

Privatisation vs. productivity in Poland

Introduction

At the beginning of 1990s of last century Poland experienced a period of launching violent political system and economic changes. One of the elements of the executed transformation was privatisation of state enterprises. Since the very beginning, scale and rate of that phenomenon, as well as its economical effects, were remaining within the sphere of huge interest of both politicians and the society, and the then undertaken process of making over the State property to private owners (including foreign investors) still stirs up lots of emotions. The reason for that is that the conducted transformations of state enterprises (including privatisation thereof) were to decide, on one hand, the change of ownership relations, on the other one – finding by the Polish enterprises their places in the new economic environment and remaining in the market, improvement of their organisation and management and, finally, an increase in efficiency and competitiveness, also in the international arena.

Nowadays, there are many entities functioning in the Polish market, which were created in during the last dozen or so years on the basis of the former state enterprises or parts thereof. There are still state enterprises functioning, waiting to be transformed. The statistical data allows making a comparative evaluation of both those groups of entities and seeking an answer to questions about results of their activities, including the achieved productivity. That is the objective of this paper. It shall be emphasised that the undertaken works are the first in that matter; therefore they encompass only preliminary, basic elements of such comparisons. In the future they may be extended by application of the results of other surveys on enterprises, conducted by the Central Statistical Office.

Schemes of privatisation processes; the scale and rate of privatisation process

The Polish law permits of two basic ways of conducting privatisation of state enterprises. One of them is so called indirect or capital privatisation. Its first stage is

commercialisation of the state enterprise, i.e. transforming it in the sole-shareholder company of the State Treasury (joint stock or limited liability company). Only at the second stage the privatisation of the so created entity takes place - by disposal of shares of the State Treasury, made by means of a public offering, public bidding or negotiations undertaken on the basis of a public RFP and accepting the offer bid by the entity announcing the call for proposals. The law also allows for gratuitous purchase of 15% of the shares belonging to the State Treasury by the eligible workers of the entity being privatised.

The other permissible way is the direct privatisation, consisting in disposing of all the tangible and intangible components of the assets of the state enterprise being privatised by means of sale, processed as a public bidding or negotiations undertaken on the basis of a public request for proposals. As a result of that process a private company appears and the person purchasing in that way the state enterprise becomes its legal successor. By means of direct privatisation the state enterprise may be also given for chargeable use to that enterprise's workers, with compliance with the legally specified terms and conditions, inter alia, such that the company shall be joined by over half of the overall number of the workers, and the share capital paid by them shall not be less than 20% of the core capital value of the enterprise being privatised. As a result thereof so called workers' company appears, which may be transformed into a private property after meeting the agreement terms and conditions. That privatisation path shall be applicable to enterprises of poor economic standing and needing swifter inflow of capital for undertaking adequate restructuring activities.

Enterprises being in poor economic condition and auguring no chances for improving may become subject to liquidation procedure. The liquidation is undertaken on the basis of a decision made by the founding body. The liquidator designated thereby disposes of the property, bringing about satisfaction or safeguarding of the creditors' claims and, subsequently, winding up the entity's activity and deleting it from the entrepreneurs' register.

Except for the agriculture, within the whole fifteen years between 1990 and 2004 the ownership transformation process covered 5511 entities. Among the 1569 commercialised units there were 343 which were privatised indirectly. Among those privatised directly, the privatisation has been completed in 2015 entities. In the group of 1852 enterprises, with reference to which liquidation procedure was launched for economic reasons, until the end of 2004 liquidation affected 961 entities.

Privatisation of state enterprises was not, in addition, proceeding steadily over consecutive years of the period in question. Its fastest rate was the characteristic of the early 1990s. Only in 1990-1991 the ownership transformation process encompassed close to 1300

enterprises. Starting from 2001 that process was substantially slowed down, also due to the fact that in the group of state enterprises there is already only a small number of, on one hand, smaller and economically weaker entities, on the other one - entities of key significance to the State. In 2004 the ownership transformation process encompassed only 107 entities. At the end of 2004 there were still nearly 1000 state enterprises remaining in the market.

Scope of the analysis, variables used

The course of the privatisation process in Poland has been observed by the Central Statistical Office since 1990. The results of the conducted survey are presented in publications (initially quarterly and now – with the decreasing scale of the process – every six months), which contain information not only on the already privatised enterprises or just being privatised, but also those with respect to which privatisation has not been launched yet. The results of just that survey are a source of data, on which the hereinunder presented analyses were based.

The data presented in the material illustrate population of privatised and state enterprises, which were conducting activities within the last six years, i.e. between 1999 and 2004. The selected population comprises entities with 10 and more employed persons, from the area particularly important to the economy and its ownership transformation, i.e. industry, as this kind of activity is conducted by every second entity embraced with privatisation. According to the NACE classification, in a population selected in that way there were three groups of entities distinguished: entities doing mining activity (section C of NACE), manufacturing activity (section D) and production and supply of electric energy, gas and water (section E).

In order to check if there are really differences in behaviours of privatised and state enterprises and what is the possible scale thereof, two panel surveys were carried out. In the first of them observation covered industry entities, which were privatised before 1999 and which were running activity over the next six years. The other group included entities, which for the whole period 1999-2004 were operating as state enterprises. For analysis of possible similarities or differences in effects of their activity, in the paper were analysed data on the observed changes in the number of the employed in those enterprises and data on basic results achieved thereby: the yielded revenues and borne costs, achieved profit and labour productivity.

Groups of entities, from which the two analysed panels were selected, differ not only in terms of the size, but also in terms of the structure, due to the type of the activity they conduct. In 1999, the population of private enterprises included 853 entities, thereof 3% conducted activity classified in section C, 87% in section D and 10% in section E. Number of state enterprises was much smaller: there were only 470 entities in this group, of which 5% in section C, 91% in section D and 4% in section E.

The enterprise survival rate

Differences between the two described populations are visible even while assessing the so called unit survival rate. In both cases a part of entities which were active in 1999 ceased their activity before the end of 2004, but the percentage thereof turned out to be higher for state enterprises. On the scale of the whole industrial activity the survival rate for state enterprises amounted to 44%, whereas for privatised entities to 69%. The higher survival rate for private enterprises was logged for each of the three NACE sections. In mining the survival rate amounted to 91% for private enterprises compared with 64% for state enterprises, in manufacturing it was 66% compared with 42%, and in section E – 85% compared with 71%.

Moreover, what is worth stressing is the considerable differences in the survival rate of entities in individual manufacturing divisions. In the private sector, it turned out to be lower than the average only in four divisions (manufacture of food products and beverages, manufacture of leather and leather products, manufacture of pulp, paper and paper products, manufacture of textiles and textile products), and its level was below 50% only in two of those divisions, i.e. in the food and leather industry. It should be also remembered that those are industries in which entrepreneurs encounter a very intensive competition, including – to a great extent – from foreign enterprises importing their products into Poland, parallel to the then decrease in capacity of selling for export.

In the group of state enterprises, in almost half of the industry divisions (10 out of 22) the survival rate was running below the average, thereof in eight divisions over the six analysed years only every third entity remained in the market.

Consequently, the percentage of enterprises, which did not cease to conduct activity until the end of 2004 was higher in the private sector in the whole area of manufacturing. The sole exception was a group of entities dealing with leather production, but it should be stressed that in that sector those indicators refer to a small number of entities for each analysed groups of entities.

Employment

At the beginning it should be pointed out that the data on employment may indirectly reflect the course of the privatisation process in Poland. At the beginning it encompassed mainly the best enterprises in manufacturing, which gained their new owners most quickly. As a result, in 2004 manufacturing enterprises which were still owned by the State were smaller entities. In the analysed panels the average employment per one state enterprise was 221 persons compared with 324 in privatised enterprises. In the two remaining sections of the industry the State still remains the owner of big entities, whereas the smaller ones have been sold. In the analysed groups in the mining sector, in 2004 employment per one entity was 555 persons in state enterprises compared with 326 persons in the private sector; in production and supply of electric energy, gas and water – 741 and 382 persons respectively.

Despite those differences, the first basic question to which we want to find an answer is whether in the analysed groups of entities any changes in employment were observed in the period concerned. It matters, as in the new economic conditions one of the elements of management improvements was the new employment policy, which aimed at optimisation of the number of workers in the ratio to the tasks executed by an enterprise. On one hand, it entailed reduction of the excessive employment, thereof in particular in the administrative and support branches, restructuring and organisational changes in an enterprise (liquidation of a portion of establishments and departments). On the other hand, the made reductions were affected by changes in the organisation of the production itself, switching to new technologies, employing people with higher competence, focusing on the enterprise's main activity.

Thus, the first fundamental question is whether in the analysed groups of enterprises there was really a process of decreasing employment observed, and if yes – whether it lasted for the whole described period and whether the scale and rate of the changes were similar for both the collectives.

The data presented in the paper provide positive answers to the first two of the aforementioned questions, as both in privatised and state enterprises – in the whole industry and each its section alike – until 2004 the number of the employed was systematically dipping. That trend was reversed only in the private sector of manufacturing in the last year of the six years concerned. It should be also remembered that it was the year of Poland's

accession to the European Union and the period preceding the accession itself, when a deepened demand for many industrial products was observed.

However, what was different in the analysed groups of entities was both the scale and rate of the employment changes. In the whole industry the reductions were slightly slower in state enterprises, as in the described period the average number of the employees decreased therein by 33% compared with 36% in the privatised enterprises. More considerable differences were logged in section E, where in the private sector employment decreased by half, whereas in state enterprises by $\frac{1}{4}$.

The rate of changes in employment in given years was subject to fluctuations both in the whole industry and in individual sections, with slightly visible slower rate of fall in the second half of the six months concerned. Set-back of that rate was observed in particular in manufacturing, where – as aforementioned – in the private sector even a slight increase in employment was logged during the last year. In state enterprises the biggest reductions affected mining in 2001. That was the time when, as a result of the reorganisation of the Polish mining conducted by the State, an intense decrease in the employment occurred – by 23% compared with the previous year. In the following years the decrease in employment in the mining sector was small, which was also influenced by improvement of the world economic situation with respect to coal. In private enterprises the deepest reductions were made in 2003 in section E (employment decline by 41% compared with 2002).

Revenues and costs

The value of revenues from total activity increased in the period concerned in both the examined groups of entities. Admittedly, in years 2001-2002 a decrease was logged both in mining and manufacturing, but it was related to the general slowing down of the Polish economy's development. It is also worth stressing that the decrease in revenues was much less perceptible in the private sector. In mining the increase of revenues, which occurred in the second half of the period concerned in state enterprises was so slow that until 2004 they did not reach the level from 1999.

The indicator that will allow for better assessment of relations in revenues yielded by enterprises from both the ownership sectors is the value of revenues per one entity. The gathered data confirms better condition of privatised entities, for which that indicator was higher by 82% in 1999, and until 2004 that advantage went up to almost 100%.

In individual sections of the industry those relations look a bit different. In manufacturing the value of revenues was in the private sector almost twice as much both in 1999 and in 2004. In section E those were state enterprises which generated on average higher revenues, but in the period of the six years concerned that difference decreased from 23% to only 3%. Also in the mining sector revenues of state enterprises were higher: in 1999 over three times, and in 2004 – only 2.5 times.

Another indicator that may serve for comparative analysis of state and privatised enterprises is the cost level indicator. In general, it shall be stated that it is higher in the whole period and the whole industry in state enterprises. The reverse relation was logged only in section E. In that case it is worth emphasising, however, that despite the higher level the cost indicator in privatised enterprises in that section was systematically going down in the consecutive years and in 2004 it was already shaped at a lower level than in state enterprises.

It should be also emphasised that in the most difficult for all the enterprises two years of the period concerned, i.e. 2001 and 2002, both in the mining and manufacturing the costs borne by state enterprises proved to be higher than the revenues.

Labour productivity

The observed increase in revenues parallel to decrease in employment contributes to an increase in labour efficiency in both the groups of enterprises. The collected data on the value of revenues per one employee significantly indicates a better situation of private enterprises. In the first year of the period in question in the whole industry that indicator was almost 1.5 times higher in entities of the private sector than in state enterprises. In the following years of both the groups a systematic increase in productivity was observed, but its rate was quicker in the private sector. Consequently, after 5 years the difference in productivity reached by private and state entities went up to almost 70%.

Similar differences were logged in all the three sections of industry. In mining the productivity level in the private sector was at the beginning of the period concerned only slightly higher than in state enterprises, but in 2004 that difference increased to 45%. In manufacturing that productivity was higher in the private sector, but its growth rate turned out to be slightly quicker in state enterprises. It resulted in decreasing differences between both the indicators from 61% in 1999 to 55% in 2004. In section E enterprises in the first year of the period concerned the productivity was also similar in both the groups, and even slightly

higher in state enterprises, but until 2004 the productivity reached in privatised entities was already almost twice as much as in state enterprises.

Another indicator confirming better, more effective use of workers in privatised enterprises is the value of profit per one employee. Admittedly, in the whole industry at the beginning of the period in question that indicator was at a slightly higher level in state enterprises, but starting from 2001 its very swift increase in the private sector has been logged; swifter than in state enterprises. Consequently, in 2004 the difference between both those groups of entities was almost twofold.

In manufacturing the advantage of the private sector was logged in all the analysed period, though the differences were not as significant as in the whole industry. Considerable differences to the advantage of the private sector were, however, observed in mining: in 2004 the profit per one employee was over four times higher than in state enterprises. Admittedly, in section E the state enterprises were characterised by higher indicator in the first half of the period concerned, but starting from 2002 that relation was reversed, and in private enterprises the adequate indicator is growing up very quickly, and in state enterprises it is remaining at a level similar to that logged in 2001.

Summary

As it has been mentioned at the beginning, the presented paper is the first attempt to evaluate the influence of the conducted privatisation of Polish enterprises on the results reached by them, including the achieved labour productivity. The results of the presented comparisons clearly confirm that the change of the owner exerted a considerable influence on the effectiveness of the activity run in enterprises and results achieved thereby. One of the effects of the improvement is the labour productivity increasing at faster rate in private enterprises.

The results seem to be so interesting that they encourage continuation and exploration of those analyses, also by using results of other surveys conducted by the Central Statistical Office. Those analyses could be inter alia enriched with such elements as examination of the influence of innovative activity on the productivity reached by enterprises, and also how it is affected with the fact of involving in those entities foreign capital and thereby stronger connection of them with the world economy.

Table 1. STATE OWNED ENTERPRISES INCLUDED IN THE PRIVATISATION PROCESS

Specification	1990- -1992	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
TOTAL														
a	1258	682	653	496	492	362	298	270	309	253	158	98	75	107
b	1258	1940	2593	3089	2591	3943	4241	4511	4820	5073	5231	5329	5404	5511
Commercialised														
a	308	173	156	221	246	131	49	91	96	45	14	6	7	26
b	308	481	637	858	114	1235	1284	1375	1471	1516	1530	1536	1543	1569
of which privatised														
a	30	22	46	36	25	24	41	16	16	21	32	21	5	8
b	30	52	98	134	159	183	224	240	256	277	309	330	335	343
Included in direct privatisation														
a	416	246	203	120	113	146	186	124	160	149	92	43	38	54
b	416	662	865	985	1098	1244	1430	1554	1714	1863	1955	1998	2036	2090
of which privatised														
a	243	305	215	158	127	184	158	128	146	144	58	55	39	54
b	243	548	763	921	1048	1232	1390	1518	1664	1808	1867	1922	1961	2015
Subject to liquidation														
a	534	263	294	155	133	85	63	55	53	59	52	49	30	27
b	534	797	1091	1246	1379	1464	1527	1582	1635	1694	1746	1795	1825	1852
of which liquidated														
a	33	90	103	92	108	11	102	72	50	47	14	41	46	53
b	33	123	226	318	426	536	638	710	760	807	821	862	908	961

a - for each individual year

b - since 1990

Table 2. SURVIVAL RATE OF STATE OWNED AND PRIVATISED ENTITIES

Specification	State owned enterprises		Privatised enterprises	
	number	survival rate	number	survival rate
TOTAL INDUSTRY				
1999	470	100.00	853	100.00
2000	391	83.19	806	94.49
2001	317	67.45	752	88.16
2002	267	56.81	693	81.24
2003	238	50.64	643	75.38
2004	209	44.47	588	68.93
Mining and quarrying				
1999	25	100.00	23	100.00
2000	23	92.00	22	95.65
2001	22	88.00	21	91.30
2002	22	88.00	21	91.30
2003	21	84.00	21	91.30
2004	16	64.00	21	91.30
Manufacturing				
1999	428	100.00	741	100.00
2000	352	82.24	697	94.06
2002	279	65.19	651	87.85
2002	229	53.50	595	80.30
2003	202	47.20	546	73.68
2004	181	42.29	492	66.40
Electricity, gas and water supply				
1999	17	100.00	89	100.00
2000	16	94.12	87	97.75
2001	16	94.12	80	89.89
2002	16	94.12	77	86.52
2003	15	88.24	76	85.39
2004	12	70.59	75	84.27

Table 3. BASIC ECONOMIC INDICATORS FOR STATE OWNED ENTERPRISES - PANEL SURVEY 1999-2004

	Number of enterprises	Turnover	Production costs	Number of employees	in ths. PLN			Profit per employee	Production cost rate
					Turnover per unit	Turnover per employee	Profit per employee		
TOTAL INDUSTRY	1999	10858890	10493640	86505	51956	126	4,22	96,6	
	2000	11318445	10894558	79369	54155	143	5,34	96,3	
	2001	10282085	10091935	70099	49197	147	2,71	98,2	
	2002	10234319	10051159	66974	48968	153	2,73	98,2	
	2003	11355359	10875744	60836	54332	187	7,88	95,8	
	2004	12805335	11966683	57778	61270	222	14,52	93,5	
Mining and quarrying	1999	1342505	1368800	13180	83907	102	-2,00	102,0	
	2000	1482041	1441886	12669	92628	117	3,17	97,3	
	2001	1150482	1157424	9794	71905	117	-0,71	100,6	
	2002	1136815	1159287	9679	71051	117	-2,32	102,0	
	2003	1188094	1187910	9058	74256	131	0,02	100,0	
	2004	1247102	1215181	8879	77944	140	3,60	97,4	
Manufacturing	1999	6884858	6721499	61318	38038	112	2,66	97,6	
	2000	7142722	7014643	56564	39463	126	2,26	98,2	
	2001	6402155	6457334	50504	35371	127	-1,09	100,9	
	2002	6270241	6282896	47933,0	34642	131	-0,26	100,2	
	2003	7075871	6940334	42686,0	39093	166	3,18	98,1	
	2004	8482536	7911987	40001,0	46865	212	14,26	93,3	
Electricity, gas and water supply	1999	2631527	2403342	12007	219294	219	19,00	91,3	
	2000	2693683	2438028	10136	224474	266	25,22	90,5	
	2001	2729449	2477176	9801	227454	278	25,74	90,8	
	2002	2827263	2608976	9362	235605	302	23,32	92,3	
	2003	3091394	2747500	9092	257616	340	37,82	88,9	
	2004	3075697	2839515	8898	256308	346	26,54	92,3	

Table 4. BASIC ECONOMIC INDICATORS FOR PRIVATE COMPANIES - PANEL SURVEY 1999-2004

	Number of enterprises	Turnover	Production costs	Number of employees	in ths. PLN				Production cost rate
					Turnover per unit	Turnover per employee	Profit per employee	Production cost rate	
TOTAL INDUSTRY	588	55628233	53736054	298620	94606	186	6,34	96,6	
2000	588	58935341	57552789	264700	100230	223	5,22	97,7	
2001	588	58242335	56415092	234057	99052	249	7,81	96,9	
2002	588	57733351	54824658	224468	98186	257	12,96	95,0	
2003	588	61714737	58297228	192100	104957	321	17,79	94,5	
2004	588	71685091	66528352	191446	121913	374	26,94	92,8	
Mining and quarrying	21	555295	536483	5243	26443	106	3,59	96,6	
2000	21	561166	548073	4865	26722	115	2,69	97,7	
2001	21	497838	527738	4109	23707	121	-7,28	106,0	
2002	21	518799	515996	4047	24705	128	0,69	99,5	
2003	21	599200	569188	3690	28533	162	8,13	95,0	
2004	21	682300	631765	3340	32490	204	15,13	92,6	
Manufacturing	492	41735703	40364121	230804	84829	181	5,94	96,7	
2000	492	43279245	42304486	201865	87966	214	4,83	97,7	
2001	492	40153475	39586573	176716	81613	227	3,21	98,6	
2002	492	38431161	37599655	169019	78112	227	4,92	97,8	
2003	492	42203750	40723774	157924	85780	267	9,37	96,5	
2004	492	52280976	49254352	159476	106262	328	18,98	94,2	
Electricity, gas and water supply	75	13337235	12835449	62573	177830	213	8,02	96,2	
2000	75	15094930	14700230	57970	201266	260	6,81	97,4	
2001	75	17591022	16300782	53232	234547	330	24,24	92,7	
2002	75	18783391	16709007	51402	250445	365	40,36	89,0	
2003	75	18911787	17004266	30486	252157	620	62,57	89,9	
2004	75	18721815	16642235	28630	249624	654	72,64	88,9	