing the relative importance of the incorporation of certain special restrictions and how they affect the results.

**Table 2**

**Summary results of models applied**

| Model | N ° of objected | Control Hours | Expected performance (M$) | Observation |
|---|---|---|---|---|
| Current | 244,150 | 281.132 | 64,311 | Objected Model AT 2011 |
| Proposed 1 | 95,937 | 142.757 | 65,069 | Model with special restrictions |
| Proposed 2 | 131,095 | 158.750 | 65,979 | Model without special restrictions (100% efficient) |

The following table shows a comparative analysis between the potential benefits of the model with special restrictions versus the current process model:

**Table 3**

**Optimal model with special restrictions versus current model**

| | |
|---|---|
| Expected performance (increase) difference (MM$) | 758 |
| % Increase in expected performance | 1.2 % |
| Difference in amount of objected (decrease) | 148,213 |
| % lower number of objected | 60.7 % |
| Difference in control hours (decrease) | 138,375 |
| % lower amount of control hours | 49.2 % |

As it can be seen, the performance increase, even though it is not a minor amount, the order of magnitude is not relevant when compared to the reduction in control costs. In summary, the model allows a configuration that maintains, in expected terms, the 'production' levels, drastically decreasing the costs necessary to produce these levels.

### 3.3 Analysis of the restrictions and dual variables (inactive restrictions)

A way to determine if the proposed model is using all the available capacity is to carry out the analysis of dual variables. By using the software, all Regional Units consider that dual variables are zero, i.e., in the optimal, there is still available

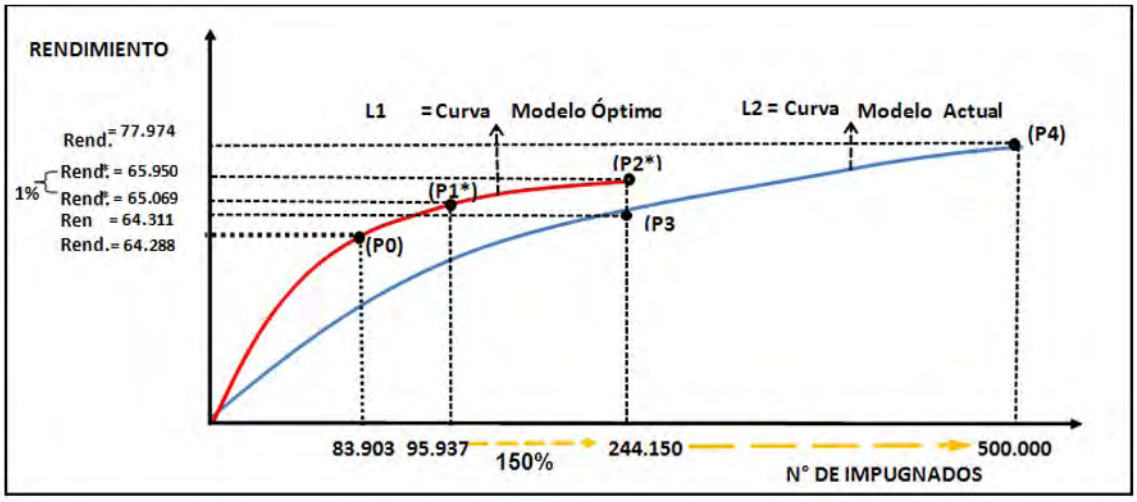
resource for controlling. However, to evaluate the restrictions, it is observed that “available” is minimum, which means that by increasing the capacity or the right side of the restriction, what happens is that, given the positive available elements that add to the Regional Unit, they logically incorporate them at a decreasing rate. The foregoing is a result from the fact that the model puts first items that have the “best” expected performance value / review cost.

The analysis is complemented with the extreme assumption of objecting all taxpayers who were observed. The expected performance for this case is 77,994 million with 513,755 objected. This means that the control performance capacity should be increased in 20%. It is not a viable option.

The results mentioned above, can be seen in Graphic N ° 2. Four points and two curves that summarize the results obtained in the implementation of the model can be observed. L1 curve represents the behavior of the optimal model or model proposed. It clearly shows that the curve in its early days presents a higher slope than L2 (current model). This is because the model prioritizes the cost-benefit relationship. The current model does not incorporate the elements with greater expected benefit, but rather, elements that are within certain cut-off levels.

**Graphic 2**

**Comparison of Models. Graphic for expected performance - number of objected**




### 3.4 Marginal analysis

Points **P1 *** and **P2 *** of the graphic N° 2 represent the best points of the proposed model. As previously mentioned, the dual variables in the optimal point are zero, then it is occupying all available capacity in these two cases, noting a slight increase in performance to move from **P1** to **P2**. If we evaluate these two points to obtain the marginal revenue, i.e. to calculate what is the income or extra performance obtained by increasing the number of objected in one unit, it is necessary to consider in the denominator the extra control hours needed to review

these taxpayers, given that the control hours for each taxpayer are different (according to the observations that the each taxpayer has). Approaching a straight line between these two points we have:

$$Rendimiento\ Marginal(Pi*) = \frac{\Delta \text{ Rendimiento Esperado } (P1*, P2*)}{\Delta\ Horas\ de\ Fiscalización\ (P1*, P2*)}$$

Then, the table N ° 2 shows:

244,150 objected = > 281,132 control hours
95,937 objected = > 142,757 control hours

Therefore;
**Marginal performance = $6.367 / control hour**

Considering that a time control is estimated at $15,000 average, then it is clear that to continue objecting taxpayers more than the optimum **P1 *** is not profitable.

Now, if we match the control cost per hour with the marginal performance, approximately 84,000 taxpayers ahead of (P0 *) are obtained, it is not appropriate to keep taxpayers objected, since the marginal income begins to be lower than the marginal cost at that point. This then becomes a theoretical reference with respect to the number of taxpayers who must be objected, and then shows that these values should be the magnitude that should prevail, for the optimization as well as for the marginal analysis.

It is important to consider that the curve **L2** is estimated considering only two points, point **P3** and **P4**. Point **P3** represents the performance expected versus the number of objected of the current model, while **P4**, considers the expected performance that all observed taxpayers are objected. Due to the challenge of the current process, it is impossible to determine (accurately) what would be the expected performance of this model, for example, by reducing the number of objected, since the selection is performed by each Regional Unit and for each observation.

In summary, this analysis shows that the optimal model for both **P1 *** and **P2 *** improves the current expected results.

### 3.5 Attendance analysis

Next we proceed to sensitize the attendance parameters in the model, that is, factors that indicate the attendance possibility to the unit depending on the characteristics of observations and the type of returns made. The results indicate greater variations relating to taxpayers who have paid or are in process to pay (low probability that they go to the Regional Unit).

The refund cases have a high probability to actually attend the Regional Unit given that the taxpayer has an amount of money withheld.

By doing this, we proceed to vary the attendance rates of cases IV and V (section 2.4). These rates are fixed at 0.1 and 0.2 as a pessimistic scenario and 0.5 to 0.6 as optimistic. The results are expressed in the following table:

**Table 4**

**Results of attendance scenarios**

| Scenario | N ° of objected | Control Hours | expected Performance (MM$) | Variation with respect to the current model |
|---|---|---|---|---|
| More likely | 95,937 | 142,757 | 65,069 | 1.18 % |
| Pessimistic | 111,431 | 162,058 | 65,311 | 1.55 % |
| Optimistic | 87,393 | 133,050 | 64,887 | 0.89 % |

The results show that while there is a minimum difference among the objected, a significant difference between expected performances is not seen. Therefore, it is feasible to conclude that varying critical competition conditions does not affect the optimal model expected performance.

### 3.6 Analysis of intersection of results (validations)

The following analysis aims to compare the payroll of objected taxpayers with each model, in such way so it is possible to observe in practices which are the main differences and their respective causes. This analysis also seeks to validate the consistency of the results of the proposed model.

**Table 5**

**Intersection model proposed current model**

| Total Objected | N ° of C. intersection | Performance ($ M) | % of total | Taxpayers Difference |
|---|---|---|---|---|
| 95.937 | 68,408 | 64,110 | 98.5 % | 27,529 |

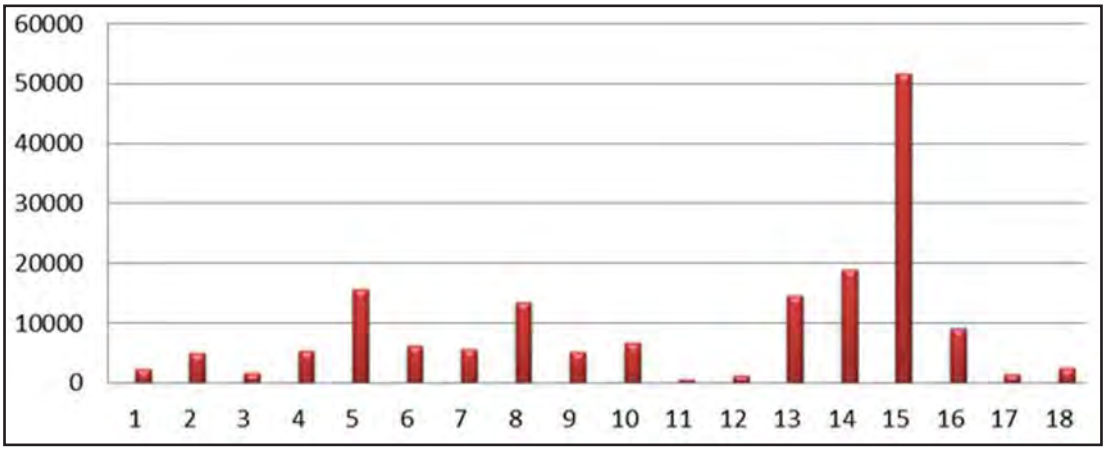
The figures indicate that even if there is a difference of 27,529 taxpayers (28%), that the optimal model object and the real model does not, the performance associated with taxpayers who are present in the two models virtually covers the total of optimal performance, reaching 98.5%. This means that, if we object at the intersection, we would virtually get the total, which emphasizes the advantages of the model, therefore understanding that what is objected, would be correctly determined.

By analyzing a sample of these 27,529 taxpayers, it is observed that a specific pattern indicating why they are left out is observed. The foregoing means that the strength of the model will be focused on those high distinctions with a high probability of positive returns and relation, obviously, with the control costs, a different situation to that of the current model since it is mainly based on its decision to object at the cut-off of each observation for each Regional Unit.

Another interesting point to be analyzed is whether there is a pattern that tells taxpayers that are left out by the model, in contrast with the current model. The table below shows how objected taxpayers are distributed in the country´s different Regional Units, along with their expected performance.

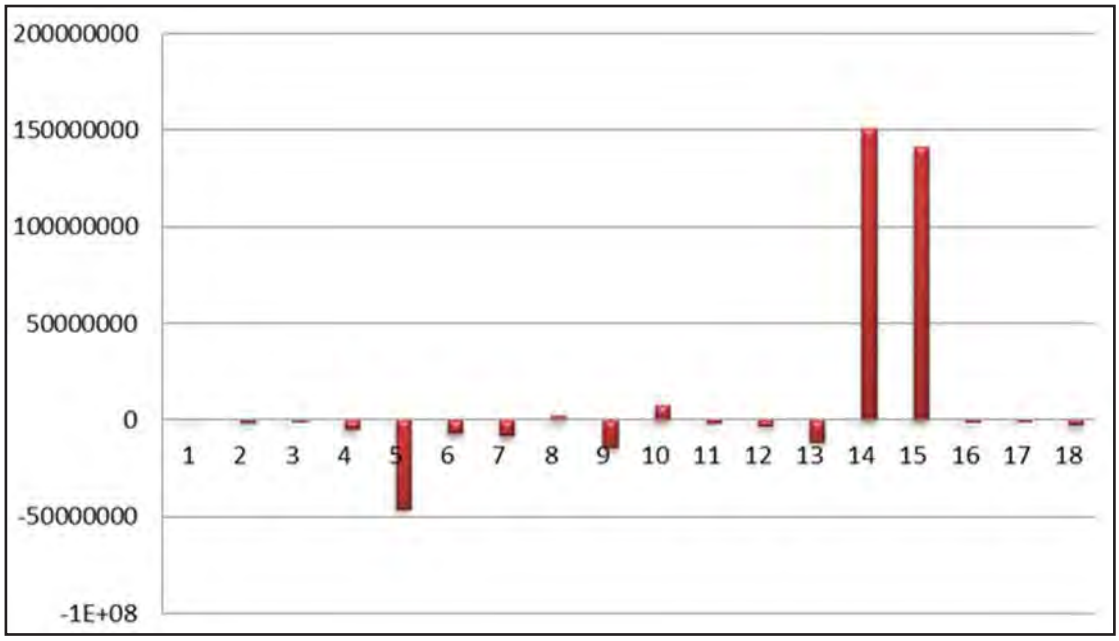
**Graphic 3**

**Nonobjected Taxpayers by Regional Unit**




**Graphic 4**

**Regional performance. Nonobjected Taxpayers by Regional Unit**



In this way, it is possible to conclude that the model failed to properly object those taxpayers who, in general, generated a negative expected performance, however, it shows that on Regional Units 14 and 15, and the expected performance that is left out is not negligible. The immediate question is to know what happens in such Regional Units. The above leads to the conclusion that it would be interesting to "flex" the capacity restrictions, leaving only a 'strong' restriction at national level. This will allow analyzing how the model "fills" each Regional Unit allowing us to conclude quantitatively which are the Regional Units that provide the best expected performance cost ratio.

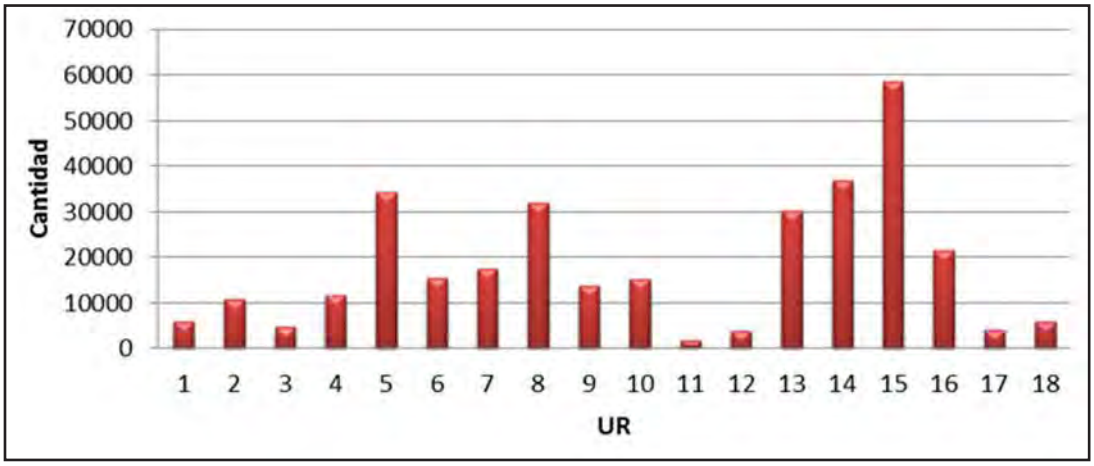
### 3.7 Flexible regional restrictions analysis

This analysis responds to a hypothesis that it implementation is not possible since each Regional Unit has a limited ability to control. However, it will allow us to visualize how well balanced is the process at national level and at the same time, it will allow to have valuable information for making the respective adjustments pointing to higher levels of efficiency and effectiveness in the future.

The results indicate that by making flexible the restrictions on regional capacity, the number of objected taxpayers increase, but not the expected performance. This is logic since the process, as we saw earlier, has a noticeable decreasing curve of increases. What draws attention, is the large number of objected that the model generates 324.843, nearly 80,000 taxpayers more than the current model. The explanation is that this model does not have regional restrictions since it freely uses the amount of total available hours.

**Graphic 5**

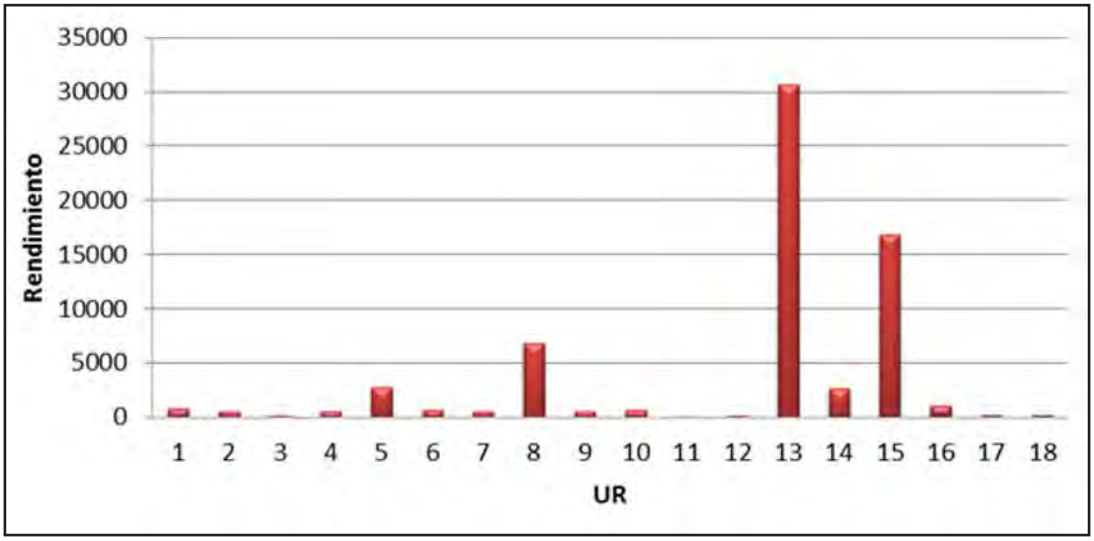
**Distribution of objected taxpayers, flexible model**




Graphic 5, shows that although there is a greater amount of objected taxpayers in the 5 regional units, 8, 13, 14, 15, the majority is not so absolute and somehow responds to the logic that there are more taxpayers in these regional areas and therefore there is more chance of finding better relations benefit cost for the model.

**Graphic 6**

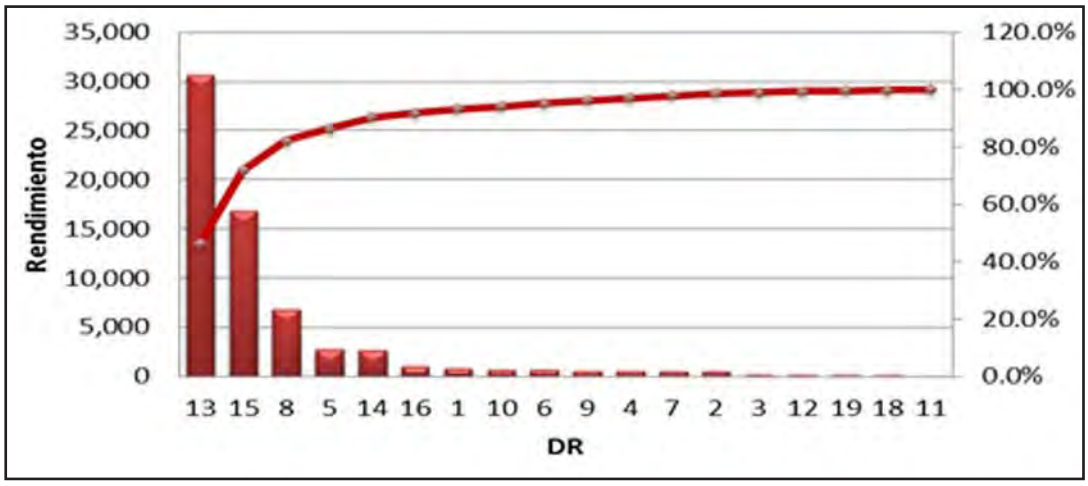
**Expected performance by regional unit, flexible model**




The graphic above shows something more drastic. Indeed, the expected high performances are mainly concentrated in three regional units, 8, 13 and 15. The impact of this situation can be analyzed in the following graphic.

**Graphic 7**

**Accumulated performance by regional unit, flexible model**



It is observed that with the first three regional units, more than 80% of the total performance which totals 54.331 MM$ is obtained. If we only consider these regional units, we should object 127,502 taxpayers, with approximately 220,000 control hours. In other words, we would decrease the expected performance with respect to the proposed model; however, we would be covering 80% of the expected benefit fully occupying only three regional units. This background is very important for the quantification of benefits in terms of the potential release of control resources.

### 3.8 Analysis of benefits

According to the above analysis, we proceed to quantify the possible benefits once the implementation of the optimization model if operating in the regime. To do this, we consider table 6:

Table 6**Table 6**

**Summary of results from applied models**

| Model | N ° of objected | Control Hours | Expected Performance (MM$) | Observation |
|---|---|---|---|---|
| Current | 244,150 | 281,132 | 64,311 | Objected Model AT 2011 |
| Proposed 1 | 95,937 | 142,757 | 65,069 | Model with special restrictions |
| Proposed 2 | 131,095 | 158,750 | 65,979 | Model without special restrictions (100% efficient) |

This table shows the differences of the two proposed models versus the current model. The chosen model corresponds to the one containing special restrictions since it incorporates the reality of the operation. In this way, there are differences established in the following table:

**Table 7**

**Optimal model with special restrictions versus the current model**

| | | |
|---|---|---|
| 1 | Expected performance difference (increase) (MM$) | 758 |
| 2 | % Increase of expected performance | 1.2 % |
| 3 | Difference amount of objected (decrease) | 148,213 |
| 4 | % lower number of objected | 60.7 % |
| 5 | Difference in control hours (decrease) | 138,375 |
| 6 | % lower amount of control hours | 49.2 % |

Now, this substantial improvement in the process is quantified according to the following parameters:

**Table 8**

**Quantification of the reference benefits of the model**

| | | |
|---|---|---|
| 1 | Estimated time Cost average control ($) | 15,000 |
| 2 | Reduced of average control hours | 138,375 |
| 3 | Average Released cost (M$) | 2,075 |

According to the above, more than $ 2,000 million could be released in an approximately 200 days (9 month approx.) period. It is important to note that this benefit is only referential since it is not possible to eliminate these available hours. What would really be is to take advantage of this availability of hours in other control processes, which will be analyzed below.

### 3.9 Using the availability of hours in other processes

Available hours that are released by the optimization of income process can be used in various processes or mixed processes. Two scenarios are discussed as follows, one optimistic and one conservative with the aim of having a quantitative vision of the potential benefits which can be obtained.

#### 3.9.1 Optimistic scenario. Used in selective control processes

The control resource is scarce, and therefore it is necessary that it tends to maximize it due to two issues, performance and coverage. To analyze the case of the performance, the selective control tasks are considered. These tasks or work, in general terms, mainly focus on tax figures that need deep revisions, since they usually involve large sized enterprises where the operations are complex. These are treated as audits which in statistical terms, report the highest performance by unit.

In this case, If we consider that each selective audit reports an average yield of $ 80 MM , In this way, releasing of 138.375 controller/hours is equivalent to releasing approximately 1,000 additional control activities, which a profit that would reach MM$80,000, representing nearly 11% increase in the yields of selective processes annually.

**Table 9**

**Quantification of benefits in selective processes**

| | | |
|---|---|---|
| 1 | N ° of hours released (in-200 working days) | 138,375 |
| 2 | Coverage App. Average per audit in MM$ | 80 |
| 3 | Approx. additional control actions | 1,000 |
| 4 | Total estimated total performance in M$ | 80,000 |

Importantly, these benefits are obtained only by reusing the control force in more profitable tasks, without neglecting the objected income process, which obviously maintain the current levels of expected performance in terms of magnitude.

### 3.9.2 Conservative scenario. Use in preventive control processes

Another possibility is to use this control force to support preventive control tasks, also known as Control Presence or field work. (Established business).

On average, each hour represents 3 control action for each pair of controllers or officers, and the liberation of 138,375 hours of control represent an amount of 207,562 additional control actions.

**Table 10**

**Quantification of benefits in preventive processes**

| | | |
|---|---|---|
| 1 | N ° hours released (in-200 days) | 138.375 |
| 2 | N ° of audit actions in 1 hour | 3 |
| 3 | N ° man hours by chronological time | 2 |
| 4 | N ° actions audit (1) * (2) / (3). | 207.563 |

If we consider that approx. 700,000 field actions are conducted each year, we would obtain an increase of about 30% in this type of control.

In summary, and after analyzing these scenarios, the implementation of this model has as main benefit, the liberation of resources. The decision for the distribution of these additional resources will depend on optimization criteria and prevailing control needs.

Finally and as the next topic will show, the expected benefit for the project exceeds the software acquisition costs and its implementation, which makes it attractive to the project due to the possibility of generating Know How and incorporate these “optimizers” in other critical processes of the service, generating growing expected returns at a global level.

### 3.10 Analysis of the implementation costs versus the expected benefits

The proposal of this optimization model in the objection process of the Income Operation is an example that can be used as a starting point for the incorporation of this type of models or system in other processes, as or more critical as the income operation.

The cost of this tool is divided into two important items: acquisition and implementation. The acquisition cost will depend on the software required.

In this case, the software that is recommended is AMPL CPLEX. As discussed in previous chapters, AMPL corresponds to the program that allows writing mathematical models,

while the CPLEX contains algorithms that solve the problems (in this case SIMPLEX). The total cost is $ 15,000 M for the first year and includes the acquisition of two licenses, training, and technical support. For the following years and for being in the regime, a cost of $ 2,000 M is estimated for updates and maintenance.

Since the use of this tool involves the management and administration of a large amount of data, the project costs stipulates the purchase of a server that allows the storage and management the data and information generated. This way the necessary Hardware, according to the volume of quantified information, corresponds to a layer server which cost is $ 14,000 M.

**Table 11**

**Costs for incorporating the model**

| | | |
|---|---|---|
| 1 | Unit cost for license M$ (10.000 US, US =$ 500) | 5,000 |
| 2 | N ° of licenses required initially | 2 |
| 3 | Initial training and technical support in implementation ($M) | 5,000 |
| 4 | M$ Hardware Cost | 14,000 |
| **5** | **Total Implementation cost M$ (1) * (2) + (3) + (4)** | **29,000** |
| **6** | **M$ annual maintenance Cost (without considering new licenses)** | **2,000** |

Therefore, the total implementation cost of this tool is M$ 29,000, so we could conclude that in terms of magnitude; it is despicable compared to the benefits analyzed in the previous point, whatever the base of comparison used.

## 4. CONCLUSIONS

The proposed model complies with the aim of improving the current objection (re-ordering) solution at a minimum cost per process. This improvement translates into the selection of the best cases to review in terms of the expected cost versus the benefit ratio. The search and selection of cases that meet the best cost-benefit ratio is the big difference with respect to the current model. Since the current model cuts off the objected by observation and Regional Unit, selecting, in simple terms, those taxpayers that have certain level of difference or discriminant "upwards", are inside.

The result indicates that, although more resources are intended to serve a larger number of taxpayers, the expected performance is not increased enough to justify this increase in resources. On the contrary, the results show that the optimum would decrease in similar proportion the amount of control hours for the review of this process, in terms of magnitude, obtaining the same expected return.

Decreasing the audit hours for this process allows the release of a significant amount of control resources. These scarce control resources can otherwise be earmarked for other critical control processes, such as presence control or selective audits.

The use of these "extras" resources for the processes above mentioned can allow expected benefits of about 30% in control action of field control, i.e. to reach a higher amount of selective control actions, generating an increase in performance by 11% per year. The decision for the distribution of these additional resources will depend on prevailing control needs at the time.

The various analyzed scenarios suggest that the process is operating at its maximum performance capacity. The above is verified with the performance curve which grows at a decreasing rate reaching a point where continuing objecting taxpayers is not justified. This results in the need to continually review

those observations which are generating diminishing or negative performances; so, they should be replaced, deleted or modified as appropriate.

The analysis of solution or cross validation between the proposed model and the current model indicates that taxpayers who are not objected in the proposed model are mainly due to the high amount of taxpayers with "good" cost-benefit ratio in certain Regional Units. Being not fewer, it implies that the Regional Unit is quickly "full", leaving out many taxpayers. Therefore, this makes the need to analyze the results and "making flexible" the regional restrictions.

In order to maximize the potential of the AMPL-CPLEX Software, it is necessary that the information that generates the crossing of the income operation (main input) come in a defined and standard format that allows minimizing manual actions on data. If we were able to correctly define the input data formats and apply correctly the judgments of the model, we would minimize the processing time and the probability of error. The proposed tool is strong and very powerful in the amount of data that can be processed; however, it lacks flexibility with the formats of the data processing.

It is important to make the correct update of the parameters of the model. As mentioned above, the proposal for implementation indicates the continuous analysis of observations and performance control times. To have these parameters updated will emphasize the benefits of the model allowing more accurate results. It is also important for the study to incorporate new special model restrictions that enable to obtain feasible solutions. However, it is necessary to mention to be careful not to complicate the model since its objective may be lost by looking for perfection, making it unnecessarily more expensive. The models are a representation of the reality by means of abstract elements, making it impossible to logically cover 100% of reality. Getting a good approximation is useful.

The model used corresponds to an optimization problem solved with whole binary solution. The decision of this type of model is due to the characteristics of the studied process, where the objective is to maximize the expected performance subject to the restrictions capacity. The main advantages respond to the simplicity of the modeling, scheduling flexibility and the possibility of studying various scenarios.

Finally, the creation of this model through all phases namely: modeling, management and calculation of parameters of the model, assumptions, programming in AMPL, analysis of results and awareness, generates immediately the opportunity to establish new optimization models in other SII important processes and they allow to improve the use and distribution of resources. The processes that are feasible and at first would be excellent candidates to improve this technique are: VAT objection process, Regional Cargo processes selective audits, optimal routing in preventive processes.

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## 6. ANNEX. DETAILS OF MATHEMATICAL FORMULAS

### a) Objective function

$X_{ik}$ = { 1: Object taxpayer I from region k
0: Does not object taxpayer I from region k

$UR_{ik}$ = { 1: Taxpayer I belongs to region k
0: Taxpayer I does not belongs to region k

$IMPUG\_OBLIG_i$ = {1: Taxpayer I has PPUAi or RETEi 0
0: Yes no

$PPUA_i$= { 1: Taxpayer I has observations from PPUA and DISC I 10.000.000
0: Yes no

**Concept PPUA:** *Request for repayment by interim payments of profits earned.*

$RETE_i$={ 1: Taxpayer i has Cod 1000 from F22 0 and RETE 10.000.000
0: Yes no

$RCA_i = RC_i * FA(O_i)$

$O_i$ = Number of observations of the taxpayer i.

**$RC_i$ =** Expected returns associated with the taxpayer i. corresponds to the sum of the discriminant of the current process of each taxpayer multiplied by the factor of performance expected from each observation.

Then:

$$RC_i = \sum_{j}^{O} D_{ij} * FR_j \qquad \forall\, i = 1 \ldots N$$

**O =** Total number of observations from the system.

**$D_{ij}$ =** Discriminant of observation j associated with the taxpayer i. Corresponds to the differences found in each observation of the taxpayer.

**FRj =** Expected performance factor of observation j factor for the past three years. Determine the fraction of the average expected performance on the average of the distinction. This number reflects that "portion" of the expected observed discriminant, allowing in this way to prioritize.

Then:

$$FR_j = R\bar{O}_j / \bar{D}_j \qquad \forall\, j = 1 \ldots O$$

**$\bar{D}_j$ =** Average accumulated discriminant of observation j for the past three years. It is calculated as the sum of the Discriminants of each observation divided by the frequency or number of observations. Then:

Then:

$$\bar{D}_j = \sum_{t=AT-3}^{AT-1} \frac{D_{jt}}{F_{jt}} \qquad \forall\, j = 1 \ldots O$$

**Fjt =** Frequency of observation j in the tax year t.

**Djt=** Discriminant of observation j in the tax year t.

**$R\bar{O}_j$** = average expected Performance of observation j. corresponds to the expected performance of observation j divided by the total number of cases reviewed in three years.

Then:

$$R\bar{O}_j = RO_j / NR_j \qquad \forall j = 1 \dots O$$

NRj = Total No. of reviewed cases associated with observation j in the past three years.

ROj = Expected total returns of observation j for the past three years. It is calculated according to the sum of historical returns weighted with accumulated (3 years) probability of occurrence of each event.

Then:

$$RO_j = REfj * Pfj + REcj * Pc \qquad \forall j = 1 \dots O$$

**$REf_j$ =** Pro treasury accumulated observation j over the past three years.

$$REf_j = \sum_{t=AT-3}^{AT-1} REf_{jt} \qquad \forall j = 1 \dots O$$

**$Pf_j$ =** Probability that the observation j have returns in favor of Treasury. The calculation is cumulative from the last three years. The event is defined as:

P (positive returns associated with observation j / Total number of cases reviewed with observation j)

Then:

$$Pf_j = \sum_{t=AT-3}^{AT-1} \frac{Nf_{jt}}{NR_j} \qquad \forall j = 1 \dots O$$

**$Nf_{jt}$ =** Number of cases for observation j in the tax year t were revised with returns in favor of the Treasury.

**$RE_{cj}$ =** pro taxpayer Performance of observation j accumulated over the past three years.

Then:

$$REc_j = \sum_{t=AT-3}^{AT-1} REf_{jt} \qquad \forall j = 1 \dots O$$

**Pcj =** Probability that the observation j have returns in favor of the taxpayer. The calculation is cumulative from the last three years. The event is defined as:

P (negative yields associated with observation j / Total number of cases reviewed with observation j)

Then:

$$Pc_j = \sum_{t=AT-3}^{AT-1} \frac{Nc_{jt}}{NR_j} \qquad \forall j = 1 \dots O$$

**$Nc_{jt}$ =** Number of cases for observation j in the tax year t that were reviewed with returns in favor of the taxpayer

## b) Restrictions

$$\sum_{i=1}^{N} X_{ik} * T_i * TC_i \leq Max\{0, C_k - TAjuste_k\}$$

$$T_i = \sum_{1}^{O} T_{io} \qquad \forall i = 1 \dots N$$

**Ti:** Total time of review associated with the taxpayer "i".

**TIO:** time for the Review of the observation 'o' associated with the taxpayer "i".

**TCi =** attendance rate of taxpayer i. This rate is defined in a discreet way according to the following scenarios:

I. If Oi = DISTi = > TCi = 0.000001

II. If Cod1000i > 0 and RETEi > 0 and Oi > MAFi, = > TCi = 1

III. If Cod1000i > 0 and RETEi > 0 and Oi = MAFi, = > TCi = 0.8

IV. If Cod2000i > 0 and disciplinary > 0 and Oi = MAFi, = > TCi = 0.3

V If Cod2000i = 0 and Cod1000 = 0 and disciplinary > 0 = > TCi = 0.3

VI. 1 in other case

# TAXPAYER'S BENCHMARKING AS TOOL OF FACILITATION AND CONTROL IN PERU

**José Antonio Miranda López and Luis Alberto Ferreyros Sifuentes**


## SUMMARY

The article presents the benchmark analysis of tax behavior as a support tool for resolving tax procedures. The importance of this tool is that it allows evaluating the taxpayer behavior with greater detail and objectivity, strengthening control activities in the resolution of procedures, without affecting the facilitation activities, considering that the rules for resolving a procedure have deadlines. First it explains what a benchmark analysis is and its importance in relation to the institutional objectives. It then analyzes the contribution within the resolution of tax procedures context initiated by a party or ex officio. Subsequently it describes the Peruvian experience and possible future directions. Finally, it presents the conclusions.


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**Content**



Benchmark analysis can be defined as the analysis performed by a tax administration official based on the information provided in real time by the Administration Systems, regarding a set of potential risk alert indicators and/or referential indicators from a good tax-customs behavior. The analysis is carried out as part of the necessary tasks to resolve a tax procedure initiated upon request from a party or an ex officio procedure followed by the administration.

The above mentioned indicators aim to help the Administration´s official in determining whether a tax procedure is appropriate and complies with the rules, in the case of a procedure of one party (for example: a tax refund petition) or an ex officio procedure (e.g.: a control or monitoring action).

These indicators can be potential risk alert indicators or good tax behavior indicators; both cases provide a rating of various tax-customs behaviors allowing the administration´s official make several decisions during the procedure, for example: extend the investigation, deny a request, and reschedule performances, among others. Regarding their structure, they have the characteristic of being very easy to read (or interpret), in order to simplify and save time on analysis to administration officials, improving this way, efficiency as well as effectiveness in the use of time[1].

The importance of the benchmark analysis from strategic-institutional viewpoint , is that now a days, all tax administration considers within its main strategic objectives the idea of improving the procedures, as a means to improve voluntary compliance through the reduction of compliance costs and response times; at the same time, the Administration seeks to increase the risk of non-compliance by strengthening the control processes. Under this scenario, it could at first be said that there may be an apparent contradiction between facilitation and control; since there is a limited time to solve a procedure, the greater number of man hours are spend on facilitation activities; there will be less man hours available for control activities. The benchmark analysis allows to resolve this apparent contradiction by increasing the productivity of man hours assigned for controlling, i.e., to allow to perform the control activities needed to resolve a procedure and make decisions, in the shortest time .

In the case of Peru, the National Customs and Tax Administration Superintendence (SUNAT) include the facilitation ideas and control within its overall strategic objectives, for example, for the 2012-2016 period the following are among its main objectives:

1. *For the purpose of this document, a "control activity" is defined as that performed within the course of an administrative procedure, which aims to question the returns submitted by the taxpayer. On the other hand a "facilitation activity" would be all activity, that without questioning the aforementioned or declared by the taxpayer, prioritizes the conclusion of the procedure in a shorter time, trying to provide better service. It is important to note that all tax procedure that started of party or ex officio, include both types of activities.*

- Reduce tax and customs non-compliance by strengthening the control process, the implementation of a comprehensive risk system, the integration of tax and customs control procedures; as well as the improvement of mechanisms for detecting tax and customs illicit.

- Provide quality services to facilitate and encourage voluntary compliance. Improve the competitiveness of the country facilitating and modernizing foreign trade which ensures a safe and agile supply chain in customs clearance, reducing compliance costs of tax and customs obligations, providing quality services to the citizen; as well as modernizing and optimizing the service channels coverage.

Another feature of the benchmark analysis as it will be explained more ahead, is that it transfers the tax administration´s (and in general of the States) risks and costs, derived from the adoption of procedures that prioritize the facilitation, allowing in any case, a better allocation of risks between the parties involved in an administrative procedure.

## 1. ADVANTAGES OF THE BENCHMARK ANALYSIS – ANALYZING THE PROBLEM

The advantage of the benchmark analysis can be illustrated more didactically based on a tree diagram which shows the possible status of a tax procedure resolution, as on the scheme on the graphic No. 1.

On this diagram, and for simplicity, two (02) states or alternatives regarding the result of a tax procedure (merit, inadmissible) are presented.

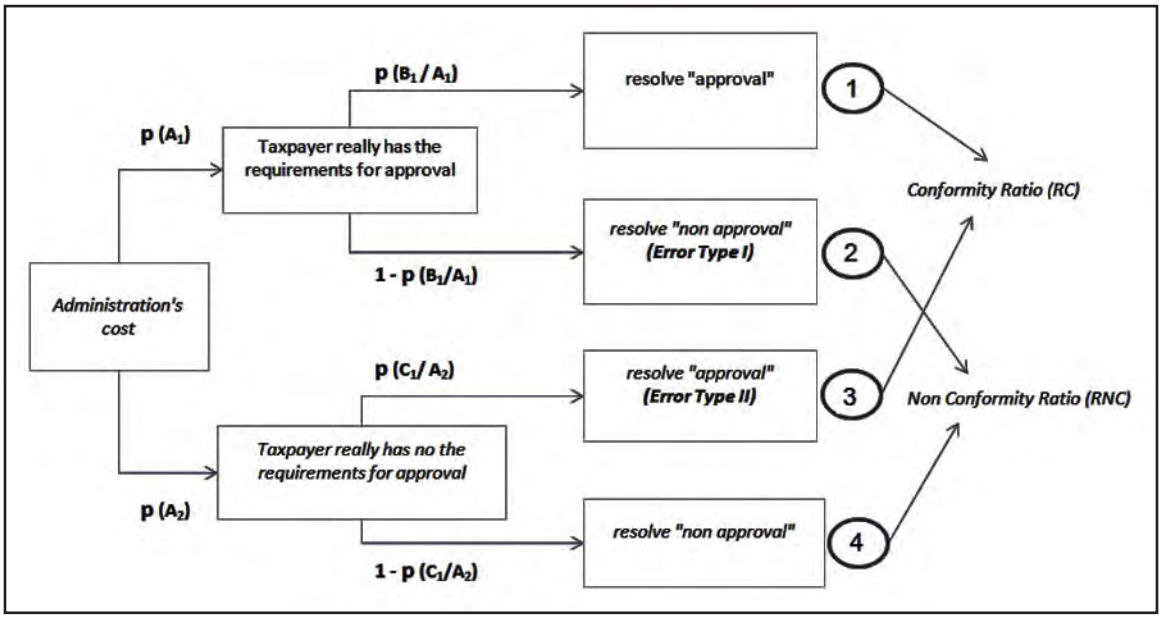
On the tree´s first branch two (02) alternatives are assumed: the taxpayer really complies with the requirements for the procedure. (Or does not comply with the requirements)[2].

On the second branch two (02) alternatives regarding the way the Administration resolves (merit, inadmissible):

2. *This branch indicates that the taxpayer meets (does not meet) the requirements, regardless of what the Administration detected as a result of the review carried out..*

**Graphic 1**

**Costs due to lack of information for the control**




**Elaboration**: The authors

The diagram on the graphic N° 1 has four possible situations for resolving a tax procedure ([1], [2], [3], [4])[3]. Situations [2] and [3] generate costs for the tax administration and for taxpayers; these costs are the result of the lack of timely or real time information.

Regarding the aforementioned, in situations [2] and [3], due to the absence of complete and timely information, the administration official may make two (02) types of errors (Error type I: Resolve a case as "non approval"when in fact it complies with the requirements (situation [2]); and Error type II: resolve "approval" when in fact the requirements are not completed (situation [3]).

The Error Type II happens in tax procedures that prioritize the facilitation or control.

For example: an authorization for printing payment vouchers. In the case of Peru this is an "immediate approval procedure" which prioritizes facilitation. However, it is worth noting that if the person has a good tax behavior, the Administration grants such permission, and this empowers the taxpayer to issue a tax credit for VAT[4], and this may eventually lead to the issuance of false vouchers. The absence of information about their background can be in detriment of the Administration and the State. This absence is contrasted with indicators and with the benchmark analysis.

In case of audit or verification, this is an ex officio tax procedure, which gives priority to control activities. Similarly, the absence of information from the controlling official prevents to deepen on certain aspects or critical points of the taxpayer

3. *Situation [1]: declare merit a procedure when the taxpayer is eligible for this*
   *Situation [2]: declare inadmissible a procedure when the taxpayer meets the conditions for being admitted*
   *Situation [3]: declare merit a procedure when the taxpayer does not qualify for it.*
4. *Value Added Tax*

who is being audited; and, in this simplified model, it increases the risk for committing Error type II. In this case the referential indicators and the benchmark analysis provide clues to the auditor to decide upon what aspects or critical points of the taxpayers accounting (or on which economic events), the audit or verification should deepen.

The Error Type I, is a typical error in an administration that, if it does not have enough information, requires the presentation of certain formal public documents, which may lead to the "non approval" of a procedure started by a party, when it actually deserves to admit the procedure.

This error generates costs for the Administration, expressed in the number of complaints handled by the Ombudsman or by the appeal procedures that result from a previous judgment. The good behavior referential indicators help the administration official to make a proper decision, avoiding the aforementioned costs.

With respect to the estimates of the errors type I and type II, it should be mentioned, going back to the graph N ° 1, that in some cases the administrations only have ratio estimates of "acceptance" (merit or approval) or "non-conformity" (non-approval) with regard to the procedures. However, it is important to carry out the estimates of both types of errors[5] in order to improve the procedures.

## 2. THE FACILITATION AND THE ADMINISTRATIVE PROCEDURE PRINCIPLES IN THE PERUVIAN LEGISLATION

The new General Administrative Procedure Law was approved in the Peru by law N ° 27444 enacted on 04.04.2001.

This law defines the administrative procedure as: " ... the set of acts and proceedings processed in the entities, leading to issuing an administrative act which has legal individual effects on the taxpayer's interests, obligations or rights".

This definition refers to a set of "acts or proceedings", that in terms of this article are understood as "activities"; they could be: facilitation activities or control activities[6].

Among the administrative procedure principles established by the law, is the privilege of subsequent control principle[7]. This principle together with the veracity[8] and diligence[9] principle set up a framework which favors the facilitation of the procedures carried out by taxpayers.

The law also establishes regarding the qualification of administrative procedures, that these procedures can be "automatically approved" or be "previously assessed" by the entity, and in this last case, if there is no timely ruling, they are subject to positive silence or

5. *On the graphic, this estimate involves calculating conditional probabilities [1 - P (B1/A1)] for Error type I and [P (C1/A2)] for Error type II.*
6. *" In reality the definition in the law, does not impose any restriction ex ante"*
7. *Which states that: "the processing of administrative procedures will be based on the application of the post control;" reserving the administration authority, the right to check the veracity of the information presented, the fulfillment of regulations and apply the relevant sanctions in case that the information presented is not truthful"*
8. *The truth principle states: "in the processing of the administrative procedure, it is presumed that documents and declarations submitted by taxpayers under this law, respond to the truth of the facts that they claim. This presumption admits evidence to the contrary"*
9. *The speed principle points out: "those involved in the procedure must adjust their performance in such way that it endow the admissible maximum possible dynamics, avoiding procedural actions that hinder their development or constitute mere formalisms, in order to reach a decision within a reasonable time, without making the authorities not comply with the procedure or violate the law"*

negative silence. Each entity must have this condition in their Administrative Procedures Single Text (TUPA)[10].

In the case of procedures with "automatic approval", the application is considered to be approved when it is submitted to the administration.

In the case of "pre-assessment" procedures, subject to positive silence, the request is considered approved, if within the legal deadline the administration has not issued a ruling.

In the case of "pre-assessment" procedures, subject to negative silence, the request is considered refused, if within the legal deadline the administration has not issued a ruling.

From the model No.1 on the graphic, we see that the General Administrative Procedure legislation, by applying the "automatic approval" and the "positive silence", prevents from making Error type I. However, it makes possible Error type II to take place.

What does the aforementioned means in terms of risk allocation between the administrative procedure actors (Administration-State, the Administration´s official and the taxpayer)? For Automatic approval procedures, the legislation eliminates the risk of making Error type I. It should be noted that in the absence of the automatic approval, such risk could eventually turn into costs (such as Administration costs resulting from complaints or disputes). So, while the Administration does not resolve the dispute there are costs and risks assumed by the taxpayer. In this case, the administrative procedure law is useful.

However, automatic approval procedures increase the risk of making Error a type II. The Administration costs derived from these risks often remain hidden (example: grant an authorization to issue invoices to an evader suspect; or to provide a tax benefit to someone who does not qualify for this benefit).

Although the law regulates the power for a subsequent control; in the case of automatic approval or pre-evaluation procedures[11], such subsequent control is just a sample and covers a small percentage of cases. Therefore it does not minimizes the risk assumed by the administration or the State from declaring merit a procedure when in reality it does not qualify for this.

In this case, the importance of the benchmark analysis relies on the fact that it provides systematized information on the taxpayer behavior, in a timely manner, so that the administration official may make a better statement. Another important element is the fact that the type II risk is not entirely assumed by the administration or the State anymore, but that it could be assumed by the public official who issued the ruling, as far as different responsibilities or review protocols are assigned, which necessarily include the review and analysis of the referential indicators.

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*10. Article 30° Law N° 27444.*

*11. Article 32 of the Act states:*

*For the post control, the entity to which an automatic approval or prior assessment procedure is performed, shall be obliged to check ex officio by the sampling system, the authenticity of the statements, documents, information and translations provided by taxpayers. The control comprises not less than ten per cent all records subject to the mode of automatic approval...In case of fraud or misrepresentation in the statement, information or documentation submitted by the taxpayer, the entity considers thaty the respective requirement has not been fulfilled for all its effects, proceeding to communicate the fact to the hierarchically higher authority, if any, so it can declare the nullity of the administrative act based on such statement, information or document; impose on who has used that statement, information or document a fine on behalf of the entity between two and five tax units existing at the date of payment; and, in addition, if the conduct conforms to the cases referred in title XIX offences against the public faith of the criminal code, this must be communicated to the public prosecutor so it can present the corresponding criminal action.*

As for the "privilege of subsequent controls" principle, it should be noted that by the date of the Law, this principle could have had the objective of facilitating the procedure, through expedite procedures, in a context where the abilities to process information from different sources, with regard to the taxpayer behavior were not developed enough.

Currently, and as the capacity to cross information from various sources (in real time) increases, it is expected that concurrent controls, without harming the facilitation, may be extended.

Therefore, in conclusion the benchmark analysis as a support tool does not harm the facilitation and the expeditious nature of procedures, by reducing the risk and cost assumed by the State when making error type II. It also allows a better allocation of risk between the Administration and the official responsible for resolving the procedure.

## 3. STEPPING CONTROL BY USING THE BENCHMARK ANALYSIS

In Peru, the power for determination and control is regulated in Chapter II of Title II of the Tax Code. In this regard, article 62 of the said Code establishes that the control function includes inspection, investigation and controlling compliance with tax obligations, even for those individuals who are exempt, or have tax benefits.

There are various types of field inspections performed by the tax administration, such actions are ex officio procedures.

According to the graphic No.1, the probability for making Error type II in these procedures is quite high, considering that such operations are carried out (in some cases unannounced manner) and by their nature, with insufficient information, both in taxpayers facilities[12] or by travelling on roads or highways[13] .

For example, in the case of a verification of goods on highways, the decision to extend an inspection of vehicles, considering the taxpayer´s background, is facilitated through the benchmark analysis indicators. On the other hand, in the customs field, the improvement of concurrent control procedures related to clearance schemes substantially improves, if in depth analysis are performed on the existing risk models, by using referential indicators of tax behavior.

In the case of tax audits, using referential indicators, allows tax administration officials to address the review of the internal control systems strategy as well as the accounting documentation systems. In this case the benchmark analysis may improve the determination of the critical points and identification of audit risks.

The aforementioned examples highlight the importance of the benchmark analysis, as a support tool for the deepening of control activities. Within a tax audit context, there is an improvement in the efficiency and productivity of the tax auditor, both at the stage of the audit planning as in its execution. As protocols incorporate the revision of referential indicators, the costs and risks for not detecting an inconsistency are transferred from the Administration to the tax auditor.

Similarly, in the case of field inspections, as they are incorporated into review protocols, the need to review referential indicators, the risks for not detecting inconsistencies in the field are transferred to the officials responsible for conducting such reviews.

12. *In the case of payment operational verification and/ or delivery of payment vouchers, labor inspection or control of revenue operations, among others.*
13. *In the case of control operations of vehicles with goods (mobile Control)*

## 4. THE PERUVIAN EXPERIENCE - THE TAXPAYER BENCHMARK ANALYSIS MODULE - ARCO

In the Peruvian case, software applications for the benchmark analysis have been developed which provide a rating on the taxpayers' behavior regarding false statements[14].

Such applications are useful as a support tool during the monitoring and control process (mainly in the selection stages for the control, planning and execution of the audit); as well for resolving non-litigation procedures (refunds or tax credits); the main purpose of such applications is to identify taxpayers with high risk of tax non-compliance.

The software calculates a set of tax compliance/ non-compliance indicators, previously designed, and on that basis, it assigns specific risk levels or a joint risk level to a particular taxpayer.

The risks are established based on tax indicators of various kinds, which are used as score factors and if grouped they constitute a "compliance profile".

For example, within the "the taxpayer benchmark analysis module - ARCO " (SUNAT), a compliance profile is defined[15] as: "a set of indicators about tax behavior related to the presence or absence for omitting income and/ or having purchases that are repairable"[16].

The sign for omitting income is the gap detected between the greater amount of the estimated revenue based on the different sources of information available in the tax administration[17] and the revenue declared by each taxpayer.

On the other hand, the potentially repairable purchases are those made to unidentified suppliers or identified suppliers but whose tax behavior is not known, as described on the following table:

14. *E.i, the behavior in relation to the existence of omitted income and/or the registration of purchases that are not acceptable for supporting costs or expenses for tax purposes, particularly in relation to the VAT determination and the corporate income tax.*
15. *related to the veracity gap*
16. *"The taxpayer benchmark analysis module - ARCO ": SUNAT - 2011 (internal document) (page 3). It is important to note that the election of these indicators it was sought to avoid using indicators which affect the areas of revenue as to the areas of procurement, such as the VAT rate or ratio debit/credit, in order to isolate the impact on each item (to identify them) and avoid overlap, with which taxpayers analysis can be performed in segments.*
17. *Estimated income based on information in the drawdown system(SPOT), DAOT, State COA, VAT withholding regime, VAT perceptions regime, information on different refunds regimens, the difference between the average of the inventories and the one declared by the taxpayer.*

## Table 1

## Example of a compliance profile

| Variable | |
|---|---|
| CR | Compras nacionales potencialmente reparables. |
| **Fórmula 1/** | |
| CR = S813 + S798 – (T181 + T182 + T183) – (T184 + T188 + T186) | |
| **Sub-Variables** | |
| S813 | Total Compras Nacionales (Gravadas y no Gravadas) en el periodo. |
| S798 | Monto de Compras Importadas Declaradas. |
| T181 | Retenciones de IGV por Liquidación de Compra sobre tasa IGV (base imponible). |
| T182 | IGV pagado por Utilización de Servicios sobre tasa IGV (base imponible). |
| T183 | IGV pagado por Importaciones Aduanas sobre tasa IGV (base imponible). |
| T184 | Compras a proveedores que son Principales Contribuyentes en general, se considera el mayor importe entre el DAOT ingresos vs DAOT costos vs PDB exportadores. |
| T186 | Compras a proveedores Medianos y Pequeños y resto solvente, se consideró el mayor importe entre el DAOT ingresos vs DAOT costos vs PDB exportadores. Considera a un proveedor como resto solvente cuando su diferencia de ratios del IGV es < S/.10,000 y la suma de sus ventas gravadas>0. |
| T188 | Compras a proveedores Mepecos y Buenos Contribuyentes/Agentes de retención/Agentes de percepción. Se consideró el mayor importe entre el DAOT ingresos vs DAOT costos vs PDB exportadores. |

1/ Si la fórmula (S813+S798-(T181+T182+T183)) es < 0 ó es > S813, entonces se considera S813 en su lugar. Adicionalmente, si CR < 0 se considera 0.

| Variable | |
|---|---|
| CRNF | Compras nacionales potencialmente reparables por operaciones no fehacientes. |
| **Fórmula** | |
| CRNF = T185 ; si y sólo si: CR / (S813 + S798 - T181 – T182 – T183) > 80% | |
| **Sub-Variables** | |
| T185 | Mayor valor entre las compras informadas/imputadas a proveedores en DAOT ingresos (informado por el proveedor) vs DAOT costos (informado por el contribuyente) vs PDB exportadores. Excluye a los principales contribuyentes de todas las dependencias. |

The compliance profile is calculated in the following way:

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | - | 40 % | * | Estimate of omission of income / (total income + estimate of omission of income) | + | 60 % | * | Dear repairable shopping / total purchases |

The main use of compliance profiles is to identify taxpayers with high risk of tax non-compliance to proceed with addressing the corresponding control actions and especially addressing the type of control action.

To determine the type of control action, control rules may be established, based on the taxpayer level of compliance/non-compliance and the type of control that is necessary according to administrative procedure or the ex officio type of procedure[18]. These rules may involve the taxpayer review as well as their suppliers and other related taxpayers.

In general the benchmark analysis in the control field can be used to identify taxpayers with risks such as:[19]

- Improper tax refunds and tax benefits requests in general.
- Risky export operations (by overvaluation, undervaluation, money laundering Such operations could be detected using complementary risk indicators for employees involved in the customs control.
- Control of risky import operations (by overvaluation, undervaluation, sub-counting, contraband). Such operations could be detected by using complementary risk indicators for employees involved in the customs control.
- Evaluation of suppliers or customers of risky taxpayers, who have been subject to tax control actions (inductive and/or determinative actions), especially in those cases in which control actions should be implemented that have very short times to analyze taxpayers behaviors, as it is the case of massive control actions.

Outside the supervision scope and control processes, the Module could be used by other areas of the tax administration, which require knowledge about the behavior of taxpayers, who declare income or purchases taxed with sales tax or income tax, which contact the Administration to request the resolution of other types of tax administrative procedures. For example, the module developed to measure the taxpayer behavior can be used to predict their behavior in enforced collection actions and thus adapt the most appropriate type of action to be applied to each particular case.

One of the advantages of the analysis module is the simplicity in the interpretation of the indicators, such as: “any administration official, knowing about tax control or not, can have a first preliminary idea about the taxpayer´s tax behavior, and proceed accordingly...”(based on the compliance profile)“[20].

Once the indicators are calculated by using the “Benchmark Analysis Module”, a level of risk is assigned to the taxpayer, by type of specific risk or jointly risk level, so their behavior can be qualified following their compliance level as shown in the chart No. 2:

18. *As examples of ex officio procedures related to control include inspections, operative, inductive actions, audits or verifications.*
19. *The following risks were extracted almost exactly from the document: “ The taxpayer benchmark analysis module - ARCO “: SUNAT - 2011 (internal document) (page 5).*
20. *“The taxpayer benchmark analysis module - ARCO “: SUNAT - 2011 (internal document) (page 5)*

**Graphic 2**

**Levels of assigned risks- ARCO Module**

| Leyenda | | |
|---|---|---|
| COLOR | RANGO DE CUMPLIMIENTO | NIVEL DE CUMPLIMIENTO |
| | [100% - 90%> | MUY ALTO |
| | [90% - 80%> | ALTO |
| | [80% - 75%> | MEDIO |
| | 75% - a menos | BAJO |

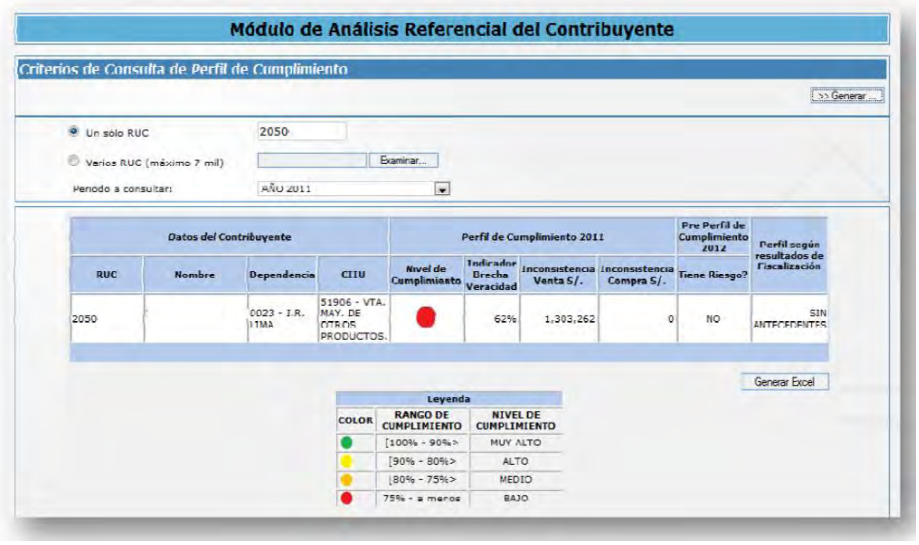
**Source:** Referential taxpayer analysis module - ARCO (SUNAT)

Another advantage of the application is that it allows process information in batches for sets of taxpayers, this speed up the Administrations operational areas work and therefore the productivity of resources is improved.

Graphic No.3 presents a display of the application designed for specific queries and batch:

**Graphic 3**

**Consultation module - Referential analysis (ARCO)**




**Source:** Referential taxpayer analysis module - ARCO (SUNAT)

## 5. POSSIBLE FUTURE DIRECTIONS

The deepening of the benchmark analysis will be developed in parallel with a better use of the data included in the databases.

The use of applications that are to be finally built will depend on the following factors:

- The quality of the data entering the administration and which the systems process:

The data entering the Administration needs to be as close from reality as possible. Therefore it is important that the software used for the survey minimize the risk of entering inconsistent data. Even if this happens, it is necessary to improve the procedures for ex post data management.

- The identification and definition of non-compliance risks:

The identification of non-compliance risks requires an analysis of the economic reality of taxpayers. This analysis cannot only be from the taxpayer's data[21] but from third sources and mainly from the systemic analysis of the sector in which the taxpayer performs.

- The ability to convert data entering the administration as relevant information for making decisions:

Once the risks are identified, profiles or sets of indicators that reflect the risk to be measured should be defined (the art of building indicators).

- The use of new information technologies

New information technologies will provide higher processing capacity in less time; therefore, it is an important element for the in depth benchmark analysis, the capacity of the Administration to make the right decisions regarding the adoption of a new software or hardware tools.

## 6. CONCLUSIONS

- The importance of the benchmark analysis as a tool for the facilitation and control during the resolution of tax procedures is to provide to the tax administration official, more and better information in real time, with respect to the taxpayers compliance/non-compliance risks, allowing to make better administrative decisions.

- The benchmark analysis based on information systems and complemented by decision rules which depend on the results of the system, should be the basis for reducing the subjective element that can exist in the decision-making aspects (usually qualitative or complex) where arbitrary decisions may still prevail.

- Based on the principle that the State should provide to taxpayers a timely, quality and low cost service, for improving competitiveness; the regulations of the administrative procedures in the Peruvian case, encourages the facilitation.

*21. Given that there may be errors in data entry or omissions in tax returns.*

In this context, the development of controls based on the benchmark analysis allows for this objective of facilitation not to enter into conflict with control objectives that every State has the right to exercise over their taxpayers.

- A greater accumulation of best quality information, available thanks to the benchmark analysis, allows to improve the staff revision protocols applied for resolving procedures, allowing a more optimal allocation of risks among the participants in the administrative proceeding (the Administration, the administration official and the taxpayer), which finally results in the improvement of economic efficiency.

  As discussed in paragraphs 2 and 3; the absence of information often leads the State to design coverage mechanisms against risks[22] by making bad decisions. The disadvantage of these coverage mechanisms is that the risk is not always attributed to the participant who should really address it, therefore resulting in a less efficient situation.

- In the specific case of the Peruvian tax administration, computer applications for the benchmark analysis have been developed which provide a rating for the taxpayer's tax behavior regarding false statements, being the expectation to expand and deepen such future developments.

- In this regard, the following is important: the treatment of the information; based on the quality of the data entering to the tax administration, the ability of the Administration to convert these data into relevant information for decision making; a correct identification and definition of the risks; the building of indicators that collect such concepts; and, finally, the use of new information technologies.

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22. *Called as Errors type I or type II in the referred paragraphs. These risks are covered from the legal point of view for example designing procedures for automatic approval or positive silence.*

# * PROGRESS IN TRANSPARENCY AND EXCHANGE OF TAX INFORMATION

**Domingo Carbajo Vasco and Pablo Porporatto**


## SUMMARY

The authors review in this article the concepts and procedures (automatic, upon request, spontaneous) of this international tax information exchange as well as its latest developments; Noting, in this respect, the impetus given to it by the G20 meetings in recent years as a way to fight international fraud and tax evasion.

They also point out how this development has had several drivers: the OECD through the "Global Forum" and the obligation to not appear on their "black list" of tax havens, for Nations to be transparent on tax matters, exchanging automatic information with at least 12 other Nations or territories; the European Union, the United States of America, etc.


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**Content**



The vision of "harmful tax competition" developed at the international level, through tax havens, preferential regimes, etc., suffered a change of perspective, from the new stance of the Organization for cooperation and economic development (hereafter OECD) in 2001, resulting in demand for transparency and for tax information exchange between States and territories to become the key traits that distinguish the cooperating jurisdictions from those that are not cooperating[1].

Moreover, non-cooperating jurisdictions, not collaborating in the effective tax information exchange would be included in a kind of "black list", with the decided intention to raise international reprisals against them.

The ability to hide or misrepresent aspects or features of the real economic capabilities of multinational enterprises, high income individuals, etc., avoiding paying in the affected States, by reducing and even eliminating the global tax burden, from the opacity that certain jurisdictions offer is what creates an unfair competition with respect to those States which are harmed in their tax bases.

The taxation level, low or null, of certain economic capabilities is an issue left out from the sovereignty of each jurisdiction, however, is impossible to ignore the attraction involved when designing a tax planning scheme.

In fact, the recent project presented by the OECD which was commissioned by the G-20, entitled "Base Erosion and Profit Shifting" (hereinafter, BEPS), highlights the importance that have tax differences in the design of tax planning involving the erosion of taxable bases and transfer of benefits[2] between tax jurisdictions, taking advantage of the different tax policies and national legislations.

1. *Exchange of information for tax purposes, constitutes one of the issues of greatest interest and attention by the international fiscal doctrine and for tax administrations, having recently been promoted from the position adopted by the G-20 as a consequence of the systemic crisis in the year 2009. In this sense, it's worth noting that the Congress of the "International Fiscal Association", IFA, from 2013, to be held in Copenhagen, will discuss in their second topic about: "Exchange of Information and Cross Border Cooperation between Tax Authorities". The CIAT General Assembly N ° 47 in Buenos Aires (Argentina) from 22 to 25 April 2013, also decided to recommend, among other things, the exchange of information and mutual assistance between tax administrations.*
2. *http://www.oecd.org/tax/beps.htm. The fiscal strategies BEPS undercut collection and justice of tax systems, reason why the OECD has strengthened its work to put an end to "double non-taxation". The original report has been updated. An action plan will be presented at the G-20 ministers meeting in July this year. This project opens the door to the specific work in different areas to design action plans to contain these practices and it assumes, among other things, the transfer of international concern since the pure tax evasion (non-reported income, operations, assets, etc.) to more sophisticated forms of tax avoidance and tax planning that directly leverage the fragmentation of tax policies and the existence of non-cooperative jurisdictions.*

Closer in time, from the systemic crisis, the G-20 takes a fierce stance against the opacity that certain jurisdictions offer. The effective implementation of the transparency standards and information exchange developed by the OECD Global Forum is one of the great challenges of the Fiscal policy at international level.
To avoid formalism and the theoretical fulfillment of the transparency standards, good governance and information exchange, the OECD Global Forum incorporates the control by other tax administrations (hereinafter TAs), the "peer view" review system, which includes a second phase of control, focused on cash, beyond the formal or legal compliance of the mentioned standards. From their effective working practice, even "ratings" will be assigned to those evaluated countries.

It is from this moment that a "peer review" is established with respect to compliance with the above mentioned standards, when there are some facts that enable more and better possibilities for the exchange of international tax information, even with jurisdictions that are traditionally considered tax havens.

In this context, where greater transparency and an effective information exchange in the tax field is needed, when TAs are restricted in their actions by the limits imposed by the national sovereignty of countries, the administrative cooperation and, in particular, the use of the information exchange tool for controlling "global taxpayers" is needed. This tool is essential to capture resources from tax evasion and international tax planning, in a context where it is not feasible to raise new taxes or increase the existing burden.

## 1. THE ISSUE AND SIZE OF THE "OFFSHORE"

In spite of the more rigorous analysis carried out by the OECD and other international organizations, it is usual to hear about "tax havens", tax shelters, territories or "offshore" regimes in everyday lexicon, among other possible expressions to refer to jurisdictions, spaces or regimes that generate a harmful or unfair tax competition at the international level.

Aside from the terminological issue, which we will refer to more precisely later, based on the OECD and other international organizations studies, it is important to keep in mind that these tax havens or "offshore" financial centers tend to be used for tax purposes (using the opacity and the beneficial tax treatment), trying to avoid or reduce the payment of taxes in the investors country of residence, but they can also be used for other financial reasons or to avoid some other form of public regulation; What's more, increasingly mixed with the tax reason, the opacity is also sought for other reasons (for example, resources from illegal business).

Transactions in this kind of "offshore" centers are varied and for many of them the only underlying economic reason is the elimination of taxes or the hiding of assets, for example.

Such operations may have one of the following tax purposes:

- Hide income and assets (financial savings, consumption through international credit card, boats, aircraft, properties, etc.).
- Hide the identity of the owners and effective beneficiaries through the interposition of companies and other schemes (funds, "trusts", etc.).
- Defer the moment of exteriorization of incomes, by hiding or artificially delaying the distribution of dividends.
- Hollow (or erode) the tax base of companies based in other countries through distributed interests (sub-capitalization or small capitalization) or through transfer pricing (triangulation of exports, etc.).

- Loans (“back to back” loans).
- Fictitious change of tax residence.
- Hide other illegal tax practices, for example, abuse of agreements with third countries (“treaty shopping”).

Affected countries, upon request from international organizations (in particular OECD) have implemented containment or anti-abuse measures, aimed to avoid the above-mentioned practices. Among others we can mention the transfer pricing rules, the restrictions or even the impossibility of deducting expenses and expenditures which counterparts reside in these jurisdictions, the rules to prevent the sub-capitalization or short capitalization, the international tax transparency standards (“Controlled Foreign Corporations”), as anti-deferral measures, etc.

On the other hand, the magnitude of the assets, income and benefits that are hidden in tax havens for evasion or tax fraud purposes, and the consequential tax evasion, is difficult to determine. The reason for this is within the existence of the phenomenon itself, which is the possibility that such jurisdictions avoid the detection of their taxation capacity by the states, their secrecy and the absence of tax information with respect to other TAs. However, some estimates carried out resulting from the most recent studies will be mentioned as follows.

For example, the “Tax Justice Network” (hereinafter TJN), has published that, around 26 billion Euros (US$ 32 trillion) are hidden and tax-free in various tax havens. It also indicates that 91,000 of the world’s richest people, representing the 0.001% of the world’s population, possess 30% of private financial wealth worldwide and more than 50% of finance in offshore tax havens.

Countries around the world that send large amounts of money to tax havens are mentioned. In regards to Latin America and the Caribbean, the study indicates that the richest people in 33 countries sent twice an amount equivalent to $ 999 billion to tax havens between 1970 and 2010. More than a quarter of that amount comes from Brazil.

This Association estimated that Latin American money in tax havens is - 2.058 billion - more than the double of the external debt of these countries.

The report said that the 10 largest private banks in the world handled more than 6 billion dollars in 2010 destined for tax havens, nearly triple, in relation to the 2.3 billion five years ago.

James Henry, author of the mentioned study, based his study on data from the IMF, the World Bank and the Bank for international settlements. TJN report estimated that at least 21 trillion dollars in financial assets were deposited by private individuals in Switzerland and the Cayman Islands.

If those amounts reported an annual yield of 3 percent and a 30% income tax was applied, TJN says that they would generate between 190 and 280 billion dollars of annual tax revenue collection, almost double of the aid provided annually by rich countries in the OECD.

Recently the International Consortium investigation Journalists (hereinafter ICIJ) published a study that identifies those who would hide money in tax havens. It indicates that there are more than 122,000 anonymous companies “offshore” or “trusts” in the tax havens of British Virgin Islands, revealing its 12,000 intermediaries and financial movements of dictators, Presidents, premiers, Ministers and powerful families, one of the major leaks in the history of journalism.

For the first time, the identities of those who hide assets would be revealed. It was a joint operation of the mentioned consortium, consisting of 86 journalists in 46 countries, in collaboration with the British newspaper “The Guardian”, the French “Le Monde” and other newspapers in the world, which analyzed the

information that got "filtered" in a "hard drive" of 260 gigabytes, containing two million e-mails, passports scanned, accounts, directories, and secretariats of anonymous companies in that discreet British tax haven. The leak also includes data of anonymous companies and their board of directors in Singapore, Hong Kong and the Cook Islands over a decade.

The information reveals the company's shareholders, directors, Secretaries, lawyers, accountants and "trusts". It also exposed a mechanism to hide identities, with lawyers with powers to further extend the secret on those accounts from banks and investment. China, Hong Kong, United States, Taiwan, Pakistan, India, Thailand, Russia and the former Soviet Republics are until now the countries whose citizens have more "offshore" companies or secret accounts. The British Virgin Islands are the second source of capital investment in China.

The tax authorities of the United Kingdom, United States and Australia recognized some time ago that they are working on evaders from the database published by this consortium and that they are willing to share it with other tax authorities.

## 2. THE PARADIGM CHANGE FROM THE CONCEPT OF "TAX HAVENS" TO THE "NON COOPERATIVE JURISDICTIONS" CONCEPT

The OECD, in a 1987 report, considered that a country or territory is described as tax haven when it offers harmful tax practices by the competition posed for other State tax systems. In 1998, the OECD specifies the criteria that a country or territory must have, so that it could be qualified as a tax haven[3]:

- Absence of taxes or merely nominal taxes for incomes generated by economic activities.
- Lack of effective information exchange.
- The lack of transparency in the application of administrative or legislative rules.
- The non-requirement of real activity to individuals or companies domiciled in such tax jurisdiction.

In July 2001, the Committee on fiscal affairs of the OECD reached a compromise by which such jurisdictions would not be sanctioned by their tax system, but by their cooperation degree on transparency and information exchange with other countries.

This means, in practice, a correction of the definition of tax haven, which, from that moment, is more linked to the degree of cooperation from a country or territory with other tax administrations than from their tax system.

3. *These four aspects are as characteristic of a tax haven by the OECD in its study called "Harmful Tax Competition, An emerging Global Issue", 1998, page 23, Box I.*

## 3. THE STANDARDS OF TRANSPARENCY AND INFORMATION EXCHANGE

The OECD and other international organizations understand that an effective way to promote a more fair tax competition is overcoming the lack of effective international information exchange. Accordingly, in recent years, they have been spreading and internationally encouraging the negotiation and signing of agreements to exchange information, as well as providing technical assistance in this matter.

In general, they are focusing this task to all the countries around the world, recognizing that the information exchange is necessary, not only for the so-called tax havens, but for other countries that, without meeting such conditions, have preferential tax regimes, standards or harmful practices, constituting also the information exchange a fundamental instrument for the application of the tax laws of a country within the framework of a more fair tax competition.

In this dissemination and technical assistance context, the Global Forum on transparency and information exchange of the OECD with the cooperation of several countries, developed standards for the effective international information exchange. These standards were agreed in the year 2000. Then, in 2004, the Group of 20 (hereinafter, the G-20) from 2009, calls for their effective enforcement.

In General, these standards are:

- Procedures for exchange of information upon request.
- Information exchange for the implementation of tax laws, both in criminal as in administrative matters.
- No restrictions on the information exchange, based on the conduct under investigation that could constitute a criminal offence according to the laws of the requested party if such conduct had occurred in the requested Party or because the required party may not need such information for its own tax purposes.
- Respect the security and limitations.
- Rules of strict confidentiality for the information exchanged.
- Availability of reliable information (in particular, banking, identity of the owners of companies or companies relating to trusts, foundations, and others, and accounting information).
- Legal and material reciprocity.

These rules try to maintain a balance between the respect of rights and confidentiality on one hand and on the other the possibility of providing tax information to other States, with a specific request. They also intend to avoid indiscriminate and speculative searches for information, known as “fishing expeditions”. When the information requested is foreseeably relevant, any information complying with the administration and the tax provisions can be requested.

The commitment to implement these standards by a jurisdiction is clear through the signing of conventions or international agreements which covers them.

As part of the technical assistance provided by international organizations, they have agreements or convention models that provide information exchange which comply with the above standards.

In this regard, it is worth mentioning, for example:

- The OECD Convention model to avoid international double taxation (hereinafter DTC). This model provides, in its article 26, information exchange for mutual administrative assistance[4]. There are also agreement models that have information exchange provisions such as those of the UN and of the Andean Community of Nations.
- OECD and CIAT's information exchange agreement models.
- OECD and European Union. Convention on mutual assistance in tax matters

Currently, the standard is the exchange upon request. In the future it will be the automatic or in block exchange, which is widely used in the international organizations meeting agendas and also in the tax administrations work. In fact the G-20 in 2011 (Cannes) has expressed it.

## 4. THE INTERNATIONAL ORGANIZATIONS POSITION

### a. Organization for Co-operation and Economic Development

In the OECD framework, the topic is treated in the following forums and working groups, in particular in its Fiscal Affairs Committee, especially N ° 10. regarding the "Global Forum on Transparency and Information exchange" (hereinafter Global Forum), even though it takes place within the OECD, it exceeds its actions, since it is a Forum that brings together 120 jurisdictions today (regarding Latin America it includes Argentina, Belize, Brazil, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Mexico, Panama and Uruguay) and representatives of 12 international observer organizations (CIAT, World Bank, IMF, UN, WCO etc.), while the OECD has only 34 Member States.

Its task is a permanent assessment on the situation of the Group of countries that have joined, in relation to the implementation of the "standards on transparency and for the effective international information exchange" mentioned above.

At the 5th Global Forum, held in Mexico in September 2009, where almost 70 jurisdictions and international organizations met, it was resolved to restructure it in order to provide all participants with the same powers and rights in the operation of the Forum, at the same time to provide the Forum with decision-making powers. The Forum made a solid step forward to play a leading role in the campaign to eradicate the international tax evasion. Based on the extraordinary progress mentioned above, the Global Forum made the following decisions:

- **Capacity for action:** a strong, comprehensive and global "peers review" mechanism was established, essential to ensure that members implement their commitments. A peer review group has been established to examine the legal and administrative framework of each jurisdiction and the effective practical implementation of the standards.

- **A global and inclusive scope:** enlargement of the Global Forum membership, remembering that all members will participate on equal terms.

4. *The text of this article was extended in July 2005 aim to comply with the referred standards (the restrictions such as financial ecrecy and the domestic tax interest were eliminated). In the year 2012 it was upgrade again considering the possibility of requesting information with respect to groups of people, etc.*

- **Speed up agreements:** to enhance the negotiation process and sign the agreements on information exchange, including the exploration of multilateral ways to do so.

- **Assistance to developing countries:** Establishment of coordinated technical assistance program to support small jurisdictions for implementing the standards.

The work presented by the Forum "Assessment of tax cooperation in 2009" shows that bank secrecy as a shield for tax evaders would be coming to an end, although, in the authors opinion, such argument is still a wish more than a reality. Finally, within the Global Forum framework, the peer review methodology has been developed for such jurisdictions, to evaluate if, indeed, they meet international standards on transparency and information exchange.

The Global Forum also met in Singapore (September 2010), Bermuda (May 2011), Paris (October 2011) and Cape Town (October 2012). The next meeting is in October 2013. On the OECD page the conclusions of other Global Forum meetings can be found[5].

**b. The Group of 20**

The problem of unfair international tax competition drew the attention of the G-20. This group joined the already designated standards defined by the OECD for international information exchange, in a meeting held by the Ministers of Finance of the group, in Berlin, in 2004.

The topic was also considered at a meeting in London, on April 2, 2009, involving the highest political authorities of its members. Among the documents from this meeting are, the "Declaration on Strengthening the Financial System", which includes a point that addresses the problems under the heading "Tax havens and non-cooperative jurisdictions".

In this regard, it should be noted that the members:

- Make an appeal to all countries in the world to timely adopt international standards for the information exchange already adopted by the Group in 2004.
- Highlights taking notice of the listing that the same day, on April 2, the OECD had published with countries that the Global Forum had identified as jurisdictions that are not committed to international standards for the Information exchange.
- Declare that they will take joint measures against those jurisdictions that do not agree to comply with the referred standards.

At the meeting that the G-20 had in Pittsburgh (USA), on September 25, 2009, the OECD General Secretary reported that:

- Since the call made by the group in April 2009, more than 90 agreements had been signed for the information exchange and more than 60 tax agreements were negotiated or renegotiated for satisfying the international standards for the information exchange.
- Most of the "offshore" centers already had committed to such standards and that those which had difficulties to do so were in the process to change that situation.

However, in the mentioned report, the General Secretary also noted that there were some jurisdictions which, having been committed long ago to implement standards, still had not done so.

Moreover, the G20 itself expressed in its Declaration that:

- It is committed to maintain the progress experienced in the treatment of the tax havens issue.
- It welcomes the restructuring of the Global Forum and the participation of developing countries therein.

5. *http://www.oecd.org/tax/transparency/*

- It welcomes the monitoring carried out within the Global Forum framework, consisting of "peer review" that States and/or jurisdictions will perform regarding others.
- It claims to be ready to take containment measures against the tax havens.

On the other hand, it is worth noting the Final Declaration of the G20 Summit in Cannes (November 2011), which states that "... We welcome the commitment that all have taken to sign the Multilateral Convention on administrative assistance on fiscal matters and we strongly encourage other organizations to adhere to this Convention. In this context, we intend to exchange information automatically and on a voluntary basis, as necessary, in accordance with the Convention´s provisions".

Clearly from these expressions the importance of the automatic or in block information exchange is considered.

**c. The Inter-American Center of Tax Administrations**

The works of this Center, with respect to the topic of this study, include the following elements:

· **CIAT Tax Information Exchange Agreement Model[6]:**

It is the product of the working group on tax information exchange, sponsored by Italy and coordinated by CIAT. The model was developed in 1999 by officials experts on the field from the following countries: Argentina, Brazil, Canada, United States, Italy, Mexico and the CIAT Executive Secretariat.

· **CIAT Manual for the implementation and practice of tax information exchange[7]:**

It is the product of the working group on information exchange for tax purposes, sponsored and coordinated by the CIAT Executive Secretariat. This Manual was prepared in the year 2006, by officials experts on the area from the following countries: Argentina, Brazil, Canada, Spain, United States of America, Italy, Mexico, and a representative of the OECD. It was presented to the CIAT member countries at the 2006 CIAT technical Conference, held in Madrid.

· **CIAT Manual on International Tax Planning Control:**

The purpose of this Manual is to exchange experiences and identify areas of cooperation and joint strategies from tax administrations, to control international tax planning and avoid harmful tax effects. It was created from a working group, which included Argentina, Brazil, Canada, Chile and Mexico, joining at the last meeting, Spain, USA, Italy, Netherlands and Portugal. This Manual was presented at the 41rst.CIAT General Assembly in Barbados.

On the other hand, it is also relevant to mention the following instruments on the topic, even if their diverse nature regarding the above mentioned has to be recognized.

**Directorate of Cooperation and International Taxation**

Some years ago, this new Directorate was created within the CIAT structure, aimed at the international taxation field and, in particular,

6. *http://www.ciat.org/index.php?option=com_content&task=view&id=147&Itemid=213*
7. *http://www.ciat.org/index.php?option=com_content&task=view&id=152&Itemid=213*

the information exchange. It manages CIAT´s international cooperation activities, together with member countries and with international organizations.

**Database CIATDATA**

According to Miguel Pecho[8], CIAT Director of tax studies and research, the center has updated the information of the system known as "CIATDATA" on the implementation of DTC and the tax information exchange agreements among CIAT member countries of Latin America. In addition to the update, it has improved details of the information, including details of the treaties which ceased to apply as well as those that were renegotiated.

**d. European Union**

In the framework of the existing cooperation mechanisms, it should be noted that the European Union (hereinafter EU) has approved a few years ago the 2011/16/EU Directive of the Council on administrative cooperation on taxation, which generalizes, upon request, information exchange in tax matters, in accordance with the international standard developed by the OECD.

This Directive is a qualitative step forward, by putting in place an automatic system on information exchange in tax matters, where, until now, tax administrations of Member States did not have a similar instrument. On this issue, it should be recalled that the information exchange provided in the directive on taxation of savings does not apply for the moment to certain jurisdictions (currently, Luxembourg and Austria), while this new directive was unanimously approved by the Member States.

This position is primarily due to its limitations, since it is a limited, progress at least to date since automatic exchange will only affect a maximum of five assessed income categories (wages from dependent work, executives/managers fees, life insurance, pension and real estate yields) if the States make that information available and inform the Commission. In addition, its temporary effects will not be immediate, because they are deferred until 2015, with respect to information relating to the tax periods started from January 1, 2014.

Luxembourg, for example, had announced its intention to communicate that it only has accurate information with respect to some categories covered in the directive, which allows limiting its application.

There are opinions considering that the Commission should, in 2017, recommend the elimination of some of the planned restrictions, which could impulse a new breakthrough, perhaps to what would be the most desirable future: a tax information standard database of all European taxpayers with all their incomes and wealth, shared and fed by all the tax administrations of the 27 Member States.

However, the evolution of this issue was immersed in a mystery, especially after the so-called "Rubik proposal" promoted by Switzerland, which is mentioned later. If it goes forward, it might be considered that EU States would leave, in practice, the goal of the automatic information exchange for revenue derived from income and capital of their residents settled in other States.

The situation, however, has recently undergone a new change and always in favor of an extension of the automatic tax information exchange. Thus, Luxembourg has officially announced that, by 2015, it will apply this system under the savings directive, which, in addition, suppose that this directive will be amended, extending its field of action.

*8. htthttp://www.ciat.org/index.php/es/blog/item/90-tratados-tributarios-en-america-latina.html*

On the other hand, nine Member States, including Spain, just announced the implementation of a unified general system for the tax information exchange between them, sharing their tax databases and, on the other hand, the Commission has launched an aggressive campaign against tax evasion and elusion in the EU, considering that tax fraud figures estimated in EUR 1 billion, are unacceptable.

Moreover, against the resistance of some Nations, the case of Austria, to progress to these transparency standards, it has developed the so-called "enhanced cooperation" between those Member States wishing to do so, avoiding the obstacle represented by the rule of unanimity, to the tax harmonization process.

## 5. THE TAX ADMINISTRATIONS FACING A GLOBAL ENVIRONMENT

The information provided by the taxpayer and also by third parties is the essential input used by tax administrations in order to implement the tax system and raise taxes under the laws. In a strongly globalized world such information must necessarily include data from other jurisdictions. This way, it can be concluded that information is the key input for tax administrations.

In the current context, the growing contradiction between economic globalization and the limitations that national sovereignty imposes on the tax administrations to implement and control few taxes conceived from a national perspective (basic concept when setting up the tax, despite the legal possibility of taxing income and wealth from the outside using the world income criterion) It has only become worse in this first decade of the XX century[9].

Thus, for example, not only financial capital has acquired a universal character, but the productive factor, labor, traditionally considered as less mobile, has joined the universalization, both by the movements of the unskilled labor as by the development of skilled workers who choose jobs in today's globalization[10]: The company formerly called as "multinational" and now as "transnational" or "global"; which takes advantage of the existence of national tax systems, with differences and asymmetries among them, to "optimize" the tax burden on their global business, which generates the necessary breeding for international tax planning.

The increasing development of new technologies, the presence of ICT, e-commerce and the dematerialization of production processes must be added to the above mentioned factors, all these factors which favor the mobility of production factors and prevent the fiscal control.

In these circumstances, it seems essential, considering the urgent need for fiscal resources that countries have today, for TAs to adapt to this internationalization process and, inter alia, to change their culture, shifting resources for controlling "global taxpayers" and trying to overcome the limitations from the border resulting from competences and administrative procedures intended to apply and control taxes.

However, the limitations imposed to TAs by the national sovereignty concept, even if the international tax law and good fiscal governance

9. *In general, can see the article: Carbajo, Sunday. "Public finance and globalization", Chronic tax Nº 123/2007, pages 41 to 67.*
10. *About the concept, refers a: Calvo Hornero, Antonia (coord.). World economy and globalization,Ed. Minerva, Madrid, 2004 and Stiglitz, Josep E. discomfort at globalization, Ed. Punto de Lectura, Madrid, 2007.*

are still incipient[11] [12], make the absence of an International Tax Authority with competence, particularly on certain tax bases[13], to carry out the only pragmatic formula to face the internationalization of the required tax and taxable bases that have the tax administrations, is promoting international conventions and agreements on information exchange or, better, of mutual assistance, which includes the first.

Although there is a wide range of topics on which national tax administrations can work, going from previous agreements on transfer pricing, APA[14], to mutual assistance in tax collection, through the development of multilateral tax inspection[15]; the truth is that the most pragmatic perspective, developed and in perpetual expansion and experimentation, are international agreements for the information exchange in tax matters;[16] and it is not surprising, therefore, that the OECD and the G-20 require, as the element of transparency and good governance in international economic relations, the existence of information exchange between TAs[17]as we have previously pointed out.

In any case, it should be recalled that international cooperation in tax matters is not an easy task[18] and it may be affirmed that, at the heart of the most advanced economic and political integration process in the world, the European Union (EU), the fiscal harmonization is a secondary and marginal, aspect since there is not even a hint of European tax administration (hereinafter TA) and with the recent systemic crisis is challenging even the Economic and monetary union and the existence of the euro zone.

11. *Which would also be an example of the so-called "OECD Transfer Pricing Guidelines", " OECD Transfer Guidelines for Multinational Enterprises and Tax Administrations ", as a global instrument to solve problems between multinational transfer pricing or the expansion of the OECD Convention model to avoid double taxation on income and assets (DTC). Readers interested in general information about the Guide, we refer to www.oecd.org/ctp/transferpricing. The Guidelines as well as the 2010 version of the double taxation Convention model on income and assets there are translations to Spanish, elaborated by the Institute of fiscal studies. The importance of the Guidelines have the title: "Applicable guidelines for multinational enterprises and tax administrations on transfer pricing".*
12. *For understanding this concept, discussed broadly, can be seen: Rocha Vázquez, Manuel of the. The new global economic governance that emerged after the financial crisis,Seminar "New governance global and regional to the European Union and Latin America and the Caribbean", Santo Domingo, 3-4 November, mimeo.*
13. *The first candidates would be CO2 emissions, as fundamental gas in the development of climate change and speculative financial transactions, the incorporation of the rate known as "rate Tobin" in the EU, 11 Nations have committed to implementing it from 1 January 2014.*
    *On the first question, we refer to: Villar Ezcurra, Marta. "Climate change, sustainable development and environmental taxation", Tax report, No. 135/2010, pages 231-245.*
    *On the second matter, see Rosembuj, Tulio. "Global financial regulation and innovative taxation", Tax Chronic No. 143/2012, pages 185-203.*
    *Also, about its advantages and disadvantages, Schulmeister, Stephan."To general Financial Transaction Tax: Short Cut of the Pros, the Cons and a Proposal.*
14. *Carbajo Vasco, Domingo. "Some considerations on the previous agreements of assessment of transfer pricing, APAS, in the Spanish tax system", Tax report, No. 140/2011, pages 97 to 114.*
15. *For their development at EU level.FISCALIS. Bordeless in control. A newsletter on international auditing, Edition 2012-1.*
16. *For a general view, yet somewhat obsolete, vision, vid.Calderón Carrero, José Manuel. Current trends in the field of exchange of information between tax administrations,Ed. Institute of fiscal studies, show. Documents, doc. No. 16/01.*
17. *The situation of Spain in this respect, taking into account the existing legislation in 2011, is in: Global Forum on Transparency and Exchange of Information for Tax Purposes. Peer Review Report Combined: Phase 1 + 2 Phase,OECD ed., Paris, 2011.*
18. *Though only out by the existence of the so-called "tax havens". Passim.Escario Diaz-Berrio, José Luis. Tax havens. The black holes of the globalized economy, Eds. Fundación Alternativas / Los Libros de la Catarata, Colle. Alternatives, Madrid, 2011.*

## 6. MUTUAL ASSISTANCE BETWEEN INTERNATIONAL TAX ADMINISTRATIONS AS A PRAGMATIC RESPONSE TO GLOBALIZATION

The preservation of the national sovereignty principle, nationalism, the different economic policies etc., prevent to conceive a new TA that would internationally operate a new conformation of tax systems; However, the pressure of globalization, the need to respond to the possibilities opens to international tax fraud and evasion, the creation of a civic consciousness that demands a global response to global problems and the markets pressure have also been designing cooperation and assistance instruments between national tax administrations.

The following modalities are mainly used, considering the evasion and fraud control function of the TAs:

- Information exchange upon request, spontaneous and automatic (or systematic or block) sectorial information.
- Controls or simultaneous verifications.
- Controls or tax verification abroad.
- What refers to the TA s collection, highlighting:
- The Assistance in tax collection (notifications, collections, precautionary measures, etc.).

The first are included in article 26 of the OECD Convention Model, whereas the others are included in article 27.

Within the mutual assistance framework between tax administrations, which content includes any form of help, exchange or collaboration between them[19], the information exchange and data between tax administrations is emphasized.

The information exchange in tax matters is essential, today, because the tax model of voluntary compliance, based on massive charges, i.e., with millions of taxpayers subject to the same and large amounts of tax declared parameters[20], is only manageable by powerful databases and applying tributes from computerized documentation[21].

In these circumstances, the information exchange at the international level can only mean automated exchange of data and standardized manual procedures, reducing to the minimum the use of paper-based documentation and the complexity and high cost of the information exchange “upon request”.

This information exchange has also overcome the bilateral conception between two countries, as it happens with the wording of article 26 of the OECD DTC model, which content reflects the last OECD[22] development on the matter, significantly eliminating any national excuse, for including bank secrecy in order to oppose

19. *An example of administrative mutual assistance at the international level is provided by the Council directive relating to administrative cooperation in the field of taxation, 2011/16/EU, February 15, 2011 and that repealing the Directive 77/799/EEC, published in the “Official Journal of the European Union” of 11 March 2011 and entry into force, in principle, on January 1, 2013, although the introduction of its measures is spread over time until, January 1, 2017. We referred to her in previous sections of this paper.*
20. *To get an idea, remember, for example, that the number of annual returns for the individual income tax in Spain amounts to more than 19 million. For more information, www.agenciatributaria.es, tab “statistics”.*
21. *For a broad concept of ‘tax enforcement ‘, article 83 of the law 58/2003, of December 17, can be used General Tributaria Española (hereinafter LGT).*
22. *The reader can find a modernized translation to Spanish and with a practical perspective of the mentioned OECD standard in the field of exchange of information, to the provisions of article 25. Exchange of information, the recent German-Spanish DTC, instrument of ratification to the Convention between the Kingdom of Spain and the Federal Republic of Germany for the avoidance of double taxation and prevent fiscal evasion in respect of taxes on income and the heritage and its Protocol, done at Madrid, February 3, 2011 (“Official Gazette”; hereinafter)(, BOE, of 30 July).*

a tax information request from other State, but that it is insufficient to face a clearly multilateral globalized economic activity.

In this regard, it should be noted that the OECD and the European Council have developed the Multilateral Convention on mutual administrative assistance in tax matters, made in Strasbourg on January 25, 1988 and updated through the Protocol in 2010, which has made a great step forward by adding nonmember countries of those organizations.

## 7. THE CHANGING TRENDS IN INTERNATIONAL MUTUAL ASSISTANCE FOR TAX REASONS

### a. General considerations

The main changes in recent times can be summarized as follows:

- The variation of the international harmful tax competition concept which is not given by the low or null taxation level, the typical so-called "tax haven" but, mainly, the opacity that can provide a jurisdiction to hide assets and activities or design abusive tax planning schemes, see above.

In these circumstances, the mutual assistance does not only incorporate exchange of tax data, but all relevant tax documents and, in particular, the development of international tax audits, called simultaneous and joint inspections.

- Importance of multilateral agreements, such as the OECD-Council of Europe model[23]on mutual assistance and information exchange which, from 2010, is open to nonmember countries.

It is noteworthy that several countries not members of the OECD have already joined this multilateral agreement (Argentina, Colombia, etc.).[24]

- Towards the elimination of any restriction on information requests by other tax administrations, in particular, using the bank secrecy and the trade secret excuse to deny such information.

In this sense, the express inclusion of paragraph 5 of article 26 of the DTC model of the OECD clearly reflects this trend. The new wording of article 27 of the DTC model has extended the scope of the collaboration between the two TAs involved at all levels, allowing the emergence of new forms of cooperation between them.

At the same time the impetus given within the EU for controlling the interests obtained by community residents in other EU member countries through the implementation of Directive 2003/48/EC in terms of income tax on savings in the form of interest payment[25], enabled, on one hand, the promotion of automated information exchange; on the other hand, it has been restricting the scope of banking secrecy and finally, through international agreements with other States and territories, as it is the case of Netherlands Antilles, San Marino, Monaco, Andorra, etc., has expanded the scope of the directive beyond the EU borders, turning it into a minimal taxation model on savings.

*23. The EU strongly supports this agreement.*
*24. In Latin America and the Caribbean Mexico and Chile are the only Member States of the OECD.*
*25. Information can be found at:: www.europa.eu/legislation/taxation.*

In this regard, it worth noting the signing of tax information exchange agreements between Spain and other States, with Andorra, San Marino[26], Bahamas, Netherlands Antilles, and Aruba.

However, the resistance to eliminate banking secrecy is still fierce, as evidenced by facts such as the replacement of the automatic tax information exchange system, for a definitive, even high withholding, but preserving the opacity in the identification and the nationality of the recipients that still have Luxembourg and Austria within the margins of the directive[27] (although we have already stated that things are beginning to change in the first country), the difficulties assumed with the scope of the Directive to other incomes that are not the interests and to other taxpayers, who are not individuals[28] and the denial of territories, such as Singapore[29] to accept the terms of the Directive, which are becoming new tax shelters. Again, these circumstances show the difficulties of fiscal transparency around the world.

Hence, the relevance of the mutual assistance instruments in tax matters developed by the EU institutions, among which are the Regulation (EU) No. 389/2012 on administrative cooperation in the field of excise duties, Regulation (EC) No. 1179 / 2008, whereby the application of certain provisions of the Directive 2008/55/EC of the Council on mutual assistance in the field of recovery of claims relating to certain taxes, fees, duties, and other measures, and the already mentioned and very revolutionary in its concept, Directive 2011/16 on mutual assistance[30].

We say revolutionary because as it is implemented, from January 1, 2013, most of the income derived from European residents (work, pensions, dividends, interests, etc.) will be mandatory exchanged between all TAs of the EU, a process that will end on July 1, 2017 (when dividends, capital gains and royalties, with exposed ut supra restrictions will be incorporated) and on which it is actively working for the development of their technical aspects, through the temporary homogenization of receipts and shipments data, the compatibility of the databases from TAs, the use of common forms and languages, the establishment of standardized electronic formats, for example, the so-called 2004 SCAC form and the use of the CCN network.

- The integration of the information requests from foreign TAs in the implementation of national taxes, which are to be considered as internal requests, eliminating any possibility of denying the provision of data by giving the excuse of restrictions due to the domestic legislation, for example, that the national tax system does not allow obtaining this kind of data by internal procedures

26. *See, e.g., agreement on Exchange of information on tax matters between the Kingdom of Spain and the Republic of San Marino, done in Rome on September 6, 2010 (July 6, 2011 BOE).*
27. *However, it is noteworthy that Belgium has already entered the mechanism of automatic information exchange.*
28. *Through the proposal of Council directive on November 13, 2008, that amending Directive 2003/48/EC on taxation of yields in the form of interest, COM (2008) 727 final, SEC (2008) 2767, SEC (2008) 2768.*
29. *Although Singapore is signing a DTC, forced by the G-20, which incorporates the typical clause of exchange of information. The Spanish case, agreement between the Kingdom of Spain and the Republic of Singapore for the avoidance of double taxation and prevent fiscal evasion in respect of taxes on income and the Protocol, made in Singapore on 13 April 2011 (BOE of January 11, 2012). It is noteworthy that Singapore is in talks to sign an intergovernmental agreement FATCA (model 1) with the United States. Hong Kong is also in this same situation, see agreement between the Kingdom of Spain and the Special Administrative Region of Hong Kong of the People's Republic of China for the avoidance of double taxation and prevent fiscal evasion in respect of taxes on income and the heritage, made in Hong Kong on 1 April 2011 (BOE of 14 April 2012).*
30. *Montero Domínguez, Antonio. "The new EU directive for mutual assistance in the field of fundraising: analysis of the articles of the positive norm", Tax letter, series monographs, no. 14/2010, 2nd half of July.*

- The importance to acknowledge the need to change the information exchange model to a widespread practice of sharing information, setting up some sort of international databases.

This does not means to "Exchange" automatically" and "on line" data that exist in several databases of different TAs about a taxpayer but to 'create' and 'share' a single database, fed by the sources of information from different TAs.

This is being done in the EU through, for example, the development of the VIES system ("Value Information Exchange System") information for VAT linked to the intra-Community acquisitions of goods and supply of intra-community services and the EMCS mechanism[31], Control of excise movements system, which phase 3 has started on January 1, 2012.[32].

This model is commonly used in the European Union based on the last Directive on mutual assistance, see above.

- The recognition that the only possible and operating information exchange is the automatic and which uses telematics systems for the information exchange through information technologies type XML, common to all the tax administrations involved. We do consider the complementarity between the exchange upon request or specific and the automatic or massive one.

In this sense, the OECD work developing these systems are exemplary, because it has not only driven changes in international regulations: articles 26 of the DTC model and Multilateral Agreement on mutual assistance OECD-Council of Europe, mentioned above, but it is fostering technical harmonization of these exchanges, the creation of user manuals shared by all the TAs and the TAs formation.

We mentioned for example, the OECD model to develop agreements on joint tax audits, the use of tax identification numbers in an international context, the OECD standard model for magnetic automatic exchange formats and the agreement model ("memorandum of understanding") for the automatic information exchange.[33]

- The confirmation that the information exchange upon request is totally insufficient for facing the globalization of taxpayers and taxable bases, requiring complex integration and cooperation between TAs in all tax- related areas[34].

In fact, the latest international cooperation models on tax matters are of mutual assistance and cooperation between TAs, specifically in the executive collection and control areas (audits or inspections abroad and simultaneous or even joint), not limited, as we have indicated, to exchange specified data.

- The innovative initiatives to overcome any kind of resistance, based on bank secrecy,

31. *Carbajo Vasco, Domingo. "The Community tax harmonization. Synthesis of the latest works on the subject," Deloitte & Ciss, No. 40, March 2010.*
32. *www.emcs.es/Emcs/Inicio.html.*
33. *More information: www.oecd.org/ctp/echangeinformation/*
34. *This is why the strong restrictions are unfortunate in this regard; they include information exchange agreements signed by Spain, for example, the one signed with Andorra, dated January 14, 2010, published in the Official Gazette of November 23, 2010.*

lack of effective cooperation, despite the existence of international agreements[35] or the refusal to sign them, as well as restrictions imposed by a non-automatic information exchange, i.e. when this exchange requires individual request of data, "on request".

It is noteworthy to mention two important innovations: one developed by the United States, where they threat financial institutions that do not collaborate deny the access to the American financial market, a mandatory exchange of data of all American (national) taxpayers[36] based on the negative that the Swiss Bank UBS raised with a first request for data from American taxpayers with accounts and financial operations in Switzerland.

We refer to the development of the mandatory withholding system of 30% withholdings, except if there is Tax information exchange by financial institutions "collaborators", driven by the country's International tax compliance, known by its initials in English as "FACTA" ("Foreign Account Tax Compliance Act")[37].

Another interesting scheme is the one signed by Switzerland with Germany and the United Kingdom, called " Rubik model"[38], which is under strong criticism from the EU Commission, for violating the Directive on taxation on savings and which is in crisis, since the German Parliament has not approved it and the European Commission has shown his criticism, by its possible incompatibility with the Directive of saving.

In any case, we need to advance in the concept of the "peer review" process by institutions such as the OECD and countries that sign these agreements, to verify the facts and the results thereof provided in the fight against international tax fraud.

Finally, we cannot fail to mention another formula to achieve tax information from "opaque" areas, which is the case of Liechtenstein; it is about making TAs to buy disks, CD or other computer elements, showing information of taxpayers in their countries, "unfair" financial institutions employees. This has already happened and the Spanish tax agency has benefited from the "purchase" of such information, which legality is subject of great debate[39], but which, as it reveals, for example, the Falciani affair or the German Constitutional Court ruling leads to a review of the jurisprudence of the traditional defense of "banking secrecy" as a form of "professional secrecy", since it is indefensible and should be subordinated to other public obligations in particular, the payment of taxes.

**b. Progresses of the Peer Review**

As we have mentioned before in another section of this document, this review was launched at the Global Forum in Mexico meeting in September 2009. It consists of an assessment exercise, a "Peer Review" on the implementation of the standard of fiscal transparency and information exchange of the Global Forum member countries that currently are 120. The Peer Review Group also includes 30 jurisdictions, Mexico and Argentina being among them.

35. *This is, in our view, the serious problem of some of the recent instruments information exchange signed by certain countries and territories, forced by pressure from the OECD and the G-20, that is, while the "letter" of the Convention obliged to exchange, in practice information, they are looking for any excuse or commitment to delay and, at the bottom, avoiding the fulfillment of these commitments. In this sense, phase 2 of the "peer reviews" that is engaged in the Global Forum of the OECD aims to focus precisely on the degree of effective enforcement of the rules on the exchange of information that countries and territories in this project have signed.*
36. *In the United States, the criterion of assessment in personal taxes remains the nationality, not the fiscal residence.*
37. *Deloitte . Mexico. Foreign Account Compliance Act (FACTA), presentation, 2011, mimeo.*
38. *In honor of the Hungarian mathematician creator of the game of the same name.*
39. *It is important, however, to reiterate that the German Constitutional Court has accepted the constitutionality of this kind of performances of the German Treasury.*

This evaluation consists of reviewing if relevant tax information exists, if the respective TA has access to it and in if it can be exchanged with other tax administrations. It is graphically exposed as the "triangle of transparency" which sides are: "Availability", "Access" and "Exchange".

In this respect it should be mentioned that there are three types of evaluations: 1) phase 1: legal and regulatory framework on fiscal transparency and information exchange, 2), phase 2: fiscal transparency and information exchange on practice (visit to the evaluated country) and 3) combined phase: two evaluations are performed simultaneously. The results that can be obtained in the assessment are: by the revision of phase 1: "The element is in place", but certain aspects of its legal implementation need improvement" and "The element is not in place" and for phase 2: "Compliant", "Largely compliant", "Partially compliant" and "Non-compliant".

To date, 106 evaluations were performed (considering the complementary ones), including 96 jurisdictions, 70 evaluated by phase 1 and 26 by combined phases[40] [41]. From the jurisdictions evaluated by phase 1, 14 have not gone to phase 2 due to deficiencies in the regulatory framework. Until the end of the year 50 jurisdictions will be assigned to go through phase 2[42].

Several countries of Latin America have been evaluated, among them, Argentina, Brazil, Costa Rica, Guatemala, Mexico, and Uruguay etc. In this regard it can be noted that Argentina was the first Latin American country to be successfully reviewed by phase 1 and 2 combined, the second, along with US, across America.

**c. The opening of the multilateral OECD and Council of Europe Convention on mutual assistance on tax matters**

As noted above, the aforementioned Convention, from the amendment protocol in 2010, complements the important work of the Global Forum, enabling all countries, not only to meet the standards of the Global Forum, but to participate in a wider range of administrative cooperation, such as the automatic exchange and collection assistance and to do it on a multilateral basis and not on a bilateral basis.

Regarding the background, it is possible to mention:

- This Convention was originally developed under OECD and the Council of Europe sponsorship and open for signature since 1988 by the Council of Europe or the OECD members.
- The G20 calls for a multilateral instrument open to all countries.
- The Convention is updated in the year 2010, to update it to the international standards agreed in the information exchange and to open it for signature by countries.
- The Protocol entered into force on June 1, 2011 and opened the Convention to all countries in the world.

As for the benefits of the Convention, it is possible to mention the following:

1. It provides a single framework for the multinational cooperation.
2. Includes all taxes, including indirect taxes.

*40. For more information: http://eoi-tax.org/library#peer-reviews*

*41. To consult the reports approved by the Global Forum: http://www.oecd.org/tax/transparency/peerreviewreports.htm*

*42. http://www.oecd.org/tax/OECD-reports-new-developments-in-tax-information-exchange.htm*

3. Includes assistance in collection
4. The information exchanged may be used for non-tax purposes under certain conditions.
5. It is a flexible instrument since it allows reserves that can be removed later on issues such as administrative assistance of any type of taxes and the payment of tax credits or administrative fines, including precautionary measures

With respect to the Convention adhesion process, countries that do not belong to the OECD or the Council of Europe must make an application to the depositary (the OECD General Secretary General) to be invited to sign the Convention, who later transmits it to the parties. The decision to invite a country to sign the Convention is taken by consensus by the parties through the Coordination body. In order to make such decision, the parties should consider, among other things, the confidentiality rules and the practices of the country concerned.

Several Latin American countries have acceded to the Convention: Argentina, Brazil, Chile, Costa Rica, Colombia, Guatemala and Mexico, as aforementioned only the first and last one have deposited their respective national ratification instrument, with which they are effective from 1/1/2013[43].

On May 29, Austria, Belize, Estonia, Latvia, Luxembourg, Nigeria, Saudi Arabia, Singapore and Slovakia have joined the Convention at a ceremony at the OECD headquarters, while Burkina Faso, Chile and El Salvador have expressed in writing their intention to adhere to the Convention. In addition, Belize, Ghana, Greece, Ireland, Malta, Netherlands, including its islands in the Caribbean and Aruba, Curacao and Saint Maarten, deposited their ratification instruments[44].

**b. The implementation of the FATCA system**

Extending the information previously mentioned, the system known as FATCA"[45] constitutes an important tax control provision for US taxpayers who have financial assets and income from abroad.

This law has an extraterritorial effect and, for that reason, non-US countries must follow it, not only due to the possible costs but, if applicable, the commitments and duties that it produce for some entities, mainly financial, and also the possibility of benefiting from the tax data obtained through FACTA, based on reciprocity principle.

Regarding FATCA, it must be noted that:

- In March 2010, a law was published to promote the job creation in the U.S.A. To compensate the fiscal cost of such measures, international operation control provisions were included, known as FATCA.
- FATCA is a complex "due diligence" system-, obligations to report information (in case of "U.S. accounts" -, i.e., from US nationals or residents) and withholding of taxes that affects mainly organizations of the international financial sector ("Foreign Financial Institutions", or FFI) and private nonfinancial entities ("Non-Financial Foreign Entities", hereinafter, NFFE), which have relations with the U.S.A.

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*43. http://www.oecd.org/ctp/exchange-of-tax-information/Status_of_convention.pdf. For more information on this Convention: http://www.oecd.org/tax/exchange-of-tax-information/conventiononmutualadministrativeassistanceintaxmatters.htm*

*43 This is a historic moment for the Convention and another triumph in the fight against tax evasion", said the Secretary General of the OECD, Angel Gurría, at the signing ceremony of the Convention. In this regard, noted that in the past two years, more than 60 countries have signed the Convention or intend to do so, which is a "significant milestone on the path towards greater cooperation and greater transparency," making the international system more fair to all taxpayers.*

*45. For greater data, the following official Link can be consulted: http://www.irs.gov/Businesses/Corporations/Foreign-Account-Tax-Compliance-Act-(FATCA).*

- the "Internal Revenue Service" (IRS) and the Treasury Department have shown that, in addition to their tax collection potential, FATCA it is a tool for controlling their taxpayers regarding assets and income from abroad[46].

FATCA establishes an important number of new rules in international tax matters. These include the following:

a. 30% withholding tax on any US source income (interest, dividends, rents, etc.) made to one FFI that does not have signed an agreement with the IRS (the so-called "FATCA Agreement"). If there is no such agreement, the benefits of a DTC will have to be applied through a tax refund request. The FFI concept includes banks, insurances, depositories, stock market entities, intermediaries, and financial agents.

b. The FFI that adhere to FATCA will apply a 30% tax withholding to other FFI that do not adhere and will even close clients' accounts for those who do not accept disclosing their identity.

The American Treasury issued a joint declaration with the G-5 countries: France, Germany, Italy, Spain and the United Kingdom, which stated their intention to have a mutual intergovernmental framework to implement the FATCA. Within the proposed framework, the FFIs of each mentioned country, under their domestic legislation, will be required to collect the information and report it to their national tax authority. The national tax authority of each partner will submit the necessary information to the IRS. The FFIs of the FATCA partner countries will not have to sign individual agreements with the U.S.

The mutual intergovernmental framework for FATCA, developed for its partners, is to be used as a model for other countries. The intergovernmental agreement, although it was not included at the beginning of FATCA, is established to overcome the limitations imposed by each country's legal system, and also to facilitate the implementation of the norm and reduce costs to the financial entities.

FATCA Intergovernmental Agreements (known by the abbreviations in English IGA) may be applied from two models[47]:

1. The U.S Treasury Department, in July of 2012, published two versions of Model 1, establishing an information report framework from FFI financial accounts to their TAs, followed by an automatic information exchange with the country under existing bilateral Conventions or Tax Information Exchange Agreements. This model has two versions:

   - **Reciprocal version:** The U.S. will exchange data obtained from accounts in financial institutions of the country by residents from FATCA partner countries, and includes a commitment policy to adjust their legislation for an equivalent level of information exchange to the U.S. This version is available only for those jurisdictions that have strong information protection policies.
   - **Non reciprocal version:** This version does not establish the U.S commitment to give the same information as the one received from the FATCA partner. This version has two variants, published in May 2013, depending on the previous existence of an international instrument for information exchange. United by residents of the FATCA partner countries.

*46. Certain previous regulations (voluntary program of foreign disclosure, secret informants, regime of the qualified intermediary, etc.) and some previous bad experiences of the IRS at the time of obtaining data on accounts of their residents in foreign banks (for example, Swiss bank UBS, see supra) serve as antecedents and justify this new regime.*

*47. For more information on models and signed agreements: http://www.treasury.gov/resource-center/tax-policy/treaties/Pages/FATCA.aspx*

2. The Treasury presented In November of 2012, a Model 2 agreement to facilitate the implementation of FATCA, based on direct reporting by FATCA FFI to the U.S Internal Revenue Service, supplemented by the exchange of information upon request pursuant to the convention. This version also considers two variants, published in May 2013, subject to the previous existence of an international instrument for the exchange of information.

With respect to the agreements signed to date:

- With United Kingdom, Denmark, Ireland, Norway and Mexico were signed intergovernmental agreements, following the Model 1 in their reciprocal version. With Spain, the agreement accompanying this Model (reciprocal) has just been recently signed. An IGA following this model is also in process with Singapore. In the region, negotiations for the signature of agreements under this model are in process with Brazil and Colombia.
- With Switzerland, the Agreement under Model 2 was signed in February 2013. This Model is also negotiated with Japan, under certain existing limitations, although switching it to Model 1 is planned.

When analyzing the Model 1, some differences between the signed agreements are observed[48]:

- In the definition of the account holder (for example, the definitions in the agreements with Mexico and Denmark include intermediaries that are not included in the one with the United Kingdom).
- In the type of information that the FFI must provide in relation to the holders of American accounts (the agreements with the United Kingdom and Denmark require annual balances, while with Mexico it requires a monthly average balance).
- The procedure to contact financial institutions carried out by the competent authority, in case of minor or administrative errors ( Both the UK and Denmark allows competent authorities to directly contact the financial institution from the other country, whereas Mexico does not allow the competent U.S authority to directly contact the Mexican financial institutions).
- FFI that comply with FATCA, (Annexes II of the agreements with Denmark and Mexico include some collective investment instruments, but with the United Kingdom they do not). These FFI are exempted from reporting and withholding.
- Model I includes a most favored nation clause. This clause was not included in the original Model I published by the Treasury, but it was included as Article 7 in the agreement with the United Kingdom (the first that was signed) and with Denmark and Mexico. Model II includes this type of clauses, but it leaves the option to the partner jurisdiction to reject its application.

Finally it is important to highlight certain terms:

- From mid-July of the current year, the FFI will be able to register on the IRS web site. Until the end of October of this year, they will obtain a Global Intermediary Identification Number (GIIN).
- In December 2013, the first list of registered FFI participant will be published, and will have to be consulted by the American agent subject to withholding. The withholding begins to be applied in 2014.
- In March 2015, the participating FFI begin to report to the IRS (for the years 2013 and 2014), unless there is an IGA, in which case reporting will begin in September 2015.

48. *http://www.sullcrom.com/files/Publication/c85acc9c-f550-4b68-a6f5-7be1b4ca47c0/Presentation/PublicationAttachment/ebcbb8ab-f3e0-47a7-aa58-d2132757ac40/SC_Publication_FATCA_International_Agreements.pdf*

The last news about FATCA was issued via official press release on January 17, 2013, mentioning the addition of Chapter 4, sections 1471 to 1474, in subtitle A of the Internal Revenue Code. These new features have introduced some changes.
Finally, it is possible to highlight that in the past April month, Governments from Spain, Germany, United Kingdom, France and Italy have decided to jointly work on a pilot instrument for the multilateral, automatic and standardized tax information exchange based on the FATCA model. The pilot project will not only capture and dissuade tax evaders but also be a model for a wider multilateral agreement.

**e. The importance of the automatic or in block exchange of information**

The OECD has presented the illustrative report "Automatic exchange of information: What is it, how does it work, Benefits and what remains to be done"[49], where it analyzes the key aspects of automatic exchange of information. This work tries to change this practice in a useful tool for countries that wish to use it, without requiring a change in the present standard, the exchange of information upon request, which, in our view, is totally insufficiFor this reason, it is necessary to consider another key aspect: to ensure the confidentiality of the information exchanged, as it will be presented hereinafter.

The automatic tax information exchange is the systematic and periodic transmission of information, which can be summarized as follows:

1. The payer or paying agent (who acts as tax withholder) collects information from the nonresident taxpayer and reports to the respective TA.
2. Tax authorities consolidate the information by country of residence.
3. The information is encrypted and bundles are sent to residence country tax authorities.
4. Information is received is decrypted.
5. Residence country feeds the relevant information into an automatic or manual matching process.
6. Residence country analyzes the results and takes compliance action as appropriate, and provides feedback to the source TA which provided the information.

Under the national regulations of the source country of the income, taxpayers and payment agents must inform tax authorities the identity of nonresident taxpayers, as well as the payments made to them. To have sufficient information on the identity of the nonresident and the type of income is a necessary previous condition for this type of exchange.

Regarding the legal basis for the automatic exchange of information, the OECD report establishes that in general they are DTC, based on Article 26 of the OECD Model Tax Convention on Income and on Capital, Article 6 of the Convention on Mutual Administrative Assistance in tax matters (although it requires the signature of a memorandum) or, for the UE member countries, the national laws, in application of the UE Directives that allows the automatic exchange.

Some of the challenges and the areas where more work on practices and policies is required by both sides are also identified in this document. "The true measure of success is not the amount of information exchanged, but the compliance achieved".

For that reason, it is important to reduce the related compliance costs as much as possible, for example through rules and processes. For this purpose, the OECD proposes States to carry out cost/benefit analysis, regarding the different types of information exchanged and the level of detail necessary to support it, which is the key to achieve a greater efficiency in information management.

*49. http://www.oecd.org/tax/exchange-of-tax-information/automaticexchangeofinformationreport.htm*

It is essential for the receiving country to be able to receive the information, integrate it with its own, and use it within the TA. It is important to have an "automatic integration process and a common standard regarding the information received and effectively used".

Data quality requires that the correct information is captured by the payer or payment agent and it is then transmitted by the country of origin to the residence country. The quality and the precision of documents are significantly higher when it is included into an official format which may be verified by the payer or payment agent.

In addition, the standardization of formats is essential for the efficiency and effectiveness of the automatic exchange. Since the technology keeps developing, the applicable standards and technical processes should change; the OECD establishes that it is essential for States to make appropriate investments in technology related to information management for "being up to date with events".

The standardization of formats is essential to capture, exchange, and process the information efficiently by the receiving country. The OECD, regarding standardization, has used the technological progresses, moving from the standard paper format to the standard magnetic format (SMF), and, finally, at a more advanced level, using XML language (STF). The UE Council, on the other hand, has adopted the OECD standard formats mainly based on STF. In addition to the STF format, the UE has also developed specific instructions to assure a good quality of the information exchange.

Finally, it is possible to highlight that at the present time there is an important international political consensus on automatic exchange of information. In accordance with the G-20, for the automatic exchange of information to be the new standard, the OECD is developing a safe and effective automatic exchange of information system.

It is worth noting that the OECD is also working on a new standard format for automatic financial information exchange regarding FATCA, based on the experience in this type of information exchange.

### f. Agreements adjusted to specific needs

### 1. Money laundering agreements: "RUBIK - SWISS" and others

#### 1.1 The so-called "Rubik Agreement"

The situation caused by the world-wide crisis and the pressures of the OECD countries asking Switzerland to end their fiscal opacity and banking secrecy have forced the Swiss government, which tries to preserve their financial industry, to propose tax agreements with various UE countries. Concretely, in September and October 2011, they have signed individual agreements with Germany and United Kingdom and, in 2012, with Austria, which will enter in force in 2013.

The Rubik Agreement, in the Swiss Confederation, consists on the taxation of income and capital gain by deposits holders who are tax resident from other countries. From the collected income, a high percentage is transferred to the State of residence, in return for maintaining the anonymity of the individual account holder.

In the agreement with United Kingdom, a single payment on "past benefits" varies based on the term of the deposit, and is between 19% and 34% of the accumulated capital. As for "future benefits", the gains, dividends and interests will support a withholding at source of 27%, 40% and 48% respectively.

However, the common idea to the different agreements is that the tax to be applied by the Swiss Tax authorities should be similar to the income tax, depending on the modality, according to the provisions of law on the account or assets holder in the country of residence.

The alternative to withholding at source for the incomes obtained in deposits located in Swiss banking organizations is to facilitate the identity to the tax authorities of the State of residence.

Spain has not yet signed, the Rubik Agreement and will only do it if the European authorities give their approval to this type of Agreements, which is far from certain because they preserve the anonymity of the account holders in Switzerland.

These agreements affect the UE strategy to force Switzerland to exchange information with other European States against tax evaders. They have been criticized by the European Commission, which considers them as in breach with the Tax saving Directive. This situation led to make an amendment to the agreement signed between the United Kingdom and Switzerland, in order to make compatible with the euro zone.

In Germany, the agreement was rejected in November 2012 by the Bundesrat - Senate that represents the 16 federated states (länder). In Switzerland, the agreement is also pending.

It is evident that countries such as Greece and Spain, both strongly in debt, could be interested in signing this type of agreements that would allow their Public Finances to access new funding in the short term.

Nevertheless, the reluctance of the UE to this model of Agreement makes their unilateral adoption a non-viable option.

Outside Europe, the position of Switzerland could be successful in the negotiation of similar agreements with countries such as China, India or Russia.

### 1.2 UK Agreement with Liechtenstein

The United Kingdom and Liechtenstein have agreed to a series of collaboration and tax information exchange measures, which include a period in which British investors with interests in the Principality will be able to regularize their tax situation with the United Kingdom Treasury, from 2010 to 2015.

In particular, British citizens who will use this form of voluntary disclosure will see their sanction limited to 10% of the non-paid taxes for the last ten years. The agreement establishes the will of both countries that, at the end of this five years period, no British citizen will take advantage of the laws of Liechtenstein to evade their tax obligations in the United Kingdom.

It is estimated that around 5,000 British companies and individuals had benefitted from the Banking secrecy in Liechtenstein for evading between 2,300 million and 3,480 million euros.

The OECD showed satisfaction with the agreement signed between both countries and highlighted that this type of agreement is the second one signed by Liechtenstein, along with the one signed with the U.S.A., after that the G-20 summit made special emphasis in ending tax havens. It seems, therefore, that also Liechtenstein moves forwards to tax information exchange.

### 2. Agreements with retroactive effects United States - Panama

A recent example of retroactivity is the signature of the Agreement for Tax Cooperation and Tax information exchange, signed between the Republic of Panama and U.S.A. The signature of this instrument has not been free of controversies.

Although there are voices indicating that the non-retroactivity of International Treaties has been violated, this principle is not absolute. Article 28 of the 1969 Vienna Convention on the Law of Treaties establishes that “Unless a different intention appears from the treaty or is otherwise established, its provisions do not bind a party in relation to any act or fact which took place or any situation which ceased to exist before the date of the entry into force of the treaty with respect to that party”

## 3. Agreements with clauses to avoid double taxation

### Argentina - Uruguay

The Argentine Republic[50] [51] and the Eastern Republic of Uruguay[52] have signed at the end of April 2011, an agreement of tax information exchange that includes a clause to avoid double taxation by using a mechanism for calculating the taxes paid abroad.

The information to be exchanged must be relevant for the determination, liquidation, implementation, control and collection of these Taxes, for the collection and execution of tax credits or for the investigation or the judgment on tax matters. It is specifically stated that "the simple "fishing expedition" are not included.

It is applied to all the national taxes in force and other similar established in each country. The data will be exchanged, even if the behavior object of investigation is illegal or not. If the Information available is not sufficient to allow for the requesting authority, it will try to obtain it.

The particularity of this Agreement is the incorporation of a clause that avoids the double economic international taxation. The agreement specifically establishes that the double taxation is to be avoided, containing a rule for calculating the taxes paid abroad.

The agreement entered into force from the 02/07/2013 and will be applied:

a. In penal tax matter, from that date.
b. In all other subjects, from that date, but only for the tax periods that start during or after that date or, when there is no tax period, for the tax collections taking place after that date.

*50. Argentine Republic / Republic of Uruguay.*

*51. The extension of the network of instruments that qualify the exchange of information has been priority in the management of the Dr. Echegaray. It is worth mentioning that since 2009, Azerbaijan, Andorra, Bahamas, Bermuda, China, Costa Rica, Ecuador, Guernsey, India, Italy (Guardia di Finanza), Islands Cayman, Island of Man, Jersey, Monaco, San Marino and Uruguay, joined as exchange partners. Previously the only existing agreements were with Brazil, Spain, Chile and Peru. An outstanding advance from the year 2013 is the use of the Multilateral Convention of Mutual Administrative Assistance in tax matters of the OECD and European Union countries. The adhesion to this multilateral mechanism allows adding to the United States, Mexico, Colombia, Ireland, Indonesia, Poland, Portugal and Turkey, among others. Considering 15 DTC with clauses of interchange (the DTC with Russia entered in force and also a DTC was signed with Spain with retroactive effects on 1/1/2013 ), the present network of partners for the exchange of information with Argentina reaches almost 50 countries worldwide. Technical cooperation agreements were also signed with France and Russia.*

*52. On October 23, 2012, an Agreement was signed by the representations of Brazil and Uruguay, with the purpose of regulating the tax information exchange. It has to be noted that the Agreement anticipates that in the Protocol both countries are committed to sign a Double taxation Convention regarding income and assets taxes in a maximum term of two years after the entry into force of this Agreement.*

## 8. IMPORTANCE OF A SAFE MANAGEMENT OF THE EXCHANGED INFORMATION

We reproduce here a recent study by the OECD[53] to help the TAs to guarantee that the taxpayers' confidential information is properly secured. These recommendations and best practices are designed for the exchanged information, although they can be equally applied to the management of tax information obtained at national level.

With respect to the legal framework, it states among others:

- To ensure that the instruments allowing the tax information exchange require to preserve the confidential character of this information.
- To have an effective legislation ensuring that the information exchanged by tax treaty or other information exchange mechanism is confidential in accordance with the obligations of the corresponding Agreement.
- The national legislation must not require or allow the disclosure of the data obtained by Agreement or other information exchange mechanism, so that it would be incompatible with the obligation of confidentiality in the mechanism.
- Sufficient sanctions must exist, when violation of the obligations of confidentiality is detected, to effectively deter such behavior.

In respect to the administrative policies and practices to protect confidentiality:

- A comprehensive policy to ensure the confidentiality of tax information must be in place; it must be reviewed and endorsed at the top level
- All persons who have access to the confidential information will have to be subject to background checks/security screening.
- The employment contract or the service agreement must contain provisions related to the obligations of the employee, regarding the confidentiality of the tax information and, in addition, the obligation to maintain tax secrecy should continue after the end of the employment relationship.
- The employers will have to regularly provide adequate training, to reinforce the obligations and procedures of the employee in relation to the confidential tax information, determining clearly who they can refer to in case they have questions or need advice.
- The premises, or the areas within the facilities, in which is the tax information is located, will have to be safe and non-accessible by non-authorized individuals.
- All situation of storage, circulation, access or elimination of documents that contain confidential information will have to be made safely, and guaranteeing the confidentiality of documents.
- There must be procedures to manage the unauthorized release of confidential information.
- TAs have to ensure that the information sent by mail is transmitted safely and that electronic information is sent encrypted.
- All requests and received information have to be securely stored.
- Competent authorities must be careful when filing or sending exchanged information to other entities or within the Administration.

53. *Guarantee of confidentiality - THE OECD GUIDE ON THE PROTECTION OF CONFIDENTIALITY OF INFORMATION EXCHANGED FOR TAX PURPOSES (2012). Link: http://www.oecd.org/ctp/exchange-of-tax-information/keepingitsafetheoecdguideontheprotectionofconfidentialityofinformationexchangedfortaxpurposes.htm*

## 9. PROSPECTS

Considering the remarkable progress of information exchange since 2009, if this trend continues - and keeps growing-, we can expect a better future for this matter.

The systemic crisis has strained the countries' public finances, with few possibilities of establishing new taxes or increasing the existing tax pressure, therefore fighting the evasion and international tax planning is a valid option to look for resources. In this sense, the cooperation between the TAs is an essential instrument.

For this purpose, it is necessary to increase the effective exchange of information between TAs in order to limit the negative effects on tax justice and on the stability of the economic system, which results from the globalization and its many possibilities of evasion and international tax planning, since it does not seem possible to consider a better solution, as creating an international TA managing a world-wide tax base.

Nevertheless, in order for the international exchange of tax information to be truly effective and efficient, the automatic modality or in block modality cannot be omitted, using compatible formats and eliminating any possible excuse, secrecy or obstacle by some of the involved TAs. An information exchange only focused on individual, "on request" exchange is clearly insufficient because the modern taxes are massive, implying millions of taxpayers and transactions that show economic capacity.

The "peer review" process, incorporated by the Global Forum, especially regarding the effective practice (phase 2),ensures that the exchange does not stay within the legal framework, it must go from the "should be", to the "being" i.e., to be effectively implemented.

Therefore, it is essential to control the effective application of agreements, conventions, treaties, etc. and other international legal instruments by which the States, territories and nations are committed to exchange tax data, because there may be many types of legal arguments (the "Privacy" concept is being developed, because the "banking secrecy" concept is not acceptable anymore for denying information) that make difficult and to delay the exchange of information. It is also important to have human, material and computer resources in quantity and quality, because many TAs simply lack of operative and technical qualifications to gather, collect, process and exchange tax data.

New legal instruments for exchanging information are available to countries and jurisdictions, some of them are new to the traditional options, and others were previously reserved for certain group of countries.

There are clear trends: from bilateral to multilateral agreements, from the exchange of information upon request to the automatic exchange of information, from individual data to collective data, etc., but it is necessary to keep progressing on this matter, since it is the only pragmatic way to solve the contradiction between the globalization and the obsolete idea of tax sovereignty.

In spite of this, there are doubts regarding whether this tax information exchange will be really effective:

- Will some jurisdictions finally desist from of their opacity practices? Unless the international pressure is strong and effective, and the announced sanctions are enforced; it is not certain if "low taxation" jurisdictions or at least most of them, stop offering the service for anonymity.

- Will the information exchange upon request be really effective with certain jurisdictions? We have already expressed our skepticism on the matter and it should be remembered that, in certain jurisdictions, taxes are not applied to nonresident (in general, direct taxes are not applied); therefore, in order to provide information, they first must find it, with all what this implies, for example, the possibility for the request to be sent to courts.

On the other hand, is it possible to raise a new standard where the automatic collective exchange would be the rule, considering that all TAs are not prepared? We believe that this will only be possible with the appropriate technical assistance and the exchange standards and procedure manuals must as the commonly used ones.

In any case, it is not sufficient to exchange tax data; tax enforcement requires multiplying mutual assistance in areas such as joint controls of in enforced collection for tax debts from other States.

## 10. CONCLUSIONS

The international financial crisis, despite all its negative impacts on most world countries' economies, especially those of the euro zone, has a highly positive aspect, which is the international confirmation of the need to have more transparency and effective exchange of information between the national TAs and, consequently, eliminate those jurisdictions and countries that show opacity.

In 2009, the G-20 raised the need to effectively enforce the OECD and Global Forum standards, which, in turn, transform them into a more global and inclusive forum.

A peer review mechanism was established to verify the compliance with these standards, not only in their normative aspects but in information exchange practices. This process consists of making sure that the information exists, that TA can access it and can exchange it with other TAs.

From these premises, a remarkable advance is observed in terms of the amount of signed instruments regarding information exchange, mostly by jurisdictions previously considered "tax havens". Obstacles have been eliminated, or at least there is more flexibility regarding internal barriers for exchanging information. There are also new instruments, and multilateral cooperation mechanisms that all countries in the world may join.

However, questions remain on the effectiveness of information exchange, since in certain jurisdiction there are still obstacles that delay or prevent the exchange, and some are not prepared to participate, etc.

For the automatic information exchange to become the new general standard, it is necessary to consider that the exchange on request is complementary to the automatic exchange, and in no case, they can be considered as alternatives. The automatic modality allows to enrich data bases and to improve the risk analysis. Later, the exchange upon request modality makes possible to test the hypotheses and presumptions of evasion that derives from such risk analysis.

Finally, exchanging tax information between Administrations of different States is not sufficient; an intense cooperation between them in all forms of tax enforcement is also necessary.

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# EFFECTIVE IMPLEMENTATION OF EXCHANGE OF INFORMATION AND INTERNATIONAL TAXATION UNITS

**Isaác Gonzalo Arias Esteban**


## SUMMARY

This article provides a comprehensive view of the guidelines to be followed by States to implement the “effective exchange of tax information” at three levels: political, normative and administrative. The best international experiences and the current situation of various CIAT member countries which are working to improve their levels of transparency and comply with their commitments in this area have been considered in the present article.


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**Content**



This study analyzes the aspects that must be considered by the decision making levels of a state in order to reach effective tax information exchange, which is consolidated through the implementation of the respective units.

The first step for promoting the exchange of information in a State is the "political will" that should go hand in hand with the "political power". Information exchange must be guaranteed by the top level authorities of the executive and legislative powers. Like most practices that affect the design of a country's model, this first step is essential.

In the last years many factors have influenced the "political will" of several countries of Latin America and the Caribbean, which have begun to promote information exchange practices; by entering into broad-based agreements to avoid double taxation with clauses for tax information exchange, specific information exchange agreements and multilateral instruments such as the "Multilateral Convention on Mutual Assistance" which protocol has allowed the adhesion of all the countries in the world.

Nevertheless it is still necessary that many countries that have adopted the "territorial principle" in their tax systems become aware that this international cooperation practice should not be exclusively considered as a cost for improving their reputations as a result of increasing their transparency levels. For example, many benefits could be obtained from their effective application:

- Control of harmful manipulation of transfer pricing;
- Control of consumption taxes such as VAT;
- Control of "treaty shopping" schemes;
- Detection of unjustified patrimonial increases;
- Avoidance of double taxation;
- Assistance in enforced collection;
- Provided that the instrument allows it and the parties authorize it, based on their internal standards, it could be used for other purposes.

The aspects that directly relate to the design of the tax information exchange unit are the domestic legal framework, the size of the network of subscribed and effective instruments; and their characteristics. These aspects should determine the size of the unit for information exchange, in as much as they offer indications on the number of requests that may be taken care of in a certain period of time and the procedures that could be carried out, such as examination abroad, simultaneous or joint controls, automatic exchanges, among others.

Although tax information exchange at the international level is not a complex practice, it has a great impact on different tax administration processes. Such impact not only affects the processes, but also the "organizational culture". As it may be anticipated, this practice requires a great vocation of service and goodwill, especially the in case of spontaneous exchange of information; where a State disinterestedly and without having received a previous request, provides information on operations or transactions that could involve a tax compliance risk in another State. It also calls for the implementation of measures that may ensure the maximum confidentiality levels in all instances when using the information received from abroad.

## 1. PRE-CONDITIONS FOR THE ADOPTION OF INFORMATION EXCHANGE PRACTICES

Unlike many other practices related to the access of information by the tax administrations, such as that either provided, captured or directly obtained from state organizations, individuals and/or legal entities; the effective implementation of tax information exchange at an international level requires a strong political support since the beginning.

If we consider countries which have not yet been involved with this matter, we could segment them as follows: those countries which, even though their laws do not prohibit the tax information exchange between States, due to internal issues they do not exchange information; those that their laws guarantee the information exchange but that due to diverse reasons (i.e.: attract certain type of capitals) they do not exchange information or they do so with very few States with which, by virtue of the political, economical and geographical conditions it is not a fluid exchange, and those countries that expressly prohibit information exchange. Also, in all cases these could be characteristics of tax regimes considered harmful: low levels of income tax, lack of clarity with respect to holders of assets (shares, personal property and real estate), and impossibility to exchange information due to banking or other forms of secrecy, among others.

In this regard, the countries having some or several of the above mentioned characteristics could be considered as “tax havens” by other States, either in lists and/or as resulting from specific criteria in their internal norms.

This shows us that although a State could be considered a “tax haven” by another State, this does not imply it will be considered a “tax haven” by a third State. Since the concept of “tax haven” is relative in some cases. The classification of a country a “tax haven” depends on the internal norms, the level of cooperation, how harmful a tax regime may be for another State, and diplomatic relations.

What has been a stated endeavor to justify the initial statement regarding the need to resort to the highest decision making level of a country to pave the way towards the effective tax information exchange

Thus, the “political will” becomes the first step in the future actions for establishing an information exchange unit based on the best international standards.

However, it is necessary to point out the disadvantages that political decision-makers could face in attempting to partly change a country’s model benefitting foreign capitals on base of considerable tax reductions and benefits based on opacity. This could affect “the political power” needed to implement the necessary modifications or tax policy adjustments. This aspect will be more complex to handle in those countries where the main barriers to the information exchange are in their “Magna Carta”.

Finally, some will consider that financial resources are needed for the “effective information exchange”. This aspect is the least relevant of all, since this practice does not demand a considerable investment and it is possible to progress gradually as a State consolidates its network of information exchange instruments. Also, many tax administrations have mentioned in various international forums that the benefits significantly outweigh the costs of maintaining a tax information exchange unit. Further on, in the section dealing with administrative aspects, more detail will be provided regarding the resources needed to establish a tax information exchange unit.

## 2. FACTORS THAT INFLUENCE THE DECISION TO EXCHANGE TAX INFORMATION

When evaluating the relevant aspects for deciding on the tax information exchange, we could mention in the first place the effect of the "international initiatives". Since the nineties, more and more initiatives from international organizations and countries to promote tax information exchange have been launched. However, the effects have been marginal, mainly between developing countries and jurisdictions considered as "tax havens" by the international community.

It was approximately in 2008, when most of the countries of the world began to experience crisis symptoms, such as low production, high unemployment, high debt levels and negative balance of payments, among others; that the international community strongly began to support initiatives to increase the levels of transparency and information exchange at a world-wide level.

This critical situation seriously affected tax collection in many countries, especially in developed countries which faced contexts of high public expenditure as a result of previous years of economic growth. There surged the need to fight more aggressively against harmful international tax planning schemes.

As a result, by way of examples one may mention the "Global Forum on Tax Transparency and Information exchange", which implemented a successful peer review mechanism; and the successive Declarations of the G20. These multilateral strategies, along with efforts of international and regional organizations such as ATAF, CIAT, I.A.D.B., OECD, the World Bank, among others; and unilateral efforts of countries specially interested in increasing the information exchange levels; all of them have influenced considerably in the "political will" to promote these practices.

Gradually, many countries and jurisdictions have been moving from "black lists" to "gray lists", until being considered transparent by the international community. For example, the 42 financial centers labeled as non-cooperative have taken commitments with the international community, which led the OECD to eliminate them from its famous list of "tax havens".

If we focus on Latin America, we may observe that many countries have made considerable efforts to develop their networks of information exchange instruments and administrative structures to manage them. For example, 47% of the countries of Latin America have tax information exchange units, many of which were created recently. The following table shows the specific agreements for information exchange (not including agreements to avoid double taxation) signed by a group of countries of Latin America in November 2012[1]:

1. *The evolution in the countries of Latin America in the specific agreements for the exchange of information and the agreements to avoid double imposition can be consulted here: http://www.ciat.org/index.php/es/productos-y-servicios/ciatdata/tratados.html*

**Table 1**

| Country | Amount of agreements | Countries |
|---|---|---|
| Argentina | 10 | Bermuda, Brazil, Chile, China, Ecuador, Spain, Guernsey, Jersey, Monaco and Peru |
| Costa Rica | 7 | Argentina, France, El Salvador, the United States, Guatemala, Honduras and Nicaragua |
| Ecuador | 1 | Argentina |
| Jamaica - (JM) | 8 | Denmark, the United States, Faroes, Finland, Greenland, Iceland, Macao and South Africa. |
| Mexico | 23 | Aruba, Dutch Antilles, Bahamas, Bahréin, Belize Bermuda, Canada, Costa Rica, the United States, Gibraltar, Cayman Islands, British Isle of the Man, Cook Islands, Guernsey Islands, Jersey Islands, Marshall Islands, Virgin Islands, Liechtenstein, Monaco, Samoa, Santa Lucia, Turk and Caicos and Vanuatu |
| Panama | 1 | United States |
| Dominican Republic | 1 | United States |
| Peru | 3 | Argentina, Ecuador and the United States |
| Trinidad And Tobago | 1 | United States |
| Uruguay | 1 | France |

**Source:** Study on the Control of the Transfer Pricing manipulation in Latin America and the Caribbean. ITC-GIZ-CIAT. December 2012.

Another important aspect deals with the "attraction of genuine foreign investment". Generally, the non-cooperative countries or jurisdictions considered "tax havens" receive investments that do not produce significant impacts in the economy of a country; in terms of employment, tax resources or productivity. Generally these are speculative investments. Additionally, the "anti-abuse" or "anti-tax havens" regulations have discouraged the flow of capitals towards these countries, by virtue of the sanctions applied to this type of operations (important retentions, presumptions without need of proof, periodic integral audits, etc.). All this has been discouraging the flow of investments, these being cases when due to considerations of image and ethics many financial companies or banks have to withdraw their offices located in "tax havens".

Thus, by complying with transparency and information exchange standards, a country could benefit with greater foreign investment or protect the level of existing investment.

An aspect that also must be valued but which should not directly condition the policy for the negotiation of cooperation instruments is that relative to diplomatic relations. It is possible that for diplomatic reasons, two States wish to sign agreements. However, it is advisable before initiating a negotiation, to evaluate a series of aspects such as the commercial exchange, the investment flow, flow of people, the risk represented by the country on the basis of tax planning schemes adopted by the companies operating in the country and the internal capacity to manage information exchange. The risk assumed when indiscriminately signing this type of instruments with the sole purpose of maintaining diplomatic relations is the breach of commitments based on administrative deficiencies or the obligation to face high operational costs without a tangible return.

Following the evaluation of the aforementioned aspects, it is necessary to verify if the tax system and the norms of the country in general abide by international standards. For this end, it would be necessary to identify the main reforms required, evaluating their impact and how the changes will be managed. As previously commented, when discussing the subject relative to the "political power", it is not easy to implement changes that could affect businesses of the large economic groups that operate in a country. In the following section of the present document, more details will be provided on those normative aspects that must be considered within the framework of this analysis.

Another aspect, not less important, which must be evaluated and was partially commented in the previous paragraphs, is the "capacity to comply with international standards". The importance of being able to fulfill international standards in this matter lies in the need to harmonize the capacities of the countries and in particular of the tax administrations to access to information and to exchange it. This aspect is important since in some cases, absence of "legal reciprocity" in cooperation instruments could prevent the "effective information exchange". Also, to increase the levels of "material reciprocity", standards have been generated which, if adopted, assure a minimum level efficiency to an information exchange unit. Although the aforementioned "material reciprocity" cannot be easily verified and should not be considered "critical" when negotiating a cooperation instrument or taking care of an information request, the tax administrations evolve gradually to harmonize their levels of efficiency in this sphere. In the following sections the aforementioned standards will be analyzed in greater depth.

Finally, its necessary to highlight an aspect that is critical for many countries that are in high risk of losing of their tax basis, as a result of international within the framework of harmful international tax planning, i.e. the struggle against tax evasion and tax fraud. As commented in previous sections, information exchange is greatly valued by countries which adopt the world income principle, but this does not mean it is less effective in countries which adopt the territorial criteria. The good use of this tool should provide greater tax revenue, through risk perception as well as through its effective use.

## 3. KEY ASPECTS FOR EFFECTIVE INFORMATION EXCHANGE

The road to the "effective tax information exchange" between states leads us to review a number of legal and administrative aspects that are considered fundamental to achieve this goal. Henceforth, we will discuss the main points for the "domestic legal framework" and "bargaining instruments for information exchange", as well as the "administrative" aspects to contribute to the successful operation of the "tax information exchange unit".

### a. Domestic legal framework

It is first necessary to determine whether the **constitution** of a country allows or not the information exchange between States, or does not refer to the subject. Secondly, it is important to verify whether any right of citizens protected under the principle of data confidentiality is so strong that it could be interpreted as a barrier to the information exchange.

Given the supreme nature of the constitution in the hierarchy of rules of the countries, you cannot consider other issues if the necessary adjustments for providing information subject to "tax secrecy" to other States are not implemented. In this line thought, it might be mentioned that in countries where international treaties have "supra legal" status, the constitution would not be a problem. However, it is not desirable that they conflict with the constitution or other national legal dispositions of similar rank.

All the tax administrations around the world have verification and examination powers that allow them to control their taxpayers. However, these powers can vary significantly from one State to another. This will partly depend on the taxpayers' guarantees and importance of tax resources for a given State.

The need to review these rules is mainly derived from two of the limitations usually considered in the information exchange instruments. They would not allow for facilitating information that cannot be obtained according to laws or internal regulations, or to adopt regulations and administrative measures going against these internal laws or regulations (e.g., paragraph 7 b) and c) of the CIAT Model Agreement for Tax Information Exchange- MCIAT). These limitations might not be absolute. This is so for most instruments in force and models used ensure a minimum information exchange by providing that the laws and practices of a requested State should not prevent or affect the appropriate authority action of a requested State for obtaining and providing information from financial institutions, agents or persons acting as agents or trustees, with respect to the identification of the shareholders or partners of a corporation or other collective entity which is held by the tax administration (e.g. MCIAT Art. 2).

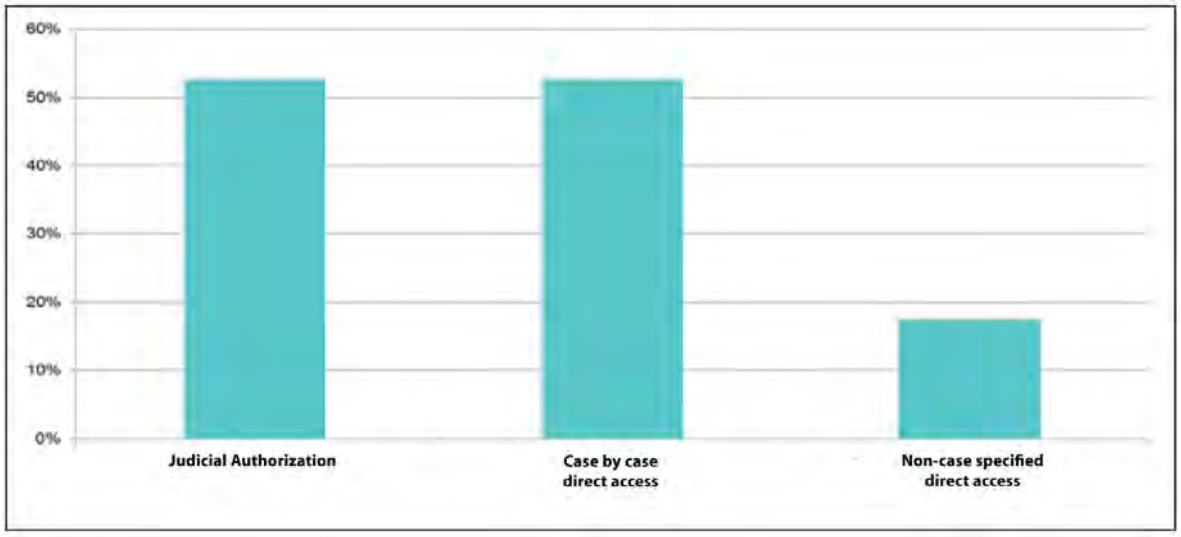
As specified in "Implementing the tax transparency standards- handbook for assessors and jurisdiction" published by the OECD in 2011, the transparency and information exchange is mainly based on the availability of information, appropriate access thereto and the existence of exchange mechanisms. To this end, in line with the comments in the previous paragraph, a State or jurisdiction must have the ability to access banking, asset ownership, identity and accounting information and, as appropriate, obtain this information available as a result of periodic revision of information systems.

There should be no conflict between these standards and the "tax secrecy" or other State secret. "Tax secrecy" is never eliminated; it remains at the time of providing information to another state, which in turn is obliged to provide a similar confidentiality level to the country of origin that must be maintained by the recipient state. Other secrets, such as professional secrecy, trade secrets, trade and business secrets, the privileges of the legal profession, financial / banking secrecy, among others, should not apply with respect to "relevant" information for tax purposes. In this case, the information would, in any case, be covered by the "tax secrecy".

Those secrets should not be subject to very broad interpretations, since this could cancel out the exchange of "relevant" information.

The following graph shows the capabilities of several Latin American countries to access banking information. As observed, the sum of the three bars exceeds 100% and this is due to the fact that some countries may use different procedures according to the type of bank transaction and other formal aspects:

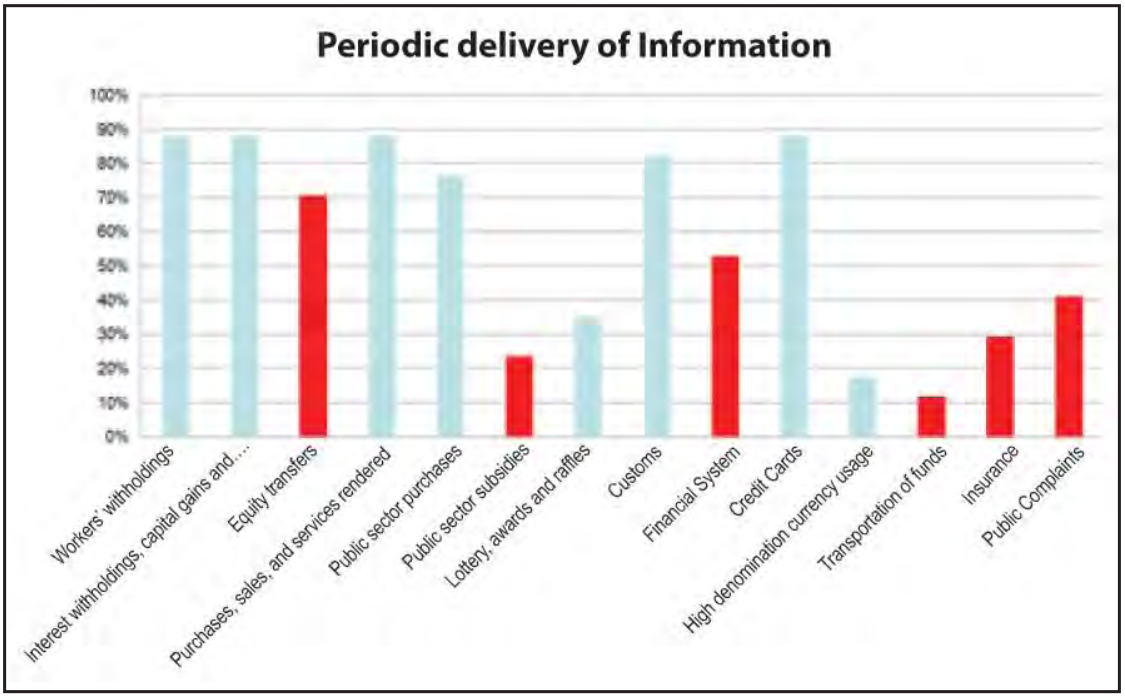
**Graphic 1**




**Source:** State of Tax Administrations in Latin America BID – CAPTAC-DR - CIAT: 2006-2010

The chart below shows the information and percentage Latin American countries is available, in which percentage and if it is obtained by periodic updates, with the vertical axis (y) corresponding to the percentage of countries with regular information updates and the horizontal (abscissa) relative to the classification of information:

**Graphic 2**




**Source:** State of Tax Administration in Latin America BID – CAPTAC-DR - CIAT: 2006-2010

Although differences can be strong in the powers of control and supervision, and the availability of information between two states, there may be mutual benefits in the context of information sharing, these differences are not barriers. In short, the most valuable of this process lies in the satisfaction of the contracting parties during the implementation of the instrument.

For these reasons, considering the above limitations, the internal rules of countries could become not only the major limitation when exchanging information, but a barrier when contracting with a state that seeks to apply an internationally recognized and observed "reciprocity law" model (e.g. MCIAT, MOCDE, Multilateral Convention, etc..).

Another important issue has to do with the rules on "**files conservation**". Tax rules generally require taxpayers to keep records (books, supporting documentation of transactions, etc.) during a given period. Some countries set different periods depending on the subjects and transactions, while others only establish a general period of application.

This aspect is critical. For example, a state where the obligation to retain information is three (3) years, by the mere fact that the taxpayer has no obligation to retain documents, could not in principle consider a request from another State information relating to a previous period.

Countries usually establish retention periods of at least five (5) years, depending on different factors such as the status of the taxpayer to the tax authority (registered / not registered).

This is closely related to the **prescription rules**, as these may also in some cases affect the effective information exchange, when the States have dissimilar deadlines. This case is of greater complexity when it comes to concepts such as interruption and suspension, which operate differently in the States. For example, there are countries where debts never prescribe and other where the prescription is automatically interrupted if a control process is initiated.

Regarding this last point, maybe these criteria doesn´t need to be harmonized, but rather one should be aware of the limitations that may exist when requesting information or answering a request for information prior to using or executing an instrument.

To ensure the effective implementation of the Tax administrations' verification and examination powers, there should be strict **sanctions**, which likewise should be proportional to the seriousness of the events. In this regard, sanctions for formal non-compliance play a key role.

Based on international standards, the so-called "**domestic interest**" should not exist when considering a request for information. All available means should be used to address it, as if the request would have originated internally. This means that if the information is required from a taxpayer who fails to comply with his formal duties, he could be liable to a penalty that would urge him to comply.

It is necessary to know in detail the "**rights and safeguards**" of taxpayers, when addressing or making a request for information, since they directly condition the procedure to be followed. For example, such rights and safeguards may require a taxpayer to be notified whenever information about him/her is exchanged, so he may challenge or not the procedure. Some countries could eliminate this obligation to notify the taxpayer, in cases of tax fraud, or else postpone the notification once the information exchange is completed. Also, in some countries the obligation to notify could be eliminated when a federal court determines that the notification could affect the investigation.

Given these rights and safeguards, it is necessary to be aware of the relevant legislation of the counterparties in the information exchange instrument, so that when information is requested, the reasons may be given as to why notifying the taxpayer could hinder a procedure. As a result, a State may waive the request for information.

An important aspect is the legal and regulatory powers of a State to **exchange information.**

Some countries have internal rules that allow them to answer requests for information from other states even if they have not signed instruments for information exchange. This would allow, under these circumstances, to send requests and validate external documents to be used in formal procedures

The existence of these rules facilitates the use of diplomatic channels to transmit and receive information. Likewise, if the internal rules allow it, the tax administration could sign administrative instruments for information exchange.

Although these types of internal rules are useful, they do not eliminate the convenience of signing instruments for information exchange, since they are the basis of the "obligation" to respond to requests for information when all of the conditions are agreed

**b. Negotiating instruments for information exchange**

When a state plans to establish the basis for information exchange with another state, several valid options are available. Among these alternatives we could mention the "Double Taxation Agreements" (DTA) with ample provisions for the exchange of tax information, either under the OECD, UN models, and regional or national models. Usually, in this type of instrument, the information exchange lays in Article 26, where there are no major differences between the known versions.

Other widely used instruments are the "specific agreements for tax information exchange", which may have legal or administrative rank according to each state. As a variant of the specific agreements, there are multilateral agreements or conventions that may be signed at regional or global level. Among the best known experiences are the Directive 77/799/ EEC, with updates and complements, the Nordic Convention on Mutual Administrative Assistance in Tax Matters, the Convention on Mutual Assistance and Technical Cooperation between Tax and Customs Administrations of Central America, and the Multilateral Convention on Mutual Administrative Assistance in Tax Matters (Multilateral Convention).

The advantage of multilateral instruments lies in the possibility to access a network for information exchange by negotiating a single document. This represents a considerable saving in time and money in the negotiation process. It is also worth noting that these types of instruments are multilateral because they enable the information exchange with several countries, but the relationship in their execution always remains bilateral.

A country that only wishes to exchange information should not consider an Article 26 of DTA, as the main objective of this type of instrument is to avoid double taxation, and the information exchange in this case is accessory. Progressing on this type of agreement involves analyzing several additional factors not mentioned in the present paper.

According to the wording of Article 26 in the most current versions of the OECD and UN models, at the time of exchanging information there would be no restriction of any kind. For example, in the past, this article presented some barriers regarding the purpose for which the information exchanged could be used.

In certain cases, at the administrative level, it is necessary to generate a "memorandum of understanding", whose purpose is to generate greater certainty regarding the procedures in the framework of a cooperation instrument. For example, a memorandum of understanding could be generated in the framework of an automatic information exchange in a simultaneous examination or for the aim of developing procedures based on Article 26 of a DTA.

In Latin America, by March 2012, 73% of Latin American countries had DTAs in force and 42% had information exchange agreements in force.[2] As of April 2013, 30%[3] of Latin American countries have signed the Multilateral Convention. Given the growing importance of this issue, it is estimated that these numbers will increase in the coming years.

When beginning the negotiation of instruments for information exchange, it is necessary to consider the following relevant aspects:

- **Bilateral/multilateral:** before initiating bilateral negotiations with a country, it is useful to check whether it would be more convenient to enter into a multilateral convention of which that country is a party. This verification can avoid starting multiple negotiation processes.

- **Characteristics of the Tax Administrations:** Many countries have integrated tax administrations (taxes / customs). In most cases, signing cooperation agreements in the field of taxation that in turn allow exchange on customs matters would be an advantage. Obviously, these models would work only in those negotiations between States with integrated tax administration

- **Subjective scope:** Refers to the population on which information can be exchanged. These could be the residents of a state, its nationals or others individuals on whom information is available.

- **Taxes included:** There should be no restrictions.

- **Notification of relevant legal changes:** Although this aspect is not essential, it could be very helpful for the officials of the Information Exchange Unit when they evaluate whether an information exchange request is admissible, thereby avoiding wasting time and resources.

- **Time scope:** It is essential to specify when an agreement may begin to be applied, as well as the possibility that it may be applied to periods not barred by the statute of limitations.

- **Information exchange for penal purposes:** It is important to define this aspect in the body of the instrument. If accepted, it is recommended that there is no "dual criminality" requirement, where a country would only exchange information in criminal cases if there is an internal open case on the same subject.

- **Cases in which an information request cannot be refused:** This clause ensures a minimum of transparency between the contracting States. Usually it refers to financial information, ownership of assets, etc.

- **Obligation to use all available means:** This clause ensures that a State uses all its powers and resources to address an information request as if it were of its own interest. However it should be limited by the "principle of proportionality".

- **Limitations:** Information exchange limitations should be applied only in exceptional cases, in which the parties would not be required to exchange information. It is important to specify during the negotiations which cases could be raised as limitations, and which are not. For example, some aspects that should not be a limitation are tax secrecy, banking/financial secrecy, the fact that the information is kept by proxies' agents and trustees, the "domestic" interest. Cases that affect public policy or public order, or involving actions contrary to laws and

2. *Data obtained from "State of Tax Administration in Latin America "2006-2010. BIB-CAPTAC-DR-CIAT*
3. *Data obtained from the OECD website: http://www.oecd.org/ctp/exchange-of-tax-information/Status_of_convention.pdf*

regulations, or providing information contrary to domestic laws could be cases for limitation. In other cases, the CIAT model has some differences with the OECD model, since the CIATM does not admit reciprocity, industrial and trade secrets and legal professionals' secrecy privilege as limitations. Limitations are not prohibitions, they just exempt the parties from the obligation to exchange information under specific circumstances, otherwise the possibility of cooperating or not would be discretional.

- **Persons to whom information may be released:** it is necessary to review this clause carefully to avoid inconveniences when using the instrument. In general, this clause is similar in the different models and details the persons who can access the information.

- **To disclose information in public judicial processes or in judicial resolutions:** It is important to specify this aspect in the instrument's body.

- **Confidentiality:** A clause should define the level of confidentiality provided to the exchanged information. For example: the information will be considered secret according to the laws of the providing state, if these are more restrictive.

- **Rights and safeguards of taxpayers**: If possible, it is important to specify in the instrument the scope of these rights and safeguards and the procedures to be followed.

- **Admissible procedures for information Exchange**: The instrument must specify the procedures or methodologies that states can apply to carry out the information exchange. For instance, spontaneous, automatic, on request, simultaneous examinations, examinations abroad, among others. Also, other instruments include other additional cooperation procedures such as assistance in enforced collection or in the notification of actions

- **Reservations:** multilateral instruments must include sufficient flexibility for the adhesion by states with different interests and tax systems. In this regard it is important to specify in the body thereof on which aspects it is possible to make reservations.

### c. Administrative Aspects

It is necessary to distinguish between specific aspects that are directly related to the information exchange unit, and the general aspects dealing with structural issues of a tax administration or a particular State that directly impact the process under analysis.
Here are some specific operational aspects of an information exchange unit:

**Competent Authority for the Information exchange**

Historically, the relations between States have been channeled through the Ministry of Foreign Affairs, their natural environment. However, when we refer to the specific instruments for the information exchange or even DTAs, the area in which they are negotiated and implemented is different. This does not preclude involvement by the Ministry of Foreign Affairs, but experience shows that in this regard the Ministry of Finance and the tax authorities are involved.

The management of the information exchange calls for defining a "competent authority". All countries do not handle this matter the same way, and many factors influence it, including the structure to be adopted for the Information Exchange Unit, and the procedures for implementing the exchange. For example, if we refer to the DTAs, the competent authority is usually at the ministerial level (e.g. Ministry of Finance) which in turn delegates this function to the tax administration. The internal rules usually attribute this power to tax administrations.

The same situation is applicable to specific agreements for the information exchange.

It is coherent that the competent authority is in the sphere of tax administration, since it determines when requests for information should be sent, collects information as a result of its verification and examination powers, and coordinates the simultaneous examinations or automatic exchanges.

If the information exchange is managed at the highest level or by another public body, management time and consequently its associated costs would increase considerably. This recommendation should be considered by the tax administrations when defining the competent authority, since it is more convenient to delegate the function to an official who is not at a very high-level and who can deal directly with all the documentation received within the framework of this process.

The competent authorities can be one or several persons, depending on the structure adopted. For example, France adopted a decentralized structure that has competent authorities in its different regions, and the U.S. has offices classified according to the region with which they exchange information. Most countries, particularly the Latin American ones, manage the information exchange at central level.

The changes of competent authorities should be notified immediately to the respective counterparts in information exchange instruments. It is advisable that the competent authority be assigned to a function or position within the tax administration and not to a specific person, as this facilitates the management of the changes that may occur.

It is also necessary to define a "direct contact" for each of the exchanges taking place, which will be in charge of maintaining fluid communications and handling the procedures as professionally as possible.

**The Information Exchange Unit**

In recent years, Latin American countries have established units to exchange information (hereinafter, the Unit). Currently, 47% of countries have these units.

Overall, the resources required to set up an information exchange office are not as much when compared to the potential benefit of "effective exchange". Nor is it necessary to initiate activities with a great structure. For example, most of the offices in Latin America and the Caribbean operate with an average of three officials (except for Argentina and Mexico). Obviously, the size of the unit will depend on the level of priority assigned to the subject by the authorities, network of existing instruments, functions and tax administration resources.

As mentioned when discussing the "competent authority", the structure to be adopted by the tax administration to manage the information exchange may be centralized or decentralized. This will depend on the characteristics of each country. In Latin America and the Caribbean, the exchanges of information units are usually centralized.

First, the **functions** of the unit have to be defined. For example, under certain circumstances, the SAT of Mexico has allowed its unit to carry out audits in order to gather information requested by other states. It is also necessary to define the role of the Unit within the framework of a joint or simultaneous examination or the so-called "audits abroad." Also, some units have the capacity to intervene in the negotiation of specific agreements for the information exchange and memoranda of understanding. The functions of the unit must be precisely defined in the internal rules of the tax administration.

Another important aspect lies in specifying **the responsibilities**. For example, the AEAT Unit has officials responsible for each information exchange methodologies (e.g., upon request, automatic, etc.). In small units, it is logical that there is not much room to define responsibilities.

In order to establish more precisely the functions of the area and the responsibilities of its members, it is essential to develop **a manual** that defines the procedures to be followed in the main processes managed by the Unit. This manual should define aspects dealing with feedback processing, distribution of costs, deadlines and internal procedures, sources to be used for responding to a request for information (internal / external), update counterparts regarding changes in the competent authority and relevant rules, standard forms and formats (request for information, feedback, etc..). The contents of the manual will depend on its objectives, which may be to train, to provide scientific information on how to request and provide information based on current procedures and / or define the main processes of the information exchange unit. The extension of the manual will also depend on its objectives.

The aforementioned matters should be considered within the framework of a series of basic procedures as those mentioned below:

- Sending/receiving requests
- Registering a request
- Sending/receiving information
- Sending/receiving information under the "spontaneous" procedure
- Coordination of automatic exchange. In general, the procedures to be followed depend on what is agreed regarding implementation with the respective counterpart.
- Coordination of Foreign officials' visits and joint or simultaneous audits.
- Functions of the competent authority
- Management of direct communication
- Control of Information exchange management

Many of these procedures could be specified in a memorandum of understanding during negotiations if for any reason, as a result of the negotiation, it is necessary to provide special treatment to the information exchange with a certain state. However, the importance of manuals, forms, etc.., lies in ensuring a minimum standard of quality to the Unit. For example, forms don't need to be used in all cases, but provide a guideline on the data fields that must be considered in making a request for information based on the best international standards.

In terms of limits, the general rule is to always provide a response as soon as possible. However, based on international experience some terms could be specified (e.g. 2 months for information held by the tax administration and 6 months for information not available in the archives).

Once the above aspects are determined, it is necessary to analyze what **human and material resources** are needed.

Human resources affected in the area should have several years of experience in various tasks within the tax administration. Since the unit is a cross-sectional area within the organization, related to areas of examination, investigation, and legal areas, among others, it requires officials who know very well the structure of the tax authorities, their partners and processes. The staff profile will depend on the functions of the area. It is not the same if it only sends information between two states, or if it implements controls, assesses, negotiates or performs audits.

They should have:

1. Extensive knowledge of internal rules and relevant rules of the counterparties as well as the network of existing instruments for the information exchange.
2. Ability to solve conflicts with partners and internal conflicts.
3. Ability to understand and process external information and databases.
4. Knowledge of internal administrative procedures
5. Knowledge of the standards most commonly used for the automatic information exchange. With regard to this aspect it may be necessary that the unit receives support from the IT department when trying to routinely exchange automatized data.

6. Ability to identify flaws in internal procedures regarding the information exchange and to propose adjustments
7. Knowledge of at least one additional language
8. Experience in the investigation and control area.

The unit has no special requirements regarding the material resources. In general, it only requires the resources that are used in every modern office (communication systems, phone, Internet, fax, etc. -, furniture, general office costs, etc.). Among the specific resources needed by the area, one might mention the cost of translating documents, correspondence costs if necessary, travel abroad for the purpose of performing procedures abroad, participating in international forums, take training, negotiating procedures with counterparties, etc. ...

Once the unit is in function, it is advisable to define **management indicators**, update and evaluate them. It is valuable to define these indicators from the beginning to compare results in different years and take transcendent decisions (e.g., expanding the capacity of the unit, negotiating new or renegotiate existing instruments, modify procedures, forms, etc.). To define these indicators, it is important to keep at least the following records: date of an application, receipt date, date of notification about invalid or incomplete requirements, notification date about requirements that cannot be attended within the deadlines, exceptional applications (deadlines, certifications, etc..), date on which the information was provided, expiry date of the procedure, date when feedback was sent. It is also important to keep track of procedural issues that have generated problems and other qualitative aspects allowing interpreting the results of the generated indicators. With this information it is possible to work on indicators, such as the following examples of indicators:

- Total received requests/Total attended requests
- Total receipts/Total requests
- Total answers in due time/Total requests
- Total sent or received requests with incomplete information/Total sent or received requests.

It is also important to know the indicators of other units in order to assess the efficiency of the area based on “benchmarking”, in order to implement future improvements.

The **Unit’s relationship with other areas** is an important issue, since the unit would mainly deal with management issues, the audit areas being the main users and providers of the information exchanged.

For example, the unit may be responsible for compiling information available from the tax administration databases to respond to requests for information. However, if they are unable to use these bases or to apply the powers of control and supervision, they should coordinate with the audit areas, which do have access to these databases, files and procedures. For example, it is not common for a unit to request information from a taxpayer, impose sanctions for non-compliance or order searches. In these cases it will depend from other areas to meet the commitment to use every means available to attend the request.

The unit relates to audit areas when processing a request for internal information, receive and respond to requests from abroad, send information abroad, receive and use external information, provide feedback, and receive feedback from abroad. The unit would also collaborate with audit areas when assisting them in the process of information exchange (in some countries, the unit assesses cases in which foreign information can be requested, or identify

and send such information spontaneously) and receives feedback regarding the usefulness of the information received from outside.

In the relation between unit and auditors, it is important to avoid conflicts or manage them in the best way. Conflicts may occur when there are differences on the treatment of a specific information or request and when the unit has capabilities to monitor or become involved in auditing procedures. It is therefore important that the unit properly justify all its actions (for example, if they choose to refuse a request for information or engage in a particular process), since the relationship with the auditors is key to success.

Another task usually managed by these units has to do with "**awareness and training**" of auditors

As discussed at the beginning of this document, the process of information exchange involves a major change in how auditors work. To incorporate the use of outside information into their routine procedures is not easy. It is even more difficult to identify information that could be useful for other Tax authorities or promote simultaneous audits. It is therefore necessary to implement strategies that encourage the use of instruments, such as rewards, training, etc.

In order to provide a practical example of the use of information exchange in Latin America, the following table shows which countries often use this tool for transfer pricing cases and which ones usually do not:

**Table 2**

| Used Criterion | Country |
|---|---|
| Usually send requests | Argentina, Chile, Colombia, Costa Rica, Mexico and Peru |
| Do not send requests | El Salvador , Ecuador[1/], Guatemala[2/], Honduras, Panama, Uruguay, Venezuela |

1/ in some circumstances they have requested information but it is not a common practice.
2/ No practice of Information Exchange, because they haven't started control procedures, however there are already (7) information exchange agreements signed with the Nordic countries.

**Source:** Consulted Tax Administrations.
**Source:** Study on Transfer Pricing Manipulations in Latin America and the Caribbean. ITC-GIZ-CIAT. December 2012.

Among the advantages, the following can be mentioned: travelling abroad to participate in international events that allow the exchange of experiences between auditors and have experiences, better qualifications, and access to language courses, among others.

The unit must, independently or in coordination with other areas, design training programs to introduce the existing instruments, explain in detail the procedures to exchange information, address concerns based on real cases and in general, encourage the information exchange.

A good practice is to design a site within the tax administration "intranet" that allows downloading all existing instruments, disseminate those under negotiation, consult the relevant internal rules affecting the information exchange, download manuals and forms, view documents about good practices and the latest international developments, make inquiries on the subject, among others.

The tax administration highest authority must support the message to encourage the information exchange.

**General aspects**

There are two major issues vital to tax administrations that are closely related to the information exchange process. One of them is ensuring standards of **confidentiality**[4] and the other is the **availability of information**.

Since the tax administration must enforce "tax secrecy", it is important to take all necessary measures to prevent information leaks and misconduct by their officers, whether voluntary or involuntary. While internal information leaks can cause great inconvenience to the tax administration, misleading disclosure of information subject to "tax secrecy" in other states can generate greater responsibilities in terms that could further affect a state's reputation as information exchanger.

It is important for officials to be aware about the rules to ensure the confidentiality of information and the sanctions they might receive if they do not comply, set the controls, solving problems trying to minimize the negative effects, document all processes, keep information on secure sites, among others.

For this, the internal control area[5] plays a crucial role and should control not only for compliance with the internal rules of confidentiality, but also those established in the respective instruments for the information exchange (e.g. the uses for which information can be provided might not be the same in all cases).

For example, a comprehensive policy of confidentiality protection must be reviewed and approved by the highest authority and consider at least the following aspects: classifying safe information and files, assign responsibilities, establish safe procedures for sending information (physical / electronic) and taking the following set of basic actions:

- Checking the antecedents of the personal and security control for employees
- Detailed evaluation of labor contracts (e.g.: Confidentiality clauses)
- Criteria for access to facilities, electronic and physical registries.
- Personal check out
- Information removal policies
- Management of non-authorized disclosures

When sending information abroad, the documents to protect are requests for information, correspondence and the information itself. Both the request for information and the correspondence could contain important information. That is why many tax administrations use these documents to feed their tax intelligence databases.

When sending information, the competent authority information must be included to grant their validity, all the information deemed confidential must be tagged, including integrated notices on the confidentiality of the information, it must be sent via safe electronic means or through emails that have international records allowing their tracking. In all cases, the correspondence must be received by the competent authority, which will store it in secure files.

When sending electronic information, remember that the confidentiality must be guaranteed during the whole process. Only authorized persons can review the mail of the competent authority. The sender is responsible of the information until it is delivered and received by the competent authority. To manage this process, a safe platform or encrypted emails are necessary

When exchanging information automatically, it is important to secure registries in order to prevent leaks. Exchanges can occur through optical media, secure platforms or encrypted files sent via email. With regard to the latter mechanism, it is important to consider the size

4. *See the "OECD guide on the protection of confidentiality of information exchanged for tax purposes"*
5. *See in this aspect the Manual on Internal Control of Tax Administrations and the regulated Internal Control System elaborated by CIAT, AEAT, AECID and IDB www.ciat.org*

of the files to ensure that the information is actually received.

In the process of receiving information, it is important, first, to classify the information that is received, and then store it in a safe place such as a physical file, a special database with special access or general database with limited access. To access this information it is necessary to consider safety measures such as the use of electronic fingerprints to control access to information, define authorized officers, print only if necessary, restrict access to the physical file based access to information the principle of "need to know".

It is also helpful to keep track of people who received the information and accessed copies.

It is recommended that the competent authority includes warnings in the information letter and does not transmit all the information it receives, but the relevant parts must be presumably useful to the receiver. For example, the correspondence is not disclosed to the auditors.

The second vital aspect mentioned at the beginning of this section is related to the "information availability". This issue is closely linked to a country's legal rules, the powers of the tax authorities, the level of development, the level of development of other governmental institutions that handle tax-related information and relations with other government institutions.

It takes time and resources to develop a tax administration information system and generate new sources. Taking measures to provide a maximum reliability to all information loaded to the database is also a complex process.

Currently there are numerous technological developments that facilitate widespread access to reliable information, such as "electronic invoice" return filing via Internet, the use of geo-referenced data, etc...

The evolution of tax administrations coupled with the availability of better computerized instruments has allowed tax administrations to maintain in their systems a large amount of data that can be collected and exchanged with other states immediately or in a relatively short time . However, some tax administrations that have not reached a level of average development will have to attend the taxpayer more often and probably take longer to answer a simple information request.

For example, the information that is usually more demanded worldwide, among other aspects, is:

- Information on payments and withholdings
- Relationship Statements
- Bank Accounts: ownership, movements, payments and collections
- Ownership of Property
- Declaration of payments to non-residents, identification of non-residents
- Taxpayer identification data
- Information on legal entities
- Financial Statements
- Supporting documentation of significant operations
- Taxpayer's returns or third parties' returns

It is important to determine what information is public, because if it is not used as evidence in formal proceedings, it could be obtained by other channels, more informal.

Based on "State of Tax Administration in Latin America BID – CAPTAC-DR - CIAT: 2006-2010", 100% of Latin American countries establish in their regulations the obligation for responsible third parties and other third parties to bring information relevant for tax purposes, have a computerized database for the support of control activities, and select taxpayers to audit based on information crossing.

Similarly, 23% of these countries assign a tax identification number to non-resident taxpayers, 70 % can obtain information on whether a company

is subsidiary of a non-resident parent company, and 53% have implemented a statement on international operations. On base of these data it appears necessary to identify nonresidents in the area and generate information on international operations, which are highly valuable for international information exchange.

To ensure minimum standards of information quality, Tax administrations must rely on a complete, correct and permanently updated taxpayer registry. The following table shows the percentages of Latin American countries which taxpayers' registry follows the key characteristics to comply with quality standards.

**Table 3**

| | SI | NO |
|---|---|---|
| Obligation for all taxpayers to be registered | **82%** | **18%** |
| Inclusion of information to the taxpayers' registry in real time | **82%** | **18%** |
| UIN derives from CI or corporate registry | **88%** | **12%** |
| Public entities/companies use UIN to register economic transactions | **94%** | **6%** |
| TA automatically modifies the taxpayers' registry | **76%** | **24%** |
| There are automatic update mechanisms based on third party information or TA | **41%** | **53%** |

Created by the author on base of the "State of Tax Administrations in LA" 2006-2010 – BID-CAPTAC-DR-CIAT

If we focus only on the data of this table, we would write that in Latin America there are no major problems to manage the taxpayers' registry. However, there are other factors that make its effective and efficient management a challenge for the tax administrations in the world.

Based on the above mentioned study, 100% of the Latin American Tax Administrations can obtain information by means of periodic supplies, without individual requirement. However, just over 50% receive information from the financial system and just under 20% can access to bank account information.

On the other hand, 59% of Latin American countries have external audit reports to identify risk taxpayers and 76% carry out studies on the functioning of the economic sectors. This last aspect is particularly important when exchanging information on industries or branches of economic activity.

In order to strengthen the levels of information available for both internal use and for sharing with other tax administrations, the following points should be implemented:

1. Evaluate the legal capacities
2. Develop studies for identifying information sources
3. Promote alliances with public organizations, the private sector and other states
4. Develop capacities to automatically validate the received information and consolidate it through informer and informed.
5. Developing differentiated control, selection and quality processes.
6. Evaluate in details the cost/benefit relations of information regimes
7. Cooperate with other public entities to improve information quality and availability.
8. Investing in IT.

## 4. CONCLUSIONS

After dealing with the different aspects necessary to develop the "effective information exchange", it can be said at the present time that few countries apply all the mentioned political, normative and administrative aspects of this article. However, many countries of Latin America and the Caribbean are determined to overcome the barriers, and in this regard, international collaboration is key.

Another aspect to note is the impact of the information exchange on tax administrations, which are the natural environment where to develop this practice. The information exchange is a relatively simple administrative process, however it requires reviewing many of the major administrative processes (e.g., sources of information, reliability of information, confidentiality, internal control, auditing procedures, etc..), cultural aspects of the organization (e.g., cooperative attitude and dedication to service), as well as the need to develop clear criteria for interpreting regulations and an appropriate legal framework to meet international commitments, without it being a barrier when applying information sharing instruments.

Based on the numerous findings and considerations of the article, it can be concluded that the states' motivations for sharing information are different, there are several ways to achieve the effective information exchange and it is not necessary to harmonize all the rules. The point lies in carrying out the appropriate action in each state to promote the availability and access of information, and professionally exchange it with other states.

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# * INTERNATIONAL AND SUPRANATIONAL BASES OF ENVIRONMENTAL TAXATION IN THE AMERICAN CONTINENT

**Paulo Roberto Coimbra Silva**


## SUMMARY

This article illustrates the phenomenon of integration between regional blocs of countries in the Americas, the tension between the neccessity of an effective protection of the environment, which demands transnational measures, the interdependence of the various regional ecosystems and the lack of harmonization of national legislation beween the countries due to the political nature of supranational environmental guidelines. This tension has generated, within the blocks, distortions and competitive disadvantages between systems that already use the extra fiscal caracter of taxes, imposing on economic agents the internalization of environmental costs (such as the grading of the tax burden according to environmental criteria) and those, which still do not adjust to these guidelines. From a critical point of view, it seeks to draw attention to the need for a greater integration between national laws, including the tax for the protection of the environment and a more effective supranational policy.


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**Content**



The need to regulate human behavior in relation to the environment is undeniable. Concern for the future of natural resources is not new, and since the 70s the inclusion of this issue in the international debate has been constantly growing.

In fact, the environment is a universal asset of humanity, and as such, its cross-border dimension is recognized, i.e., something that is not limited by geographical and political borders, which are artificial. A polluted river in a country does not only affect that territory, as well as air pollution and nuclear radioactivity, which can be spread for miles. The ecosystem is interdependent and suffers the consequences of the events in different parts of the world.

Hence it is important to establish international cooperation in environmental matters based on the global extension of polluting activities, which motivates solidarity among States in preventive and repressive actions for the protection of the environment[1].

## 1. INTERNATIONAL AND SUPRANATIONAL BASES

Certainly, the protection of the environment should not be applied within the limits of artificial geographic boundaries, indeed, but from the development of the Shared Environment Concept, i.e., at national, regional and global levels.

Therefore the Environmental Law arises as a relevant part of the domestic as well as international policy. In this order of ideas, environmental issues require the coordination of policies.

Since the last quarter of the 20th century, environmental issues are widely discussed in the world in frequent meetings.

The first global meeting which main topic was the environment was held in Sweden in 1972, in the so-called "United Nations Conference on Environment," also known as the Stockholm Conference. At that time, the scientific society discussed possible future problems due to air pollution caused by industries and the intensive exploitation of natural resources. This Conference was very important to warn about the relevance of environmental issues, promoting a global movement of States for a problem that extends beyond borders.

Between 1984 and 1987, the United Nations World Commission on Environment and Development met to examine the key environmental issues, for proposals, to strengthen international cooperation, and to have more individual participation for supporting the preservation of the environment.

In Rio de Janeiro in 1992, the World Conference on environment and development, known as ECO-92 took place, having Brazil at the center of an intense sociopolitical movement around environmental issues and the mobilization of the Government and the society.

1. *OLIVEIRA, José Marcos Domingues de. Tax Law and the Environment. 3ª Ed. Rio de Janeiro: Forense, 2007, p. 17.*

In 1994, the WTO (World Trade Organization) created the Trade and Environment Committee, which objective was to establish the relationship between trade and environmental measures in order to promote sustainable development.

In the same decade, the Quito and Buenos Aires Conferences took place both in 1997; they sought to introduce strict limits on industrial emissions, in an attempt to reverse the greenhouse effect and the destruction of the ozone layer.

In this context, in the Americas, different economic blocks exist, which are worth mentioning. MERCOSUR (Common Market of the South) and NAFTA (North America Free Trade Agreement) began to adopt measures based on the protection of the environment, such as the MERCOSUR Framework Agreement on the Environment and the North American Agreement on Environmental Cooperation (NAAEC). In most free trade agreements or treaties, the environmental issue has been incorporated. These treaties will be discussed in detail throughout this article.

## 2. EXTRA FISCAL TAXATION

It is known that the traditional and conservative way to meet the requirements of States is through the convergence in the public budget, which brings together the collection of revenue and the authorization to carry out public spending needed to finance the States' activities. This completes the cycle "income - budget - expenses", a common formula used to carry out the purposes established in the Constitution.

In our times, in addition to the income, tax levies are used to search for other objectives, which are also constitutionally protected, by inducing[2], either by stimulation or inhibition the values in private behaviors, taking into account the values and the objectives in the Constitution.

In this order of ideas, once the old tax neutrality myth from the time of liberalism is over, the effect of tax levies are recognized beyond the mere State aid. Therefore, the taxation assumes characteristics and purposes that go beyond simple munitions for public coffers, contributing directly to the achievement of the States immediate objectives, as a public policy instrument.

Then the extra-taxation presupposes the introduction in Tax Law of values from diverse areas, which include the environmental area. These areas are affected by the induction of relevant behaviors which affect them.

Extra-Fiscal Taxation can act in a positive or negative way. Positive induction occurs through the stimulation of one or more complying behavior that lead to a total or partial exemption of the tax burden. Negative induction, consists of the inhibition of such behavior which can be performed via the aggravated tax incidence on certain behaviors.

It should be clarified that extra-taxation does not intend to prevent certain behaviors, but it conditions the economic agent freedom to choose, through grading the tax burden, based on, for example, environmental criteria. Tax regulations with extra fiscal taxation purposes encourage or inhibit behavior that, within the legal framework, that are either promoted or considered undesirable to the values yearned in the constitution[3].

In this case, the environmental taxation aims to stimulate the preservation and protection of the environment by avoiding the opposite to this precept.

2. *SCHOUERI, Luis Eduardo. Tax rules that lead to economic intervention. Rio de Janeiro: forense, 2005.*
3. *It is appropriate to mention here, that due to the complexity of postmodern society, currently the classification of licit or illicit acts are as useful as insufficient. In the area of legality, (desirable) suitable acts, (unwanted) problems can be identified and neutral (indifferent) in relation to the realization of the values established in the Constitution.*

## 3. ENVIRONMENTAL TAXATION

The "polluter pays" principle was defined by the OECD (Organization for Economic cooperation and development) as "the polluter should bear the cost of measures to reduce and control pollution"[4] so that 'the greater the proportion of the cost bared by the polluter, the more the polluter pays principle will be accomplished[5].

Hereinafter Michel Prieur lesson on the polluter pays principle:

> "It is inspired by the economic theory according to which the external social costs accompanying the industrial production must be internalized, i.e. the economic agents must include them into their production costs"[6].

In this sense, it is important to internalize environmental costs, i.e. include them to be part of the products and services value.

Thus, there are two sides of the polluter pays principle. From a legal point of view, it means that pollutants should be economically responsible. The economic approach involves internalizing the price of polluting products to the social costs resulting from environmental degradation.

At the same time, there are two phases for this principle. The first is the preventive one, which purpose is to avoid environmental deterioration. The other is the compensation phase, which aims to compensate the damage caused to the environment.

Given the growing importance of the environmental issue as a domestic and international emerge policy economic instruments for the protection of the environment, based on the polluter pays principle, which propose solutions, sometimes market-based, sometimes with the intervention of the State.

The doctrine recognizes as adequate economic instruments, the environmental protection, subsidies, and the commercialization of environmental licenses (Trade-off of Permits), the deposit-reimbursement and the environmental taxation.

In this regard, environmental taxation has shown to be an effective instrument for preventing and fight against pollution, not only by providing the necessary resources for the State to act (taxation), but also to induce non-polluting behaviors and inhibit the pollutant ones (extra-taxation), these precepts are based on Kelsen's reward sanction doctrine which in turn is based on the compensatory principle. The tax system is useful in the fight against pollution and the destruction of the environment, because it adapts the type of taxes to the environmental taxation. The taxes, in this particular case, become an instrument for the environmental policy.

Thus, the State recognizes citizens' efforts to comply with the law and not only punishes the offender. Who does not pollute or pollutes relatively little, will have as a way of reward, less tax burden. This is the doctrine that justifies, in general, fiscal incentives, which otherwise would be incompatible with the principle of equal privileges.

In the case of fiscal incentives applied as economic instruments to promote the protection of the environment, the fact is that while some reject the option of fiscal incentives (to continue with their polluting activity) regardless that this involves paying more taxes, others choose to pay less taxes or not pay any, by implementing technological developments.

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4 *OCDE. The Pollutor-Pays Principle – Definitions, Analysis, Implementation. Paris: OCDE, 1975, p. 6.*

5 *OCDE. Economic, Instruments for Environmental Protection. Paris: OCDE, 1989, p. 28.*

6 *PRIEUR, Michel. Droit de l'environment. 2ª Ed. Paris: Dalloz, 1991, p. 123.*

Alejandro Altamirano says that:

> "It is better to encourage than to punish, promoting investment for the control of pollution than to sanction with penalties which requirement has the effect of drowning the industrial activity, when a climate of uncertainty is created around the consequences of their application"[7].

The tax system can act in a complementary manner to the administrative system of environmental licenses, which is essential for the preservation of the environment. According to the OECD, environmental taxes, along with other policy instruments, can contribute for a better integration of economic and environmental policies.

This is the integration that American organizations have attempted to carry out; we will discuss this topic below.

## 4. WITHIN THE AMERICAN FRAMEWORK

### a. North American Free Trade Agreement (NAFTA)

NAFTA is a free trade agreement which entered into force in 1994, between Canada, United States and Mexico, with Chile as an associate member. Its purposes include the elimination of customs barriers (import tax), the facility to circulate goods and services among member countries and the promotion of conditions for a fair competition within the free trade area.

In relation to environmental issues, the Treaty follows the trend of most treaties and free trade agreements; in its preamble, it intends to carry out its objectives based on the protection and preservation of the environment.

In addition, in 1993, NAFTA members sign the North American Agreement on Environmental Cooperation (NAAEC) between the countries. This agreement constitutes the international instrument which contains the environmental policy of this region. It was created from the concern about the possible negative effects of the different environmental legislation in each country. Diverse topics were discussed such as distortion and competitive disadvantages, the assumption of different environmental costs and environmental degradation.

In this way, the NAAEC contains a series of objectives that can be classified into three categories: (i) environmental; (ii) economic-environmental; and (iii) concerning the effective implementation of domestic environmental legislation.

Among the environmental objectives, it fosters the protection and improvement of the environment, increase the cooperation between the parties in order to preserve, protect and improve the environment, and promote effective pollution prevention policies and practices.

Among the economic and environmental objectives are the sustainable development based on cooperation and mutually supportive environmental and economic policies, the promotion of economically efficient and effective environmental measures, avoid creating trade distortions or new trade barriers and support the environmental goals and objectives of the NAFTA.

Finally, among the objectives relating to domestic legislation is the strengthening of cooperation for the development of laws, regulations and

7 *ALTAMIRANO, Alejandro. "The taxation as an instrument applied to the enhancement of the environment. "Eco tax". XXVII days of the annual public finances. Córdoba: Faculty of Economic Science, Córdoba National University, 1994.*

procedures to improve compliance with laws and environmental regulations and the promotion of transparency and the participation of society in the elaboration of the environmental legislation. The purpose is to avoid trade barriers due to noncompliance with the environmental legislation or to competitive advantages derived from this noncompliance.

In terms of the existing conflicts between the Member States related to the agreement, there are three mechanisms: consultation, complaint and arbitration.

The consultation is delivered by a State regarding a persistent pattern of failure by that other Party to effectively enforce its environmental law. The aim is to reach a satisfactory resolution for all parties involved in order to remedy that failure, whether it is through action plans or commitments, etc.

If the consultation does not resolve the dispute, the State presents the complaint, explaining the reason for it. From there, the Commission for Environmental Cooperation Council has 20 days to meet and make a recommendation regarding the failure.

If the Council does not resolve the dispute, any Member State may request for an arbitral panel, which will take place if two-thirds of the Council convenes so. The arbitral panel will only meet if the situation relates to economic reasons; therefore there is no possibility of using this mechanism where it is simply a default with the environmental legislation. This Panel may impose on the Infringing State a monetary contribution (which may not exceed 0.007% of total trade of goods between the parties). If the contribution is not paid, the parties may suspend NAFTA benefits for an equivalent value.

**b. MERCOSUR**

MERCOSUR is the economic bloc created by the Treaty of Asunción (1991) which includes Brazil, Argentina, Paraguay, Uruguay and Venezuela, Bolivia and Chile have an associate status.

As well as the NAFTA, the preamble to the Treaty of Asuncion foresees that its objectives should be achieved through a more efficient use of natural resources and the preservation of the environment.

In this sense, in 1992 the MERCOSUR founded the Specialized Meeting on the Environment (REMA in Spanish), which adopted through resolution 10/94, the basic guidelines on environmental policy. This resolution establishes, among other guidelines, the harmonization of environmental legislation among member States (not the creation of a single legislation), the internalization of environmental costs as part of the goods and services price and the adoption of sustainable development.

In other documents, there are general references on the adoption of economic instruments related to environmental policy such as:

- Promotion and cooperation on production and sustainable consumption Policy (Resolution 26/07) - Appendix i: b - economic and financial instruments to promote changes on unsustainable production and consumption patterns; ‘e’ - awards and recognition systems to companies that implement production and sustainable consumption practices;
- Framework agreement on environment (2001): Art. 3 “f” – promote the internalization of environmental costs through the use of management economic and regulatory instruments.
- Environmental management Guidelines and Cleaner Production (Resolution 14/06) - Annex: “point 1” - adopt practices, methods and technologies oriented towards the efficient use of inputs and raw materials, resulting in better management of production processes, for increasing productivity, by significantly reducing waste; “Point 3” - incorporate environmental accounting tools that identify the environmental costs associated with productive activities, in order to internalize them.

### c. Criticism

However, despite the inclusion of the environment preservation in treaties and free trade agreements, this, by itself, is not enough to countervail the substantial changes of the current environmental status.

In reality, although NAFTA and MERCOSUR included the protection of the environment on their agenda, even with these agreements, it cannot be considered that there is a regional environmental policy in America, in reality there are only isolated individual and unilateral measures.

In fact, the lack of harmonization of the domestic legislation affects competition in the free trade areas, since the adoption of economic instruments (environmental taxes, subsidies, etc.) on an individual basis by a given State produces negative consequences on the other, which obviously creates distortions and competitive disadvantages.

The harmonization process, not only on policies, but also on legislation, is a need for integration processes. For example, if some more strict countries adopt the internalization of costs and other do not, these last ones have relatively less competitive conditions.

In this sense, the common market has a competitive character instead of a cooperative one, regarding the environment protection.

Furthermore, it is observed that the NAFTA and MERCOSUR guidelines are only programmatic rules, without any specificity or effectiveness degree. These guidelines are only proposed to indicate what should be the line to follow. There is no way to force each State to have in their laws a minimum content.

Finally, it should be noted that none of these documents specifically mentions the environmental taxation. Such agreements and treaties simply refer to economic instruments, in a general way.

## 5. ISOLATED INITIATIVES / UNILATERAL MEASURES

Eenvironmental taxation is today's topic, for trying to find more than one solution to a problem that affects everyone, without distinction: the environmental crisis.

There are several isolated environmental taxation initiatives in the world. At a national level, Germany, Austria, Denmark, Finland, Netherlands, Norway, United Kingdom and Sweden have already performed environmental fiscal reforms including the tax changes made in Ireland and Luxembourg.

See, for example, the following table:

**Table 1**

| Benefit | Example Country |
|---|---|
| | |
| Tax incentives (Deductions/credits or exemptions) in relation to investment in energy efficient and/or appropriate to the environment goods or assets. | **Brazil:** Reduction of the tax rate on vehicles (IPVA), when it comes to vehicles that run on natural gas (Act No. 113/10, approved in June 2011); tax exemption for electric vehicles in some States (EC, MA, PE, PI, RN, RS and is); differential tax rate in MS, RJ and S<br>**Canada:** Immediate deduction or deduction for expenses related to the scientific research and Experimental Development program (SR & ED).<br>**USA:** Tax deduction for environmental vehicles and for energy efficient of houses and household appliances. |
| Accelerated or free depreciation | **Australia:** Specific depreciation provisions for water facilities.<br>Canada: Accelerated depreciation on intangible costs associated with renewable energy and energy conservation projects.<br>**USA:** Accelerated depreciation for smart electrical meters or qualified network systems, the conservation of soil and water, and surfaces used in agriculture, small refineries and energy-efficient construction of commercial buildings.<br>**Netherlands:** Free or accelerated depreciation for environment friendly goods. |

Environmental taxes in kind that exist abroad should also be mentioned.

In the United States, for example, the tax focuses on the production and consumption of certain polluting products, with total or partial exemptions to others not polluting or recycled products. The income tax includes an "environmental additional", i.e., the deductibility of donations of lands and forests for conservation purposes.

In Germany, for example, there is a municipal tax on packaging and disposable flatware. On the other hand, the tax on vehicles is based on the engines capacity, the fuel used and whether or not it has a catalyst. In addition, there is an exception for half the profits on the private production of electricity in the first twenty years of activity.

In Belgium, the tax focuses on virtually all disposable consumption goods, from razors and cameras to batteries and packaging in general. In addition, an exemption and refunds systems when using recyclable material applies.

In France, municipalities are allowed to tax urban buildings, when the creation of green spaces is affected.

In Portugal, there are laws that provide exemptions and other tax benefits for those who donate funds to non-governmental organizations involved in the preservation of the environment.

Finally, in the United Kingdom, the so-called" congestion charge" is the tax that falls on vehicles transiting in London center during weekly business hours, taxis, motorcycles, buses and vehicles using alternative fuels are exempt from this tax. In addition, it also taxes the fossil fuel waste in the industry.

## 6. THE ISSUE IN BRAZIL

The Brazilian Constitution of October 05, 1988 allowed to incorporate the environmental issue on in the chapter entitled "Social order"8. This chapter defined the environment as a common asset for the people and essential for quality of life, including both the government and the community in the preservation and defense of the environment.

In addition, the Constitution itself determined that the protection of the environment and the fight against pollution are common responsibility of the Union, States, Federal District and municipalities'[9].It should be noted that Brazil has 26 States in addition to the Federal District and more than 5,000 municipalities.

However, the 1988 Constitution does not expressly mentions environmental taxation.

Despite the lack of such provision on environmental taxation, Brazil has already imposed some taxes and fees with environmental characteristics.

According to Jose Marcos Domingues, taking into account the provisions of article 16 of the NTC (National Tax Code), indirect taxes (on production and consumption) are better for environmental taxation, through rates, exemptions and refunds, depending on the nature of the products, in order to stimulate the production of more efficient and less polluting products and inhibit the production of inefficient or polluting products, or which production process is environmentally inappropriate[10].

We can also mention the tax benefits from the environmental taxation within direct taxes (on income and assets).

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8 *Art. 225. Every person has the right to the common use of an ecologically balanced environment, essential for the quality of life, by imposing to the public power and the community the obligation to defend it and preserve it for present and future generations.*

*1- to ensure this right, the public power must:*

*1- Preserve and restore essential ecological processes and provide the ecological management of the species and ecosystems;*

*II- preserve the diversity and integrity of the genetic patrimony of the country and supervise entities engaged in the research and manipulation of genetic material;*

*III- all units in the Federation must define territorial spaces and their components that are to be especially protected, for changing or eliminating their situation it is only allowed by law its use that compromise the integrity of the attributes that warrant its protection is forbidden;*

*IV- to demand, according to the law, prior to the installation of a work or activity likely to cause significant environmental degradation a preliminary environmental impact study, which will be made public;*

*V- control the production, marketing and use of techniques, methods and substances that put at risk the life, quality of life and the environment;*

*VI- promote environmental education at all levels of education and awareness for the preservation of the environment;*

*VII- protect the flora and fauna, the law prohibits practices that endanger their ecological function, causing the extinction of species or which subject animals to cruelty.*

*2 - Those who exploit the mineral resources are required to recover the degraded environment, according to the technical solution required by the competent public entity in accordance with the law.*

*3- behaviors and activities considered harmful to the environment by individuals or entities will be subject to administrative and criminal sanctions, along with the obligation to compensate the caused damages.*

*4- the Brazilian Amazon, the Atlantic forest, the Sierra do Mar, the Pantanal of Mato Grosso and the coastal zone are national heritage and its use will be in accordance with the law, in conditions which ensure the preservation of the environment, including the use of natural resources.*

*5- land returned or expropriated by the States are not available due to discriminatory actions necessary for the protection of the natural ecosystems.*

*The location of power plants that operate with nuclear reactors must be defined in the federal law, before they are installed.*

9. *Art. 23. is the common responsibility of the Union, States, Federal District and municipalities: (...)*

*VI- protecting the environment and combating pollution in any of its forms;*

10. *OLIVEIRA, José Marcos Domingues de. Tax Law and the Environment. 3ª Ed. Rio de Janeiro: Forense, 2007, p. 62.*

The table below shows the environmental taxes in Brazil:

| Direct | Indirect |
|---|---|
| **IR (Federal):** Law 66/5.106-refund or discount of the resources used in the afforestation or reforestation.<br>**ITR (Federal):** The social function of the property-proper use of natural resources and the preservation of the environment. Areas of native forest, as well as legal reserve are exempt of such taxes.<br>**IPVA (State):** (Total or partial) exemption for vehicles driven by less polluting fuel - law 03/14.230 (PR), 2877 law/97 (RJ), 10.355/99 law (SP), 14.937 law/03 (MG).<br>**IPTU (Municipal):** Law 691/84 (Rio de Janeiro/RJ) - tax exemption (i) land of ecological or relevant to environmental preservation; (ii) areas declared as forest reserves; and (iii) more than 10 thousand m² areas covered by woods. | **IPI (Federal):** Dec.755/93-reduction of the rate on vehicles driven by alcohol compared with gasoline-powered.<br>**ICMS (State):** Decree 93/2.055 (RJ) - reduction of the tax rate (18% à 12%) applied to equipment used for the protection of the environment.<br>**Ecological ICMS (State):** It is not an environmental tax. It is about the Institute of financial law so it is a quantitative criterion for determining compulsory transfers (from States to municipalities) - environmental criteria. -Law 04/1530 (AC), Act 322/96 (AP), 14.023/07 law (EC), LC 157/04 (MT), law 2.193/00 (MS) 18.030/09 law (MG), LC 59/91 (PR), 12.432 law/03 (PE), law 5.813 08 (PI), 5,100/07 law (RJ), 11.038/97 law (RS), LK 147/96 (RO), 8.510/93 (SP) 1.323/02 and law (TO). |

Licenses, control, and environmental recovery or cleaning seem acceptable as generators of rates, in light of the Brazilian law (art. 77 of the CTN), by storing a reasonable equivalence between the environmental public service rates and costs. It is noteworthy that the rates can change values due to the individual situations of taxpayers (type of establishment / installation/ activity, controlled area, etc.) and by the emissions volume, or the production of polluting waste.

This way, environmental taxation can not only represent substantial income for financing administrative expenses, but also it can induce polluters to look for cleaner alternatives for reducing the rates that must be paid.

The following table shows the rates with environmental characteristics in Brazil:

| Environmental rates |
|---|
| **Environmental control and monitoring Rate (art. 17-B of the law 6.938/81):** it is the regular exercise by the police power granted by IBAMA for controlling potential polluting activities and natural resources users. |
| **Environmental preservation rate (Law 10.430/88 PE - Fernando de Noronha):** it is the real or potential use by visitors of the physical infrastructure implemented by the State as well as the access and enjoyment of the natural heritage of the island. |
| **Environmental rate (Law 10.233/92PR):** it is the regular exercise by the police power or the use of public service, available by the environmental Institute of Paraná-IAP. |
| **Environmental control rate (Ley14.384/02 GO):** it is based on the regular power exercised by the police power to control for controlling potential polluting activities and natural resources users. |
| **Environmental control and monitoring rate(Lei/14.490 03 MG):** it is based on the regular power exercised by the police power to control for controlling potential polluting activities and natural resources users |
| **Forest rate:** MG - Law 4.747/68 – based on the control, administrative, police and the encouragement activities by the State Institute of Forests. |
| RJ - Lei 3.187/99 - this rate is the exercise of the police power for forest control (extraction, industrialization and consumption of forest products). |
| **Environmental license rate (law 5.441/01-Vitória/ES):** this rate is the exercise of the police power as a result of the environmental license for the activities carried out within the municipality. |
| **Environmental license control rate (LC 28/01-Macaé/RJ):** this is the regular and effective control of the police administrative power, exerted on commercial, productive and provision of services activities and the use of environmental resources by the Government and individuals. |

## 7. CONCLUSIONS

It should be noted that environmental protection has been incorporated in the majority of treaties or free trade agreements. Although they are programmatic guidelines and do not have any specificity and effectiveness, the prediction of treaties and conventions have promoted environmental conservation in national legal systems, including the domestic tax legislation of each member country of the economic blocs.

The environmental taxation constitutes a valuable instrument for the promotion of investments and adequate environmental behavior. However, the application of environmental taxes by the member countries of free trade areas, without a proper coordination or harmonization with the rest of the block, produces discriminatory treatment between products and services, affecting the neutrality and competitiveness. This lack of coordination or harmonization between national legislations, even among common principles, has generated a wide range of isolated and unilateral measures.

Environmental taxation is an expense for economic agents; it is likely that investors seek to avoid these costs, in regions or countries where the legislation is less strict. The adoption of individual measures causes distortions in free trade areas, such as NAFTA and MERCOSUR.

If the intention of the free trade zones is the creation of a common area, where tax policies do not cause economic distortions, a greater standardization and harmonization of the national legislation of these countries is clearly needed, given that environmental problems do not respect geographical borders.

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