Cap 3 - THEORY 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 $G^* \to GB$, 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

2.1
$$\begin{aligned}
&a + c = f + g \\
&d + c = f + g + e \\
&\to f + g = (d - e) + c \\
&\to a + c = (d - e) + c \\
&\to a = d - e
\end{aligned}$$

■

If the group controlling the government were the *blue group*, it would drive it to make the opposite change, namely $G^* \to GA$. 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 $G^* \to GA$, 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

2.2
$$\begin{aligned}
&a + e = g \\
&a + b = g + h \\
&\to a = g + h - b = g - e \\
&\to h + e = b
\end{aligned}$$

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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.