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Privatisation and Ownership: The Impact on Firms in Transition Survey Evidence from Bulgaria

by

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Privatisation and Ownership - The Impact on Firms in Transition Survey Evidence from Bulgaria

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I   Introduction

Previous papers in this Special Series, have described in detail the theoretical background and development patterns, along with some empirical results, for the privatisation processes in Bulgaria and Poland. A range of issues have been raised which demand closer empirical investigation. For this purpose, the research group has developed questionnaire studies for Bulgaria and Poland.[1] In Bulgaria, the National Statistical Institute (NSI) carried out the case studies between February and April 1998. The problems of the questionnaire set-up were identified in a pre-test study, but unlike the Polish case, they led to only minor differentiation.[2] Since financial limitations prevented a larger sample size, a sample size of 61 mid-sized and large Bulgarian enterprises was selected. Failure to respond was not a serious problem, unlike with the Polish questionnaire; this is because the NSI has maintained good links to the enterprise sector and management were prepared to give detailed answers, even on questions of their firms' financial status. However, as the Polish experience suggests, it has become obvious that the privatisation process is also associated with management's increasing reluctance to answer comparatively 'intimate' questions. Thus, future questionnaire studies must take a much higher rate of refusals into consideration.

The pre-selection procedure in Bulgaria was determined by the project target, which sought to analyse the effects of the privatisation process on firm's behaviour during the transition process, and hence only firms which had already existed before the changes were included. For

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[1]   For Poland see Bednarski & Kurowski (1999).

[2]   The questionnaire is printed in the appendix.

small and medium-size enterprises (SME's), most of which were founded after the changes, partly due to the legal processes of spontaneous privatisation[3], some empirical, as well as analytical, studies were carried out. Thus, the research group limited the scope of investigation to enterprises with more than 250 employees. The underlying hypothesis is that employment problems are concentrated in larger firms, in particular amongst those still (partly) state-owned. Because of the former ownership structures and relatively slower capacity for management change, the assumption is that state-owned enterprises (SOE's) which have only been recently privatised might still have traditional links to government even after privatisation. On the one hand, the SME's are obviously more prone to, and linked with, market processes. As a result, they don't have the financial potential and incentives to follow job-hoarding strategies. On the other hand, there are almost no SME's which are still state-owned. Hence, the prevailing opinion in the literature is that 'larger industrial firms were apt to be least efficient, most often producing inadequate and non-competitive products, with a high degree of under-utilisation of labour and most inflexible to change' (Jones & Nikolov 1997, p. 252). Thus, as mentioned above, though there may be some limitations with regard to firm representation, our sample characterises a number of enterprises that offer fertile ground for the analysis of firms' adjustment to the newly established market realities in a transition economy.

Our study is unique in the sense that existing empirical studies on privatisation and enterprise restructuring generally cover the time period just before and after the initial stages of transition, e.g. 1988/89 to 1992. In those studies, samples of firms in the Czech Republic, Poland, Hungary and Bulgaria recognise that behavioural adaptations at the enterprise level had taken place just before the actual privatisation process materialised.[4] Therefore, almost all of the firms under examination were still state-owned. The firms were usually divided according to their performance as 'good', 'average' and 'bad' enterprises. The main findings of those early studies have shown that the macroeconomic adaptations (i.e., macro-level changes which induced micro-level adjustment by the firms), as well as emerging market structures, have created enormous pressures which in turn have influenced firms' economic behaviour, reallocation of resources and consequent restructuring. This evidence supports the hypothesis that the SOE's started restructuring and adjusting their behaviour and performance,

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[3] For the Bulgarian privatisation process see Bakardjieva & Sowada (1999).

[4] See, e.g., Pinto et. al. (1993), Estrin et. al. (1995) and Jones & Nikolov (1997).

in response to the harsh realities of more open markets, before privatisation actually started.[5] In this paper, we seek to present some results on these developments in Bulgaria, at the later stages of transition and privatisation (1992-1996).

The aim of our questionnaire study is therefore to show the effects of the privatisation process and ownership on the behavioural adaptations of firms which had once been state-owned or continue to be owned by the state. The period under investigation is 1992 to 1996. For1990 and 1991, the number of missing values is reactively high and, where relevant, we partly exclude these observations from our analysis. The paper contains seven sections. Section II outlines the macroeconomic environment in which our sample firms operate, provides some specifics of the Bulgarian privatisation process, and discusses data quality. Section III concentrates on the analysis of privatisation, the specific forms of ownership that resulted from it, and firm size. In Section IV, we describe the trends of the main economic variables within firms (such as employment, wages, labour productivity, etc), and a number of proxies of firm viability, while Section V presents some regression results to corroborate the discussion of the previous section. Section VI gives an overview of survey results of the impact of enterprise-determined wage policy, trade union activity and membership, government control, and social benefits on enterprise restructuring. Section VII is a summary of our findings.

II   Relevant Background: Bulgaria

Fifteen months after the fall of communism (delaying from Nov. 1989 to Feb. 1991), Bulgaria embarked on the path of transition to a market economy. The reform ideas were quite similar to those in other CEE countries. However, unlike Poland and its Balcerowicz-Plan[6], the Bulgarian reform goals were neither publicly announced, nor were they included in any explicit government statement. The pressure of foreign debt payments and delays in abolishing price controls, as well as considerable delay in the privatisation process, caused enormous political instabilities, which in 1994 even led the newly elected socialist government to re-implement old fashioned strategies.[7] This kind of stop-and-go policy had disastrous consequences for the macroeconomic development in the later stages of transition. Half-hearted price reforms in Bulgaria created inflationary pressures, which continued for a number

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[5]   For more detail see Roland (1994, p. 1160).

[6]   For details see, e.g., Sowada (1995).

[7]   For a detailed description of the political problems see Institute of Market Economics (1997, p. 1 ff. and 21).

of years and were unlike the far-reaching Balcerowicz reforms in Poland (see Table-1). Real production collapsed, causing a decline in the GDP - 9.1 % in 1990 and 11.7 % in 1991, respectively. While Poland recovered in 1992, in Bulgaria real growth only started to take place in 1994. The reversal of the political balance of power that year ultimately caused the unfavourable developments of 1996 and 1997,when the GDP again decreased (this time by 10.0 % and 7.0 %, respectively). The monetary shock this time was even greater, and led to hyper-inflation processes in some quarters both years.[8] While Poland reached macroeconomic stability comparatively early, Bulgaria is still suffering from the consequences of the recession and these monetary shocks.

Table-1: GDP Growth, Industrial Production,

Consumer and Producer Price Indices (CPI and PPI), (1989-1997)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
%GDP Growth	0.5	-9.1	-11.7	-7.3	-2.4	1.8	2.6	-10.1	-6.9
Industrial Production	116.8	100.0	79.2	64.55	58.2	64.5	67.4	69.9	62.8
PPI	-	-	-	100.0	126.9	222.1	339.1	806.1	1829.0
CPI	-	100	439.5	786.6	1227.5	2296.3	3722.0	8300.2	98132

Source: OECD (1996), Institute of Market Economics (1997), NSI, authors' own calculations.

Election results showed a public backlash against reform programs not only in Bulgaria but also in Poland.[9] But while in Poland the privatisation process in the area of SME's was quite successful, and only mass privatisation was blocked in 1993, the spontaneous privatisation in Bulgaria did not yield efficient results, and even undermined people's trust in the transition process. This was largely due to the perception of high levels of corruption and illegal activity. A second round of cash privatisation took place between 1993 and 1995. However, considerable progress was only achieved with the introduction of mass privatisation in 1996.[10] Most of our sample contains firms for which privatisation was completed by the end of 1997, (though some enterprises were affected by the 1993-1995 round). As is demonstrated in our

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[8]   For monetary shock and the inflation process see Demopoulos & Fratzeskos (1999, Table 2).

[9]   See Roland (1994, p. 1162).

[10]   See Bakardjieva & Sowada (1999).

analysis, in particular the gains from privatisation (the process of real change and consolidation of property rights) are substantial and acted as a principle driving force in firm adjustment and restructuring.

In view of the second large monetary shock, it has become of particular interest to understand how firms in transition have endured and adapted, and which ones have been relatively more successful – the SOE's or the firms either considering, or already having undergone, privatisation.[11] Another important question is whether the micro-level adjustments evidenced in our sample correspond to the macroeconomic developments. Most of the variables in our data set show similar trends to those reflected in the industry level data. Therefore, although the sample drawn is not large, it is indicative of firms' behaviour in the different stages of privatisation.

III The Privatisation Process and Enterprise Size

With regard to ownership forms, the sample was grouped as follows: SOE's, joint-stock companies totally owned by the state, joint-stock companies partly owned by the state, and privatised companies. With regard to ownership form, 44 of the 61 enterprises within our sample (or 71.2 %), had already been privatised by 1998. The figures for the joint-stock companies partially owned by the state are 7 (or 11.5 %), of those totally owned by the state 6 (or 9.8%)[12]; 4 (or 6.6%) are still SOE's (see Table 2).

Table 2: Ownership (1998) and Privatisation (% total)

		Procedure of privatisation of company					Total
		Not Privatised	Mass privatisation	Employee-Buy-Out	Direct sale	Other	
Ownership in enterprises (1998)	SOE	6.6				9.8	16.4
	Joint Stock		9.8	1.6			11.5
	Privatised		49.2	1.6	19.7	1.6	72.1
Total		6.6	59.0	3.3	19.7	11.5	100.0

Source: Authors' own calculations.

Hence, 17 of the firms (or 27.9 %) examined are still under State control. Compared to our Polish data set, in which the respective figures are 23.6 % of SOE's, 30.3 % of firms partially

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[11] The differences in the macroeconomic performance of Bulgaria and Poland and its impact on firms behaviour will be analysed in a comparitive study; see Christev & Petersen (forthcoming).

[12] These firms are under liquidation or leased to the management/employees; in Table 2 they are counted under the other privatisation methods.

owned by the State and only 14.6 % of private companies,[13] in Bulgaria, the privatised firms are much more strongly represented (which is not to attest to any relative success of reform or privatisation method).

Concentrating on the procedure of privatisation, mass-privatisation dominates (36 firms or 59%), followed by 12 instances of direct sale (19.7 %). The employee-buy-out method is almost negligible (2 cases or 3.3 %). Because the other methods of liquidation and leasing to management/employees are comparable with the buy-out methods, these definitional categories have been amalgamated for the privatisation dummies which were constructed for our regressions (see below).

In the following, for the purposes of our study, the enterprise size is defined with regard to the number of employees. Table 3 compares the different firm size categories with ownership form and privatisation method. A clear majority of the firms are medium-sized firms with between 250 and 750 employees (63.6 %). The respective figures for companies with 750 to 1000 employees is 11.4 %, for companies with more than 1000 employees, 25.0 %.

Table 3: Firm size, ownership and privatisation (% total)

Ownership in enterprises (1998)			Categories in enterprise employment (number of employees)				Total
			250-500	500 - 750	750 - 1000	More than 1000	
SOE	Process of company privatisation	Not Privatised	40.0				40.0
		Other	50.0			10.0	60.0
	Total		90.0			10.0	100.0
Joint Stock partially owned by the State	Process of company privatisation	Mass privatisation	14.3			71.4	85.7
		Employee-Buy-Out				14.3	14.3
	Total		14.3			85.7	100.0
Privatised	Process of company privatisation	Mass privatisation	36.4	11.4	6.8	13.6	68.2
		Employee-Buy-Out	2.3				2.3
		Direct sale	11.4		4.5	11.4	27.3
		Other		2.3			2.3
	Total		50.0	13.6	11.4	25.0	100.0

Source: Authors' own calculations.

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[13] See Bednarski & Kurowski (1999, p. 3).

The bulk of the SOE's and the joint-stock companies totally owned by the State is concentrated in the smaller to medium-sized firms (nine cases), whereas only two firms belong to the largest category. This fact might be important for the results below; if restructuring problems are more often observed in large SOE's, then this may have had a positive influence on the performance of the SOE's in our sample.

The joint-stock companies partly owned by the state which are on their way to privatisation are concentrated in the largest firm size category (six out of seven). Once again, mass privatisation dominates here, while only one firm was privatised by the employee-buy-out method. The private firms are also concentrated to a large extent in the smaller categories, though 11 firms belong to the larger and largest size categories. In addition, the sample was concentrated on industrial firms which produced manufactured products. The type of manufacture does not lead to clear results, so that analysis of this aspect is neglected in this paper.[14]

Areas of special interest are not only the ownership form, but also the structure of ownership itself. Table 4 gives a short overview, representing the means, of private or State ownership. As can be seen below, within the joint-stock companies partially owned by the State, the average State share is 25.6 %.

Table 4: Private and State ownership shares (%)

	Joint-stock company, State share	Private company share owned by employees and managers	Private company share owned by privatisation funds	Private company share owned by private entrepreneurs	Private company share owned by foreign investors
Sample Mean	25.6	7.9	30.2	7.1	8.2

Source: Authors' own calculations.

On average, employees and managers own about 7.9% of the privatised companies, while the privatisation funds are, at a rate of 30.2 %, clearly the dominant owners. The private entrepreneurs own about 7.1 %, and foreign investors, 8.2 %. The State's share of private companies is still considerable (18.2 %); all other forms of ownership account for 3.3 %. In summary, the sample of 61 medium and large firms in Bulgaria is a sufficiently reliable picture to present some valuable information on the impacts of the ongoing privatisation process, as well as allowing for some cautious, but significant, conclusions to be drawn.

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[14] Though not used in the analysis, we report on four industry dummies in the Appendix.

IV Development Trends and Firm Viability

For the time series analysis we grouped the firms into three categories: the SOE's (including the joint-stock companies totally owned by the State), the joint-stock companies partially owned by the State, and the privatised companies. Within these categories, we estimated average values for important variables on a real basis (deflated by the consumer price index – CPI) within the individual years of the period under investigation (1992-1996). Where appropriate we include 1990 and 1991, in order to receive a fuller picture of the underlying trends.[15] In addition, we analyse some growth trends for the period 1993 to 1996.

A firm's viability is measured in a number of different ways. First we look at a measure of profitability, defined as the profit margin after taxes or the profitability on equity.[16] These measures suffer from a certain bias; in particular, the profit margin after taxes depends heavily on individual firms' tax strategies. The large informal sector is one indicator that personal and corporate income tax avoidance and evasion are important behavioural adaptations within the enterprise sector.[17] It is therefore highly likely that even the pre-tax incomes and profits reported to the fiscal administration are much lower than they actually ought to be. Not only income and profit tax burdens, but also much higher social security contributions have favoured such developments.[18] Furthermore, many investments which had been delayed in the past, now need to be made, in order to ensure the survival of the privatised firms. As a result, current high levels of deprecations also reduce pre-tax profits.

Figure 1 shows the profitability developments for the whole firm sample from 1990 to 1996. It is obvious that as a consequence of the first 'big bang' (real and monetary macro shock) in 1991/92, the firms ran into serious losses, which peaked in 1993. Figures 1a to 1c demonstrate that this development was worse in case of the SOE's, and relatively less debilitating in the joint-stock companies which are partly state-owned and those under privatisation. Both the joint-stock companies and the privatised companies had already recovered by 1994, and became profitable again in 1995, while the SOE's lagged behind until 1996. It is worth

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[15] The estimate of group averages can equalise the special developments of single firms within the group. In our regressions we use the original data, so that the full span of the values for single variables is taken into consideration.

[16] This is in effect a profit (or loss) to sales ratio. Due to perceived differences in accounting standards, we have tried to present a number of other measures to examine firms' performance.

[17] See, e.g., Bogdanov (1998).

[18] For additional discussion see Petersen & Naydenov (1999).

mentioning that in 1996 Bulgaria experienced its second 'big bang', this time more a monetary than real shock. Despite the deep recession and the hyper-inflationary pressures in 1996/97, the firms in our sample had, in general, already been restructured to the extent that the negative impact on the micro-level adjustment of firms was much less than in 1992.

Due to the above-mentioned shortcomings of the profitability measures, the firms' turnover (sales) and balance sum figures are used as an additional measure of firm viability. Again, these may not be totally independent of behavioural adaptations and tax evasion (due to the VAT). Figures 2 to 2c represents the development trends of sales and balance sum. The sales figures, adjusted for inflation, have been decreasing slightly since 1992; this trend is especially pronounced in the case of the SOE's (see Figure 2a), while in the joint-stock and privatised companies, sales have again been increasing moderately since 1993.

The real balance sum shows an erratic development, perhaps due to the adaptation of more realistic and reliable evaluation and accounting methods, as well as the inflationary environment in which the firms operate. Balance sum figures have been decreasing since 1996, with the exception of the joint-stock companies. Here the ongoing privatisation might have influenced management for some positive analysis of their accounts (balance sheets), thereby fostering the process and encouraging more private investors.

For further analysis of the sales trends, in Figure 2d to 2f we have depicted the growth rates of sales (beginning in 1993). For the SOE's, the growth rates are clearly negative for the whole period. For the joint-stock companies and the privatised enterprises, the picture is more promising and even in the crisis year, 1996, the rates remained positive.

The development patterns with regard to liabilities to banks and other enterprises are quite different again(see Figure 3 to 3c); this serves as another proxy for firm viability. While the liabilities to banks have been increasing overwhelmingly for the whole sample (with the exception of 1990-91 and 1994-95), liabilities to other enterprises have shown a trend which does not lend itself easily to interpretation, though the split into three categories makes differences in those developments more visible (see Figure 3a). Until 1995, liabilities to banks were of the utmost importance for the SOE's which have had − because of traditionally close links - much easier access to the banks which are still predominantly state-owned.[19] Another

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[19]   That especially large SOE's are often bad debtors has often been observed in empirical studies; see, e.g., Pinto et. al. (1993), Estrin et. al. (1995) and Jones & Nikolov (1997).

way of putting this is that firms wholly or partially owned by the state have easier access to the 'friendship credit' which is often given by the state-owned banks. Soft loans to weak SOE's was only part of the problem in the Bulgarian banking crisis, but it was a significant aspect thereof.[20]

Bank liabilities also played an important role in joint-stock companies (see Figure 3b); in particular, this increased in 1995 - 96. In privatised enterprises, the extent of bank liabilities has been steadily decreasing, with the exception of a slight increase in 1996, most likely due to the worsened economic conditions because of the second (monetary) 'big bang' (see Figure 3c). These results correspond to the finding that private SME's do not tend to have good access to the underdeveloped banking system. On the whole they rely upon equity capital, often financed from family property.[21]

In SOE's, liabilities to other enterprises have played only a very minor role, which confirms the findings above. These liabilities have been of great relevance in the case of the joint-stock companies, where both forms of liabilities increased considerably in 1995 - 96. These heavy levels of debt are most likely due to the transitional state of these enterprises, and their desire to speed-up the process of privatisation, while still having access to the banking sector (see Figure 3b). In the privatised firms, the level of liability to other enterprises is relatively small, but has been increasing slightly since 1994, and this may reflect the fact that these types of firms, privatised companies, are much better integrated into a market network of co-operating firms, than are SOE's. This may to some extent be true of companies in the process of privatisation (joint-stock).

The exports-to-sales ratio is another means of examining firm viability; the development trends are depicted in Figures 4 to 4c. Overall, the trend is slightly positive with a levelling-off in 1994-95. The privatised firms have shown a positive trend since 1990 (see Figure 4c), which is quite surprising since considerable trade re-orientation has taken place since the disintegration of CMEA in 1991. SOE's registered a sharp decline in exports-to-sales ratios, thus testifying to the trade disruption experienced by most transition economies in the early period of transformation. It is possible that already privatised firms managed to preserve some

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[20] In 1996 and 1997, almost 85 % to 90 % of banks' assets were liabilities to SOE's; for more detail see Institute of Market Economics (1997, p. 7) and Stanchev (1998, p. 5).

[21] See Ivanov & Bogdanov (1999, p. 4).

of their traditional trading partners, and so were prepared for the adversities ahead, and succeeded in quickly changing ownership.

Assessment of the rate of real investment expenditure per worker may reveal some further insight into the adjustment behaviour of firms in transition. This measure shows two different trends: from 1990 to 1993, the rate increased, while from 1993 to 1996, a strong decrease could be observed.[22] Similar trends can be observed within the different firm categories (see Figures 5a to 5c). The decline since 1993/94 can be explained by greater budgetary constraints, but may also be due to excessive capacity stemming from the former period, which has since caused reductions within the re-investment ratio.

The labour costs-to-sales ratio increased from 1990, peaked in 1993, and has been declining thereafter (see Figure 6). Within both the SOE's and the joint-stock companies, labour costs-to-sales ratios increased dramatically until 1992/93, then stayed relatively constant, while there has been a slight increase in the privatised firms since 1993.[23]

Employment trends for the whole sample decreased considerably from 1990 to 1992; since 1993 the decline has become moderate and even the 'big bang' of 1996 yielded no negative results (see Figure 7). Most of the dismissals took place just after the change, and much more rapidly in SOE's. For analysis within firm categories, we have taken growth rates into consideration (see Figures 7a to 7c). Comparing the growth trends of the privatised companies to those of SOE's and joint-stock companies, it becomes obvious that the decline in employment started earlier, and has been more pronounced, in the former than in the latter. Our regression results below will show that the SOE's, as well as the joint-stock companies, experienced job hoarding, perhaps due to some differences in motivation

If the production function remains unchanged, decreasing employment would in fact mean an increase in productivity. But the enormous changes within the economic framework also led to the collapse of production; many firms, during some of the years under investigation, have yielded to the increasing market pressures at the expense higher firm viability. Especially the responses about the firms' competitive environment have proven that the level of competition has increased. On the one hand, this has made firms and management face market pressures,

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[22] Jones & Nikolov (1997, p. 258) also observed a declining trend between 1989 and 1992; this is in general accordance with our results. However, our samples disagree on the trends in the 1991-92 period. According to this measure, the SOE's firms behave similarly in both studies, that is, a declining trend, in 1992-1996.

but on the other hand this has had positive pedagogical effects in creating more management discipline.[24] For the sample as a whole, the productivity figures show a clear slow-down in productivity levels since 1990 (evidence of real shocks in a transition economy), and a gradual reversal since 1993 (see Figure 8). The growth trends within the single firm categories are seen in Figures 8a-8c. While the rate of change in productivity in the SOE's increased until 1995, and then slowed down in 1995-96, a slight decrease can be observed for the joint-stock companies after 1994 (see Figures 8a and 8b). For the privatised firms, the rate of productivity growth decreased slightly from 1994 to 1996 (see Figure 8c).

If we take the results of all our proxy measures for firm viability into consideration, there is a clear trend in favour of the privatised companies. They reduced employment levels, as well as their bank loans, and thus been comparatively more successful with regard to the restructuring target. Almost the same success can be observed for the joint-stock companies which are still partly owned by the State. The worst development remains with the SOE's, which did not show sufficient restructuring progress.

Figure 9 demonstrates the trend in real wages since 1990. These decreased considerably in 1991 and reached their lowest levels in 1996, after slight increases in 1992 and 1993, respectively. The trend in growth rates seems to be quite similar for the different firm categories, so that no clear interpretation is possible. The regression results will deliver some more credible insights, showing the aforementioned decline in the crisis year, 1996.

V   Regression Results

As we have already mentioned, the regressions are run with the single firm data, so that divergent developments within the single firm categories are not 'averaged', as in the description of the trends in the previous chapter. In the following we use as dependent variables (a) employment (number of employees in a single year), (b) real sales, (c) productivity, (d) real wages, (e) labour costs-to-sales ratio, and (f) rate of real investment expenditure per worker.

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[23] Estrin et. al (1995, p. 139) also observed a sharp increase in the ratio of labour costs-to-sales in the 'bad' firms, in particular in Poland and Hungary.

[24] A similar positive effect is connected with foreign direct investment (in 11.9 % of the firms in the sample), which also has a positive impact on firm efficiency.

(a) If the number of employees is taken as a dependent variable, and all but the privatised firms are omitted, significant negative impact can be observed with an increasing absolute term (1992-96) (see Table 5). This reflects our observed overall trend that the privatised firms have reduced employment, relative to SOE's, from the very beginning (see Figure 7c). This clear effect is not evident when the ownership dummy for the joint-stock companies is added and only the SOE's are omitted. The joint-stock company dummy shows a significant positive absolute term, which increased even in the period 1994-1996. Hence, the joint-stock companies have reduced their labour force by less than the privatised firms; therefore, it seems likely that they followed job-hoarding methods, in the interest of their employees. This result is further strengthened if our question on plans for job creation is taken into consideration. Privatised firms' plans for job creation are evident from our survey (eight firms or 13.1%), and this fact coincides with other findings that new jobs are predominantly created in private SME's.[25] The fact that a large number of firms in our sample (about 82% in 1996) have no plans for job creation might also be taken as an additional indication of job hoarding.[26]

While privatisation and new ownership have had a clear effect on employment developments, the method of privatisation (mass privatisation, direct sale, or employee-buy-out) do not appear to have any significant impact (see Table 5). However, it is worth mentioning that almost all of the new job creation plans occure in firms which have been privatised through either mass-privatisation or direct sale.

(b) From the very beginning of the transition process, privatised firms have had significant negative impact on sales development; in absolute terms, the coefficient has increased, with the exception of 1993, a decline which also expresses certain restructuring progress, as is also evident in our figures. As the development trends in our figures reveal, the joint-stock companies significantly increased sales (see regression results), with a small decrease in 1993. Here the prospect of privatisation might have been extremely influential. With regard to sales as a dependent variable, no privatisation methods seem to have had any significant effect.

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[25] Jones & Nikolov (1997, p. 266) also found that 'size is an essential determinant of the process of adjustment during early transition...large Bulgarian firms performed significantly worse than their smaller counterparts during the period 1989-92.' See also Ivanov & Bogdanov (1999).

[26] Plans for job creation also existed in two SOE's and one joint-stock company partially owned by the State. In total, 11 companies had such plans, of the 11, four were under mass privatisation, four under direct sale and three under employee-buy-out or similar privatisation methods.

(c) With regard to productivity, over the years, the ownership dummy for the privatised firms has yielded a negative impact which is highly significant; this effect has been decreasing except in 1995 (see Figure 8c). This indicates that the restructuring process has been successful and might cease in the near future; similar developments (increasing productivity) took place in 1994-1995 with regard to the joint-stock companies in (see Table 5).

(d) The regressions with the real wages as the dependent variable show some intuitive results (see Table-6). The privatised firms, compared to SOE's and joint-stock companies, have had significantly negative effects on wages (with the exception of 1996). The absolute term is increasing, so that real wages have been reduced. If the joint-stock companies are taken into consideration against the SOE's, the privatised firms' effect on wage remains unchanged, but the significance thereof abates somewhat. However, the joint-stock companies show a positive impact on real wages in the years 1994-96. Within the joint-stock companies, not only has job hoarding been a likely behavioural pattern, in addition, employees' real wages decreased less, or even increased. This might be due to the fact that in cases of employee- or management-buy-out, within the firms there is a common interest of protecting employees' living standards (since employees also act as decision-makers). Such a strategy is possible in the long run, dependent on the restructuring progress, i.e. whether the firms will become efficient enough to survive in a competitive environment.[27] As in the case of the employment effect, the method of privatisation has no significant impact on real wage developments.

(e) There is no significant difference on the ratio of labour costs-to-sales between privatised firms and SOE's. In the case of joint-stock companies, however, there is significant negative influence (see Table-6). The different privatisation methods show a significant decrease on trends in this ratio over the years, consistent with the foregoing findings on privatised firms and their influence on wages and sales.

(f) The privatisation process seems to have no clear significant impact on the rate of real investment expenditure per worker; this finding is quite surprising and does not provide scope for easy interpretation (see Table-6).

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[27] With regard to employee participation, Jones & Nikolov (1997, p. 266) stated: 'our findings...indicate that under certain conditions, this form of insider influence may be a positive form.' Whether or not this influence is positive can only be answered if the privatisation process has been completed and the firms successfully survived.

VI Wage Policy, Trade Unions, Governmental Control, and Social Benefits

With regard to political issues, the questionnaire contained some qualitative key questions, whereby firm management were to give their personal impressions. We have summarised the answers in Table 7, where the number of respondents, the range of the variable, its influence and intensity from minimum to maximum (e.g., 0 = weak; 4 = very strong), the mean, and the standard deviation are specified.

We start by presenting the following information: general information on the companies, answers on the strength of competition, the extent of trade union membership, the market share for the main products on the internal market, and the role of employees who received shares from their firms in the privatisation process. The strength of competition was rated as 2.38, an intermediate value; thus, for a large number of companies, market structure is decisive and competition is quite intense. The membership share of employees in trade unions has declined by more than 10%, from 80.7 % in 1992, to 70.2 % in 1996. The average market share of the main product on the internal market is 48.6 %, on the external market, 45.1 % (not reported in our table); both indicate that the sample firms are relatively large and influence the market substantially. A majority of the employees in our sample firms received shares during privatisation; these shares were then often sold quickly.

Table 7:

	Strength of competition	Trade Union members in 1992	Trade Union members in 1996	Market share of the main product on the internal market	Employees who received shares in the privatisation process
N	60	61	61	58	61
Mean	2.38	80.65	70.18	48.55	0.80
Std. Deviation	1.51	26.23	29.24	32.88	0.40

Source: Authors' own calculations.

The descriptive part of our analysis, which is perhaps more interesting, starts with questions on which factors might have had influence on the firms' wage policy. Factors included the influence of government, economic criteria, gross wage compensation for inflation, the power of the trade unions, social criteria, and other criteria. The strongest influence on wage policy appears to have been economic criteria, which rated 3.07 (see Table-8). This rating

corresponds with the fact that almost 70% of firm managers evaluated the influence of economic criteria as strong or slightly strong. Governmental influence rated as the second reason (a rating of 2.16; see also wage inflationary factors), though this was clearly less relevant than economic criteria. The fourth most influential factor was social criteria, rating 1.97,[28] while the influence of trade unions was only minor, rating 1.26; 'other criteria' rated 1.0. With regard to governmental influence, one should add that this intermediate rating is due to the fixing of the minimum wage and the important role it plays. As we have already mentioned, in privatised firms in particular, the minimum wage is of relevance and even has some influence on other wages, which are all low compared to West European, and even CEE, standards. Because real wages are declining and close to the minimum subsistence level, the inflationary process has also put enormous pressure on nominal wage increases.

Table 8: Factors influencing wage policy

	Governmental decisions	Economic criteria	Compensation for inflation	Union power	Other criteria
N	61	61	61	61	61
Mean	2.16	3.07	2.16	1.26	1.97
Std. Deviation	1.49	1.09	1.19	1.14	1.17

Source: Authors' own calculations.

As we already mentioned at the beginning of this chapter, employees' trade union membership has declined substantially since 1992. Analysing the effect that development has had on the compensation for inflation, this variable shows itself to be almost inconsequential (see Table-8). If we take the power of unions themselves into consideration, their lack of influence also becomes obvious. More than 80 % of firm managers, especially in private firms, evaluate the trade unions' influence on wage policy as being between 'not existent' and 'intermediate'. While the governmental control seems to be more important, in particular because of the minimum wage regulations, trade unions do not yet seem to have found their role, as in Western countries, where they are accepted as partners in group negotiations (e.g., in the German post-war consensus model). Bulgarian trade unions still play the classic role they adopted in socialism, namely using their power to mobilise their members with regard to general political questions, rather than strengthening the workforce's market power. These findings are in accordance with those of Estrin et. al. (1995, p. 144) until 1992; even after 1992 no substantial changes have taken place. Hence, trade unions influence is further eroding.

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[28] A closer analysis would demonstrate that social criteria were especially important in SOE's; though slightly

In Table 9, we summarise answers on the intensity of government control. We analyse governmental control on pricing, financial support (subsidisation), employment, social benefits, and wage policy. In addition, the results of a comparison of the change in the intensity of governmental interference are represented. On a scale from 0 to 4, the price control intensity rates at 0.98; this rating is even less than the trade unions' earlier rating on wage policy. The governmental influence via (direct) subsidisation is practically non existent, and the control over employment factors is extremely weak. A higher influence can be observed for the control intensity of social benefits (however it is, at 1.23, still less than intermediate), as well as of wage policy (1.72). The latter confirms the foregoing result that minimum wage regulations have some impact. In total, the results give support to the position of Estrin et. al. (1995, p. 143)on the Visegrad countries, that 'it is surprising to note that the government is almost never cited in the cases as having any direct control or authority over enterprise decision making'.

The development of governmental control since 1992 is rated on a scale of 0 to 2 (0=decrease, 1=no change, 2=increase; see Table-10). The rating for the governmental influence on employment control reflects the least change, at 0.13. Price controls are almost equally negligible (a rating of 0.16).[29] The rating for the control of social benefits is slightly higher (0.25), and the change in control of wage policy is less than intermediate (0.72); again, this is influenced by minimum wage regulations. In brief – a positive message can be elicited, namely, that in spite of the delays of the privatisation process and the political backlashes, privatised firms in Bulgaria can now claim to be almost totally independent of governmental control.

Due to the traditions stemming from the communist regime, the enterprises were faced with the task of supplying a large variety of social benefits, connected with a vast and quite diversified social infrastructure.[30] In 1992, about 70.5 % of enterprises had between one and five different kinds of benefits favouring employees. The information, according to different ownership forms, is summarised in Tables 2 and 3. The comparison with 1996 illustrates the

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less relevant, they have also been a major factor in privatised firms.

[29]   91.8 % of the firms evaluated the change in governmental control with regard to pricing since 1992 as a clear decrease; similar results can be drawn from their influence on employment, which 93.4% of firms evaluated as strongly declining since 1992.

[30]   For more details see Bednarski & Kurowski (1999, in particular Chapter 4).

changes which took place in the transition period.[31] Today, social benefits still exist but have been substantially reduced, and especially the social infrastructure has been out-sourced or even sold.

Table 9: Degree of governmental control

	Pricing	Employment	Social benefits	Wage policy
N	61	61	61	61
Mean	0.98	0.85	1.23	1.72
Std. Deviation	1.27	0.93	1.17	1.51

Source: Authors' own calculations.

Table 10: Development of governmental control since 1992

	Pricing	Employment	Social benefits	Wage policy
N	61	61	61	61
Mean	0.16	0.13	0.25	0.72
Std. Deviation	0.55	0.50	0.65	0.97

Note (Table-10): Scale: 0=decrease, 1=constant, 2=increase

Source: Authors' own calculations.

VII Summary

The empirical studies of the first period of the transition process cited above have yielded some interesting results. These have formed the basis of our study, which has focused predominantly on an analysis of the effects of the privatisation process. Instead of investigating so-called "good" or "bad" firms, it is now possible to differentiate according to ownership forms and privatisation methods. In spite of negative political impacts, the Bulgarian firms have been considerably restructured, and the pace of the privatisation process increased significantly in 1996 and 1997.

Real progress was considerably mitigated by the monetary crises of 1996 and 1997, but further progress will become evident, since stabilisation seems to be successful, and the consequences of the recent Yugoslavian war may appear to be only transitory. Nevertheless, profitability, productivity and sales figures clearly point to the fact that the newly privatised medium- and large-sized enterprises will go the way of the SME's. Remarkable restructuring processes are under-way, and at least in part, these have already led to increasing efficiency. Most of the

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[31] For further analyses of social benefits, see Christev & Weikard (1999).

privatised firms in our sample overcame the shock 1996/97 much better than the initial big bang, and even the state-owned firms were comparatively successful.

Our results also support the view that Bulgarian firms have become almost totally independent from State intervention, and that the influence of trade unions has become negligible. The liberalisation of the companies' environments has substantially increased management responsibility, and the new ownership structures have obviously increased motivation, leading to increased efficiency. Comparatively low wages, only slightly above the subsistence level, create an enormous poverty problem. On the other hand, this situation creates a specific opportunity to engage the labour force in new enterprise endeavours, thus increasing profitability, employment and also, in the mid term, real wages.

The challenge is obvious and the prospects for success are good, as long as the current political patterns remain the same. Bulgaria will then go through a rapid catch-up phase. However another political backlash would draw the country back irrevocably, leaving it to flounder behind the Visegrad nations, possibly for over a decade.

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Table-5: OLS Regression Estimates

Dependent Variable	Labour92 Coefficient (SE)		Labour93 Coefficient (SE)		Labour94 Coefficient (SE)		Labour95 Coefficient (SE)		Labour96 Coefficient (SE)	
Ownership Dummies										
D1 Privatised	-1856.5*	363.1	-1874.1*	321.9	-1891.5*	344.4	-1902.7*	375.2	-1941.0*	383.5
	(665.5)	(651.8)	(656.9)	(642.5)	(663.6)	(645.9)	(679.0)	(662.7)	(696.5)	(681.9)
D2 Joint Stock	-	5390.5*	-	5333.2*	-	5430.1*	-	5532.1*	-	5645.4*
		(916.8)		(903.8)		(908.6)		(932.3)		(959.2)
Adj. R-squared	0.102	0.427	0.106	0.432	0.106	0.437	0.102	0.432	0.101	0.428
Privatisation Dummies										
D1 Mass	1049.9		987.1		1011.7		1037.1		1040.3	
	(1303.3)		(1291.3)		(1304.5)		(1333.1)		(1366.8)	
D2 Direct Sale	670.7		633.9		646.6		690.3		721.4	
	(1427.7)		(1414.6)		(1429.0)		(1460.3)		(1497.3)	
D3 Buy-Out	1990.1		1912.6		1927.7		1953.4		1999.1	
	(1486.0)		(1472.3)		(1487.4)		(1520.0)		(1558.4)	
R-squared	0.039		0.037		0.037		0.035		0.035	

Dependent Variable	Sales92 Coefficient (SE)		Sales93 Coefficient (SE)		Sales94 Coefficient (SE)		Sales95 Coefficient (SE)		Sales96 Coefficient (SE)	
Ownership Dummies										
D1 Privatised	-1716.0*	-15.5	-1655.7*	12.8	-2085.6*	69.4	-2144.0*	74.7	-2319.7*	82.5
	(612.7)	(652.8)	(644.5)	(702.0)	(846.1)	(925.8)	(847.5)	(920.1)	(986.7)	(1092.6)
D2 Joint Stock	-	4129.9*	-	4052.1*	-	5233.7*	-	5388.3*	-	5833.9*
		(918.3)		(987.4)		(1302.4)		(1294.3)		(1536.9)
Adj. R-squared	0.117	0.323	0.101	0.279	0.093	0.266	0.098	0,281	0.070	0.242
Privatisation Dummies										
D1 Mass	536.3		527.2		779.4		805.0		904.4	
	(1217.6)		(1270.4)		(1661.8)		(1668.2)		(1931.8)	
D2 Direct Sale	201.9		200.5		369.3		431.7		446.7	
	(1333.8)		(1391.6)		(1820.4)		(1827.4)		(2116.2)	
D3 Buy-Out	892.2		814.2		1044.8		1146.6		935.3	
	(1388.3)		(1448.4)		(1894.7)		(1902.0)		(2202.6)	
R-squared	0.011		0.009		0.008		0.009		0.006	

Dependent Variable	Productivity92 Coefficient (SE)		Productivity93 Coefficient (SE)		Productivity94 Coefficient (SE)		Productivity95 Coefficient (SE)		Productivity96 Coefficient (SE)	
Ownership Dummies										
D1 Privatised	-0.301*	-0.214+	-0.228+	-0.128	-0.268+	-0.103	-0.260+	-0.101	-0.293*	-0.134
	(0.103)	(0.126)	(0.093)	(0.112)	(0.104)	(0.124)	(0.100)	(0.118)	(0.122)	(0.147)
D2 Joint Stock	-	0.210	-	0.243	-	0.399*	-	0.387*	-	0.387+
		(0.178)		(0.158)		(0.174)		(0.166)		(0.207)
Adj. R-squared	0.111	0.117	0.077	0.098	0.085	0.147	0.088	0.152	0.073	0.111
Privatisation Dummies										
D1 Mass	-0.267		-0.192		-0.107		-0.082		-0.177	
	(0.204)		(0.180)		(0.205)		(0.196)		(0.239)	
D2 Direct Sale	-0.209		-0.102		-0.0004		0.036		0.083	
	(0.224)		(0.197)		(0.225)		(0.215)		(0.262)	
D3 Buy-Out	-0.231		-0.189		-0.104		-0.058		-0.185	
	(0.233)		(0.206)		(0.234)		(0.223)		(0.272)	
R-squared	0.030		0.027		0.015		0.017		0.015	

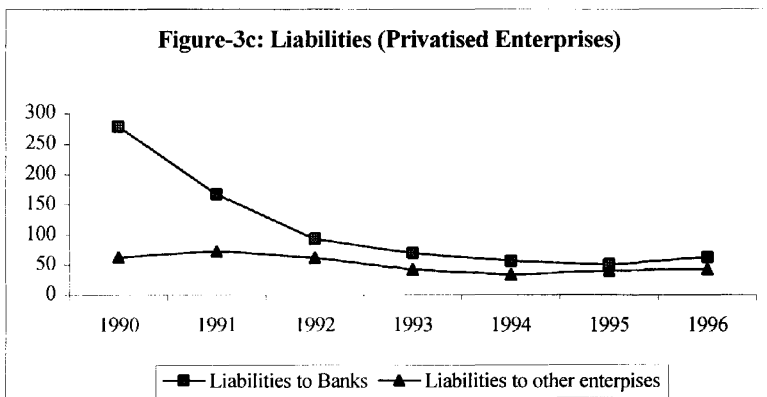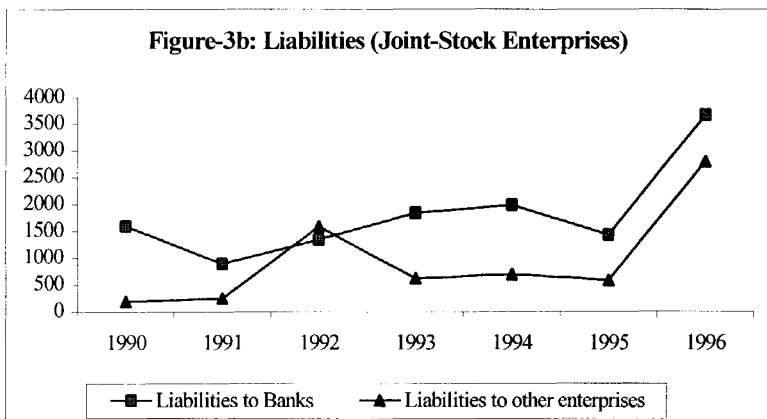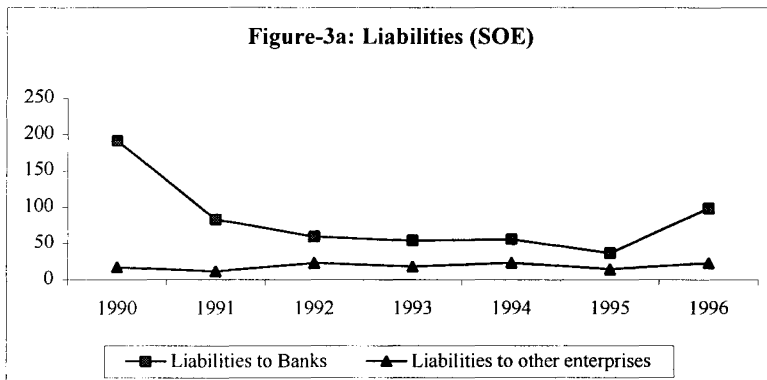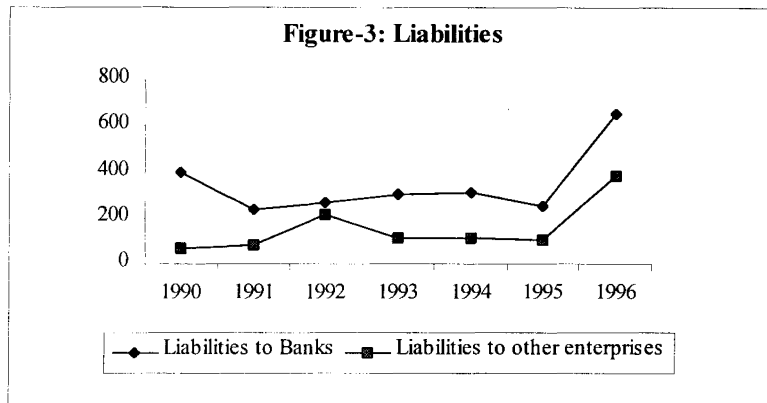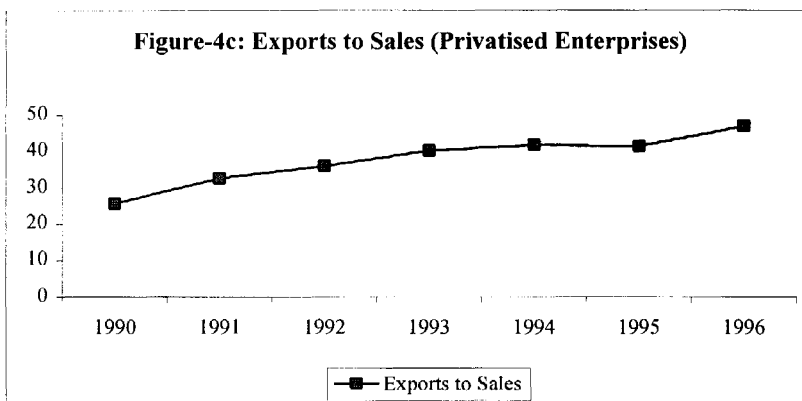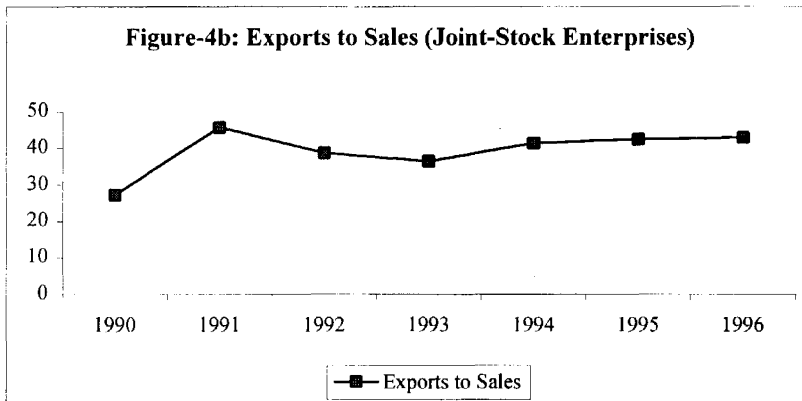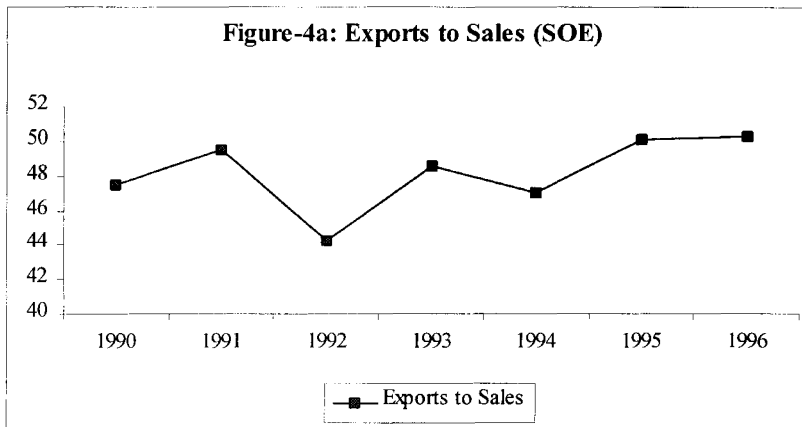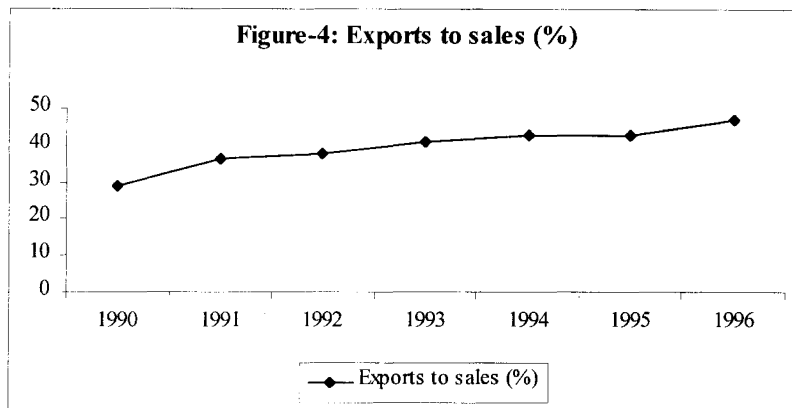Note: * indicates significance, 5%, + indicates significance, 10%

Source: Authors' own calculations.

Table 6:

Dependent Variable	RealWage92 Coefficient (SE)		RealWage93 Coefficient (SE)		RealWage94 Coefficient (SE)		RealWage95 Coefficient (SE)		RealWage96 Coefficient (SE)	
Ownership Dummies										
D1 Privatised	-1.094* (0.368)	-0.664 (0.445)	-0.953+ (0.386)	-0.521 (0.468)	-0.903* (0.323)	-0.439 (0.386)	-0.737* (0.361)	-0.313 (0.436)	-0.487 (0.341)	0.083 (0.401)
D2 Joint Stock	-	1.045 (0.626)	-	1.051 (0.658)	-	1.126* (0.543)	-	1.031+ (0.614)	-	1.385+ (0.614)
Adj. R-squared	0.115	0.141	0.078	0.102	0.102	0.149	0.050	0.079	0.017	0.094
Privatisation Dummies										
D1 Mass	-0.332 (0.737)		-0.223 (0.748)		-0.189 (0.634)		-0.187 (0.688)		0.291 (0.637)	
D2 Direct Sale	-0.095 (0.808)		0.440 (0.819)		0.366 (0.694)		0.472 (0.753)		0.807 (0.698)	
D3 Buy-Out	0.010 (0.841)		0.132 (0.853)		0.164 (0.723)		-0.046 (0.784)		0.105 (0.726)	
R-squared	0.012		0.035		0.036		0.039		0.042	

Dependent Variable	LCS 92 Coefficient (SE)		LCS 93 Coefficient (SE)		LCS 94 Coefficient (SE)		LCS 95 Coefficient (SE)		LCS 96 Coefficient (SE)	
Ownership Dummies										
D1 Privatised	0.222 (0.758)	-1.274 (0.875)	1.016 (1.068)	-0.594 (1.270)	0.231 (0.883)	-1.453 (1.023)	0.306 (0.798)	-1.314 (0.917)	0.143 (0.968)	-1.714 (1.121)
D2 Joint Stock	-	-3.634* (1.231)	-	-3.911* (1.787)	-	-4.090* (1.439)	-	-3.935* (1.289)	-	-4.510* (1.577)
Adj. R-squared	-0.015	0.102	-0.002	0.059	-0.016	0.093	-0.014	0.111	-0.017	0.094
Privatisation Dummies										
D1 Mass	-4.418* (1.296)		-3.398+ (1.965)		-4.702* (1.534)		-3.705+ (1.417)		-5.222* (1.677)	
D2 Direct Sale	-4.280* (1.419)		-3.707+ (2.153)		-4.696* (1.680)		-3.502* (1.553)		-4.837+ (1.837)	
D3 Buy-Out	-4.437* (1.477)		-3.429 (2.241)		-4.324+ (1.749)		-3.303* (1.616)		-5.348* (1.912)	
R-squared	0.173		0.055		0.145		0.108		0.149	

Dependent Variable	RINVW 92 Coefficient (SE)		RINVW 93 Coefficient (SE)		RINVW 94 Coefficient (SE)		RINVW 95 Coefficient (SE)		RINVW 96 Coefficient (SE)	
Ownership Dummies										
D1 Privatised	-0.032 (0.067)	0.039 (0.087)	0.061 (0.083)	0.064 (0.109)	0.004 (0.022)	0.017 (0.028)	0.009 (0.013)	0.015 (0.017)	0.003 (0.007)	0.009 (0.008)
D2 Joint Stock	-	0.141 (0.112)	-	0.007 (0.142)	-	0.029 (0.036)	-	0.013 (0.022)	-	0.014 (0.011)
R-squared	0.007	0.039	0.011	0.011	0.001	0.014	0.010	0.017	0.003	0.040
Privatisation Dummies										
D1 Mass	0.094 (0.156)		0.067 (0.194)		0.021 (0.043)		0.015 (0.026)		0.009 (0.013)	
D2 Direct Sale	0.044 (0.165)		-0.018 (0.204)		0.017 (0.047)		0.013 (0.028)		0.015 (0.014)	
D3 Buy-Out	0.026 (0.169)		-0.021 (0.210)		0.022 (0.049)		0.019 (0.029)		0.003 (0.015)	
R-squared	0.024		0.026		0.005		0.009		0.040	

Note: * indicates significance, 5%, + indicates significance, 10%

Source: Authors' own calculations.

Figure-1: Profitability

Legend: Profitability — Profitability on Equity

Figure-1a: Profitability (SOE)

Legend: Profitability — Profitability on Equity

Figure-1b: Profitability (Joint-Stock Enterprises)

Legend: Profitability — Profitability on Equity

Figure-1c: Profitability (Privatised Enterprises)

Legend: Profitability — Profitability on Equity

Figure-2: Balance Sum and Sales

Figure-2a: Balance Sum and Sales (SOE)

Figure-2b: Balance Sum and Sales (Joint-Stock Enterprises)

Figure-2c: Balance Sum and Sales (Privatised Enterprises)

Figure-2d: Growth Rate of Sales (SOE)

Growth Rate of Sales

Figure-2e: Growth Rate of Sales (Joint-Stock Enterprises)

Growth Rate of Sales

Figure-2f: Growth Rate of Sales (Privatised Enteprises)

Growth Rate of Sales

Figure-3: Liabilities

Liabilities to Banks ___ Liabilities to other enterprises

Figure-3a: Liabilities (SOE)

Liabilities to Banks ___ Liabilities to other enterprises

Figure-3b: Liabilities (Joint-Stock Enterprises)

Liabilities to Banks ___ Liabilities to other enterprises

Figure-3c: Liabilities (Privatised Enterprises)

Liabilities to Banks ___ Liabilities to other enterpises

Figure-4: Exports to sales (%)

Figure-4a: Exports to Sales (SOE)

Figure-4b: Exports to Sales (Joint-Stock Enterprises)

Figure-4c: Exports to Sales (Privatised Enterprises)

Figure-5: Rate of Real Inv Exp per Worker

Figure-5a: Rate of Real Inv Exp per Worker (SOE)

Figure-5b: Real Inv Exp per Worker (Joint-Stock Enterprises)

Figure-5c: Rate of Real Inv Exp per Worker (Privatised Enterprises)

Figure-6: Labor Costs to Sales

Figure-6: Labor Costs to Sales

Figure-6a: Labor Costs to Sales (SOE)

Figure-6a: Labor Costs to Sales (SOE)

Figure-6b: Labor Costs to Sales (Joint-Stock Enterprises)

Figure-6b: Labor Costs to Sales (Joint-Stock Enterprises)

Figure-6c: Labor Costs to Sales (Privatised Enterprises)

Figure-6c: Labor Costs to Sales (Privatised Enterprises)

Figure-7: Employment

Figure-7a: Growth Rate of Employment (SOE)

Figure-7b: Growth Rate of Employment (Joint-Stock Enterprises)

Figure-7c: Growth Rate of Employment (Privatised Enterprises)

Figure-8: Productivity

Figure-8a: Growth Rate of Productivity (SOE)

Figure-8b: Growth Rate of Productivity (Joint-Stock Enterprises)

Figure-8c: Growth Rate of Productivity (Privatised Enterprises)

Figure-9: Avg Real Wage

Figure-9a: Growth Rate of Avg Real Wage (SOE)

Figure-9b: Growth Rate of Avg Real Wage (Joint-Stock Enterprises)

Figure-9c: Growth Rate of Avg Real Wage (Privatised Enterprises)

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