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12 April 2012

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April 24, 2012

Abstract: Using a simple model of income redistribution, we examine the effect of income inequality on redistribution in the presence of tax evasion. Our results suggest that in the presence of tax evasion, a political equilibrium may be characterized by inefficiently high tax rate, i.e. higher than the revenue maximizing tax rates. Moreover in contrast to the conventional wisdom higher income inequality may be associated with lower redistribution. This is because in countries with weak institutional framework political parties may increase the probability of winning the elections by choosing policies that expand the number of tax evading individuals.

JEL: H10, H23, H26
Keywords: redistribution, inequality, tax evasion

Acknowledgments: We wish to thank Thomas Moutos and George Economides for many helpful comments and suggestions. We have also benefited from comments by Nikos Benos, Michael Chletsos, Anastasia Litina, Nikos Mylonides, Dimitris Panagiotou, Nikos Tsakiris as well as the participants at the seminar series of the University of Ioannina Any remaining errors are ours.

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En général, l'art du gouvernement consiste à prendre le plus d'argent qu'on peut à une grande partie des citoyens, pour le donner à une autre partie.

In general, the art of government consists in taking as much money as possible from one party of the citizens to give to the other.

Voltaire.

1. Introduction

For long economists and political scientists alike, have been trying to answer what determines the extent and the nature of government redistributive programs. Following the seminal contributions of Romer (1975), Roberts (1977) and Meltzer and Richard (1981), income redistribution is portrayed as the voting outcome in elections with office motivated parties who seek the support of the median voter. In all these models, as long as the income of the median voter is below the average income, the median voter will support policies that impose a positive tax rate on income accompanied with positive per capita transfers. Moreover there will be more redistribution the lower median income is relative to mean income (the higher is the inequality).

However, income transfers are not the only instrument for income redistribution. In poor institutional environments the government may opt for other, inefficient forms of redistribution. For example Alesina et al. (2000; 2001) argue that politicians may use public employment as a disguised redistributive policy. Skouras and Christodoulakis (2011) present detailed empirical evidence that electoral cycles are associated with increased corruption and tax evasion. Similar electoral cycles are also documented in the enforcement of labour regulation (Ronconi, 2009).

In the present paper we explore theoretically the idea that the government uses tax evasion in order to redistribute income. We build a rather standard model of redistribution in the presence of tax evasion (see e.g. Roine 2006; Borck, 2009;

Traxler, 2009) where all individuals are assumed to receive a per capita transfer by the government, whereas only a share of the population pays taxes and the other are able to evade them by incurring a fixed cost. This assumption guarantees that (i) richer individuals are evading, whereas poor people pay taxes and most importantly (ii) tax evaders are the net recipients of government redistribution. In this setting, preferences are not necessarily single- peaked nor satisfy the single crossing property (Borck, 2009; Traxler, 2009). Therefore, the "identity" of the decisive voter may be unknown (and changing) and median voter theorem may not hold. In order to address this issue we assume that voting over the tax rate is probabilistic and this allows us to derive the political equilibrium level of taxation.

Under these assumptions (i.e., tax evasion by the rich and probabilistic voting) our model produces a number of interesting results. First, our model predicts that the equilibrium tax rate may be above the revenue maximizing tax rate. The economy therefore operates on the negatively slopped part of a Laffer (type) curve.[1] This is because, in our model, an increase in the tax rate, apart from raising revenues to finance spending, also increases the number of tax evaders. Hence the office motivated parties propose a higher tax- than the one maximizing revenues- in order to increase the welfare of those individuals that marginally choose to evade taxes when facing a higher tax rate. Then the government uses tax evasion as a means of redistributing income to tax evading individuals which in turns increases the probability of winning the elections.

[1] In principle, the theoretical justification for a Laffer curve, rests on the changes in factor supplies due to changes on the tax rate. Laffer's (1986) original argument suggested that when tax rates become higher agents withdraw from the labor market. Alternatively agents may withdraw from the labor force and enter the black market (Heijman and van Ophem, 2005) or disclose their income from the tax authorities (Sanyal et al., 2000). In both cases a non- monotonic relationship between tax rates and revenues is expected, thus we refer to it as a Laffer curve effect.

Second, we show that there can be a non linear relationship between inequality and redistribution. In this respect the two papers more closely related to ours are Rodriguez (2004) and De Freitas (2012). In the former a higher inequality is associated with higher rent seeking activities for tax exemptions, which ultimately leads voters to demand lower tax rates so as to mitigate the rent seeking activities. On the other hand, in De Freitas (2012) an increase in inequality is associated with an increase in informal sector activities, which erodes the tax base and may lead to lower redistribution. In our model, the driving force behind this non- linear effect is government's ability to raise voter's welfare by increasing tax evasion. When inequality increases, less individuals are at the end of the income distribution, which ceteris paribus implies a decline in the share of evaders. Therefore the ability of the government to use tax evasion as a means of redistribution is deteriorated. In this case it is optimal for the government to reduce the tax rate. If the economy operates on the positively (resp. negatively) sloped side of the Laffer curve this leads to lower (resp. higher) spending. For some parameter values of inequality this effect dominates the standard redistribution effect (Meltzer and Richard, 1981), which ultimately generates the non-linear relationship in our model.

Our findings are consistent with a number of recent papers (Roine, 2006; Borck, 2009; Traxler, 2009; Traxler, 2012) which show that in the presence of tax evasion, the tax system may be less redistributive than if everyone reported truthfully. Moreover if the tax evasion technology is such that the rich evade more than the poor, these models predict redistribution from the middle class towards both the poor and the rich. In addition our results are in accordance with a number of empirical papers that either fail to provide a robust relationship or find a negative association between income inequality and redistribution (Perotti, 1996; Rodriguez, 1999; Bassett et al., 1999; Moene and Wallerstein, 2003).

Finally according to our results, the equilibrium tax rate is more likely to be greater than the revenue maximizing one, in economies characterized by greater equality. This is because at high levels of equality, political parties may gain more votes by redistributing income through tax evasion. This latter result is consistent with the fact that countries with low income inequality are more likely to end up in the negatively sloped side of the Laffer curve (see from example Trabandt and Uhlig, 2011; 2012).[2]

The rest of the paper is organized as follows. Section 2 presents the basic model and shows how individuals choose whether to evade or not, as well as the effects of tax evasion on the level of revenues. In Section 3, we explain how the political equilibrium is determined and derive the equilibrium conditions. In Section 4, the comparative statics of the endogenous variables with respect to changes in inequality are presented. As the results are in general ambiguous, we present the results of our numerical analysis. Finally Section 5 concludes.

2. The model

Consider an economy populated by a fixed number of risk neutral individuals, N.[3] Individuals differ in their income endowment, with e_i standing for household's i income. We assume that there is a continuum of individuals, $i \in [0,1]$, and that their

[2]For example Tradanbt and Uhlig (2011) find that from the sample of OECD countires only Denmark and Sweden- both having very low pre-tax and transfers gini coefficients- are on the negatively slopped side of the Laffer curve.

[3] A more elaborate model would include risk averse individuals and endogenous labor supply. These features however add further non- linearities in the first order conditions, making the comparative statics intractable and causing the model to break down for a wide range of parameter values. Thus for the sake of clarity and keeping in line with the models of Roine (2006) and Borck (2009) we assume risk neutrality and exogenous income.

income endowment is distributed according to a Pareto Probability Distribution Function (PDF).

$$f(e) = a\frac{b^a}{e^{a+1}}, \text{ with } \alpha>1$$

Parameter b stands for the lowest income in the population, and parameter a determines the shape of the distribution- with higher values of a implying greater equality. The Pareto distribution, in addition to being easy to work with, is a relatively good approximation of actual income distributions. Empirical estimates of the value of a range between 1.5 and 3.0 (see, Creedy (1977)).[4] The mean of the Pareto distribution is equal to

$$\mu = \frac{ab}{a-1}$$

The government levies a proportional tax on income, at a tax rate t, in order to finance per capita income transfers g. Therefore, the government redistributes income by taxing proportionally individual income and paying a fixed amount g to each i, irrespective of their income (reported or true). As we allow individuals to evade taxes, the net beneficiaries of government spending are those that their tax payment based on their reported income is below the per capita transfers. As long as the distribution of reported incomes is different from the distribution of true incomes, redistribution does not necessarily take place from the rich to poor.

Following Roine (2006) we assume that individuals may conceal a part ψ of their income from the tax authorities. This is achieved by incurring a fixed cost equal to θ. However, there is a fixed probability π that evaders will be audited and their income will be revealed. In this case this they pay a fine proportional to the total amount

[4] These values correspond to a Gini coefficient in the range between 0.2 and 0.5.

evaded, given by fe_it, where $f>1$. With risk- neutral individuals, this is equivalent to assuming that by paying a fixed cost θ, i can evade the payment of a share $\psi(1-\pi)f$ of his tax payment. Hence, even though we model risky tax evasion, the assumption of risk- neutrality results to equivalent results to a model of legal tax avoidance.

2.1 Individual decisions

Individuals in this economy face two decisions. A binary choice of whether they will evade or not and a political decision of how to vote for the tax rate and the consequent level of redistribution. The above imply that the utility of a tax evading individual i can be written as:

$$U_i^E = e_i - (1-\psi)e_i t - \theta - \pi f \psi e_i t + g \tag{1}$$

whereas the utility of an individual which truthfully declares its income is

$$U_i^{NE} = e_i(1-t) + g \tag{2}$$

Then individual i will choose to evade taxes, if the utility derived under tax evasion is greater than the utility by honestly declaring its income, i.e. if is greater than , i.e.

$$e_i > \frac{\theta}{\psi(1-\pi f)t}$$

Letting if ε denote the level of income for which it holds that

$$\varepsilon = \frac{\theta}{\psi(1-\pi f)t} \tag{3}$$

it follows that only individuals with $e_i>\varepsilon$ will choose to tax evade ψ part of their income, and individuals with $e_i<\varepsilon$ will declare their full income and pay full taxes. In other words in the present model, the tax evading individuals are those top of the income distribution.[5]

Equation reveals that ceteris- paribus, lower cost of tax evasion- i.e. lower θ-, or higher share of taxes evaded- i.e. higher $\psi(1-\pi)f$- results into a lower threshold income for tax evasions ε and consequently to more tax evasion. Moreover a higher tax rate t –which is endogenously determined in the political equilibrium- also results into a higher share of tax evaders in total population.

2.2 Government

The government receives income tax revenues and fines from those caught tax evading. We assume that it uses all these revenues in order to finance per capita transfers, g.

Then using the PDF of the Pareto distribution, the total tax receipts of the government are equal to:

$$\mathrm{T} = t\mu N - t\psi(1-\pi f)N\int_{\varepsilon}^{\infty} e\left(a\frac{b^a}{e^{a+1}}\right)de \tag{4}$$

Equation (4) states that total collected taxes are equal to total revenues in the absence of tax evasion (i.e. $t\mu N$) minus the net (i.e. excluding fines) total amount evaded.

[5] This is consistent with the empirical evidence; studies on the effect on tax evasion on income inequality show that the share of tax evasion is positively correlated with income (see for example Pashardes and Polycarpou, 2008; Matsaganis and Flevotomou, 2010). Moreover the results of the 1999 World Values Survey show that the share of respondents disagreeing with the statement "cheating on taxes if you have the chance is never justified" is greater for individuals at high than low income levels. For example, in Greece 69.9% of high income respondents disagreed with the statement (compared to the 57.4% for the low income respondents), whereas for Italy the corresponding figures were 48.2% and 40.2% and for the Japan 19.5% and 14% respectively.

According to (4) higher θ, π and f, i.e. higher cost of tax evasion, higher probability of detection and higher penalty are associated with higher revenue.

The above equation, presents a Laffer- type relationship between the tax rate and total government revenues. Typically the Laffer curve represents a non- linear effect between the tax rate and total revenues due to changes in factor supplies (see for example Minford and Ashton, 1991). Here the non- linear effect is derived from the incentives for tax evasion: increases on t, changes the level of income for which the individual is indifferent between evading and truthfully declaring its income, i.e. ε, inducing an increase in tax evading individuals (see also Sanyal et al., 2000). In other words a higher tax increases the share of individuals for which tax evasion has a positive net benefit. Thus the overall effect of a change in t is ambiguous: on the hand a higher t results into higher revenues, by increasing the share of taxes received, whereas on the other hand a higher t reduces declared income, reducing overall revenues.

Given the setup of our model, equation is concave in t. We can therefore derive a unique revenue maximizing tax rate, by simply differentiating with respect to t

$$t^{\max} = \frac{\theta}{b}\psi^{\frac{a}{1-a}}(1-\pi f)^{\frac{a}{1-a}}a^{\frac{1}{1-a}} \tag{5}$$

As all tax revenues are used to finance per capita transfers g, the government budget constraint can be written as:

$$g = t\mu - t^{a}\psi^{a}(1-\pi f)^{a}\frac{ab^{a}}{(a-1)}\theta^{1-a} \tag{6}$$

3. Political equilibrium

In the above general setting, preferences are not in general single- peaked nor satisfy the single crossing property. The rationale for this is as follows: consider an individual with income above the average. As long as the tax rate (t) is so low that the individual does not evade, his utility is an decreasing function of t. This is because individual's tax payment is larger than the per capita transfers he receives. Thus, he votes against higher taxes. However as t rises, there exists a threshold above which the individual chooses to evade taxes. For t above that threshold, utility is increasing in t, due to the fact that the individual is a net beneficiary of government spending (and as long as $t<t^{max}$). This is because the individual no longer pay taxes whereas at the same time receives positive per capita transfers. In this case, he votes for higher taxation.

When preferences are not single- peaked nor satisfy the single crossing property the "identity" of the decisive voter may be unknown (and changing) and median voter theorem does not hold.[6] To overcome this problem, we assume that taxes are chosen though probabilistic voting.[7] The political mechanism works as follows: before any individual choices are made (i.e. before individuals choose whether to tax evade or not), there is voting among the population about the level of t and g. In these elections, two political parties compete over winning the elections, by proposing a tax rate t. Then the level of g follows directly from equation (6). After the elections the winning party (government) implements the proposed policy.

[6] In order to obtain political equilibrium, a number of solutions has been provided, for example Roine (2006) develops a numerical method which allows him to explore the political equilibria and Borck (2009) proceeds by complete characterization of the voting outcomes.

[7] Probabilistic voting has been used extensively when the median voter thereom does not hold. For example De La Croix and Doepke (2009) use a probabilistic voting equilibrium when preferences are not single peaked nor satisfy the single crossing property, whereas Lin et al. (1999) and Adams (1999) assume probabilistic vote in a multi-party model of electoral competition.

We assume that each individual votes with a positive, but not necessarily equal to 1, probability the party's proposal that gives him the highest utility.[8] Under probabilistic voting each party seeks to maximize its expected vote share given the expected vote share of the other party. The maximization problem of each party implements the maximum of the following weighted Benthamite social welfare function (Muller, 2003, p. 253- 259):

$$W = k\int_b^{\varepsilon}\left[e_i(1-t)+g\right]\frac{ab^a}{e_i^{a+1}}de + \int_{\varepsilon}^{\infty}\left[\left[e_i(1-t)-\theta-\psi(1-\pi f)e_i t\right]+g\right]\frac{ab^a}{e_i^{a+1}}de \tag{7}$$

where k is the relative weight of the non- evaders in the utility of the government.[9] Maximizing subject to the government budget constraint , with respect to t, yields the following first order condition

$$t^{-1}\theta + \frac{(1+a)b}{a-1}(1-k) - 2\frac{b^a t^{a-1}}{a-1}\psi^a(1-\pi f)^a\theta^{1-a} + (1-k)\frac{\theta}{\psi(1-\pi f)t^2} + \\ + \frac{(a-2)\theta\left[\psi\pi f(1-k)-(1-\psi-k\psi)\right]}{(a-1)\psi(1-\pi f)t} = 0 \tag{8}$$

The solution to equation (8) gives the equilibrium tax rate, denoted as t^*. Then equation (6) can be directly used to determine g.

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[8] The idea behind probabilistic voting is that voters care about non- observable variables to the policy choices, like ideology, voter turnout, character of the candidates, influence of campaign advertising etc. (see Coughlin, 1992; Hinich and Munger, 1997, p.171- 177).

[9] In the numerical results that follow we assume that $k<1$. This is necessary for a well defined solution that satisfies the second order conditions of the problem. This implies that the government places greater weight on the utility of the tax evaders, which however may be in equilibrium the majority of the population.

4. Results

4.1 The effect of inequality

As can be easily verified, equation (8) cannot be solved analytically for t^*, however it can be used to derive the comparative statics effect of changes in the (in)equality parameter a. Total differentiating (8), and solving it, yields, after some simplifications:

$$\frac{dt}{da}=\frac{\hat{t}\left[-2(1-k)b+\hat{\varepsilon}\left[\psi\pi f(1-k)-(1-\psi-k\psi)\right]+2\frac{\theta}{\hat{t}}\left(\frac{b}{\hat{\varepsilon}}\right)^{a}\left[\log\left(\frac{b}{\hat{\varepsilon}}\right)-(a-1)^{-1}\right]\right]}{\frac{(a-1)}{\hat{t}}\left[-\theta-2\theta\left(\frac{b}{\hat{\varepsilon}}\right)^{a}-2(1-k)\hat{\varepsilon}\right]-(a-2)\hat{\varepsilon}\left[\psi\pi f(1-k)-(1-\psi-k\psi)\right]} \qquad (9)$$

where hats above variables indicate the underlying equilibrium values of t and ε. From the second order conditions of the maximization problem, the denominator of (9) is negative. However the numerator of (9) can be either positive or negative depending on the underlying parameter values. In what follows we try to numerically determine the relationship between α and t, and to give the intuition behind our main result.

Since our interest lies on the effects of a—ceteris paribus—change in inequality, and changes in a affect the average ability (and income) in the economy, in the following figures we depict the relationship between inequality and the variables of interest for a given level of average ability (by changing the underlying value of b). Following the empirical estimates of Creedy (1977) we assumed that a takes values between *1.5* and *3.0*. The rest of the parameter values used in the following figures are $f=1.2$, $\pi=0.05$, $k=0.85$, $\mu=0.3$, $\psi=0.75$. These values guarantee that the second order conditions of the maximization problem are satisfied, all endogenous variables of the model satisfy the underlying non- negativity constraints and that the equilibrium share of tax evading households takes on realistic values (i.e. undeclared income up to around 50%, as in Schneider, 2005).[10]

The following figure depicts the relationship between *a* and the equilibrium tax rate *t** for θ=0.05 and *θ=0.04*. Moreover in each diagram we also depict revenue maximizing tax rate, denoted t^{max} and the per capita transfer *g* as a share of average income *μ* as these are crucial for understanding the intuition behind the underlying relationship between *a* and *t**

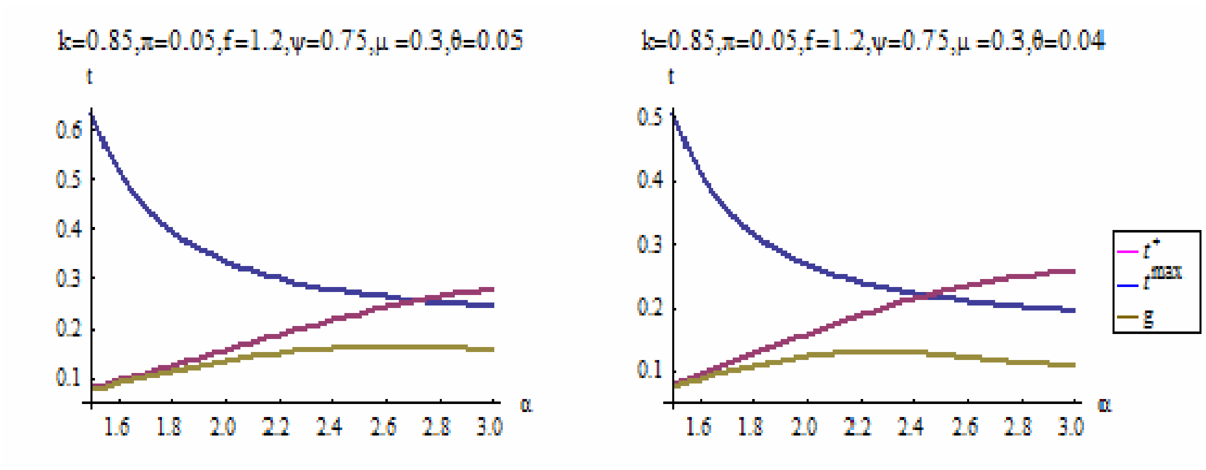

Figure 1: Relationship between *t* and *a*, for *θ=0.05* and *θ=0.04*

Our results can be summarized along the following lines. Firstly, the effect of a change in *a* on the per capita transfers (*g)* is non- linear. However, for a wide range of values for *α* (in the first diagram of Figure 1 for α<2.7 and in the second diagram for *α*<2.5) there is a negative association between income inequality and *g*. Therefore in the presence of tax evasion the standard positive relationship between income inequality and redistribution may be reversed.

The intuition behind the above relationship can be better understood using the properties of the probabilistic voting model. The political equilibrium is achieved when the marginal welfare of the two groups (evaders and non- evaders) is equalized

[10] See figure 2 below.

(Mueller, 2003). Consider then an increase in a. Due to the Pareto distribution, for given t, higher a implies an increase in the share of the tax evading households (more individuals with income above ε) and thus the marginal utility of the evaders becomes greater than the marginal utility of the non –evaders. Redistribution through tax evasion becomes less costly for the political parties. Therefore in the new equilibrium, political parties propose a higher t^* as this will increase the marginal welfare of the non- evaders and restore the equilibrium. When $t^* < t^{\max}$, the new equilibrium is reached by also lowering marginal welfare of evaders, whereas when $t^* > t^{\max}$, the marginal utility of the evaders is also increasing in t thus in the new equilibrium the marginal utility of the evaders is also higher.

4.2 Equilibrium tax rate above the revenue maximizing tax rate

Figure 1 also shed light to our main result. Specifically, there is a range of parameter values for which t^* is higher than t^{max}. In this case the government chooses a tax rate on the negatively sloped side of the Laffer curve, and increases in t^* are associated with falling per capita transfers. As can be verified, this occurs for relatively large values of α. The rationale for this is as follows: taxation redistributes income by changing (i) net transfers and (ii) the share of tax evading individuals. The probabilistic voting mechanism ensures that political parties equalize the marginal benefits of a higher t on (i) and (ii). For low values of α, parties increase the share of expected votes by redistributing between rich and poor. Whereas for high α (i.e. higher equality) the gains in terms of expected votes, are achieved through expanding the number of tax evading individuals rather than from redistributing income to the existing net recipients. Thus when α is high, parties propose a tax rate above the one that maximizes revenues.

The following figure presents the relationship between a and the share of evade income, for two levels of θ.

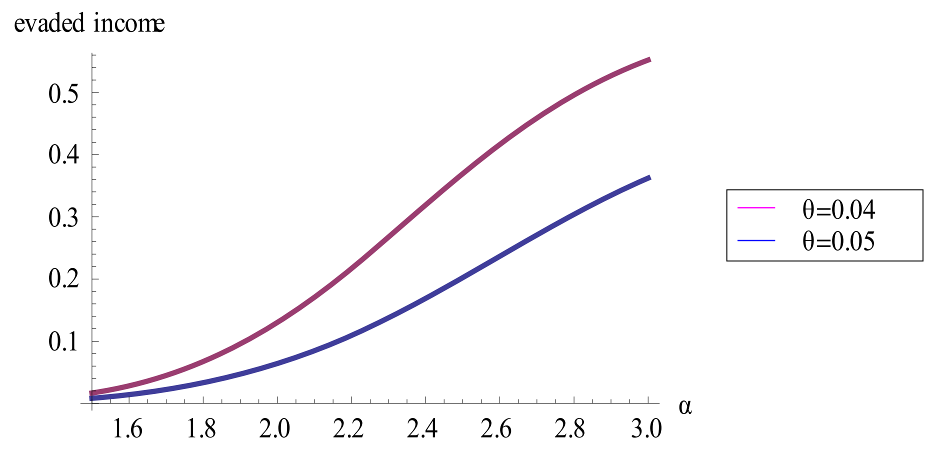

Figure 2: Relationship between evaded income and *a*, for *θ=0.05* and *θ=0.04*

When θ is lower, political parties try to expand the number of expected votes by proposing a t that increases the number of tax evaders. This is consistent with the result in Figure 1, where it is clear when θ is smaller the range of values of α, over which $t^{*}>t^{max}$ is greater.

5. Conclusions

Our findings suggest that in the presence of tax evasion, a government that cares enough for the tax evading population, may impose a greater tax rate than the one required to maximize revenue and that higher income inequality may be associated with lower redistribution. These results have important bearings both on a theoretical level as well as for policy recommendations. On the theoretical front, the present paper has shown that in the presence of tax evasion the relationship between inequality and government transfers may be reversed. Since the relevant empirical literature on the relationship between inequality and redistribution does not take into account the role of institutions, our analysis may provide a potential explanation for the lack of clear cut empirical evidence (see e.g. Perotti,1996; Bassett et al.,1999; Rodriguez,1999). Moreover it provides a clear testable hypothesis for empirical research: inequality may positively affect redistribution only in countries with low tax evasion, shadow economy and corruption. For the rest of the countries the Meltzler and Richard (1981) effect may be the exact opposite.

The conclusions of the present analysis can also be generalized further. Here we have shown that the government (or to be more specific the political parties running for office) uses taxation in order to increase tax evasion- which increases the welfare of a specific segment of the electorate- as a means to increase their expected vote share. In a more general setting this implies that the degree of tax evasion is not necessarily an exogenous constraint for the government. Rather it may be used by the politicians in order to get re- elected. In the present setting this leads even to a tax rate higher than the revenue maximizing tax rate. More generally it implies that policies implemented may be highly inefficient.

References

Adams, J. (1999). Multiparty spatial competition with probabilistic voting. *Public Choice* 99: 259-274.

Alesina, A., Baqir, R. and Easterly, W. (2000). Redistributive public employment. *Journal of Urban Economics* 48: 219-241.

Alesina, A., Danninger, S. and Rostagno, M. (2001). Redistribution through public employment: the case of Italy. *IMF Staff Papers* 48: 447- 473.

Bassett, W., Burkett, J. and Putterman, L. (2003). Income distribution, government transfers, and the problem of unequal influence. *European Journal of Political Economy* 15:207–28.

Besley, T. and Case, A. (2003). Political institutions and policy choices: evidence from the United States. *Journal of Economic Literature* 41: 7-73.

Borck, R. (2007). Voting, inequality and redistribution. *Journal of Economic Surveys* 21: 90-109.

Borck, R. (2009). Voting on redistribution with tax evasion. *Social Choice and Welfare* 32: 439-454.

Coughlin, Peter J. (1992). *Probabilistic Voting Theory*. Cambridge: Cambridge University Press.

Creedy, J. (1977). Pareto and the distribution of income. *Review of Income and Wealth* 23: 405–411.

De Freitas, J. (2012). Inequality, the politics of redistribution and the tax mix. *Public Choice* 151: 611-630.

De La Croix, D. and Doepke, M. (2009). To segregate or to integrate: education politics and democracy. *Review of Economic Studies* 76: 597-628.

Heijman ,W.J.M. and van Ophem J.A.C. (2005). Willingness to pay tax: The Laffer curve revisited for 12 OECD countries. *Journal of Socio- Economics* 34: 714-723.

Hinich, M. and Munger, M.C.(1997). *Analytical Politics*. Cambridge:Cambridge University Press.

Laffer, A.B. (1986). The Ellipse: an explanation of the Laffer curve in a two-factor model. In: Canton, V.A., Kadlec, C.W., Laffer, A.B. (Eds.), T*he Financial Analyst's Guide to Fiscal Policy*. Greenwood Press, New York, pp. 1–35.

Lin, T., Enelow, J.M., Dorussen, H. (1999). Equilibrium in multicandidate probabilistic spatial voting. *Public Choice* 98: 59-82

Matsaganis M. and Flevotomou M. (2010) *Distributional implications of tax evasion in Greece, GreeSE* Paper No31.

Meltzer, A. and Richard, S. (1981). A rational theory of the size of government. *Journal of Political Economy* 89: 914–927.

Minford, P. and Ashton, P. (1991). The poverty trap and the Laffer curve-What can the GHS tell us? *Oxford Economic Papers* 43: 245-79.

Moene, K. O. and Wallerstein, M. (2003). Earnings inequality and welfare spending: a disaggregated analysis. *World Politics* 55: 485- 516.

Mueller, D.C. (2003). *Public Choice III*. Cambridge: Cambridge University Press.

Pashardes, P. and Polycarpou, A. (2008), 'Income tax evasion, inequality and poverty' *Cyprus Economic Policy Review* 2: 37-49.

Perotti, R. (1996). Growth, income distribution, and democracy: what the data say. *Journal of Economic Growth* 1: 149-187.

Roberts, K. W. S. (1977). Voting over income tax schedules. *Journal of Public Economics* 8: 329-340.

Rodriguez, F. (1999). Does distributional skewness lead to redistribution? Evidence from the United States. *Economics and Politics* 11: 171-199.

Rodriguez, F. (2004). Inequality, redistribution and rent- seeking. *Economics and Politics* 16: 287- 320.

Roemer, J. E. (1998). Why the poor do not expropriate the rich: an old argument in new garb. *Journal of Public Economics* 70: 399-424.

Roine, J. (2006). The political economics of not paying taxes. *Public Choice*126:107-134.

Ronconi, L. (2009). Enforecement and compliance with labor regulations. *Industrial and Labor Relations Review* 63: article 9.

Sanyal, A., Gang, I. N. and Goswami, O. (2000). Corruption, tax evasion and the Laffer curve. *Public Choice* 105: 61-78.

Schneider, F. (2005). Shadow economies around the world: what do we really know? *European Journal of Political Economy* 21: 598-642.

Skouras, S. and Christodoulakis, N. (2011). Electoral misgovernance cycles: Evidence from wildfires and tax evasion in Greece and elsewhere. LSE, Hellenic Observatory, GreeSE Paper No 47.

Trabandt, M. and Uhlig, H. (2011). The Laffer curve revisited. Journal of Monetary Economics 58: 305-327.

Trabandt, M. and Uhlig, H. (2012). How Do Laffer Curves Differ Across Countries?, NBER Chapters, in: Fiscal Policy after the Financial Crisis National Bureau of Economic Research, Inc.

Traxler, C. (2009). Voting over taxes: the case of tax evasion. *Public Choice* 140: 43-58.

Traxler, C. (2012). Majority voting and the welfare implications of tax avoidance. *Journal of Public Economics* 96: 1-9.