

2. MICROTHEORY OF PRIVATE RENT IN THE PUBLIC ECONOMY: DISTORTION OF PUBLIC CHOICES BY PRIVATE INTERESTS

LINDAHL ALLOCATIONS AND PRIVATE POWER OVER PUBLIC CHOICES

Rent/exploitation in the public economy

The purpose of this Chapter is to highlight a *particular type of private rent*. In our current terminology *private rent* means rent extracted by *private agents*, while *public rent* is rent extracted by *public agents*. Private agents can extract rent not only in the area of the **private ‘commercial’ economy of rival interests**, but also in the area of the **public ‘non-commercial’ economy of shared public interests**, as already pointed out in **CHAPTER 1** (Section 1, § *Private rent 2: rent extraction by private agents in the public economy*), to which we refer to avoid repetitions. Of course, in the real world the relationships underlying the *power interactions* of this particular type are quite complex. However, we can use the **standard Lindahl allocation diagram** to represent in a stylized framework how **changes in the amount and cost sharing of public goods** chosen by the government affect the **distribution of public wealth (benefits)**, and to show that the **fundamental theorem of rent/exploitation, FTR**, introduced in **CHAPTER 1** (Section 1, § *The fundamental theorem of rent/exploitation*) holds *pari passu* also in the area of the *public economy*. Specifically, even there rent extraction by an agent or group of agents:

- 1 Increases the wealth of the rent extracting group by as much as is made possible by the group’s rent-power
- 2 *Redistributes public wealth*: the rent extracting group increases its public wealth by *subtracting* public wealth from others,
- 3 The amount of the extra wealth *gained* is *less* than the amount of the wealth *subtracted*,
- 4 *In general*, this redistribution causes a *social welfare loss* equal – by construction – to the *excess* of the wealth *subtracted* over the extra wealth *gained*.

Changing the supply of public goods with given cost shares

F2.1 is the standard graphic presentation of the **Lindahl allocation, with no group organization (government)**, characterized by two properties: 1) an efficient amount G^* of the public good, and 2) ‘unanimity’ cost shares negotiated by powerless agents. We shall see in the *Nash-Lindahl* **CHAPTER 6** that this is no equilibrium even with powerless agents, and we shall use the diagram to discuss both the no-power Nash equilibrium and some alternative power-dependent equilibria.

The scenario of this Chapter 2 is different from that of the *Nash-Lindahl* **CHAPTER 6**, because it assumes 1) that society is *already organized with a government*, and 2) that agents (individual or groups) have the *power to distort public choices in their favour*. Consider **F2.2**, and start with a government fixing cost shares and the amount of G according to the **Benefit principle, BP**. It is the *equivalent counterpart* – in the *public economy* of public shared interests – of the *competitive equilibrium allocation* in the *private economy* of rival interests. Suppose the two groups of taxpayers have *different preferences* over G : group A has a *high* preference, the *blue curve* $MB_A(G)$, and group B a *low* one, the *red curve* $MB_B(G)$. Then the unanimity cost shares of the Lindahl allocation would be $s_A > s_B$, with the respective *blue* and *red* cost curves $s_A MC(G)$ and $s_B MC(G)$. But suppose the government chooses to share the cost of G according to the **Ability to pay principle, APP**, and that it considers the two groups of taxpayers to have approximately the same APP. Then their cost share would be approximately the same, the *black line* of $1/2$ each. Because of their different preferences this yields different desired levels $GB < G^* < GA$ (disregarding income effects, the efficient G level remains unchanged).

Now suppose the *red group* has the power to force the government to choose G in accordance with its own preference. Then the government would choose GB . What is the impact on the

distribution of public wealth and on social welfare of this act of private rent extraction in the public economy? We can read it in the Figure. By driving the government to make the change $G^* \rightarrow GB$, the red group gets an *increase* in wealth equal to the **blue area** = **e**, at the expense of the *blue group* who suffers a *decrease* in wealth equal to the **red area** = **b + d**. The *redistribution* of benefits from *A* to *B* causes a *social welfare loss* equal to the **orange area** = **a + b**, and this social loss must be equal to the excess of *A*'s loss over *B*'s gain. The equality holds *by construction*, and it is trivial to check it in the Figure. The FTR says that it must be $b + d - e = a + b$, equivalent to $a = d - e$. And indeed we see that

$$\begin{aligned}
 a + c &= f + g \\
 d + c &= f + g + e \\
 \rightarrow f + g &= (d - e) + c \\
 \rightarrow a + c &= (d - e) + c \\
 \rightarrow a &= d - e
 \end{aligned}$$

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If the group controlling the government were the *blue group*, it would drive it to make the opposite change, namely $G^* \rightarrow GA$. It is easy to check that this would cause a redistribution in the opposite direction, but always satisfying the same 'quantitative' properties. *A*'s gain is j , *B*'s loss is $l+m$, and i is the social loss. The FTR says that $l+m-j=i$, and this is what we find by combining in the appropriate way the letters in the Figure.

Changing supply and cost shares

This case is represented in **F2.3**. Start again with a *Lindahl allocation* of efficient G^* and 'unanimity' cost shares based on the BP. Suppose the *blue group A* has the power to drive the government 1) to invert the cost shares, charging the high share s_A onto the *red group B* and the low one s_B onto itself, and then also 2) to change $G^* \rightarrow GA$, the newly desired level of G by *A*. Again it is easy to trace in the Figure the impact of this act of *private rent extraction in the public economy* on the *distribution of public wealth* and on *social welfare*: *A* gets an *increase* in public wealth equal to the **blue area** = **c + d**, at the expense of *B* who suffers a *decrease* in public wealth equal to the **red area** = **c + d + h + e + f**. This wealth redistribution causes a *social welfare loss* equal to the **orange area** = **b + f**, in turn equal by construction to the excess of *B*'s loss over *A*'s gain. As in the previous case, although this result is true *by construction*, it is trivial to check it in the Figure. The FTR says that $c + d + h + e + f - (c + d) = b + f$, equivalent to $h + e = b$. And indeed we see that

$$\begin{aligned}
 a + e &= g \\
 a + b &= g + h \\
 \rightarrow a &= g + h - b = g - e \\
 \rightarrow h + e &= b
 \end{aligned}$$

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Changing only cost shares

Notice that if there were only a change in the cost shares, with G remaining at its optimal level, then there would *only be a redistribution of wealth*, with *no social welfare loss*. Extra losses exceed extra benefits only to the extent that there is a loss of efficiency. This is a general property of the **FTR**: to the extent that rent extraction doesn't cause a loss in efficiency, extra benefits are exactly matched by extra losses. Now, in the case of **F2.3** we may assume, precisely for the purpose of isolating the role of different facts, that while the government is driven by special interests to

change the cost shares, it keeps G at its *optimal level*. We see that in this case the *blue area c* (extra benefits) would be equal to the *red area c* (extra losses).

Notice, for the sake of accuracy, that if there are income effects, then a change in the distribution of cost shares would change the taxpayers' 'demand' schedules and this in turn may change the optimal G level. We should then simply draw the new cost shares and the new blue and red areas at the new optimal level of G .

Notice further that this is a *typical situation that may arise with public goods*. Since public goods are not 'distributed', nor 'exchanged', between people, it is possible to have efficiency conditions satisfied even if the individual agents' marginal benefits differ from their marginal costs.