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Political redistribution: The role of delegated lobbying and wage bargaining

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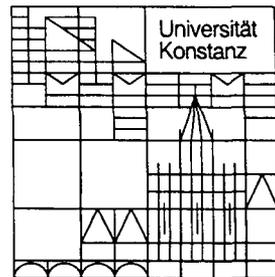
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Sonderforschungsbereich 178
„Internationalisierung der Wirtschaft“



Diskussionsbeiträge

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wissenschaften und Statistik

Hans Peter Grüner

**Political Redistribution:
The Role of Delegated Lobbying and
Wage Bargaining**

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**Political redistribution:
the role of delegated lobbying and wage bargaining**

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Keywords: Lobbying, taxation of wealth, wage bargaining.

Abstract: Traditional political economy models of taxation fail to explain why there is so little redistribution of wealth despite significant wealth inequalities. This is for two reasons: (1) The median voter approach cannot deal with a multidimensional policy-space and (2) wealth taxation affects well-organized and homogenous interest groups so that lobbying affects policy outcomes. In this paper the interaction of factor price bargaining and delegated tax-lobbying is studied. Two agents engage in lobbying: managers of large firms and trade union leaders. Low wealth taxation is the natural consequence of income maximization on the side of interest group leaders if (1) managers are in a position to appropriate part of the firms' revenues for themselves and (2) union members cannot monitor the lobbying activities of union leaders.

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1. Introduction

In recent literature on economic inequality and economic growth, the median voter model has been used to examine how growth and inequality evolve over time in a democracy [Perotti (1993), Persson and Tabellini (1994), Alesina and Rodrik (1991)]. These models derive a negative relationship between economic inequality and growth¹. High inequality means a low income- (or wealth) median voter who prefers high taxes. If inequality leads to high taxes and if taxation negatively affects growth, initial inequality reduces growth². Given the results of such median voter models and given the fact that there is a large concentration of physical capital in most countries, it is somewhat surprising that there is actually little redistribution of wealth. Wealth taxes account e.g. for only three percent of GDP in the OECD countries while income taxes are at about 14 percent of GDP. There are at least three prominent explanations for the puzzling fact that wealth- and inheritance taxes are so low:

1) The international mobility of capital makes wealth taxation unattractive for the median voter. Low capital taxation can be seen as the non-cooperative outcome of a game between countries [c.f. Koch and Schulze (1994)].

2) Some voters recognize that, after redistribution, they will be relatively wealthy individuals and that a second wave of redistribution will follow. They therefore elect parties with a reputation for preferring non-redistributive policies.

3) Redistribution reduces the rate of growth and therefore also harms the median voter.

All three explanations, however, are not really convincing. The first makes an international prisoner's dilemma situation responsible for low taxes. However, it is known that cooperation can arise in repeated games and that international co-operation indeed arises in other fields of politics. The second explanation is somewhat unsatisfying in the light of results from recent literature on the use of mechanisms in time-inconsistency situations [e.g. Walsh (1995)].

¹In Perotti (1993), the relationship depends on the level of per capita income.

² This result crucially depends on the growth generating process. In a model where intergenerational human capital spillovers drive growth, Grüner (1994) shows that income inequality increases taxes on income and reduces growth while wealth inequality increases taxes on wealth. Higher wealth taxes in turn stimulate investment in human capital and increase growth.

This literature shows that simple incentive mechanisms can be applied in order to commit a policymaker credibly to a desired policy. The third explanation ignores that growth effects of taxation are already accounted for in the endogenous growth literature mentioned above. It also ignores that models can generate positive growth effects of wealth taxation when human capital accumulation is the engine of growth [e.g. in Grüner and Heer (1994) and Grüner (1994)]³.

In the present no-growth paper I argue that abandoning the median voter approach itself can be the clue to explain low wealth taxes. This is so for three reasons: first, the median voter models are single tax models with little predictive power in multidimensional policy-spaces. Second, the median voter models neglect the fact that taxation of wealth and income always affects some well-organized interest groups characterized by a homogeneous factor endowment⁴. Thus, it is likely that interest groups or, more precisely, interest group-leaders lobby for tax rates. Third, the consequences of multidimensional choice of taxation are relatively complex so that it is natural to assume that lobbying and propaganda can at least partially affect policy outcomes.

If one considers that lobbying and propaganda may affect tax policy, one can put forward the rather trivial argument that high wealth concentration leads to low wealth taxation because it makes the rich an easily organizable, financially powerful group. It is, however, not only puzzling that there is so little wealth redistribution in democracies but also that there is so little open political conflict about this issue while wages and income redistribution are often at the center of the political debate. In this paper I argue that the analysis of the principal-agent pattern of the interest group member-interest group leader relationship is the clue to explaining why wealth taxation is, in many countries, no political issue. This is so because the representatives of individuals with little or no wealth do not lobby for policies which benefit their electorate if their activities are imperfectly observed. In the model of this paper, I consider two types of agents who engage in lobbying: managers of large firms and trade union leaders. I

³Another possible explanation for low wealth taxes is that, in a world where income is uncertain, low-income voters systematically overestimate their own future earning possibilities. An explanation which is not based on the assumption of wrong expectations is that low income voters attach a high utility loss to a situation where they would be affected negatively by redistribution.

⁴ This critique is not new, see e.g. Ursprung (1992).

have chosen trade unions because their members are relatively homogenous with respect to their factor endowment. This is not true for other organizations, e.g. professional organizations. Firm managers are another powerful group which can engage in lobbying because they have access to the resources of their firms. Firm-lobbying can either take place with the approval of the shareholders or, if shareholders are imperfectly informed, without their consent. In most lobbying models, it is assumed that organizations choose lobbying outlays in order to maximize a representative member's utility.⁵ In the present case this assumption would not be appropriate. Both, managers and trade union leaders, are agents who need not necessarily maximize the income of their principals. Thus, I assume that interest group leaders maximize their own expected income which is computed as the product of reelection probability and their revenues.

Politio-economic models of taxation often focus on the determinants of one single tax rate.⁶ In the present model two tax rates are endogenous: a flat-rate labor income tax and a tax rate on stocks of physical capital. The main objective of the paper is to find out under which conditions extremely low wealth taxation can be the result of the interaction of firm- and trade-union representatives. In this context, the interaction of factor price determination and taxation will turn out to be crucial. I will show that low wealth taxation is the outcome when the reelection probability of union leaders depends on wages rather than on income of the representative member. A second condition is that managers are able to appropriate the profit of the firm.

The next section presents a lobbying model which will serve as a benchmark case. In this simple model factor prices are given and firm profits are neglected. Managers and union leaders maximize their reelection probabilities. Section 3 then examines the case where both factor prices and taxes are endogenous and principals (i.e. interest group members) are not completely informed about the activities of their agents. Managers are corrupt and keep firm profits for themselves. Section 4 concludes.

⁵ An exception is Baik and Kim (1994).

⁶ Hettich and Winer (1988) examine the determination of more than one tax rate when the government maximizes political support.

2. Lobbying without corruption and with fixed factor prices

In this section, firm managers and union leaders engage in lobbying for the two tax rates on income and wealth. The standard specification under one-dimensional rent-seeking contests is that contributions of both parties directly determine the endogenous policy variable [c.f. Nitzan (1994)]. Each interest group would have to choose two different lobbying contributions, one for each tax rate, if two tax rates were to be determined. I do not follow this approach in the present paper. I assume that there is only one lobbying contribution per interest group which determines the total political weight of this group (or, under delegation, the weight of the representatives of the group). The incumbent government is assumed to maximize political support from the electorate which is only imperfectly informed about the consequences of the government's policy. Therefore, the political support function is determined by the lobbying (or propaganda) outlays of the interest group leaders.

The population has measure 1. The productive sector is represented by one firm with production function $Y=F(K,L)$, where K and L are the stocks of capital and labor used in production respectively. Taxes are linear taxes on labor income and capital, the tax rates are denoted by θ and τ . Factor prices are w and r . Tax revenues θwL and $\tau(1+r)K=\tau RK$ are redistributed equally among the individuals.

I assume that factor supply is elastic with respect to taxes. Given the stocks of capital and labor, \bar{K} , \bar{L} factor supply is assumed to be linear in taxes: $K = (1 - \tau)\bar{K}$, $L = (1 - \theta)\bar{L}$. The factors supplied are assumed to be fully employed⁷. The first equation captures the fact that capital will partially flee to other countries if taxes rise. The second equation captures international labor mobility, shadow economic activities and the substitution of leisure for labor.

I first consider the simple one-stage game where both interest group leaders lobby for the two tax rates, taking factor prices w and r as given. Both interest group leaders' objective is to maximize their respective reelection probability. The reelection probability of the trade-

⁷ The case with disequilibrium in factor markets is a particularly interesting extension of the present model. Profits are also neglected here, they will be taken into account in the following section.

union leader is assumed to be an increasing function of the total net income of the representative member per unit of labor. Its linear approximation is:

$$p^u = c_1 \frac{Y^u}{L^u} \quad (1)$$

where Y^u is the net income of a union member and c_1 is a parameter that measures the degree of control of the agents. The income of a union member consists of labor income, redistributed labor income, redistributed capital income and it is reduced by the lobbying outlays of the union, A_1 . The union members' labor endowment L^u may differ from societies average endowment \bar{L} . I assume for simplicity that union members do not possess capital. Thus:

$$\begin{aligned} \frac{Y^u}{L^u} &= \frac{w(1-\theta)[(1-\theta)L^u + \theta\bar{L}] + R(1-\tau)\tau\bar{K} - A_1}{L^u} \\ &= w(1-\theta) \left[(1-\theta) + \theta \frac{\bar{L}}{L^u} \right] + (1-\tau)\tau R \frac{\bar{K}}{L^u} - \frac{A_1}{L^u} \end{aligned} \quad (2)$$

The reelection probability of the managers increases with in the net return of the shareholders. In general, not all shareholders possess an equal amount of capital and thus an equal number of votes. Moreover, transaction costs often lead to absenteeism of small shareholders in votes. I therefore assume that the reappointment probability of the managers is a function of the net return of the largest shareholders:

$$p^m = c_2 \frac{Y^K}{K^K} \quad (3)$$

with

$$\frac{Y^K}{K^K} = \frac{(1-\tau)RK^K - A_2}{K^K} = (1-\tau)R - \frac{A_2}{K^K} \quad (4)$$

where K^K is the average capital stock owned by large shareholders. The redistribution term is neglected in (4) because it is assumed that large shareholders are sufficiently rich not to take

into account these benefits in their calculus. I assume that capital used domestically is decreasing in the tax rate. This effect, however does not show up in the equation (4) because revenues on capital accrue elsewhere. The term $(1 - \tau)RK^K$ represents both direct losses from taxation and transaction costs related to capital flight. In order to keep calculations simple, only the large shareholders are assumed to pay for lobbying, i.e. managers do not use all the shareholders' money for lobbying. Otherwise all capital stocks would have to receive a lower return.

I assume that the government's objective is to maximize political support of the electorate and that political support is a function of the two tax rates. The concept of the political support function has originally been introduced by Stigler (1971) and Peltzman (1976).⁸ Their original interpretation was that political support is a weighted average of the objectives of different socio-economic groups. It is based on the assumption that the groups are all well informed about policy consequences. In the present paper, I interpret the support function differently because the consequences of the tax structure on individual welfare are rather complex. It is natural, in this case, to assume that the electorate is not perfectly informed about policy consequences and that propaganda can influence the political support for government policy. I assume that interest group leaders can use the funds they manage to influence the public opinion. The political support function is therefore assumed to be a weighted average of the objective functions of the interest group leaders, not the interest group members. The lobbying outlays determine the weights in the political support function⁹. Thus, interest group leaders can abuse their funds to shape the public opinion in order to increase their own utility. For given lobbying outlays A_1 and A_2 the government's objective is to maximize a weighted sum of the income gains of union leaders and managers:

$$G = \xi_1 \Delta p^u + \xi_2 \Delta p^m = \xi_1 c_1 \left[\frac{Y^{lu}}{L^u} + R \tau (1 - \tau) \frac{\bar{K}}{L^u} \right] + \xi_2 c_2 R (1 - \tau) \quad (5)$$

⁸ An application to trade policy can be found in Hillman (1982).

⁹ This formulation of the political process also describes the case where interest groups use their funds to finance politicians in the parliament and where the government seeks to maximize support from the parliament.

where $\xi_1 = \frac{A_1}{A_1 + A_2}$ is the share of the unions lobbying outlays and $\xi_2 = 1 - \xi_1$. Y^{lu} is the

labor income of a union member plus redistributed labor income, i.e. $Y^{lu} = w(1 - \theta) \left[(1 - \theta)L^u + \theta \bar{L} \right]$. Equation (5) obviously differs from the Tullock (1980) lobbying

function where lobbying directly determines the policy outcome.

From equation (5) we directly obtain that the optimal choice of the income tax rate maximizes the union members utility if the union does some lobbying, i.e. if $A_1 > 0$. It is therefore unaffected by changes in A_1 or A_2 . The optimal choice of the wealth tax is obtained from:

$$\frac{\partial G}{\partial \tau} = \xi_1 c_1 R (1 - 2\tau) \frac{\bar{K}}{L^u} - \xi_2 c_2 R \quad (6)$$

$$\frac{\partial G}{\partial \tau} = 0 \Leftrightarrow \tau = \frac{1}{2} \left(1 - \frac{\xi_2 c_2 L^u}{\xi_1 c_1 \bar{K}} \right) = \frac{1}{2} \left(1 - \frac{A_2 c_2 L^u}{A_1 c_1 \bar{K}} \right) \quad (7)$$

The Nash equilibrium of the lobbying process results from the reaction functions of the two interest group leaders. The re-election probability of the manager is from (7) and (4):

$$p^m = c_2 \left[R \frac{1}{2} \left(1 + \frac{A_2 c_2 L^u}{A_1 c_1 \bar{K}} \right) - \frac{A_2}{K^K} \right] \quad (8)$$

so that

$$\begin{aligned} \frac{\partial p^m}{\partial A_2} &= c_2 \left[\frac{1}{2} R \left(\frac{c_2 L^u}{A_1 c_1 \bar{K}} \right) - \frac{1}{K^K} \right] \\ \frac{\partial p^m}{\partial A_2} = 0 &\Leftrightarrow A_1 = \frac{1}{2} R \left(\frac{c_2 L^u K^K}{c_1 \bar{K}} \right) \end{aligned} \quad (9)$$

Thus, for one particular value of A_1 , A_1^* , the managers are indifferent between all the lobbying contributions. For higher A_1 lobbying does not pay. For lower A_1 lobbying outlays are

chosen in a way that wealth taxes are zero. The union leaders' re-election probability (2) can be written:

$$p^u = c_1 \left[\frac{Y^{lu}}{L^u} + (\tau - \tau^2) R \frac{\bar{K}}{L^u} - \frac{A_1}{L^u} \right] \quad (10)$$

The reaction function is derived from

$$\begin{aligned} \frac{\partial p^u}{\partial A_1} &= R \frac{\bar{K}}{L^u} \frac{A_2 c_2 L^u}{A_1 c_1 \bar{K}} \cdot \frac{1}{2} \left(-\frac{A_2 c_2 L^u}{c_1 \bar{K}} \right) (-A_1^{-2}) - \frac{1}{L^u} = 0 \\ \Leftrightarrow \frac{1}{2} R \frac{1}{L^u} \frac{A_2 c_2}{c_1} \cdot \frac{A_2 c_2 L^{u^2}}{A_1^3 c_1 \bar{K}} - \frac{1}{L^u} &= 0 \\ \Leftrightarrow A_1 &= \sqrt[3]{\frac{1}{2} R \frac{A_2^2 c_2^2 L^{u^2}}{c_1^2 \bar{K}}} \end{aligned} \quad (11)$$

Lobbying outlays of the union are an increasing strictly concave function of those of the managers. A Nash equilibrium in lobbying outlays requires that

$$\begin{aligned} \sqrt[3]{\frac{1}{2} R \frac{A_2^2 c_2^2 L^{u^2}}{c_1^2 \bar{K}}} &= \frac{1}{2} R \left(\frac{c_2 L^u K^K}{c_1 \bar{K}} \right) \\ \Leftrightarrow A_2 &= \sqrt{\frac{1}{4} R^2 \frac{c_2 L^u K^{K^3}}{c_1 \bar{K}^2}} \end{aligned} \quad (12)$$

From (9) and (12) follows

$$\frac{A_2}{A_1} = \sqrt{\frac{c_1 K^K}{c_2 L^u}} \quad \text{and} \quad \tau = \frac{1}{2} - \frac{1}{2} \sqrt{\frac{c_2 L^u K^K}{c_1 \bar{K}^2}} \quad (13)$$

The equilibrium is represented graphically in figure 1.

(insert Figure 1 about here)

From (13) it is easily seen that $\frac{\partial \tau}{\partial K^k} < 0$, $\frac{\partial \tau}{\partial \bar{K}} > 0$, $\frac{\partial \tau}{\partial \frac{c_2}{c_1}} < 0$. The interpretation of (13) is

straightforward. If large shareholders own more capital on average then they have higher incentives to lobby for low taxes on capital. If, however, the average capital stock is large then union managers lobby more in equilibrium because the marginal return from lobbying increases. If managers are controlled more vigorously, equation (7) shows that the government would reduce ceteris paribus taxes on wealth. This leads, in equilibrium, to less firm-lobbying. The net effect on taxes is negative. Equation (13) can be used to study effects of different initial wealth distributions on the tax structure. If the capital distribution is less unequal, the reduction of the capital stock owned by large shareholders would lead to lower wealth taxes¹⁰. An additional effect arises if a more equal distribution increases the importance of transaction costs in monitoring managers. (In this case c_2 would fall, which strengthens this negative effect on wealth taxes.

3. Corrupt managers and wage bargaining

Not very surprisingly, in section 2 we found that managers lobby for low and union leaders for high wealth taxes when their reelection probability is linear in the income of their respective electorate. This prediction, however, is not well compatible with the fact that in many countries one rarely observes conflicts on wealth taxation while wages and income taxes are at the center of political debates. In this section, our model is modified in order to give an explanation for this puzzle.

Three assumptions of section 2 are dropped: first, factor prices are no longer fixed. Factor prices w and r are negotiated in bilateral bargaining between managers and union

¹⁰ Thus, if one would assume that capital accumulation is the motor of economic growth, the present analysis would, in contrast to the model of Persson and Tabellini (1991), establish a positive link between initial wealth inequality and growth. A smaller ratio L^u / \bar{L} , by contrast, increases income taxes and consequently reduces growth when human capital accumulation drives growth.

leaders. The game now has two stages where first, the agents lobby for taxes and second factor prices are negotiated. The equilibrium concept is subgame perfectness¹¹.

I secondly drop the assumption that both agents receive a fixed income if they get re-elected: firm managers can now appropriate part of the firms product if re-elected. Thus, they no longer maximize their re-election probability.

Third it is no longer assumed that the principals (union members and shareholders) are perfectly informed about the structure of the political process: I assume that union members do not take into account the lobbying activities of their leaders and that they condition re-election only on the level of their before-tax real wage. Shareholders are supposed to be somewhat more sophisticated, they consider both wealth taxes and the rental rate for capital r . The introduction of these three assumptions significantly changes the results of the model.

The production function is linear in capital and labor: $Y = a_1L + a_2K$. As before labor supply is $L = (1-\theta)\bar{L}$ and capital supply $K = (1-\tau)\bar{K}$.¹² Thus, I make the simplifying assumption that wages w and interest payments r do not directly affect the factor-supply. A linear approximation for the reelection probabilities is

for the union leader: c_1w

for the managers: $c_2(1-\tau)r$

where c represents the sensibility of voters on the one hand and the fixed income of the union leader if re-elected on the other hand. The expected profits of managers are given by:

$$\pi = (a_1 - w)(1 - \theta)\bar{L} + (a_2 - r)(1 - \tau)\bar{K} \quad (14)$$

if they are reelected and zero otherwise. Union leaders maximize their reelection probability, i.e. they can not share profits with managers in this model. The reservation utility of both

¹¹ This is justified because the decision on the tax structure 1) is linked to high decision costs, ie. is characterized by a higher degree of irreversibility than decisions on factor prices and 2) it takes more time to become effective.

¹² Like in section 2 it is assumed that there is no involuntary unemployment of production factors. The case with a strictly concave production function and rationing would be an interesting extension of this model.

agents is set zero. In this case, the Nash bargaining solution [see Osborne and Rubinstein (1990,p.13f)] is obtained from maximizing:

$$B = c_1 w c_2 (1-\tau) r \pi = c_1 w c_2 (1-\tau) r \left((a_1 - w)(1-\theta)\bar{L} + (a_2 - r)(1-\tau)\bar{K} \right) \quad (15)$$

The necessary conditions for an optimum are

$$\frac{\partial B}{\partial w} = c_1 c_2 w (1-\tau) r (\theta-1)\bar{L} + \pi c_1 c_2 (1-\tau) r = 0 \Rightarrow w = a_1 - w + (a_2 - r)k \quad (16)$$

$$\frac{\partial B}{\partial r} = c_1 c_2 w (1-\tau) r (\tau-1)R + \pi c_1 c_2 (1-\tau) w = 0 \Rightarrow r = a_2 - r + (a_1 - w)\frac{1}{k} \quad (17)$$

where $k := \frac{(1-\tau)\bar{K}}{(1-\theta)\bar{L}}$. This gives:

$$\begin{aligned} \Rightarrow w &= \frac{1}{2} [a_1 + (a_2 - r)k] \\ r &= \frac{1}{2} [a_2 + (a_1 - w)k^{-1}] \end{aligned} \quad (18)$$

This yields for equilibrium factor prices:

$$w = \frac{1}{2}(a_1 + a_2 k) - \frac{1}{4} k a_2 - \frac{1}{4} a_1 + \frac{1}{4} w \Leftrightarrow \frac{3}{4} w = \frac{1}{4}(a_1 + a_2 k) \Leftrightarrow$$

$$w = \frac{1}{3}(a_1 + a_2 k), \quad r = \frac{1}{3}(a_2 + a_1 k^{-1}) \quad (19)$$

One observes a perverse effect: with regard to factor prices, union leaders prefer high taxes on labor income and low taxes on wealth. Managers take the opposite position. The reason for this becomes clear if we imagine a fall in the stock of physical capital induced by a rise in the wealth tax rate. This reduces profits if w and r rest unchanged. It is easier to increase profits by a reduction of w than by a reduction of r because changes in w are, now that the capital-labor ratio has fallen, relatively more costly. A higher r and a lower w is the consequence.

3.1 Wealth taxation

Equilibrium factor prices (19) can be used to determine the political outcome in stage (1) of the game. For given lobbying outlays, the government maximizes a weighted sum of union leader's and manager's utility:

$$\begin{aligned}\max G &:= \xi_1 c_1 w + \xi_2 c_2 (1 - \tau) r \pi \\ &= \xi_1 c_1 w + \xi_2 c_2 (1 - \tau) r \left((a_1 - w)(1 - \theta) \bar{L} + (a_2 - r)(1 - \tau) \bar{K} \right)\end{aligned}$$

From (19) we obtain:

$$\begin{aligned}G &= \frac{1}{3} \xi_1 c_1 (a_1 + a_2 k) + \frac{1}{3} \xi_2 c_2 (1 - \tau) \cdot (a_2 + a_1 k^{-1}) \cdot \frac{1}{3} \cdot \left[(2a_1 - a_2 k)(1 - \theta) \bar{L} + (2a_2 - a_1 k^{-1})(1 - \tau) \bar{K} \right] \\ &= \frac{1}{3} \xi_1 c_1 (a_1 + a_2 k) + \frac{1}{9} \xi_2 c_2 (1 - \tau) (a_2 + a_1 k^{-1}) \left[2a_1 (1 - \theta) \bar{L} - a_2 (1 - \tau) \bar{K} + 2a_2 (1 - \tau) \bar{K} - a_1 (1 - \theta) \bar{L} \right] \\ &= \frac{1}{3} \xi_1 c_1 (a_1 + a_2 k) + \frac{1}{9} \xi_2 c_2 \cdot (1 - \tau) \cdot (a_2 + a_1 k^{-1}) (a_1 (1 - \theta) \bar{L} + a_2 (1 - \tau) \bar{K}) \quad (20)\end{aligned}$$

It is now straightforward to show that the optimal choice of τ from $[0, 1]$ is zero. We have:

$$\begin{aligned}\frac{\partial G}{\partial \tau} &= \frac{1}{3} \xi_1 c_1 a_2 \frac{-\bar{K}}{(1 - \theta) \bar{L}} + \frac{1}{9} \xi_2 c_2 \left[-a_2^2 \bar{K} + a_1^2 (1 - \theta)^2 \bar{L}^2 \frac{-\bar{K}}{(1 - \tau)^2 \bar{K}^2} \right] (1 - \tau) \\ &+ (-1) \frac{1}{9} \xi_2 c_2 (a_2 + a_1 k^{-1}) (a_1 (1 - \theta) \bar{L} + a_2 (1 - \tau) \bar{K}) \\ &= -\frac{1}{3} \xi_1 c_1 a_2 \frac{\bar{K}}{(1 - \theta) \bar{L}} - \frac{1}{9} \xi_2 c_2 \left[a_2^2 \bar{K} \right] (1 - \tau) \\ &- \frac{1}{9} \xi_2 c_2 (a_1 a_2 (1 - \theta) \bar{L} + a_2^2 (1 - \tau) \bar{K} + a_1 a_2 (1 - \theta) \bar{L}) < 0\end{aligned} \quad (21)$$

Thus, for all $\tau \in [0, 1[$, we have that $\frac{\partial G}{\partial \tau} < 0$. Union leaders prefer zero wealth taxation

because they want maximum wages. Managers care about wealth taxes because (1) wealth taxes reduce profits and (2) higher wealth taxes reduce support by their electorate. Zero wealth taxation is the consequence.

The present model of delegated lobbying can explain zero wealth taxation without any particular assumption about the concentration of wealth. While in the model of section 2 the assumption that large shareholders are particularly rich was necessary to explain low wealth taxation, no such assumption is needed in the present model. It should also be noted that this model does not only explain a zero tax rate on wealth but also why there is no political conflict on this tax rate.

3.2. Labor income taxes

In the model of section 2 factor prices were exogenous and the large shareholders only possessed physical capital. Thus, managers were indifferent between the different tax rates on labor-income. In the present model, however, labor income taxes negatively affect the interest rate. This is why managers will now lobby for low income taxes. In section 2, union leaders were in favor of a positive tax rate whenever the labor endowment of the union members was smaller than the average labor endowment. This lead to a positive tax rate on labor income which was determined by the union unilaterally. In the present setting the tax rate on income is positive for completely different reasons. Using equation (19), equilibrium tax rate on labor income is obtained from:

$$\frac{\partial G}{\partial \theta} = \frac{1}{3} \xi_1 c_1 a_2 \frac{+\bar{L}(1-\tau)\bar{K}}{(1-\theta)^2 \bar{L}^2} + \frac{1}{9} \xi_2 c_2 (1-\tau) \left[-a_2 a_1 \bar{L} - \frac{a_1^2 \bar{L}}{(1-\tau)\bar{K}} 2(1-\theta) - a_1 a_2 \bar{L} \right] = 0$$

$$\Leftrightarrow \xi_1 c_1 a_2 (1-\tau) \frac{\bar{K}}{\bar{L}} = \frac{2}{3} \xi_2 c_2 (1-\tau) a_1 a_2 \bar{L} (1-\theta)^2 + \frac{2}{3} \xi_2 c_2 (1-\tau) \frac{a_1 \bar{L}^2}{(1-\tau)\bar{K}} (1-\theta)^3$$

$$\Leftrightarrow (1-\theta)^3 + \frac{a_2 (1-\tau)\bar{K}}{\bar{L}} (1-\theta)^2 - \frac{\xi_1 c_1 a_2}{\xi_2 c_2 (1-\tau) a_1 \bar{L}^3} = 0$$

$$\Leftrightarrow (1 - \theta)^3 + a_2 \frac{\bar{K}}{\bar{L}} (1 - \theta)^2 - \frac{A_1 c_1 a_2}{A_2 c_2 (1 - \tau) a_1 \bar{L}^3} = 0 \quad (22)$$

Equation (22) has a unique positive solution and it is straightforward to verify that $\frac{\partial \theta}{\partial A_1} > 0$.

Higher lobbying effort by unions increases income taxes. The reason is that higher income taxes lead to higher nominal wages and consequently to a higher reelection probability for the union leader. Firm managers oppose income taxes because, from equation (19), they reduce returns.

4. Conclusion

Taxation affects the utility of members of interest groups. The consequences of taxation, especially wealth taxation are rather complex and it is costly for voters to collect information about them. It is therefore likely that those interest groups whose members are characterized by a rather homogeneous factor endowment will lobby for tax rates and that these lobbying activities have consequences on the outcome of the political process. We have seen that the outcome of the lobbying process crucially depends on the mechanisms which members of interest groups use in order to control their representatives. It also depends on whether managers are able to keep part of the firm's revenues for themselves. The present delegated-lobbying approach can explain why revenues from wealth taxation are often low despite of prevailing wealth inequality. It also gives an explanation why in some countries wages and income taxation are at the center of political debates, while wealth taxation does not play a significant role. The reason need not be that, like in the model from section 2, large shareholders are particularly powerful. If union members delegate wage negotiations to union leaders and if they do not monitor their lobbying activities, low wealth taxation is the natural consequence of income maximization on the side of interest group leaders.

The above model is open to several variations which have not been considered in this paper. The cases where both union leaders and managers are corrupt and where the reelection probability depends on actual income for both groups would be interesting extensions. More importantly: in the present model it is assumed that factors supplied are always demanded by

the firm. The model can be extended to study the case of disequilibrium on factor markets. This may help to jointly analyze the political economy of unemployment, taxation and social security under lobbying.

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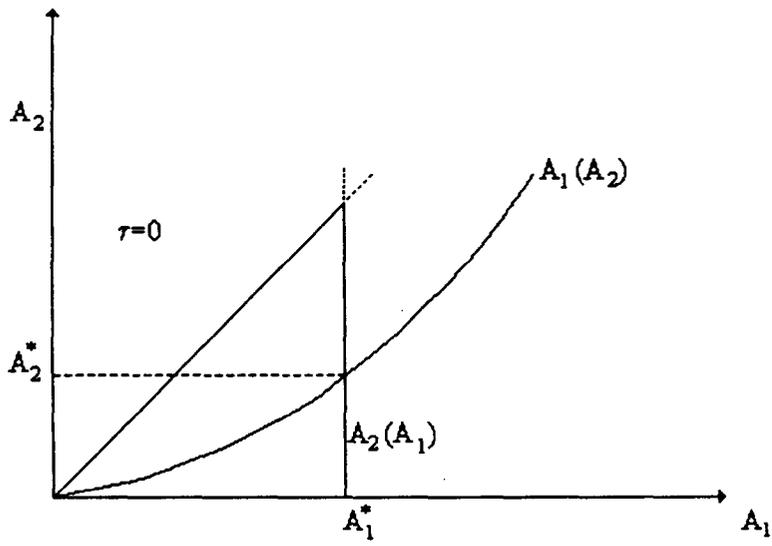


Figure 1: The Nash equilibrium in lobbying outlays