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**TAX EVASION ACROSS ITALY:
RATIONAL NONCOMPLIANCE
OR INADEQUATE CIVIC CONCERN**

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Tax Evasion across Italy: Rational Noncompliance or Inadequate Civic Concern

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Abstract. Tax evasion may have an important geographical dimension, even after having taken into account those structural features of areas - such as the prevalence of small firms and/or informal activities - that may impinge on the possibility of evading taxes. This is the case of Italy, as we will see in a while. Clearly, the geographical dimension of evasion requires different explanations than those usually forwarded by the theory. The paper suggests a general explanation that focuses on the structure of territorial government. More specifically, taxes administered by the central government are - in democratic systems - not differentiated by regions. Poor areas may prefer a combination of lower taxes and lower levels of public services at both the central and the local level. This is especially true, when, as in the usual case, income and wealth levels differ among the various areas and the demand for publicly provided goods is correlated to these levels. But the use of nationally uniform tax schedules imposes a welfare burden on relatively poorer areas. While the tax rates of local taxes can be adjusted to local preferences, centrally tolerated tax evasion may be tacitly accepted as a compensation for the welfare loss deriving from too high centrally set tax rates. Evidence about geographical tax evasion in Italy is not inconsistent with this explanation.

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1. Introduction

This is a paper on geographical tax evasion. This is a rather neglected area of research, given that most studies of tax evasion offer analyses from the point of view of personal and/or functional distribution of income. The underlying assumption of such studies is that opportunities for evasion are correlated to the size of income and/or its distribution across various categories, while geographical location likely plays a minor role, at least as concerns national taxes. The significance of the geographical dimension of tax evasion may sometimes prove substantial, however, even after having taken into account those structural features - such as the prevalence of small firms and/or informal or underground activities - which may impinge upon the possibility for tax evasion. This is so in Italy, as will soon be shown.

The geographical dimension of tax evasion requires different explanations from those usually forwarded by the theory. One explanation, frequently provided by political scientists emphasizes the importance of differences in political systems. For example, evasion of taxes may be a manifestation of inadequate civic concern. Civic concern in turn, may vary from area to area according, for example, to social capital, as Putnam (1993) has tried to explain with reference to Italy.

Within economic theory, instead, tax evasion is simply considered a consequence of regional differences in the efficiency with which resources are used in both the public and private sectors. Yet, if this were the case, higher evasion would always be correlated with relative backwardness. A slightly different explanation points to differences in the quality of public services provided in the various areas: tax evasion is higher where the quality of services is lower. In other words, in these areas tax evasion is a compensating behavior related to the level of services provided.

This paper suggests a third, more general explanation which focuses on the structure of territorial government. More specifically, taxes administered by the central government are

- in democratic systems - not differentiated by region¹. Poor areas may prefer a combination of lower taxes and lower levels of public services at both the central and the local levels. This is especially true when, as usually happens, the income and wealth levels differ among the various areas, and the demand for publicly provided goods is correlated to these levels. However, the use of uniform tax schedules nation-wide imposes a welfare burden on relatively poorer areas. While the tax rates of local taxes can be adjusted to local preferences, centrally tolerated tax evasion may be tacitly accepted as a form of compensation for the welfare loss deriving from tax rates set too high by the central authorities. This is the main argument developed here.

The paper is divided into five sections. The second section presents some data concerning tax evasion and the quality of public services according to region. In the third section, we provide a simple analytical framework for our main argument, by using a simple model of demand for publicly provided goods. Section four presents empirical evidence on tax evasion, local tax pressure and demand and supply for a publicly provided private good that is consistent with our hypothesis. The results are summarized in the conclusions.

2. Facts and possible reasons for geographical tax evasion in Italy

Tax evasion is a widespread activity in Italy, but it is not evenly distributed geographically. A number of studies indicate that evasion is higher in Southern regions. As shown in Table 1, which reports the results of the two seminal contributions to this literature, the index of evasion for the two most important centrally administered taxes, the personal income tax (PIT) and the value-added tax (VAT)² is higher from the Abruzzo region downwards. The per capita gross product of these same regions is lower than the Italian average: thus, the intensity of evasion of central taxes is negatively correlated to income level, that is, to the relative economic backwardness of Italian regions.

Tax evasion may be even stronger than data implies. Actually, the very existence of tax evasion is sufficient reason for underestimating the product. A widely accepted opinion, supported by occasional but consistent research, maintains that the so-called underground or black economy is larger in the South than elsewhere in Italy.

Table 1 - Tax Evasion by Region in Italy

Region	Personal Income Tax		Value Added Tax	
	Evasion Index*	Evaded tax (000 liras)	Evasion Index**	Evaded tax (000 liras)
Piemonte	0,36	1,346	0.34	54
Valle d'Aosta	0.39	2,161	0.39	97
Lombardia	0.38	1,622	0.33	68
Trentino A.A.	0.43	1,938	0.35	72
Veneto	0.42	1,704	0.41	74
Friuli V.G.	0.40	1,640	0.36	64
Liguria	0.40	1,698	0.34	54
Emilia Romagna	0.38	1,663	0.39	75
Toscana	0.39	1,573	0.38	77
Umbria	0.41	1,442	0.54	110
Marche	0.44	1,924	0.52	91
Lazio	0.38	1,499	0.42	79
Abruzzo	0.49	1,948	0.58	87
Molise	0.52	1,765	0.64	74
Campania	0.53	1,785	0.65	71
Basilicata	0.50	1,583	0.64	69
Puglia	0.50	1,628	0.58	68
Calabria	0.57	1,913	0.63	66
Sicilia	0.54	1,878	0.56	70
Sardegna	0.47	1,722	0.46	65
National total	0.42	1,624	0.43	71

* Taxed income/taxable income

** Taxed value added /taxable value

As mentioned in the introduction, higher tax evasion may simply be the result of relative backwardness. That is, poorer regions are generally less efficient in tax administration as well as in other activities. This is in fact one of the main reasons why they are poor. Thus, tax evasion is but one manifestation of the general inefficiency associated to relative backwardness.

However, there is some evidence, reported in Table 2, which is not entirely consistent with this explanation. These data show that some indicators of efficiency of centrally provided services are not inversely correlated with income. The index reported in Column 1 averages three distinct indicators of efficiency: the delay in payment of pensions, in the delivery of postal services and in access to the telephone system, respectively. No clear geographical pattern prevails³. The two remaining Columns report two synthetic indicators of the performances of regional and local governments, as calculated by Putnam (1993) in his well-known book on social capital in Italy. Here a well defined regional pattern emerges: the indexes decrease as we move from richer to relatively poorer areas.

Table 2 - Indices of Government Performances.

Region	Central Government	Regional Governments	Local Governments
Piemonte	1,55	0,98	0,62
Valle d'Aosta	-0,47	0,26	1,29
Lombardia	-0,89	0,49	0,41
Trentino A.A.	-1,59	0,49	0,03
Veneto	-0,19	0,49	0,22
Friuli V.G.	1,19	0,75	0,69
Liguria	-2,06	0,49	0,59
Emilia Romagna	0,89	1,70	1,34
Toscana	-0,23	0,98	0,83
Umbria	0,27	1,44	1,01
Marche	1,30	0,00	0,69
Lazio	1,42	0,23	-0,15
Abruzzo	0,39	-0,49	-0,29
Molise	-0,19	-0,69	-1,83
Campania	-1,07	-1,67	-1,51
Basilicata	0,01	-0,98	-0,67
Puglia	0,64	-0,46	-0,01
Calabria	-0,48	-1,87	-2,30
Sicilia	0,31	-1,18	-0,57
Sardegna	-0,81	-0,98	-0,39

Sources: Cassese (1993) for the first column and Putnam (1994) for the other two.

We will return to these indexes later. What is at stake at present is the efficiency of centrally provided services and the provisional conclusion that evasion of central taxes cannot

immediately be attributed to the higher inefficiency of the central government in poorer regions.

A more general alternative is presented in the following sections. It considers to welfare losses stemming from centralization of government and ways to correct them.

3. The demand for publicly provided services and welfare losses from centralization

Let us introduce the standard model for the demand of a publicly provided good, g . There are two regions, A e B , with homogeneous preferences inside. A is richer, that is, it has a higher per capita income, y , than B , and it also has a higher voting population ($N_A > N_B$). This difference is sufficient to ensure that A 's preferences will translate into national choices, when a decision concerning to the whole country has to be taken. The citizens' preferences over g and a composite private good, x , are represented by:

$$u = u(g) + v(x). \quad (1)$$

The total cost of supplying the publicly provided good is:

$$C = c(N, \gamma),$$

where $c'_N \geq 0$ and $c'_\gamma > 0$, while $p = c/N$ is the per capita average cost of one unit of g . For the sake of simplicity we suppose that the production of g is subjected to constant returns to scale, but that cost depends on the degree of rivalry, γ , and on population, N . More specifically, for pure public goods, where γ is equal to zero, the average per capita cost decreases with the population. For private goods, where γ is equal to 1, the total cost is proportional to the population and the average cost is independent of the population. Thus, $p_N \leq 0$.

Concerning rivalry, we simply assume that p increases with γ , thus $p_\gamma > 0$. The cost of providing g is financed through a proportional income tax (or a bundle of taxes producing a

total revenue that is proportional to income, y). Total tax payments by individual voters are thus ay , where a is the tax rate, chosen by the median voter. For individuals, the budget constraint is:

$$x = y - ay \quad (2)$$

while the government budget constraint is $cg = aY$, where Y is the total aggregate income.

Letting $t = Y/N$ be the per capita tax base, the budget constraint becomes:

$$pg = at. \quad (3)$$

Thus, individuals maximize their utility, U , by choosing the level of g , subject to (2) and (3) which can then combined into a single constraint:

$$x = y - (pg/t) y.$$

The first order condition is:

$$u'(g) = v'(x) py/t, \quad (4)$$

which states that each voter maximizes his/her utility when the marginal rate of substitution between the public and the private good equates his/her tax price.

The second order condition is:

$$Z = u''(g) + v''(x)(py/t)^2 < 0 \quad (5)$$

Differentiating (4) with respect to y , N and γ , we can see how each voter's level of g is influenced by his income, the size of the population and the rivalry in consumption. Thus, we can make some inferences about the costs and benefits of the centralization of the provision.

$$g_y = 1/Z[v''(x)py/t(1-a) + v'(x)p/t] \quad (6)$$

$$g_N = 1/Z[v'(x)y/tp_n - v''(x)(y/t)^2 pgp_n] \geq 0 \quad (7)$$

$$g_\gamma = 1/Z[v'(x)y/t p\gamma - v''(x)4y/t^2 pgp\gamma] < 0 \quad (8)$$

Equation (6) says that in the case of a publicly provided good, even if this good is a normal one, there is no guarantee that the optimal quantity demanded will increase with

income. This is due to the fact that in the case of a publicly provided good, the price – which is each individual's share of the total cost – will increase with the quantity. We thus face the usual problem regarding prevalence of the income versus the substitution effect.

Equation (7) has neater results. The demand for publicly provided goods increases with the number of citizens: this is the case of non-rival goods, where the cost can be shared among a greater number of beneficiaries. Alternatively, the demand may be unrelated to N . This is the case of pure private goods, where there are no gains to be had from cost sharing. The results of equation (8) are even neater: the demand is negatively correlated to rivalry, since the latter implies higher costs. Let us now turn to the implications of these results for the welfare gains and losses stemming from centralization/decentralization of services. We shall bear in mind the Italian situation, where Northern-central regions are much richer and more populated than those in the South. In other words, the group of the former regions form region A in this model and Southern regions make up region B. Region A dictates the national choices. Conventional wisdom, derived from experience, says that rich regions have a higher demand for public goods than poor regions. But to have the demand for g increasing with income, we need to make an explicit although reasonable specific assumption .

In figure 1, the voters' choices are illustrated, in terms of a and g . The budget constraint is represented by the straight line from the origin, while the preferences are represented by indifference curves whose levels increase as it moves (the two arguments have an opposite impact on utility). The slope is:

$$R(y,a,g) = da/dg \quad U = U = u'(g) / v'(x)$$

The slope of the budget constraint is:

$$da/dg = p/t$$

At the optimum the slopes of the two curves are equal. Stating that quantity demanded is increasing with income requires that R vary monotonically with income which cannot be derived from:

$$R_y = -u'(y)/v'(x)^2 [v'(x) + v''(1 - a)]$$

We have thus to assume that $R_y > 0$ for any level of y . One approach, used in the literature [see Gans and Smart (1996) and Bork (1998)], is to assume that preferences for public goods and taxes satisfy the condition of a single point of intersection. It implies that the indifference curve of a rich individual crosses that of a poor only once and from below, as figure 1 shows.

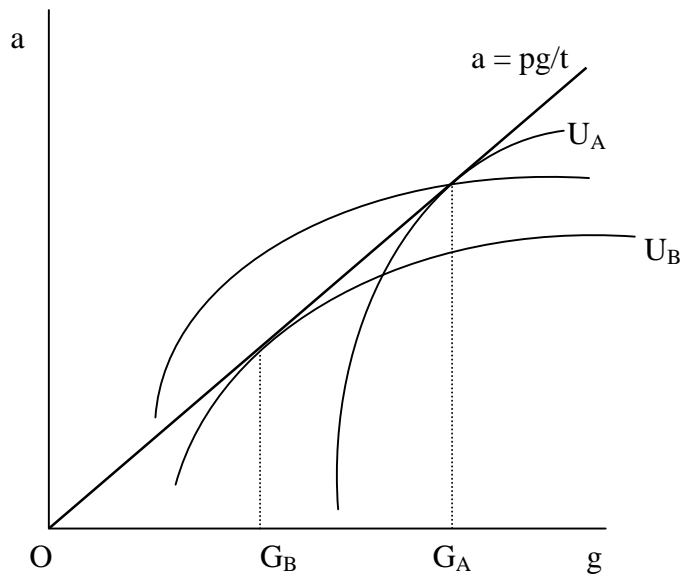


Fig. 1 - Voters' choices for a public good

Thus U_A type curves are those of the rich voters of A region, while U_B type curves represent the preferences of the poor, region B , voters. If g is provided at the central level, the median voter will be a resident of region A and the quantity G_B is produced. The optimal quantity for region B is G_B , and the distance between the two U_B type indifference curves reported in the figure measures the welfare loss. This is the traditional result found in the

literature of fiscal federalism: centralization brings a welfare loss for those areas that have different preferences from those of the national median voter.

This result does not change when the publicly provided good becomes less public, that is, when γ increases. As shown by equation (8), when γ increases the demand for g decreases. This is a general result. The same equation shows, however, that if $v_B'(x) > v_A'(x)$ and $v_A'(x) = v_A'(x)$ (a quite plausible assumption) then the decrease in demand is higher for the poor region. This case is shown graphically in figure 2, where the shift to a non-pure public good is illustrated by darker curves. Here the increase in γ is shown by a higher value of a , since more rivalry implies that the total cost is divided by a number of beneficiaries smaller than N .

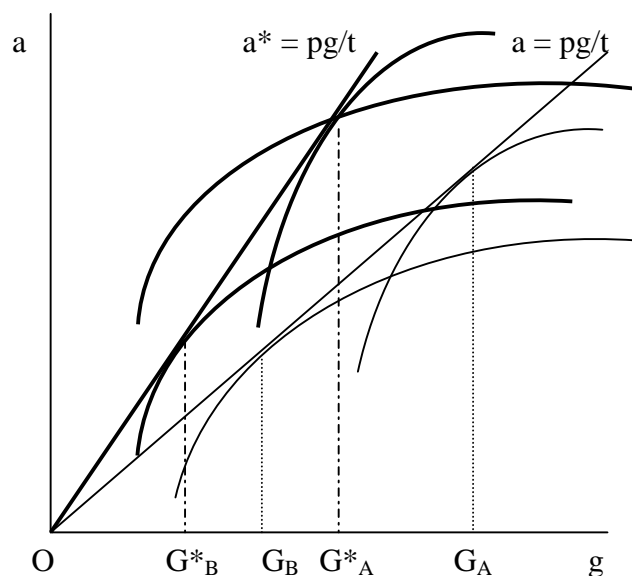


Fig. 2 - Voters' choices for a public good in rich and poor regions

The decrease in the optimal quantity (from G_B to G_B^* and from G_A to G_A^*) is smaller for the rich region. This result holds even when publicly provided goods are pure private goods, financed by a proportional tax on income. The fact that consumption by poor regions is

subsidized by the rich regions does not imply that the former prefer the quantity chosen by the latter. This is because the tax price may be simply too high for them.

We can now summarize the results of this exercise, bearing in mind that by hypothesis there are no increasing returns in the production of the goods.

For public goods:

- i) when in a centralized system the quantity and its associated tax price are chosen by the rich region, the poor region will suffer a welfare loss;
- ii) the rich region always prefers centralization when it can choose quantity and tax price, since it decreases the per capita cost.

For rival goods:

- i') decentralization may be preferred by the poor region, when the tax price is too high;
- ii') decentralization may obviously be preferred by the rich region, when its tax share is higher than its share of the total cost. Obviously, more definite results could be obtained by making more specific hypotheses about the cost functions.

4. Tax evasion as a tacitly agreed compensating device

We can now derive the implications of the exercise for the problem at hand. The first implication is that the poor region will ask – and in a competitive democracy will receive - compensation for its welfare loss due to centralization in the provision of public goods. As suggested by the literature on fiscal federalism, this compensation may take the form of a transfer paid to its citizens, or to its local government. This compensation may also, in alternative or in conjunction, take the form of some tacitly permitted evasion of central taxes. In other words, the central government recognizes that the tax burden on the poor region is too high and prefers partially ignore tax compliance to other form of more explicit, legal but political more burdensome, form of compensation. The evidence about evasion of central

taxes by regions presented at the beginning of this paper is, at least, not inconsistent with this argument. Alternatively, the same phenomenon may be explained by higher enforcement costs for tax agencies. And this is surely the case when tax evasion is successfully carried out through illegal (and sometimes criminal) behavior.

The second implication is that there may be a consensus among both rich and poor regions about the decentralization of the provision of non-pure public goods. This means, for example, that for such broad functions as education and health, in the real world we should observe a very frequent splitting of responsibilities between the central and the local level. The central level will retain those responsibilities which have a public good content, while local governments will be responsible for the provision of rival goods. This is a quite common pattern in traditionally highly centralized systems, such as the Italian one. In the education sector, for example, local governments are responsible for the provision of services that can be tailored to local preferences, such as extra curriculum activities, financial support to disadvantaged students, teaching support to disabled pupils, and the building and maintenance of school premises. If this is true, we should observe lower burdens for local taxes in the poor regions (and lower direct participation of citizens in the production of local services, which is a phenomenon, however, more difficult to confirm). The data reported in Table 3 on local tax pressure by region is not inconsistent with this argument. When we exclude special statute regions that have a particular and extremely favorable financing system, the share of GDP absorbed by local taxes decreases almost continuously with the GDP level. We said that this evidence is not inconsistent with our argument: more detailed statements would require taking into account the impact of intergovernmental transfers on local tax decisions.

Table 3 - Local Government Tax Pressure by Region, 1995.

	Local government tax pressure	GDP Index
Piemonte	1.80	111
Valle d'Aosta*	1.25	130
Lombardia	1.92	128
Trentino*	1.20	124
Veneto	1.75	119
Friuli V.G.*	1.51	119
Liguria	2.35	116
Emilia	1.95	128
Toscana	2.03	109
Umbria	1.56	97
Marche	1.47	103
Lazio	2.21	115
Abruzzo	1.51	88
Molise	1.32	75
Campania	1.70	65
Basilicata	1.53	70
Puglia	1.05	65
Calabria	1.05	58
Sicilia*	1.20	67
Sardegna*	1.30	77
National Total	1.76	100

* Special statute regions

Sources: Istat (1997a), Istat (1998).

5. Empirical evidence

To test for the model outlined in the previous sections, we perform a series of non-parametric tests. The first one considers the correlation between per capita GDP and tax evasion, both for personal income and value-added tax (respectively PIT and VAT, thereafter). Typically, in this kind of tests the null hypothesis states that there is no correlation between the analysed variables, whereas the alternative maintains that there is some kind of correlation. We test the null hypothesis using Kendall's rank correlation (τ), which indicates the association between variables from any bivariate population (Siegel, 1956). The series are ranked starting from the lowest to the highest level, and when a tie occurs, the tied observations are given the average of the ranks they would have received if there were no ties.

Availability of data is an important problem in this study. As will be evident in the proceeding of this Section, data on tax evasion, tax collection and healthcare are updated more slowly than data on GDP. We have tried to use the most recent data in each application, but still there are marked differences in the years of availability. Data for per-capita GDP are taken from Svimez (2000) and refer to 1998. Indeed, during the nineties there have been minor changes in the relative position of each region with respect to the others, so there are no problems of coherence with the data. The PIT and VAT evasion indices are calculated as the ratio between assessed and taxable income, and assessed and taxable value added, respectively. In this case we have used the following alternative:

H_0 : There is no significant correlation between per capita GDP and tax evasion.

H_1 : There is a significant negative correlation between these variables.

The value of τ is quite similar in both cases, -0.645 for income tax and -0.638 for value-added tax. To test for their significance, a one-tail test is used, because negative correlation is anticipated. For a number of observations greater than ten, the τ is *de facto* distributed as a standardised normal. The correspondent z-values associated to τ are -3.981 and -3.938, respectively. The critical value that corresponds to the 99.995 percent confidence level is -3.891. Since the calculated z-value lies outside the acceptance region, we can reject the null hypothesis of no correlation and accept the alternative one of negative correlation. This provides first evidence in favour of the model.

Table 4 – Correlation between per capita GDP and PIT and VAT evasion indices

Regions	Per-capita GDP	Rank	PIT Evasion Index	Rank	VAT Evasion Index	Rank
Calabria	19.511	1	0.57	20	0.63	17
Campania	21.599	2	0.53	18	0.65	20
Sicilia	21.905	3	0.54	19	0.56	14
Basilicata	22.810	4	0.50	15.5	0.64	18.5
Puglia	23.408	5	0.50	15.5	0.58	15.5
Sardegna	25.444	6	0.47	13	0.46	11
Molise	25.991	7	0.52	17	0.64	18.5
Abruzzo	30.476	8	0.49	14	0.58	15.5
Umbria	32.916	9	0.41	9	0.54	13
Marche	36.401	10	0.44	12	0.52	12
Toscana	37.603	11	0.39	5.5	0.38	6
Lazio	38.940	12	0.38	3	0.42	10
Piemonte	39.997	13	0.36	1	0.34	2.5
Liguria	40.917	14	0.40	7.5	0.34	2.5
Veneto	42.808	15	0.42	10	0.41	9
Friuli V.G.	43.350	16	0.40	7.5	0.36	5
Lombardia	44.763	17	0.38	3	0.33	1
Trentino A.A.	44.875	18	0.43	11	0.35	4
Emilia Rom.	44.971	19	0.38	3	0.39	7.5
Valle d'Aosta	46.166	20	0.39	5.5	0.39	7.5

As pointed out earlier, an implication of the model is that when regions have the opportunity to set taxes on a local basis, the poor ones will choose a lower level of autonomous taxation with respect to the rich ones. To explore the evidence on this implication we calculate the local government taxation to GDP ratio for each region, and then performed a Kendall test with the following hypotheses:

H_0 : There is no significant correlation between per capita GDP and local government tax/GDP ratio.

H_1 : There is a significant positive correlation between these variables.

Table 5 – Correlation between per capita GDP and local tax pressure

Regions	Per-capita GDP Rank	Local gov. tax/GDP	Rank (1)	Rank (2)
Calabria	1	1.05	1.5	1.5
Campania	2	1.70	13	8
Sicilia	3	1.20	2.5	-
Basilicata	4	1.05	1.5	1.5
Puglia	5	1.53	11	6
Sardegna	6	1.30	6	-
Molise	7	1.32	7	3
Abruzzo	8	1.51	9.5	5
Umbria	9	1.56	12	7
Marche	10	1.47	6	4
Toscana	11	2.03	18	13
Lazio	12	2.21	19	14
Piemonte	13	1.80	15	10
Liguria	14	2.35	20	15
Veneto	15	1.75	14	9
Friuli V.G.	16	1.51	9.5	-
Lombardia	17	1.92	1.6	11
Trentino A.A.	18	1.20	2.5	-
Emilia Rom.	19	1.95	17	12
Valle d'Aosta	20	1.25	5	-

The results are slightly different whether we include special statute regions or not. In the first case the value of τ is 0.308, and the associated z-value is 1.901. Again, a one-tail test is considered because positive correlation is expected in this case. Since the computed z-value lies in the critical region defined by the critical value equal to 1.645, we can reject the null hypothesis and accept the alternative one at the 95 percent confidence level. The results are stronger if we exclude from the sample the special statute regions that take advantage of high transfers from the central government and then are able to set local taxes at a lower rate. In this case we can reject the null hypothesis at the 99.5 percent confidence level, since τ is equal to 0.555, the z-value is 2.891, and the critical value corresponding to that confidence level is 2.576. These results give further support to the rational noncompliance model.

As a last test we look for evidence in support to the fact that a lower level of publicly provided goods in poorer regions is matched by an higher level of private provision for the same kind of goods. To do this we analyse healthcare. The hypotheses we test are:

H_0 : There is no significant correlation between per-capita GDP and supply and demand for private healthcare.

H_1 : There is a significant negative correlation between these variables.

As indicators for supply we use two different measures: the percentage of places in private hospital over their total number of both private and public in each region, and the number of places in private hospitals per 1000 habitants in each region. Data refer to 1991 and are taken from Istat (1999). We find that for the first measure, τ is equal to -0.36 and the z-value is -2.22. Since the critical value is equal to -1.960 for the one-tail test, the null hypothesis is rejected, and the alternative accepted with a 97.5% confidence level. For the second measure τ is equal to -0.241 and the z-value is -1.488. The one-tail test rejects the null hypothesis at 90% confidence level, because the critical value is equal to -1.282.

As indicator of demand for healthcare we employ an Emigration Index, calculated for 1994 and expressed in percentage, that gives the number of in-patients residents in each region that are treated in other regions (Istat, 1997b). We expect that in poorer regions people tend to emigrate more in search for better healthcare services than in richer ones. Then the hypotheses are the same as before. We find that the null hypothesis is rejected at 90% confidence level, and then the alternative is accepted, since τ is equal to -0.238, and the z-value is -1.469. Recall that for a one-tail test the critical value is -1.645.

Table 6 – Correlation between per capita GDP and supply and demand for private healthcare

Regions	Per-capita GDP Rank	Private/Total percentage	Rank	Per 1000 habitants private places	Rank	Emigration Index (%)	Rank
Calabria	1	25.3	18	1.5	16	11.0	17
Campania	2	29.4	19	1.5	16	7.6	13
Sicilia	3	15.1	8	0.8	7	6.5	10.5
Basilicata	4	23.8	17	1.5	16	20.8	20
Puglia	5	20.5	13	1.5	16	5.8	8
Sardegna	6	17.1	12	1	9	3.3	1
Molise	7	9.8	6	0.5	2.5	20.5	19
Abruzzo	8	21.0	14.5	1.7	19	8.1	15
Umbria	9	7.2	2	0.5	2.5	6.6	12
Marche	10	16.6	10	1.2	11.5	6.5	10.5
Toscana	11	12.9	7	0.9	8	4.5	5.5
Lazio	12	42.5	20	3.4	20	5.4	7
Piemonte	13	21.0	14.5	1.2	11.5	8.0	14
Liguria	14	9.5	5	0.7	5.5	6.2	9
Veneto	15	8.8	4	0.7	5.5	4.2	4
Friuli V.G.	16	7.5	3	0.6	4	3.6	2
Lombardia	17	21.6	16	1.5	16	4.0	3
Trentino A.A.	18	16.9	11	1.3	13	9.1	16
Emilia Rom.	19	15.8	9	1.1	10	4.5	5.5
Valle d'Aosta	20	0.0	1	0.0	1	14.5	18

5. Conclusions

We have explored a profile of tax evasion that is rather neglected in the literature, namely its geographical profile. We started from the observation that in Italy evasion of central taxes is negatively correlated to per capita regional gross product. We then discussed some possible explanations for this phenomenon, after which we advanced the hypothesis that tax evasion may be understood as a tacit compensation for a higher than optimal central tax burden in the less developed regions. A first corollary of this argument is that poor regions should also choose a lower level of pressure for their own taxes. Evidence we have provided is non-inconsistent with our arguments. Further evidence supporting these arguments is provided in table 4, which shows the degree of citizens' satisfaction for three publicly

provided goods in the different main geographical subdivisions of the country. All levels of governments are involved, since pensions are paid by the central government, while regional governments provide health care. Contrary to what is perceived as the prevailing opinion concerning the quality of public services in Italy, the degree of satisfaction seems to be quite high. It declines moving from the Northern the Southern regions, where the quality of public services is generally considered to be much lower. But it remains solidly positive implying that adjustment in both the central and the local tax burden may indeed have some impact.

Table 7 - Degree of citizens' satisfaction for publicly provided services by main areas, 1990

Individuals declaring to be satisfied with: (%)			
Areas	Payment of pensions	Administrative local services	Hospital care services
North-West	68.7	91.4	91.0
North-East	65.0	94.0	91.6
Central regions	55.3	84.0	84.4
Southern regions	52.5	77.5	80.2
Main islands	52.1	74.6	80.2
National Average	59.8	85.5	86.8

Source: Cassese (1993).

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Notes

¹ Different legal tax rates are widely used, however, for growth inducing policies but are restricted to taxes on businesses and on payrolls.

² VAT evasion is computed at the retail stage only, that is it refers to a tax base that should be rather homogenous among regions.

³ Positive values show situations above (that is, more efficient than) the national average and the converse for negative values.