

The Spanish Income Tax: Microsimulation of Regional Government Policies*

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Introduction

The microsimulation studies carried out until recently in Spain could not consider separately the Spanish regions, as this territorial dimension did not appear in databases commonly used, such as the European Community Household Panel (ECHP). However the extended sample of the ECHP offers detailed information by Autonomous Regions in 2000. In addition, new databases such as the 2002 Sample of Spanish Income Tax Taxpayers (Muestra de Declarantes del IRPF 2002) have allowed us to carry out a microsimulation exercise centred in regional policies.

Our microsimulation exercise estimates the importance of income tax policy of Spanish regions. This policy is mainly developed through tax credits, and implies a significant cost in terms of tax design, legislative process, administrative and compliance costs, etc. Nevertheless, the benefits of this policy are scarce and vague. Our hypothesis here is that we can achieve a similar result with a considerable less cost. We specifically consider that we can obtain a very similar result changing slightly regional tax rates. This exercise is also useful because the change in regional tax rates could become a uniform measure of regional government financial sacrifice in the income tax. As we will see, very frequently regions use tax credits as a mean to hide their small efforts in terms of sacrificed revenues.

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The distribution of this paper is as follows. In Section 1 we describe the regional aspects of the Spanish income tax. In Section 2 we describe the database and we extract some interesting results from it. In Section 3 we introduce the essential methodological questions of our microsimulation exercise. In Section 4 we present the main results of our piece of research. In Section 5 we go further to introduce an inequality, redistribution and progressivity analysis. Finally, in Section 6 we conclude.

1. A picture of the Spanish income tax and their regional aspects

The Spanish Law 21/2001 established some administrative and fiscal measures that led to a new financing system of regions. If we centre our attention on the Income Tax, there are three different questions involved with the regulatory power of regions.

Firstly, regions have the power to modify the regional tax schedule², within certain limits related to the tax schedule progressivity and to the number of brackets. To date, none regional government has used this possibility.

Second, the Spanish Law 21/2001 allows regions to increase or lower the percentages of tax credits for home investment but with the maximum limit of 50%. Only Catalonia has exercised this power (in year 2005). As a result of this change there are certain groups in Catalonia (the young, the unemployed, the disabled and families with children) that can apply higher percentages than in the rest of regions.

Finally, regions have the power to set their own tax credits considering family and personal circumstances, some investments (not in business) and certain expenses.

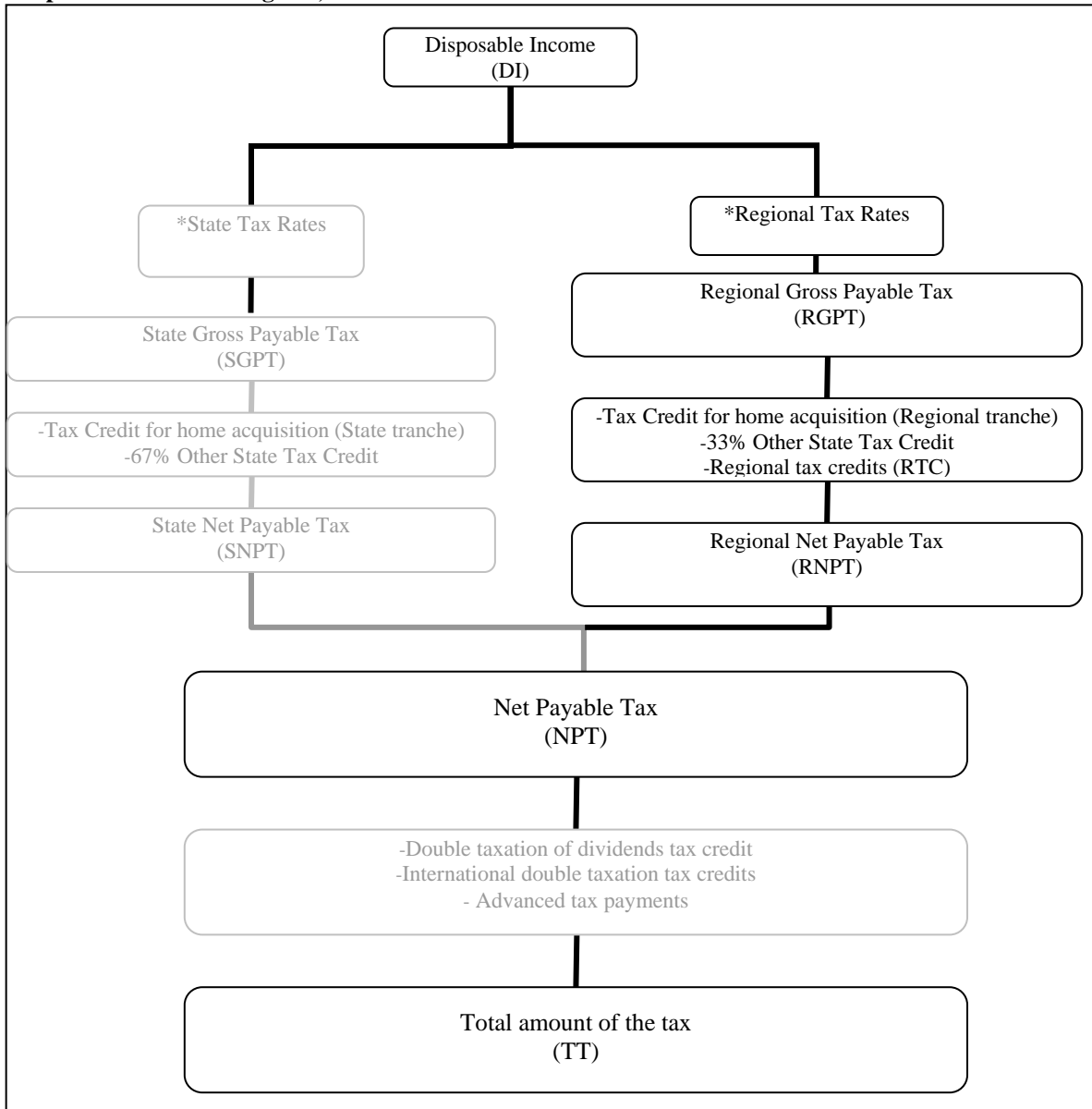
It could be useful to introduce the structure of the Spanish Income Tax to better understand the regional measures. In Graph 1 we show a simplified process of tax calculation, stressing only in the regional part of the tax filing.

As we can see in the diagram, from the data provided by the sample we have taken the disposable income (DI) and have applied the regional tax schedule, resulting the regional

² Since the Spanish Law 14/1996 was enacted the “original” tax schedule was split in two: the State Tax Schedule, that can only be modified by Central Government; and the Regional Tax Schedule, that can be modified by each regional government.

gross payable tax (RGPT). From this variable we subtract the share of State tax credits that has to be deducted and the regional tax credits, both obtained from the database. As a result, we obtain the regional net payable tax (RNPT). Adding the RNPT and the state net payable tax (SNPT), we obtain the total net payable tax (NPT). The last step consist on subtract two extra tax credits (taken from the database), both involved with double taxation problems, to get the total amount of the tax (TT).

Graph 1: Income tax diagram, 2002



There are seventeen “Comunidades Autónomas” or Autonomous Regions in Spain, but we will consider only fifteen, as Basque Country and Navarra have -for historical reasons- their own financing system.

The regional tax credits in force for 2002 (year of the data) appear in Table 6 in the Annex. We have grouped them, for the sake of simplicity, in the following categories:

1. Promotion of birth.

The most usual tax credit refers to the “birth or adoption of children”. This tax credit has been introduced by seven regions, being in some cases a fixed amount per child or increasing with the number of children.

2. Protection of families with children. There is one tax credit in Madrid concerning the fostering of minors. A tax credit for large families (3 children or more) has been established in Balearic Islands, Galicia and Valencia. There is also a tax credit for child care in Castilla-La Mancha and Galicia. Finally, the Valencian government has established a tax credit for “unpaid domestic work”, the eligible taxpayers being mostly one-earner families with small children.

3. Protection of the elderly and the disabled. There are a large number of tax credits covering both these groups. Some apply to taxpayers over 65 years old, as well as those taxpayers fostering the elderly. Others apply to the disabled, some of them also related with being over 65 years old. The rest apply to relatives with disabilities and the fostering of disabled people.

4. Home Investment. There are some regional tax credits related to the investment in the purchase or restoration of the family home. Some of them are specific to beneficiaries of public financing for this kind of investment, others are related to the purchase or restoration of a second residence in rural areas (in La Rioja) and yet others devoted to “young” people investment in the purchase or restoration of their home. There is also a tax credit referring to the renting of the family home.

5. Donations. There some tax credits that apply to donations, however they are of little importance. They focus mainly on donations related with cultural and historic heritage of different regions, but there is also a tax credit for donations to international development associations and another for donations to environmental/ecologist associations.

6. Rehabilitation or preservation of historic heritage. In this case some regions reward the investment efforts to the preservation and recovery of historic heritage.

7. Miscellaneous. This group includes two different tax credits such as the Madrid tax credit related with the fiscal burden due to the “Spanish Civil War compensations” and the tax credit for labour income established in Extremadura that tries to reinforce the role of the specific labour allowances included in the State regulation of the tax.

With regard to these seven groups of tax credits, the regulatory power of regions also includes the requirements to be eligible for them, the limits of these tax credits and special rules for the case of joint filing. When these questions are not regulated by the Autonomous Region, State regulation applies.

2. The data and the analysis of regional income tax policy

Having described the regulatory power exercised by the different regions, we shall now show interesting results obtained from the database.

The database we have used is the 2002 Sample of Taxpayers³. In this database, the data comes from real Income Tax forms referred to the year 2002. The sample includes almost one million observations representative of families of 15 of the 17 Spanish Autonomous Regions. Any observation includes the information filed in each box of the tax form but those than can affect the privacy of the taxpayer. This quite remarkable amount of information allows us to analyse independently the effects of Spanish Income Tax in each Region. So that, we can replicate the filing process of each taxpayer in the sample. Previously, we have applied the regional tax schedule to the “disposable income” (DI) to see if our results are consistent with those coming from the sample.

The 2002 Sample of Taxpayers data offers rather interesting information. We will first present some general results, and focus afterwards on the amount and weight of the regional tax credits. In Table 1 we present our results for the main magnitudes of the income tax at regional level.

³ There is a very good description of this database in Picos, F. et al. (2005).

Table 1: Main magnitudes of the Spanish income tax (thousand €)

Autonomous Region	Tax payers		Income				Income Tax (NPT)			
	Number	%	Total thousand €	%	Mean €	%	Total thousand €	%	Mean €	%
ANDALUSIA	2,485,418	16%	35,255,175	14%	14,185	86%	5,092,511	12%	2,049	74%
ARAGÓN	589,452	4%	9,318,399	4%	15,809	96%	1,476,675	3%	2,505	90%
ASTURIAS	458,267	3%	7,288,210	3%	15,904	96%	1,155,898	3%	2,522	91%
BALEARIC ISLANDS	371,186	2%	6,157,829	2%	16,590	100%	1,068,248	2%	2,878	104%
CANARY ISLANDS	586,508	4%	9,299,084	4%	15,855	96%	1,499,364	3%	2,556	92%
CANTABRIA	226,956	1%	3,659,032	1%	16,122	97%	584,324	1%	2,575	93%
CASTILLA LEÓN	1,040,944	7%	15,163,047	6%	14,567	88%	2,214,064	5%	2,127	77%
CASTILLA MANCHA	667,622	4%	8,741,676	3%	13,094	79%	1,155,701	3%	1,731	62%
CATALONIA	2,888,449	19%	53,908,137	21%	18,663	113%	9,785,647	23%	3,388	122%
VALENCIA	1,786,586	12%	26,656,769	10%	14,921	90%	4,151,429	10%	2,324	84%
EXTREMADURA	370,340	2%	4,454,069	2%	12,027	73%	573,757	1%	1,549	56%
GALICIA	986,197	6%	13,845,059	5%	14,039	85%	2,130,039	5%	2,160	78%
MADRID	2,418,701	16%	53,308,691	21%	22,040	133%	10,816,221	25%	4,472	161%
MURCIA	429,582	3%	6,149,349	2%	14,315	87%	872,073	2%	2,030	73%
RIOJA	133,275	1%	2,047,743	1%	15,365	93%	315,179	1%	2,365	85%
CEUTA-MELILLA	40,351	0%	849,291	0%	21,048	127%	76,739	0%	1,902	69%
OTHERS	1,547	0%	29,196	0%	18,873	114%	5,946	0%	3,844	138%
TOTAL	15,481,378	100%	256,130,756	100%	16,544	100%	42,973,814	100%	2,776	100%

Source: own calculations from the 2002 Sample of Taxpayers

The information in Table 1 could be a picture of the composition of Spain and of the weight of different Autonomous Regions⁴. Taking into account the number of tax payers, in Spain there are four big regions: Catalonia (19% of total tax payers), Madrid (16%), Andalusia (16%) and Valencia (12%). Altogether, they account for more than 50% of total taxpayers. When considering income and income tax, Madrid and Catalonia are very similar in weight in terms of income (over 21%), and slightly different in terms of income tax (almost 25% in the case of Madrid, and almost 23% for Catalonia). The other two regions became average regions in terms of income and tax. Andalusia accounts for around 14% of income and 12% of income tax, and Valencia represents almost a 10% in both variables. The weight of the rest of regions is quite small, as we can see in the table. From the analysis of mean income, we just can deduct which are the richest regions: Madrid and Catalonia, the only two above average. On the contrary, the poorest regions are Extremadura and Castilla-La Mancha. Differences in income are exacerbated when we consider the net payable tax, due to the progressivity of the income tax system.

⁴ In this picture we have excluded Basque Country and Navarra, because they have their own income tax, so they are not represented in the database used in this work. On the other hand, data from Ceuta-Melilla and Others could seem surprising. Income obtained in Ceuta-Melilla benefits from a tax credit that reduces the net payable tax to 50%. On the other hand, 'Others' include some special situations (diplomat, non-residents, etc.) that prevent their inclusion in any particular region.

Table 2: Income tax decomposition (thousand of € and percentage)

Autonomous Region	GPT (1)	NPT (2)	TTC (3)	RTC (4)	% (4)/(3)	n (5)	Losses (6)	% (6)/(4)
ANDALUSIA	5,680,267	5,092,511	587,756	0	0%	0	0	-
ARAGÓN	1,630,276	1,476,675	153,600	201	0.1%	1	30	14.8%
ASTURIAS	1,257,596	1,155,898	101,700	0	0%	0	0	-
BALEARIC ISLANDS	1,173,760	1,068,248	105,512	2,150	2.0%	6	273	12.7%
CANARY ISLANDS	1,693,408	1,499,364	194,044	0	0%	0	0	-
CANTABRIA	643,947	584,324	59,623	0	0%	0	0	-
CASTILLA LEÓN	2,475,835	2,214,064	261,771	3,787	1.4%	4	241	6.4%
CASTILLA MANCHA	1,307,330	1,155,701	151,629	3,842	2.5%	6	633	16.5%
CATALONIA	10,742,586	9,785,647	956,939	10,486	1.1%	2	510	4.9%
VALENCIA	4,622,243	4,151,429	470,815	9,701	2.1%	11	995	10.3%
EXTREMADURA	644,837	573,757	71,080	9,596	13.5%	4	2,989	31.1%
GALICIA	2,311,225	2,130,039	181,186	7,068	3.9%	3	983	13.9%
MADRID	11,784,408	10,816,221	968,187	8,116	0.8%	5	740	9.1%
MURCIA	977,879	872,073	105,806	1,126	1.1%	3	65	5.8%
RIOJA	354,904	315,179	39,726	927	2.3%	3	45	4.8%
CEUTA-MELILLA	169,826	76,739	93,087	0	0%	0	0	-
OTHERS	6,317	5,946	371	0	0%	0	0	-
TOTAL	47,476,643	42,973,814	4,502,832	57,000	1.3%	48	7,502	13.2%

GPT: Gross Payable Tax
NPT: Net Payable Tax
TTC: Total Tax Credits (from the State and the Regions)

RTC: Regional Tax Credits
n: number of regional tax credits
Losses: regional tax credits not used due to insufficient GPT

Source: own calculations from the 2002 Sample of Taxpayers

In Table 2 we collect the main results derived from the application of income tax regulation, as we have explained above, in Graph 1. The tax credits in Spain are complex: the most important tax credit is one related with the acquisition of the family home. This tax credit splits into two asymmetric parts: the state tax credit and the regional tax credit. The state has another group of tax credits (mainly donations, expenses related to heritage, entrepreneurship investments, and income obtained in Ceuta-Melilla), and each region has the power to introduce their own tax credits. Total tax credits represent around 10% of Gross Payable Tax. But regional tax credits are the real objective of this research. As a matter of fact, we must state that the importance of regional tax credits is quite small: 57 million euros (1.3% of total tax credits). Nevertheless, to reach this modest result, the regional income tax system needs 48 tax credits.

The power to enact tax credits has been used in quite different ways by regions. In fact, four regions did not introduce any tax credit in 2002: Andalusia, Asturias, Canary Islands and Cantabria. Conversely, other regional governments, like Valencia, make an intensive use of tax credits. Nevertheless, the number of tax credits is not related with their amount. For instance, Valencia needs eleven tax credits to reach 2.1% of total tax credits, while Extremadura gets a far better result (13.5%) with only four tax credits. The reason of these

differences is that some tax credits have been scarcely used, because the requirements are far from the real economic conditions of tax payers⁵.

Besides, there are several tax credits that tax payers can not effectively apply because they have not enough gross payable tax to be compensated with these tax credits, due to none regional tax credit is refundable. This fact can be seen in column (6) and in the next one, which shows the ratio between lost tax credits and effective tax credits. According this data, 13% of tax credits are lost because people do not have enough gross payable tax to make use of them. But surely these results underestimate reality⁶.

The information collected in the two last tables can be summarized in one idea, expected for those who know the Spanish income tax, but that could not be expressed so clearly until now: the regional income tax policy is very complex, very costly, but no so 'influential'. There are fifteen regional governments who could write or modify each year a law concerning this regional tax credits; the AEAT (Agencia Estatal de Administración Tributaria, the central agency responsible of the Spanish income tax) has to implement these tax credits in the income tax form, in the software used by tax payers to calculate their tax bill, and so on. But all of this work only affects to 474.666 people (slightly more than 3% of taxpayers), representing an average tax credit of 120€per eligible taxpayer.

3. Methodology

We have carried out a microsimulation exercise on Spanish Income Tax for the year 2002, focusing on the effects of this tax on the taxpayers of different regions. This is a static model, in which changes in taxpayers' behaviour have not been included.

We have designed a program in STATA that reproduce the process of income tax calculation for every taxpayer in the database. As we have real collection data, we can compare these data with the results derived from every proposal we could make.

⁵ For example, in Valencia there is a tax credit related with home acquisition by young people. It requires to be less than 35 years old, an annual income below 12.380€, and so on. Under these circumstances, there are very few people who can afford to buy a house.

⁶ Some tax payers do not calculate nor include these tax credits because they know they do not take any advantage from doing it. In other paper, using the European Community Household Panel (ECHP), we estimate that 69% of tax credits are lost due to the lack of gross payable tax (see Fuenmayor, Granell and Higón (2005)).

Our hypothesis is that regional governments have used their power to introduce tax credits just as a ‘smokescreen’, as the real tax savings obtained by taxpayers from these tax benefits are really small. From the point of view of efficiency, we consider that the tax would be quite simpler if we remove those tax credits and just change the regional tax schedule in order to maintain the same level of tax collection.

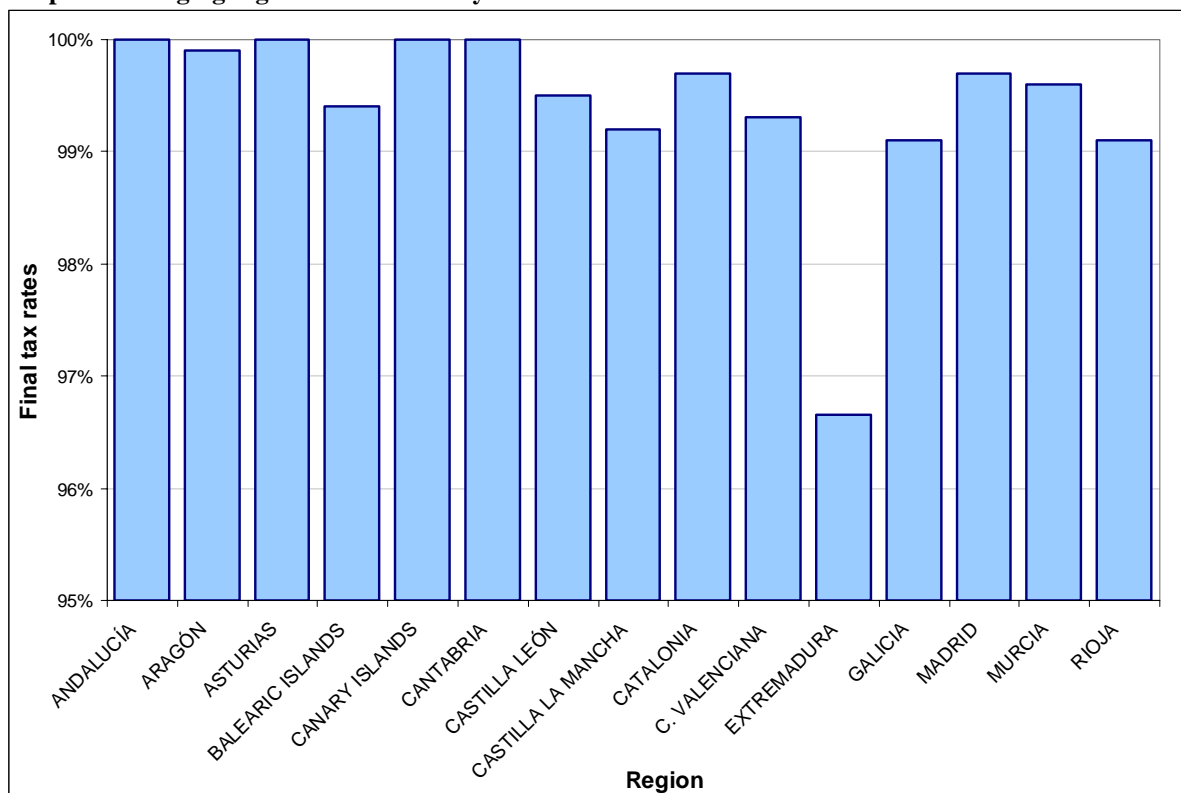
In the first part of the exercise, we have simulated the elimination of all regional tax credits. The immediate effect derived from this measure will be the increase of tax collection, so we have to change something in order to maintain the tax collection of each region constant. The increase in tax collection derived from taking out tax credits can be compensated with different measures: increasing deductions, allowances, but our option has been to modify the tax schedule, multiplying each tax bracket by a constant (t) less than one. With this option the tax structure remain unchanged and then we can separately assess the real effect of taking out tax credits. In the second part of the exercise, as stated, we have designed an iteration process that calculate the differences in tax collection per region, and change t until the differences are really small.

As a consequence, our proposal is to change the regional income tax rates, so we have defined an iterative module in STATA in order to see the amount of tax schedule decrease needed to compensate taxpayers for the removal of the tax credits. Obviously, as progressivity and inequality are also important questions, we have also checked the progressivity and inequality effects and the winners/losers derived from this alternative policy.

4. General results

As we have stated, the microsimulation exercise consists on simulate what change in the tax rates would be necessary to obtain the same results in terms of tax collection, if we suppress all the regional tax credits. Doing so, we will simplify considerably the income tax system, *cæteris paribus*.

Graph 2: Changing regional tax credits by a tax reduction



The results of these changes are presented in Graph 2. As a matter of fact, the decrease in tax rates has been, in general, quite small (around 1%). This results give us a measure of the differentials in regional policy around the income tax. On the whole, as we can see in the Graph 2, the effect of regional tax credit is very small in regions that have enacted some of them. This policy could be substituted by a slightly change in the regional tax brackets, multiplying the regional tax scale by a constant superior to 0.99, meaning very small changes in the tax rates, as we can see with the minimum and the maximum regional tax rates. Only one region, Extremadura, has a relevant tax credit policy, given that we must reduce tax rates almost in 3.35% to reach the same result that in present situation.

In this new scenario we will find losers but also winners, taking into account the previous situation. These results are summarized in Table 3. This table shows the number of people who lose or win if we change the present regional income tax by a simpler change in the tax rates. A priori, we could state that people who have not apply for a regional tax credit will win with the proposed change. People who have applied for tax credits could win, lose o remain unchanged. We can observe that there are more winners than losers in every decile and in the whole distribution. Nevertheless, we found winners and losers in all the

distribution deciles, so we can account for the differences in net terms. Taking into account the net gains and losses (last column in the upper half of Table 3), only the richest people, placed in the two higher deciles, have net gains. This could give us an idea for the redistribution effect of the change proposed in this simulation.

At a regional level, we also find more people who win than people who lose, but the former win less (an average of 6€) than lose the latter (107€), due to the small number of tax payers who benefits from regional tax credits. Differences in percentage between regions show the different importance of regional tax credits.

Table 3: Winners and losers from changes in regional tax policy

Decile	Winners				Losers				Difference € (1) – (2)
	Number	%	Mean	Income € (1)	Number	%	Mean	Income € (2)	
1	7,186	0%	2	12,553	254	0%	51	12,944	-391
2	341,244	22%	0	124,803	12,105	1%	52	632,323	-507,520
3	610,572	39%	1	528,173	44,030	3%	70	3,081,584	-2,553,410
4	790,202	51%	1	1,027,333	62,294	4%	80	5,010,169	-3,982,836
5	946,271	61%	2	1,674,744	58,707	4%	100	5,870,874	-4,196,130
6	1,045,468	68%	3	2,659,422	55,054	4%	116	6,376,619	-3,717,198
7	1,092,345	71%	4	3,888,802	63,294	4%	124	7,842,580	-3,953,777
8	1,123,515	73%	5	5,526,989	62,404	4%	135	8,396,998	-2,870,009
9	1,136,141	73%	7	8,198,796	39,769	3%	124	4,941,015	3,257,781
10	1,202,844	78%	20	23,514,255	41,041	3%	120	4,924,443	18,589,812
TOTAL	8,295,787	54%	6	47,155,870	438,952	3%	107	47,089,548	66,322

Autonomous Region	Winners				Losers				Difference € (1) – (2)
	Number	%	Mean	Income € (1)	Number	%	Mean	Income € (2)	
ANDALUSIA	0	0%	0	0	0	0%	0	0	0
ARAGÓN	394,459	67%	0	173,344	442	0%	387	170,695	2,649
ASTURIAS	0	0%	0	0	0	0%	0	0	0
BALEARIC ISLANDS	254,431	69%	7	1,820,128	34,800	9%	52	1,817,738	2,390
CANARY ISLANDS	0	0%	0	0	0	0%	0	0	0
CANTABRIA	0	0%	0	0	0	0%	0	0	0
CASTILLA LEÓN	708,771	68%	5	3,349,810	29,291	3%	114	3,347,709	2,101
CASTILLA MANCHA	410,720	62%	7	3,077,204	28,511	4%	108	3,077,569	-365
CATALONIA	2,231,800	77%	4	9,718,315	61,127	2%	159	9,703,151	15,164
VALENCIA	1,201,295	67%	7	8,246,691	94,877	5%	87	8,236,759	9,932
EXTREMADURA	175,144	47%	34	6,017,089	58,291	16%	103	6,015,849	1,240
GALICIA	662,225	67%	9	5,747,438	37,557	4%	153	5,745,807	1,631
MADRID	1,882,409	78%	4	7,158,126	72,367	3%	99	7,127,925	30,201
MURCIA	284,212	66%	4	1,020,283	11,724	3%	87	1,019,102	1,182
RIOJA	90,320	68%	9	827,440	9,966	7%	83	827,242	198
CEUTA-MELILLA	0	0%	0	0	0	0%	0	0	0
OTHERS	0	0%	0	0	0	0%	0	0	0
TOTAL	8,295,787	54%	6	47,155,870	438,952	3%	107	47,089,548	66,322

Source: own calculations from the 2002 Sample of Taxpayers

5. Inequality, redistribution and progressivity analysis

Having analysed the effects of regional tax credits on the tax actually paid, we are now going to analyse their distributive effects.

To assess the global redistributive effects of a progressive income tax, we are going to use Reynolds-Smolensky Index⁷. We calculate this index using the Gini Index on before tax income (G_b) and on after tax income (G_a).

$$RS = G_b - G_a \quad (1)$$

To measure the degree of progressivity of the income tax, in terms of the distance from proportionality, we use Kakwani Index of tax progressivity:⁸

$$K = C_t - G_b \quad (2)$$

where C_t is the concentration coefficient for tax liabilities. If K is positive (negative) tax burdens are more (less) unequally distributed than income before taxes. Thus a positive (negative) value of K implies a progressive (regressive) tax and a value equal to zero implies a proportional tax.

Kakwani decomposed RS into three parts:

$$RS = K \frac{t}{1-t} - D \quad (3)$$

where t represents the effective average tax rate, D is the re-ranking index (also called the Atkinson-Plotnick index of re-ranking) and shows how re-ranking individuals affects the redistributive effect, and K is the Kakwani Index of progressivity.

The results have been split up by Autonomous Region and are shown below in Table 4 and Table 5. In the first one we have summarize Gini index before and after tax, the concentration coefficient and the mean tax rate for both scenarios (present tax and proposed reform). In short, the main conclusion from this table is that differences in Gini indexes are

⁷ Reynolds-Smolensky (1977).

⁸ Kakwani (1977).

In Table 5, we can see that Reynolds-Smolensky Index is positive in all regions, both for the present tax and the proposed reform. This means that the income tax has a positive redistributive effect. Nevertheless, this index is far from being homogenous in Spain, its values ranging between more than 0.05 (in Madrid) and the figures of Extremadura (less than 0.04). The reason is that Madrid is richer and their income is less equally distributed, so the income tax effect is stronger. Regarding progressivity, Kakwani index shows tax progressivity in all regions, however the dispersion is very important. The effective mean tax rate also varies per region. This reflects the effects of differences in per capita income between regions. Finally, the value of the re-ranking effect is not very high.

But, what is the effect of the proposed reform, regarding the initial situation? This can be observed in the last two columns. Generally speaking, our proposal implies a worsening, both in progressivity terms and in distributive terms. In other words, replacing present regional tax credits with a reduction in tax rates reduces the progressivity and the redistributive effect of income tax. In general, these effects are negligible, due to the small amount of regional tax credits, with the outstanding exception of Extremadura. In this region changes are negatives too, but remarkable: distribution worsens almost 3% and progressivity falls 2.26%. In other words, Extremadura is the only region that has applied an effective income tax policy, with obvious distributive and progressive effects.

Obviously, the results of the proposed reform simplifies regional income tax considerably, but at the expense of a slightly decrease of progressivity and redistribution. Without doubt we could find other proposals that overcomes these negative consequences: changing the structure of tax rates, increasing allowances, and so on. This will be the next step of our research.

6. Conclusions

We have described the Spanish income tax, centring in its regional components. We use a new database: the 2002 Sample of Taxpayers, which offers a great amount of information. This information allows us to make a detailed description of the consequences of regional tax policies.

The Spanish income tax makes possible that Autonomous Regions introduce tax credits in order to benefit people who live in these regions. The majority of regions have used this power to enact pieces of legislation, introducing a wide variety of tax credits. Despite the large number of tax credits, very few people could benefit from them, and those eligible do not obtain an important reduction in their tax bill. We have to bear in mind that the costs of this regional income policy must be financed by regional governments. The result is that regional authorities frequently introduce tax credits with a lot of requirements, which narrow the possibility of being eligible.

The present policy is very costly, in terms of design, administration and compliance. Because of that, we propose a micro-simulation exercise consisting in dropping all regional tax credits and in a tax rates reduction to maintain the same tax collection. This alternative policy considerably simplifies the income tax, but has a slight negative effect on income tax progressivity and distribution of income. We will further investigate some changes in our proposal in order to improve its results.

Table 6: Spanish “Autonomous Region” tax credits.

Promotion of births.	Regions	Type of Tax Credit	Life together	Income/Wealth
Child Birth or Child Adoption	ARA ² CYL ² CAT ² GAL ¹ MAD ¹ LAR ² VAL ²	F	Yes	¹ Yes ² No
Protection of families with children.				
Child care (children under 3 years old)	CLM GAL	F	Yes	Yes
Large families	IBS GAL VAL	F	Yes	No
Fostering of minors	MAD	F	Yes	Yes
Unpaid domestic work	VAL	F	No	Yes
Protection of the elderly and the disabled.				
Fostering of disabled people (over 65 years old)	MAD	F	Yes	Yes
Care of relatives over 70 years old	CLM	F	Yes	Yes
Care of disabled relatives	CLM	F	Yes	Yes
Disabled taxpayers	CLM ¹ VAL ²	F	No	¹ Yes ² No
Taxpayers over 65 years old	IBS ¹ VAL ²	F	No	¹ Yes ² No
Home Investment				
	CC.AA.	Type of Tax Credit	Other limits	Income/Wealth
Acquisition of the family home (young people)	EXT MUR LAR VAL	% Q	Yes	Yes
Acquisition. o restoration 2 ^a residence in rural areas	LAR	% Q	Yes	No
For receiving public financing to purchase/restore family home	VAL	F	No	Yes
Family home rental	VAL	% Q	Yes	Yes
Donations				
To International Development Associations	CLM	%	No	Yes
To promote local culture	CAT	%	No	Yes
To some Foundations	MAD	%	No	Yes
With environmental/ecological purposes	VAL	%	No	Yes
Historic heritage donations	EXT VAL	% Q	No	No
Restoration or preservation of heritage				
Expenses related to heritage	EXT CYL MUR VAL	% Q	Yes	No
Miscellaneous				
Labour tax credit	EXT	F	No	Yes
Fiscal burdens related with Spanish Civil War Compensation	MAD	%	No	Yes

Regions: ARA, Aragon; CAT, Catalonia; CLM, Castilla-La Mancha; CYL, Castilla-Leon; EXT, Extremadura; GAL, Galicia; IBS, Balearic Islands; MAD, Madrid; MUR, Murcia; LAR, La Rioja; VAL, Valencia.

Type of Tax Credit: Fixed amount (F); percentage of the expenditure/investment (%); percentage but with a maximum fixed amount (%Q).

Income/Wealth: Refers to the existence of income or wealth related limits for this tax credit.

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