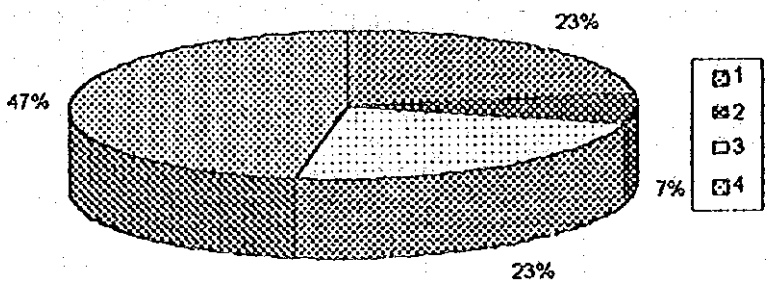
別添４．ポーランド中小企業白書(1995)

SMEs condition in 1995

1.1. Share of various sizes enterprises in national gross product production in 1994-1995



No of employees	% of national gross product
0-50	23%
51-250	7%
over 250	23%
others (budget units, assistance units)	47%

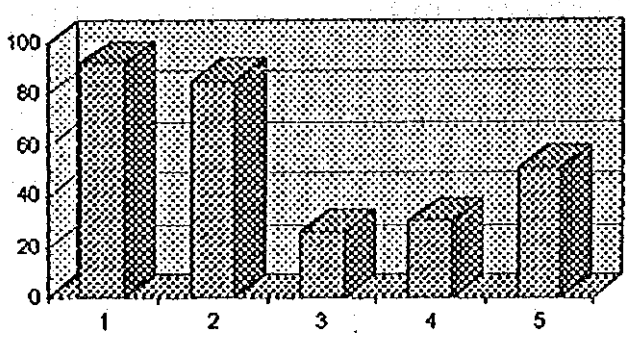
Table 1 shows estimated structure of national gross product value created by enterprises, households and other economic units (estimation has been done by a research team of Statistical-Economic Research Institute basing on GUS - Main Statistic Office- data. More detailed information are in the work edited by Leszek Zienkowski "SMEs participation in the Development of Polish Economy" and published by the Institute of Statistical & Economic Research of the Main Statistic Office and Polish Academy of Sciences, Warsaw, November,1996. It has been prepared on the order of Polish Foundation of SMEs Promotion and Development. Chapter 1 of the report has been created basing on this text. In chapter one a micro-enterprise is an enterprise employing 0-5 people, small enterprises employ 0-50 people, medium-sized - employ 51-250 people, big enterprises are those employing over 250 people. Each time the definition is different the number of employees is given)

In 1994-1995 SMEs produced around one third of national gross product. Small units (0-50 employees) created the same amount of national gross product as big units employing over 250 people and over three times more of national gross product value than medium-sized units employing 51-250 people.

Shares of national gross product produced by SMEs were different in various sections of national economy according to EKD (European Classification of Activity) classification.

(This classification is used for economic units by statistical offices since 1994. Names of EKD sections are printed in Annex 1. The report does not take into account agriculture, fishery, forestry)
In so-called market sections participation of SMEs in national gross product amounted to 45%. Table 2 shows the national gross product share produced by SMEs in five sections. The total value of national gross product produced by each section was estimated as 100%. The biggest share in national gross product production was made by SMEs in trade - 92%, construction -85% and in so called remaining market sections (sections H,K,O - 51%) Lower share was noted in transportation (30%), even lower in industry (sections C,D,E - 26%)

Table 2 Shares of national gross product produced by SMEs in the basic economic sections excluding agriculture in 1994-1995



1. Trade	92%
2. Construction	85%
3. Industry	26%
4. Transportation	30%
5. Others	51%

1.2. Condition of SMEs sector in 1995

1.2.1 The number of enterprises

In 1995 2099577 enterprises functioned in the Polish economy. Only 6429 (0,3%) were the big companies. The rest were small and medium-sized.

Economic Units According to Number of Employees in 1995

nr of employees	nr of enterprises	%
1-5	1921151	91,5

6-50	148779	7,1
51-250	23218	1,1
over 250	6429	0,3
Total	2099577	100

In the private sector the category of micro-enterprises was the biggest one (over 90% of economic subjects) . Such micro-enterprises employ 1-5 people. Medium-sized and big enterprises together did not constitute even a half of 1 % of private sector economic subjects. The private sector was dominated by very small economic subjects. The public sector had a more numerous group of medium-sized enterprises employing 6-50 people. Over 20% were medium-sized enterprises and nearly 7% big enterprises. Generally speaking the public sector had a more equal division of sizes than the private sector.

1.2.2.People working in SMEs in 1995

People working in SMEs - the general characteristics

in 1995 10,9 million people worked in national economy, 6,3 million (57,8%) worked in SMEs, and 4,6 million (42,2%) worked in big enterprises. 18,5% of all working people worked in companies employing up to 5 people, 19,5% in very small enterprise (6-50 people), 19,8% in medium-sized companies and 42,2% in big companies.

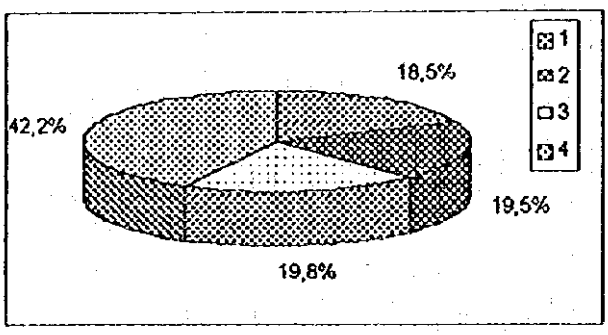


Table 3

size of the enterprise	% of total number of employees
1. up to 5 employees	18,5%
2. 6-50 employees	19,5%
3. 51-250 employees	19,8%
4. over 250 employees	42,2%

Majority of enterprises employing 6-50 people was situated in the private sector. In the public sector the majority was constituted by companies employing 51-250 people. In this sector over 80% of those employed in the public sector were working.

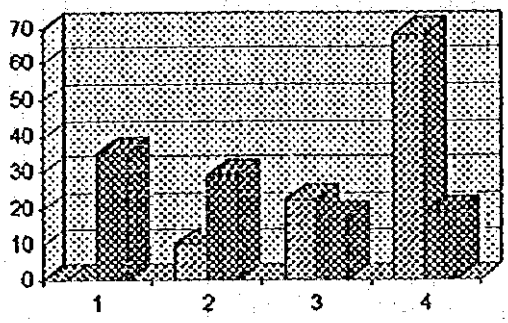


Table 4

% share of people working in enterprises of various sizes in the public and private sectors in 1995 (total number of those working in a given sector 100%)

size of enterprise	public sector	private sector
1. up to 5 employees	0,2	35%
2. 5-50 employees	10%	29%
3. 51-250 employees	22%	17%
4. over 250 employees	68%	19%

Sociological profile of small enterprises owners

(the profile was prepared basing on the research: Polish General Social Poll done on national representative group of adults. The total number of the polled people was 1603 persons in 1995 - employed people among them were chosen; unemployed and individual farmers were excluded. The selected group consisted of 697 people that was 43% of the general sample of adults.

According to the Polish General Social Poll nearly 66% of small businessmen in Poland (employing 0-50 people) were male. Generally they were older than the rest of working people. Over half of them was over 40 year old.

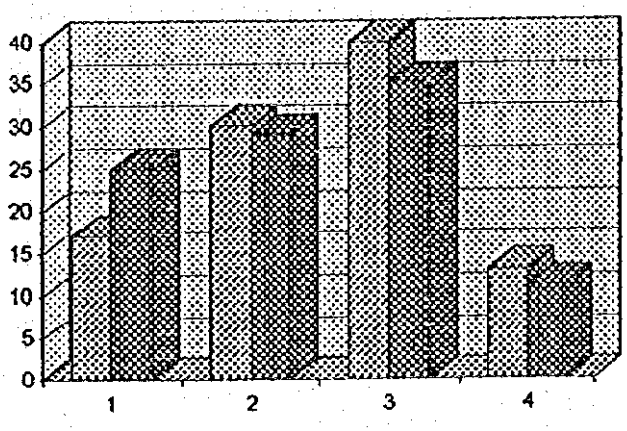


Table 5

The age of enterprise owners employing 0-50 people in 1995 in %

	1	2	3	4
	Age			
	18-29	30-39	40-49	Over 50
owners of private enterprise	17%	30%	40%	13%
working people totally	25%	29%	35%	11%

94% of small company owners were married (working people totally - 80%) and had more children than working people totally (company owners had 1,87 children on average, working people totally only 1,59). They preferred a traditional family model with many children. Average number of family members in a private company owners was 4,7 persons and in case of the smallest companies owners (employing not more than 2 employees) - over 4,8 persons and this index in case of families of employees of private companies was 4,15, and in families of employees of public sector 4,14.

Small businessman on average spent 11,6 years attending formal educational institutions. It was more than in case of private sector employees (11,2), but less than in case of public sector employees (11,8).

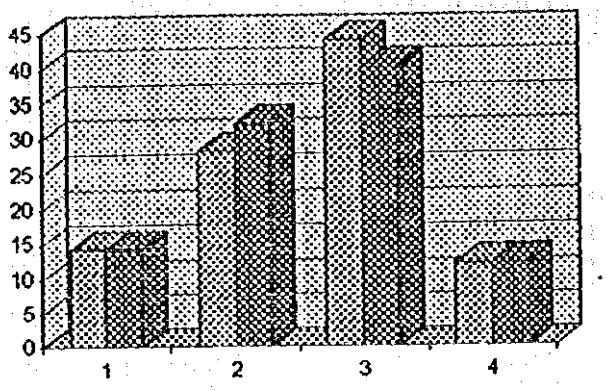


Table 6

Education of private company owners employing 0-50 employees in 1995 (in %)

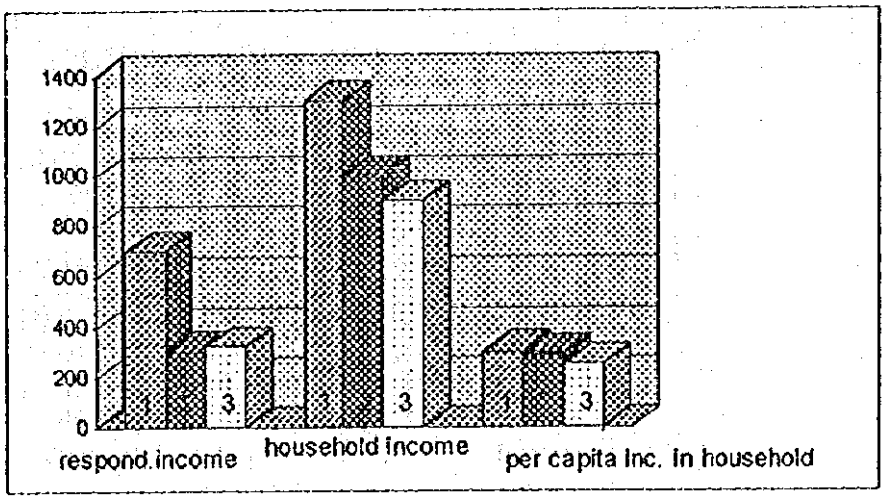
	Education			
	1	2	3	4
	primary	vocational	secondary grammar	higher
private company owners (0-50 employees)	14%	28%	44%	12%
working people totally	14%	32%	40%	12%

Table 6 shows that the education structure of small companies owners was very similar to the education structure of working people totally. Small companies owners a little more often had secondary education and little less often had vocational education. Majority of small companies owners were from workers families (44%), intelligentsia families (21,5%) and farmers families (19,9%). 41% of small businessmen came from the countryside and nearly 30% from small towns (up to 50000 citizens)

Before they started their business over 35% of them had worked in trade or services, nearly 23% had been qualified workers and 15,2% were operators and montage workers. Nearly 17% had been managers or specialists. Only less than 6% had been technicians and administration clerks.

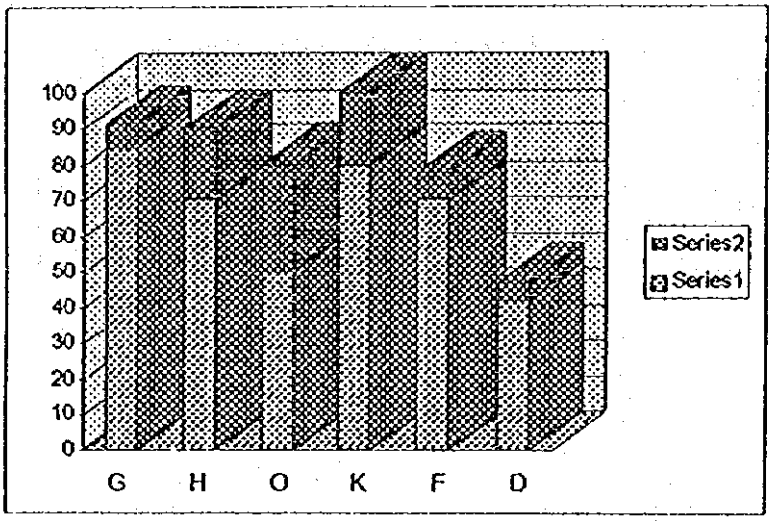
In 1995 businessmen were the longest working people. Working week of a small company owner was 54,5 hours while the working week of a private sector employee was 45,5 hours and public sector employee only 41,6 hours. At the same time small companies owners got much higher income than average income of employees. It applied especially to personal incomes and incomes of households. Taking into account more children and other persons in companies owners families proportions of incomes got equalized when we compared incomes per capita in a family.

Table 7
Average monthly net incomes in 1995 , in %



1. businessmen
2. private sector employees
3. public sector employees

Table 8



SERIES 2 - PUBLIC SECTOR
SERIES 1 - PRIVATE SECTOR

People working in companies employing 0-250 persons according to EKD and ownership sectors (in %)

Table 8 shows 6 sections having the biggest share of working people in companies employing 0-250 persons. The height of the column shows percentage of those working in SMEs among the total people working in a given section. Each column has been divided into two parts showing people working in private and public SMEs.

The highest share of people working in SMEs (more than 90%) has been noted in the section of trade and repairing (G). In this section the majority of the employed has been employed by private companies. The share of people working in SMEs has been not much less in the section of hotels and restaurants (H) - 88,2%. In small companies of that section the private sector has been dominating, in medium size and big companies the public sector has been dominating. 84,6% and 80,3% of all employed have been employed in SMEs in the following sections: services (O), and real estates and companies servicing (K). In both sections a considerable part of enterprises has been public. Big share of SMEs has been noted in sections - construction (F) -76,7% and production activity (D) - 48,7%. In these both sections nearly all small companies have been private and among medium-sized and big companies public and local community companies have been in majority.

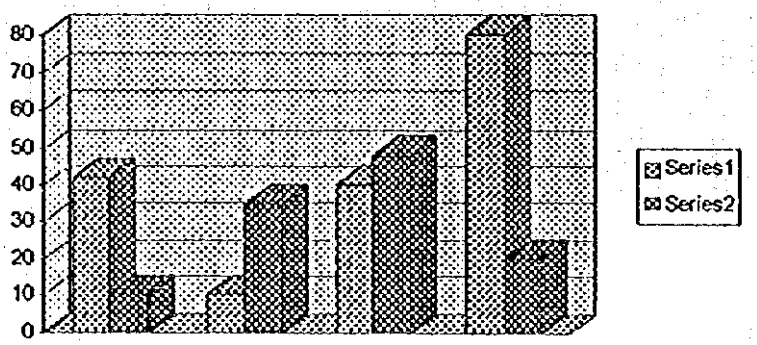
In remaining sections the share of SMEs has been smaller. Employees of SMEs have constituted 30% in the section of transportation (I) and in the section of health services and social care (N), 20,4% in section J (financial consulting), 9,8% in section E (energy supplying), 3,7% in section C (mining). Because of their special character it is worth while to mention sections L and M (public administration and education) in which a large part of the employed have been working in companies employing up to 250 people (in administration nearly 72%, in education 68,4%). These sections are nearly all public.

Characteristics of people employed in market sector and in sector with non-market services overbalance

EKD sections taken into account in this research (C-O) have been grouped into two categories:

- market sector: sections C-k and O in which economic subjects function on commercial principles (with small exceptions)
- sector with non-market services overbalance: sections L-M (public administration, education, health care and social care) in which the subjects (with small exceptions) provide free services.

Table 9



SERIES 1 - MARKET SECTOR
SERIES 2 - SECTOR WITH MAJORITY OF NON-MARKET SERVICES

People working in various size companies of market sector (sections C-K and O) and in the sector with non-market services overbalance (section L-N) in 1995 (in %)

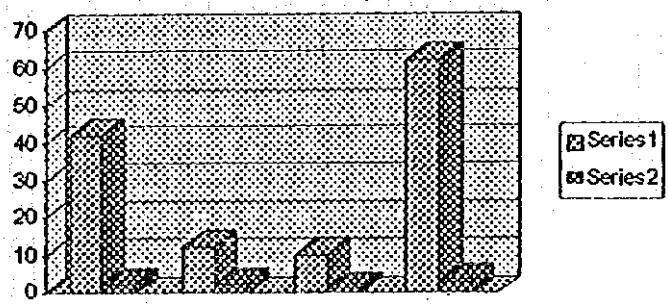
Market sector enterprises employed over three times more people than enterprises of non-market services overbalance. The number of people working in big enterprises of the both sectors was nearly equal. In small enterprises much more working people (43,6%)

belonged to the market sector than to non-market sector (16,5%). In medium-sized companies more people worked in non-market sector (35,4%) than in market sector (15,8%)

Differences between the both sectors showed especially strongly while comparing people working in public and private sectors. In the market sector 61,4% of the working people were employed in private companies, and in the non-market sector only 2,8%.

People working in the private market sector (section C-K and O) and in non-market private sector (section L-N) in 1995 (in %)

Table 10



series 1 - market sector
series 2 - non-market services majority sector

1.2.3 Characteristics of production property and investment processes in companies of various sizes in 1995 (characteristics done for sections of market sector in which SMEs play important role)

In supplement 2 there are three tables (1,2,3) showing the situation in the field of fixed assets (structure of them, value, usage level, the period of restoration) and investments in companies of various sizes. Analysis of data contained in these tables gives the following conclusions.

The value of fixed assets per one employee was usually the smallest one in small enterprises (0-50 employees) and the biggest in medium-sized companies (51-250 employees).

This rule applies to all sections except section D (production activity) and private sector of D and F sections in which the value of assets per one employee was the biggest one in big companies.

The value of fixed assets per one employee in private companies was smaller than in corresponding public companies. The only exception was section K - real estates and companies servicing (cooperatives and other companies administrating apartment buildings belong to this section. The value of buildings clearly influences the total values of fixed assets). Share of the buildings value in total value of fixed assets in private sector was smaller than in public sector. Some explanation for this rule is provided by the fact that private companies more often than public companies conducted their activity in rented buildings. But the share of machines, technical equipment and tools value (and especially the value of transportation means) was usually bigger in private companies. It means that private companies whose decisions were motivated by financial calculations to a much bigger extant than in public companies were investing rather in production property (machines and equipment) than in buildings.

The share of machines and equipment value in gross value of fixed assets of small private companies was only slightly lower than in medium-sized enterprises. In the sections: production activity, construction, trade (D,F,G) it was only slightly lower than in big companies. Small private companies had higher (sometimes much higher) share of transportation means value in gross value of fixed assets than medium-sized and big companies did (except for section O - other services).

The degree of consumption (wearing up) of fixed assets estimated jointly for public and private sector usually grew up with the size of the enterprise. In the private sector small companies had more modern property without regard to which EKD section they belonged.

Investments per one employee was usually higher in private companies than in corresponding public sector enterprises. Investments were growing with the size of the enterprise. Exceptions from this rule were noted in sections: financial consulting, real estates servicing and private sector in transportation (J,k,l).

The share of machines and equipment in investments was growing in the private sector in majority of sections simultaneously with passing to a next class of companies (from small to medium-sized and big). It means that small companies were established from the very beginning more often than big ones. The big ones were mainly modernized. The share of transportation means in investments was contrary - it was the biggest in small companies, smaller in medium-sized companies and the smallest in big companies. (this fact is the result of small degree of development of transportation companies servicing small companies. Managing a small company is usually linked with a necessity to buy a transportation means. In a sense a different interpretation of this phenomenon is possible - businessmen buy cars on the company's cost and they use them privately)

The period of restoration of fixed assets (the index of fixed assets restoration expressed in years and months is a quotient of the fixed assets value according to the state in the beginning of the year and investments in a given year. It defines the duration of the period necessary to restore the existing fixed assets with new assets resulting from investments) was usually shorter in the private sector than in the public sector. Relation of the duration of restoration period were different in various sections:

- in the section "production activity" (D) the longest period of restoration was noted in small companies which might be a bad signal showing that the dynamics of their development dropped down in comparison with the beginning of 90"s and that they had problems with obtaining capital for development
- in the section "construction" (F) small companies were characterized by the shortest period of fixed assets restoration. The optimism of this index diminishes when we recall that the value of assets necessary to establish a small construction company is not too big.
- in the section "trade and repairing" small companies had much shorter period of restoration than medium-sized ones since they conducted their activity in very simple or rented objects. The period of buildings restoration in medium-sized companies of this section was 10 years longer than in small ones.
- in the section "transportation" (I) the longest period of fixed assets restoration in a private sector was noted in small companies and than in medium-sized and big ones. Such proportions were shaped thanks to the fact that small companies invest relatively small money in buildings. While analyzing the duration of transportation means restoration it turned out that the shortest period was needed in medium-sized companies, than in small companies and the big ones needed longest time. It means that in this section the best dynamism is presented by medium-sized companies.

1.3. SME sector development in 1994-1995

Table 4 in annex 2 presenting the number of subjects, employment and investments in 1994-95 allows to conclude that SMEs were much more dynamic sector of Polish economy than big companies.

1.3.1. Growths dynamics of units number

In 1995 373 966 units (in sections C-Q) were established that was 19,1% more than the growth in 1994. Nearly 95% of newly-created in 1995 units were companies employing 1-5 persons. 99,3% of the newly-created unites were established in the private sector.

Over 90% of enterprises number growth was constituted by the newly-created units belonging to six sections: trade and repairing (158300 units), real estate and companies servicing (61600 units), processing industry (45400 units), construction (33000 units), transportation (23000 units) and other services (16100 units).

1.3.2. Employment dynamics in SMEs

Sections that noted the biggest increase of the employees number were as follows:

hotels and restaurants (H) - growth by 7,8%

real estates and companies servicing (K) - growth by nearly 5%

production activity (D) - growth by 1,3%.

In sections H and D SMEs showed much bigger growth of employment than big companies. In real estates servicing employment grew quicker in big companies than in SMEs.

In three sections: construction, transportation and other services (F,I,O) the number of employees lowered and the drop down was biggest in construction - by 2,4%. The general decrease of number of employees in transportation and other services should be allocated to decreasing employment in big companies. SMEs of these sections increase employment. Statistics showed decrease of employment in construction services both in big and small companies. Considerable presence of unregistered employment in small construction companies made the reality look different from the statistical image - in reality employment in such companies was higher than officially shown.

In four sections: production activity, construction, trade , hotels and restaurants (D,F,G,H) the biggest growth in employment was noted by medium-sized companies. In the sections of transportation and other services (I,O) the biggest growth of employment was noted in small companies. In section K (real estates servicing) the biggest growth of employment was noted in big companies.

1.3.2. Total dynamics of investments

In the sections: production activity, construction, hotels and restaurants, real estates servicing (D,F,H,K) the biggest dynamics of investments was showed by medium-sized companies.. Transportation and other services investments grew most in small companies. In trade the fastest increase of investments was noted in big companies.

High indexes of employment growth and investments were noted in medium-sized companies in the following sections: production activity, construction, hotels and restaurants and real estates and companies servicing. In the transportation both indexes were highest in small and big companies. The fact that medium-sized companies were dynamic in several sections showed that activity on this scale was most profitable in

many fields of economy. This scale was dictated by the size of demand, possibilities to get qualified employees and sources of financing further development.

1.3.3. SMEs development prospects in sections of market sector

In the sections: mining, construction, trade and repairing, transportation and financial consulting the share of SMEs employees is not going to expand in future, and it might even decrease. The further development of these fields of economic activity deserves restructuring and the change of the style of big companies activity. But SMEs in the sections: productive activity, energy supplies, water and cooking gas supplies, hotels and restaurants, real estate and companies servicing, other services, local and social activity will still develop and increase the employment.

Enterprises of production activity section are characterized by uneven regional distribution (compare 1.5.1) IN 1990-95 the SMEs sector development was quicker in developed regions than in other regions. But wisely supported SMEs may be a solutions of economic problems of weakly developed regions. Supplying electricity, water and cooking gas is the subject of many local communities investments (compare chapter 3.3.) and it will be so in the future, too. Servicing of wide variety of local community elements may be a field of SMEs activity. In the section of restaurants and hotels it is expected to invest in hotels of medium and lower class and in small guest houses. We can expect the development of consulting companies, advertisement companies, marketing firms and so on.Demand for such services should grow. Depending on the pace and shape of public health care system reform we can expect in growth of demand for medical services too.

1.4. SMEs in industry and construction in 1995

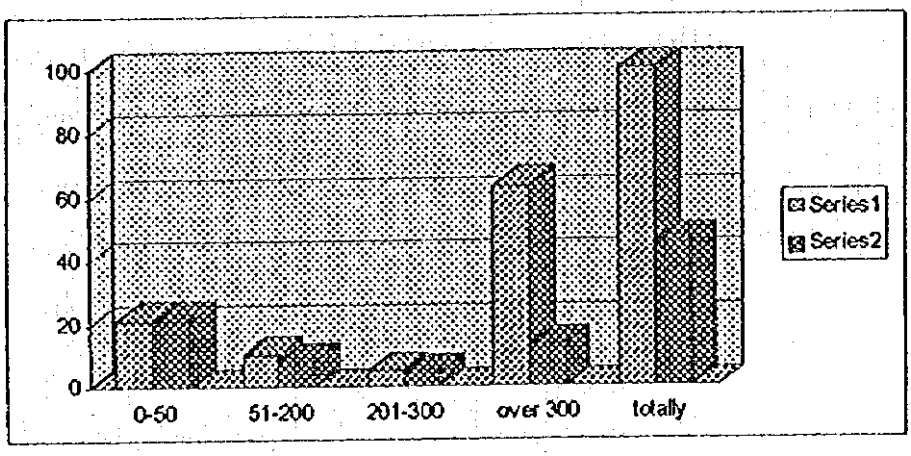
1.4.1. SMEs in industry

In this chapter we will discuss SMEs of D section: production activity. We will omit industrial sections in which SMEs play a very marginal role : mining and electricity supplies, water and cooking gas supplies. Information presented in this chapter are based on a different size division of the companies than the previous chapters did. This chapter bases on the following division: 0-50 employees, 51-200 employees, 201-300 employees and over 300 employees.

SMEs sales value in sales value in industry

The biggest shares of industrial enterprises sales were provided by big companies (over 300 employees) and small companies (0-50 employees). Among the latter ones private companies were in majority. The share of public sector among medium-sized enterprises was bigger than among small ones. The share of public sector among big companies was dominating.

The share of various size companies in sales of given Industrial sectors in 1995 (in current prices)



series 1 - total

series 2 - private sector

% share of sales of companies employing up to 200 people in the sales of processing industry was 36,5% in 1995. Below we present sectors of industry in which the share of this kind of enterprises was the highest.

% of sales value of enterprises employing up to 200 people among all enterprises of a given sector

The sector's name Smaller shares were noted	% of sales of companies employing up to 200 people among all companies of the sector
publishing and typography	80,1%
clothes manufacturing and fur coats manufacturing	67,2%
waste utilization	67%
production of metal products	65,8%
production of wooden products	61,6%
production of rubber products and plastic products	60%

Companies employing up to 200 people noted significant shares in sales of the following industrial sectors:

- production of medical instruments, presicion and opital instruments, watches and clocks (51,2%)
- hides processing and production of leather products (50,2%)
- production of food articles and beverages (48,1%)
- production of office appliances and computers (46,4%)

Metallurgy, fuel production, production of tobacco products are divisions in which the share of SMEs sales was marginal (less than 10%)

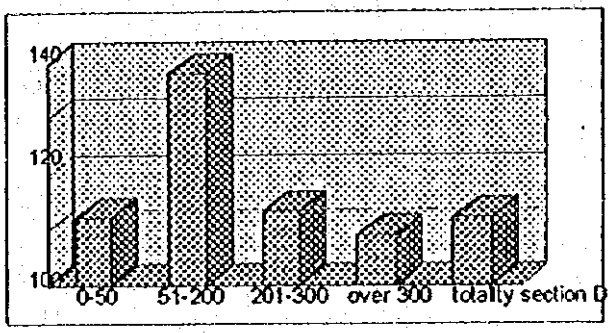
Sales increase pace in industry

Because of the change of classification used by GUS (Main Statistical Office) the possibility to compare dynamics of industrial enterprises sales in 1990-93 and 1994-95 is limited.

In 1990-93 industrial companies (without 5 raw material branches that is without coal industry, fuel industry, energy industry, iron casting and non-ferrous metals casting) noted 103,7% of sales increase (measured in constant prices). The pace of sales increase in 1994-95 in industry (section D according to EKD) was higher and amounted to 112,8%.

Table 5 in annex 2 shows that in 1994-95 the pace of sales increase in medium-sized companies employing 51-200 people was much higher than in big an small companies. Totally it was over 20% higher than average pace in processing industry.

Industrial sales dynamics in the section of production activity in 1995 according to the size of companies (1994=100%)



Among 21 divisions examined within the section "production activity" (D) this tendency showed up in 13 divisions. In the remaining 8 divisions the pace of growth was shown by companies employing 201-300 people. In the realities of the Polish economy in middle 90's an industrial enterprise employing up to 200 people was optimal in many fields of economy. Markets and possibilities of further development financing were very often limited. In the conditions of high interest rates (inflation) the companies which could afford development from their own resources were developing best. In medium-sized enterprises relation between needs and own resources was the best one probably. From that point of view small and big companies were in the worse position. The owners of the former ones started from the beginning gathering means from their families and friends. In turn, accumulated own means in big companies were often not proportional to the needs which blocked the possibility of expansion. Among big industrial companies a big share was constituted by big unprofitable public companies having relatively low production dynamics.

1.4.2. SMEs in construction

SMEs play bigger role in construction than in industry. In 1994-95 the share of SMEs in industrial production amounted to nearly 80%. In 1994 62,3% of the production value produced in construction companies was produced in small companies employing up to 50 people. In 1995 the share of this category of companies in the value of production dropped down to 60'7% but it was compensated by the growth in enterprises of medium-size employing 51-200 people (it grew from 15,9% up to 17,3%). So construction confirms the rule observed in industry that medium-sized enterprises proved to be most dynamic in 1995.

Construction covers many various divisions: constructing buildings, constructing installations, finishing the buildings up. The share of companies employing up to 50 people was the lowest among the companies constructing buildings (55,1%), it was bigger among those constructing installations (74,2%) and it was the highest among

those finishing the buildings (96%). Medium-sized companies had bigger share in constructing buildings, and lower shares in installations and finishing.

Construction is right now privatized in 80% of its production value and at the same timeit is very dispersed. It seems that relatively small and economically weak construction companies are not able to perform more complicated and complex works. Medium-sized and small companies will have difficulties in competing with foreign companies whose presence is more and more visible on the Polish market.

1.5. SMEs in regional (voivodship) arrangement.

(analysis of companies in voivodship arrangement is based on data gathered in a different way than in remaining parts of the chapter. The basic data come from annual reports Z-01. Legal status units and organizational units, persons conducting economic activity file them annually. The Z-01 report concerns units employing 5 and more people. Hence the differences in SMEs population. According to Z-01 there are 1267981 SMEs, and in former chapters we assumed there were 2099577 SMEs)

1.5.1. Spacious concentration of SMEs sector

Analyzing SMEs share in the economy from the territorial point of view we see clearly that the development of this sector is very uneven. Differences in development of various aspects of social life and economy in Poland concerns not only SMEs In the Diagnosis Report of the Task Team for Regional Development in Poland it was stressed many times that 8 voivodships surrounding big cities were specially privileged (Katowice, Warszawa, Gdansk, Wroclaw, Poznan, Lodz, Szczecin, Krakow voivodships). Ownership transformation and economic restructuring was done in the fastest way there, also domestic and foreign investments were concentrated there, majority of "business surrounding" institutions functioned there and living standards of the population were better than in other parts of the country(Regional Development in Poland 1990-1995. Diagnosis Report, Task Team for Regional Development in Poland, Warsaw, Feb.1996) These 8 voivodships occupy only 15% of the Polish territory but they are populated by 1/3 of the population and 45% of all working people. 39,8% of SMEs are located there in which 41,8% of SMEs employees work. This index of concentration is additionally stressed by the information that in 1995 in Warsaw and Katowice voivodships 19% of 1,26 million SMEs functions. The number of SMEs employees in these voivodships constitutes 20% of all employed in SMEs. In the remaining 41 voivodships 60,2% of SMEs and 58,2% of SMEs employees are located.

The precise picture of concentration is given below:

number of employees	% of companies	% of employees
0-5	38,8	39,5
6-50	48,2	44,6
51-200	40,7	41,3
Totally SMEs	39,8	41,8

In ten voivodship with smallest number of SMEs (Wloclawek, Zamosc, Suwalki,Ciechanow, Ostroleka, Przemysl, Siradz, Lomza, Bielsko-Biala, Chelm voivodships) only 7,8% of all domestic SMEs were situated and they employed 8,2% of SMEs employees in the country.

Similar to the number of enterprises and employment high regional concentration can be observed in case of investments in companies. The biggest investments are made on the highly industrialized areas. In 1995 in 12 voivodships in which the number of industrial employees (sections C,D,E) is more than 100 per 1000 citizens (Warszawa, Bielsko-Biala, Bydgoszcz, Czestochowa, Jelenia Gora, Kalisz, Katowice, Legnica, Lodz, Piotrkow, Poznan, Walbrzych voivodships. In these voivodships 50% of all SMEs are located) investments expanses covered by SMEs constitute 51% of all investment expanses covered within this group of companies. Investment expanses of SMEs located on areas with low index of industrialization (less than 60 industrial employees per 1000 citizens) constituted only 4% of total investments made by SMEs in 1995 (Biala Podlaska, Chelm, Ciechanow, Lomza, Ostroleka, Przemysl, Suwalki, Zamosc voivodhsip. There only 6% of Polish SMEs are located)

1.5.2. SMEs significance in local and regional economic systems and labor markets

The SMEs concentration described above and concentration of their employees working usually in voivodships surrounding big cities is not the only important dimension of territorial description of SMEs location and their significance for local and regional economic sysytems and labor markets. The important rule shown by statistical data in 1995 is the fact that with generally smaller number of companies, investments and employees, SMEs sector is more important than a big companies sector in regions which are weakly populated, less industrialized and generally worse developed in the economic sense.

Dependence between SMEs employees rate and population density

If we divide voivodships into groups according to population density it turns out that the smaller population density, the bigger significance of SMEs for regional economic structures. It is shown in table 6 of the annex 1.

SMEs in industrialized areas and in areas of relatively low stage of economic development

Table 7 in annex 2 shows clearly that in Poland the industrial level measured by the number of people working in industry (mining, production, energy, water and gas supplies) per 10000 citizens is correlated with the number of companies of various sizes and number of employees. The link between industrialized areas and numbers of employees working in various sizes companies are as follows: the industrialized region the higher rate of big companies employees; the less industrialized area the higher rate of employees working in SMEs.

SMEs in regions of various levels of PKB (gross national product)

Gross national product per capita seems to be one - apart from the level of industrialization -of important factors differentiating territorial map of SMEs. Table 8 in annex 2 shows that in voivodships in which the level of national gross product per head is higher than national average (we have 14 such voivodships in Poland) 52% of SMEs employees are concentrated; in the voivodships where national gross products level is lower by 20 and more % than the national average (there are 15 such voivodships) only 16% of SMEs employees are located. At the same time , in employment structure in the areas having the

lowest level of gross national product per capita we observe a relative "overreprezentation" of SMEs employees. On the most developed areas 44% of the working people are employed in SMEs and on the less developed areas 65% of the working people are employed in SMEs.

In the relatively underdeveloped regions where smaller number of big factories is situated smaller companies are dominating (employing up to 5 people) and then companies employing 6-50 people and medium-sized companies. In the best developed regions SMEs sector is less important in regional economies.

Areas of high and low value of national gross product per capita do not differ much as far as the profile of small companies employing up to 5 people is concerned. In both cases half of such companies are engaged in trade, and some 20% are engaged in production (compare table 9 of annex 2). Meaningful differences appear in case of companies employing 6-50 employees. In the highly developed areas such companies engage relatively bigger number of people in trade activity, industrial activity or construction than in the areas having low level of gross national product per capita. In the latter ones functions performed by small companies in well-developed areas are fulfilled by medium-sized companies (51-200 employees). In poor developed areas the highest rate of SMEs employees finds employment in companies providing services for agriculture.

1.5.3. Types of companies structures in aerial settlement

In the analysis of regional structures of the companies sizes the basic significance is carried by the proportion of big companies to small companies. The base for the typology are fractions of people working in small and big companies. 6 types of structures have been defined (table 10a and b in annex 2). Extreme structures are characterized by big share of SMEs (type I), and by high share of big companies and very low share of medium-sized companies (type IV). The structure of working people in which a significant part are people working in SMEs is typical for Czestochowa, Kalisz, Leszno, Nowy Sacz, Pila, Radom, Slupsk and Suwalki voivodships. Warszawa, Katowice, Krakow, Legnica, Lublin, Plock, Rzeszow and Walbrzych voivodships exemplify the structure dominated by big companies.

Review of economic structures according to national economy sections does not allow for clear assignment of SMEs to given sections.

1.6. Summary

In 1995 SMEs constituted over 99% of registered economic units.Nearly 90% of companies belonged to the category of micro-companies and employed 1-5 people. All companies of this kind were private sector. The bigger the company's size the higher rate of public sector companies and public sector employees.

SMEs employed 57,8% of people working in economy (without agriculture, forestry and fishery). Highest rate of SMEs was noted in the sections of trade and repairing and hotels and restaurants.

Smaller companies had less fixed assets per one employee than bigger companies. In the private sector we observed more rational investment policy than in big companies: more money was spent on machines and equipment and less on buildings; equipment was more modern.

In 1995 we observed a significant dynamics of SMEs development in the field of the number of newly created companies, employment and investment. In this latter field a special dynamics was shown by medium-sized companies.

SMEs presented a significant aerial concentration. Some 40% of companies and their employees were localized in the 8 most urbanized voivodships. At the same time in the majority of these voivodship SMEs were not the key element of economy or labor market. In the voivodships of low population density, weak industry, low level of development, the number of SMEs and their employees were not significant from the point of view of the country. But in these voivodships SMEs were the base of regional economic systems and were dominating type of economic unit and provided jobs for the majority of working force at these areas.

7.Competitiveness of SMEs

(chapter 7 was written basing on the work ordered by Polish Foundation of Promotions and Development of SMEs: by M.H Grabowski, Market Economy Research Institute, December 1996. In this chapter categories of enterprises were generally named as VEC (very small companies -0-10 employees, SC (small companies 0-50 employees), MC (medium companies, BC - big companies)

7.1. Labor productivity and profitability of SMEs sector

Comparison of SMEs competitiveness has been done using two indexes: labor productivity and profitability. Labor productivity is understood here as added value per an employee. Profitability is measured by added value diminished by labor costs in relation to added value costs (relative profitability can be expressed by a formula where RP /relative profitability, AV/added value/, LC /labor costs/ The first part of the formula contains parametres of SMEs sector, the second part parameters for a given country.The formula runs as follows:

$$RP = \frac{RP/SME/ - LC/SME/}{AV/SME/} - \frac{AV - LC}{AV}$$

7.1.1. Efficiency of Polish SME as compared to EU

Table 8 Efficiency of Polish SME sector compared to EU in 1995

Sector	number of companies (in thousands)	average number of employees (employees /company)	dominating category of companies (share in employment)	relative labor productivity in SMEs	relative profitability in SMEs
Totally:					
Poland	2093	4,4	SMEs	109	12
EU	16450	6,3	SME	94	-5
Spain	2200	5	VSC	90	-18
Ireland	130	9	SMC	87	-6
Germany	2670	8	BC	95	-5
Great Britain	2565	8	BC	112	4
Italy	3365	4	VSC	87	-2

source: The European Observatory for SMEs, EMI, July 1996, Main Statistical Office GUS basing on balance data and own calculations

Remarks:

(1) the economy is dominated when the employment share in some class of enterprises (VSC, SC, SME, BC) is more than 50% of all employed

(2) relative labor productivity (added value per an employed) in SMEs is calculated as the share of labor productivity in SMEs in the labor productivity in entire economy

(3) relative profitability in SMEs is calculated as the result of subtraction for SME and the entire economy

Analysis of table 8 leads to the following conclusions:

- number of SMEs in Poland is relatively lower than in Europe

- average size of a company in Poland is smaller than in EU (4,4 persons per a companyand in EU 6,3 persons per company). We may conclude that an average SME in Poland is smaller than an average SME in EU. It shows indirectly that SMEs sector in Poland is weaker than in EU

- relative labor productivity in SME sector in Poland is higher than in EU. Among all EU countries better results in comparison with big units are achieved only in Belgium and Great Britain. It shows for relatively higher efficiency of SMEs in Poland in comparison to effects achieved by SME sector in EU in the field of labor productivity.

- index of SME profitability in Poland is also better than in EU on average or in any EU country (the only country in which SME sector has a plus relative profitability is Luxembourg and it is 5)

7.1.1. Efficiency of Polish SME as compared to EU

Table 8 Efficiency of Polish SME sector compared to EU in 1995

Sector	number of companies (in thousands)	average number of employees (employees /company)	dominating category of companies (share in employment)	relative labor productivity in SMEs	relative profitability in SMEs
Totally:					
Poland	2093	4,4	SMEs	109	12
EU	16450	6,3	SME	94	-5
Spain	2200	5	VSC	80	-18
Ireland	130	9	SMC	87	-6
Germany	2670	9	BC	95	-5
Great Britain	2565	8	BC	112	4
Italy	3365	4	VSC	87	-2

source: The European Observatory for SMEs, EMI, July 1996, Main Statistical Office GUS basing on balance data and own calculations

Remarks:

(1) the economy is dominated when the employment share in some class of enterprises (VSC, SC, SME, BC) is more than 50% of all employed

(2) relative labor productivity (added value per an employed) in SMEs is calculated as the share of labor productivity in SMEs in the labor productivity in entire economy

(3) relative profitability in SMEs is calculated as the result of subtraction for SME and the entire economy

Analysis of table 8 leads to the following conclusions:

- number of SMEs in Poland is relatively lower than in Europe

- average size of a company in Poland is smaller than in EU (4,4 persons per a companyand in EU 6,3 persons per company). We may conclude that an average SME in Poland is smaller than an average SME in EU. It shows indirectly that SMEs sector in Poland is weaker than in EU

- relative labor productivity in SME sector in Poland is higher than in EU. Among all EU countries better results in comparison with big units are achieved only in Belgium and Great Britain. It shows for relatively higher efficiency of SMEs in Poland in comparison to effects achieved by SME sector in EU in the field of labor productivity.

- index of SME profitability in Poland is also better than in EU on average or in any EU country (the only country in which SME sector has a plus relative profitability is Luxembourg and it is 5)

- average added value per one employed worked up in Poland is bigger than in entire economy on average and in big companies. Similar conclusions comes from analysis of the data concerning relative profitability which is 12 % higher in SMEs sector. It means that in 1995 SME sector in Poland was more efficient than sector of big companies.

7.1.2. SME efficiency in ownership sectors in 1995

Table 9. Efficiency of Polish SMEs according to ownership sectors in 1995

Sector		Dominating companies (share in employment)(1)	SME relative labor productivity(2)	SME relative profitability (3)
Totally	Poland	SMEs (51%0	109	12
	EU	SMEs (66%)	94	-5
Public sector		SC (67%)		
	SC		0.4	
	SME		34	-7
	MC		50	
Private sector		SC(55%)		
		SME (78%)		
	SC		94	
	SME		104	4
	MC		126	

source: The European Observatory from SMEs, EMI, July 1996, data of Main Statistical Office GUS

Remarks:

(1) the economy is dominated if the employment share in some class of enterprises is bigger than 50% of all employed

(2) relative labor productivity (added value per employed) is calculated in SMEs as the share of labor productivity in SMEs in the labor productivity of the entire economy

(3) relative profitability in SMEs is calculated as the result of subtraction of profitability for SMEs and for the entire economy

Analysis of table 9 leads to the following conclusions:

-economic transformation in Poland resulted in significant transfer of production property into private hands but public sector is still dominating as an employer in non-agricultural aprt of the economy. In this sector big companies are dominating (67% of all employed in the sector). SMEs dominate in the private sector and they employ 78% of the employed working in the sector.

- correlation of efficiency (measured by relative labor efficiency) with size groups is quite clear in the public sector: big public companies are more efficient than medium-sized ones, and medium-sized public companies are more efficient than the small ones. The small

- average added value per one employed worked up in Poland is bigger than in entire economy on average and in big companies. Similar conclusions comes from analysis of the data concerning relative profitability which is 12 % higher in SMEs sector. It means that in 1995 SME sector in Poland was more efficient than sector of big companies.

7.1.2. SME efficiency in ownership sectors in 1995

Table 9. Efficiency of Polish SMEs according to ownership sectors in 1995

Sector		Dominating companies (share in employment)(1)	SME relative labor productivity(2)	SME relative profitability (3)
Totally	Poland	SMEs (51%0	109	12
	EU	SMEs (66%)	94	-5
Public sector		BC (67%)		
	SC		0.4	
	SME		34	-7
	MC		50	
Private sector		SC(55%)		
		SME (78%)		
	SC		94	
	SME		104	4
	MC		126	

source: The European Observatory from SMEs, EMI, July 1996, data of Main Statistical Office GUS

Remarks:

(1) the economy is dominated if the employment share in some class of enterprises is bigger than 50% of all employed

(2) relative labor productivity (added value per employed) is calculated in SMEs as the share of labor productivity in SMEs in the labor productivity of the entire economy

(3) relative profitability in SMEs is calculated as the result of subtraction of profitability for SMEs and for the entire economy

Analysis of table 9 leads to the following conclusions:

-economic transformation in Poland resulted in significant transfer of production property into private hands but public sector is still dominating as an employer in non-agricultural aprt of the economy. In this sector big companies are dominating (67% of all employed in the sector). SMEs dominate in the private sector and they employ 78% of the employed working in the sector.

- correlation of efficiency (measured by relative labor efficiency) with size groups is quite clear in the public sector: big public companies are more efficient than medium-sized ones, and medium-sized public companies are more efficient than the small ones. The small

public companies present very low efficiency, and added value there is on average lower than labor costs.

- in the private sector the relation of efficiency and size groups is looking like a upside down letter U: the most efficient are medium-sized companies, less efficient are the small and big ones. A similar dependence concerning labor productivity is observed in EU countries where medium-sized companies are most efficient, and big and small ones are less efficient.

- sector of medium-sized companies in Poland constitutes only 23% of the private sector(share in the employment) and is dominated by small companies. Smaller efficiency of small companies might be explained by their relatively easy ability to operate in the grey zone, and hence not recording full profits and possibility to push personal costs of the owner into the costs of his firm.

7.1.3. Efficiency of SMEs in given sections of economy

Efficiency of SMEs activity in sections is presented in the table below. For the sake of comparison we present approximate data for EU countries

Table 10 SMEs in the Polish economy sections on the background of EU in 1995

Section	EKD (for Poland) NACE (for EU) (1)	Dominating companies in economy (share in employment) (2)	relative labor productivity in SMEs (3)	Relative profitability in SMEs (4)
Totally				
Poland		SMEs (51%)	109	12
EU		SMEs (66%)	94	-5
Mining				
Poland	C	BC(96%)	59	--35
EU	11,12,21-24	BC	77	7
including:				
coal mining	10			
Poland	12,12	BC (99%)	75	1
EU		BC	122	
Production activity				
Poland				
EU	D	BC (54%)	117	9

	25,26, 31-37 41-49	BC	86	-3
Construction Poland EU	 F 5	 SME (73%) SME	 113 95	 9 2
Trade and repairing Poland EU	 G 51 (only retail)	 SC (65%) SME	 113 92	 1 -1
Hotels and restaurants Poland EU	 H 66	 SC (74%) SC	 99 112	 7 2
Transportation Poland EU	 I 71-77, 79	 BC (82%) BC	 217 102	 33 -5
Financial consulting Poland EU	 J 81-82	 BC (81%) BC	 110 105	 0 -23
Real estate servicing Poland EU Other services Poland	 K 95 0	 SME (77%) SC SME (80%)	 126 105 137	 6 -15 13

Source: The European Observatory for SMEs, EMI, July1996, Main Statistical Office data

Remarks(1) data is not fully comparable that is why in the second column we gave sections symbols according to EKD for Polish economy and NACE for EU

(2) economy is dominated is the employment share in a given class of enterprises is bigger than 50% of all employed

(3) relative labor productivity (added value per employed) is calculated in SMEs as a share of labor productivity in SMEs in the labor productivity of the entire economy

(4) relative profitability in SMEs is calculated as the result of subtraction of profitability for SMEs and for the entire economy

Table 10 shows that:

- both in Poland and in EU countries sector of SMEs has lower relative labor productivity in mining and bigger in transportation, financial consulting and real estates servicing

- in industry, construction and trade Polish SMEs have higher relative labor productivity than SMEs in EU

- in the section of hotels and restaurants SMEs sector in EU has higher relative labor productivity than this sector in Poland

- as far as profitability is concerned Polish SMEs have better results than big companies (BC) apart from sections of mining and energy supply

7.1.4. Efficiency of industrial sections of SMEs in Poland in 1995

Industrial production has a decisive significance for the country's competitive position, hence we have done similar calculations for given sections of industry

Table 11 Efficiency Of SMEs in industrial sections in Poland in 1995

(for these calculations a different data base was used hence the results might not be fully comparable with the data for the entire industry; they serve rather as an illustration of SMEs sector efficiency in given industrial sections. Differences between data basis concern specifically the number of enterprises. In the base analyzed belowe smaller number of companies was used)

Section	EKD	companies dominating in economy (share in employment) (1)	relative labor productivity in SMEs (2)	relative profitability in SMEs (3)
food stuffs prod.	15	BC(58%)	298	31
textile prod.	17	BC(68%)	120	20
clothes prod.	18	SME(66%)	65	2
leather prod.	19	SME(54%)	101	8
wood prod.	20	SME(68%)	104	9
paper prod.	21	SME(52%)	109	8
publishing activ.	22	SME(76%)	103	1
chemicals prod.	24	BC(79%)	141	16
plastics prod.	25	SME(64%)	125	4
non-metal prod.	26	BC(52%)	117	7
prod. of metals	27	BC(92%)	143	31

(4) relative profitability in SMEs is calculated as the result of subtraction of profitability for SMEs and for the entire economy

Table 10 shows that:

- both in Poland and in EU countries sector of SMEs has lower relative labor productivity in mining and bigger in transportation, financial consulting and real estates servicing

- in industry, construction and trade Polish SMEs have higher relative labor productivity than SMEs in EU

- in the section of hotels and restaurants SMEs sector in EU has higher relative labor productivity than this sector in Poland

- as far as profitability is concerned Polish SMEs have better results than big companies (BC) apart from sections of mining and energy supply

7.1.4. Efficiency of industrial sections of SMEs in Poland in 1995

Industrial production has a decisive significance for the country's competitive position, hence we have done similar calculations for given sections of industry

Table 11 Efficiency Of SMEs in industrial sections in Poland in 1995

(for these calculations a different data base was used hence the results might not be fully comparable with the data for the entire industry; they serve rather as an illustration of SMEs sector efficiency in given industrial sections. Differences between data basis concern specifically the number of enterprises. In the base analyzed belowe smaller number of companies was used)

Section	EKD	companies dominating in economy (share in employment) (1)	relative labor productivity in SMEs (2)	relative profitability in SMEs (3)
food stuffs prod.	15	BC(58%)	298	31
textile prod.	17	BC(68%)	120	20
clothes prod.	18	SME(66%)	65	2
leather prod.	19	SME(54%)	101	8
wood prod.	20	SME(68%)	104	9
paper prod.	21	SME(52%)	109	8
publishing activ.	22	SME(76%)	103	1
chemicals prod.	24	BC(79%)	141	16
plastics prod.	25	SME(64%)	125	4
non-metal prod.	26	BC(52%)	117	7
prod. of metals	27	BC(92%)	143	31

prod.of metal products	28	SME (62%)	113	7
prod. of non-classified machines and appliances	29	BC(66%)	132	17
prod. of machines & electric appliances	31	BC(68%)	107	7
prod. of RTV equipment	32	BC(60%)	149	26
medical, precision, optical instruments production	33	BC(62%)	136	14
prod. of mobiles	34	BC(74%)	160	23
transportation equipment prod.	35	BC(89%)	125	26
furniture prod.	36	SME(59%)	102	8

source: statistics, own calculations

Remarks:

(1) economy is dominated when the employment share in some class of enterprises is more than 50% of all employed

(2) relative labor productivity (added value per employed) in SMEs is calculated as a share of SME labor productivity in the labor productivity of the entire economy.

(3) relative profitability in SME is calculated as the result of subtraction of SME profitability and for the entire economy

Analysis of table 11 allows for the following conclusions:

-SME sector is more effective in all sections of industry. Only in clothes production labor productivity in SMEs is lower than in the sector of big companies

- SMEs achieve better efficiency in these sections which are dominated by big companies (production of metals, mobiles, transportation equipment or chemicals). This phenomenon is difficult to be explained because in these sections optimal size of an enterprise is the big one.

- SMEs in sections dominated by SMEs are characterized by relatively worse efficiency than SMEs in sections dominated by big companies. This phenomenon should be explained rather by the situation in big public companies which are not fully restructured and hence less efficient.

- differences between efficiency measurements among groups of companies of various ownership sectors are bigger than such differences of measurements calculated solely for size groups. Also efficiency in size groups of firms in given ownership sectors is different. It means that the company's efficiency depends on the ownership sector more than on its size.

- in Poland SMEs sector has better results in comparison to BC sector in all EKD sections excluding mining and energy supply. It applies to relative labor productivity.Relative labor profitability is also bigger in all sections apart the enumerated above and additionally section H (hotels and restaurants)

Summing up the analysis based on financial results and comparison with EU we have to stress that Polish SMEs sector, differently than in EU is more efficient than the sector of big companies as far as labor productivity and relative profitability is concerned. It is decided

mainly thanks to the private sector because the results of SMEs in the public sector are much less positive than in big public companies.

7.2. SMEs competitiveness on foreign markets

Index export/import achieved 0,79 in 1995, and 0,80 in 1994.So the index lowered a bit which points to a small deterioration of competitive position of Polish products. We should add that this index for 1992 and 1993 was very similar (close to 0,80) but in 1990-91 was much higher than 1. The deterioration of the index was linked with appreciation exchange policy implemented in the beginning of 1990 and with geographical changes of Polish foreign trade. Remembering about exchange policy and constant zloty appreciation after 1992 maintaining a high competitive position must have meant constant improvement of production means utilization including labor.

7.2.1 SMEs share in exports - general information

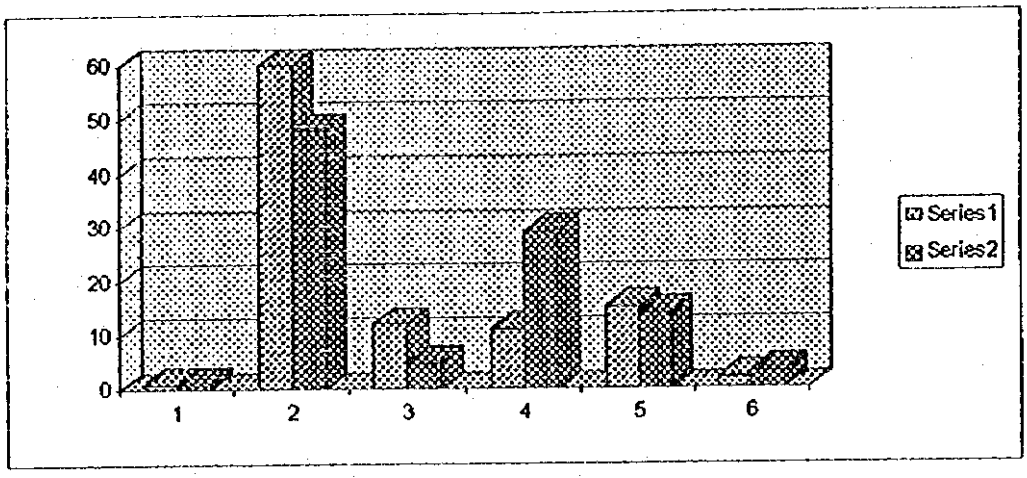
Exports value registered on basis of monthly report F-01 (statistics covering foreign trade are usually based on SAD declarations which makes impossible to analyze the SMEs significance in the whole of Polish exports. Hence the group of small and medium-sized export companies was chosen among companies filling up monthly GUS reports on receipts, costs and financial result (F-01). Exports realized by a group of exporters selected among enterprises filling F-01 reports every month constitutes a major part of Polish exports (generally it covers 88% of exports). Although these quantities are not fully comparable but anyhow they show the significance of exports realized by the exporters selected from F-01 reports. Whenever in the text or tables below we refer to "exports totally" or "entire exports" or "export" you should remember that it refers to exports of enterprises which fill up F-01 report every month.) increased from 33612,9 million zls in 1994 to 50084 million zls in 1995 (these and further data concerning exports are given in current prices). In the first half of 1996 these exports amounted to 26838,2 million zls. Dominating role was played by five sections: production activity, trade, transportation and communication, mining and construction. In the second half of 1996 these sections covered nearly 98% of exports. Special significance was given to section D - production activity (processing industry) which covered over 60% of entire exports.

The share of SMEs in the total number of exporters in 1995 amounted to 71,4% showing significant growth in comparison with 1994 (59,7%). The exports value of SMEs increased from 4354,4 million zls in 1994 (13% of total exports value) to 9708 million zls in 1995 (19,4% of total exports value). In 1995 SMEs exported 6,9% (in 1994 4,9%) of public sector exports value and 37,8% of private sector exports value (in 1994 32,2%)

7.2.2. SMEs exports structure

In 1995 nearly half of SMEs exports was production activity. Other important sections in SMEs exports were trade, transportation , communication and construction.These four sections together covered 96,7% of SMEs total exports. The structure of SMEs exports is shown below

table 16 SMEs exports structure in 1994-95 according to EKD sections



series 1 - 1994

series 2 - 1995

1-mining, 2-production activity, 3-construction, 4-trade, 5-transportation, 6-remaining sections

7.2.3. SMEs exports in industry

Production activity has decisive importance in exports both for SMEs and for entire economy. SMEs share in exports in the sections: publishing activity, wood and wooden products, machines and equipment, is higher than SMEs employment in these sections. In all other sections SMEs share in employment is higher than their share in exports which means that SMEs are less active exporters than big companies . In the table below we present industrial sections in which the export shares of SMEs were highest

Table 12 SMEs share in exports and employment in industrial sections in 1995 (%)

Specification	SMEs share in employment	SMEs share in exports
production activity (D)	46	15,4
clothes (18)	66	35
wood, wooden products except for furniture (20)	68	52,7
publishing activity, typography (22)	76	82,6
rubber products and plastic products (25)	64	28,9
ready-made metal products except for machines and equip	68	35,1
machines &appliances not classified in other places (29)	34	20,9
Office machines and computers (30)	64	42
medical,precision ,optical instruments (33)	38	23,7
waste utilization (37)	74	67,8

source :
GUS data

In 1995 the biggest share in exports of a given section was observed in such fields as publishing and typography, waste utilization, wood production and wooden articles production. But only in case of wood production and wooden articles production exports were really significant. We have to add that wooden articles (CN 44) present a high dynamics of noble exports to EU. This dynamics in 1991-95 was over 400%. This is probably the main reason for a big share of these products in SMEs exports.

SMEs share in a given branch exports was the biggest in light industry, wood industry, furniture production, plastic production, production of simple metal articles and in production of processed fruits and vegetables, flour products, sweets and cakes. Relatively small SMEs exports were noted in capital-consuming branches like electro-machine industry, paper industry, chemical industry, petrochemical industry or metallurgy,

In 1994-1996 industrial activity section SMEs exports the share of food articles, wood and wooden products, metal products increased, and exports of such fields as chemicals, artificial fibres, metals, transportation equipment became less important.

Summing up, SMEs sector in Poland as in EU is concentrated more on domestic markets than on international markets. But in recent years SMEs significantly improved their competitive abilities on international markets. SMEs increasing economic role in 1993-95 was accompanied by much faster increase of importance in exports (it constituted nearly 20% of Polish exports in 1995). In SMEs transfer of employment in 93-95 was 1,22, and transfer in export between1994 and first half of 1996 was 1,65. For sure it shows the bigger than average increase of competitiveness of this sector on international markets. The part os SMEs able to challenge international competitions is growing. Let us notice that exports offer of SMEs sector is based on commodities which are not highly processed (fruit and vegetable processing, furniture, plastics production, sweets, simple metal articles, wood articles, clothes). So competitiveness of Polish SMEs on international markets is based mainly on cheap labor and natural resources. The fact that exports are based on processing shows high dynamics is a positive phenomenon.
The statistical data being analyzed do not show the full structure of SMEs exports. It is indirectly visible in the growth of currency reserves and in Polish trade deficit. This situation results froma considerable scale of informal turnover i.e. non-residents shoppings in Poland (it means informal exports). According to the estimations of Market Economy Research Institute in Nov.1996 the value of this export amounted to over 5 billion zls in 1995. If we assume that this exports was realized by SMEs sector in 75% (estimation of the private sector commodities sold at bazaars visited by non-residents) than underestimated exports of SMEs sector was over 40% of the exports realized by this sector (and shown in our statistics basing on F-01). The structure of commodities sold in this way is similar to the formally shown structure of SMEs sector that is food articles, clothes, shoes are prevailing. So it shows similar comparative overbalance shown in SMEs sector.
We should also add that conditions of Polish imports and exports change as aresult of association agreement with UE. In the customs reduction plan the longest customs protection is envisaged for so called sensitive commodities which constitute nearly 50% of Polish exports. It weakens the competition possibilities of SMEs on EU markets. On the other handsolutions positive for Poland and accepted by WTO may increase export chances for clothes industry and textile industry (i.e. Multifibre Agreement) including SMEs sector.

7.3. Relative competitiveness of SMEs sector according to DRC method

7.3.1. Description of the method

Macroeconomic method DRC (Domestic Resource Cost) is based on comparing domestic resources costs (capital and labor) to world prices of these resources. Added value in a given branch is compared in domestic and world prices with accounting for direct usage of materials and indirect usage in other branches, but resulting from the production in a given branch. To this end an input/output & flow of funds account table has been used. To define the DRC index for a given branch the following groups of data are used: (see: Map of Investment Risk in Polish Economic Branches, Market Economy Research Institute, Warsaw 1996, page 77-79)
- direct consumption of production materials in given branches
- components of sold production and added value (basing on F-01)
- average relations of world and domestic prices of materials and raw materials in the aggregation scheme of input/output & flow of funds account table and average relations of world and domestic prices for products of given branches
- input/output & flow of funds account table

A branch is competitive if added value in world prices is higher than in domestic prices and DRC index is less than 1 and more than 0. The index is quotient of added value in domestic prices and added value in world prices. A minus DRC index means that added value in world prices is minus so the price of materials supplied for production is higher than the price of the produced commodity (in world prices). For sure such activity is not competitive. If the value of DRC index is more than1 it shows that the value in domestic prices is higher than in world prices so the branch is also not competitive.

For the needs of our research a following branch classification with regard to DRC index has been used (classification presented in "Map of Investment Risk" PBR, Warsaw-Gdansk 1995):
- competitive (DRC=< 0,9)
- neutral competitiveness (0,9<DRC=<1,1)
- potential competitiveness (1,1<DRC=<1,5)
- not competitive (DRC>1,5 and DRC=<0)

Detailed testing of 180 branches are contained in tables 1,2,3 in annex 7. Analysis of the data contained there shows that in 1993-1995 the number of competitive branches in economy increases and the number of non-competitive branches decreases.

7.3.2. Competitiveness scheme of branches dominated by SMEs

Table 13 . Competitiveness scheme of branches dominated by SMEs in 1994-95 Numbers of branches in distinguished in competitiveness categories (including branches which joined SMEs - dominated group in 1995)

Branches	competitive	neutral competitiveness	potential competitiveness	not competitive	1995
competitive	13		1		14
neutral competitiveness	2	13	3		18
potential competitiveness			6	4	10
not competitive			2	19	21
1994	15	13	12	23	63

source: Investment Risk Map, PBR Warsaw-Gdansk, 1996
attention: calculation of competitiveness was done for EKD classes. It was assumed that the class is dominated by SMEs sector if employment in the group covering a given class is bigger than 50% in SMEs sector.

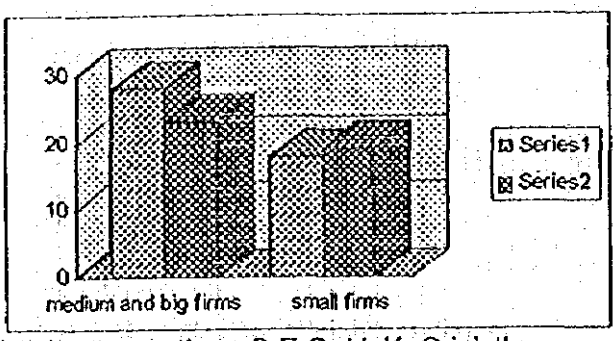
Changes of competitiveness in branches dominated by SMEs sector are similar to changes in the entire economy. In the group of branches dominated by SMEs in 1995 we observe a certain increase of competitiveness in branches that is more branches have passed to higher competitive group (9) than to lower one (2). But distribution of competitive and less competitive branches is not good. In the entire economy there are less low competitiveness branches than high competitiveness branches. But the scheme of branches dominated by SMEs is more equal and most numerous class of branches is group IV - non-competitive branches. Competitive branches dominated by SMEs cover mainly production of food articles, production of metal commodities, production of computers, instruments and toys. Changes of SMEs competitiveness as compared to big enterprises is shown in table 4 of annex 7. The table shows that within last three year the competitive position of SMEs dominated branches has been gradually worsening in comparison to branches dominated by big companies. In spite the tendency to slow improvement of competitiveness in SMEs sector branches dominated by big companies improve their competitiveness faster. In 1993 46% of branches dominated by SMEs belonged to two first competitive groupd; in 1995 - 50%. Corresponding quantities for big companies sector are 5o% and 59%. Faster improvement of DRC index by branches dominated by big companies is probably linked with considerable economic boom in 1993-1995 in the Polish economy and with better use of fixed property. It results from the fact that big companies usually have higher fixed costs which may be covered by bigger production at the time of economic boom.
Calculations presented above allow for a general conclusion - SMEs sector cannot be clearly defined as competitive or not competitive. Right now half of the branches dominated by SMEs is competitive or potentially competitive according to DRC method. On the other hand we have a constant tendency to improve the index of competitiveness in branches dominated by SMEs. Competitive SMEs branches are significant exporters in this sector. The biggest share in exports of SMEs has been relatively simple products like metal commodities, fruits and vegetable products, flour products, sweets so the articles having the highest index of competitiveness.

7.4. Evaluation of SMEs competitiveness compared to big companies basing on costs analysis

7.4.1. Total labor costs

Literature about SMEs shows that they are relatively weakly capitalized which suggests that a part of costs linked with capital restoration will be lower in such companies than in big companies. At the same time SMEs are usually concentrated on more labor consuming production (see Small Firms - report of the Committee of Inquiry on Small Firms, Chairman J.E. Bolton, London 1978) These two features of SMEs suggest that labor costs (labor costs are relatively wide category and according to international definitions of International Conference of Labor Statistics contain , apart from direct compensation for work, including extra duty hours, such components as : compensation for the non-working time (holidays, free days, bonuses, compensations etc), bonuses, insurance expanses, costs of professional training, costs of social services etc) may be of more significance for SMEs than for big companies i.e. labor costs would constitute bigger part of total costs. Table 17 shows that it is not so.
Table 17 Labor costs share in total costs in SMEs and in big companies in 1995

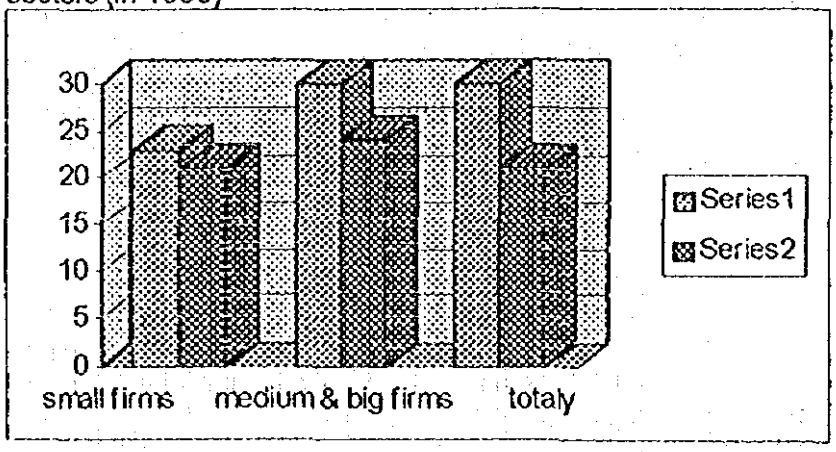
(in this chapter a small enterprise is the enterprise employing more than 6 employees and less than 50 in case of industrial and mining firms (sections C and D) or more than 20 people in case of other companies)



series 1 - sections C,E,G, H, K, O jointly
series 2 - sections D and F jointly

source: Gus data for C,E,G,H,K and O sections in 1995, and for D and F sections in 1994
Attention: medium-sized companies and big companies of C and D sections employed more than 50 people and in remaining sections over 20 people. Small firms employed over 6 people and less.
In all sections except K section (firms servicing) small units have lower labor costs in proportion to total costs than medium and big companies. Absolutely different from what we could expect. It can be caused by two reasons: first, small companies may operate on the job black market which means that they do not show all real labor costs (and the other costs are shown). Additionally small firms may use civil agreement instead of labor contracts which lowers the nominal employment cost. Secondly, medium firms and especially big firms may, contrary to small ones, be characterized by hidden unemployment which means growing labor costs (and that may result from non economic reasons).

Table 18. Share of labor costs in total costs in sections C,E,G,H,K,O in public and private sectors (in 1995)



series 1 - public sector
series 2 - private sector

source: GUS data for sections C,E,G,H,K and O -1995, sections D and F 1994
Attn: medium and big companies in sections C and D were employing over 50 people, in remaining sections over 20 people, Small companies employed over 6 people and below the mininum limit for a big company

Considerable differentiation of small firms profitability in public and private sectors described in chapter 7.1 allows to think that it may result from a different meaning of labor costs in public and private sectors. Worse financial results of small public companies may indirectly point to the bigger share of labor costs in total costs in these firms (and smaller efficiency of human capital use in these firms)

7.4.2. Labor costs structure in companies of various sizes

Labor costs structure is dependent more on the ownership sector than on the size of the firm.

Table 14 Labor costs structure in small and big firms of public and private sectors in industry and construction (in %)

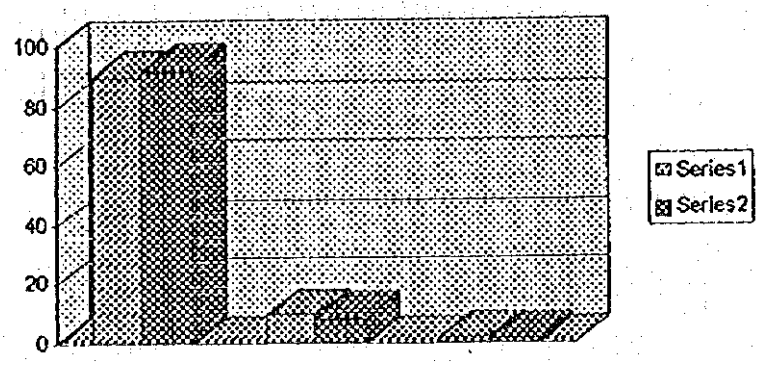
	total	Public sector		total	Private sector	
		companies			companies	
		big	small		big	small
A. Remunerations and compensations calculated into costs including:	91,5	91,5	96	98,8	98,5	99,5
1. Personal remunerations including:						
-basic remuneration	57,2	57,1	57	58,2	59,2	55,1
-allowances	30,5	30,4	36,1	39,9	37,6	46,3
2. Non-personal remunerations						
3. Social insurance costs	0,5	0,5	5,2	6,7	5,2	11
4. Labor security costs	23,9	23,9	23,6	24,4	24,6	23,8
5. social funds costs	3,5	3,1	1,1	2,3	2,7	1,2
B. payment from profits	8,5	8,5	4	1,2	1,5	0,4
C. Labor costs	100	100	100	100	100	100

source: labor costs in production activity an construction, GUS, Warsaw 1994

Table 14 points to the big differentiation of labor costs structure in ownership sectors in economy and in size sectors of companies. Above all, labor costs calculated into costs of firms constitute nearly 99% in case of private companies and 91,5% in case of public firms. So big difference (7,3%) is not visible between small and big companies although big companies have smaller labor costs rate calculated into costs. Differences in this case are 4,5% for the public sector and 1% for private sector. High share of non-personnal costs in private sector especially in small companies shows that these firms use civil agreements instead of working contacts to lower labor costs.

7.4.3. Working time

Table 14 Working time structure in small and big companies in industry and construction



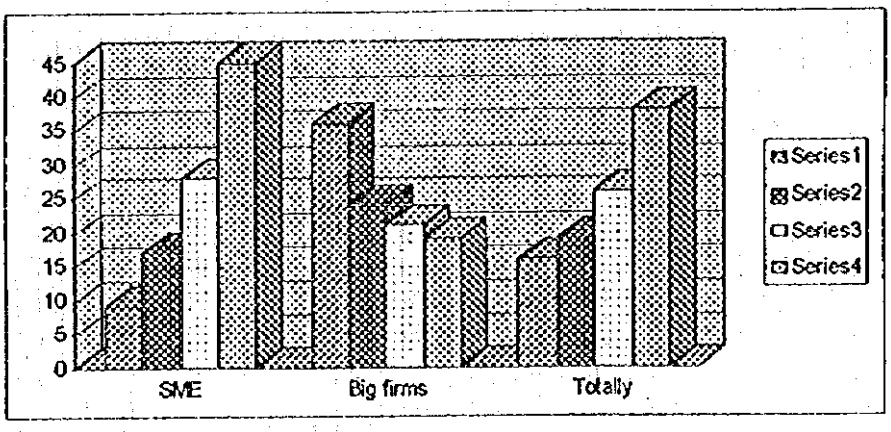
series 1 - big firms
series 2 - small companies

Table 19 shows that working time is better used in small companies than in bid companies. It is connected with more efficient use of working time and smaller costs of holidays and sick leaves of employees. Table 5 in annex 7 suggests that much more significance for efficient use of working time is provided by ownership sector. Comparing of the sectors clearlyu shows that a more tight owners control results in more efficient use of working time. We should notice that for all sections the share of working time in the paid time is higher in private sector than in public sector which is caused by a different approach to sick leaves. And taking holidays is much more similar in both sectors and differences are not so big. In case of two sections (paper production and trade) and section H (hotels and restaurants) taking holidays was more often in private companies than in public ones.

7.4.4. SMEs vs innovations level

The level of innovations influences the level of competitiveness of economic activity. The general level of innovations measured by the number of filed licenses and expanses for research and development is very low in Poland. Both the number of new inventions and the number of patterns decreases since 1990. The level and structure of expanses for research and development remains unfavorable that is, expanses of public sector are dominating and expanses of companies sector are small. Expanses for research and development per capita are only 33 USD, so it is 10% of average expanses in EU. At the same time the share of the private sector is not more than 5% and industrial section 43% of all expanses. It means that market mechanisms are not dominating when it comes to allocation of means to that end, the means come from the budget rather. We have to stress low innovation level of Polish economy and even worse position of SMEs.
The table below shows the rate of innovative enterprises among the total number of enterprises in a given category

Table 20 Enterprise structure according to innovation level in 1994



series 1 - strongly innovative
series 2 - medium level of innovations
series 3 - weakly innovative
series 4 - low level of innovations

source; M.Korona "Product and Technology Innovations in Polish Companies (GUS poll covered 2500 firms including 29% of small ones (employing up to 50 people), 45% of medium (50-500 people), 26% of big firms (over 500 people).

(1) a form is:
-strongly innovative in case it introduced 4 innovations within one year
-medium innovative in case it introduced 3 innovation within a year
-weakly innovative in case it introduced 1 or 2 innovations within a year
(2) Definitions of firms size in this poll were as follows:
-small company employs up to 50 people
-big company employs over 500 people

Table 20 shows a simple link that the large size of the company stimulates innovations

Taking into account two basic factors of evaluating competitiveness: labor costs and innovations we have to show that SMEs cannot be recognized as having competitive overbalance in comparison to big companies. Especially it applies to innovations evaluated through introduction of new technologies or new market products. Sector of SMEs is less innovative than sector of big companies. Labor costs and their structure and working time structure show some advantage of SMEs sector in comparison with big companies sector. It results from better use of working time and lower relative labor costs (in proportion to total costs)

7.5. Summary

Relative productivity and profitability is higher in SMEs sector in Poland than in SMEs sector in EU. At the same time, the number of enterprises and average size of a Polish SME shows that this sector in Poland should develop further.

Average added value per an employee in SMEs in Poland is higher than in big companies and in Polish economy in general which means that in 1995 SMEs sector was more efficient than big companies sector.

There are big differences between ownership sectors in the sphere of productivity and profitability. In the public sector efficiency grows together with the size of the company. In the private sector, the link is just adverse
In industry, SMEs sector is more efficient than big firms in all sections except clothes production. SMEs are more efficient in branches dominated by big companies than in branches dominated by small companies.

SMEs are over 70% of Polish exporters but their share in the exports values amounted to 19,4% in 1994. SMEs exported 6,9% of the public exports value and 37,8% of private exports value. Half of SMEs exports was production activity. The biggest share in a given branch exports was in light industry, plastic production. Simple metal articles, processed fruits and vegetables, flour products, sweets so not very refined production and not very advanced technologically. Competitiveness of SMEs export offer is based on cheap labor and raw materials.

Ciomparing competitiveness by DRC method (comparing added value in agiven branch in world and domestic prices) shows that the number of branches dominated by SMEs increases in case they are competitive. In 1995 some 50% of examined branches dominated by SMEs was competitive or potentially competitive. At the same time proportion of non-competitive branches among SMEs dominated branches is bigger than in corresponding branches dominated by big firms.

Comparing labor costs and working time use between small and big companies shows advantages of small companies. On the other hand, innovations among small companies are definitely less numerous than in big firms.

JICA