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EVALUATION OF MASS PRIVATIZATION IN BULGARIA¹

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SUMMARY/OVERVIEW

The mass privatization program in Bulgaria was implemented in 1996-97. This was after mass privatization programs in countries like the Czech Republic. More sophisticated regulatory bodies were put into place to prevent the kind of abuses that had been observed in these earlier programs. With these better institutional arrangements Bulgaria was able to avoid some of the extreme problems that manifested themselves in these other countries. Still there were serious problems of dilution, but the problem of dilution is similar in mass privatization firms and non-mass privatization firms so the problem of dilution is not simply a function of the mass privatization program. On the other hand, dilution does appear to have had an impact on performance, suggesting that the more concentrated ownership associated with dilution has had some positive benefits. Even after a number of years have passed, mass privatization firms have performed less well than firms privatized by other means.

INTRODUCTION

Mass privatization programs have been carried out in many transition countries, including Bulgaria, Russia and the Czech Republic. These programs had several purposes. Given that these countries had very large state sectors, mass privatization provided a means for rapidly privatizing these sectors. Also in countries where citizens had limited resources to buy these state companies, these mass privatization programs provided a means of transferring these assets to the population at large.

In Bulgaria, mass privatization occurred after attempts to use cash privatization and management-employee buyouts provided only limited privatization. The first wave of the mass privatization program, which was the only part that resulted in significant privatization, was completed in June 1997. About one-fourth of Bulgaria's state-owned enterprises (1040) were partially privatized through the program. While this represented less than one-sixth of the estimated assets of the state enterprise sector, the mass privatization program privatized twice as many assets as had been previously privatized through other programs.²

Several years have passed since the program was completed, so it is now possible to evaluate the program. We investigate two aspects of the program: (1) How well have the firms that were privatized through the program performed since privatization? Did they perform better or worse than firms that were privatized through other programs i.e. cash privatization, management – employee buyouts, etc.? (2) Did the program succeed in passing valuable assets to the public? Were valuable ownership rights established for new shareholders? This second question is particularly important in establishing the legitimacy of the program since the program was sold to the public as a means of sharing the wealth that was previously under state control.³

While there have been many criticisms of mass privatization programs in other countries, the Bulgaria mass privatization program had several advantages. Because the program was carried out after programs had already been implemented in other countries, the Bulgarians were able to

² See Miller and Petranov (2000) for an analysis of the early outcomes of the mass privatization program.

³ Perhaps, for some citizens, it influences their view of the legitimacy of the entire transition process

design their program to anticipate some features of the privatization process that had not been foreseen earlier.⁴ For example, the Bulgarians had observed the creation of privatization funds (i.e. mutual funds created to participate in the voucher auctions) during the Czech privatization program. The Bulgarians anticipated the participation of privatization funds and established regulatory institutions for licensing and monitoring these funds before the mass privatization program began. They also established a Securities Commission to oversee and regulate the new stock markets. Thus one might see the Bulgarian mass privatization program as a program that had many advantages relative to other similar programs in other countries. Indeed, there are some indications that Bulgarian firms which were part of the mass privatization program performed reasonably well during the years immediately following their privatization. (Atanasov, 2003)

Improved firm performance is, as stated above, only one criteria for judging the success of a mass privatization program. A major reason that privatization programs were so politically difficult to implement was that they involved a transfer of wealth. Events since the program was implemented in Bulgaria provide a mixed picture as to the success in transferring wealth. Of the nearly one thousand firms which were initially listed on the stock exchange, only about a third are listed today, and the shares of only a few trade actively.⁵ On the other hand, privatization funds collected over 80% of the voucher books and acquired 87% of the shares purchased in the auctions. Of the original 81 privatization funds, around 30 are still listed on the exchange and 15 funds trade actively. These tend to be the larger funds which initially controlled a substantial portion of the shares sold at auction.⁶ Thus evaluating the transfer of wealth involves analysis of a complex web of relationships.

To analyze the performance of mass privatization firms, we collected extensive firm level accounting data for the period 1996 – 2001, and for some firms through 2003, We also collected similar accounting data on investment funds (i.e. holding company). We then undertook two basic approaches to the study. First, we investigated the degree of shareholder dilution, first at the firm level and then at the holding company level since the actual value for most shareholders was diluted by a compound dilution from both of these sources. Since we had data on both mass privatization firms and non-mass privatization firms, we are able to compare the dilution of shareholder value in both sets of firms. We are also able to compare dilution levels in firms that continue to be listed on the Bulgarian Stock Exchange and those firms that are not listed on the exchange. This latter category includes both mass privatization firms that chose to delist from the exchange and firms that did not participate in the mass privatization and never were listed on the exchange. In the second part we investigate the performance of the firms in the mass privatization program. First, we compare the performance of these firms with the performance of firms that did not participate in the mass privatization program. While the mass privatization program was the first major effort at privatization in Bulgaria that successfully privatized a large

⁴ In fact the program was underway when some of the worst problems of the Czech program were becoming clearer.

⁵ See Petranov and Miller (1999) for an analysis of the problems in the development of the stock exchange. This monograph also contains an analysis of the early securities' laws and how they were implemented in the early years of the stock market. Atanasov (2005) provides an updated review and shows how later changes in the law were designed to prevent further dilution of the interests of the original voucher shareholders.

⁶ The eighteen largest privatization funds controlled 60% of the vouchers in the auctions.

number of firms, many other firms were privatized in the following years. So this comparison is not a comparison between the performance of state firms and private firms but rather between firms that were privatized through mass privatization and firms that were privatized through other methods of which labor-management buyouts and sales to foreign companies were major methods. While we were able to obtain data on the types of ownership of mass privatization firms, we do not have data on types of owners of non-mass privatization firms, so we are unable to compare the performance of , for example, mass privatization firms now owned by foreign interests and non-mass privatization firms that are owned by foreigners.

On the other hand we are able to investigate other issues. In particular, we investigated whether ‘stock manipulation’ through dilution affected firm performance. Dilution will lead to more concentration in the hands of those who have the power to issue additional shares at less than market prices.

DILUTION

Following mass privatization programs in several countries managers or shareowners with major stakes in the firms, have attempted to gain control of the firms through various means. Dilution, which we calculate here as the issuing of new shares at level which dilute total equity per share is one means for gaining control of a firm at the expense of the original shareholders. Some dilution is common in most countries. For example, when firms issue options to management and managers purchase shares for less than market prices, dilution occurs. There has been considerable concern about dilution in Bulgaria, however. This is reflected in the passage of changes to the Bulgarian Corporation Law in 2002 that were designed to prevent dilution which would reduce the effective holdings of existing shareholders.⁷

An important question in the Bulgarian context is whether firms listed on the Bulgarian Stock Exchange are less likely to dilute than firms not listed on the exchange.

Table 1 provides information on the level of dilution for various groups. The groups are mass privatization firms, non-mass privatization firms, holding companies.

There are two columns for each group. The first column in bold is for the listed companies. The second column is for unlisted companies in each group. For completeness we have included unlisted holding companies and listed non-mass privatization firms, even though there are very few companies in these two categories. To provide a better sense of the distribution, the level of dilution is broken down into deciles. If a firm dilutes its shares by 50%, this means that the firm has doubled the number of shares outstanding without increasing the total equity in the company. A dilution level of 90% means that the firm has increased the number of shares by a factor of ten without increasing total equity.

⁷ These changes included the issuing of warrants to existing shareholders which had to be purchased when new shares are issued. This meant that shareholders could no longer be passive observers during new share issues. For a more complete description of these changes see Atanasov, et. al. (2005)).

The first row in the table is the percentage of firms in each category which did not dilute at all. As can be seen in the table, less than half of all firms and holding companies in each category diluted at all.

Table 1
Firm Dilution Levels
(Percentage of Firms in Each Decile)

	All MP Firms 1996-2001 Listed (321)	All MP Firms 1996-2001 Unlisted (690)	Holding Companies 1996-2003 Listed (57)	Holding Companies Unlisted 1996-2003 Unlisted (9)	Non-MP Firms Listed 1996-2001 Listed (6)	Non-MP Firms 1996-2001 Unlisted (2515)
No dilution	64.2	62.3	52.6	77.8	83.3	68.0
>0%	35.8	37.7	47.4	22.2	16.7	32.0
>10%	32.7	33.0	42.1	11.1	16.7	28.3
>20%	31.2	28.0	31.6	11.1	16.7	25.8
>30%	27.4	25.4	26.3	11.1	16.7	23.1
>40%	22.7	21.3	19.3	11.1	16.7	20.4
>50%	18.7	16.1	14.0	11.1	16.7	17.6
>60%	15.6	11.4	7.0	11.1	0.0	14.7
>70%	11.2	8.0	1.8	0.0	0.0	11.5
>80%	5.9	4.2	1.8	0.0	0.0	7.8
>90%	2.5	2.2	0.0	0.0	0.0	3.4
Average of all firms	0.19	0.17	0.17	0.066	0.09	0.17

Bold columns are firms that are listed on the BSE
Columns that are not bolded are firms that are not listed.

The second row in the table is the percentage of firms in each category which had some level of dilution. The third row is the percentage of firms that diluted by more than 10%; the fourth row is the percentage that diluted by more 20%, and so on. While many firms had some level of dilution, only a small number of firms diluted their shares over 90%, rendering the original shares nearly worthless.

From Table 1 one can also see that a lower percentage of non- mass privatization firms diluted, but many unlisted mass privatization firms diluted less than 10%. In fact when we sum the firms that did not dilute at all and those that diluted less than 10%, the probability of dilution is almost identical for the two groups of firms. So it appears that these two groups of firms had about the level of dilution.

If one focuses on the relationships between listed and unlisted companies in the same category, (and it is clear that the only category with enough firms to make a reasonable comparison is mass privatization firms), it is clear that unlisted firms were more likely to dilute than listed firms. In spite of this, listed firms tended to dilute more than unlisted firms.

Since 80% of the original mass privatization vouchers were placed with holding companies, the dilution behavior of holding companies is also important from the standpoint of individual investors. If these funds also dilute their shares, then individual investors are subjected to a kind of ‘compound dilution’ where both the individual companies and the holding companies could be diluting their original ownership stake.

The level of dilution by holding companies is also described in Table 2. The level of dilution is calculated for the period through 2003. At that point almost half of the holding companies had some level of dilution. Dilution by holding companies tended to be less than firms, however, with many holding companies diluting their shares by less than 20%. Among the larger holding companies there was also variance in the levels of dilution. For example, Doverie, the largest holding, and Albena, which invested heavily in the popular Albena resort, did not dilute at all. On the other hand, Multigroup (later called Em Dzhi Elit Holding AD) which had well known mafia connections, diluted by 68%.⁸

The evidence on dilution supports the notion that while dilution has been widespread in Bulgaria during the period from 1996 to 2003, the majority of firms did not engage in any dilution; a few others issued so many shares that original shareholder stakes are now worthless. A comparison of dilution levels among various groups (mass privatization listed, mass privatization delisted and non-mass privatization firms) does not indicate that any of these groups have a significantly higher levels of dilution than the others. This is somewhat of a surprise since there have been suggestions (e.g. Atanasov, et. al. (2005)) that delisting and dilution go hand-in-hand. In some instances further dilution took place in the holding companies, but it was also more limited than might have been expected given what happened in the Czech Republic after the mass privatization program there, but disappointing given the extra safeguards that had been put in place at the initiation of the Bulgarian mass privatization program.⁹

PERFORMANCE

We use two measures to evaluate the performance of mass privatization firms: return-on-assets and sales per unit of labor cost (sales/wage bill). When measuring the results of mass privatization against firms that were not part of the mass privatization program our results were mixed. Being part of the mass privatization program does not have any significant effect on sales per unit of labor cost, but mass privatization firms did perform significantly less well than non-mass privatization firms with regards to return-on-assets. What is most disturbing, perhaps, is that this continues into 2002 and 2003. There was substantial privatization during the period 1998 – 2000. This privatization took the form of labor-management employee buyouts, which

⁸ At the time of the auctions some people were said to have purchased Multigroup shares because they thought it would be good to have the mafia on their side. They were clearly mistaken in this view!

⁹ The term ‘tunneling’ is often associated with the experience with Czech holding companies. See

were severely criticized as sweetheart deals to managers and politically connected individuals, and sales of large firms to foreign interests. Thus comparing the performance of mass privatization firms with non – mass privatization firms in 2002 and 2003 more or less reflects a comparison between firms privatized through mass privatization versus firms privatized by various other means during the preceding period. The negative coefficients suggest that these other methods, granting that they reflected a variety of other approaches to privatization, as a whole generated a better return for their owners.

We also tested whether dilution had an impact on performance. Again the results were mixed: insignificant in the sales per unit of wage cost equation and significantly positive in the return-on-assets equation. The positive coefficient in the return-on-asset equation may suggest that the greater concentrated ownership resulting from dilution may have had a positive effect on performance.

Since we have ownership data for mass privatization firms, we were also able to ask the question whether ownership made a difference within the group of firms that were part of the mass privatization program. We looked at six categories of ownership: state ownership, foreign ownership, ownership by privatization funds, ownership by a private individual (or perhaps another firm), ownership by labor-managers and dispersed ownership. Where possible we looked at two ownership levels: 34% and 50%. In the case of foreign ownership and labor-managed ownership there were so few firms in the 34 – 49% range, we combined these categories into one 34% and above category.

While 50% signals full majority control, 34% was also chosen because, under the commercial code, significant decisions require a two-thirds majority. So a 34% ownership level represents a ownership holding large enough to block major decisions. Under special legal provisions, the State can exercise control if it holds at least 34%. During the mass privatization program the State retained this level of control over many of the large firms that participated in the mass privatization program.

Performance differences measured by sales per unit of labor cost were largely insignificant. Only firms which have highly dispersed ownership show any difference from undefined ownership. High levels of dispersed ownership perform more poorly. This is not a surprise. Before the mass privatization program went forward, there were concerns that if ownership were too dispersed, managers would not be properly supervised by owners. As it has turned out, however, this group (over 50% dispersed ownership), makes up only 5% of the total sample. A major reason for this is that privatization funds (now investment fund holding companies) were such large players in the original auctions. For example, investment funds hold 34% or more of the shares in 14% of the firms in the sample.

The impact of ownership on return-on-assets is larger and more differentiated. Firms that are controlled by investment fund holding companies perform significantly better than the undefined ownership group. State firms, labor-managed, foreign firms and firms held by private individuals (when the stake is over 50%) also perform significantly better than the undefined group. Firms with high levels of State ownership tend to be large firms. The State was hesitant to relinquish control over these so it is not a surprise that they perform well. Foreigners were

not permitted to bid directly in the auctions but gained control of firms by buying shares directly from privatization funds (investment funds) who acted as their agent in the auctions. (Miller and Petranov, 2000) Foreign firms that were interested in investing in Bulgaria also had other options later as the State sold many of larger firms in cash sales in the years following the mass privatization auctions.

As in the earlier equations where we tested the impact of dilution over the entire set of firms, we tested for the impact of dilution here as well. Dilution did not have a significant factor effect on performance under either measure. Here we are also included concentration of ownership of various types so the insignificant coefficient on the dilution variable may be caused by the fact that we are picking up concentration of ownership through the other variables in the equations.

CONCLUSION AND RECOMMENDATIONS

The mass privatization program in Bulgaria was implemented during the crisis years of 1996-97. Occurring later than the mass privatization programs in countries like the Czech Republic, more sophisticated regulatory bodies were put into place to prevent the kind of abuses that had been observed in these earlier programs.

With these better institutional arrangements Bulgaria was able to avoid some of the extreme problems that manifested themselves in these other countries. Still there were serious problems of dilution, and later revisions to the law were passed in 2002 to try to cope with these abuses.¹⁰ Interestingly, the problem of dilution is similar in mass privatization firms and non-mass privatization firms so the problem of dilution is not simply a function of the mass privatization program.

When viewed from the perspective of performance, dilution does appear to have had an impact on performance, suggesting that the more concentrated ownership associated with dilution has had some positive benefits, even though it has also had an important downside, shifting wealth away from the original owners into the hands of a few.

To the extent that the mass privatization program was an attempt to distribute wealth to the general population, it was only partially successful. Many firms did not dilute, but a small percentage of firms diluted shares dramatically.

Our analysis compared the performance of mass privatization firms to those firms that were not privatized through the mass privatization program. Here the results are mixed. There appears to be no difference with respect to sales per unit of labor costs, but the performance of mass privatization firms with respect to return-on-assets is significantly worse than non-mass privatization firms. Even after a number of years have passed, mass privatization firms have performed less well than firms privatized by other means.

¹⁰ See Atanasov, et. al. 2005 for a description of these new laws. These laws were passed in 2002 and our data set does not extend far enough to evaluate the impact of these new laws.

Comparing firms within the mass privatization program by ownership type, we found that firms with higher levels of ownership concentration, regardless of type of ownership (state, foreign, investment funds, labor –managed) performed better than firms with dispersed ownership; thus, confirming one of the chief concerns of those who criticized mass privatization as a method that dispersed ownership would lead to poor performance. Fortunately in Bulgaria, where a large share of vouchers was collected by privatization (later investment holding companies) concentration of ownership became common place among mass privatization companies.

These results suggest that better regulation of security markets (relative to the Czech Republic, for instance) can make a difference, but enforcement can still be a problem. More concentrated ownership does improve performance. Bulgaria has seen a process develop where ownership has become more concentrated. Hopefully the new laws passed in 2002 can be implemented in a way that permits ownership transfers to take place, since these seem beneficial from a performance perspective, but also protect present shareholders from abuses.

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