6. The results

6.1 Structural differences between the firms

Before going on with the illustration and the discussion of our main results it is necessary to stress some remarkable differences between our three firms. While EdF and ENEL are two state-owned monopolistic firms, RWE Energie is a formally mixed owned firm operating in a more competitive environment (see section 2). EdF and ENEL are integrated forward in the transmission and distribution stages, but they are not integrated backward in the supply of fuel. On the other hand RWE Energie is part of a group which has a complete control over a subsidiary that mines lignite which is highly used to generate electricity. The importance of RWE's interests out of the electricity industry has increased in time. In fact Energy absorbed 60% of the total sales of the group in 1980, and just 35% in 1993[5].
Finally, productivity increases can be reached through a more efficient combination of inputs, but they are also due to the driving force of demand growth.

6.2 Partial productivity results

Regarding labour we can observe from table 4a that ENEL and EdF have achieved good productivity results. From 1980 to 1993 they obtained almost the same improvement with an yearly average growth rate respectively of 4% and 3.7%. The case of RWE is quite different, with a productivity level of workers remaining almost constant during the period. EdF's positive results are especially due to the production expansion strategy, while for Enel we can see a good labour saving policy.
It is worth noticing that the high level of absolute efficiency indicated by the number of customers per employee (table 5) offers a confirmation of the positive results reached by ENEL and EdF.
As for total consumption, if we sum up the amounts of production and final consumption (table 4b), we can notice that only EdF has been able to contain its costs: the decreasing trend during the seventies was reversed during the eighties but only in 1986 was EdF able to achieve the same levels recorded in 1971. The performance is clearly linked to the nuclear program which in the last few years allowed EdF to double its partial productivity levels[6].
Physical capital productivity performances can be analysed by paying attention to the book values or, alternatively, through the application of the perpetual inventory method. If we consider the depreciation as it is booked in the profit and loss accounts, we find a picture in which only ENEL seems to have had a negative performance. This is due to the fact that in Italy, after a very difficult period (lasting until 1982-83) with insufficient rates and

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[5] The other main branches of activity are mining (4%), oil and chemicals (40%), mechanical and plant engineering (11%).

[6] These results do not include completely all the costs that EdF will bear in the future to manage its nuclear power plants after their dismantling. In fact, the provisions for the management of nuclear sources booked in the balance sheets are estimates which could not correspond to the effective costs.