# On the role of structural aides and tax policies in sea-fishing management, starting from empirical evaluation for Italian fishery

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**Abstract**

We note that current fishery policies rely on structural aides for the achievement of two opposed goals: supporting further regulation tools (effort and catch limitation), aimed to reduce invested capital, and granting operators help (through the so called "re-conversion" and through equipment renewal). On the other side, fiscal policies have uniquely been used to support operators (small-scale fisheries). By estimating Government Financial Transfers and fiscal charge in Italian fishing sector, we find some evidence for inconsistency of fishery management tools with respect to their theoretical reference apparatus (catch-effort models). In fact, we find very high tax rates and governmental financial transfers. The problem with these results is that a high fiscal charge creates a "fake imposing power" problem, when we consider the need to evaluate capacity in terms of economical efficiency (and not in terms of physical invested capital) and to an "incentive problem", since low profit expectations push operators to definitive withdrawals more than it pushes them to renew their equipment. In order to investigate the solution, we note that the concept of Rental Price of Capital Services could make us able to evaluate the effect of subsidies and taxes on investment decision and, definitively, to co-ordinate them. Static simulation experiments are made in order to determine the economic effect of these policies on investment decision and, finally, on fishing capacity. Our main result is that subsidies to equipment renewal cannot be reduced without reducing taxes.

**Key Words**: Taxes; Fisheries; Incentives; Subsidies; Structural Policies, Fiscal Policies.

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# 1 Introduction

This paper presents part of the results of a research aimed at the evaluation of economical effects of different tax policies and government financial transfers (GFT) choices in Italian fishing industry.

In order to speak about the role of subsidies and taxes, we starts from some background considerations about the theoretical basis of actual fishery management.

Catch-effort model is a reference paradigm in both European Fishery Policy and Country laws in fishery management. The most important policy implication of the theory is the need to control invested capital. To this type of statement it arrives through some logical steps:

a. It exists a close relationship between catches and fishing effort;

b. It exists a close relationship between fishing effort applied to resources and fishing capacity (seen as the highest attainable level with available equipment);

c. Fishing capacity can be measured through invested capital.

Since freedom of action results in over-exploitation, linked to over-capitalisation, catch-effort models require invested capital reduction or limitation. In fact, such goal is aimed by the entire regulation system created by the European Community and by its member States. Catching limitation, effort limitation, and incentives for definitive withdrawals have been specifically demanded to such goal.

It can be easily shown that fishing effort reduction is obtained by sweeping less economical efficient firms away from the market, thus authority faces a “re-conversion” problem: it aims to improve social welfare but it cannot sacrifice operators in the name of a hypothetical correct resources management. A good economic action consists in obtaining the greatest output from resources but it does not mean to defend them at any cost! This means that the number of operators can be reduced only if their so-called “re-conversion” can be assured, though difficult and expensive it may be.

This essay highlights the incoherent aspect of such logical procedure that acts mainly on invested capital for managing fishing capacity. The reason of such inconsistency has to be found in the above double goal: on one side you have to manage resources (i.e. fleet reduction, according to catch-effort model) and on the other side you have to protect operators’ interests. The regulator has been obliged to build up a system (meant to use at best resources), which depends on structural policies because of firm’s support and “re-conversion”.

In this framework, structural policies have been asked to fulfil both the task to support operators (financing "re-conversion" and equipment renewal) and to induce definitive withdrawals.

On the other side, tax policies have uniquely been used (according to the programme guidelines settled by European Community) for helping fishing segments with a small fiscal capacity (small-scale fishing).

Such consideration lead us to think about the use of these policies and to estimate the amount of subsidies (paid to the sector) and the fiscal charge in Italian fishery.

In paragraph 2 we report the results of these estimation and we discuss the results. The discussion is made considering the exigency to evaluate fishing capacity in terms of equipment's economical efficiency and not in terms of physical stock. This point is fundamental because it permits us to better evaluate the economical effects of policies.

Our aim is to remark bad aspects of a high fiscal charge and to look for a more rational use of subsidies and taxes.

## 2 Data analysis (GFT and Taxes) and results

Evaluation of structural policies (in terms of subsidies allocated to fishing industries) and tax policies (in terms of charging), leads us to be critic on how both tools are used.

Table 1 shows the amount of GFT in the period 1994-1997. It's immediate to note the consistent increase after 1996 and the relevance of small scale fisheries, trawlers and multi-purpose trawlers.

GFT has been used to help stopping activities and renewing equipment, two objectives often opposed. It is difficult to assign two contrasting functions to a unique tool (although versatile), but the main problem is to act on firms revenue to reduce capacity. This could prevent them in using of financing: if tax rate is too high, operators expect to have low profits, if operators have low expectations, they tend to retire from the market rather than renewing their equipment. It turns out that high fiscal charging leads to an *incentive problem*, since it pushes operators to definitive withdrawals more than it pushes them to renew their equipment.

In table 2 is reported our evaluation of fiscal charging in Italian fishing sector, in the period 1993-1998. It shows extremely high values (1998 average value is about 47% of the income).

A further issues still highlights bad aspect of fiscal charging: firms present some underestimated budgets. The reason is that industry income capacity and consequently fiscal capacity have to be considered in the light of "non responsible" individuals behaviour. They in fact assign amortising rates to running costs assuming that capital is constantly depreciated at a constant rate. It can be shown that such behaviour depends on absolute lack of knowledge of depreciation caused by technological ageing (obsolescence).[1] This leads to capital efficiency loss not retrievable "physically " but only in terms of less efficiency compared to new equipment. In such way, real invested capital depreciation would be repetitively underestimated and running costs would be reduced. Firm's profits result to be falsely increased thus creating a *"fake" imposing power*. If we do not consider such problem in defining tax rates, we could create real obstacles to equipment renewal process, and dramatic consequences on fishing capacity, which could be definitely reduced.

These reasons should push authorities to have as main goals the incentives for boat and equipment renewal, to support individual lack of responsibility and operators irrational acting in resources exploiting. Public action should not only tend to limit investments but should also allow equipment renewal and fishing capacity regeneration (thanks to appropriate investments). The goal is not to stop new investments but to avoid that they could cause capacity increase. In other words, public intervention should be aimed to keep physical capital stock economical efficiency constant during a given period of time: this means that setting capacity must correspond to setting efficiency, with new investments compensating (perfectly) lost capacity due to senescence and obsolescence during different periods. In facts this leads to create an incentives' system among structural policies.

This is not a new idea but it causes some problems in defining interventions because it introduces a new objective: efficiency control.

Our proposed solution starts by defining an appropriate tool to evaluate both jointly and separately economic effects of tax and structural policies on running costs. Such tool is the *Rental Price of Capital Services* (RPCS), summarising capital cost considering public financing, fiscal charging, and amortisation methods (in Appendix 1 we describe how we calculate it). This is aimed to obtain results applicable to the catch-effort, according to policy maker objectives.

Estimation of RPCS in Italian fishing industry from 1994 to 1997 (see Table 3) let us define what follows.

a. GFT (excluding those for definitive withdrawals) have considerably reduced investment costs.

b. Cost reduction is mainly due to the financial cost (i.e. interests).

c. Evaluation of the investment demand elasticity with respect to RPCS, let us understand (yet taking into account the limits imposed by current rules and laws) that invested capital could be managed controlling RPCS; thus, structural and tax policies should affect the convenience to invest through RPCS.

Since RPCS includes GFT and fiscal charging consequences over the capital cost (and consequently over new investments)[2], point *c* could lead to an elegant solution of problems of efficiency loss caused by fishing capacity limitation.

GFT (representing a main role in RPCS definition) could be required to stimulate operators in renewing their equipment. In this way, structural policies will have a new and different role. However, until capacity limitation will remain a main goal for authority, we will be in a doubtful situation: the same tool (structural policies) are required to achieve two opposite goals: helping fleet reduction and financing fleet renewal.

The solution to this problem could come from the consideration that taxes have a double effect: on investment cost and on profit. Therefore they could be viewed as a further available tool with respect to the above objectives.

Fiscal charging effects on investment cost is summarised in RPCS, thus we could think to use it to determine the effect of taxes on investments. This could be a very important information in order to control the investments, since taxes are an element under the control of national authorities.

Once settled that investments respond to RPCS and that the action on taxes and GFT can help the policy maker in achieving his objectives, evaluation of alternative choices about such variables can provide policy messages for the regulator. To answer to this exigency, we make some static simulation experiments, which lead to the following results:

**Result 1**: reduction in GFT, by increasing RPCS, provokes restrictive effects on invested capital, through reduction of that investments aimed to regenerate equipment and boats. In this way acting, it doesn't result in reducing physical capacity (which continues to be linked to licences' management programmes and to government transfers for definitive stops).[3] (See Table 4)

**Result 2**: tax reduction increases RPCS. This is why we cannot consider the fiscal saving obtained subtracting amortising costs or paying interests for capital acquisition when evaluating investment costs. (See Table 5)

**Result 3**: joint usage of GFT and taxes produces higher effects on RPCS than using only one of them. This means a higher efficiency in achieving reduction objective (limitation) of invested capital, according to European community programmes. (See Table 6)

Since taxes cause in the meanwhile positive effects (expansion) on operator's net income, we could easily answer to the "incentive problem" raised by the correct measurement of capacity: if structural policies are adequately achieved to help equipment renewal (considering that capacity will be managed in terms of efficiency), the higher profit can represent an incentive to use GFT.

Negative effects of individual lack of responsibility due to underestimation of depreciation costs (above called: "fake imposing power" problem) could also be avoided simply by creating imposing power.

Let us note that this will be achieved without contrasting the objective of physical capital limitation (since RPCS tends to increase).

## 3 Conclusions

Finally, the following conclusions are posed:

1. fiscal charging in Italy is extremely high;

2. concentrating on net profit aimed to reduce fishing capacity damages equipment renewal process and, final, invested capital efficiency;

3. fiscal policy has to be valued together with GFT to fleet renewal, because they pursue the same objective: to maintain physical capital stock efficiency constant;

4. it's necessary to reduce charging, so creating an ad hoc fiscal policy supported by GFT; in other words, it's dangerous to reduce GFT without reducing taxes;

It's necessary to study better the economic effects of fiscal policies and taxes in order to co-ordinate as batter as possible. GFT system is fundamental for fishery management, but it has to be co-ordinated to fiscal charge; hence, national and international regulators should promote studies supplying optimal solutions to this problem. It's necessary to study fiscal and GFT policies, aimed to resource preservation and operators helping, together with an incentive system, necessary to guarantee equipment renewal by operators themselves.

We would remark that our results concerning the need to co-ordinate GFT and taxes are valid not only in the Italian case. Fiscal policies are a tool under the control of national authorities, thus the co-ordination with structural policies is in the hands of national regulators. In this way, the problem to compare different fiscal systems is not a very crucial one.

Instead, is crucial that national regulators value fishing capacity in terms of economical efficiency: only in this way they can appreciate the need to avoid asphyxiating policies leading to a not efficient invested capital reduction.

# Appendix 1

The following has been used to calculate Rental Price of Capital Services (RPCS):

$$\frac{P_t\left(1-g_t-a_t-\tau_t d_t\right)}{1+r_{t+1}\left(1-\tau_{t+1}\right)} i_{t+1}\left(1-\tau_{t+1}\right) \qquad (1)$$

$$\frac{P_t(1-g_t-a_t-\tau_t d_t)}{1+r_{t+1}(1-\tau_{t+1})}\delta_{t+1}(1-\tau_{t+1}) \qquad (2)$$

$$-\frac{P_t\left(1-g_t-a_t-\tau_t d_t\right)}{1+r_{t+1}\left(1-\tau_{t+1}\right)}\left(1-\delta_{t+1}\right)\frac{\Delta P_{t+1}}{P_t} \qquad (3)$$

Where:

| | |
|---|---|
| P | Investments price (per *grt*); |
| g | Government Financial Transfers (GFT) rate; |
| a | Government Cost Reducing Transfers' (CRT) benefits rate; |
| τ | Income tax rate; |
| d | Accelerated depreciation procedures' benefits rate; |
| i | Market Interest rate (medium and long run); |
| r | ROI (Return on Investment); |
| δ | Depreciation rate. |

And where subscripts refer to time period.
$P_t$ indicates investments price in period *t*.
GFT rate ($g_t$) comes out from the ratio of subsidies paid to the sector in a certain period to investments in the successive one. Therefore, we have assumed a one-period delay in investment decisions. The hypothesis is consistent with available data, which refer to approbation years and not to the payment ones[4].
Rate $a_t$ represents the benefits coming to the firm from Cost Reducing Transfers (CRT), for example form a reduction in the interest rate to be paid by the firm. Its value has been calculated as:

$$a_t = \frac{A_t}{I_{t+1} i_t}\left(i_t - i_t^a\right) \qquad (4)$$

Where $i^a$ is the facilitated interest rate, $A_t$ is the total amount of CRT in period *t* and $I_{t+1}$ are the investments in period *t+1*.
Interest rate $i_t$ is the long run market interest rate.
Tax rate ($t_t$) is used to indicate effective (referred to income product) fiscal burden for firms in period *t*.

Benefits coming to firms by the adoption of accelerated depreciation procedure ($d_t$) lead to a reduction of RPCS, owing to the tax save they involve (as a consequence of higher costs in balance).
ROI ($r_t$) is the ratio of gross (characteristic) income to invested capital referred to time *t*.
$d_t$ denotes the invested capital depreciation (occurred in time t).
The expectation about prices ($\Delta P_{t+1}=P_{t+1}-P_t$), in equation 3, is a (subjective) entrepreneurs' evaluation of investments' value variation in next period (caused by inflation).[5]
Therefore, the interpretation of RPCS is the following.
Equation 1 can be thought as the *financial cost* for investments in the specified sector. It's an estimation of the cost that operators expect to sustain for the acquisition of the amount of capital necessary to buy durable goods. The cost is formed by the interest rate, modified with the gains related to the reduction in tax to pay (owing to debt). This modified rate is applied to the market price of investments, adjusted with the presence of public financing. The value so determined is discounted on the base of investment remunerability in the considered market.
Equation 2 is the *replacement cost*, which can be interpreted as expected capital loss of value due both to physical and economic depreciation. Depreciation rate is corrected by the correspondent reduction in fiscal burden (depreciation is a yearly cost for the enterprise).
Equation 3 is a measure of *expected gain (or loss)* in investments' value made in the period. Obviously, gains (or losses) concern only with the part that exceeds depreciation (so, we insert the multiplying term $(1 - \delta_{t+1})$). We don't take into account gains or losses linked to taxes (we don't have suppressed the term $(1 - \tau_{t+1})$.
RPCS comes out from the algebraic sum of the three components.

**Table 1: Government Financial Transfers rates for Italian fishing sector, 1994-1997.**

| | *1994* | *1995* | *1996* | *1997* | *Average values* |
|---|---|---|---|---|---|
| ***Trawlers*** | *3,85%* | *100% ** | *13,34%* | *7,98%* | *8,39%* |
| ***Purse seiners*** | *4,86%* | *100% ** | *11,05%* | *26,50%* | *14,14%* |
| ***Midwater*** | *7,50%* | *0,45%* | *4,44%* | *100% ** | *4,13%* |
| ***Dredgers*** | *4,98%* | *0,25%* | *100% ** | *100% ** | *2,62%* |
| ***Multi-purpose trawlers*** | *100% ** | *0,12%* | *56,56%* | *26,05%* | *27,58%* |
| ***Small-scale Fisheries*** | *100% ** | *20,96%* | *22,92%* | *71,55%* | *38,48%* |
| ***Tuna*** | *3,21%* | *100% ** | *11,54%* | *5,02%* | *6,59%* |
| ***Swordfish*** | *2,08%* | *1,03%* | *22,81%* | *100% ** | *8,64%* |
| | | | | | |
| ***Average values*** | *4,41%* | *4,56%* | *20,38%* | *27,42%* | *14,19%* |

*Source: Irepa data elaboration.*

*The values are the ratio of GFT in one period to investments in the next period. Investments comes out from the algebraic sum between invested capital variation, depreciation, and GFT to definitive withdrawals (utilised as a proxy of negative investments).*

** Investment is negative and GFT's rate has been posed equal to one.*

**Table 2: Real tax rates in Italian fishing sector, 1993-1998.**

| | *1993* | *1994* | *1995* | *1996* | *1997* | *1998* |
|---|---|---|---|---|---|---|
| ***Trawlers*** | *39,62%* | *40,61%* | *44,60%* | *45,81%* | *45,18%* | *51,71%* |
| ***Purse seiners*** | *21,79%* | *34,34%* | *37,91%* | *42,01%* | *47,73%* | *54,12%* |
| ***Midwater*** | *35,60%* | *41,84%* | *49,75%* | *48,60%* | *43,46%* | *49,51%* |
| ***Dredgers*** | *33,06%* | *33,93%* | *36,14%* | *10,00%* | *27,14%* | *37,25%* |
| ***Multi-purpose trawlers*** | *30,55%* | *35,83%* | *38,84%* | *38,79%* | *39,61%* | *45,81%* |
| ***Small-scale Fisheries*** | *26,60%* | *27,10%* | *28,90%* | *26,33%* | *26,23%* | *32,73%* |
| ***Tuna*** | *0,00%* | *0,00%* | *0,00%* | *26,23%* | *26,20%* | *53,35%* |
| ***Swordfish*** | *39,42%* | *36,59%* | *40,08%* | *39,21%* | *46,88%* | *48,92%* |
| | | | | | | |
| ***Average values*** | *28,33%* | *31,28%* | *34,53%* | *34,62%* | *37,80%* | *46,68%* |

*Source: Irepa data elaboration.*

**Table 3: Rental Price of Capital Services in Italian Fishing industry: 1994-1997. (ITL billion per GRT)**

| | 1994 | 1995 | 1996 | 1997 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| | Trawlers | | | | Purse seiners | | | |
| Financial cost | 0,806 | -0,001 | 0,664 | 0,541 | 0,904 | -0,001 | 0,737 | 0,405 |
| Replacing cost | 0,430 | 0,000 | 0,365 | 0,392 | 0,482 | 0,000 | 0,405 | 0,293 |
| Expected gain/loss | 0,282 | 0,000 | 0,053 | -0,024 | 0,290 | 0,000 | 0,062 | -0,026 |
| Rental Price of Capital Services | 0,954 | -0,001 | 0,976 | 0,957 | 1,095 | -0,001 | 1,080 | 0,724 |
| | Midwater | | | | Dredgers | | | |
| Financial cost | 0,747 | 0,860 | 0,660 | -0,001 | 0,868 | 1,115 | -0,001 | -1,535 |
| Replacing cost | 0,398 | 0,367 | 0,363 | -0,001 | 0,463 | 0,476 | -0,001 | -1,112 |
| Expected gain/loss | 0,232 | 0,146 | -0,003 | 0,000 | 0,827 | 0,154 | -0,001 | 1,767 |
| Rental Price of Capital Services | 0,913 | 1,082 | 1,026 | -0,001 | 0,504 | 1,437 | -0,001 | -4,414 |
| | Multi-purpose trawlers | | | | Small-scale Fisheries | | | |
| Financial cost | -0,001 | 1,318 | 0,444 | 0,569 | -0,001 | 1,450 | 1,182 | 0,330 |
| Replacing cost | -0,001 | 0,563 | 0,244 | 0,412 | -0,001 | 0,619 | 0,650 | 0,239 |
| Expected gain/loss | 0,001 | 0,571 | -0,035 | 0,151 | -0,001 | -0,270 | 0,051 | -0,007 |
| Rental Price of Capital Services | -0,003 | 1,309 | 0,723 | 0,831 | 0,000 | 2,339 | 1,781 | 0,575 |
| | Tuna | | | | Swordfish | | | |
| Financial cost | 1,430 | -0,002 | 0,948 | 0,765 | 1,074 | 1,278 | 0,792 | -0,001 |
| Replacing cost | 0,762 | -0,001 | 0,521 | 0,555 | 0,572 | 0,546 | 0,435 | 0,000 |
| Expected gain/loss | 0,268 | 0,000 | 0,103 | -0,079 | 0,307 | 0,157 | 0,021 | 0,000 |
| Rental Price of Capital Services | 1,924 | -0,003 | 1,365 | 1,399 | 1,339 | 1,666 | 1,206 | -0,001 |

*Source: Irepa data elaboration*

**Table 4. Rental Price of Capital Services. Simulation of total elimination of GFT. Relative variations. (1994-1997)**

| | *Financial cost* | *Replacing cost* | *Expected gain/loss* | *Rental Price of Capital Services* |
|---|---|---|---|---|
| ***Trawlers*** | *76,42%* | *67,13%* | *53,94%* | *75,02%* |
| ***Purse seiners*** | *76,96%* | *69,27%* | *31,01%* | *78,99%* |
| ***Midwater*** | *61,20%* | *69,16%* | *-7,57%* | *72,73%* |
| ***Dredgers*** | *555,97%* | *875,42%* | *-21,81%* | *186,26%* |
| ***Multi-purpose trawlers*** | *78,08%* | *81,61%* | *-44,47%* | *109,05%* |
| ***Small-scale Fisheries*** | *76,90%* | *84,40%* | *397,47%* | *56,38%* |
| ***Tuna*** | *42,93%* | *35,62%* | *26,23%* | *41,11%* |
| ***Swordfish*** | *46,89%* | *53,73%* | *-4,56%* | *55,34%* |
| | | | | |
| ***Average values*** | *126,92%* | *167,04%* | *53,78%* | *84,36%* |
| ***Average values (without dredgers)*** | *65,63%* | *65,84%* | *64,58%* | *69,80%* |

*Source: Irepa data elaboration*

**Table 5. Rental Price of Capital Services. Simulation of total elimination of taxes. Relative variations. (1994-1997)**

| | *Financial cost* | *Replacing cost* | *Expected gain/loss* | *Rental Price of Capital Services* |
|---|---|---|---|---|
| ***Trawlers*** | *70,10%* | *70,46%* | *104,60%* | *66,54%* |
| ***Purse seiners*** | *61,59%* | *62,81%* | *-18,75%* | *71,10%* |
| ***Midwater*** | *79,32%* | *78,78%* | *-57,85%* | *96,18%* |
| ***Dredgers*** | *88,83%* | *30,11%* | *-456,94%* | *525,46%* |
| ***Multi-purpose trawlers*** | *54,37%* | *54,45%* | *-17,45%* | *71,68%* |
| ***Small-scale Fisheries*** | *29,06%* | *28,87%* | *140,66%* | *20,80%* |
| ***Tuna*** | *18,93%* | *20,33%* | *-57,80%* | *24,27%* |
| ***Swordfish*** | *53,67%* | *53,47%* | *-37,81%* | *64,14%* |
| | | | | |
| ***Average values*** | *56,98%* | *49,91%* | *-50,17%* | *117,52%* |
| ***Average values (without dredgers)*** | *52,43%* | *52,74%* | *7,94%* | *59,24%* |

*Source: Irepa data elaboration*

**Table 6. Rental Price of Capital Services. Simulation of 50% reduction in GFT and taxes. Relative variations. (1994-1997)**

| | *Financial cost* | *Replacing cost* | *Expected gain/loss* | *Rental Price of Capital Services* |
|---|---|---|---|---|
| ***Trawlers*** | *59,41%* | *45,54%* | *158,03%* | *43,12%* |
| ***Purse seiners*** | *70,13%* | *56,99%* | *23,64%* | *70,01%* |
| ***Midwater*** | *30,18%* | *42,30%* | *-8,73%* | *39,55%* |
| ***Dredgers*** | *904,69%* | *1513,78%* | *200,17%* | *47,73%* |
| ***Multi-purpose trawlers*** | *79,32%* | *84,78%* | *223,27%* | *47,03%* |
| ***Small-scale Fisheries*** | *107,85%* | *121,19%* | *-124,14%* | *112,92%* |
| ***Tuna*** | *66,14%* | *50,08%* | *19,04%* | *62,78%* |
| ***Swordfish*** | *29,05%* | *39,39%* | *-25,02%* | *39,10%* |
| | | | | |
| ***Average values*** | *168,35%* | *244,26%* | *58,28%* | *57,78%* |
| ***Average values (without dredgers)*** | *63,15%* | *62,90%* | *38,01%* | *59,21%* |

*Source: Irepa data elaboration*

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[1] In the original essay, we show this by using the perpetual inventory method.
[2] We mean that authority could reproduce technical efficiency conditions in production factors use, with the aim to avoid myopic operators' behaviour (who don't consider such aspect when calculating amortisation).
[3] In this step, everything reflects on fishing capacity but only in an hidden way, since the aspect linked to the technological efficiency is not highlighted neither in firms budgets nor in official statistics.
[4] Considering that Italian regulation requires registration by cash and not by competence, this kind of assumption seems particularly correct.
[5] If operators are conscious that equipment's value will decrease both for physically depreciation and for efficiency loss (compared to new equipment), they will consider this expectation in their evaluation of RPCS.