

Inter-American Center of Tax Administrations – CIAT

45th CIAT GENERAL ASSEMBLY



“TAX MORALE AS DETERMINING FACTOR IN IMPROVING THE EFFECTIVENESS OF THE TAX ADMINISTRATION”

Subtopic 3.2:

“THE DESIGN AND IMPLEMENTATION OF TAXPAYER ASSISTANCE PROGRAMS IN KEEPING WITH HIS BEHAVIOR”

**Internal Revenue Service
Chile**

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Summary

For many years, the Internal Revenue Service of Chile has been concerned about affording its taxpayers a differentiated treatment. This process began with the creation of the Large Taxpayers Directorate and subsequently continued with the implementation of Taxpayer Segmentation in each of the operational units. In addition, in recent years, it has been gradually including the level of tax compliance of taxpayers in the different assistance and examination plans. To this end, different examination as well as assistance treatment strategies have been determined, based on a series of factors for classifying the taxpayer. Some of these factors are: taxpayer size, economic sector to which it belongs, type of corporation, taxation system, violations of tax regulations, etc.

One of the factors for classifying the taxpayer is tax behavior, which has allowed for differentiating the application of some strategies. Thus, in this paper we will discuss different treatments applied in relation to Income Tax, targeted prevention plans (brief field examinations), requirements for using Electronic Invoicing and Remote Examination and Assistance.

Finally, consideration will be given to a case designed with the tax behavior of taxpayers as main discriminating factor. Such behavior is related to tax noncompliance, specifically, “the noncompliance risk”, and accordingly, related to the application of examination actions. This is based on the premise that risk measurement may ensure tax compliance within long term, and optimize the use of institutional resources by focusing them on areas of greater risk.

Introduction

Globalization and technological development have brought about significant economic and social changes. These, in turn, have generated requirements and challenges for the Tax Administrations (TA) as regards the exercise of their examination powers, which must be applied with due respect for taxpayers' rights, as provided in the laws of the countries, which constitute a legal framework that guarantees the appropriate balance in the relationships between the TAs and the taxpayers. Thus, in the case of Chile, the Tax Code provides, among other things, for the right to be treated courteously, with due respect and consideration; to be informed and assisted by the Tax Administration in relation to his rights and compliance with his obligations; to be informed, at the beginning of every examination, about the nature and aspects to be examined; and to be aware at any time, in an expeditious manner, of his tax situation and the status of the procedure; to be informed about the identity and position of the Service's officials responsible for the processes in which he might be interested; and that the actions be carried out without unnecessary delays, requirements or waiting time, and that the official in charge certify the receipt of all background information requested.

The measures listed above allow taxpayers and TA officials to feel confident with the tax system, in such a way that the actions of both parties be carried out within the normative framework in force, thus guaranteeing that their rights and powers be exercised according to the regulations in force.

In terms of the TA officials' actions, it must be borne in mind that they are the ones that determine the corporate image in the community. If positive, it will result in prestige, respect and credibility, which attributes will facilitate the work of the TA; and if not, foreseeable negative effects will follow.

Thus, the SII has been concerned for many years about adjusting its actions according to the following guidelines: strengthening control of taxpayer compliance, minimizing noncompliance and facilitating and simplifying procedures before the TA. It has also been concerned about giving its taxpayers differentiated treatment, by implementing Taxpayer Segmentation in each of its operational units and gradually incorporating in the different assistance and examination plans, the taxpayers' level of tax compliance.

General Background

In 2001, the Internal Revenue Service created the Large Taxpayer Division (DGC) in order to provide differentiated assistance and examination to these taxpayers, especially because of their importance in collection at the country level. Subsequently, starting in 2008, taxpayer segmentation was implemented in all of the countries' operational units.

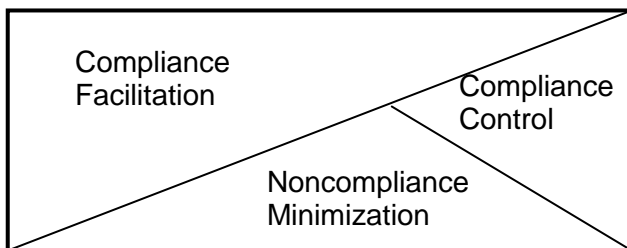
One of the objectives pursued with segmentation was to apply different treatment strategies given the taxpayers' compliance attitudes, so as to:

- Facilitate voluntary compliance to those taxpayers who were willing to do things properly.
- Assist those taxpayers who tried to comply but were not always successful.
- Dissuade from noncompliance those taxpayers who did not wish to comply when there is some problem with a tax obligation.
- Finally, strict application of the law to those taxpayers who had decided not to comply.

It was determined that initially it was necessary to move from a model based on processes (Income Operation, VAT Operation, Selective Auditing, Preventive Auditing) to one based on attention, assistance and control of taxpayers with similar characteristics. Thus, five segments were identified:

- Four segments for businesses, corresponding to Large, Medium, Small and Micro taxpayers; which were primarily classified in accordance with their sales figures, acquisition figures and amount of capital held.
- One segment for Individuals, whose requisite was not to be subject to tax on capital gains and not to be an independent businessman.

Each segment has had to devise mechanisms to deal with the strategic guidelines defined for taxpayer examination and assistance, as shown in the following figure:



In 2010, the control strategy applied, based on the Taxpayer Segmentation model, consisted primarily of selective audits of taxpayers from the for the Medium and Large Business segments, and massive and preventive processes for Individuals, Micro and Small Business segments.

In the sphere of Compliance Facilitation, worth noting is the consolidation of the Segmentation Model in the Regional Directorates, both in the platform and in the control areas, which has significantly improved the quality of taxpayer assistance, thus saving them time in complying with their obligations. Also important in that sphere were the different functions developed in the MIPYME (Full Accounting System and other improvements) Portal, as well as other services available in Internet, such as the application for requesting refund of Exporters VAT.

Significant in the sphere of Noncompliance Minimization is the generation of proposals for income rectification for 25% of objected taxpayers; the proposal of the F29 return for taxpayers of the MIPYME portal, users of the simplified accounting system; and the 1.4 million proposed AT2010 income tax returns used, among other initiatives.

In determining the control, facilitation and noncompliance minimization strategies, one of the basic activities has been the **classification of taxpayers in each segment**. Such classification has been made on the basis of a series of such factors as:

- Taxpayer size
- Economic sector to which the taxpayer belongs (industrial, commercial, financial, others)
- Type of corporation (limited, limited liability, individual, others)
- Relative taxpayer importance in terms of the business the taxpayer is involved in
- Type and scope of operations (national and/or international)
- Taxation system (general, special, simplified, others)
- Exemptions used by the taxpayer and use of tax benefits or exception regimes
- Tax behavior (is there a record or not of violation of tax rules)
- Impact on collection
- Examination modalities to be applied (massive, focused, others)
- Review costs for the TA
- Review costs for the taxpayer

4. Taxpayer treatment strategies in accordance with his tax behavior

As mentioned earlier, the Tax Administration has developed different strategies for treating taxpayers, depending on their characteristics, and one of these being **tax behavior**.

Shown below are some of the treatment strategies that take into consideration the taxpayer's behavior. Thanks to the technological means available in the Administration, it is possible to carry out checks and verifications for determining the type of treatment to be applied. The latter may range from revisions performed by the operational units, those that the taxpayer may solve directly through the SII website as well as others whereby inconsistencies may be corrected without the taxpayer having to visit the TA offices.

a. Income tax differentiated treatment

The annual Income Operation process in Chile is applied to the Large, Medium and Small Businesses and Individual taxpayer segments. Determination of the action to be applied depends on the type of inconsistency detected and the taxpayer's classification, in order to ensure that it may be an objective and equitable process, considering due protection of taxpayer rights, as well as its tax behavior, as well as the effectiveness and efficiency of the examination process. To this end, in 2010, 209 observations were performed to verify the accuracy and consistency of reported data, thereby identifying 248,511 taxpayers whose returns were objected and which represents 11% of all taxpayers who filed income tax returns. Those who did not have inconsistencies or which because of the amounts involved their examination was not economically convenient for the TA or the taxpayer should not have undergone additional actions, but were nevertheless reviewed.

In this process, ever more mechanisms have been implemented for facilitating taxpayer compliance and thus the SII has provided:

- Proposed income tax returns, having received in 2010, 1,412,257 returns based on the proposals made by the Service to the taxpayers, which represented 59.7% of the total returns received.
- Proposals for corrections to income tax returns, having received in 2010, 16,069 corrections based on the proposals made by the Service, which represented 15.1% of the total corrections received.

Some complementary statistics are shown below:

Income Tax Returns	2009		2010	
	Number	%	Number	%
Taxpayer returns	2,346,900	100%	2,362,430	100%
Taxpayers who filed using the SII proposal	1,401,869	59.7%	1,412,257	59.8%
Taxpayers who filed by Internet, without proposal	904,685	38.5%	912,425	38.6%
Taxpayers who filed using a cellular phone	89	0.0%	71	0.0%
Taxpayers who filed using a paper return form	40,257	1.7%	37,677	1.6%

b. Focused Preventive Plans

The Focused Preventive Plans correspond to in-person examination activities that are focused on certain types of risk, mainly taxpayers from the Micro Business segment. Since the businesses in this segment are very small, the costs of interaction with the

Administration along with the cost of location are high. Therefore, they are preferably visited in the field to verify “in situ” if they are complying with their tax obligations.

The overall objective of this type of actions is to develop an examination presence that may be based on precise and updated information. To this end, some specific figures are established that may account for the behavior in order that the SII may focus the Service’s action, since it is presumed that there is a greater level of noncompliance.

Some of the figures incorporated are: nonfilers of tax forms, corporations with partners having problems, new invoice issuers, taxpayers with negative annotations in force, etc.

In each of these situations, the SII tries to educate the taxpayer, indicating the reason for the visit and accordingly, the noncompliance identified, while encouraging him to change his behavior in the future.

In general, taxpayer visits are made once a year; however, those taxpayers with a very risky tax behavior may be visited more than once.

Shown below, are some statistics.

Period	2009	%	2010	%
Taxpayers visited 1 time	169,150	75.2	145,134	70.6
Taxpayers visited 2 times	36,434	16.2	41,611	20.2
Taxpayers visited 3 times	11,568	5.1	11,774	5.7
Taxpayers visited more than 3 times	7,639	3.4	7,142	3.5
Total	224,791	100.0	145,134	100.0

c. Differentiated Treatment for Electronic Invoice Issuers

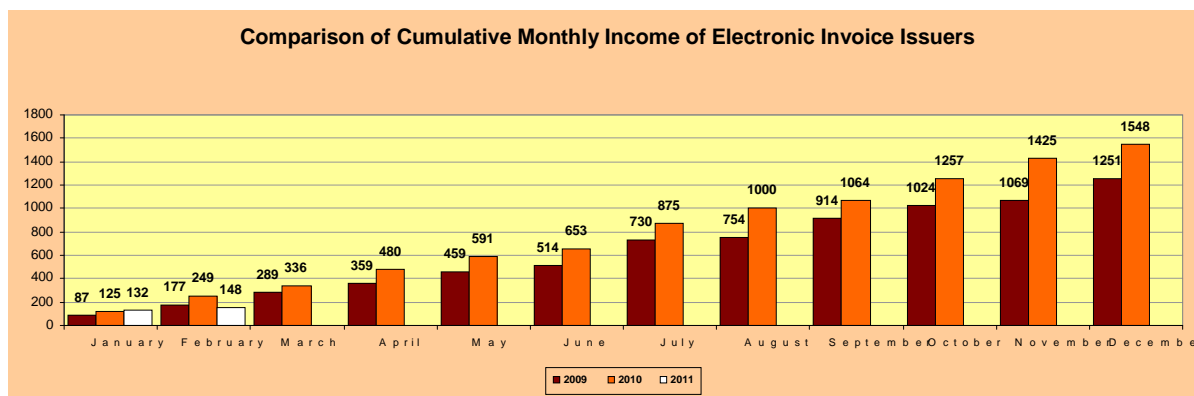
The electronic invoicing system is also used within the range of measures for facilitating voluntary compliance by Internet. This system’s primary objective is to provide businesses a basic function for working with electronic tax documents, thereby affording them an opportunity to learn about and benefit from the reduction in costs of printing and storing of tax documents. Electronic invoicing also helps keep orderly record of transactions and earnings, to take advantage of the efficiency that results from introducing information technologies to the world of production, in this case via tax compliance.

However, there are some taxpayers who cannot make use of this system, depending on the type of noncompliance or the level of risk. Some such situations are:

- Taxpayers who have certain annotations of lower risk are blocked from accessing the system, but they may solve these situations either by Internet or by visiting an SII office.
- Taxpayers who are being investigated for some type of tax violation, either in process, accused, sued or else sanctioned.
- Taxpayers who have not been located in their declared domiciles or who are in the process of terminating a business activity.

It is important to note that as of February 2011, the number of electronic invoice issuers was almost 30,000.

The chart below shows a monthly evolution of the entry of new electronic invoicing issuers from 2009 to date, with external solutions (system acquisitions) that primarily correspond to large and medium-sized taxpayers.

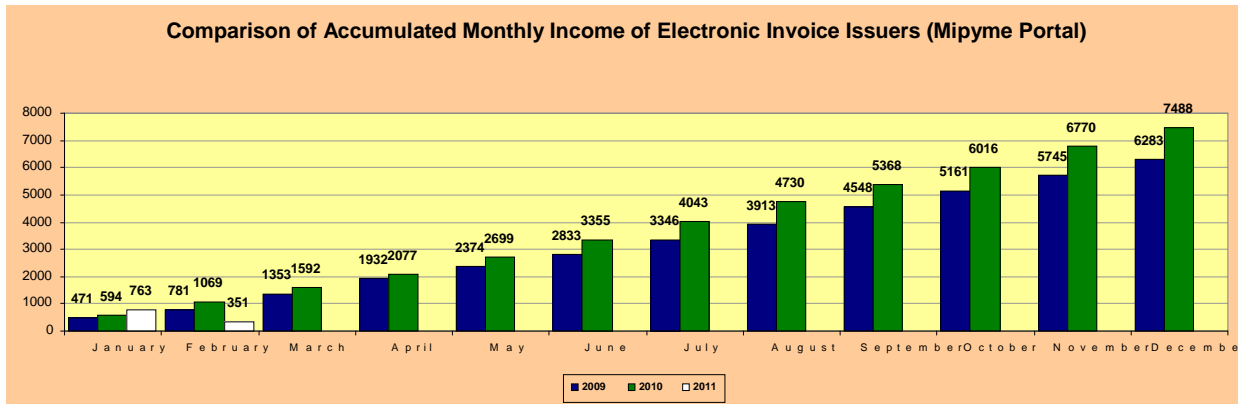


Note: The X axis represents the months of the year. The Y axis represents the number of taxpayers

Another facility developed by the Service is the Mipyme (Micro, Small and Medium Business) Portal where the micro and small business taxpayer may find all the information and free applications that the SII has at their disposal. Some of these are:

- Mipyme electronic invoicing system
- Simplified taxation system (14 Ter)
- Mipyme complete accounting system (CCM)
- Modification of company data

The chart below shows the evolution of revenues of electronic invoice issuers that have joined the Mipyme Portal, with a solution provided by the SII, from 2009 to date.



Note: The X axis represents the months of the year. The Y axis represents the number of taxpayers

d. Remote Examination and Assistance

One of the recent innovations developed by the Tax Administration was the creation of the Remote Examination and Assistance Area that began operating in March of 2011, and whose objective is to contact specific groups of taxpayers, either to provide them with information or guidance as to specific tax obligations, as well as to promote the solution of tax issues that can be easily solved. For this purpose, this area counts on 15 experienced examiners who must analyze the tax situation of the taxpayer, analyze the way it should be solved, contact the taxpayer and encourage him to solve it.

These plans are carried out at a distance, are focused on assisting those taxpayers who intend to comply but are not successful; or else, are not clear about their tax obligations. Therefore, they should be provided guidance so that with the necessary assistance, they may solve or clarify their tax situation through the SII's website.

The preferred mode of contact in this area is by phone, where it is noted that the taxpayer does not need to visit the SII offices and it is stressed solution of the situation is "At a Distance".

There are two types of contacts:

- **Control:** The taxpayer is informed of the noncompliance situation and is directed to resolve the issue through the SII website.
- **Preventive:** The taxpayer is informed that some action he has fulfilled involves errors that may subsequently have tax implications, either for him or third parties about whom the taxpayer is obliged to provide information. This information can also be rectified through Internet.

The area follows up the matter until the taxpayer solves his situation. Otherwise, greater control actions are undertaken such as, for example, summoning the taxpayer to the SII office.

5. Case Study: Risk Analysis of Taxpayer Behavior

The case study presented below corresponds to a program implemented by the Tax Administration and whose design took into consideration the taxpayers' behavior. This behavior is related to tax noncompliance, specifically the "risk of noncompliance" and, accordingly, related to the application of examination (control) actions.

Risk measurement allows for ensuring, within long term, tax compliance, as well as optimizing institutional resources by focusing them on greater risk areas.

The models that measure risk in a operation where the taxpayer and the Administration interact, allow for measuring a situational risk and identifying corrective operational measures.

These models are based on the definition of an objective vector that may be used to establish specific compliance behavior to be modeled and a vector of attributes that allows for predicting future taxpayer behavior in terms of the objective variable determined.

a. Factors used for the Design of the Program

In order to explore and learn about Risk Modeling, the Administration designed a pilot project oriented at detecting taxpayers that unduly increase their VAT credits so as to reduce their tax burden.

- **Evasion method**

The term 'evasion' is understood as any action produced when a taxpayer ceases to comply with filing his return and paying a tax, as provided by the law. This action could be involuntary (due to ignorance, error, or some alternative interpretation of the law done in good faith) or guilty (preconceived intention of violating the legal standard, by using any means forbidden and sanctioned by law).

In terms of VAT, the main tax of the Chilean tax system, all the mechanisms used to evade its payment generally involves underreporting of debits, or else, overrepresentation of credits. In the latter case, evaders recur to such schemes as using false transaction invoices, personal acquisitions registered in the company's name, acquisitions from fictitious taxpayers, and over-reporting in the accounting records and tax returns.

The objective of the study is the use of **false invoices** that are defined as those that "misstate the truth or reality of the data therein contained. Its falsity may be of a material nature, such as indicating a nonexistent name, domicile, RUT (tax ID number) or economic activity, or registering a nonexistent operation, among others."

- **Data Mining**

Data mining involves the exploration and analysis, by automated or semi-automated means, of large volumes of data in order to discover meaningful patterns and trends. The objective is to use this information to detect existing fraud, noncompliance, and to prevent their recurrence in the future.

- **Knowledge Data Discovery**

The KDD (Knowledge Data Discovery) process guides and allows for understanding how to discover and generate knowledge intrinsically found in a data set originating from a common phenomenon among them.

It is basically a matter of interpreting large amounts of data and finding relationships or patterns. To achieve the objective, use is made of several statistical techniques, of supervised and non-supervised learning, among others. Some of the objectives of KDD are the induction of rules, classification issues, the creation of segments or clustering, recognition of patterns, predictive modeling, detection of dependencies, among others.

- **Technological Tools**

There are tools that permit the structuring of models, adjusting them to the KDD process.

That is, the modeler may use its modules for the selection, pre-processing, transformation and data mining, in addition to the interpretation and evaluation of results.

b. Case Description

The VAT Fiscal Credit that fails to comply with the current legal norms is an ever present issue faced by the country's different operating units since, in this way, a small number of taxpayers unduly increase these credits, in addition to the costs and/or expenses in the income assessment process, thereby leading to reduced collection of taxes.

The Tax Administration, in its constant search for new tools to identify taxpayers that endeavor to unduly reduce their tax burden, has created a risk indicator for the filing of Form F29 "Monthly Filing and Simultaneous Payment of Taxes," which uses information that characterizes every return and tax behavior in terms of the aforementioned tax, following the KDD methodology in data mining.

This indicator considers the information included in the returns filed by the taxpayer and compares it with information in previous returns filed by the same taxpayer, as well as with returns filed by taxpayers in the same segment and field of activity. From said comparisons, a selection was made of taxpayers with the largest number of returns that show a significant negative deviation, as compared to their previous returns and those filed by their peers.

This tool allows for estimating when the return would probably include information about the VAT Fiscal Credit that does not comply with article 23 of the Sales and Services Tax Law, thereby permitting that the examination be focused on said periods.

- **Objective Vector**

The objective vector is a database that contains cases from the past in which occurrence of the event to be modeled is certainly known. In this case, we are dealing with monthly tax returns that were examined and wherein the objective was to determine whether the VAT Fiscal Credit complied with the provisions of the current legal norms.

The total number of declarations was 105,536, filed by 3,914 taxpayers. Of the total number, 13,860 did not contain VAT Fiscal Credit supported by false invoices, and in the remaining 91,676, occurrence of the event was detected.

- **Attributes Vector**

The attributes vector corresponds to the information dealing with characteristics or behaviors that will be used for modeling the event being discussed.

In the case being analyzed, 76 codes of the Monthly Filing and Payment Form were used and 50 attributes were developed, taking into account batches of returns, ratios, variations, etc., such as “Average Sales Receipts,” “Calculated VAT divided by the average of ‘n’ preceding months,” “VAT Fiscal Debit divided by average VAT Fiscal Debit of comparable segment-sector.”

- **Information Volume**

The volume of information can be measured by looking at the amount of data that was explored in searching for valuable information. One measurement that allows for estimating the magnitude is the number of returns (files) multiplied by the number of attributes considered – the result being some 13 million data.

- **Model**

It was determined that the technique to be used would be based on the successive application of decision trees, weighed on the basis of error found in the immediately preceding decision tree.

Through this technique it was determined that only 7 out of 112 attributes initially suggested are necessary to model the event in question. These are:

- (VAT Fiscal Debit) ÷ (VAT Fiscal Credit)
- Total Sales Liable to Tax

- $(\text{VAT Paid}) \div (\text{Total Purchases})$
- VAT Fiscal Credit on Invoices Received
- $((\text{VAT Paid}) \div (\text{Total Sales})) \div \text{Average of } ((\text{VAT Paid}) \div (\text{Total Sales})) \text{ of the 3 preceding months}$
- $(\text{VAT Fiscal Credit on Invoices Received}) \div \text{Average of (VAT Fiscal Credit on Invoices Received) of the 3 preceding months}$
- Average Purchases Receipt

- **Taxpayer Selection**

The resulting model was applied to 2,871,283 tax returns filed between January 2008 and December 2009 and corresponding to 190,879 taxpayers of the Micro and Small Business segment.

A selection was made of 27,219 taxpayers who filed the largest number of returns with high probability of registering false invoices in their purchase records.

Nevertheless, in order that the measurement would result in a more precise and reliable evaluation of the experience, the experiment design technique was used. The 27,219 taxpayers selected were divided into two similar groups: the first, called “the Treatment Group,” which was immediately subjected to examination actions. The second was the “Control Group”, whose taxpayers were not subjected to any examination, at least until the evaluation period was concluded.

c. Examination Results

- **Direct Results: Yield from Examination**

The Treatment Group, consisting of 13,608 taxpayers, was notified of the upcoming examination and of these, 8,700 taxpayers (63.93% of the total) responded to the notification.

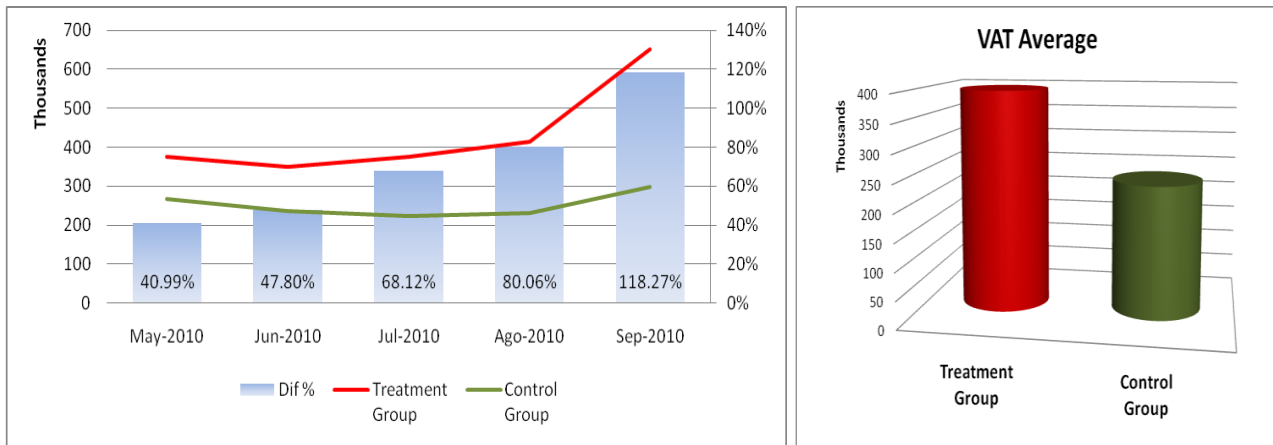
Of the total notified taxpayers, differences were found in 10.15% of the cases, which represented a total of CLP 636,502,491 as a direct result of examination of previous tax periods. The yield per taxpayer with inconsistencies amounted to CLP 460,900.

At the same time, outside the framework of the case study, the SII selected another group of taxpayers called: “Other Observations,” who were also notified of the upcoming examination. These were selected by using other criteria, based on actual differences calculated by comparing the information included in the returns filed by third parties and Form 29 filed by the taxpayers under examination. A total of 13,120 taxpayers were notified. The rate of responses in this group was 29.12% and the rate of yield reached 7.86%, for a total of CLP 809,716,658 – with an average yield per taxpayer with differences of CLP 785,370.

- **Indirect Results: Change of Behavior**

In a longer term analysis, that is, by monitoring the taxpayer over a period of 5 months following the examination notification, as regards the level of VAT payment, the following was determined:

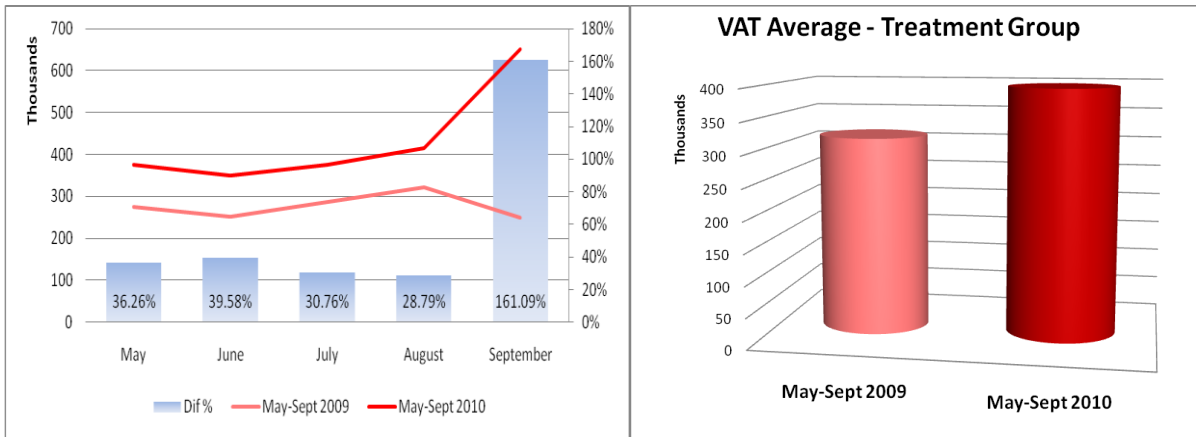
i. Average VAT: Treatment Group vs. Control Group



Note: In this section, a comparison is made of average VAT payment made by the taxpayers of the Treatment Group in the months following the examination and it is contrasted with the average VAT payment made by the taxpayers in the Control Group over the same period of time.

The increase in VAT assessed by the taxpayers in the months following the date of notification is much greater in the treatment group than in the control group, and in average, in said months the contribution from the first group was 67.43% higher.

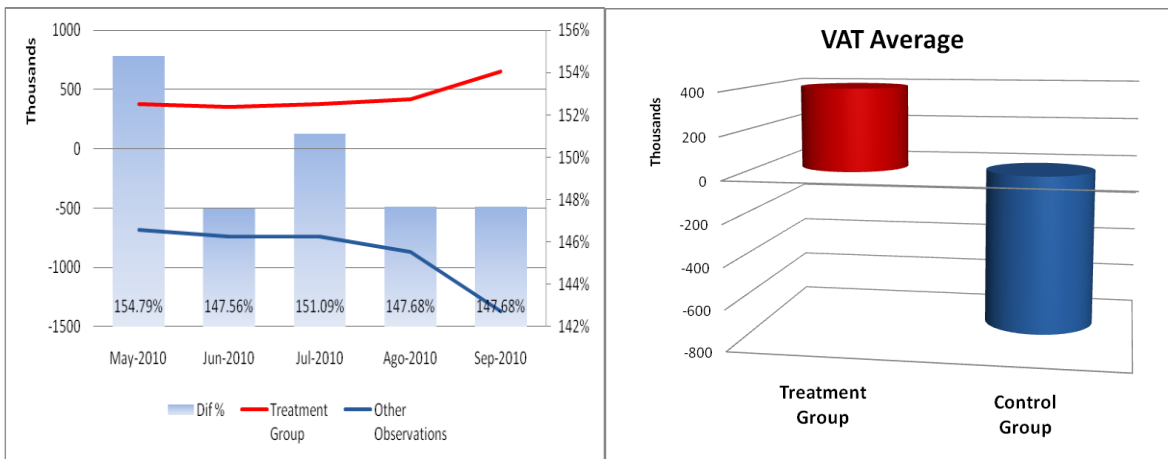
ii. Average VAT: Treatment Group, Period Before and After the Application of the Plan



Note: In this section, a comparison is made of average VAT payment made by the taxpayers of the Treatment Group in the months following the examination and it is contrasted with the Average VAT Payment made by the same group, but in a similar period in the previous year.

The increase in VAT assessed by the taxpayers in the treatment group, in the months following the date of notification was much greater than in the similar period the year before, and in average, in said months, the contribution in the period following the date of notification was 25.73% more.

iii. VAT Average: Treatment Group vs. Other Observations



Note: In this section, a comparison is made of average VAT payment made by the taxpayers of the Treatment Group in the months following examination, and it is contrasted with the average VAT payment made by the taxpayers of the Other Observations group.

The increase in the VAT assessed by the taxpayer in the months following the date of the notification is much higher in the group selected in this study, than those selected by other methods (Other Observations Group), which is even negative.

d. Case Conclusions

- The history of examinations stored in the SII database allows for the use of data mining to find taxpayer behavior patterns.
- In spite of dealing with estimations made using statistical tools, it is possible to detect taxpayers who are in the described undesirable situation.
- The immediate yields obtained compete with those generated by other means for selecting taxpayers to be examined. Therefore, it is possible to use the taxpayer risk criterion as complement for taxpayer selection.
- Selected taxpayers respond, within medium term, to the examination strategy applied by the operating units of the SII by increasing their tax payments.

6. General Conclusions

As has been shown throughout this document, the SII is devoting ever more efforts to applying varied treatment strategies, given the tax behavior of taxpayers, so as to facilitate compliance to those wishing to do so and minimize or examine with greater periodicity those showing greater tax noncompliance.

In-depth consideration has also been given to the fact that, although it is the taxpayer's duty to comply with his tax obligations, the SII has a very important educational and assistance task, since in many cases taxpayer fail to comply for lack of information or facilities for accessing the system.

In order to distinguish between those who wish to comply but cannot do so, from those who do not want to comply, it is necessary to continue to classify taxpayers, so as to count on more reliable databases and thus be more assertive in determining the tax behavior of taxpayers and accordingly, the most convenient treatment strategy to be applied.

The recent incorporation of the concept of risk, as well as remote examination and assistance are deemed to be appropriate for a better taxpayer classification and in sum, for continuing to design and implement taxpayer assistance programs in keeping with their tax behavior.