Faculdade de Economia da Universidade de Coimbra
Grupo de Estudos Monetários e Financeiros (GEMF)

Av. Dias da Silva, 165 – 3004-512 COIMBRA, PORTUGAL

gemf@sonata.fe.uc.pt
http://www4.fe.uc.pt/gemf

LUÍS MOURA RAMOS
RITA MARTINS

Privatisation in Portugal: Employee Owners or Just Happy Employees?

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Privatisation in Portugal: employee owners or just happy employees?

Luís Moura Ramos

Faculdade de Economia da Universidade de Coimbra
lmramos@sonata.fe.uc.pt

and

Rita Martins

Faculdade de Economia da Universidade de Coimbra
rvmartin@sonata.fe.uc.pt

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ABSTRACT

The aim of this paper is to evaluate the impact of certain measures designed to enhance employee ownership within the framework of the Portuguese privatisation process.

We seek to quantify the advantages consented to employees considering the package of special conditions they were entitled to, using data from 60 privatisation operations. Initially employees benefited from significant financial advantages. However, if they sold their shares just after the unavailability period, the returns obtained were very uneven, if not negative. Were the special conditions offered to employees simply the price paid for an environment of low social conflict?

Keywords: potential gains, effective gains, risk, return rate, adhesion rate.

1. Introduction

At the beginning of the 80's, the world witnessed an upturn in the tendency concerning the State intervention in the economy. Since then a generalised movement towards privatisation has taken place in different realities and in countries with distinct political ideologies (e.g. Wright, 1993; Yarrow & Vickers, 1988; Parker, 1998). This movement also reached Portugal, one of the countries with major privatisation programmes (e.g. Martins, 1997; GAFEEP, 1995). The aim of this paper is to evaluate the impact of certain measures designed to enhance employee ownership within the framework of the privatisation process. The structure of the paper is as follows. In section 2 we make an overview of the legal framework of the Portuguese privatisation program. Section 3 describes the data and the empirical strategy used. Then, in section 4 the empirical findings are presented and discussed. Finally some concluding comments are made in section 5.

2 - The privatisation process in Portugal

In the sequence of the 1974 revolution, 244 firms from important sectors of the economy were nationalised. This fact corresponded to a considerable number of nationalisation operations given the participation in other firms by the ones that were directly nationalised. Furthermore, in 1977 a law (46/77) restricted the access of private entrepreneurs to certain sectors (insurance, banking, chemicals, shipbuilding, cements, brewing, and tobacco). This law was partially revoked in 1983 (decree law nº 406/83) and as a result of its latest version (1997), few sectors still remain monopoly of the State, namely postal services, railways and ports.

The privatisation process began in 1988 when a law was passed approving a partial (re)privatisation of state owned firms (up to 49% of their capital). Only after the Constitutional changes in 1989 was the privatisation process in all its extent made possible. The privatisation bill 11/90 made way for an ambitious privatisation program (more than 100 firms were privatised by the end of 1999). Still, the delimitation sectors law restricted the operations to the sectors already open to private economic initiative.

One of the privatisation objectives was "to allow a wide participation of Portuguese citizens in the ownership of privatised firms, through an adequate dispersion of capital, giving particular attention to the employees of the privatised firms and small subscribers". In order to attain this objective, part of the shares privatised were reserved for small subscribers and specifically for employees, who also benefited from lower prices than other small subscribers. Also, some of the privatised firms included, in their remuneration policy, the granting of shares to their

employees. Moreover, they also had special terms of payment not available to other small subscribers namely delayed payment without interest, payment by instalment and cash discounts. In some cases, loans were granted in order to encourage employee share ownership. Finally, tax concessions were afforded to employee owners (higher amount of abatements to income tax).

However, if these benefits were designed to enhance employee ownership, their conversion into immediate profits had to be limited. A period of time was defined (two years in the law nº 84/88 of 1998, defined for each case after the privatisation bill of 1990) where employees were forced to keep their shares (the unavailability period). Also since 1990, within this period, employees could not delegate their voting rights. Another restriction was placed on the number of shares that each employee could buy, a limit defined for each different operation. Later on the decree law 243/91 gave employees the right to form investment funds with the shares bought. This permitted employees to overcome some of the constraints that small owners faced like limits to information access and real influence on the firm's General Assembly. Moreover this fund could also contain assets from other companies.

Having defined employee ownership as one of the privatisation objectives, together with some measures to enforce it, what has been the employee ownership record of this privatisation programme? If some of the other objectives were clearly achieved, namely a reduction in State weight in the economy [1] or a contribution to the development of the stock exchange market (Barreiros & Oliveira, 1997), what can be said about employee ownership? Correia (1996) studied employee ownership in privatised Portuguese firms and concluded that employees did not show much enthusiasm for becoming owners of their firms.

However, after 1996, all the shares reserved for employees were bought, and in some cases employee demand even surpassed supply [2]. In spite of the existent incentives, and despite the enthusiasm shown by employees, we believe that the employee ownership objective was settled mainly to suppress potential opposition from employees and unions to privatisation. The special conditions offered to enhance employee ownership and the implicit gains offered to employees may have been simply the price of a low social conflict environment. If we consider the possibility, confirmed in some cases, that the restructuring of the recently privatised firms could be accompanied by downsizing, this idea gains increased consistency.

3 - Empirical strategy and data

As a first step we will address the question of how important the gains consented to employees were considering only three aspects of the exclusive conditions they could access: price reduction, cash discounts and tax benefits. Then, the gains obtained if they sold the shares in

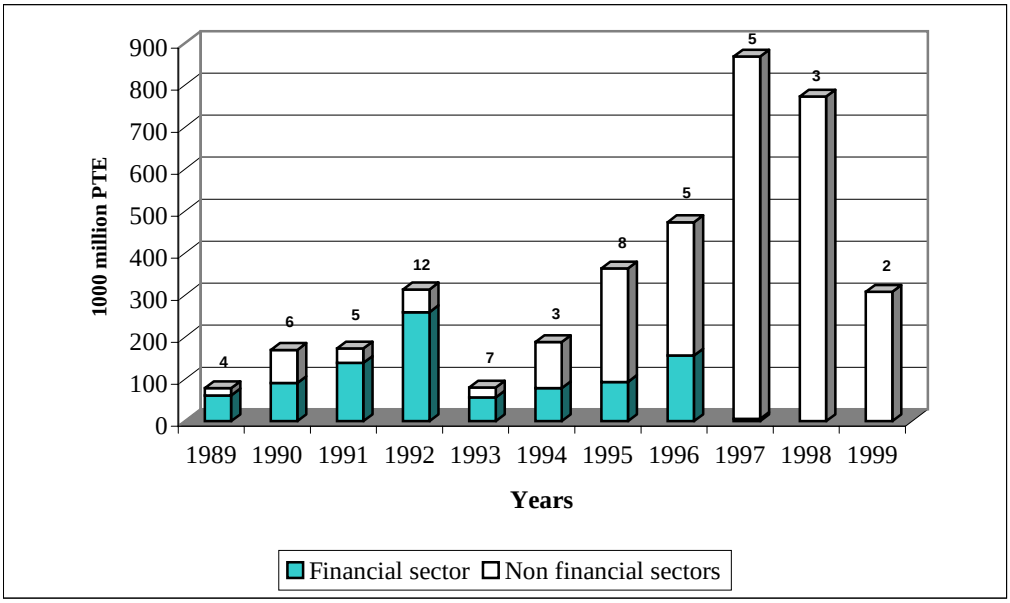
the stock market just after the unavailability period are evaluated and compared with the gains resulting from a riskless security: time deposits. Finally the employee's rate of adhesion to ownership is related to the benefits they were offered and also to some financial risk measures of the privatised firms.

The data set was constructed with the available stock price information (Lisbon Stock Market publications and online services) together with the legal diplomas related to each of the privatisation operation (see annex 1). We also used some macroeconomic data regarding employees' average compensation (earnings plus benefits) taken from DE (from 1989 to 1995) and DETEFP (from 1996 to 1998), and savings rates from Banco de Portugal reports (from 1989 to 1998).

The period studied goes from 1989 to the end of 1999 and we considered 60 privatisation operations carried out through public offer. These 60 public offers correspond to only 43 different firms given that 12 of them were privatised in more than one operation (for instance Portuguese Telecom was privatised in four different operations). Some of the privatised firms were not quoted on the stock market and so the number of operations decreases when stock price becomes part of the analysis (see annex 2 for a resume of the data on the special conditions for each privatisation operation considered).

The privatisation strategy began with firms that had an uncontested market value in order to attract private investors, and also to assure significant revenues for the State and to attract investors' attention for future operations. Chart 1 shows the relative importance of financial sector operations' over the years in State revenues obtained each year [3]. The number of privatisation operations that took place each year appears at the top of the column for that year.

Chart 1 - Total privatisation revenues and financial firms privatisation revenues



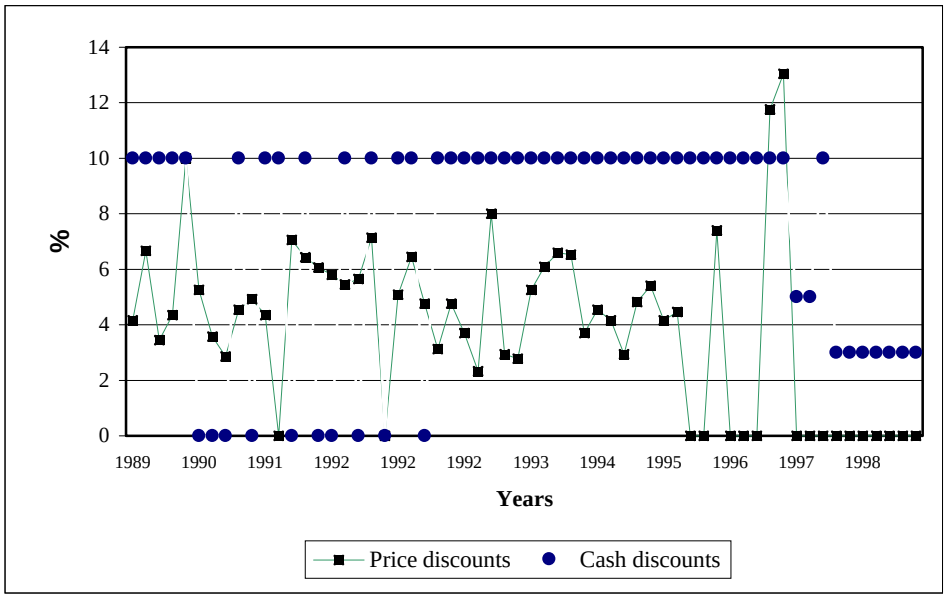
As mentioned above, certain sectors were still restricted to State intervention, and thus the greater importance of the financial sector in the first year's operations can also be explained by this fact.

4 - Empirical findings

4.1. A clear invitation to ownership

The first aspect we evaluate is the level of benefits available for employees at the moment of the privatisation. The benefits we quantify are special conditions afforded to employees relative to other small subscribers that already had some advantage in relation to institutional investors. As referred to above, we only quantify three of the special conditions: price discounts, cash discounts and tax benefits. Chart 2 presents the values of price and cash discounts in the privatisation operations.

Chart 2 – Price and cash discounts



The chart shows that cash discounts when they existed, (they were not available in ten of the sixty operations considered), were 10% until 1997 and then were reduced first to 5% and then to 3%. Price discount behaviour was much more erratic though, showing a clear tendency to decrease and disappearing completely from 1997 on.

This decrease in the importance of cash and price discounts goes together with the existence of a guarantee for a certain amount of shares in the case of allotment. In fact, after June 1995 (1st phase of "Portugal Telecom" privatisation) some ebullience took up the stock market (see section 4.2) and employees were no exception to the growing interest in privatisation operations. From this operation on, this guarantee was made in two thirds of the eighteen operations carried out.

Tax benefits were also quantified as, since 1992, employees and other small subscribers benefited from the possibility of a tax deduction when buying shares in the firm where they worked. For the calculation of the tax benefit granted to employees, we used: the tax rate applied to the first income interval (**t**), the maximum values that employees could deduct from the income over which the tax was going to be applied (**me**), and the maximum values that other small subscribers could deduct from the income over which the tax was going to be applied (**ms**). The values of tax benefit to employees resulted from the following formula: t*(me-ms).

These three advantages were summed in order to calculate what we defined as the potential gains offered to employees.

However, some of the other special conditions could also have had a significant financial impact.

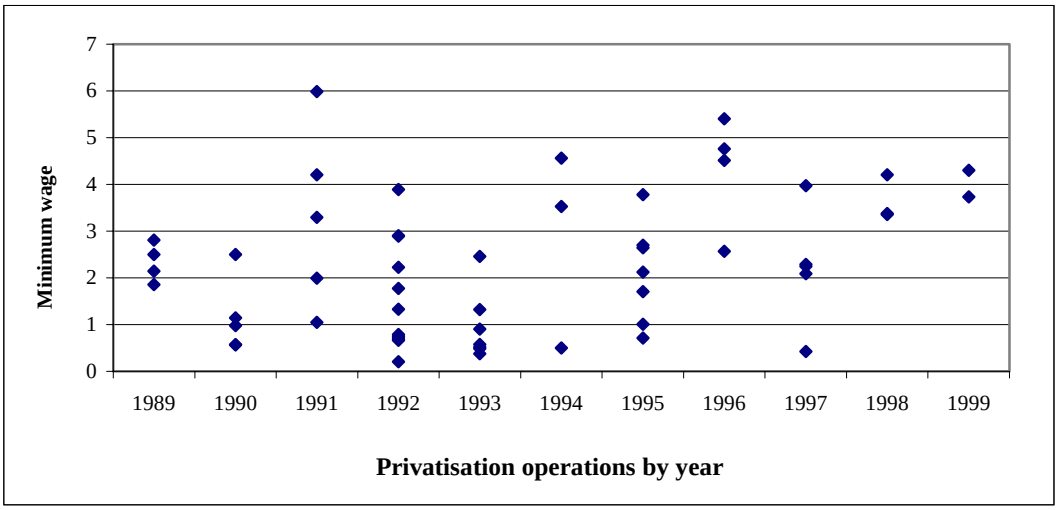
One of these was delayed payment without interest that was not quantified given that it was an alternative to cash discounts. In 90% of cases, the formula used was a one-year payment period, 50% of it in equal monthly payments and the other 50% with the last monthly payment. Employees could also choose to have these payments automatically deducted from their salary.

Finally, from 1997, a bonus was given to employees who kept their shares for a certain period of one share for each twenty-five detained for more than one year. This bonus was accompanied by a reduction in the period of time where employees were obliged to keep their shares (from 2 years in the first operations to three months in later ones).

Transaction costs and dividend policies were not accounted for in our analysis due to the difficulties in obtaining data. Nevertheless, we believe that our results are not significantly affected given the low importance of transaction costs and the lack of a regular profit distribution policy in the Portuguese stock market.

Sixty privatisation operations were considered and the advantages offered by each one were quantified, the results being expressed in terms of minimum wages (monthly terms). By referring these gains to the minimum wage, we intend to give a clearer idea of the relative importance of these gains. [4]. Chart 3 shows the maximum gains allowed in each operation, if the employee had bought the maximum shares he was entitled to (potential gains).

Chart 3 - Potential gains offered to employees



The gains offered in each operation differ widely from an average of 2,3 times the minimum wage, with a wide variation between 6 times more and 0,2 of the minimum wage [5]. Among the operations offering the lowest gains we find the ones regarding transport companies, some of them resulting from the division of the national transport company (RN), although the lowest value corresponds to the 2nd privatisation operation of a bank (BPA). To the other extreme, among the ones offering the highest potential gains we find banks, insurance companies, utilities and cement manufacturers, with the highest value regarding a bank (SFP - Banco Mello).

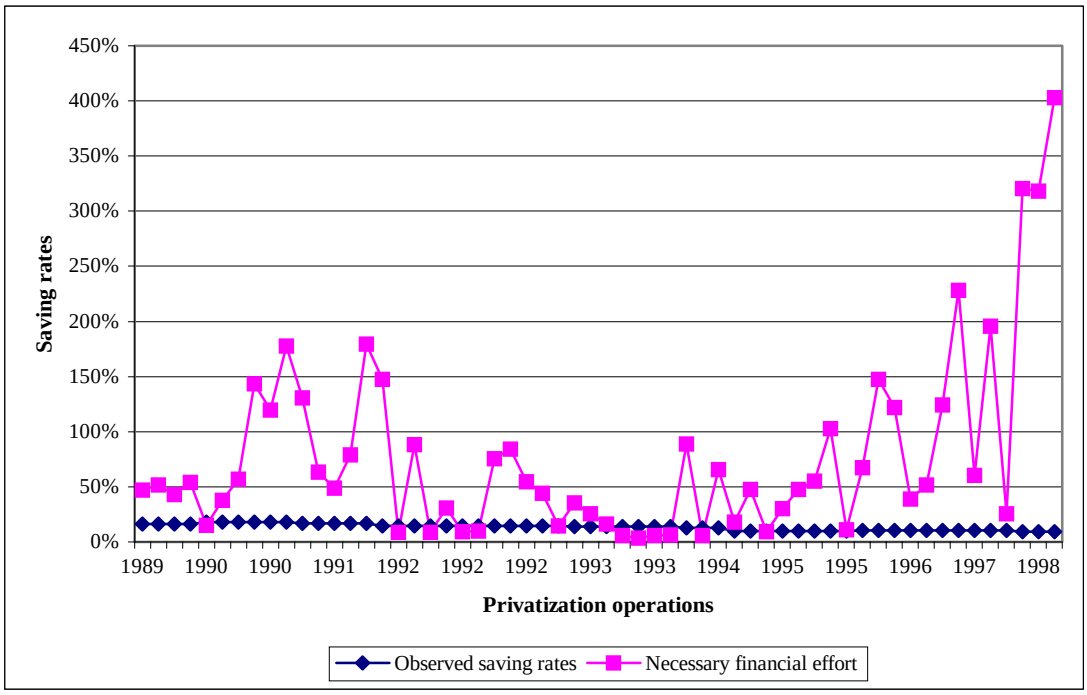
Only in 38 of these operations there was the possibility of using the stock market to sell the shares, thus we can wonder if this fact has influenced the gains offered to employees. The evidence shows that on average, higher benefits were offered to employees in firms quoted on the stock market this difference being statistically significant (Z score = 3,93) [6]. This could be related to some of the other objectives of the privatisation programme, namely the development of the stock market. Also the higher risk for employee's investment due to stock market fluctuations and the employees' general defiance in relation to its speculative attributes could also have been taken into account in the form of higher potential gains offered to employees in these firms.

Another way of stating the importance of these potential gains is to ask what would have been the financial effort for employees in order to take advantage of these maximum benefits. Using the average compensation of a Portuguese employee, we compare the necessary financial effort to buy the amount of shares that will allow employees the maximum potential benefit with the actual average savings rate in the economy for that year [7].

For the calculation of the necessary financial effort we used the number of shares reserved per employee (**n**), the special price (**p**) and their compensation (**c**). The proxy used for employees'

income was the average compensation (wages plus benefits) before taxes. The values result from the following formula: (n*p / c). The observed savings rates were taken from the Portuguese Central Bank reports and refer to disposable income. Results are shown in chart 4.

Chart 4 – Observed savings rate compared to necessary financial effort



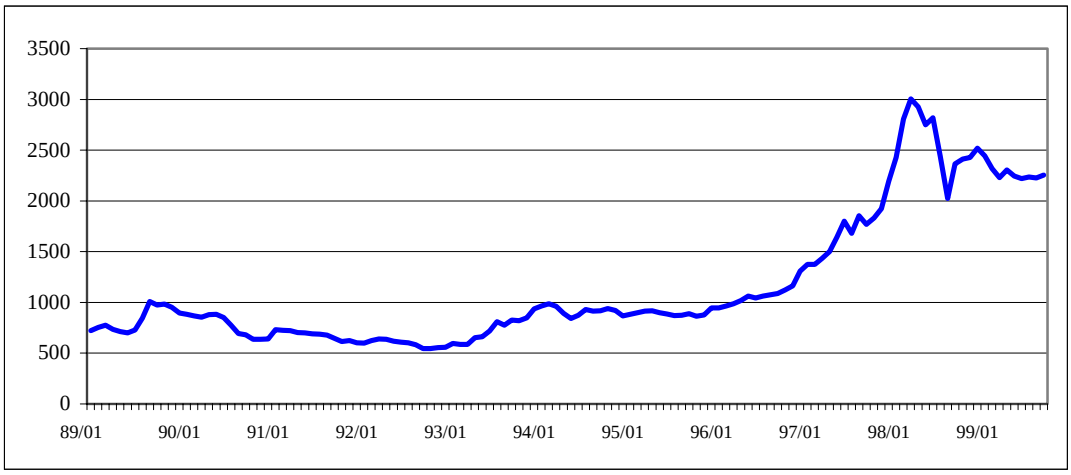
The chart clearly illustrates the significant employee's financial effort to take advantage of the full benefits offered. Only in 28% of the observations is the necessary financial effort close to the observed savings rate and in 20% of the observations the effort is higher than the average yearly income. In these cases, in order to secure the benefits, several years' savings would have to be applied and employees' wealth concentration on their own firm's shares would be inevitable. This would cause an inadequate concentration of risk from an investor's point of view.

Nevertheless, this can also be seen as a clear sign of the magnitude of the potential gains afforded to employees and thus of the importance of their adhesion to ownership within the framework of the selected privatisation strategy.

4.2. Immediate profits strategy: a good one?

The advantages offered to employees at the moment of privatisation could not be immediately converted into real profits. The unavailability period, which was specific to each operation, made the gains potential only. In the cases of the firms quoted (the ones with available data) stock behaviour determined the effective returns of the employees' decision to become owners. Thus, employees' immediate profits depend both on the special offer conditions and stock market performance. Hence, apart from the specific risk attached to their firm, employees also have their investments influenced by market risks. The evolution of the stock market index, BVL geral, depicted in chart 5, clearly shows that different outcomes could have been obtained in different periods of time.

Chart 5 - Lisbon stock market index evolution (BVL geral – January 1989 to December 1999)



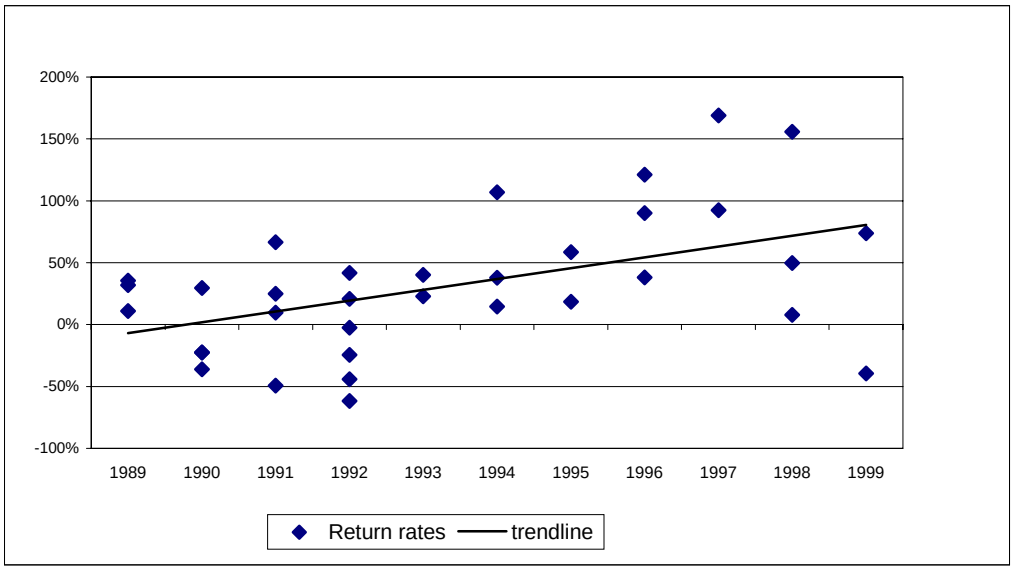
Only considering the sale price, potential gains may turn into returns. These returns were then compared to a riskless application (time deposit), in order to have a comparative indication of the returns of such choice. This does not mean that we are not aware that employees could have been influenced by other factors when they bought the shares, namely the idea of becoming part of the decision making process or the desire of signalling their commitment to the firm's new administration. We are only looking at the outcome of these decisions from an investment point of view.

We took the operations related to firms with quoted stock and considered the stock price variation between the privatisation moment and the end of the unavailability period (first possible day of trading). The price at the moment of privatisation (offer price) already includes the price and cash discounts. Comparing the offer price with the sale price allows the calculation of a return rate that was subsequently annualised. Adding the corresponding tax

benefit (which has an annual basis and occurs only at the end of the fiscal period), we were able to calculate the return rate associated with all three special conditions taken into account.

Chart 6 shows these return rates for the firms quoted on the stock market. Each of the 33 points corresponds to a privatisation operation. Two observations (relative to 1997) were excluded from the chart. Their extremely high values will hide the information contained in the chart from view.

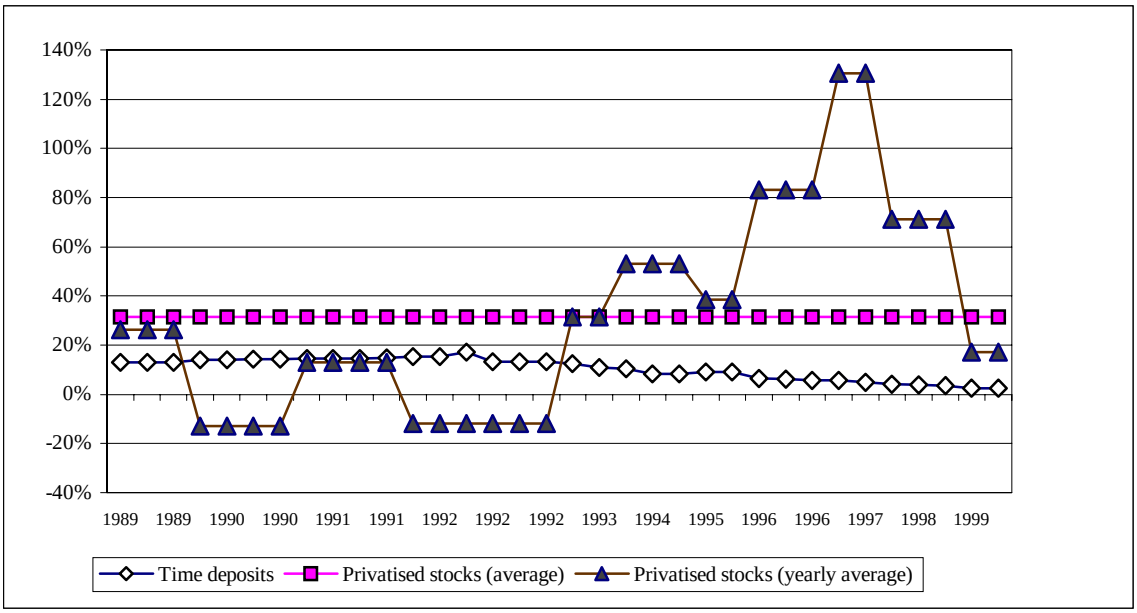
Chart 6 – Privatised stock return rates– by year



The results do not show a clear-cut situation. The stock market situation after 1995 allowed significant positive rates, mainly in 1996 and 1997. One must also note that the two operations excluded from the chart due to their extremely high values (Brisa 1st - 1224% and EDP 1st - 302%) are also from 1997. So, very high returns were possible for employees mainly in the latter period that is, when the stock market 'took off'. The first years' operations, in spite of being associated with higher potential gains, allowed lower return rates, which were even negative in some cases.

Next chart presents the interest rates from time deposits, the average rate of return for the privatised stocks and also the average rate of returns of privatised stocks for each year.

Chart 7 – Privatised stock and time deposit interest rates



The chart shows the higher average return rate of the privatised stocks together with a different pattern of behaviour when viewed on an average yearly basis.

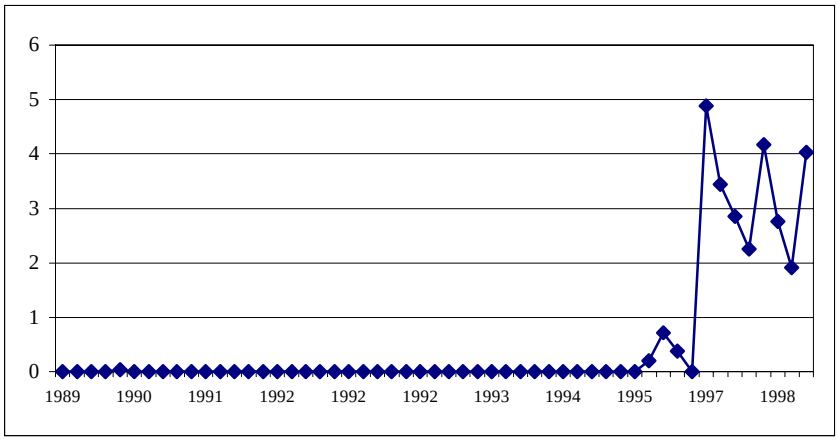
Employees' gains seem to follow the stock market index variation pattern (see chart 4). The fact that the correlation coefficient between returns and potential gains is negative (-0,203 and statistically significant) suggests that returns were fundamentally influenced by stock prices.

4.3. Privatised firms, did employees know it was a good investment?

What was the employee's adhesion rate in each operation? Was this rate somehow related to the potential gains offered? To what extent did employees anticipate the returns they could obtain, that is to say, did they know what they were buying or did they just become owners due to the generosity of the potential gains?

To address these issues we first took a measure of employees' adhesion to ownership (number of shares bought / number of shares reserved) and in the operations where the data was available (number of shares wanted/ number of shares reserved), respectively EAR (effective adhesion rate and PAR (potential adhesion rate). Chart 8 shows that the differences between the two adhesion rates appears only after 1995 confirming the increased employee's enthusiasm for buying shares that clearly surpassed the amount reserved for them.

Chart 8 –PAR - EAR



The adhesion rate (PAR) was then regressed in the potential gains offered to employees at the moment of privatisation. What we wanted to find out was whether potential gains were important in employee decision making. Considering the fact that after June 1995 price advantages were reduced and substituted by a guarantee of a certain amount of shares in the case of allotment, we take this as a proxy of the enthusiasm for stock market in general and privatisation operations in particular. In this situation, the State was able to guarantee the adhesion of workers only by assuring them a certain quantity of shares. Thus we take it as a sign of higher expected returns in this period and so of a possible different relation between adhesion rate and potential gains due to a different stock market climate.

Regression results are presented below for 53 observations given that in seven cases (in five cases for EAR), data was not available.

*Table 1 –Adhesion rates and potential gains - **regression results***

	PAR (1)	PAR (2)	PAR (3)	PAR (4)	PAR (5)	PAR (6)	PAR (7)	PAR (8)
constant	0,259 (0,73)	0,511 (2,12)	0,449 (1,22)	0,217 (1,06)	0,005 (0,01)	0,217 (1,00)	0,025 (0,05)	0,174 (0,80)
PG	0,322 (2,49)	-0,022 -(0,23)	-0,281 -(0,12)	0,072 (0,93)	0,174 (1,22)	0,007 (0,83)	0,159 (0,27)	0,051 (0,60)
QF					0,961 (2,16)		0,926 (1,26)	0,164 (0,59)
PG*QF			0,346 (1,72)				0,019 (0,06)	
AG				2,995 (10,34)		2,988 (4,27)		2,941 (9,63)
PG*AG		0,814 (8,02)				0,002 (0,01)		
N	53	53	53	53	53	53	53	53
AR^2	0,091	0,594	0,124	0,705	0,151	0,698	0,134	0,700

P

AR = potential adhesion rate; PG = potential gains offered in the privatisation moment; AG = dummy variable with 1 = operations where there was a guarantee of a number of shares in case of allotment, 0 = otherwise; PG * AG = interactive dummy; QF = dummy variable with 1 = quoted firms, 0 = non-quoted firms; PG * QF = interactive dummy.
N = number of observations; AR^2 = adjusted R^2; t ratios in parentheses.

Equation [1] indicates the existence of a positive relation between employees' adhesion rate and the potential gains offered. However the introduction in equation [2] of the interactive dummy clearly shows that this positive association is due to the observations where there was an allotment guarantee. Also, adhesion rates seem to have been differently influenced by potential gains in quoted firms as shown by the significant coefficient of PG*QF in equation [3]. A different behaviour of the adhesion rate is noted by the dummy variables QF and AG (equations [5] and [6]), but the adhesion rate seems to have been mainly determined by the existence of an allotment guarantee (equation [8]). Thus, we confirm the idea of a stock market evolution as the main determinant of the adhesion rate.

What about the returns obtained after selling the shares at the end of the unavailability period? To what extent were employees aware of the real value of what they were buying and how did it affect their adhesion rates? If we consider the possibility that employees adhesion rate could be explained by their knowledge of their own firm, then employees should avoid becoming owners in firms with high specific risks. Thus, we expect the adhesion rate to be lower in these cases (Moura Ramos, 1999). We calculate the Fsr (Firm specific risk) taking into account the stock market variation of a stock and the extent to which its variation is not explained by stock market variations. In order to calculate each firm specific risk we took the available monthly

data for each firm (making the risk measures being calculated with different number of observations) and regressed against stock market information for the same period.

R_{it} - variation [month(t) - month(t-1)] of the stock price of firm i;
R_{mt} - variation [month(t) - month(t-1)] of the market price index.

[1] $$R_{it} = \eta + \delta_j R_{mt} + E_{it} ;$$

the residual [Eit] obtained from [1] is the variation of the firm stock price not explained by market variations, that is the firm specific risk [Fsr]. This is defined as:

[2] $$Fsri = \sum_1^t (E_{it})^2 / t \ .$$

With this risk measure calculated for each firm, we then tried to see to what extent it is related with the employees' adhesion rate.

When we consider the return rate and firm specific risk measures, the number of observations goes down because only for quoted firms it was possible to calculate both the return rates and firm specific risks. Results are presented in table 2.

*Table 2 –Adhesion rates and return rates and firm specific risks - **regression results***

	PAR (1)	PAR (2)	PAR (3)	PAR (4)	PAR (5)	PAR (6)	PAR (7)	PAR (8)
constant	1,230 (4,16)	0,471 (2,18)	1,284 (4,19)	0,485 (2,15)	0,834 (2,28)	0,448 (1,78)	1,945 (4,61)	0,672 (1,42)
RR	0,320 (2,47)	0,060 (0,67)	-0,579 -(0,68)	-0,084 -(0,15)				
RR*AG			0,911 (1,06)	0,148 (0,26)				
FSR					29,83 (2,96)	1,027 (0,13)	-106,0 -(2,88)	-19,30 -(0,52)
FSR*AG							126,5 (3,79)	21,38 (0,56)
AG		2,854 (6,95)		2,931 (6,64)		2,951 (6,12)		2,680 (3,90)
N	33	33	33	33	31	31	31	31
AR^2	0,137	0,658	0,141	0,648	0,205	0,648	0,456	0,639

PAR = potential adhesion rate; RR = return rates; AG = dummy variable with 1 = operations where there was a guarantee of a number of shares in case of allotment, 0 = otherwise; RR * AG = interactive dummy; FSR = firm specific risk; FSR * AG = interactive dummy.
N = number of observations; AR^2 = adjusted R^2; t ratios in parentheses.

The coefficients of both variables RR and FSR are only important to explain the adhesion rate when the allotment guarantee dummy is not considered (regressions [1] and [5]). When this variable is considered all the other variables loose their explanatory power, showing results that stress, as shown in table 1, the clear influence of the stock market momentum on employee ownership decision making.

5 - Concluding Comments

The privatisation process in Portugal defined as one of its aims the promotion of ownership among small investors with a special concern for employees. This emphasis was turn into benefits offered at the moment of privatisation. These benefits were on average equal to 2,3 times the minimum wage, and the savings effort needed to secure them was sometimes higher than a yearly average income showing the relevant economic significance of the benefits offered. Nevertheless these benefits were only potential ones because employees could not sell their shares during the non-availability period. Employees' returns showed a mixed situation, being sometimes negative and, in the period after 1995, being extraordinarily high. Between

1996 and 1997 these rates were clearly higher than average and always higher than the interest rate offered by time deposits. Employee ownership decisions seem to have been influenced mainly by the general enthusiasm for privatisation that influenced all the investors, including the small subscribers in which employees were included. The decision to buy shares in their own firms allowed employees the possibility of making good investments when stock market behaviour permitted it. In other cases the results associated with these investments were actually negative, in spite of the significance of the potential benefits offered.

The mechanism designed to secure information access and influence a firm's General Assembly (the constitution of investment funds that grouped employees' shares) was never used by employees. The total share owned by employees was never very significant and the available mechanism to transform it in a unique voice was never used. The employee ownership outcome was thus deceptive from the standpoint of increased formal employee participation. Perhaps employee ownership was just a tool for a successful transition from State (sometimes monopolistic) logic to a private one. Market rules are always easy to accept if we can gain something from them.

Annex 1 - Privatization operations: legal diplomas

Name of the firm	Date of the operation	Legal diplomas
Several firms	Until 31/12/1995	See Correia (1996:231-239)
P. Telecom 2ª	1996	D.L 34 A/96; RCM 67 A/96; RCM 75 A/96
Cimpor 2ª	1996	D.L 64/96; RCM 163 A/96
BTA última	1996	D.L 261/96;D.L 200 A/96; RCM 182/96
Fábrica Tab.Micaelense	1996	D.L 90/95; RCM 60/95; RCM 88/95
BCA	1996	RCM 59/95; RCM 77/95
BFE 3ª	1997	D.L 33/96; RCM 9 A/97
EDP 1ª	1997	D.L 78 A/97; RCM 68/97; RCM 82/97; RCM 95/97
SN - longos 2ª	1997	n.a.
P. Telecom 3ª	1997	D.L 226 A/97; RCM 149 A/97; RCM 167/97
Brisa 1ª	1997	D.L 253/97; RCM 191 A/97; RCM 198/97; RCM 200 A/97
Cimpor 3ª	1998	D.L 94 A/98; RCM 61/98; RCM 63/98
EDP 3ª	1998	D.L 94 C/98; RCM 65/98
Brisa 2ª	1998	D.L 299 A /98; RCM 125/98; RCM 131/98; RCM 134/98
P. Telecom 4ª	1999	D.L 119 A /99; RCM 56/99; RCM 70/99; RCM 81/99
Brisa 3ª	1999	D.L 138 A /99; RCM 39/99; RCM 45/99; RCM 81/99

n.a. : not available

RCM – Resolution Council Ministers

D.L. – Decree law

Annex 2 - 60 Main Privatization Operations

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
Unicer 1ª	26.04.89	2 years	0.49	0,39	0.39	0.12	0.06	0.30	4.17	10.00	2 years, monthly, trimester, or semester payments	Yes		
BTA 1ª	10.07.89	2 years	0.49	0,51	0.51	0.13	0.06	0.25	6.67	10.00	2 years, monthly payments	Yes		
Aliança Seguradora 1ª	02.10.89	2 years	0.49	0,50	0.50	0.15	0.07	0.30	3.45	10.00	2 years, monthly payments	Yes		
Tranquilidade 1ª	04.12.89	2 years	0.49	0,33	0.33	0.10	0.05	0.30	4.35	10.00	2 years, monthly payments	Yes		
J. Notícias	11.05.90	2 years	0.86	1,04	1.00	0.05	0.04	0.05	10.00	10.00	2 years, monthly payments	Yes		
Unicer 2ª	28.06.90	1 year	0.51	1,00	1.00	0.03	0.02	0.03	5.26		1 year, monthly payments	Yes		
BTA 2ª	31.07.90	1 year	0.31	0,49	0.49	0.10	0.03	0.20	3.57		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Tranquilidade 2ª	09.10.90	1 year	0.51	0,11	0.11	0.02	0.01	0.20	2.86		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
Centralcer	12.11.90	1 year	1.00	0,09	0.09	0.02	0.02	0.20	4.55	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BPA 1ª	11.12.90	1 year	0.33	0,49	0.49	0.12	0.04	0.25	4.93		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
SFP	06.05.91	1 year	1.00	0,08	0.08	0.01	0.01	0.10	4.35	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
D. Notícias	15.05.91	2 years	1.00	0,01	0.01	0.00	0.00	0.10	0.00	10.00	3 years, semester payments	Yes		
Aliança Seguradora 2ª	29.05.91	1 year	51.00	0,03	0.03	0.01	0.29	0.20	7.06		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Bonança 1ª	25.06.91	1 year	60.00	0,52	0.52	0.17	10.49	0.33	6.43	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BESCL 1ª	09.07.91	1 year	40.00	0,65	0.65	0.16	6.46	0.25			1year, 50% - equal monthly payments, 50%	Yes		

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
									6.06		- last monthly payment			
BESCL 2ª	25.02.92	1 year	60.00	1,00	1.00	0.11	6.74	0.11	5.80		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. Algarve	10.03.92	1 year	100.00	0,03	0.03	0.01	0.65	0.19	5.45	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Mundial Confiança	14.04.92	1 year	100.00	0,05	0.05	0.01	1.33	0.25	5.65		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. Douro e Minho	22.04.92	1 year	100.00	0,04	0.04	0.01	0.84	0.20	7.14	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BPA 2ª	25.05.92	3 months	17.64	n.a.	n.a.	0.03	0.45	n.a.	0.00		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Transporta	12.05.92	1 year	100.00	0,02	0.02	0.00	0.42	0.20	5.08	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
Rodocargo	19.05.92	1 year	100.00	0,01	0.01	0.00	0.18	0.20	6.45	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BFB 2ª	20.07.92		20.00	0,02	0.02	0.02	0.48	1.00	4.76		1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Império	17.11.92	1 year	100.00	0,70	0.70	0.11	10.55	0.15	3.13	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Cosec	25.11.92	1 year	3.33	0,75	0.75	0.75	2.50	1.00	4.76	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
CPP	02.12.92	1 year	100.00	0,26	0.26	0.05	5.13	0.20	3.70	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Bonança 2ª	09.12.92	1 year	15.00	0,36	0.36	0.09	1.33	0.25	2.33	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
UBP 1ª	03.02.93	1 year	61.11	0,50	0.50	0.07	4.56	0.15	8.00	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rádio Comercial	12.04.93	1 year	100.00	0,17	0.17	0.02	1.70	0.10	2.94	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BPA 3ª	07.07.93	1 year	17.50	0,34	0.34	0.03	0.50	0.09	2.78	10.00		Yes		
Rod. B. Litoral	27.07.93	1 year	100.00	0,28	0.28	0.06	5.66	0.20	5.26	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. B. Interior	09.11.93	1 year	100.00	0,05	0.05	0.01	0.92	0.20	6.09	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. do Tejo	16.11.93	1 year	100.00	0,43	0.43	0.09	8.56	0.20	6.60	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. Alentejo	20.12.93	1 year	100.00	0,13	0.13	0.03	2.59	0.20	6.52	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
Cimpor 1ª	04.07.94	3 months (*)	20.00	0,19	0.19	0.05	0.94	0.25	3.70	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. Estremadura	08.08.94	1 year	100.00	0,01	0.01	0.00	0.17	0.20	4.55	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BFE 1ª	27.12.94	1 year	19.50	0,75	0.75	0.13	2.56	0.18	4.17	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. Sul do Tejo	10.01.95	1 year	100.00	n.a.	1.00	n.a.	n.a.	n.a.	2.94	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BPSM 2ª	28.12.95	1 year	20.00	0,55	0.55	n.a.	n.a.	n.a.	4.82	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
Rod. Lisboa	15.05.95	1 year	100.00	0,01	0.01	n.a.	n.a.	n.a.	5.41	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
SECIL 2ª	29.05.95	1 year	7.94	0,19	0.19	n.a.	n.a.	n.a.	4.17	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
CMP 2ª	29.05.95	1 year	20.00	0,19	0.19	n.a.	n.a.	n.a.	4.46	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
P. Telecom 1ª	01.06.95	6 months	14.21	0,50	0.50	0.09	1.28	0.18	0.00	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment		85	
Portucel Industrial 1ª	27.06.95	6 months	32.20	1,24	1.05	0.26	8.47	0.25	0.00	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment			
SOCARMAR 2ª	09.08.95			n.a!		n.a	n.a		7.41	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment			
P. Telecom 2ª	11.06.96	6 months	6.66	1,72	1.00	0.32	2.12	0.32	0.00	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment		70	

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
Cimpor 2ª	15.10.96	6 months	20.47	1,38	1.00	0.04	0.83	0.04	0.00	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	yes	200	
BTA 3ª	19.11.96	6 months	3.07		1.00	0.35	1.06	0.35	0.00	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment		100	
Fábrica Tab.Micaelense	05.12.96		10.00	n.a.	n.a.	n.a.	n.a.	n.a.	11.76	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
BCA	09.12.96	1 year	10.00	0,89	0.89	0.87	8.72	0.98	13.04	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment			
BFE 3ª	07.02.97	3 months	3.24	n.a.	n.a.	n.a.	n.a.	n.a.	0.00	5.00	2 years, 50% - 3 equal semester payments, 50% last semester payment		200	
EDP 1ª	16.06.97	3 months	16.23	5,88	1.00	0.06	0.93	0.06	0.00	5.00	1year, 50% - equal monthly payments, 50% - last monthly payment		300	25*1_1 year

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
SN 2ª	04.08.97		0.59	n.a.	n.a.	0.20	0.12	0.00	0.00	10.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes		
P. Telecom 3ª	09.10.97	3 months	9.03	4,44	1.00	0.18	1.63	0.18	0.00	3.00	1year, 50% - equal monthly payments, 50% - last monthly payment		100	25*1_1 year
Brisa 1ª	24.11.97	3 months	19.45	3,85	1.00	0.04	0.71	0.04	0.00	3.00	1year, 50% - equal monthly payments, 50% - last monthly payment		200	25*1_1 year
Cimpor 3ª	18.05.98	3 months	25.00	3,26	1.00	0.02	0.58	0.02	0.00	3.00	1year, 50% - equal monthly payments, 50% - last monthly payment		200	25*1_1 year
EDP 3ª	26.06.98	3 months	25.00	5,17	1.00	0.06	1.54	0.06	0.00	3.00	1year, 50% - equal monthly payments, 50% - last monthly payment		200	25*1_1 year
Brisa 2ª	09.11.98	3 months	15.50	3,76	1.00	0.02	0.31	0.02	0.00	3.00	1year, 50% - equal monthly payments, 50% - last monthly payment		100	25*1_1 year

Privatization operation	Date	(A)	(B)	(C)	(D)	(E)	(F)	(G)	Price discounts	Cash discount	Delay payment (without interest)	Possibility of payments to be discounted in the salary	Number of shares guarantee (in allotment)	Bonus (for keeping shares)
P. Telecom 4ª	12.07.99	3 months		2,91	1.00	0.17	0.00	0.17	0.00	3.00				25*1_1 year
Brisa 3ª	24.05.99	3 months	20.00	5,02	1.00	0.03	0.68	0.03	0.00	3.00	1year, 50% - equal monthly payments, 50% - last monthly payment	Yes	100	25*1_1 year

(A): Unavailability period

(B): Share sold by the state(%)

(C): Shares demanded by employees / Shares Supplied to employees

(D): Shares effectively bought by employees / Shares reserved to employees

(E): Shares effectively bought by employees / Number of shares sold (total)

(F): % of capital property of employees

(G): Shares reserved to employees) / Number of shares sold (total)

Source: legislation, Lisbon Stock Market Publications and online services.

NOTES

[1] 19,7% of GDP and 5,5% of total employment in 1988 against 8% of GDP and 2,6% of total employment in 1999 (DGEP, 1999).

[2] For instance in 1997 in the 1st phase of EDP (electricity) privatisation, employee's demand was 5,9 times higher than the amount reserved for them (see chart 8).

[3] Note that 1 Euro = 200,482 PTE.

[4] One should refer the decrease of the ratio (Minimum wage/ Average wage) from a value of 0,48 in 1989 to a value of 0,43 in 1998.

[5] One should take into account that these potential gains are calculated irrespective to the time period where they can be transformed in actual gains (unavailability period).

[6] $Z = X1 - X2 \Big/ \sqrt{\frac{S1^2}{N1-1} + \frac{S2^2}{N2-1}}$

with: $\overline{X}$ = average value for the sub-sample; S = standard- deviation for the sub - sample; N = number of observations in the sub-sample; 1 = quoted firms; 2 = non-quoted firms.

[7] Among the special conditions that made employees investment possible two were not considered in our analysis: delayed payment without interest and loans. In the cases where they were in effect, the calculated financial effort may not be the exact measure of the real effort rate.

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- Fátima Assunção Sol e José Alberto Soares da Fonseca

Nº. 1 *Uma Análise de Curto Prazo do Consumo, do Produto e dos Salários*
- João Sousa Andrade