

# **Redistributive Effect dissintegrated of the current VAT in Spain: possible reforms ways**

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## **Abstract**

The VAT is the most revenue tax in the Spanish economy in the year 2000. The aim of this research is to develop an analysis dissintegrated of the distributional effect of the current VAT in Spain, that is to say, this paper assesses the capacity of redistribution of the tax treatment of each expenditure category. It proposes different approaches for the analysis of the redistributive impact differential of each expenditure concept, and it desires to advocate the method of total decomposition of isolated contribution to the global distributional effect of the VAT. In this sense, this study shows the possibilities to identify the guidelines for possible fiscal adjustments of the Value Added Tax to contribute positively to the objectives of social justice, and its respective consequences on the population's welfare

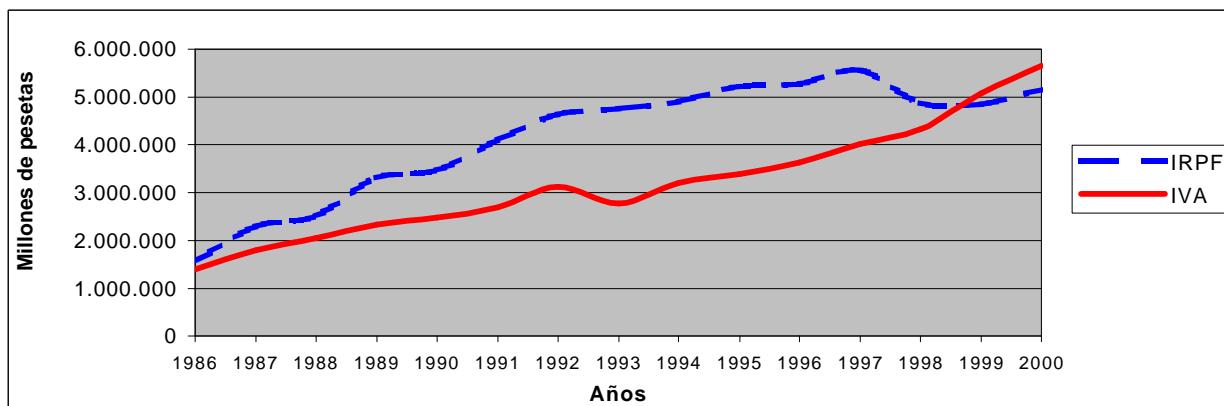
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## **1. Introduction**

In Spain, the revenue of the public expenditure has suffered a notable change regarding the nature of the main collected tax. In the last two years, the indirect taxes have displaced to direct as burden figure with more capacity of obtaining of fiscal revenues. The Rent Tax (IRPF) has stopped to play the most excellent paper with relationship to the reception of public funds in the Spanish economy. The Value Added Tax becomes the tribute of maximum collection of public revenues in the budgets in our days. The progressive substitution tendency has been verified among both tributary figures. The recent evolution of the capacity recaudatoria of the IRPF and VAT is detailed in the following graph. Of it, he/she is derived the demand of developing a rigorous study on the impact of the payment of the VAT on the original distribution of the rent.

Graph of the Evolution of IRPF and VAT.



The installation of the VAT in Spain takes place in the year 1986, but later, its legislation has suffered important changes, among other reasons for the entrance of Spain in the European community. The VAT is a tribute of indirect nature that relapses on the consumption. The general tax type to demand will be of 16%, except for reduced two types of 4 and 7%. The correspondence of the tax types of the VAT at the present time with their respective expense categories, they are detailed in the square 1. Also, it is necessary to highlight the objectives of fiscal harmonization of the VAT in the European context, and the different proposals toward a reduction of diversity of types. These facts are additional arguments, to show the necessity to analyze the redistributive consequences of the VAT thoroughly in the population of our country.

Many studies have been devoted to evaluate the redistributive effects under a general perspective in the application of the VAT. In other words, they have paid the attention in analyzing the global unfavorable impact of the wide legislation reguladora of the one mentioned tribute. A general valuation of the redistributive consequences of the VAT bears to the possibility of hiding derived different details of the fiscal treatment of each expense concept. The coarse fiscal structure of the VAT allows to hide certain redistributive effects due to the possible compensations of the individual regulation of each very and service.

The objective of this work consists on carrying out a discriminated against analysis of the fiscal treatment of each expense departure, deepening in the consequences redistributivas desagregadas of the application of different tax types from the VAT to its corresponding expense category. In this sense, it is sought to palliate the inconveniences of a study but widespread. The interest of this study is centered in identifying with exhaustividad the peculiarities of the fiscal structure of this indirect tax. Once manifested the negative redistributive capacity for precedent studies, is wanted to glimpse the possibilities of improvement of the impact in the distribution of the rent by means of a detailed evaluation of the tax regulation of each expense category.

In this sense, they intend diverse techniques of differentiated study of progressivity and redistributive capacity for the different expense concepts. A first approach is the

description of the structure of the effective types for expense concept along the rent decilas in the population. Another more novel technique is the I calculate of the determination of progressivity measures discriminated against for each expense departure, it is calculated those pseudo-gini of the tax payments and its corresponding discriminated against Kakwani. Ultimately, you proceeds to specify the contribution degree from each tax regulation to the global effects of redistribution. You proceeds to the complete decomposition of the global impact of the VAT in the particularities of the individualized fiscal treatment. Once developed the study of the differential impact of the discriminated against fiscal treatment, seeks to settle down the guidelines of the possible reformation roads to contribute positively with the approaches of justness. It is wanted to propose the lines of changes in the tax structure of the VAT to satisfy redistributive objectives, and their consequent repercussions about the population's well-being.

For this purpose, an additional contribution relapses in the proposal of a new expense classification, starting from the Family Continuous Survey of Budget of the year 1996 of the second trimester, representative of the rules of the Spanish population's expense. The microsimulation technique is the tool used to obtain the tax payments for VAT of the families,

The organization of the work is the following one: the chapter second it tries to approach the theoretical mark of the progressivity measures and redistributive effects. It is also developed the alternatives of discriminated against analysis, as well as their process of decomposition. The chapter third are devoted to detail some methodological aspects, such as: the election of the microdatos, the proposal of classification of the expense and the microsimulation technique to obtain the tax payments. The quarter chapter is centered in the different approaches of the analysis desagregado of the redistributive effects of the VAT, and its corresponding decomposition by categories. The last chapter seeks to pick up the recommendations of possible lines or reformation roads

## **2. Progressivity and redistributive capacity of the VAT: theoretical aspects of a discriminated against analysis**

Our interest is centered in evaluating the repercussion of the installation of a system of indirect imposition on the different individuals corresponding with different rent levels. The incidence of the Tax about the Added Value generates an alteration in the population's ordination in the different rent levels, as consequence of the payment of the tax payment. The fiscal load of the indirect tributes is distributed by different rent steps, and with the purpose of highlighting the distributive impact, it is sought to identify which will be the address of this modification of the distribution of the rent. It is sought to obtain the measures of the progressivity and redistributive capacity.

You proceeds to detail the proposal of the different techniques to identify the consequences in the redistribution of the discriminated against treatment of the VAT on each expense concept. He/she leaves of a distribution of the rent before the payment of tax of N families

$$(Y_1, Y_2, \dots, Y_N) \quad i = 1, 2, \dots, N$$

where each family  $i$  is characterized by an expense rule (AND) in each category  $j$

$$(E_{i1}, E_{i2}, \dots, E_{iK}) \quad j = 1, 2, \dots, K$$

Since the interest relapses in the analysis of an indirect tribute that burdens the consumption, you can identify the vector of the derived tax payments of each expense category for each family  $i$

$$(T_{i1}, T_{i2}, \dots, T_{iK}) \quad j = 1, 2, \dots, K$$

Nevertheless, the quantity supported by each family  $i$  will be the sum of the individualized tax payments  $j$ , that which is observed in the following expression:

$$T_i = \sum_{j=1}^K T_{ij} \quad (1)$$

In definitive, the original distribution is affected by that fiscal load, and it implies a new distribution of the rent after the payment for VAT

$$(Y_1 - T_1 Y_2, - T_2, \dots, Y_N - T_N) \quad i = 1, 2, \dots, N$$

The progressivity concept, in its structural focus, is in charge of the distribution of the tax payments along the different rent levels. The work of Musgrave and Thin (1948) it contains the proposal of structural indexes as progressivity measure under different alternative. Among other options, the half global effective type (tm) he/she comes defined by the following expression:

$$i = 1, 2, \dots, N \quad (2)$$

where AND it is the level of rent total,(suma of the rent of the N indicviduos) and T is the load tax total of the studied tax.. In accordance with this, this structural index supposes that a tributary system is progressive if the half type increases when growing the rent level, and on the contrary it will be regressive if it falls when the rent increases.

The concentration focus, relates the distributions of tax payments and rent distribution before tax. This focus suggests the use of the index of Kakwani (K) (Kakwani, 1977) that establishes that a tax is progressive (regressive) if the degree of concentration of the payment of the taxes is bigger (smaller) than the degree of concentration of the rent. This aggregation completes the approach of dominancia of the curves of concentration of the taxes. The index of Kakwani comes given for:

$$K = G_Y(T) - G_Y(AND) \quad (3)$$

where Gy (T) it is the pseudo-gini of the tributary load ordered by the variable it produces before tax. Also denominated index of concentration of the tax payments.

Regarding the evaluation of the redistributational impact, a measure of such an effect comes determined before by the comparison of the inequality and after taxes. The index of Reynolds-Smolensky (1977) of vertical justness it is:

$$RS = 2 \int_0^1 (L_{Y-T} - L_Y) dp = G_Y(Y) - G_Y(Y-T) \quad (4)$$

where LY-T and LY make reference to the curve of Lorenz of the net rent and original rent, and GY(Y) and GY (AND-T) they are before the index of Gini for the rents and Pseudo Gini for the rent after taxes respectively.

The net redistributational capacity of the tribute comes given by the difference among indexes of Gini of the distributions of rent equVATlent pre and post tax:

$$G_Y(Y) - G_Y(T)(AND-T)$$

### **Theoretical aspects of a Discriminated against Analysis**

The discriminated against analysis of the progressivity and redistributational impact is carried out through different alternative methodological, and a decomposition that guarantees the identification of the contribution of the isolated regulation from the VAT to the rupture of the approaches of vertical justness.

In the first place, and like reference mark, the meticulous exploration of how the different decilas spends a percentage of their total budget (I spend total) in a certain one well or service (ejd), a good intuitive guide provides to evaluate the adaptation of a certain tax type. This percentage comes given by the quotient among the expense of a decila in a certain one well or service (Ejd), and the volume of expense total carried out by that decila (Ed), and it can be by means of this expression:

$$e_j^d = \frac{E_j^d}{E^d} * 100 \quad j=1, 2, \dots, K \quad d=1, \dots, 10 \quad (5)$$

In turn, the volume of expense of each departure is decisive in the magnitude of the public funds obtained as regards VAT, that is to say, this intimately bound one with the redistributational capacity of a tribute. The expense structure participates actively in the impact of redistribution of the net rent of VAT, since as much as bigger expense percentage in a concept, bigger possibility of a redistributational capacity exists via more collection volume. However, this alternative lacks formal approaches to rule about the progressivity and capacity of redistribution, and for it, they intend diverse technical that evaluate these characteristics explicitly.

## **2.1 half effective type for expense concept for rent level**

This analysis alternative tries to compare the volume of taxes paid in function of each expense concept and the level of the consumer's rent in question. This alternative of analysis of the isolated progressivity of each concept, consists on the calculation of a half effective type for each one of the considered expense categories. We can discriminate against this way the effect of the individualized fiscal treatment. The expression of the half effective type differed well for the  $j$  and the decila  $d$  ( $T_{jd}$ ), starting from (2), it is determined in the following way:

$$j = 1, 2, \dots, K \quad d = 1, \dots, 10 \quad (6)$$

where  $T_{jd}$ ; he/she makes allusion to the amount paid in concept of the tax by the expense in the good  $j$  for the decila  $d$ .

$Y_d$ ; it is the level of rent of the decila  $d$ .

The opposition of the profile of the half effective type for each departure as he/she leaves increasing the rent level and the applied tax type, it allows to provide a quantitative idea of the progressivity, proporcionalidad or regressor of the Tax about the Added Value. For example, a growing tendency of the half type for a well that it is burdened with very high, apparent types the regressor of a structure tributary insinuation. A certain article that presents a concentration of high tax payments (in percentages on the rent level) for the population's poorer decilas, it requires an inferior obligation to contribute positively with the approaches of justness of the fiscal square. This approach continues in the line of works carried out in the most recent literature

## **2.2 pseudo Gini and discriminated against Kakwani**

The discrimination of the kakwani index sketches a novel technique of determination of the isolated effects of the fiscal treatment of each expense departure. The essential foundation of this analysis alternative is based on obtaining a measure of the degree of concentration of the tax payments in concept of each very or service. It is sought to make the calculation of the Pseudo Gini of the payments of VAT for expense concepts under the given population's ordination their corresponding equVATlent rent. The concentration of the fiscal load in a certain concept reflected by means of the Pseudo Gini can be due mainly to two differentiated reasons:

- to the own tax structure
- to the expense structure

so, this technique is recommended as complementary to the one mentioned previously, and it can serve as great utility for those cases where doubts exist on the regressor or progressivity of the application from the tax type to a good or service.

In definitive, the procedure to continue to develop this analysis you can synthesize in the following phases:

- First, the Pseudo Gini of the Tax payments of each category is calculated, ordered by the equVATlent rents ( $G_y(T_j)$ ).
- Second, it is to find a measure of the progressivity differed by product type. That is to say, the index of Kakwani is determined discriminated against for each expense departure ( $j$ ), in a similar way that in (3):

$$K_j = G_Y(T_j) - G_Y(Y) \quad (7)$$

In definitive, the index of discriminated against Kakwani comes from the comparison of the degree of concentration of the payment for VAT, and the level of inequality of the original distribution of the equVATlent rent. Therefore, the value of the Pseudo Gini cannot be prosecuted in absolute terms, but rather it should establish the pertinent comparison with a reference pattern (initial dispersion of the economic capacity)

### **2.3 decomposition of the redistributational impact for discriminated against treatment of the VAT to each expense departure**

Another additional objective of the work consists on proposing the decomposition of that redistributational effect in function of the tax types applied to each expense category. For such an end, you can use the work of Duclos, J-AND. (1993), where the formal decomposition of the redistributational capacity is designed, for its later accommodation to our objective. In the first place, the study desagrega the redistributational impact in function of two variables:

- effect of redistribution without considering the reordering, that is to say, determines the contribution degree to the vertical justness
- reranking; noticing the reordering of the rent exclusively. Therefore, it synthesizes the rupture of horizontal justness

This decomposition is synthesized in the following way, starting from the expression (4), one can write that:

$$GY(Y) - GY-T(Y-T) = (GY(Y) - GY-T(AND)) + (GY(AND-T) - GY-T(Y-T)) \quad (8)$$

where the first term makes reference to the objectives of vertical justness, and the second it describes the horizontal justness..

Of this first disintegration of the redistributational impact, it can be carried out the later decomposition for category. In the case that occupies us, the net rent of VAT (AND-T) it is determined of the subtraction of the tax payments for the J expense categories ( $T_j$ ) of the original rent (AND), see you in the following expression:

$$i = 1, 2, \dots, N \quad j = 1, 2, \dots, K \quad (9)$$

Considering the first member in (8), it is demonstrated that

$$(G_Y(Y) - G_{Y-T}(Y)) = \frac{1}{\left(1 - \sum_{j=1}^J t_j\right)} * \left[ \sum_{j=1}^J t_j (G_Y(T_j) - G_Y(Y)) \right] \quad (10)$$

where  $t_j$  denotes the proportion of payments for VAT in each expense category  $j$  on the rent before VAT. In other words, it is an effective type half discriminated against by expense category. Using the index of Kakwani discriminated against by concept of expense of the expression (7), the decomposition of the vertical justness through the discriminated against tax regulation of the  $j$  expense category is expressed in the following way:

$$(G_Y(Y) - G_{Y-T}(Y)) = \frac{1}{\left(1 - \sum_{j=1}^J t_j\right)} * \left[ \sum_{j=1}^J t_j K_j \right] \quad (11)$$

So, he/she intends to break down the global redistributational impact of the VAT in the fiscal treatment individualized by means of the values of the isolated progressivity of each tax payment ( $K_j$ ) corrected by a ponderación factor related with the half effective type ( $t_j$ ). In such a luck, the degree of contribution desagregado is identified from each application of types to the impact of redistribution of the VAT in its group.

### **3. Methodological aspects**

#### **3.1. Election of the Microdatos, and conceptual problems**

The used database is the Family Continuous Survey of Budget (ECPF) of the second trimester year 1996. The ECPF consists of 3158 families. The individual units that compose the studied population are the families. The EPFs is surveys to families designed by the National Institute of Statistic that is carried out quarterly.

The translation of the welfare of an individual to a certain dimension has been object of a wide literature of the economic and social science. The election of the Rent like focal variable of the analysis of the well-being turns out to be the repeated element. In spite of this reiterated adoption of a proxy to the well-being, other such proposals exist as: I spend, wealth, consumption of specific goods,... This work assumes the average rent as variable that approaches to the well-being, and it allows the population's ordination in the distribution of economic capacity. Another difficulty is the one that comes from the repeatedly studied problem of the underestimate of the revenues of the homes study objects. However, the reliability of our sample is guaranteed with the high degree of covering of the feigned VAT of 84% on the real collection.

The fixation of the unit of time is crucial for the exam of the approaches of justness of a certain fiscal system. The annual rent is the temporary figure more used in the numerous analyses of regressor measures and redistributive capacity (Barthold, 1993). In spite of the theoretical superiority of the focus of the vital cycle, the empiric limitations and the concerns of the economic politics of the Public Administrations argue in favor of the adoption of the year like more appropriate temporary horizon. The anualización of the data has been obtained starting from the data trimestrales, and its corresponding desestacionalización of the same ones with its correction factor.

The use of micro-economic data coming from the ECPFs, demands a conversion of the rents obtained by the homes that differ in necessities, in rents that are comparable. The scales of equVATlences are the tools that guarantee a dimension of equVATlent rents that makes more commendable their translation to the dimension of the well-being. The new focal variable "it produces equVATlent" it incorporates the necessities in the analysis an excellent debate it exists around the adaptation of the equVATlence scale, however, among those more employees in the recent literature of studies of inequality, this work assists to the application of the scale of the OECD. However, he/she has been carried out the simulation under other alternatives of election of equVATlence factor (modified OECD, and elevating the family size at 0.5), and change doesn't exist some in the reading of the redistributive, alone results he/she would have excellent differences if the interest recaba in inequity analysis in the original distribution of the rent.

#### **3.2. A proposal of Classification of the Expense**

One of the novelties of this study is the contribution of a classification of the expense concepts, starting from the information coming from the ECPF 96. The expenses have been divided in a total of 39 categories of different goods described minutely in the square 1 of the annex.

The adoption of the new classification one argues in favor of the execution of three big essential objectives in the later analysis:

- It allows a more homogeneous diferenciación of the expense departures, that which will help to contribute more rigorous conclusions as for the rules of expense of the population's different deciles, will be of utility to evaluate of the formulation of alternative reformations.
- He/she responds to the legal discrimination of tax types in function of the expense categories.

- He/she offers the possibility to carry out an analysis desagregado of the redistributational impact thoroughly for expense concept.

You can avoid limitations suggested by the work of Labeaga, J.M. and López, A. (1995), where a bigger level of disintegration is demanded since the current reformations are practiced on more precise levels of the expense categories. Also, this novel classification allows to mitigate the problem of the calculation of the types effective means that you/they arise in different studies. This new classification applied to the expense rules in Spain, continues in the line of the work of Gastaldi, F. and other (1998) where it establishes a more exhaustive diferenciación.

### **3.3. Tax payments: a model of Microsimulation**

Who does pay the taxes? Although a consent doesn't exist with relationship to grant an unique answer to this outlined question, if there is agreement in affirming that the legal impact of a tax is not a suitable measure to identify the real economic load. The analysis of the incidence has as objective the comparison of the calculation of the balance of the economy in an original situation and the recálculo of the new balance of the economy with the application of the changes in the tribute. The consumers and producers readjust their decisions like consequence of the alterations in the costs and in the relative prices. That change in the decisions of the economic agents originates the fact that the tax has been adjournment object. The tax can suffer an adjournment forward in form of more sale prices, or adjournment back in form of smaller remunerations of the work or the capital. The adjournment hypothesis assumed in this work is based on a total adjournment of the tax types from the VAT to the final price supported by consumers.

The adjustments that it includes the concept of Incidence need certain time, the analysis is developed in terms of comparative static. Also, the analysis of the distributive incidence of the taxes depends closely on the characterization of the balance of the economy. This work is centered in a mark of partial Balance.

The determination of the magnitude of the tax payments is obtained through the use of the microsimulation techniques. Regarding the casuistry of these techniques, it is necessary to highlight two differentiated focuses: behavior absence, and behavior presence by means of the estimate of demand system. The first considered alternative is based on the hypothesis of perseverance of the behavior patterns. It is supposed that the rules of the population's expense remain invariable along the period of considered time. Also, this conjecture suggests additionally that the decomposition of the expense in the different categories, remains fixed. The work simulates the effects of the low VAT the assumption of this hypothesis of absence of the consumers' answer. The adoption of this alternative is justified for the scarce differences of the redistributational results with the consideration of systems of demand of Almost Ideal Model (Deaton, A.S. and other, 1980)). Therefore, this study pleads for the simulation techniques under the mark of behavior absence (Sutherland, 1995).

Therefore, starting from the amount of the expense levels in each category  $j$  of a family  $i$ , is possible to identify the tax payment by means of the following expression:

$$i = 1, \dots, N \quad j = 1, \dots, K \quad (12)$$

In definitive, the total paid in concept of VAT by the family  $i$ ,

$$i = 1, \dots, N \quad j = 1, \dots, K \quad (13)$$

## **4. I study discriminado of the VAT**

The global analyses of the redistributational impact of the tax don't allow to deepen in the consequences desagregadas of the fiscal treatment of the different expense categories. The general panoramic of the tributary structure of the indirect imposition can hide diverse details behind the one verified negative redistributational impact. The compensation possibilities among the effects to burden different articles bear to desvirtuar

the added reading of the conclusions of general studies. The content of this chapter centers its attention in the necessity of identifying in an isolated way the partial impacts of the legislation reguladora of the Tax about the Added Value.

Three differentiated analysis alternatives are used. The first focus is based on the determination of the types effective means for each concept of goods and services discriminated against among the population's different decilas, this way we have a formal approach of the progressivity of the individual regulation of each expense category In second place, a novel technique is contributed to identify the magnitude of the progressivity and redistributational impact of the tax consideration of each expense departure, by means of the calculation of the curve of concentration of the tax payments (Pseudo-Gini) respective to each departure, and its corresponding index of Kakwani. Lastly, you proceeds to the perfect decomposition of the total redistributational capacity in the fiscal treatment of each expense category, and this way, to identify the contribution degree to the global redistributational impact of the VAT in their group.

The square 3 present the expense percentage in each concept on the total for each decila, in function of the classification proposed in the chapter third. These results come from the application of the microsimulation techniques for the current legal system of the VAT, under the hypothesis of behavior absence. The demand of the nutritious goods possesses a very similar structure to each other, with characteristic of products of first necessity, due to the inverse relationship between rent level and expense percentage in each very. The expense carried out in the group of these feeding products supposes 30.35% of the total expense for the first decila, and I eat opposition, it represents a scarce 13.94% for the richest decila. The tobacco (140), given their special, precise characteristics an additional comment. The distribution of the percentage budget of the tobacco is strictly falling along the population's equVATtent rent. Regarding the expense in "Housing in property" (code 312), he/she becomes the concept that possesses bigger importance among the population's different decilas. However, a growing profile of the expense percentage exists in Housing as you increases the rent level. The existent difference between the poorest families and those richer ones is of 11 percentage points, highlighting the fourth part of the total expense (25.1%) that pays the decila with more rent in purchase in this property. This characteristic counteracts with the housing in rent. This departure presents the opposed tendency. Another departure that requires a special mention is "Dresses and Calzados"(código 210), it is necessary to stand out the existence of a growing rule of expense percentages in a growing non monotonous sense. A considerable distance prevails (1.12 percentage points) among the two ends of the distribution of the rent, although the decila octave is that of more weight in these goods (5.67%).

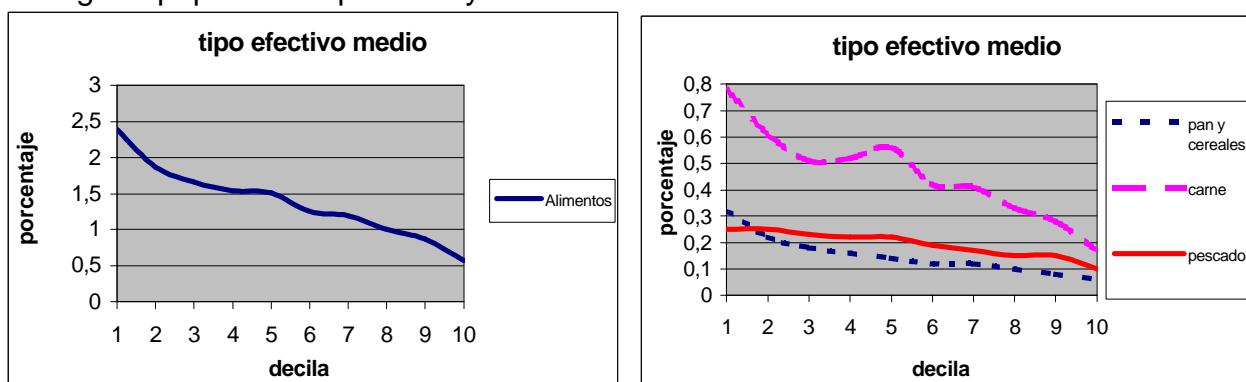
Two categories exist, "non durable Goods of the home" (BNDH) and "domestic Services" (430) that perceiving the same tax treatment regarding the VAT, they have totally opposed expense distributions. Also, the expense percentage carried out in non durable Goods of the home by the first decila (2.2%) it is smaller regarding the expense percentage dedicated to domestic Services by the richest decila (2.48%). The first reflective departure a growing magnitude as we locate ourselves in levels of lower revenues. On the other hand, the domestic services present an exponential distribution of the expense with relationship at the rent level. Certain services of "Garbage, dilutes, light..." they are majority in the poorest layers, the same as the medications. The rest of accessory sanitary services grows as it increases the available resources of the families. Regarding the transport, those "Automobiles and other" they are stood out in the levels of more payment capacity. The rest of the prVATte means, "Motorcycles, bicycles,..." they possess more irregular profiles. In the case of public transportsations, the tendency prevails discreetly in inferior decilas. On the other hand, "Books, newspapers, newspapers, Magazines,..." (730). it shows a bigger presence in relative terms of these goods in more

favored layers in rent levels. In turn, the expense dedicated to tourist trips (840) it presents a distribution of percentages of more intensity than the precedents. In the departure "Restaurants, Coffees, and Hotels" (code 830), he/she becomes worse the expense concentration (in percentage) for high rents.

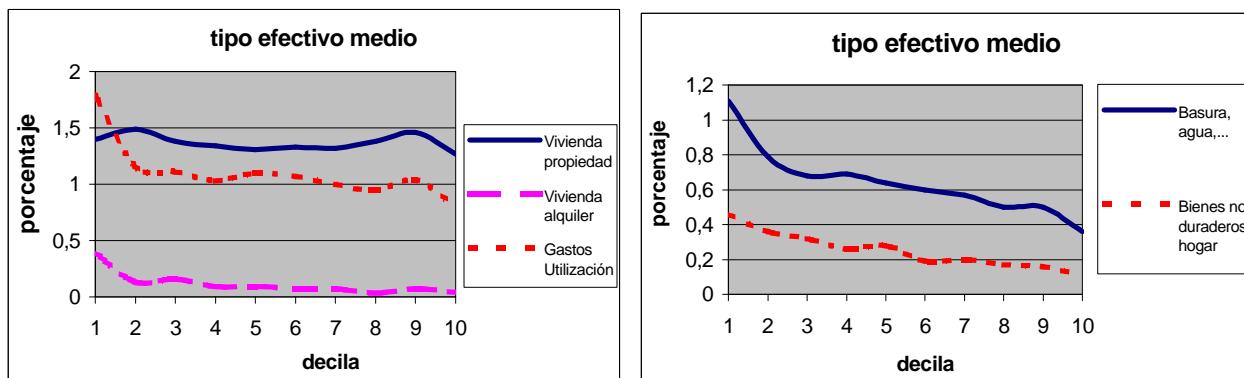
In definitive, this exploration desagregada through the expense structure in different concepts along the distribution of the rent is an outburst point to be able to evaluate the redistributational impacts of the fiscal treatment of each partially very or service. To the margin of this more intuitive analysis option, it is suggested different alternative with more formal foundation that explicitan the magnitude of the contribution to the objectives of justness of the different aspects of the legal régime of the VAT.

### Half type for expense concept on the rent level.

The square 4 describe the results of the types effective means for each departure for the population's different decilas, obtained under the legal system of the VAT that reigns in our days. Regarding the nutritious products, the falling profile of its respective types means conforms to he/she goes increasing the level of revenues he/she affirms the desmesurada regressor for these goods. The biggest effort district attorney is verified among the population's poorer layers.

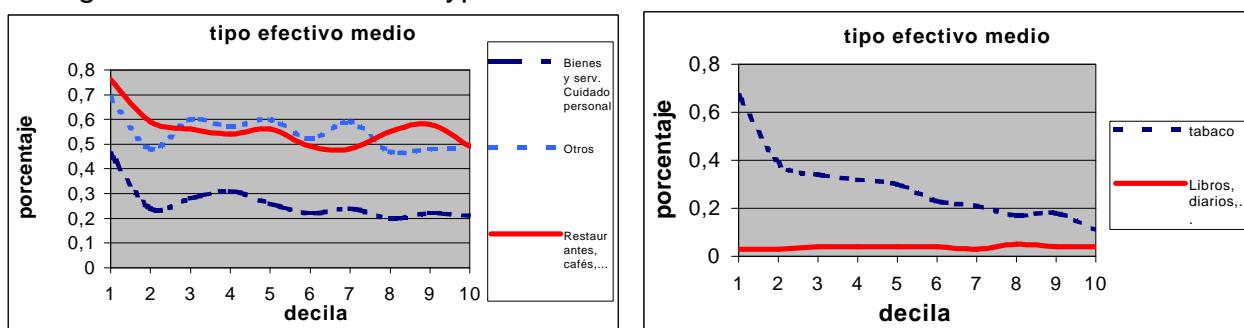


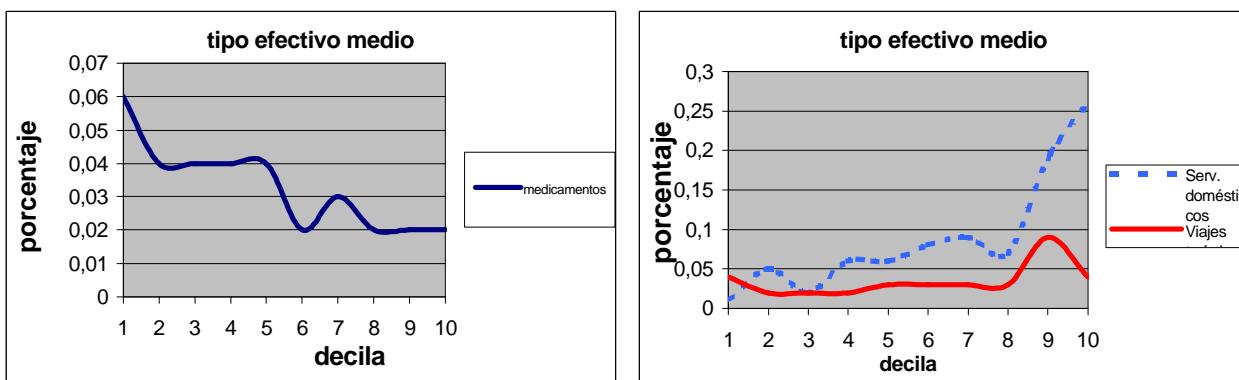
Most of the goods and services present an evolution of their falling half effective type along the distribution of the rent, manifesting the existent regressor of the legal régime of the VAT in all their partial aspects. Without a doubt some, is necessary a trip for the different tax scenarios to identify the intensity of this distance regarding the proporcionalidad of the VAT isolated by category. To the margin of the foods, three departures that suppose excellent fiscal effort in the VAT payment exist: "Housing in property", "Garbage, dilutes, light, heating..." and "use Expenses." The first concept, apparent a slight stability of the type half envelope the distribution of the rent, propugnando the proporcionalidad of the tributary régime of this good with the application of the reduced type. On the other hand, the rent of housings maintains a regressive character in its corresponding tax discrimination, based on a reduced type of 7%. Regarding the expenses of use of the transport, the profile of the proportions of tax payments is (not strictly) falling with the economic capacity, postulating its regressor.



Determined goods and services related with the home, “Garbage, dilutes,...” and those “non durable Goods of the home” they possess characteristic noxious in the redistribution of the rent like consequence of the payment for VAT in such concepts. The fiscal effort for the poorest families is substantially superior at the highest levels in entrance. The evolution of the tributary load is intensely falling as you increases the rent. Another group of concepts, “Goods and services of personal care” and “Other”, they manifest a light regressor of the tributary treatment. With relationship to the expenses of “Restaurants, hotels, coffees,...”, the application of 7% doesn't correct the unfavorable repercussions in the concentration of the tax payments, since these services are predominant in the population's richer layers.

It is necessary to stand out the inherent connotations to two departures of special particularity as for their social aspect. The pattern of behavior of the “Tobacco” it reaffirms the regressor of the tax regulation of this departure, by means of the exaction of 16%. An accused descent of the half type presents as we locate ourselves in the richest population's levels. Regarding “Books, Newspapers, Magazines,...”, the evolution of the types means guarantees the proporcionalidad of the application of 4%, and being stricter, a minimum progressivity is glimpsed that supplements with the social benefits that he/she is derived of these goods. The medications follow propugnando the consideration of basic necessities, and their inadequate scarce regressor of the tributary pressure of the same ones. On the contrary, the regulation of the maximum type in the domestic services causes progressivity of the system, although a margin of considerable maneuver exists for a potential increment of the obligation, given by the exponential profile of the fiscal effort in function of increments of rent levels. On the contrary, the profile of those “you Travel Tourist” it certifies the proporcionalidad of the individual treatment of these services, given the regulation of the maximum type.





### An alternative method: Pseudo Gini and Kakwani discriminated by goods or services

The table 5 present the results of the individual magnitudes corresponding to the pseudo gini and Kakwani of each expense departure. It highlights the onlooker rule of behavior of the tax payments for some foods, (Potatoes, maniocs, and other tubers), characterized by a value of the Pseudo negative Gini. This has an excellent significance for the justification of the inadequacy of the profile of expense percentage and half effective type along the growing levels of the rent, and an excessive reduced type of exaction to these goods. A value of the Pseudo smaller Gini that zero, apparent a curve of Concentration of the tax load presents values above the straight line of justness. A similar case happens with many public benefits. This means that, given an orderly population in a growing way by virtue of the rent, the poorest decila contributes to tax payments in bigger (or same) percentage than 10 corresponding%. The regressor in this case becomes maximum, in other words, it is unfavorable for the redistributive objectives that the poorest population's certain proportion dedicates payments in indirect taxes (VAT) superiors to the respective percentage of the homes that represents. In synthesis, the nutritious goods present values of the highly negative Kakwani, ratifying the remarkable regressor of the tax regulation of these, due to the great difference among the dispersion of the payments for VAT and the initial distribution of the equVATtent rent (it curves of concentration of the paid tribute and the curve of lorenz of the rent)

Most of the cases possess negative values of the index of Kakwani, manifesting the regressor of the fiscal treatment of these goods or services. The fiscal discrimination of the tobacco generates a remarkable regressor, since the value of that distance is magnified (-0.2513) between concentration of paid tax and origin situation in the distribution of the rent. In this same sense, those "non durable Goods of the home", and "Housing in rent" they have a degree of inequality in the fiscal effort more than proportionally that the degree of inequality of the equVATtent rent, appearing the noxious consequences of the tributary treatment of these departures. To the other side, they are some concepts that present values of the positive Kakwani. Among them, "domestic Services", "books, newspapers,...". and "you Travel tourist", generating progressivity nevertheless, it would be interesting to identify which is the margin of increment of these types to palliate the unfavorable redistributive consequences of the tribute in their group.

### Decomposition for categories, and Contribution to the Vertical justness

Up to now, a methodology has been presented to identify those details and redistributive implications of the partial aspects of the wide legislation of the VAT. This section seeks to develop a complete decomposition for categories of the global redistributive consequences of the VAT, starting from the measures of the isolated progressivity of the fiscal treatment of each expense concept. The central idea of this section consists on identifying the contribution of the application from each tax type to the

unfavorable impact in the redistribution of the rent. This analysis conforms the sustenance to identify the tax regulations of the expense departures with more capacity of contributing positively to the objectives of redistribution of the questioned tribute, that which should be kept in mind to establish lines of proposal of reformation of the VAT in next years with improvements in the population's well-being, without neglecting the determination of the cost potential recaudatorio. It is wanted to determine which the margin of maneuver of modifications of the VAT is with potential it improves redistributational.

Following the line of the comments carried out in the chapter third, the redistributational capacity of the Tax about the added value can break down in derived two objectives of the principle of payment capacity: vertical justness and horizontal justness. In our fiscal scenario characterized by an unfavorable redistributational impact of the VAT (a value of the RS -0.009046), the magnitude of the rupture of horizontal justness is relatively low (-0.002063), explaining 22.8 percent of the negative repercussions in the distribution of the rent. On the contrary, the current legislation of the VAT generates a bigger degree of vertical inequity, that is to say, it favors to increase the inequalities slightly in the original distribution of the rent. That worsening of vertical justness (-0.006982), it supposes 77.2% of the inadequate repercussion of the redistributational effect. In this same sense, the next lines decompose the degree of contribution of each tax regulation of each very or service of the proposal of expense classification. The square 6 present the perfect decomposition of the degree of contribution of the fiscal treatment discriminated against to the objectives of vertical justness of the tribute by VAT in their group.

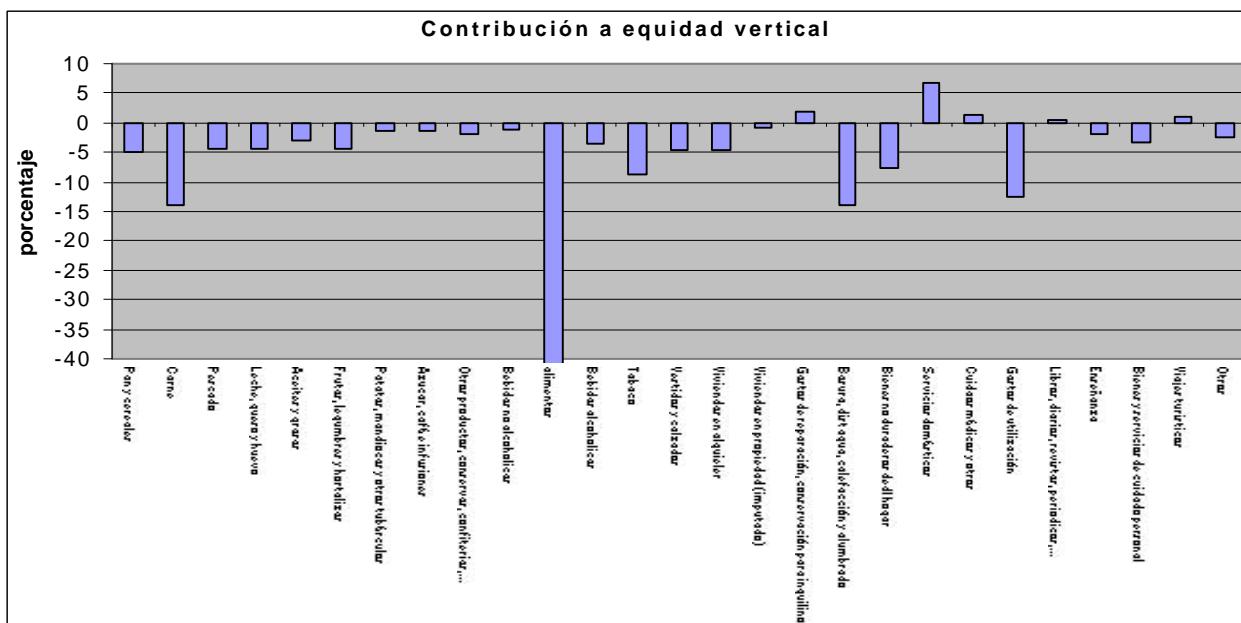
The fiscal regulation of the VAT in foods explains the 40.8 for a hundred of the negative repercussions on the distribution of the rent. Concretely, the "Meat" it is shown like one of the concepts of expense of more contribution (13.8) to the inequality in the redistribution of the rent by means of the VAT. It is verified many of the early conclusions with the discriminated against study carried out in previous lines, however a bigger precision is added in explicitar the possible causes of the unfavorable redistributational impact. The regulation of the basic nutritive necessities is it generates a substantial vertical inequity.

The values of maximum negatividad are centered in the basic services related with the home (Garbage, dilutes, light and heating) and the expense of use of the transport that you/they identify a contribution degree respectively to the vertical inequity of 13.9 and 12.5%. For other part, the tobacco continues postulating a conflict of interests among certain indirect taxes. Under the redistributational prism of the VAT, the fiscal treatment of the type tax general grants disastrous effects on the equal approaches, making worse the inequalities with a relatively high degree of relevance (contribution of 8.7%). Also, the importance is certified in the negative consequences of the régime regulator of the non durable goods of the home, due to its level of preponderance in the contribution to the global Reynolds-Smolensky. One can observe other departures that imply bigger regressor to the redistributational global conclusions of the VAT. The Housings in rent present an excessive negative value in the individual effects of the redistributational capacity (-4.64%). Certain goods belonging to the category drawer disaster, "Other", and "goods and Services of personal care" they reflect characteristic of negative redistribution with the values of -2.46 and -3.44%, respectively. The same as those, the category "Teaching" it has an excessive negative contribution degree (-1.85%) being goods and services of basic necessity for the educational levels.

In the opposed sense, the positive values of the square 6 reflect the appropriate treatment of certain expense categories in the redistributational impact. The domestic services are positioned as the first source of progressivity of our legal régime of the VAT, explaining a high influence percentage in positive effects in the dispersion of the rent. Without a doubt, it appears the possibility of a bigger fiscal pressure in this departure. Other concepts, such as: you Travel tourist, Cares doctors and other, and repair

## Discriminated Redistributive Effect of the current VAT in Spain: possible adjustments ways

Expenses, show that appropriate contribution to mitigate inequalities. Regarding the next values to zero, it is necessary to think the proporcionalidad of the treatment fiscal desagregado, and for it, the null contribution to improve or to worsen the distributive consequences. This is the case of those “financial Services”, “Motorcycles, bicycles,...”, “Books, newspapers, magazines,...”, “Apparatuses and therapeutic material”.....



To summarize, this methodological proposal supposes in sustenance to tinge the repercussions contributVATs of each tax regulation in way desagregada in a fiscal system of the VAT in its group, and therefore, you propugna like the guide to specify future fiscal reformations around the VAT, and the orientations of any modification of the structure tributary insinuation.

### **5. Possible roads of reformations**

In the previous chapter, a discriminated against study of the current tributary square of the Tax has been developed about the Added Value, showing the negative contribution to the objective of a bigger justness in the distribution of the rent. It is precise moment of carrying out the pertinent recommendations to alleviate the regressor and the unfavorable redistributional incidence, by virtue of the descriptions of the two focuses precedents and the methodological proposal of decomposition, without forgetting the evaluation of the cost recaudatorio. It is not necessary to confuse which is the crucial purpose of this section. That is to say, the objective is not centered in postulating an exhaustive reformation for an immediate installation, but rather our interest recaba in the possibility of providing a guide of appropriate recommendations for a better individualized fiscal treatment that it bears to an improvement in the redistributional capacity, and to establish the margin of possible performance without potential cost in the collection. In this address, it is sought to consider the European context as regards fiscal harmonization of the indirect imposition. The possible reformation lines are included in the orientations of the European Union of reduction of the number of tax types. For it, the recommendations will be adjusted to the tributary structure of two types. Also, in certain proposals and directive passings of the European Union, it is pointed out different appropriate intervals for the fiscal harmonization. Without more preamble, we pass to synthesize the most excellent partial aspects, and where it becomes necessary to verify a series of recommendations for the improvement of the progressivity approaches and redistributional capacity.

### **Scenario of a reference Reformation**

In general lines, and after the different simulations practiced with their respective redistributive consequences and recaudatorias, you can recommend possible reformation roads under some guidelines that are synthesized with two tax types: a reduced type of 4%, and another maximum type of 20%. The recommendation of the appearance of an increased type this in consonance with the fiscal panorama (of the VAT) existent in the European context.

In a principle, we will center the attention in the discrimination of tax types (reduced and superreducido) practiced in the nutritious products. The obligations of the 4 and 7% to these products are not enough to contribute positively with the redistributive objectives. The falling profile of the fiscal pressure as the rent increases, and the high negative values of its discriminated against Kakwani certify its substantial regressor. The identification of the contribution degree has more than enough vertical inequity it is of 40.8%, constituting a notably unfavorable redistributive effect. Also, these goods enjoy a tax discrimination difficult to find justification some the application of reduced types it generates regressor to the system. A significant case is the comparison among the tax discrimination of the departures "Bread and cereals", and "Meat." The slope of the rule of tax pressure in the last expense category, is superior to the first one, and however, they are burdened inversely. It would be recommended oneself fiscal treatment to these nutritious products, and an exaction of type superreducido. Another departure of characteristic similar to the previous one, and that it requires some suggestion he/she makes reference to the services of "Garbage, Dilutes, Illumination and Heating" (320). It is necessary to remember that this group of concepts is affected by the general type of 16%, and the evolution of the half type and the differentiated Kakwani he/she incentVATtes to advise to the obligation of a lower type. This proposal would mitigate the high negative contribution (-13,9%) to the ends of redistribution of the VAT.

In the scenario of the tobacco (140), the partial redistributive impact of this tax type (16%) it would be unfavorable for the poorest population's strata, due to their high regressor. However, under the prism of the negative externalidades that the consumption of this drift, would not be very advisable. The problem arises because the special taxes are the main tributary figure that has as essential mission the internalización of these negative social costs, and it is not inherent task to the VAT. So, it would be easy to attribute independent functions to both taxes, and then, we can say that the VAT rebounds negatively to the redistributive objectives (in a 8,69 for a hundred) by means of the fiscal treatment based on a general type to goods with these demand rules among the consumers. Assisting this, a reduction of the applied type is suggested. A similar argument should be considered for the alcoholic Drinks, so a decrement of the applied obligation is suggested. Regarding those "non Durable Goods of the Home" a high regressor exists due to the high concentration of the payments for VAT in this departure, and it would be advisable a reduction of the tax type to four percent. With relationship to other concepts, "Housing in rent", "Other", "Teaching", "Services of Esparcimiento", and "Appliances, chinas,...", the imperium is postulated of reducing the type, depending on the potential cost recaudatorio. In this exercise, and given their relative repercussion in the redistributive impact (the sum supposes a 10 for a hundred), the reformation is materialized with a slope of obligations to 4%. It becomes obligatory to propose an unavoidable reduction of those "Expenses of Use" (related with the transport), given mainly to their substantial importance in explaining the vertical inequity (-12,57%). Also, this suggestion extends to those "Goods and Servicios and personal care" that contributes in the negative redistributive effects in considerable percentage (-3,44%).

As compensation to the announced suggestions of reduction of tax type to the mentioned expense categories, and to avoid a potential cost in the fund-raising publics, he/she spends to appeal to other expense that you/they raise the possibility to increase the established obligation.

Those “you Travel Tourist” (840) they have patterns of behaviors characterized by exponential distribution of the expense percentage (except for the last decila) along the rent decilas, and a value of the positive discriminated against Kakwani, denoting the progresividadde their tax relationship. It is more, it possesses a capacity of improvement in the vertical justness (1,01%). In this sense, you propugna the modification of their regulation through the generation of an increased type of 20%. One of the most peculiar cases is presented in those “Domestic Services”, characterized by a cultured progressive look by means of the growing profile of the types means. But, it is postulated as a scenario where an interesting maneuver margin exists for tax, given future reformations the exponential distribution of the expense percentages as you increases the rent and its appropriate positive value of the isolated progressivity index. This way, it is suggested this way a possible reformation in this sense, for a superior contribution to the favorable effects regarding the application of the general type.

Observing other such services as, “Restaurants, Coffees, and Hotels” (830), one can affirm that it is counteractive to apply very low types (reduced of 7%) to services that are characterized to be majority among the classes of more salary level. The capacity of redistribution, in this case, it is affected negatively, since gravel with a reduced type to a group of services how if they were basic necessities, and the behavior pattern proposes well to this concept like an of more luxury. So, you propugna an increase until the application of the general type of 20%. Also, you could recommend increments in the tax types to mitigate these noxious consequences (regressor and capacity redistributational negative) in the following departures: “Apparatuses and Accessories”, and “Personal Goods”, characterized by a positive and neuter contribution, respectively, to the redistributational capacity..

Another group of goods, “Books, Newspapers, Magazines, Newspapers,...” (code 730), they possess certain particularities that it causes their difficult pronunciation in this respect. Two visions that provide well differentiated conclusions exist. From a social point of view, these goods favor to enrich the culture, and they have to be burdened to types superreducidos, so that it can be accessible to all the spheres of a society. The conflict appears when we observe the profile of expense of this concept in the rent levels. However, the biggest concentration of tax payments with relationship to the initial inequality of the rent (given by the positive value of the discriminated against Kakwani), it favors to the recommendation of a low type that contributes positively with the redistributational and social approaches. Even, the degree of positive contribution to the objectives of vertical justness (0,48%) it grants a possible maneuver margin for a decrease of their type. In this proposal it reforms, we have opted for the perseverance of the fiscal treatment in the effective legislation.

Regarding the housing in property, the application of the tax type of 7% to this departure of the expense, it should be valued according to the distribution of the expense percentage by the different decilas, and their progressivity characteristics and redistributational impact. The decision around the regulation of this departure is of difficult decision due to diferentesa reasons. In the first place, the outstanding volume of resources that supposes the expense decision in housing among poorer decilas, advises the reduction of this obligation. In another sense, the profile of the half apparent effective type the proporcionalidad of the tributary treatment, and the value of the index of Kakwani reaffirms the scarce difference between the concentration of the tax payments and the degree of inequality of the original rent. Therefore, both approaches bear to consider the kindness of the application of this type according to approaches of justness. On the other hand, it is necessary to notice the distinction between housing of first necessity and housing of second residence, since he/she has important consequences in the evaluation of the equal approaches. That is to say, oneself tax regulation of the housings of first and second residence, would generate some fiscal advantages in the richest layers, and

therefore, it would imply a bigger unfavorable impact about the redistributational capacity. The possibility of a fiscal reorientation is suggested, by means of the legal discrimination for both concepts so disparate regarding the necessities. It is recommended that a reformation proposal in the fiscal treatment of this departure should practice an exhaustive analysis of the particularities of this wide concept, and the consideration of other figures tributary reguladoras of this good (IRPF and Taxes on patrimonial Transmissions). Also, the relevance in the derived collection of fiscal revenues of the indirect fiscalidad of this concept, still adds but complexity in the determination of a good type. Although, it is not purpose of this work to deepen around this good, it is rigorous to propose for future lines of investigation their redistributational consequences in indirect imposition. Now then, in our proposal of generic reformation it is postulated to increase the tax type of application to such a concept. In great measure, this is justified for the apparent proporcionalidad of the current reduced type. In all ways, he/she thinks about an extension of these recommendations, and a fiscal scenario is designed with exaction of the Housing in property to the type superreducido (sees you the scenario IV). On the other hand, regarding the Housing in rent you propugna the exaction of the type given superreducido their rules of existent regressor, and their negative contribution to the redistribution of the VAT (-4,64%)..

You proceeds to the materialization of the recommendations, for the making of a tax reformation in the VAT, reflected in the square 7 (it picks up a synthesis of the reformation proposal, and the comparison with the current legislation of the VAT). I insist, this alone reformation supposes a reference mark for possible propositions of modifications of the legal régime of the VAT. The purpose relapses in the option of to design a new indirect tributary context that can palliate the impact redistributational negative of the effective legislation, avoiding a loss of the volume of public revenues in this concept and to be adjusted to the rules of fiscal harmonization of the European Union. Also, this investigation develops different alternatives of square of reformation of reference of the VAT, to add bigger robustness to the possible roads of partial modification of the current legislation. The square 7 reflective the different scenarios fiscal designed summary the suggested alternatives.

### **Scenario I and II**

The first two fiscal scenarios are derived of the possibility of to reduce the reduced type and to increase the general type in a percentage point, respectively. That is to say, it is sought to glimpse the redistributational consequences of magnifying the interval among maximum and minimum type, in such a way that makes worse the correspondence of types in function of the characteristics of the discriminated against treatment. These options infringe the advice of the European organisms of fiscal harmonization. However he/she wants to corroborate the positive impact of the decrease of minimum type for certain goods (sees you scenario I) considered with a high contribution degree to the vertical inequity.

Other extensions that seek to approach diverse questions related with the wide legislation reguladora of the Tax about the Added Value exist. Are the guidelines of the European Union adapted regarding the minima for the reduced type to improve the redistribution without cost recaudatorio? Does a reduction of the types that you/they burden the Housing in property improve the redistribution without collection loss? Should the exempt foods of VAT be?

### **Scenario III**

In the first place, the fiscal square III draw a paisaje characterized for it not uses a reduced type and general allowed by the directive one in the European breast. In other words, a reduced type of 2%, and a general of 21% settles down. This way it becomes

maximum the tax discrimination among categories of expense of characteristics opposed in regressor and redistributonal capacity.

#### **Scenario IV**

This alternative considers the importance of the magnitude of the expense in the housing, and its minimum regressor consequences and negative contribution to the redistributonal impact. Therefore, an obligation is postulated for this departure of the reduced type of 3% - with the purpose of evaluating the redistributonal improvements, and so effect on the obtaining of fiscal revenues.

#### **Scenario V**

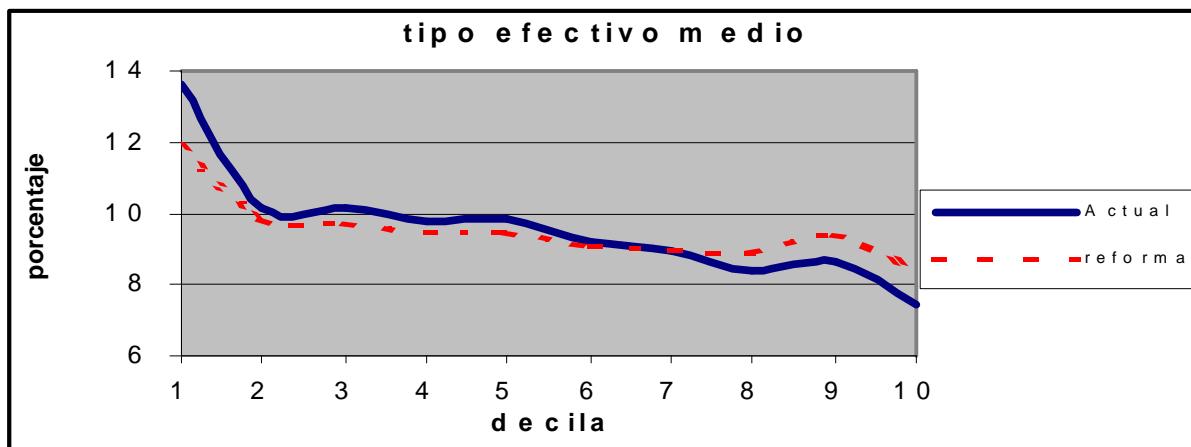
Lastly, this study in its different focuses, analyzes the foods, and us Indian the important contribution degree to the worsening of the vertical justness. Without a doubt, the extension V intends to establish the excuse of these nutritious goods, identified as given basic necessities the expense rules among the population, and also, its excessive regressive treatment peculiar of the current legal structure. In turn, this possible determination of subjecting to these goods to a type zero of the VAT is based in other tributary squares of this tax of the European context.

#### **Simulation and Evaluation.**

The microsimulation technique is the basic instrument for the determination of the new results as consequences of the changes in the tax types suggested in the description of the reformation, which are presented in the square 7 The assumed hypothesis are based on the behavior absence starting from the expense rule coming from the Family Continuous Survey of Budget 1996

#### **Scenario of a reformation of Reference**

The new tax square (summed up in the squares 8.A and 8.B) it generates an improvement in the participation of the net rent of the payment of VAT for all the decilas (except in the richest), but in minimum percentages one can affirm that is to say, that the net renbta of taxes under the reformation dominates to the net rent of current VAT. This is ratified with an index of better RS (-0.0058 versus -0.0090 of the current system). The redistributonal improvement by means of the consideration of the suggested general orientations is of 35.56%. Regarding the distribution of the fiscal load, the level of concentration of the tax payments under the reformation is something smaller. That is to say, the index of derived Kakwani of the new legal mark is less negative than the respective one to the current square (-0.0310 versus -0.1177). The evolution of the half type presents important differences like it is shown in the following graph. The fiscal pressure has been increased diferentially (reformation scenario regarding the current VAT) for the decilas of more economic caapcidad, and in turn, the tax effort of the smallest rent families is alleviated.



Given the improvement not worthless but scarce in absolute terms, it is necessary to differentiate the analysis in relative terms. That is to say, the redistributional improvement becomes remarkable. In principle, this reformation doesn't vary the initial dispersion of equVATlent rent, therefore, the objective you focaliza in the differential impact of the reformation. A momentous additional approach to evaluate the improvement of a change in the tributary structure of the VAT is, without a doubt some, the identification of the potential cost recaudatorio. In our case, the consideration of the compensations of increments and reductions of tax types it doesn't imply any derived problem of this question, but just the opposite. The new fiscal scenario allows an improvement in the public fund-raising of 2.42%, concerning the present mark. In such a sense, the capacity is glimpsed of exercising bigger changes to intensify the given objectives of justness the maneuver margin that it provides us this dear increment of collection. This offers the possibility to carry out reformations of the indirect imposition system with improvements of equitable approaches without detriment of the volume of collected fiscal revenues.

In this sense, this work develops different alternatives of tributary square of the VAT to evaluate the possible roads of partial modification of the current legislation. The square 7 reflective the different designed fiscal scenarios, and their redistributional consequences and recaudatorias.

### Scenario I i II

In short, the redistributional differential effects of the proposal of a minimum type of 3% are substantially positive, improving the index of redistribution in 42.22% concerning the original, and it also avoids any cost potential recaudatorio with an increment of public funds of 1.34%, therefore, this alternative is adapted to correct redistributional problems, and without loss of obtained public funds. On the contrary, the scenario II don't contribute to some favorable differential effects regarding the feigned initial reformation. The RS (-0.0061) it is smaller than the value for the departure reformation (-0.0058). It bears it to think of the biggest preponderance of reducing the minimum type with relationship to the option of going up the maximum type under a redistributional prism.

### Scenario III

The suitability of this election is verified in its redistributional repercussions and the neutrality recaudatoria of this recommendation. The RS (-0.0046) he/she approaches halfway the departure scenario, that is to say, he/she improves the redistributional capacity of the tribute in 48.89% In definitive, the limitation imposed concerning the minima for a reduced and increased type, lacks sense low redistributional approaches without affecting to the collection. which are the recommendation approaches about the VAT for the European politicians?

#### **Scenario IV**

Regarding the housing, the importance recaudatoria of this departure is ratified in the total. Nevertheless, the redistributional improvement of this scenario is not sufficiently bigger than the proposed reformation. This extension helps us to understand the high cost potential recaudatorio (loss of the 24.4 for a hundred of the fiscal revenues of the VAT) of reducing the tax treatment of this concept, without contributing desmesuradamente to desirable redistributional effects. It seems counteractive to appeal to lower the type proposed in the reformation (4%), even with the compensation of elevating the general type.

#### **Scenario V**

The scenario fifth sample the possibilities of improvement of the capacity redistributVAT of this tribute, until more than twice as much. In other words, the differential impact of this proposition generates an increase of the value of the redistributional effect of 55.66% (an index of the RS the -0.0040 regarding the -0.009 of beginning). Even, this substantial improvement of the repercussion in the distribution of the rent avoids any cost in collection. To summarize, this excuse suggestion for certain goods (the foods, in this case) it should be considered to imply improvements of the objectives of justness, without sacrificing the neutrality of the public funds coming from the VAT.

All the suggestions of reformations of the VAT present better consequences for the progressivity and redistributional capacity of the application of the tribute. Although it doesn't eliminate in their entirety the unfavorable effects. He/she shows the necessary guidelines to increase the redistributional potential of this indirect tax with constant collection. That is to say, a differential improvement exists concerning the effective legal mark in our days, but it doesn't contribute positively (in absolute terms) to the objectives of justness in the distribution of the rent. In definitive, the difficulty is postulated of converting in progressive to this tribute, but the maneuver margin is manifested to mitigate the noxious effects on the initial distribution of the rent.

### **6. Final findings**

Different studies have verified the regressive and the unfavorable distributional impact of the application of this tax. The objective of this paper is to carry out a rigorous analysis from the wide law of the VAT, and to assess the consequences in the redistribution of the discriminated fiscal treatment of each expense category. It intends several methodological proposals for disaggregating the global impact in the different partial aspects of this indirect fiscal schedule. Another additional purpose consists on identifying the degree of individual contribution (isolated) of the tax regulation of each departure, through an approach to the decomposition of the vertical justness. This study constitutes a precedent to sustain any recommendation of modifications of the legislation of the VAT. In other words, the partiality of a punctual analysis in each detail of the tributary square shows the necessary guidelines for possible reformations of the VAT with redistributional improvements.

Our main methodological tool to determine the tax payments for VAT is the pattern of Microsimulation. The technique of used simulation assumes the hypothesis of perseverance of the patterns of the consumers' behavior (families) in the face of changes in the prices like consequence of the tax types. Therefore, it is used static models of behavior starting from the expense rule coming from the Family Continuous Survey of Budget of the year 1996.

This study shows the regressor of most of the expense categories, especially the foods and non durable goods of the home, as well as other services of garbage, it dilutes,

light and heating, the tobacco,... The impact of the tax treatment peculiar of these goods and services are noxious for the redistribución of the economic capacity. The two methodological alternatives ratify these unfavorable consequences. Even, the degree of contribution of each fiscal regulation is identified from the VAT to the vertical justness. The nutritious goods are presented as the main source of discord for equal approaches in the régime of this indirect tribute. In the wide legal structure, he/she hides other departures that possess characteristic of progressivity, and that they have enough maneuver riverbank to compensate the effects redistributional negatives of the combined system of the VAT. In spite of the unfavorable global redistributional effects, it is necessary to highlight the utility of the entresijos of the tax treatment of each expense category, with the objective of identifying the possible roads of reformation of the tribute. In such a luck, you propugna the pertinent orientations of change of the legislation that should be postulated as the sustenance of any future reformation. It is more, the discriminated against analysis and their method of decomposition of the redistributional capacity generates the necessary material to guide the guidelines of tax changes of the VAT for equal improvements, without neglecting the potential cost recaudatorio. Ultimately, it is contributed the methodological instruments for a better adjustment from the legislation to the rules of the population's expense along the distribution of the rent.

A first mark of reformation reference has been designed, where the opportune mentioned suggestions are materialized. Also, he/she incorporates the possibility to coordinate with the directive of the European Union regarding the reduction of the number of tax types (to two differentiated types), and the minima for general and reduced type. The redistributional consequences suffer a substantial improvement, with their wanted increment of potential collection of public funds. Therefore, the possibility is demonstrated of mitigating the current redistributional effects without cost recaudatorio, and with its reduction of the fiscal effort among the poorest decilas.

In this same sense, different fiscal scenarios of the VAT have been made with the additional interest of contributing to prosecute different options of improvement in the population's well-being. Is it adapted to reduce the minimum limits of the reduced type? Should they increase the general type above the current maxima of the countries of the European Union? Should they be it exempts some basic necessities, such as the foods? The feigned extensions of fiscal squares aim different answers. The slope of the reduced types favors to the redistributional improvement, even with gain of obtained tributary revenues, due to the possibility of intensifying the tax treatment in the identified departures of smaller contribution negatives to the vertical inequity. On the other hand, increased excessive types (above 20%) they don't add differential improvement with relationship to the departure reformation. In definitive, you can synthesize that it possesses more capacity to palliate negative redistributional consequences, the descent of the magnitude of the reduced type than an increment of the general type. Another aspect of special interest is derived of the remarkable improvement of the redistributional effects (until more than a fifty for a hundred) with collection neutrality, in the scenarios where type zero is applied to the nutritious goods. The excuse of certain basic necessities, jointly with marginal increments in certain departures of smaller contribution to the inequity, it favors substantially to a positive differential evaluation of the redistribution of the tribute regarding the current legal régime of the VAT in Spain.

In summary, if the objective of the political recaba in redistributional improvements of the VAT, appears the necessity to carry out certain adjustments in the legislation reguladora of the tribute, without detriments of the potential collection of public revenues, and first floor the established rules from the European context of fiscal harmonization of the tribute.

In coming lines of investigation it is possible to provide answers to diverse underlying questions of the limitations of the work. Although in a previous work, the scarce

differential impact is verified of using the techniques of microsimulation low two scenarios, absence and behavior presence alternatingly, a scenario should be developed that picks up the decisions of consumption of the families by means of demand systems. Also, this study should extend to practice an analysis of sensibility of the redistributational improvement of the tribute in function of the different indicators of well-being (it produces current, rent of vital cycle, I spend, consumption of specific goods,...) that they order the distribution of the homes. On the other hand, it is also essential the construction of panel of data of the continuous survey for the anualización of the data. Regarding the study desagregado, it would be advisable a bigger precision in the distinction of some expense category, for example in the case related with of the housing.

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**Discriminated Redistributive Effect of the current VAT in Spain: possible adjustments ways**

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**Appendix**

I square 1. Synthesis of the proposal of the classification of the expense, and their corresponding tax type to each category according to the current legislation of the VAT

Código	CONCEPTO	Código ECPF	Tipo impositivo IVA 2000 (%)
1,1,1	Pan y cereales	1000-1079	4
1,1,2	Carné	1080-1189	7
1,1,3	Pescado	1190-1259	7
1,1,4	Leche, queso y huevo	1260-1369	4
1,1,5	Aceites y grasas	1370-1429	7
1,1,6	Frutas, legumbres y hortalizas	1431-1609	4
1,1,7	Patatas, mandiocas y otros tubérculos	1610-1629	7
1,1,8	Azúcar, café e infusiones	1630-1689	7
1,1,9	Otros productos, conservas, confiterías,...	1691-1749	7
1,2,0	Bebidas no alcohólicas	1751-1779	7
1,3,0	Bebidas alcohólicas	1780-1819	16
1,4,0	Tabaco	1830-1869	16
2,1,0	Vestidos y calzados	2000-2999	16
3,1,1	Viviendas en alquiler	3010-3089	7
3,1,2	Viviendas en propiedad (imputado)	3040-3089	7
3,1,3	Gastos de reparación, conservación para inquilino	3090-3109	16
3,2,0	Basura, dist agua, calefacción y alumbrado	3110-3269	16
4,1,0	Muebles, accesorios y reparaciones	4000-4169	16
4,2,0	Electrodomésticos, vajillas, cristalerías y conservación	4170-4239	16
4,3,0	Bienes no duraderos del hogar	4240-4279	16
4,4,0	Servicios domésticos	4280-4289	16
5,1,0	Medicamentos	5000-5039	4
5,2,0	Aparatos y material terapéutico	5040-5059	7
5,3,0	Órganos médicos y otros	5060-5109	16
6,1,0	Automóviles, y otros (remolques, caravanas,..)	6000-6029	16
6,2,0	Motocicletas, bicicletas	6030-6039	7
6,3,0	Gastos de utilización	6040-6099	16
6,4,0	Servicios de transportes	6100-6149	7
6,5,0	Otros; correos, teléfono, telégrafos,...	6150-6199	16
7,1,0	Aparatos y accesorios	7000-7125	16
7,2,0	Servicios de esparcimientos (espectáculos, cultura,...)	7130-7189	7
7,3,0	Libros, diarios, revistas, periódicos,...	7190-7200	4
7,4,0	Enseñanza	7210-7296	16
8,1,0	Bienes y servicios de cuidado personal	8000-8049	16
8,2,0	Bienes personales	8050-8089	16
8,3,0	Restaurantes, cafés y hoteles	8090-8149	7
8,4,0	Viajes turísticos	8150-5160	16
8,5,0	Servicios financieros	8161-8169	16
8,6,0	Otros	8170-9999	16

**Discriminated Redistributive Effect of the current VAT in Spain: possible adjustments ways**

I square 2. To general Results of progressivity of the current VAT in Spain.

DECILA	Renta media	Participación en renta	Aportación a la recaudación	Tipo efectivo medio
1	1.165.294	3,4275	6,3241	13,5974
2	1.561.115	4,9008	6,3200	10,1432
3	1.820.773	5,9832	7,3592	10,1268
4	2.197.593	7,3662	8,6051	9,8107
5	2.175.427	7,8473	8,5195	9,8122
6	2.697.910	9,3506	9,9023	9,1961
7	2.862.571	10,1022	10,2055	8,9325
8	3.483.217	12,5977	11,6738	8,3971
9	4.053.198	14,8827	14,0287	8,6719
10	5.763.141	23,5418	17,0619	7,4176

Source: own Elaboration starting from the ECPF 96 (second trimester)

I square 2.B. General results of the redistributational effect of the current VAT in Spain.

DECILA	Curvas de lorenz		
	Distribución acumulada de renta equivalente	Distribución de Iva acumulada	Distribución acumulada de Renta neta quivalente de IVA
1	0,0343	0,0297	0,0313
2	0,0833	0,0730	0,0798
3	0,1431	0,1250	0,1386
4	0,2168	0,1888	0,2100
5	0,2952	0,2649	0,2906
6	0,3888	0,3489	0,3831
7	0,4898	0,4483	0,4856
8	0,6158	0,5688	0,6108
9	0,7646	0,7226	0,7605
10	1,0000	1,0000	1,0000
Gini	0,295394503	0,349476279	0,304440082
Pseudo-gini	0,295394503	0,177639971	0,30237637
Kakwani		-0,117754532	
RS			-0,009045579

Source: own Elaboration starting from the ECPF 96 (second trimester)

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Cuadro.3. Expense percentage in each category on the total expense for decila

Concepto	DECILA									
	1	2	3	4	5	6	7	8	9	10
Pan y cereales	5,45	4,87	4,1	3,84	3,37	3,25	3,25	2,86	2,3	1,92
Carné	7,92	8,16	7,01	7,4	8,09	6,6	6,6	5,61	4,65	3,44
Pescado	2,59	3,29	3,19	3,17	3,11	2,92	2,75	2,61	2,5	2,06
Leche, queso y huevo	4,7	4,51	4,1	3,67	3,46	3,24	2,93	2,74	2,32	1,84
Aceites y grasas	1,34	1,53	1,88	1,43	1,76	1,53	1,43	1,14	0,95	0,8
Frutas, legumbres y hortalizas	4,55	4,73	4,34	4,27	3,78	3,68	3,61	3,61	3,02	2,32
Patatas, mandocas y otros tubérculos	0,9	0,73	0,74	0,65	0,49	0,47	0,46	0,36	0,27	0,24
Azúcar, café e infusiones	0,85	0,74	0,82	0,65	0,65	0,53	0,6	0,5	0,35	0,33
Otros productos, conservas, confiterías,...	1,38	1,13	1,02	0,96	1,01	0,89	0,93	0,66	0,59	0,63
Bebidas no alcohólicas	0,67	0,81	0,65	0,6	0,64	0,59	0,54	0,56	0,42	0,36
Bebidas alcohólicas	1,06	1,2	0,86	1,16	0,94	0,88	0,97	0,77	0,66	0,65
Tabaco	3,23	2,48	2,19	2,15	2,03	1,7	1,57	1,39	1,42	1,05
Vestidos y calzados	3,4	3,68	4,49	4,48	4,27	5,16	4,48	5,67	5	4,52
Viviendas en alquiler	3,96	1,71	2,13	1,25	1,27	1,04	1,17	0,58	1,12	0,89
Viviendas en propiedad (imputado)	14,17	19,85	18,8	19,2	18,9	20,7	21,3	23,2	24,09	25,1
Gastos de reparación, conservación para inquilino	0,2	0,02	0,02	0,27	0,12	0,08	0,02	0,2	0,3	0,95
Basura, dist agua, calefacción y alumbrado	5,35	4,97	4,42	4,67	4,36	4,47	4,31	4,01	3,94	3,39
Muebles, accesorios y reparaciones	2,47	1,8	1,59	2,14	2,51	2,29	3,74	2,37	2,59	3,39
Electrodomésticos, vajillas, cristalerías y conservación	0,78	0,91	1,07	0,9	1,31	1,11	1,04	0,93	1,03	1,13
Bienes no duraderos del hogar	2,2	2,3	2,06	1,75	1,9	1,42	1,55	1,37	1,22	1,02
Servicios domésticos	0,07	0,29	0,13	0,38	0,42	0,58	0,65	0,56	1,51	2,48
Medicamentos	1,07	0,83	0,85	0,94	0,86	0,55	0,74	0,66	0,61	0,56
Aparatos y material terapéutico	0,25	0,42	0,26	0,39	0,39	0,26	0,29	0,36	0,46	0,36
Cuidados médicos y otros	1,34	1,15	1,25	2,84	1,98	3,92	2,19	2,02	2,15	3,49
Automóviles, y otros (remolques, caravanas,...)	0,93	1,33	3,5	1,59	2,82	1,85	2,56	4,37	2,74	2,72
Motocicletas, bicicletas	0,04	0,01	0,11	0,01	0,2	0,02	0,02	0,01	0,01	0,13
Gastos de utilización	8,63	7,28	7,21	7	7,52	7,89	7,6	7,62	8,13	7,48
Servicios de transportes	1,19	1,07	1,36	1,33	0,81	0,96	1,01	0,89	1,03	1,11
Otros; correos, teléfono, telégrafos,...	0,38	0,41	0,44	0,43	0,39	0,42	0,42	0,39	0,37	0,35
Aparatos y accesorios	1,15	1,23	1,04	1,28	1,52	1,54	1,94	1,24	1,56	2,03
Servicios de esparcimientos (espectáculos, cultura,...)	1,31	1,13	1,31	1,14	1,36	1,23	0,91	1,31	1,54	1,44
Libros, diarios, revistas, periódicos,...	0,56	0,63	0,96	0,9	0,95	1,05	0,91	1,37	1,11	1,36
Enseñanza	1,6	1,63	1,83	2,28	1,71	2,52	2,12	2,18	2,56	2,17
Bienes y servicios de cuidado personal	2,23	1,49	1,83	2,07	1,81	1,63	1,85	1,61	1,74	1,99
Bienes personales	0,67	0,62	0,51	0,91	0,75	0,99	0,74	0,78	0,98	1,25
Restaurantes, cafés y hoteles	7,68	7,81	7,72	7,74	8,09	7,72	7,74	9,27	9,57	9,79
Viajes turísticos	0,42	0,24	0,3	0,29	0,39	0,46	0,56	0,52	1,41	0,69
Servicios financieros	0	0	0	0,02	0	0,01	0,01	0	0	0
Otros	3,33	3,01	3,87	3,87	4,07	3,87	4,52	3,72	3,75	4,55

Source: own Elaboration starting from the ECPF 96 (second trimester)

I square 4. Half effective type for concept of Expense distributed by decila (in percentages)  
 FFuente: own Elaboration starting from the ECPF 96 (second trimester)

I square discriminated against 5 Measures of Progressivity: Pseudo Gini and Indexes of Kakwani for the different expense categories

<b>Concepto</b>	<b>Pseudo Gini (pagos impositivos)</b>	<b>Kakwani discriminado</b>
Pan y cereales	0,036981	-0,258414
Carne	0,066607	-0,228787
Pescado	0,142596	-0,152798
Leche, queso y huevo	0,050479	-0,244916
Aceites y grasas	0,074185	-0,221210
Frutas, legumbres y hortalizas	0,100115	-0,195279
Patatas, mandiocas y otros tubérculos	-0,018329	-0,313723
Azucar, café e infusiones	0,050266	-0,245128
Otros productos, conservas, confiterias,...	0,069052	-0,226343
Bebidas no alcoholicas	0,083381	-0,212013
Bebidas alcoholicas	0,105788	-0,189606
Tabaco	0,044033	-0,251361
Vestidos y calzados	0,247851	-0,047544
Viviendas en alquiler	0,009577	-0,285817
Viviendas en propiedad (imputado)	0,291857	-0,003538
Gastos de reparación, conservación para inquilino	0,598868	0,303473
Basura, dist agua, calefacción y alumbrado	0,151308	-0,144086
Muebles, accesorios y reparaciones	0,293026	-0,002369
Electrodomésticos, vajillas, cristalerías y conservación	0,234833	-0,060562
Bienes no duraderos del hogar	0,066067	-0,229327
Servicios domésticos	0,592439	0,297045
Medicamentos	0,111463	-0,183932
Aparatos y material terapeutico	0,285302	-0,010092
Cuidados médicos y otros	0,318708	0,023314
Automóviles, y otros (remolques, caravanas,...)	0,298203	0,002808
Motocicletas, bicicletas	0,174767	-0,120627
Gastos de utilización	0,213733	-0,081662
Servicios de transportes	0,196876	-0,098519
Otros; correos, teléfono, telegrafos,...	0,184387	-0,111008
Aparatos y accesorios	0,295342	-0,000052
Servicios de esparcimientos (espectáculos, cultura,...)	0,263720	-0,031674
Libros, diarios, revistas, periódicos,...	0,368187	0,072793
Enseñanza	0,246041	-0,049354
Bienes y servicios de cuidado personal	0,209920	-0,085475
Bienes personales	0,327370	0,031976
Restaurantes, cafés y hoteles	0,276746	-0,018648
Viajes turísticos	0,453249	0,157854
Servicios financieros	0,236626	-0,058768
Otros	0,267725	-0,027669

Source: own Elaboration starting from the ECPF 96 (second trimester)

I square 6 Decomposition of the degree of contribution of the fiscal treatment discriminated against to the redistributational capacity of the VAT in their group.

Concepto	kakwani discriminado	tj	tj Kj	Contribución desagregada a la equidad vertical (%)
Pan y cereales	-0,258414	0,001150	-0,000297	-4,8196
Carne	-0,228787	0,003730	-0,000853	-13,8410
Pescado	-0,152798	0,001757	-0,000268	-4,3537
Leche, queso y huevo	-0,244916	0,001135	-0,000278	-4,5069
Aceites y grasas	-0,221210	0,000855	-0,000189	-3,0674
Frutas, legumbres y hortalizas	-0,195279	0,001373	-0,000268	-4,3492
Patatas, mandiocas y otros tubérculos	-0,313723	0,000287	-0,000090	-1,4625
Azucar, café e infusiones	-0,245128	0,000361	-0,000088	-1,4346
Otros productos, conservas, confiterias,...	-0,226343	0,000505	-0,000114	-1,8537
Bebidas no alcoholicas	-0,212013	0,000332	-0,000070	-1,1429
Bebidas alcoholicas	-0,189606	0,001183	-0,000224	-3,6362
Tabaco	-0,251361	0,002134	-0,000536	-8,6986
Vestidos y calzados	-0,047544	0,006213	-0,000295	-4,7907
Viviendas en alquiler	-0,285817	0,001003	-0,000287	-4,6475
Viviendas en propiedad (imputado)	-0,003538	0,014302	-0,000051	-0,8205
Gastos de reparación, conservación para inquilino	0,303473	0,000384	0,000117	1,8895
Basura, dist agua, calefacción y alumbrado	-0,144086	0,005983	-0,000862	-13,9802
Muebles, accesorios y reparaciones	-0,002369	0,003517	-0,000008	-0,1351
Electrodomésticos, vajillas, cristalerías y conservación	-0,060562	0,001424	-0,000086	-1,3984
Bienes no duraderos dedl hogar	-0,229327	0,002091	-0,000479	-7,7757
Servicios domésticos	0,297045	0,001380	0,000410	6,6501
Medicamentos	-0,183932	0,000257	-0,000047	-0,7653
Aparatos y material terapeutico	-0,010092	0,000235	-0,000002	-0,0385
Cuidados médicos y otros	0,023314	0,003289	0,000077	1,2436
Automoviles, y otros (remolques, caravanas,..)	0,002808	0,002921	0,000008	0,1330
Motocicletas, bicicletas	-0,120627	0,000034	-0,000004	-0,0664
Gastos de utilización	-0,081662	0,009493	-0,000775	-12,5717
Servicios de transportes	-0,098519	0,000685	-0,000067	-1,0946
Otros; correos, telefono, telegrafos,...	-0,111008	0,000555	-0,000062	-0,9993
Aparatos y accesorios	-0,000052	0,001972	0,000000	-0,0017
Servicios de esparcimientos (espectaculos, cultura,...)	-0,031674	0,000752	-0,000024	-0,3862
Libros, diarios, revistas, periodicos,....	0,072793	0,000394	0,000029	0,4648
Enseñanza	-0,049354	0,002320	-0,000115	-1,8571
Bienes y servicios de cuidado personal	-0,085475	0,002487	-0,000213	-3,4473
Bienes personales	0,031976	0,001206	0,000039	0,6251
Restaurantes, cafes y hoteles	-0,018648	0,005218	-0,000097	-1,5781
Viajes turisticos	0,157854	0,000397	0,000063	1,0170
Servicios financieros	-0,058768	0,000005	0,000000	-0,0051
Otros	-0,027669	0,005565	-0,000154	-2,4970

Source: own Elaboration starting from the ECPF 96 (second trimester)

I square 7. Synthesis of the reformation proposal, and comparison with the current legislation of the VAT in Spain

**ALFREDO SERRANO MANCILLA**

Codigo	CONCEPTO	Actual	Orientación	Extensiones: Posibles escenarios fiscales				
		Tipo impositivo IVA 2000 (%)	Propuesta de reforma IVA (%)	I	II	III	IV	V
1,1,1	Pan y cereales	4	4	3	4	2	3	0
1,1,2	Carne	7	4	3	4	2	3	0
1,1,3	Pescado	7	4	3	4	2	3	0
1,1,4	Leche, queso y huevo	4	4	3	4	2	3	0
1,1,5	ACEITES y grasas	7	4	3	4	2	3	0
1,1,6	Frutas, legumbres y hortalizas	4	4	3	4	2	3	0
1,1,7	Patatas, mandiocas y otros tubérculos	7	4	3	4	2	3	0
1,1,8	Azucar, café e infusiones	7	4	3	4	2	3	0
1,1,9	Otros productos, conservas, confiterias,...	7	4	3	4	2	3	0
1,2,0	Bebidas no alcoholicas	7	4	3	4	2	3	0
1,3,0	Bebidas alcoholicas	16	4	3	4	2	3	4
1,4,0	Tabaco	16	4	3	4	2	3	4
2,1,0	Vestidos y calzados	16	4	3	4	2	3	4
3,1,1	Viviendas en alquiler	7	4	3	4	2	3	4
3,1,2	Viviendas en propiedad (imputado)	7	20	20	21	21	3	20
3,1,3	Gastos de reparación, conservación para inquilino	16	20	20	21	21	21	20
3,2,0	Basura, dist agua, calefacción y alumbrado	16	4	3	4	2	3	4
4,1,0	Muebles, accesorios y reparaciones	16	20	20	21	21	21	20
4,2,0	Electrodomésticos, vajillas, cristalerías y conservación	16	4	20	4	21	21	20
4,3,0	Bienes no duraderos del hogar	16	4	3	4	2	3	4
4,4,0	Servicios domésticos	16	20	20	21	21	21	20
5,1,0	Medicamentos	4	4	3	4	2	3	4
5,2,0	Aparatos y material terapeutico	7	20	20	21	21	21	20
5,3,0	Cuidados médicos y otros	16	20	20	21	21	21	20
6,1,0	Automóviles, y otros (remolques, caravanas,...)	16	20	20	21	21	21	20
6,2,0	Motocicletas, bicicletas	7	20	20	21	21	21	20
6,3,0	Gastos de utilización	16	4	3	4	2	3	4
6,4,0	Servicios de transportes	7	20	20	21	21	21	20
6,5,0	Otros; correos, telefono, telegrafos,...	16	20	20	21	21	21	20
7,1,0	Aparatos y accesorios	16	20	20	21	21	21	20
7,2,0	Servicios de esparcimientos (espectáculos, cultura,...)	7	4	3	4	21	3	20
7,3,0	Libros, diarios, revistas, periodicos,...	4	4	3	4	2	3	4
7,4,0	Enseñanza	16	4	20	4	21	3	4
8,1,0	Bienes y servicios de cuidado personal	16	4	3	4	2	3	4
8,2,0	Bienes personales	16	20	20	21	21	21	20
8,3,0	Restaurantes, cafes y hoteles	7	20	20	21	21	21	20
8,4,0	Viajes turísticos	16	20	20	21	21	21	20
8,5,0	Servicios financieros	16	20	20	21	21	21	20
8,6,0	Otros	16	4	3	4	2	3	20
<b>Impacto en la recaudación</b>			<b>Mejora (1,90%)</b>	<b>Mejora (1,34%)</b>	<b>Mejora (5,1%)</b>	<b>Neutral</b>	<b>coste (-24,4%)</b>	<b>Neutral</b>
<b>RS</b>		<b>-0,0090</b>	<b>-0,0058</b>	<b>-0,0052</b>	<b>-0,0061</b>	<b>-0,0046</b>	<b>-0,0044</b>	<b>-0,0040</b>
<b>Mejora redistributiva (%)</b>			<b>35,56</b>	<b>42,22</b>	<b>32,50</b>	<b>48,89</b>	<b>51,11</b>	<b>55,56</b>

Source: own Elaboration starting from the ECPF 96 (second trimester)

I square 8. To general Results of progressivity of the proposal of reformation of the VAT

**Discriminated Redistributive Effect of the current VAT in Spain: possible adjustments ways**

<b>DECILA</b>	<b>Renta media</b>	<b>Participación en renta</b>	<b>Aportación a la recaudación</b>	<b>Tipo efectivo medio</b>
<b>1</b>	1.165.294	3,4275	4,4731	11,8500
<b>2</b>	1.561.115	4,9008	5,1564	9,8400
<b>3</b>	1.820.773	5,9832	6,1944	9,6900
<b>4</b>	2.197.593	7,3662	7,5892	9,4900
<b>5</b>	2.175.427	7,8473	8,0159	9,4900
<b>6</b>	2.697.910	9,3506	9,2389	9,0700
<b>7</b>	2.862.571	10,1022	10,1554	8,9700
<b>8</b>	3.483.217	12,5977	12,4070	8,8900
<b>9</b>	4.053.198	14,8827	15,2821	9,3800
<b>10</b>	5.763.141	23,5418	21,4878	8,3300

Source: own Elaboration starting from the ECPF 96 (second trimester)

I square 8. General B of the redistributional effect of the proposal of reformation of the VAT.

Curvas de Lorenz			
<b>DECILA</b>	<b>Distribución acumulada de renta equivalente</b>	<b>Distribución de Iva acumulada</b>	<b>Distribución acumulada de Renta neta quivalente de IVA</b>
<b>1</b>	3,4275	2,3952	3,1609
<b>2</b>	8,3283	6,4243	8,0973
<b>3</b>	14,3115	11,3900	14,1601
<b>4</b>	21,6777	17,3521	21,3493
<b>5</b>	29,5250	24,3189	29,2674
<b>6</b>	38,8755	32,8072	38,5438
<b>7</b>	48,9778	42,5164	48,6153
<b>8</b>	61,5755	54,9247	61,2710
<b>9</b>	76,4582	70,4350	76,2126
<b>10</b>	100,0000	100,0000	100,0000
<b>Gini</b>	0,295394503	0,381264374	0,301238623
<b>Pseudo-gini</b>	0,295394503	0,264296043	0,298578038
<b>Kakwani</b>		-0,03109846	
<b>RS</b>			-0,00584412

Source: own Elaboration starting from the ECPF 96 (second trimester)