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Zakłady Porcelany "Ćmielów"

RESTRUCTURING REPORT

A BRITISH KNOW–HOW FUND PROJECT EXECUTED BY
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION WITH THE SUPPORT OF
THE POLISH INDUSTRIAL DEVELOPMENT AGENCY

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1790
ĆMIELÓW

Part I – DIAGNOSTIC

September 1996

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1. INTRODUCTION

1.1 Objectives of the Study

British Know–How Fund and UNIDO in cooperation with the Polish Industrial Development Agency initiated the restructuring project for Zakłady Porcelany "Ćmielów". Like many other Polish industrial enterprises, this company is trying to adjust its operations to the rapidly changing economic and business environment.

The aim of the study is to provide the company with the technical assistance in developing and implementation of the restructuring programme. In particular, objectives of the project are:

- to provide the company with immediate advice to solve its short–term technical, marketing and financial problems
- to prepare detailed analysis of the company's current position
- to cooperate with company's management in developing comprehensive restructuring programme
- to assist in the implementation of the programme
- to provide company's management with relevant, both ad hoc and formal, training

The study is carried out by the consortium established by two consulting firms: Business, Mangement & Finance and Ernst & Young.

1.2 Enterprise Background

Zakłady Porcelany "Ćmielów" is a state–owned enterprise operating under the "Act on the State–Owned Enterprises". It is supervised by the Tarnobrzeg Voivode –the local administration office.

The company is located in Ćmielów, Tarnobrzeg Voivodship, 185 km. south–east from Warsaw and 10 km. from the industrial city of Ostrowiec Świętokrzyski. Ćmielow is a little town with the population of 3190 inhabitants. The Porcelain Factory, employing 635 people is the town's only large employer.

Company produces white porcelain goods of a standard and high quality, including a wide range of tableware and other porcelain items like vases, candle holders and jewellery boxes. Having the production capacity of approximately 1800 tons per year, "Ćmielów" is the smallest factory of this kind in Poland. Although the production process is a standard one for ceramic production, it should be noted that company relies heavily on the manual labor. It is especially true for the decoration phase of the process.

"Ćmielow" sells its products both to the domestic and foreign markets. Export sales contributed 43% to company's total revenues in 1995, what was the modest increase as respect to 1994.

The company has a long history. Its brand name is well recognized in Poland, but not in the world markets.

Ćmielów's region has been known for a long time as the center of ceramic production. The Porcelain Factory "Ćmielów" itself is one of the oldest porcelain producers in Europe. Its history goes back to the end of XVIII century.

The following are the crucial facts in company's history:

1790	establishing of the faience factory in Ćmielow
1838	Ćmielów factory starts the production of the porcelain
1870–85	the period of major development and modernization of the factory
1909–10	construction of the modern tunnel kiln and mechanization of the production process
1921	establishment of the joint–stock company under the name: "Fabryka Porcelany i Wyrobów Ceramicznych w Ćmielowie S.A." (Porcelain and Ceramic Factory in Ćmielow)
1924	takeover of the competing "Chodzież" Factory
1946	nationalization of the company
1950	incorporation of the neighbouring "Świt" Porcelain Factory to ZP "Ćmielów"
1991–93	acquisition of the perpetual usufruct of land and full ownership rights to building, machinery and appliances in "Ćmielow" (1991) and "Świt" factories

Long history and tradition of porcelain production in "Ćmielów" may be regarded as the company's important asset with the potential commercial value. The company should use the image of the oldest porcelain producer in Poland to enhance its position in the domestic market.

"Ćmielów"'s current problems should be analyzed in the perspective of changes that occured in the Polish economy during the first period of transformation from the centrally planned to the market economy.

Poland's transition was initiated in 1989/90 during a period of profound macroeconomic disequilibrium. The stabilization and adjustment programme known as the "Balcerowicz Plan" has been implemented since January 1, 1990. The general assumption was to create in a short period of time (a "big bang approach") a solid base for the development of the market economy. The most important elements of the programme included: price liberalization, significant cuts in subsidies and spending, restrictive monetary policy, restrictive incomes policy aimed to curb inflation, acceptance of substantial unemployment, making the currency internally convertible and liberalization of foreign trade. The reform of the financial system, establishment of capital market and reforms of the tax system were intended to follow shortly afterwords.

Reforms implemented in Poland brought about dramatic changes in "Ćmielów"'s business environment. The immediate results at the company level were:

- decline of sales due to the rapid decrease of the domestic demand and the collapse of the former Soviet market
- increase of costs and in particular the financial costs
- lack of funds for capital expenditures needed to upgrade depreciating assets
- difficult access to external financing which brought about liquidity problems

Accumulating of debts forced the company to apply in June 1993 for the so called "Bank's Conciliatory Proceeding" – a debt–reducing procedure introduced by the special law "Act on the Restructuring of Banks and Enterprises".

1.3 Project Team

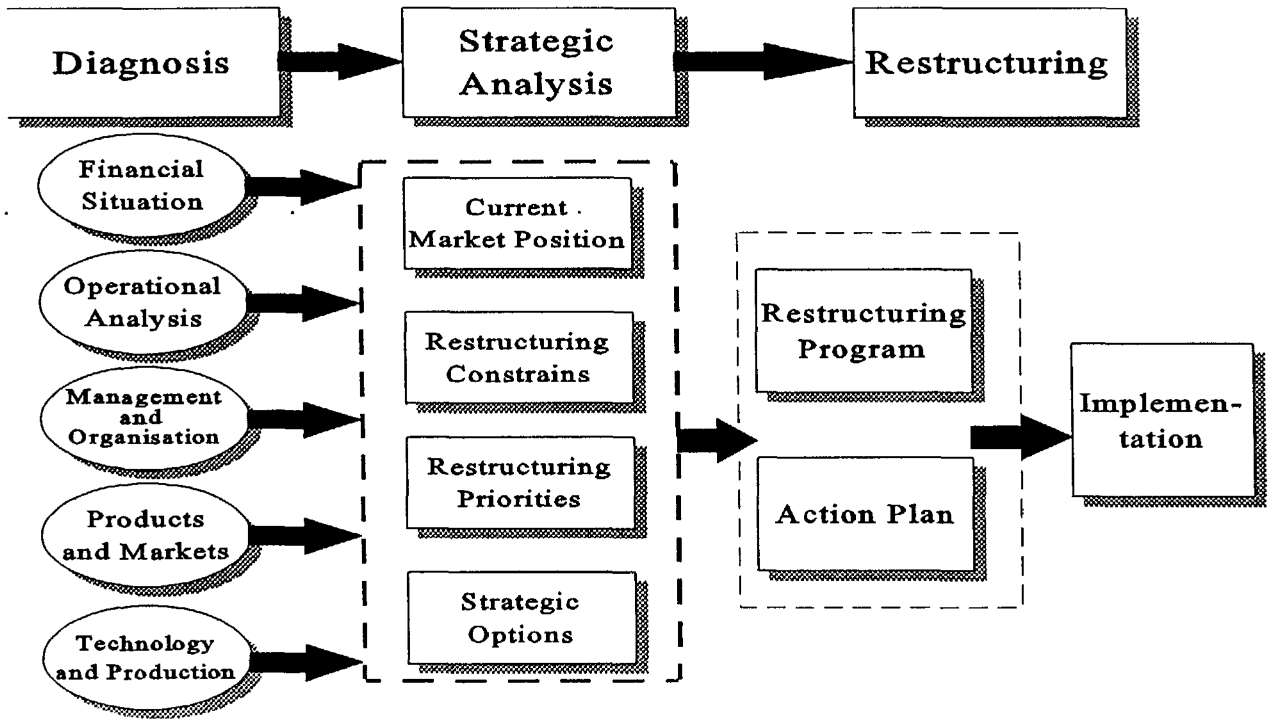
The project is executed by the consortium of BMF and Ernst & Young. Both companies have an extensive experience in the area of industrial restructuring in Poland. Furthermore, both companies have worked in Ćmielow before: BMF prepared business–plan and Ernst & Young – marketing analysis.

Project team consists of the following individuals:

Individual	Role
Mr. Leszek Filipowicz	Project Director / Restructuring and Privatisation Expert
Mr. Dariusz Brzeziński	Deputy Project Director / Restructuring Expert
Ms. Adela Drewniak	Restructuring Expert
Mr. Paweł Cygański	Financial Expert
Ms. Iwona Chabrowska	Financial Expert
Mr. Zbigniew Leszczyński	Financial Expert / Cost Accounting and MIS
Mr. Dariusz Zbytniewski	Marketing Expert
Mr. Maurice Birch	Technical Expert
Mr. Adam Durski	Training

1.4 Methodology

Members of the consortium believe that ultimate measure of the effectiveness of restructuring program is the extent of actual improvement in company's market situation. To achieve this improvement a simple and practical methodology is adopted:



2. FINANCIAL CONDITION AND PERFORMANCE

The Company's historical data was analysed based on financial statements F–01 and F–02 for 1992, 1993, 1994 and 1995 as well additional financial documents provided by ZP "ĆMIELÓW".

Ernst & Young did not audit these financial statements nor adjust them to IAS.

The analysis of historical data aimed at defining the changes in the share of each category (in current prices) in the total sales/balance sheet. However, please note that a full comparison of the sales value in fixed prices was conducted.

Based on F–01 and F–02 data, we prepared the Income Statement and the Balance Sheet. To these standard statements we added the Cash Flow Statement and the ratio analysis presenting the most important changes in ZP "ĆMIELÓW" within the last year.

All figures included in the analysis of historical data are given in thousand new zloties (thousand PLN).

2.1 Income Statement

2.1.1 Production and Sales

Production capacity of ZP "Ćmielów" is estimated at 1 800 tons per year. In 1992–1995 capacity utilisation figures fluctuated between 83.5%–89.6%. Table 1a below reflects production capacity consumption and production/sales figures in tones within the analysed period.

The decrease in the volume of sales and production in 1993 was caused, according to the Company, by the collapse of the domestic market (probably due to stronger competition from other local producers) and reorientation of sales to export to the former Soviet Union countries.

Table 1a. Production and sales

Year	1993	1994	Change % 94/93	1995	Change % 95/94
Production capacity	1 800	1 800	100.00%	1 800	100.00%
Volume of sales (tons)	1 519	1 529	100.66%	1 695	110.86%
Volume of production (tons)	1 503	1 541	102.53%	1 613	104.67%
Capacity utilization	83.50%	85.61%	2.11%	89.61%	4.00%

Within the analysed period, the sales of the Company's products have dominated total sales structure (see Table 1 b). The share of income from the sales of products in total revenues amounted to 96%, whereas revenue from sales of goods for resale equalled 4%.

Product sales include the following main groups: tableware, coffee sets, tea sets, cake sets, dishes in sets and individual pieces. Also included are miscellaneous products such as: mugs, tankards, ornamental products, etc. The most insignificant part of sales of products constituted sales of surplus of raw materials, production wastes and surplus of stock (app. 1% in 1995).

Table 1b. Total Revenues (thousand PLN)

Year	1992	%	1993	%	*Changes 93/92*	1994	%	*Changes 94/93*	1995	%	*Changes 95/94*
Net Sales of Products	5 543	96.4%	6 901	96.1%	*124.4%*	8 893	95.9%	128.8%	12 045	98.1%	*135.4%*
Sales of Goods for Resale	214	3.7%	270	3.9%	*126.5%*	352	3.9%	130.2%	467	3.8%	*132.7%*
Other incomes (result on other sales)	(4)	(0.1%)	(2)	(0.0%)	*41.7%*	12	0.1%		(234)	(1.9%)	
Total	5 753	100.0%	7 170	100.0%	*124.5%*	9 256	100.0%	129.1%	12 277	100.0%	132.6%

Sales of goods for resale, according to the Company's Accounting Department's explanation only includes production of cardboard packaging for internal needs.

The sales value of ZP "Ćmielów" and its main competitors, corrected by inflation is presented below (Table 2) and on the next page (Chart 1).

Table 2. Comparison of Sales

Sales (thousand PLN)	1992	1993	growth rate of sales:	1994	growth rate of sales:	1995	growth rate of sales:
Price's index of Sold production of industry		**q127.00%**		**130.60%**		**122.00%**	
Ćmielów							
Sales – current prices	6 067	7 156	17.9%	8 893	24.3%	12 045	35.4%
Sales – 1992's prices	6 067	5 634	(7.1%)	5 361	(4.8%)	5 952	11.0%
Ćmielów's Competitors							
"CHODZIEZ S.A."							
Sales – current prices	14 771	16 546	12.0%	19 661	18.8%		
Sales – 1992's prices	14 771	13 028	(11.8%)	11 854	(9.0%)		
"WAŁBRZYCH" S.A.							
Sales – current prices	11 583	11 275	(2.7%)	19 673	74.5%		
Sales – 1992's prices	11 583	8 878	(23.4%)	11 861	33.6%		
"LUBIANA" S.A.							
Sales – current prices	16 639	22 513	35.3%	33 832	50.3%		
Sales – 1992's prices	16 639	17 727	6.5%	20 397	15.1%		

***manufacture of other non–metallic mineral products**

In 1994, "Chodzież" S.A.,'s sales decrease was greater than for ZP "Ćmielów" (9% versus 4.8%).
"Lubiana" S.A. recorded a stable growth in sales in 1992–1994 period. "Wałbrzych" S.A. after a 1993 sales collapse (23.4% in 1992 prices) recorded a significant growth in 1994 of 33.6%. These changes have been connected with two factors:

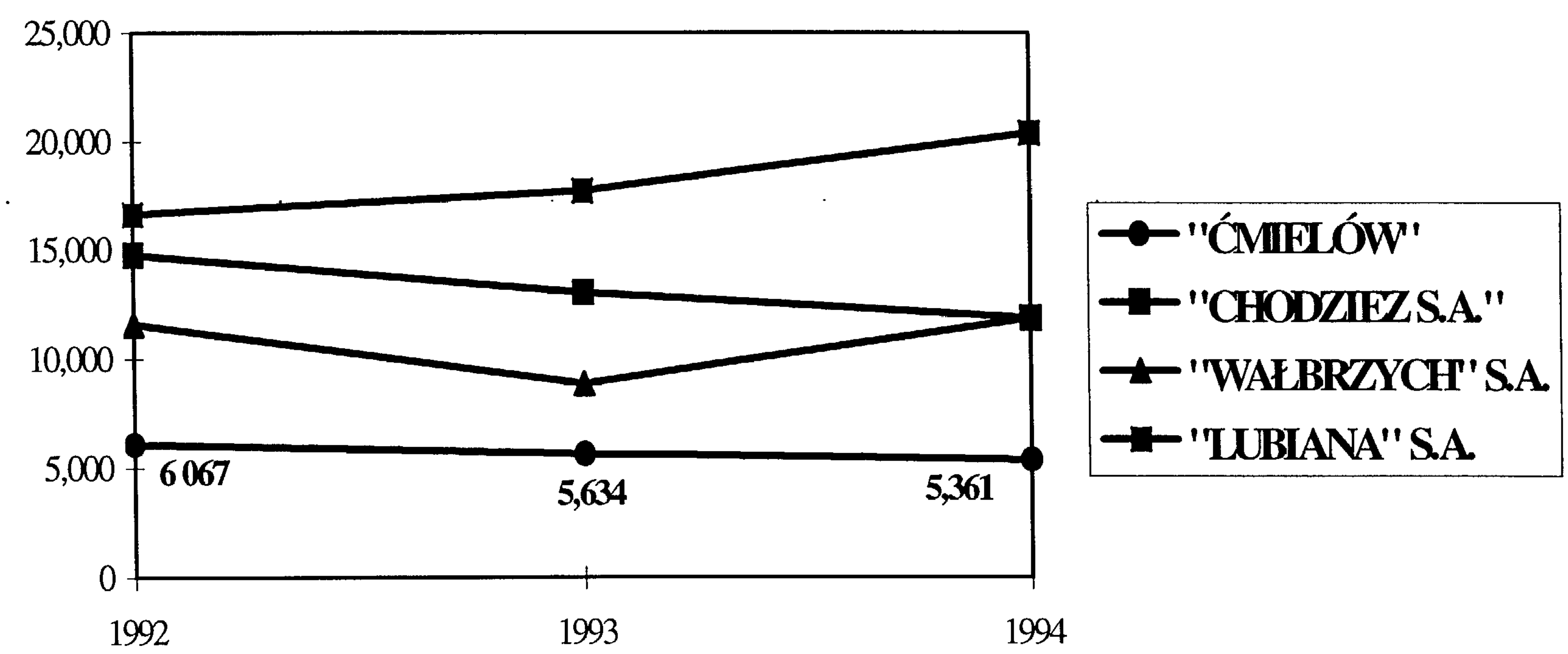
market tendencies:

In the 1990's the volume of the Polish porcelain market declined on aggregate by almost 25%. Since 1993 downward trend has been reversed and the market is experiencing growth. In 1995 it grew by approximately 9% and was 20% larger than its size in 1993. Polish export of tableware porcelain products almost doubled. From 30 mln USD in 1991 to 58 mln USD in 1995.

competitive position of "Lubiana" SA and "Wałbrzych" SA:

Both companies were able to use market trends to strengthen their position through cost redution. Please note that "Lubiana" SA and "Wałbrzych" SA recorded the lowest operation costs per 1 ton of porcelain sales and the lowes average price per 1 ton of sales.

Chart 1 – Sales in 1992 prices (thousand PLN)



2.1.2 Operating costs, profitability of sales

Our cost analysis was based on the accounting system whereby costs are recorded according to their category. These costs after correction by the stock of products reflect the cost of production sold. However, it should be stressed that such a costs accounting system substantially distorts profitability ratios in case of high fluctuations in product inventory. On the whole, the share of operating costs in ZP "ĆMIELÓW"'s sales has increased. Some changes in the costs structure are also evident.

Table 3 reflects the operating costs breakdown as a percentage of net sales on products and changes in separate cost categories between 1992–1995.

Table 3. Selected categories of income statement (thousand PLN)

Year	1992		1993		*Change*	1994		*Change*	1995		*Change*
Net Sales of Products	5 543	100.0%	6 901	100.0%	*124.5%*	8 893	100.0%	*128.9%*	12 045	100.0%	*135.4%*
Raw materials & energy out of which:	2 297	41.4%	3 050	44.2%	*132.8%*	3 802	42.8%	*124.7%*	4 813	40.0%	*126.6%*
–raw materials			2 426	35.16%		2 960	33.28%	*121.99%*	3 788	31.44%	*127.96%*
–gas			371	5.38%		558	6.28%	*150.42%*	661	5.49%	*118.44%*
–energy			253	3.66%		284	3.19%	*112.46%*	364	3.02%	*128.29%*
External services	277	5.0%	288	4.2%	*104.1%*	366	4.1%	*127.0%*	480	4.0%	*131.4%*
Wages	1 471	26.5%	1 976	28.6%	*134.3%*	2 420	27.2%	*122.5%*	3 110	25.8%	*128.5%*
Social securities	731	13.2%	977	14.2%	*133.7%*	1 059	11.9%	*108.4%*	2 063	17.1%	*194.8%*
Business trips	14	0.3%	36	0.5%	*253.5%*	53	0.6%	*148.1%*		0.0%	*0.0%*
Other	398	7.2%	584	8.5%	*146.7%*	1 167	13.1%	*199.7%*	809	6.7%	*69.3%*
Depreciation	125	2.2%	146	2.1%	*117.5%*	186	2.1%	*127.2%*	252	2.1%	*135.4%*
Total operating costs	**5 312**	**95.8%**	**7 057**	**102.3%**	***132.8%***	**9 053**	**101.8%**	***128.3%***	**11 526**	**95.7%**	***127.3%***
Adjustment (change in inventories of: work in progress, finished goods & others)	(281)	(5.1%)	(423)	(6.1%)	*150.6%*	(621)	(7.0%)	*146.7%*	(86)	(0.7%)	*13.9%*
Total operating costs after adjustment	5 031	90.8%	6 634	96.1%	*131.9%*	8 431	94.8%	*127.1%*	11 440	95.0%	135.7%

The share of operating costs in the net income from sales of products has increased by 5 percentage points between 1992–1995. In 1992, operating costs after adjustments constituted 90% of this year's net sales of products. In 1995, this increased to 95% of the net sales of products. This was mainly a result of the increase of two cost categories: labour and raw materials & energy, which took place in 1993, as well as a decrease in the sales rate in comparison with the growth in operating costs which prevailed in that year. This was caused according to the Company, by the collapse of the domestic market (probably due to stronger competition from other local producers) and reorientation of sales to export to the former Soviet Union countries.

Adjustments of operating costs (including changes in work in progress & finished goods) resulted in their significant decline until 1994 (from 5.1% in 1992 to 7% in 1994). The figures for 1995 reflect a very small impact of adjustment amounting to 0.7%.

Materials and energy costs dominated total operating costs, constituting almost 40.0% and 39.7% of net sales in 1994 and 1995 respectively. A downward trend in the share of this category was recorded (from about 44.2% in 1993 to almost 40% in 1995).

Breakdown of this category into main items shows that raw materials costs dominated during the analysed period constituting 35% and 31% in 1993 – 1995, respectively. Energy costs were equal to approximately 3% of product sales. For both categories a slight downward trend is observed. ZP "Ćmielów" also consumes natural gas as fuel for production needs. The share of this category in product sales fluctuated between 5.4%–6.3% in the analysed period.

Labour costs (gross wages together with social security) was the second main cost category in the analysed period. The share of this category fluctuated between 39% and 43% in the last four years and amounted to the following percentages of total sales: 1992 – 39.7%, 1993 – 42.81%, 1994 – 39.11% and 42.9% in 1995. Labour costs grew more slowly than average monthly wages in the enterprise sector.

The share of other costs (incl. business trips) fluctuated between 7.5%–13.7% of net sales between 1992–1994, recording an upward trend. This category mainly included taxes on real estate and vehicles, legal costs, advertising and promotion costs, customs duties, indemnities and environmental protection charges. In 1995 the share of this category in net sales of products decreased to 6.7%.

In 1993 – 1995 external services amounted to app. 4.0%–4.2% with a slight downward tendency in comparison to 1992 (5.0%). This category included: transportation, services maintenance and other external services constituting 35%, 25% and 40% of the 1995 total.

The share of depreciation was insignificant and has decreased systematically from 2.25% in 1992 to 2.09% in 1995. This is a result of the age of the Company's tangible assets (out of which almost 66% have totally depreciated), the Company's limited capital expenditures, and the fact that almost no revaluation of fixed assets took place until the end of 1994.

Charts 2,3,4 on the next page reflect the operating costs breakdown in 1993–1995

Based on the above analysis, the main area for potential future improvement in sales profitability at the operating level is to decrease the costs of materials & energy and labour.

Chart 2 – Operating costs breakdown at the end of 1995

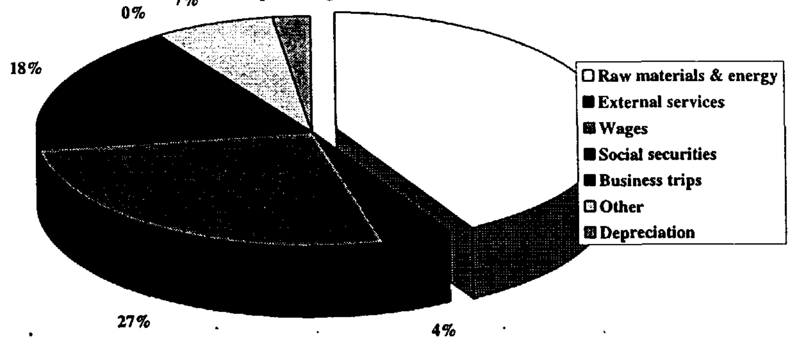


Chart 3 – Operating costs breakdown at the end of 1994

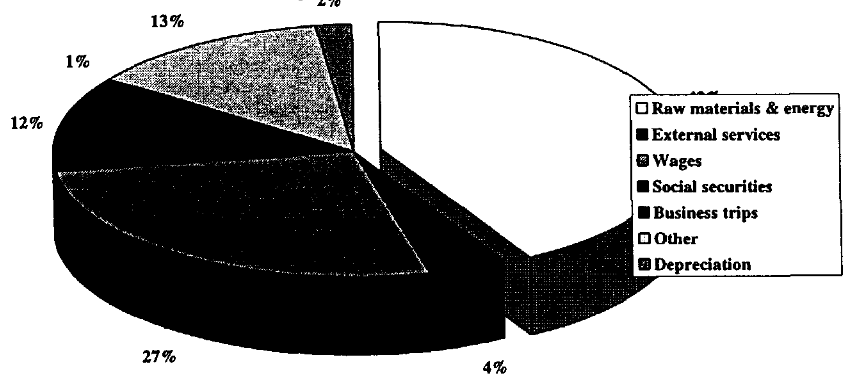


Chart 4 – Operating costs breakdown at the end of 1993

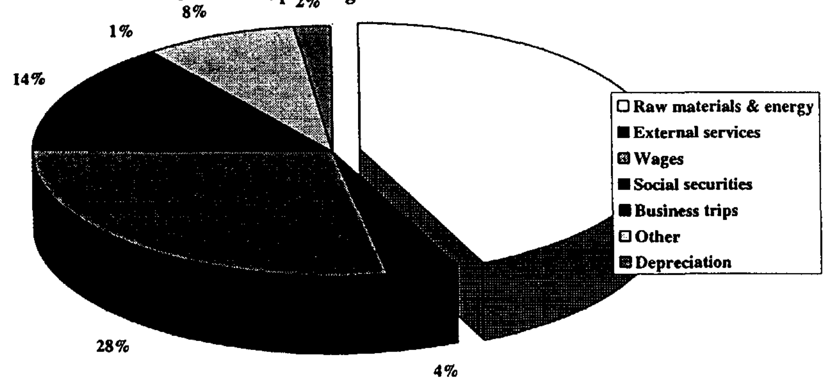


Table 4 below compares the profitability of product sales and total sales return with EBIT/Total Net Sales.
According to the Accounting Department costs of goods for resale (carton packaging) up to the end of 1994 were included in costs by nature items and were not shown separately. The profits on this activity recorded in financial statements were, in fact, equal to the sales of goods for resale. Consequently, up to the end of 1994 sales of products and sales of goods for resale were considered as total a in calculation of the Return on Sales of Products ratio.

Up to the end of 1994 other sales (other operating incomes) recorded as a result had a very small impact on profitability (constituting app. 0.1% of net sales of products). Provisions for receivables from bankrupted debtors and other questionable receivables which were created in 1995 and charged with other operating costs caused a negative result on this activity amounting to 234 000 PLN, which decreased the EBIT share in net sales of products to 3.3%.

Table 4. Profitability Ratios

Profitability Ratios	1992	1993	1994	1995
Return on Total Sales	-5.6%	-10.7%	-1.2%	0.5%
Return on Sales of Products	11.5%	7.2%	8.8%	5.0%
EBIT/Total Net Sales	13.0%	7.8%	9.3%	3.3%

The data concerning profitability reflects the large impact of other Income Statement categories upon the Company's net profit.

2.1.3 Remaining categories of Income Statement

Sales Tax:

During 1992 and 1993 the Company paid turnover tax, of 524 000 PLN and 255 000 PLN, respectively. In 1994 this category was replaced by VAT.

Financial Income

Financial income during the analysed period was insignificant and amounted to less than 1% of net product sales. This included foreign exchange gains of 50% of total financial income in 1993 and 100% in 1994. In 1995, the Company recorded an increase in this category share in total sales from 0.03% in 1992 to 1.1%.

Financial costs:

Financial costs impact significantly on overall Company performance. Interest paid for loans and credits constituted the main part of financial costs, with a share of 98% in 1992 and almost 100% in 1994. Between 1992–1994 the share of the financial costs in net sales dropped from 8.22% in 1992 to 2.76% in 1994. This amounted to 456 000 PLN in 1992, 376 000 PLN in 1993 and 245 000 PLN in 1994. This downward trend was caused by the implementation of the bank reconciliation agreement signed on the 29th of March 1994. According to this agreement, interest, legal proceeding costs, execution costs, indemnities and compensation relating to the liabilities included in the bank reconciliation were cancelled. Consequently, as from the first day of the banking reconciliation validity, no interest of these liabilities has been calculated. In 1995, Company statements recorded an increase in the financial costs share in net sales of products to 6.5%. Interest on loans constituted 92.5% of the total financial costs.

Table 5 below presents EBIT and financial costs of the Company as a percentage of the net sales. In 1992–93 the financial costs covered almost 70% of EBIT. In 1994, probably due to the implementation of the bank reconciliation procedure, this decreased to 30%. However, according to last year's data, the financial costs increased to 197% of this year EBIT.

Table 5. EBIT and financial costs

Year	1992	%	1993	%	1994	%	1995	%
Net Sales of Products	**5 543**	**100.0%**	**6 901**	**100.0%**	**8 893**	**100.0%**	**12 045**	**100.0%**
EBIT	**722**	**13.0%**	**536**	**7.8%**	**825**	**9.3%**	**395**	**3.3%**
Financial incomes	2	0.0%	8	0.1%	13	0.1%	130	1.1%
Financial costs								
Interests	447		362	5.2%	245	2.8%	723	6.0%
Other	9		14	0.2%	0		57	0.5%
Total financial costs	456	8.2%	376	5.4%	245	2.8%	781	6.5%

Table 6 shows the average cost of the external short term capital borrowed by the Company. This is very high for the last year.

Table 6. Average costs of the external capital

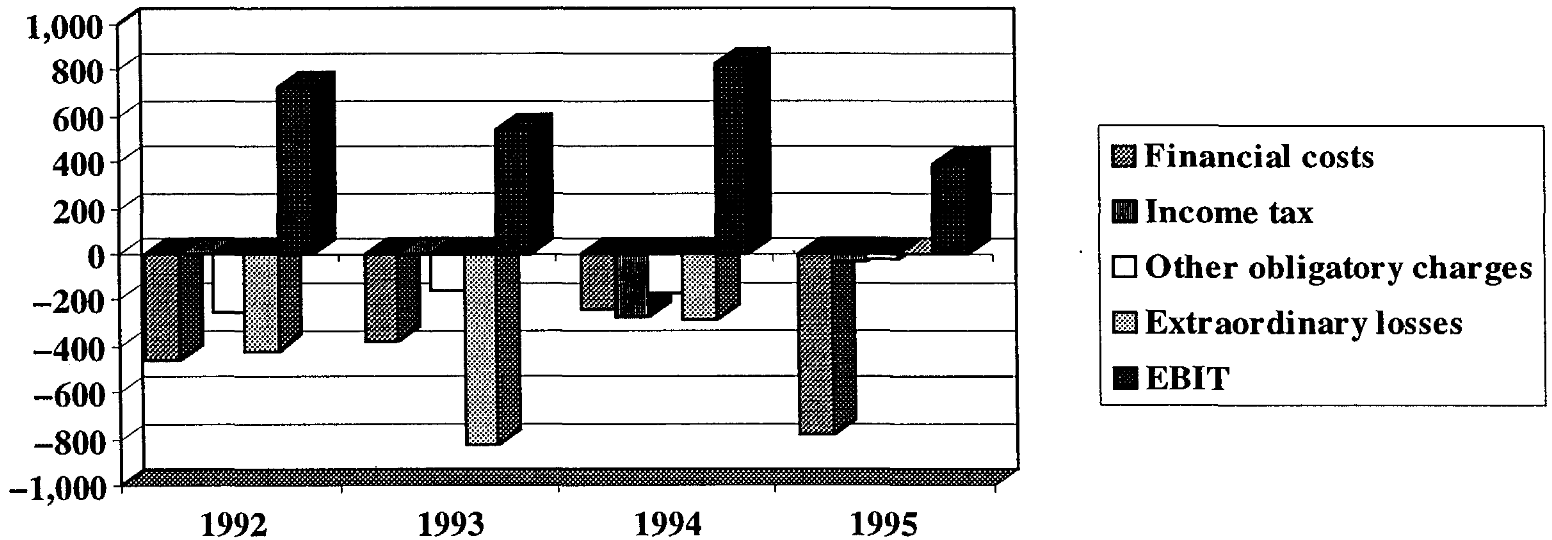
Year	1992	1993	1994	1995
Return on Borrowed Capital*	33.0%	27.4%	18.1%	**51.8%**

****total interests/average borrowed capital(long and short term debts)***

Extraordinary profits: Extraordinary profits for 1992–1994 have little impact on Company results and constitute less than 1% of net sales. This includes penalty interest and cancellation of provisions and indemnities. In 1995 this income category diminished to 0.

Extraordinary losses: Extraordinary losses significantly impacted upon the Company's financial results in 1992–1994. Net losses in 1992 and 1993 were mainly caused by significant financial costs and extraordinary losses (see Chart 5).

Chart 5 – Distribution of EBIT



It should be stressed that the main item in the extraordinary losses breakdown consisted of penalty interest for overdue trade liabilities and penalty charges payable to the State Treasury for payment delays of income tax, turnover tax and other obligatory charges.

The share of extraordinary losses in total sales decreased almost fourfold from 12.03% in 1993 to 3.28% in 1994. Data for 1995 indicate that this trend has continued and extraordinary losses were completely reduced.

The structure of extraordinary losses was as follows (see Table 7 – below and Chart 6 on the next page):

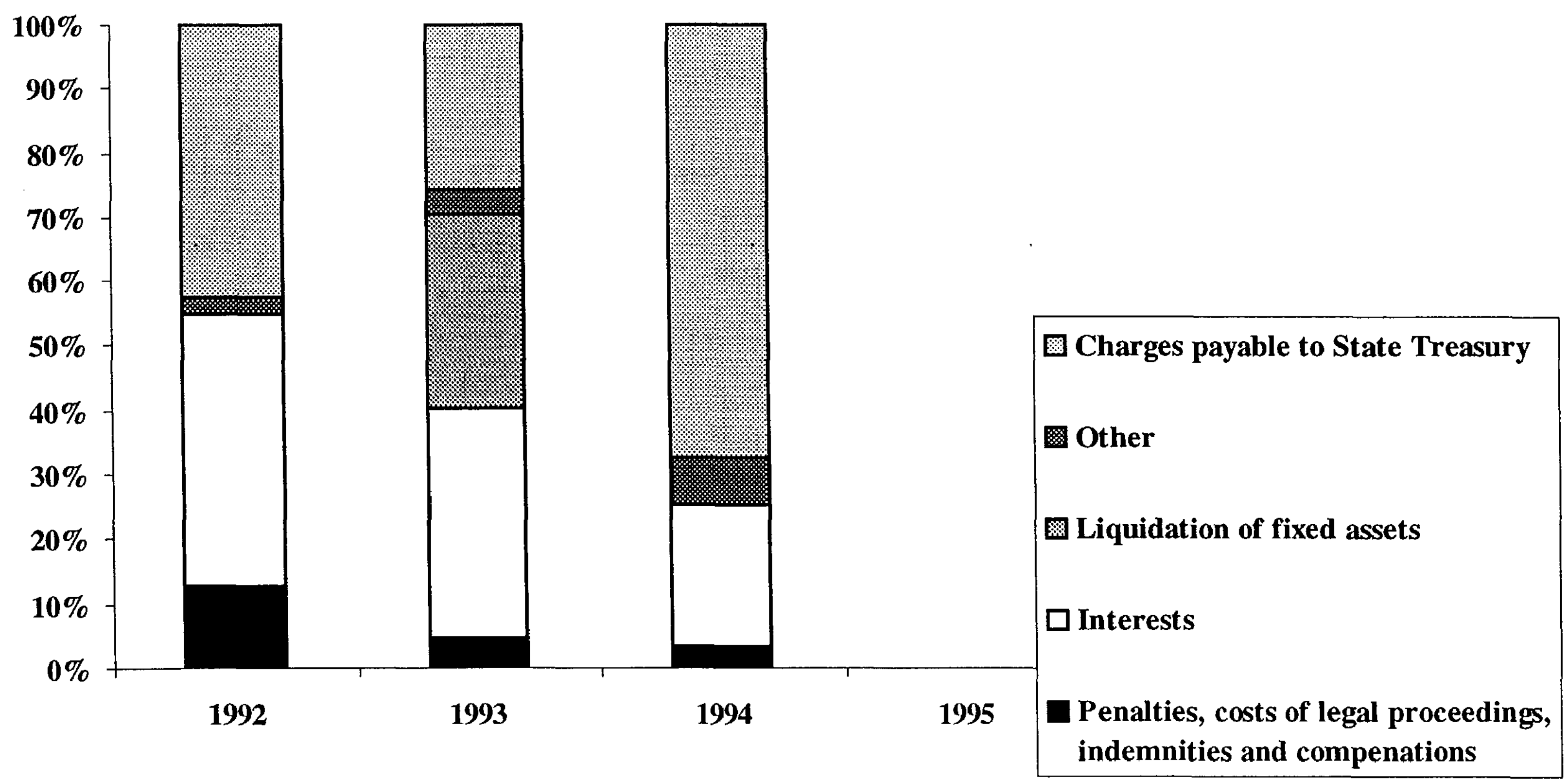
Table 7. The strcture of extraordinary losses

Extraordinary losses (in thousand PLN)	1993	% of Total	1994	% of Total
Penalties, costs of legal proceedings, indemnities and compensations	38	4.6%	11	3.6%
Penalty interests for overdue trade liabilities	296	35.6%	63	21.6%
Provisions for receivables from bankrupted debtors	3	0.4%		0.0%
Liquidation of fixed assets	251	30.2%		0.0%
Penalty interests for Tax Office(VAT, turnover tax, income tax)/ZUS payable to State Treasury	214	25.8%	197	67.3%
Other	29	3.5%	22	7.5%
Total	830	100.0%	292	100.0%

In 1993 main extraordinary losses categories were: penalty interest for overdue trade liabilities (35.6%), liquidation of fixed assets (30.2%) and penalty charges for the State Treasury (25.8%). This structure of extraordinary losses reflects the Company's limited financial liquidity aggravating its financial burden.

If the liquidation of fixed assets in 1993 had been excluded, the internal structure of the extraordinary losses would show the prevailing share of the same two main items as in 1992, namely: overdue interest on trade payables and penalty interest for State Treasury liabilities.

Chart 6 – Extraordinary losses breakdown



In 1994, the largest extraordinary losses category (67.26%) was penalty interest for overdue liabilities due to the tax office and ZUS (social security). Penalty interest for overdue trade payables (21.64%) was also high. The total share of these categories in the total extraordinary losses accounted for 88.9%.

Income tax:

The company did not pay corporate income tax in 1992–1993 due to the negative value of the taxable base for these years. The greater net loss in these years was caused by obligatory deductions (the State Treasury dividend), which amounted to 248 000 PLN and 161 000 PLN respectively.

In 1994 the Company paid 275 000 PLN income tax in comparison to the EBT which amounted to 335 000 PLN. In other words, the taxable base for this year was higher than EBT and certain categories of costs were not treated as such in the light of our tax law. The effective taxation rate calculated upon EBT as recorded in the income statement equalled 82%.

The quarterly income statements (F–01) for 1995 reflected the same, namely that the Company has been paying advances for corporate income tax despite recording losses; moreover the taxation rate was much higher than 40% in the first two first quarters of 1995. In 1995 the Company paid corporate tax amounting to 50 000 PLN despite the negative EBT equal to 256 000 PLN.

The Company's Income Statements for the analysed period are attached on Table 8 on the next page.

Table 8. Income Statement (thousand PLN)

Year	1992	% of Net Sales	1993	% of Net Sales	*Changes 93/92*	1994	% of Net Sales	*Changes 94/93*	1995	% of Net Sales	*Changes 95/94*
Sales of products incl. turnover tax	6 067	109.5%	7 156	103.7%	*117.9%*	8 893	100.0%	*124.3%*	12 045	100.0%	*135.4%*
Turnover tax/Excise tax	524	9.5%	255	3.7%		0	0%		0	0%	
Net Sales of Products	5 543	100.0%	6 901	100.0%	*124.5%*	8 893	100.0%	*128.9%*	12 045	100.0%	*135.4%*
Operating costs											
Raw materials & energy	2 297	41.4%	3 050	44.2%	*132.8%*	3 802	42.8%	*124.7%*	4 813	40.0%	*126.6%*
External services	277	5.0%	288	4.2%	*104.1%*	366	4.1%	*127.0%*	480	4.0%	*131.4%*
Wages	1 471	26.5%	1 976	28.6%	*134.3%*	2 420	27.2%	*122.5%*	3 110	25.8%	*128.5%*
Social securities	731	13.2%	977	14.2%	*133.7%*	1 059	11.9%	*108.4%*	2 063	17.1%	*194.8%*
Business trips	14	0.3%	36	0.5%	*253.5%*	53	0.6%	*148.1%*		0.0%	*0.0%*
Other	398	7.2%	584	8.5%	*146.7%*	1 167	13.1%	*199.7%*	809	6.7%	*69.3%*
Depreciation	125	2.2%	146	2.1%	*117.5%*	186	2.1%	*127.2%*	252	2.1%	*135.4%*
Total operating costs	**5 312**	**95.8%**	**7 057**	**102.3%**	***132.8%***	**9 053**	**101.8%**	***128.3%***	**11 526**	**95.7%**	***127.3%***
Adjustment (change in inventories)	(281)	(5.1%)	(423)	(6.1%)	*150.6%*	(621)	(7.0%)	*146.7%*	(86)	(0.7%)	*13.9%*
Total operating costs after adjustment	**5 031**	**90.8%**	**6 634**	**96.1%**	***131.9%***	**8 431**	**94.8%**	***127.1%***	**11 440**	**95.0%**	***135.7%***
Profit from sales of products	**512**	**9.2%**	**267**	**3.9%**	***52.2%***	**461**	**5.2%**	***172.7%***	**605**	**5.0%**	***131.3%***
Sales of goods for resale	214	3.9%	270	3.9%		352	4.0%		467	3.9%	*132.7%*
Cost of goods for resale	0	0%	0	0%		0	0%		443	3.7%	
Profit/loss from sales of goods for resale	**214**	**3.9%**	**270**	**3.9%**	***126.5%***	**352**	**4.0%**	***130.2%***	**24**	**0.2%**	***6.7%***
Other sales	0	0%	0	0%		0	0%		5	0.0%	
Costs of other sales	0	0%	0	0%		0	0%		239	2.0%	
Result of other sales	**(4)**	**(0.1%)**	**(2)**	**(0.0%)**	***41.7%***	**12**	**0.1%**	***(780.0%)***	**(234)**	**(1.9%)**	***(2003.8%)***
EBIT	**722**	**13.0%**	**536**	**7.8%**	***74.2%***	**825**	**9.3%**	***153.9%***	**395**	**3.3%**	***47.9%***
Financial incomes	2	0.0%	8	0.1%	*479.0%*	13	0.1%	*157.5%*	130	1.1%	*1031.6%*
Financial costs											
Interests	447		362	5.2%		245	2.8%	*67.8%*	723	6.0%	*294.9%*
Other	9		14	0.2%		0		*0.0%*	57	0.5%	
Total financial costs	**456**	**8.2%**	**376**	**5.4%**	***82.4%***	**245**	**2.8%**	***65.3%***	**781**	**6.5%**	***318.2%***
Profit before extraordinary items	**268**	**4.8%**	**168**	**2.4%**	***62.8%***	**592**	**6.7%**	***352.1%***	**(256)**	**(2.1%)**	***(43.2%)***
Extraordinary profits	51	0.9%	26	0.4%	*50.2%*	34	0.4%	*134.0%*	372	3.1%	*1084.2%*
Extraordinary losses	420	7.6%	830	12.0%	*197.6%*	292	3.3%	*35.1%*		0.0%	*0.0%*
EBT	**(102)**	**(1.8%)**	**(637)**	**(9.2%)**	***626.9%***	**335**	**3.8%**	***(52.6%)***	**116**	**1.0%**	***34.7%***
Income tax	0	0%	0	0%		275	3.1%		34	0.3%	*12.3%*
Other obligatory charges	248	4.5%	161	2.3%	*65.1%*	167	1.9%	*103.4%*	21	0.2%	*12.7%*
Net profit	(349)	(6.3%)	(798)	(11.6%)	*228.5%*	(107)	(1.2%)	*13.4%*	61	0.5%	

2.1.4 The comparison of ZP "Ćmielów" results to the performance of other porcelain factories

Below we present two tables showing the Income Statement of ZP "Ćmielów" and three other porcelain factories ("Chodzież" S.A.. "Wałbrzych" S.A. and "Lubiana" S.A. for years 1993 and 1994.

Table 9a. Comparison of Income Statement for 1993 (thousand PLN)

	"CHODZIEŻ" S.A.	% of Net Sales	"WAŁBRZYCH" S.A.	% of Net Sales	"LUBIANA"	% of Net Sales	ZP "ĆMIELÓW"	% of Net Sales
Sales of products incl. turnover tax	17 496	105.7%	11 592	102.8%	23 197	103.0%	7 156	103.7%
Turnover tax/Excise tax	950	5.7%	317	2.8%	684	3.0%	255	3.7%
Net Sales of Products	**16 546**	**100.0%**	**11 275**	**100.0%**	**22 513**	**100.0%**	**6 901**	**100.0%**
Raw materials & energy	6 193	37.4%	4 940	43.8%	8 556	38.0%	3 050	44.2%
Wages & Social securities	6 488	39.2%	4 667	41.4%	8 051	35.8%	2 953	42.8%
Other	2 119	12.8%	1 829	16.2%	3 162	14.0%	908	13.2%
Depreciation	694	4.2%	407	3.6%	975	4.3%	146	2.1%
Total operating costs	**15 493**	**93.6%**	**11 843**	**105.0%**	**20 743**	**92.1%**	**7 057**	**102.3%**
Adjustment (change in inventories)	(1 916)	(11.6%)	(1 224)	(10.9%)	(1 316)	(5.8%)	(423)	(6.1%)
Total operating costs after adjustment	**13 577**	**82.1%**	**10 620**	**94.2%**	**19 428**	**86.3%**	**6 634**	**96.1%**
Profit from sales of products	**2 969**	**17.9%**	**656**	**5.8%**	**3 086**	**13.7%**	**267**	**3.9%**
Sales of goods for resale	530	3.2%	78	0.7%	0	0.0%	270	3.9%
Cost of goods for resale	438	2.6%	67	0.6%	0	0.0%		0.0%
Profit/loss from sales of goods for resale	**92**	**0.6%**	**10**	**0.1%**	**0**	**0.0%**	**270**	**3.9%**
Result of other sales	**156**	**0.9%**	**39**	**0.3%**	**34**	**0.1%**	**(2)**	**(0.0%)**
Subsidies	0	0.0%	0	0.0%	89	0.4%	0	0.0%
EBIT	**3 216**	**19.4%**	**705**	**6.3%**	**3 208**	**14.2%**	**536**	**7.8%**
Financial incomes	144	0.9%	21	0.2%	296	1.3%	8	0.1%
Total financial costs	**1 525**	**9.2%**	**483**	**4.3%**	**1 383**	**6.1%**	**376**	**5.4%**
Profit before extraordinary items	**1 835**	**11.1%**	**242**	**2.2%**	**2 121**	**9.4%**	**168**	**2.4%**
Extraordinary profits	89	0.5%	59	0.5%	173	0.8%	26	0.4%
Extraordinary losses	2 874	17.4%	75	0.7%	165	0.7%	830	12.0%
EBT	**(950)**	**(5.7%)**	**226**	**2.0%**	**2 129**	**9.5%**	**(637)**	**(9.2%)**
Income tax	645	3.9%	128	1.1%	958	4.3%	0	0.0%
Other obligatory charges	184	1.1%		0.0%	68	0.3%	161	2.3%
Net profit	**(1 779)**	**(10.8%)**	**99**	**0.9%**	**1 103**	**4.9%**	**(798)**	**(11.6%)**

Table 9b – Comparison of Income Statement for 1994 (thousand PLN)

Year	1994		1994		1994		1994	
	"CHODZIEŻ"	% of Net Sales	"WAŁBRZYCH"	% of Net Sales	"LUBIANA"	% of Net Sales	"ĆMIELÓW"	% of Net Sales
Sales of products incl. turnover tax	**19 700**	**100.2%**	**19 673**	**100.0%**	**33 832**	**100.0%**	**8 893**	**100.0%**
Turnover tax/Excise tax	39	0.2%		0.0%		0.0%	**0**	0.0%
Net Sales of Products	**19 661**	**100.0%**	**19 673**	**100.0%**	**33 832**	**100.0%**	**8 893**	**100.0%**
Operating costs		0.0%		0.0%		0.0%		0.0%
Raw materials & energy	7 377	37.5%	8 313	42.3%	12 799	37.8%	3 802	42.8%
Wages & Social securities	7 642	38.9%	7 200	36.6%	11 528	34.1%	3 479	39.1%
Other	2 515	12.8%	3 241	16.5%	5 049	14.9%	1 586	17.8%
Depreciation	683	3.5%	389	2.0%	2 874	8.5%	186	2.1%
Total operating costs	**18 216**	**92.7%**	**19 143**	**97.3%**	**32 250**	**95.3%**	**9 053**	**101.8%**
Adjustment (change in inventories of: work in progress. finished goods & others)	(748)	(3.8%)	(1 992)	(10.1%)	(2 397)	(7.1%)	(621)	(7.0%)
Total operating costs after adjustment	**17 469**	**88.9%**	**17 151**	**87.2%**	**29 853**	**88.2%**	**8 431**	**94.8%**
Profit from sales of products	**2 192**	**11.1%**	**2 522**	**12.8%**	**3 979**	**11.8%**	**461**	**5.2%**
Profit/loss from sales of goods for resale	**141**	**0.7%**	**42**	**0.2%**	**0**	**0.0%**	**352**	**4.0%**
Result of other sales	680	**3.5%**	56	**0.3%**	43	**0.1%**	12	**0.1%**
EBIT	**3 013**	**15.3%**	**2 620**	**13.3%**	**4 021**	**11.9%**	**825**	**9.3%**
Financial incomes	133	0.7%	41	0.2%	326	1.0%	13	0.1%
Total financial costs	**1 356**	**6.9%**	**502**	**2.6%**	**1 637**	**4.8%**	**245**	**2.8%**
Profit before extraordinary items	**1 790**	**9.1%**	**2 158**	**11.0%**	**2 711**	**8.0%**	**592**	**6.7%**
Extraordinary profits	173	0.9%	125	0.6%	199	0.6%	34	0.4%
Extraordinary losses	1 984	10.1%	233	1.2%	123	0.4%	292	3.3%
EBT	**(21)**	**(0.1%)**	**2 050**	**10.4%**	**2 787**	**8.2%**	**335**	**3.8%**
Income tax	467	2.4%	943	4.8%	488	1.4%	275	3.1%
Other obligatory charges	528	2.7%		0.0%		0.0%	167	1.9%
Net profit	**(1 016)**	**(5.2%)**	**1 108**	**5.6%**	**2 299**	**6.8%**	**(107)**	**(1.2%)**

According to the above data the following conclusions can be drawn:

– all compared porcelain factories have a similar structure of operating costs. in which material & energy costs as well as labour costs dominate. These cost categories constituted app. 75% to 85% of product net sales in 1993–1994.

– ZP "Ćmielów" has the highest share of operating costs after adjustment in product net sales in comparison with the other porcelain factories in the analysed period. In 1994 the share of operating costs after adjustment for ZP ""Ćmielów" equalled **94.8%** versus app. **88%** for other porcelain factories.

– ZP "Ćmielów" and "Chodzież" S.A. suffered very big extraordinary losses. which in the case of "Chodzież" S.A. caused negative net results in 1993 and 1994. It should be stressed that both companies recorded very long payables' turnover ratios amounting to 308 days and 162 days in 1994 for "Chodzież"S.A. and ZP "Ćmielów" respectively.

– the share of financial costs in the net sales of products was comparatively relatively low in the case of ZP "Ćmielów. due to BCP. In 1994 it amounted to 2.8% for ZP"Ćmielów" versus 6.9% for "Chodzież" S.A. and 4.8% for "Lubiana" S.A.

– two of the compared porcelain factories – "Wałbrzych" S.A. and "Lubiana" S.A. recorded net profits in 1993–1994. The share of net profits in product net sales amounted to app. 6% in 1994. Both companies were able to serve financial costs. and extraordinary losses constituted less than 1.5% of their net sales of products.

We also calculated and compared basic financial ratios for the above mentioned porcelain factories (see Table 10 below).

Table 10a – Financial Ratios

Year	1993				1994			
	"CHODZIEŻ" S.A.	"WAŁBRZYCH " S.A.	"LUBIANA" S.A.	ZP "ĆMIELÓW"	"CHODZIEŻ" S.A.	"WAŁBRZYCH " S.A.	"LUBIANA" S.A.	ZP "ĆMIELÓW"
Liquidity Ratios								
Current Ratio (1)	0.92	1.37	1.65	0.56	0.94	1.07	1.77	0.66
Quick Ratio (2)	0.30	0.64	0.82	0.23	0.39	0.57	1.07	0.26
Turnover Ratios								
Inventory turnover (3)	203	120	64	88	158	74	41	100
Receivables` turnover in days (4)	72	103	43	51	60	59	29	50
Payables` turnover in days (5)	443	122	131	172	308	74	81	162
Sales/Assets (6)	0.85	1.08	1.18	0.87	1.05	1.36	1.41	1.01

(1) (current assets / current liabilities) – should be > 1.3
(2) (current assets – inventories) / (current liabilities) – should be > 1.0
*(3) (total inventory /operating costs after adjustments) * 360 days*
*(4) (total receivables with VAT / sales) * 360 days*
*(5) (total payables with VAT / (costs of raw materials. energy. external services. other & cost of goods for resale) * 360 days*
(6) Total Sales/Average Assets

Table 10b – Financial Ratios

Year	1993				1994			
	"CHODZIEŻ" S.A.	"WAŁBRZYCH"	"LUBIANA"	"ĆMIELÓW"	"CHODZIEŻ"	"WAŁBRZYCH"	"LUBIANA"	"ĆMIELÓW"
Profitability Ratios								
Return on Total Sales (1)	-10.4%	0.9%	4.9%	-10.7%	-4.9%	5.6%	6.8%	-1.2%
Return on Sales of Products (2)	17.9%	5.8%	13.7%	3.7%	11.1%	12.8%	11.8%	5.2%
Return on Assets (3)	-8.9%	0.5%	7.6%	-9.4%	-5.1%	7.6%	9.6%	-1.2%
Return on Equity (4)	-28.3%	0.8%	14.7%	-22.2%	-18.0%	14.8%	16.8%	-3.4%

(1) net profit / sales (– financial income)
(2)result on main activity sales /main activity sales
(3) net profit /total assets
(4) net profit / total equity

With respect to the above data the following issues should be stressed:

1 ZP"Ćmielów" recorded the lowest liquidity ratios amounting far below the acceptable level in 1993–1994. In the case of "Chodzież" S.A. we observe slightly better results. though once more below the acceptable limits. Liquidity ratios for "Lubiana" S.A. were satisfactory in the same period. "Wałbrzych" S.A. recorded a quick ratio below the acceptable level, whereas a current ratio was satisfactory.

2. In 1993–1994 ZP "Ćmielów" recorded unsatisfactory payables' turnover ratio and stock turnover ratio, however this was not so bad as that recorded by "Chodzież" S.A. Turnover ratios for "Lubiana" S.A. and "Wałbrzych" S.A. were satisfactory.

3 Profitability ratios for ZP "Ćmielów" and "Chodzież" S.A. were negative due to net losses in 1993–1994, though both companies recorded a slight improvement in 1994 in comparison with the previous year.

Table 10c – Financial Ratios

Year	1993				1994			
	"CHODZIEŻ"	"WAŁBRZYCH"	"LUBIANA"	"ĆMIELÓW"	"CHODZIEŻ"	"WAŁBRZYCH"	"LUBIANA"	"ĆMIELÓW"
Volume of Sales in tones	2 859	2 754	7 495	1 519	2 924	3 628	8 807	1 530
Ratios in thousand PLN/1 ton of sales								
Average Price of Products	5.79	4.09	3.00	4.54	6.72	5.42	3.84	5.81
Operating Costs*	4.75	3.86	2.59	4.37	5.97	4.73	3.39	5.51
Raw materials & energy	2.17	1.79	1.14	2.01	2.52	2.29	1.45	2.49
Wages & Social securities	2.27	1.69	1.07	1.94	2.61	1.98	1.31	2.27
Other costs	0.74	0.66	0.42	0.60	0.86	0.89	0.57	1.04
Depreciation	0.24	0.15	0.13	0.10	0.23	0.11	0.33	0.12

**after adjustment*

Ratios calculated per 1 ton of porcelain sales allow us to make following conclusions:

1. ZP "Ćmielów" and "Chodzież" S.A. recorded the highest value of sales per 1 ton of porcelain. This amounted to 5 790 PLN/T and 4 540 PLN/T in 1993 versus 6 720 PLN/T and 5 810 PLN/T in 1994, respectively. Please note that both companies suffered losses in the same period.

2. Operating costs after adjustment per 1 T for ZP "Ćmielów " and "Chodzież" S.A. were even higher than the value of sales per 1T in the case of "Lubiana" S.A. and " Wałbrzych" S.A.

3. Raw materials&energy costs per 1T were app. 1.5 times higher for ZP"Ćmielów" and for "Chodzież" S.A. compared with "Lubiana" S.A. results. and a few percentage points higher than for "Wałbrzych" S.A. The same situation can be observed by comparing labour costs per 1T of sales.

2.1.5 *Cost Revenue Analysis*

A profit statement estimated on the basis of variable costs is an internal financial result which reflects the actual profitability of a company. This method precisely defines the impact of the company's fixed costs on its profitability. The fixed manufacturing costs (departmental costs) are not allocated to finished products on stock or work in progress, but directly to the income statement. This eliminates the basic fault which occurs in the full costing system, that is the "allocation" of fixed costs to finished products and work in progress.

ZP "Ćmielów" until 1994 prepared its income statements for external needs without separating variable and fixed costs (using the accounting system whereby costs are recorded according to their category – costs by nature). Utilising the existing information possibleto obtain from the financial–accounting department we prepared the company income statement on the basis of the variable costs system (see – Table 11 below).

Table 11 – Income Statement based on variable costs system

Year	1993	% sales of products	1994	% sales of products	% change 94/93	1995	% sales of products	% change 95/94	1996 (I–VI)	% sales of products	% change 96/95
Sales of products revenues	6 901	100%	8 893	100%	129%	12 045	100%	135%	6 260	100%	104%
Direct costs of production	4 200	61%	4 928	55%	117%	6 857	57%	139%	3 230	52%	94%
Margin on sales	**2 701**	**39%**	**3 965**	**45%**	**147%**	**5 188**	**43%**	**131%**	**3 030**	**48%**	**117%**
Departmental costs	813	12%	1 199	13%	147%	1 468	12%	122%	1 139	18%	155%
Gross margin	**1 888**	**27%**	**2 767**	**31%**	**147%**	**3 720**	**31%**	**134%**	**1 891**	**30%**	**102%**
Administration costs & Overheads relating to production	1 098	16%	1 543	17%	141%	1 969	16%	128%	1 142	18%	116%
Selling costs	524	8%	762	9%	146%	1 145	10%	150%	643	10%	112%
Profit on sales of products	**267**	**4%**	**461**	**5%**	**173%**	**605**	**5%**	**131%**	**106**	**2%**	**35%**

**Ernst & Young estimates*

Direct costs of production constituted from between 52% to 61% of net sales of products, whereas a share of direct costs embracing departmental costs, selling costs and administration costs amounted to 36%–39%. Margin on sales and the gross margin increased in 1995 by 4%, in comparison with 1993 results. Figures for the first half of the current year indicate the growth of margin on sales amounting to 5 %, caused by a decreasing trend in the direct costs of production share in net sales of products, maintained since 1993. On the other hand, the share of departmental costs in the net sales of products increased by 6% (18% versus 12% in 1995), so gross margin dropped by 1% comparing with the previous year.

The share of administration costs in sales of products during the analysed period was high and fluctuated between 16% – 18%, while in the case of the share of selling costs we observed a slight upward trend (8% in 1993 versus 10% in 1995). Direct costs of production were recognised as variable costs depending on the volume of sales. Departmental costs, administration costs, overheads relating to production and selling costs were classified by the accounting department of the company as relatively fixed categories, due to slight changes in the volume of sales.

Direct costs of production are generated in separate phases of the production process. The chart of accounts used by the accountancy department of ZP "Ćmielów" untill 1995, allowed to record direct costs of production divided by the following production phases, identified by us as cost centres:

501/1 Preproduction department
501/2 Moulding shop (plastic forming & casting) – foundry
501/3 Furnace department
501/4 Assembly department
501/5 Decoration department
501/6 Decoration Design department

Table 12 below presents operating cost breakdowns for production phases in 1993–1995 and their share in the net sales of products separating direct costs for production phases.

Table 12

Operating costs Breakdown	1993	% of total costs	% of sales of products	1994	% of total costs	% of sales of products	**1995**	% of total costs	% of sales of products
Volume of sales	1 519			1 529			**1 695**		
Income from sales of products	6 901			8 893			**12 045**		
Direct Costs divided by Production Phases									
Preproduction department	659	10%	10%	858	10%	10%	**1 072**	**10%**	**9%**
Moulding shop (plastic forming & casting) – foundry	758	11%	11%	849	10%	10%	**1 039**	**9%**	**9%**
Furnace department	1 550	23%	22%	1 886	21%	21%	**2 248**	**20%**	**19%**
Assembly department	209	3%	3%	134	2%	2%	**191**	**2%**	**2%**
Decoration department	1 162	17%	17%	1 510	17%	17%	**1 936**	**17%**	**16%**
Decoration Design department	42	1%	1%	48	1%	1%	**64**	**1%**	**1%**
Total Direct Costs	4 381	64%	63%	5 286	60%	59%	**6 549**	**59%**	**54%**
Indirect costs									
Departmental Costs	802	12%	12%	1 184	13%	13%	**1 483**	**13%**	**12%**
Sales costs	524	8%	8%	762	9%	9%	**1 145**	**10%**	**10%**
Administration costs	526	8%	8%	699	8%	8%	**898**	**8%**	**7%**
Overheads relating to production	571	8%	8%	844	10%	9%	**1 078**	**10%**	**9%**
Total Indirect Costs	2 423	36%	35%	3 490	40%	39%	**4 604**	**41%**	**38%**
Total Operating costs	6 803	100%	99%	8 776	100%	99%	**11 153**	**100%**	**93%**

Data presented in Table 12 were extracted directly from the chart of accounts of ZP "Ćmielów". Their sum, equal to the operating costs of the company, differs from the values of operating costs recorded in official financial statements transferred to us earlier and used in financial analysis. These variations amount to +/–3% of total operating costs per year, and up to now the accountancy department of ZP"Ćmielów" has not clarified any reasons of such discrepancies. We believe that these variations can be omitted, due to the insignificant impact on the results of the costs analysis.

The direct cost breakdown presented above show that direct costs generated by two production departments – Furnace department and Decoration department recorded the highest share in total operating costs in 1993–1995. The share of Furnace department direct costs equalled 20%–23% in the analysed period, whereas the share of Decoration department costs amounted to 17%. This was caused by the obsolete and poor condition of machinery and equipment used by the factory as well as the "old" technology of production requiring a high level of manual work.

The share of direct costs generated in Preproduction department and Moulding shop – foundry equalled to 10% and from 9% to 11%, respectively. The lowest direct costs were recorded Assembly department and Decoration Design department (3% and 1%). The direct costs structure has not changed much during years since 1993.

In order to identify where costs cutting possibilities exist, each cost category shown in Table 12 was divided into costs by nature and commented upon separately (see Tables 13 – 21).

Table 13. Direct Costs (Basic Production Departments) – RAW MATERIAL PREPARATION

Production Phase

Raw material preparation (000' PLN)	1993	Internal % structure	% of Total Basic Production costs	1994	Internal % structure	% of Total Basic Production costs	1995	Internal % structure	% of Total Basic Production costs
Raw materials	519	79%	12%	688	80%	13%	845	79%	13%
Labour + social security	99	15%	2%	125	15%	2%	174	16%	3%
Energy	40	6%	1%	45	5%	1%	53	5%	1%
Total	659	100%	15%	858	100%	16%	1,072	100%	16%
% of Total Operating Costs (acc. Chart of Account data)			*10%*			*10%*			*10%*
% of Total Operating Costs before amendments acc. F–01			*9%*			*9%*			*9%*
Rate of growth						*130%*			*125%*

The scope for the reduction of costs of the raw materials preparation is very limited. The quality of "Ćmielów"'s products depends to the large extent on the quality of raw materials used; the company currently imports 80% of its raw materials and as a small customer does not have good bargaining power in negotiating lower prices. Reduction of labor costs, due to the outdated machinery, is not possible either.

Table 14. Direct Costs (Basic Production Departments) – MOULDING SHOP – FOUNDRY

Moulding shop – foundry (000' PLN)	1993	Internal % structure	% of Total Basic Production costs	1994	Internal % structure	% of Total Basic Production costs	1995	Internal % structure	% of Total Basic Production costs
Raw materials	227	30%	5%	297	35%	6%	325	31%	5%
Labour + social security	499	66%	11%	525	62%	10%	682	66%	10%
Energy	32	4%	1%	27	3%	1%	31	3%	0%
Total	758	100%	17%	849	100%	16%	1,039	100%	16%
% of Total Operating Costs (acc. Chart of Account data)			*11%*			*10%*			*9%*
% of Total Operating Costs before amendments acc. F–01			*11%*			*9%*			*9%*
Rate of growth						*112%*			*122%*

The company does not possess modern moulding and forming equipment. The existing machinery is obsolete and has to be operated in the labor–intensive manner. Therefore, the reduction of labor costs is not possible without capital expenditures. The raw materials costs are costs of plaster used for forms. Again, the quality of forms has an important impact on the quality of final product.

Table 15. Direct Costs (Basic Production Departments) – FURNACE DEPARTMENT

Furnace department (000' PLN)	1993	Internal % structure	% of Total Basic Production costs	1994	Internal % structure	% of Total Basic Production costs	1995	Internal % structure	% of Total Basic Production costs
Raw materials	588	38%	13%	639	34%	12%	718	32%	11%
Natural gas	394	25%	9%	529	28%	10%	618	27%	9%
Labour + social security	451	29%	10%	516	27%	10%	675	30%	10%
Energy	41	3%	1%	64	3%	1%	68	3%	1%
Defects	76	5%	2%	138	7%	3%	168	7%	3%
Total	1,550	100%	35%	1,886	100%	36%	2,248	100%	34%
% of Total Operating Costs (acc. Chart of Account data)			*23%*			*21%*			*20%*
% of Total Operating Costs before amendments acc. F–01			*22%*			*21%*			*20%*
Rate of growth						*122%*			*119%*

Fire resistant materials (partly imported) are the main item of raw material costs. According the the Production Director, the company, due to financial constraints, does not buy enough of these materials. In fact, this cost item should increase, if the quality of products is to improve.

The quantity of gas used is determined by the construction and quality of kilns. Both tunnel kilns used are obsolete and do not possess modern gas–usage control devices.

Table 16. Direct Costs (Basic Production Departments) – ASSEMBLY DEPARTMENT

Assembly department (000' PLN)	1993	Internal % structure	% of Total Basic Production costs	1994	Internal % structure	% of Total Basic Production costs	1995	Internal % structure	% of Total Basic Production costs
Raw materials	101	48%	2%	1	1%	0%	5	3%	0%
Labour + social security	89	43%	2%	108	81%	2%	148	78%	2%
Energy	5	2%	0%	8	6%	0%	16	8%	0%
Defects	14	7%	0%	17	13%	0%	22	12%	0%
Total	**209**	**100%**	**5%**	**134**	**100%**	**3%**	**191**	**100%**	**3%**
% of Total Operating Costs (acc. Chart of Account data)			*3%*			*2%*			*2%*
% of Total Operating Costs before amendments acc. F–01			*3%*			*1%*			*2%*
Rate of growth						*64%*			*143%*

The share of costs of this department in total operating costs is insignificant and amounts, on average, to 2%. Given the manual character of work it is understandable that labor costs are the most important item.

Table 17. Direct Costs (Basic Production Departments) – DECORATION DEPARTMENT

Decoration department (000' PLN)	1993	Internal % structure	% of Total Basic Production costs	1994	Internal % structure	% of Total Basic Production costs	1995	Internal % structure	% of Total Basic Production costs
Raw materials	490	42%	11%	700	46%	13%	888	46%	14%
Natural gas	33	3%	1%	40	3%	1%	43	2%	1%
Labour + social security	551	47%	13%	652	43%	12%	875	45%	13%
Energy	48	4%	1%	68	4%	1%	66	3%	1%
Defects	41	4%	1%	51	3%	1%	64	3%	1%
Total	1,162	100%	27%	1,510	100%	29%	1,936	100%	30%
% of Total Operating Costs (acc. Chart of Account data)			*17%*			*17%*			*17%*
% of Total Operating Costs before amendments acc. F–01			*16%*			*17%*			*17%*
Rate of growth						*130%*			*128%*

Materials and labor constitute 91% of total department's costs. This department adds value to the white porcelain; both skilled labor and expensive paints and decalcs are crucial for the final quality of products. Therefore, it is our opinion that the company should not try to reduce these costs, except eliminating (if they exists) simple waste and inefficiencies.

Table 18. Direct Costs (Basic Production Departments) – DECORATION DESIGN DEPARTMENT

Decoration Design department (000' PLN)	1993	Internal % structure	% of Total Basic Production costs	1994	Internal % structure	% of Total Basic Production costs	1995	Internal % structure	% of Total Basic Production costs
Raw materials	2	4%	0%	0	0%	0%	0	1%	0%
Labour + social security	40	96%	1%	48	100%	1%	63	99%	1%
Defects	0	0%	0%	0	0%	0%	0	0%	0%
Total	42	100%	1%	48	100%	1%	64	100%	1%
% of Total Operating Costs (acc. Chart of Account data)			*1%*			*1%*			*1%*
% of Total Operating Costs before amendments acc. F-01			*1%*			*1%*			*1%*
Rate of growth						*115%*			*131%*

Decoration Design Department should be strengthened to be able to respond to market trends. If this happens, the share of its costs in total operating costs may increase.

Table 19. Departamental costs

Departamental Costs (000' PLN)	1993	Internal % structure		1994	Internal % structure	Rate of growth	1995	Internal % structure	Rate of growth
Raw materials	4	0%		6	0%	147%	3	0%	51%
Depreciation	49	6%		71	6%	143%	114	8%	161%
Labour + social security	236	29%		414	35%	175%	411	28%	99%
Refurbishment	298	37%		422	36%	142%	531	36%	126%
Energy	208	26%		271	23%	130%	423	29%	156%
Other costs	7	1%		0		5%	0	0%	125%
Total	802	100%		1,184		148%	1,483		125%
% of Total Operating Costs (acc. Chart of Account data)			*12%*			*13%*			*13%*
% of Total Operating Costs before amendments acc. F–01			*11%*			*13%*			*13%*
Rate of growth						*148%*			*125%*

Costs of refurbishment are the main item of total departamental costs (36%). It is expected, that this costs item may increase as the machinery deteriorates further. Some costs reductions are possible by reorganization, for example separation of the transportation unit from the core business. On the other hand such a change would stipulate the increase in costs of services. Detailed calculations are neccessary, what solution is more rational.

Table 20. Sales costs

Sales costs (000' PLN)	1993	Internal % structure	1994	Internal % structure	Rate of growth	1995	Internal % structure	Rate of growth
Labour + social security	39	7%	49	6%	126%	74	6%	152%
Domestic transport	61	12%	14	2%	23%	2	0%	14%
Export transport	56	11%	69	9%	124%	118	10%	171%
Commissions & other trade payments	**52**	**10%**	**207**	**27%**	402%	**306**	**27%**	148%
Promotion, advertising	58	11%	53	7%	91%	50	4%	95%
Materials	**251**	**48%**	**328**	**43%**	131%	**562**	**49%**	171%
Other sales costs	8	1%	42	6%	545%	33	3%	78%
Total	524	100%	762	100%	146%	1,145	100%	150%
% of Total Operating Costs (acc. Chart of Account data)		*8%*			*9%*			*10%*
% of Total Operating Costs before amendments acc. F-01		*7%*			*8%*			*10%*
Rate of growth					*146%*			*150%*

Sales costs amount to 10% of all operating costs. This costs item will increase as the new, agressive market strategy is adopted.

Table 21. Overheads

Overheads 000' PLN	1993	Internal % structure		1994	Internal % structure	Rate of growth	1995	Internal % structure	Rate of growth
Administration costs									
Labour + social security	324	30%		452	29%	139%	604	31%	134%
Real estate taxes	128	12%		161	10%	126%	224	11%	140%
Business trips	36	3%		47	3%	129%	40	2%	87%
Office costs	35	3%		38	2%	108%	25	1%	65%
Other administration costs	3	0%		2	0%	82%	4	0%	190%
Total Administration costs	526	48%		699	45%	133%	898	45%	128%
Overheads relating to production									
Training, courses	7	1%		17	1%	248%	3	0%	19%
Depreciation	30	3%		27	2%	88%	46	2%	172%
Energy	17	2%		27	2%	159%	57	3%	215%
Laundry equivalent	74	7%		270	17%	367%	295	15%	109%
Materials	61	6%		49	3%	81%	151	8%	305%
Company car costs	11	1%		12	1%	108%	17	1%	140%
Other costs	**440**	**40%**		**587**	**38%**	133%	**695**	**35%**	118%
Repayments for c.o., electicity, sewage	–68	–6%		–143	–9%	211%	–189	–10%	132%
Liquidation of fixed assets		0%			0%		4	0%	
Total overheads relating to production	571	52%		844	55%	148%	1,078	55%	128%
Total	1,098	100%		1,543	100%	141%	1,975	100%	128%
% of Total Operating Costs (acc. Chart of Account data)			*16%*			*18%*			*18%*
% of Total Operating Costs before amendments acc. F–01			*16%*			*17%*			*17%*
Rate of growth						*141%*			*128%*

Overheads constitute 18% of the total operating costs. They are splitted into two categories: total administration costs (45% of overheads) and overheads relating to production (55%). Main items of the overheads are: wages and social security payments of administration workers (31%), "Laundry equivalent" (15%) and real estate taxes (11%). Out of these three items, the first two could probably be reduced. On the other hand it should be noted that: (a) the excessive number of employees in administration is to some extent a result of lack of computerization and manual gathering and processing the data; (b) laundry equivalent is, in fact, an addition to the regular wage; it is beneficial to workers and the company, because it is free of the social security charges; if the company decides to remove this "equivalent" it may be forced by employees to increase regular wages (what would cause the increase of social security payments).

"Other costs" constitute 35% of total overheads. This item combines many smaller types of costs, among others: equivalent for milk, costs of cafeteria, security costs, environment protection and research and health examination costs. Each of these items should be examined individually to determine whether any reduction is possible.

2.1.6 Profitability of main product groups

We calculated profitability of the main product groups of ZP"Ćmielów" based on the data from the Sales Department and the Accountancy Department for the second half of 1995, due to the lack of financial information from previous periods. Data concerning total sales volume differed by 5% between sources.

The Company total sales expressed in value (PLN) and volume (t) was divided into:

1. main product groups embracing: tableware, coffee/tea sets, other porcelain sets, sets of dishes, dishes – individual pieces and other products (individual pieces),
2. classes of quality,
3. export and domestic sales.

Data concerning sale volume allow us to calculate average prices of 1 ton of sale of main product groups on the domestic market and in export sales.

We decided to calculate profitability of main product groups per 1 ton of their sales due to the following reasons:

1. production capacity of porcelain factories is expressed in tones.
2. there was no possibility to identify a product–representative within the same main product group due to high degree of diversification (weight, price),
3. availability of data,
4. possibility to define direct costs of production of white porcelain per 1 ton.

Based on the financial data received from the Accountancy Department of ZP "Ćmielów," we calculated direct cost of white porcelain production and direct cost of decoration per 1 ton of a product group divided by classes of qualities and main categories of costs by nature, i.e. : direct materials, direct labour, energy and defects (see Tables 22–24).

Table 22. Direct costs of white porcelain

Direct (variable) costs of white porcelain production	PLN/1 ton	% structure
Materials	1 622	57%
Direct labour + social security	1 023	36%
Energy	101	4%
Defects	113	4%
Total variable costs of white porcelain production per 1 ton	2 860	100%

Table 23. Direct costs of decoration per 1 ton of product group

Direct (variable) costs of decoration per 1 ton of product group in PLN	Quality I					Quality II				
	Materials	Direct labour + social security	Energy	Defects	Total variable costs of decoration per 1 ton	Materials	Direct labour + social security	Energy	Defects	Total variable costs of decoration per 1 ton
Tableware	843	832	52	61	1 789	485	477	30	35	1 026
Coffee/Tea Sets	1 264	1 248	78	92	2 682	608	598	38	44	1 288
Other sets	1 428	1 409	88	103	3 028	400	394	24	29	847
Sets of dishes	1 458	1 439	90	107	3 093	313	308	19	23	663
Dishes – individual pieces	651	643	40	47	1 382	306	301	19	22	649
Other products – individual pieces	932	920	58	68	1 978	470	463	29	34	996
Average percentage breakdown	**47%**	**47%**	**3%**	**3%**	**100%**	**47%**	**46%**	**3%**	**3%**	**100%**

Table 24. Direct costs of decoration per 1 ton of product group

Direct (variable costs) of decoration per 1 ton of product group in PLN	Quality III				
	Materials	Direct labour + social security	Energy	Defects	Total variable costs of decoration per 1 ton
Tableware	1 123	1 111	70	82	2 385
Coffee/Tea Sets	5 722	5 877	36	417	12 052
Other sets	0	0	0	0	0
Dishes – individual pieces	493	488	31	36	1 047
Other products – individual pieces	3 752	3 713	233	274	7 972
Average percentage breakdown	**47%**	**47%**	**2%**	**3%**	**100%**

The sum of these two elements equalled total variable direct costs of production per 1 ton of a given main product group. Tables 25–27 show the comparison of variable costs of production per 1 ton with average prices per 1 ton on the domestic market and export markets and the margin on sales (defined as surplus of an average price per 1 ton of a product group above direct variable costs of production per 1 ton).

Table 25. Compared categories of costs and sales per 1 ton of sales

Product groups	Total variable costs			Domestic sales – Average price per 1 ton			Export sales – Average price per 1 ton		
	Quality I	Quality II	Quality III	Quality I	Quality II	Quality III	Quality I	Quality II	Quality III
Tableware	4 649	3 887	5 246	19 813	11 191	5 861	7 064	7 350	N/A
Coffee/Tea Sets	5 542	4 148	14 912	27 198	14 454	8 418	9 461	10 276	N/A
Other sets	5 888	3 707	2 860	31 323	9 099	9 167	7 200	8 993	N/A
Sets of dishes	5 954	3 523	N/A	15 333	5 975	N/A	N/A	N/A	N/A
Dishes – individual pieces	4 242	3 509	3 907	14 021	6 142	4 120	5 059	5 294	1 356
Other products – individual pieces	4 838	3 856	10 832	17 383	8 987	5 069	6 460	5 899	3 233

Table 26. Margin on sales of respective product groups.

Product groups	Domestic sales – Margin on sales			Export sales – Margin on sales		
	Quality I	Quality II	Quality III	Quality I	Quality II	Quality III
Tableware	326%	188%	12%	52%	89%	N/A
Coffee/Tea Sets	391%	248%	–44%	71%	148%	N/A
Other sets	432%	145%	220%	22%	143%	N/A
Sets of dishes	158%	70%	N/A	N/A	N/A	N/A
Dishes – individual pieces	231%	75%	5%	19%	51%	–65%
Other products – individual pieces	259%	133%	–53%	34%	53%	–70%

Table 27. Margin on sales

Item description	Total variable costs	Domestic sales – Average price per 1 ton	Margin on sales
White porcelain products, miscellaneous, not divided by quality	2 860	4 012	40%

Analysis of the above data indicates that, in the majority of cases, average prices per 1 ton on domestic and export market exceeded (sometimes several times) direct costs of production per 1 ton of a given main product group. Only in the case of porcelain products classified as III class of quality in domestic sales, as well as in export sales, average prices per 1 ton were lower than direct variable cost of production. It concerned the following main groups of III class quality products: coffee/tea sets, dishes sold in sets and individually and other miscellaneous products. Margin on sales of white porcelain not divided by quality, amounted to 40%, therefore in certain cases it should be precisely analysed if it is reasonable to decorate the III quality products.

Due to technological and technical limitations ("old" technologies, poor and obsolete machinery and equipment), ZP "Ćmielów" production process yields a defined percentage of III quality products. Thus, the only suggested solution is to reorientate the sales to the domestic market (higher margin on sales), to revise the prices for III quality products in order to sell those sold below direct variable costs of production as white porcelain without quality division, or to sell them for higher prices that would at least cover direct , variable costs of production and improvement of quality structure .

Due to a very high share of fixed costs (amounting to 41% of sales of products) the key issue for calculation of profitability of respective product groups is the allocation of this cost category. In our calculations, we assumed that fixed costs, which embrace selling costs, departamental costs, administration costs, overheads relating to production and financial costs, were allocated proportionally to share of sales by value of a respective product group in total sales of products.

We believe that this kind of allocation of relatively fixed, indirect costs of production is more proper that using "direct labour" category. This is because such allocation allows us to define products whose sales in higher degree covers indirect, relatively fixed costs of production.

Table 28 below presents profitability of main product groups.

Table 28. Profitability of main product groups

Product group profitability	Domestic sales			Export sales		
	Quality I	Quality II	Quality III	Quality I	Quality II	Quality III
Tableware	37.52%	19.07%	–27.93%	–13.09%	–2.09%	N/A
Coffee/Tea Sets	43.61%	28.29%	–55.83%	–7.27%	11.59%	N/A
Other sets	46.95%	11.12%	24.29%	–23.68%	10.53%	N/A
Sets of dishes	13.53%	–7.59%	N/A	N/A	N/A	N/A
Dishes – individual pieces	25.77%	–6.00%	–30.60%	–24.87%	–13.44%	–70.36%
Other products – individual pieces	29.98%	8.47%	–61.98%	–17.07%	–10.05%	–73.95%

source: Ernst&Young estimates based on Ćmielów data

Conclusions:

– majority of export sales (even I quality products) brought losses.

– majority of III quality product on the domestic market also brought losses.

Taking into account:

–increasing competition on international markets,

–low productivity of ZP "Ćmielów" and its low bargaining power,

–limited access of Polish producers to information on recent trends and developments,

–deteriorating quality of ZP "Ćmielów" production,

it should be assumed that the company will not be able to substantially increase profitability levels on export sales.

Data suggests that if "Ćmielów" could succeed in reorientation towards the domestic market, the positive effect on revenues could be substantial.

On the domestic market, "Ćmielów" should not try to compete in the mass market segment. This would be ineffective since the company, limited by the size of its plant, has no chance of becoming a high volume producer.

Total margin on sales for the second half of 1995 amounted to 2 515 000 PLN. Tables 30a,b,c below present aggregate data concerning sales and variable costs of production of respective product groups, allowing us to calculate how total margin on sales was distributed among respective product groups by value and by percentage share.

Table 29a. Sales and variable costs

Item description	Domestic sales in PLN			Export sales in PLN		
	Quality I	Quality II	Quality III	Quality I	Quality II	Quality III
Tableware	252 090	587 421	10 201	950 972	359 280	0
Coffee/Tea Sets	186 091	116 287	1 474	338 707	130 050	0
Other porcelain sets	25 312	9 848	22	13 392	3 907	0
Sets of dishes	12 327	162 146	207	0	0	0
Dishes – individual pieces	53 710	344 151	15 174	112 622	143 712	384
Other products – individual pieces	125 200	496 971	12 028	465 528	265 588	17 522

Item description	**Total variable costs in PLN**			**Total variable costs in PLN**		
	Quality I	Quality II	Quality III	Quality I	Quality II	Quality III
Tableware	59 149	204 007	9 130	625 843	189 987	0
Coffee/Tea Sets	37 921	33 369	2 611	198 421	52 492	0
Other porcelain sets	4 758	4 012	7	10 952	1 610	0
Sets of dishes	4 786	95 598	2 272	0	0	0
Dishes – individual pieces	16 249	196 597	14 390	94 427	95 249	1 106
Other products – individual pieces	34 951	213 082	25 651	375 707	186 697	59 266

Table 29b. Margin on sales

Item description	Margin on sales in PLN			Margin on sales in PLN		
	Quality I	Quality II	Quality III	Quality I	Quality II	Quality III
Tableware	192 940	383 413	1 071	325 129	169 292	0
Coffee/Tea Sets	148 170	82 918	–1 137	140 286	77 558	0
Other porcelain sets	20 554	5 836	15	2 441	2 297	0
Sets of dishes	7 541	66 548	–2 065	0	0	0
Dishes – individual pieces	37 461	147 554	784	18 194	48 463	–722
Other products – individual pieces	90 249	283 889	–13 623	89 821	78 892	–41 744
Item description	**Domestic sales in PLN**	**Export sales in PLN**	**Domestic sales – variable costs in PLN**	**Export sales – variable costs in PLN**	**Domestic sales – gross margin in PLN**	**Export sales – gross margin in PLN**
Miscellaneous white porcelain products not divided by quality	869 177	23 736	740 286	99	128 891	23 637

Table 29c. % share of margin on sales

Item description	% share of margins on sales of respective product groups in total gross margin								Total per product group
	Domestic sales			Total	Export sales			Total	
	Quality I	Quality II	Quality III		Quality I	Quality II	Quality III		
Tableware	8%	15%	0%	23%	13%	7%	0%	20%	43%
Coffee/Tea Sets	6%	3%	0%	9%	6%	3%	0%	9%	18%
Other porcelain sets	1%	0%	0%	1%	0%	0%	0%	0%	1%
Sets of dishes	0%	3%	0%	3%	0%	0%	0%	0%	3%
Dishes – individual pieces	1%	6%	0%	7%	1%	2%	0%	3%	10%
Other products – individual pieces	4%	11%	–1%	14%	4%	3%	–2%	5%	19%
Miscellaneous white porcelain products not divided by quality			5%	5%			1%	1%	6%
Total share per quality	20%	39%	5%		23%	15%	–1%		
Total share per domestic and export sales	**63%**				**37%**				

With respect to the above data, the following issues should be stressed:

- The share of margin on export sales was lower than that on domestic sales and constituted 37% of total margin on sales, while the share of export sales by value and by volume constituted 43% and 43.6%, respectively. This proves that export sales had lower profitability than domestic and confirms our recommendation concerning reorientation of sales to the domestic market, though there are two major factors limiting Ćmielów's involvement in the domestic market, namely: cash–flow problems (through exports, the company receives pre–payments) and a risk of not receiving payments due to the fact that the Polish market remains only partially developed.

- While analysing the breakdown of total margin on sales (by quality) we observe that the II quality products had the highest share of margin on sales in total margin (amounting to 54%), whereas the I quality product margin on sales was 43%. Taking into account the fact that, due to technological reasons the shares of the I and II quality products in total production volume in tones amounted to 43% and 39%, respectively, possibility of obtaining better prices for the I quality products should be analysed and considered. In case of III quality products the sales of certain product groups did not even cover variable costs of production.

- Margin on tableware sales accounted for the highest share in total margin on sales amounting to (43%), while shares of this product group in total sales by volume and value constituted 28.2% and 34.3%, respectively. Margin on tea/coffee sets and other products (individual pieces) were the second main category and constituted 37% (by volume 29% and, by value, 34%). With respect to other product groups with the lowest share of margin on sales in total margin, one should consider reduction of their portfolio.

Based on the data for the second half of 1995, the BEP for total sales in value, which we calculated, amounted to 7 301 000 PLN for this period, whereas the company recorded total sales amounting to 6 105 000 PLN for the same period. Comparing these figures, it is clear that ZP "Ćmielów" operated below BEP.

2.2 *Balance Sheet*

The balance sheet totals at the end of 1992, 1993, 1994 and 1995 amounted to 8 388 000 PLN. 8 615 000 PLN. 9 774 000 PLN and 11 155 000 PLN, respectively (see Table 13, pages 31, 32). The analysis of balance sheet totals indicates a growth of 2.99% in 1993 and of 13.45% in 1994 in comparison to the previous year (in current prices). In 1995 the balance sheet total increased by 14%.

In 1992–1994 the growth of balance sheet totals was caused mainly by an increase in current assets and current liabilities. There was only one revaluation of fixed assets in this period in 1994, resulting in an increase in the value of tangible assets to c.a. 2%.

In 1995 the growth of balance sheet totals was caused by a revaluation of fixed assets conducted at the end of the year.

Main changes in the balance sheet categories over 1992–1995 were as follows (see also Charts 7 and 8):

- the removal of land from the 1995 balance sheet (leased from the State Treasury) and the removal of the respective long term liability;
- an increase in the share of receivables and stock, resulting in a higher share of current assets in total assets (from 25.62% in 1992 to 39.83% in 1994), due to last's year revaluation of fixed assets, this proportion changed slightly in 1995, i.e. the share of current assets in total assets decreased to 33%;
- the share of cash in total assets decreased twice in 1993 in comparison with 1992 and amounted to 1.27% (110 000 PLN versus 192 000 PLN in 1992). This cash outflow was mainly caused by considerable extraordinary losses and the impact of financial costs as well as other obligatory deductions for the State Treasury. In 1994, the share of cash returned to 1992 level equalling 2.46% of the total assets. Cash recorded in the 1994 balance sheet amounted to 241 000 PLN. In 1995 we observed once more the cash outflow caused by high financial costs and demand for working capital. The share of cash in total assets decreased to 1.9% and amounted to 215 000 PLN.

in the Company's balance sheet, fixed asset value visibly decreased (59.54% in 1994 and 64% in 1995 after revaluation versus 73.41% in 1992). This resulted mainly from the limited investments effected in modernisation and reconstruction due to a lack of resources.

the share of current liabilities in financing the Company assets systematically rose – this significant increase took place in 1993 (from 44.91% in 1992 to 58.43%); in 1994 this category financed 60% of the total assets. In 1995 this proportion changed slightly. namely the share of current liabilities in financing the Company assets decreased to 49%. This was due to a shifting of certain short liabilities included in BCP into long term liabilities and a revaluation of fixed assets. which increased the equity share.

the share of equity in financing Company assets decreased from 49.7% in 1992 to 33.4% in 1994 and 44.2% in 1995.

The results of ratio analyses and cash flow statements also reflect the above changes.

Table 30a. Balance Sheet (thousand PLN)

Assets	1992		1993			1994			1995		
Current Assets		% of Total Assets		% of Total Assets	*Changes 93/92*		% of Total Assets	*Changes 94/93*		% of Total Assets	*Changes 94/93*
Cash	**192**	**2.3%**	**110**	**1.3%**	**57.1%**	**241**	**2.5%**	**219.6%**	**215**	**1.9%**	**89.0%**
Receivables		*100.0%*		*100.0%*			*100.0%*			*100.0%*	
Trade debtors	508	*96.3%*	1 045	*97.8%*		1 288	*99.9%*		1 127	*92.3%*	
Tax receivables	0	*0.0%*	0	*0.0%*		0	*0.0%*		85	*7.0%*	
Others debtors	5	*0.9%*	23	*2.2%*		1	*0.1%*		9	*0.7%*	
Claims	15	*2.8%*	0	*0.0%*		0	*0.0%*		0	*0.0%*	
Total receivables	**528**	**6.3%**	**1 068**	**12.4%**	**202.3%**	**1 289**	**13.2%**	**120.7%**	**1 220**	**10.9%**	**94.7%**
Inventories		*100.0%*		*100.0%*			*100.0%*			*100.0%*	
Raw materials	500	*35.2%*	273	*16.7%*		377	*15.9%*		517	*22.9%*	
Work in progress	496	*34.8%*	803	*49.3%*		769	*32.5%*		755	*33.5%*	
Finished goods	424	*29.8%*	550	*33.8%*		1 216	*51.5%*		979	*43.4%*	
Goods for resale	3	*0.2%*	3	*0.2%*		2	*0.1%*		4	*0.2%*	
Total inventories	**1 423**	**17.0%**	**1 629**	**18.9%**	**114.5%**	**2 363**	**24.2%**	**145.1%**	**2 256**	**20.2%**	**95.4%**
Total Current Assets	**2 143**	**25.6%**	**2 807**	**32.6%**	**131.0%**	**3 893**	**39.8%**	**138.7%**	**3 690**	**33.1%**	**94.8%**
Land	389	*6.3%*	518	*9.0%*		518	*8.9%*			*0.0%*	
Buildings	3 315	*54.0%*	2 689	*46.9%*		2 659	*45.7%*		3 631	*50.9%*	
Plant & Machinery	746	*12.1%*	1 328	*23.2%*		1 419	*24.4%*		2 223	*31.2%*	
Motor vehicles	55	*0.9%*	58	*1.0%*		83	*1.4%*		120	*1.7%*	
Other tangible assets	3	*0.0%*	3	*0.1%*		3	*0.1%*		10	*0.1%*	
Investment in progress	1 627	*26.5%*	1 138	*19.8%*		1 138	*19.5%*		1 142	*16.0%*	
Net intangible assets	7	*0.1%*	4	*0.1%*		0	*0.0%*		0	*0.0%*	
Financial assets	0	*0.0%*	0	*0.0%*		0	*0.0%*		5	*0.1%*	
Total fixed assets	**6 141**	**73.4%**	**5 737**	**66.6%**	**93.4%**	**5 819**	**59.5%**	**101.4%**	**7 131**	**63.9%**	**122.5%**
Prepayments	82	1.0%	72	0.8%	87.9%	62	0.6%	86.1%	333	3.0%	
Total Assets	**8 366**	**100.0%**	**8 615**	**100.0%**	**103.0%**	**9 774**	**100.0%**	**113.4%**	**11 155**	**100.0%**	**114.0%**

Table 30b. BALANCE SHEET(thousand PLN)

Liabilities	1992	% of Total Liabilities+Equity	1993	% of Total Liabilities+Equity	*Changes 93/92*	1994	% of Total Liabilities+Equity	*Changes 94/93*	1995	% of Total Liabilities+Equity	*Changes 94/93*
Current Liabilities											
Payables											
Trade creditors	1 512	*18.1%*	1 887	*21.9%*		2 424	*24.8%*		1 840	*16.5%*	
Tax liabilities	377	*4.5%*	862	*10.0%*		1 040	*24.6%*		871	*7.8%*	
Payroll liabilities	136	*1.6%*	163	*1.9%*		206	*4.9%*		257	*2.3%*	
Social security liabilities	274	*3.3%*	688	*8.0%*		406	*9.6%*		513	*4.6%*	
Other payables	102	*1.2%*	148	*1.7%*		157	*3.7%*		178	*1.6%*	
Payables	**2 401**	**28.7%**	**3 749**	**43.5%**	**156.1%**	**4 232**	**43.3%**	**112.9%**	**3 659**	**32.8%**	**86.4%**
Short – term credits and loans	**1 355**	**16.2%**	**1 284**	**14.9%**	**94.8%**	**1 431**	**14.6%**	**111.4%**	**1 362**	**12.2%**	
Accruals & Deferred income						251	2.6%		106	1.0%	
Total Current Liabilities	**3 757**	**44.9%**	**5 034**	**58.4%**	**134.0%**	**5 914**	**60.5%**	**117.5%**	**5 127**	**46.0%**	**86.7%**
Long Term Liabilities									712		
Long Term Liabilities (land)	389	4.6%	518	6.0%		518	5.3%				
Special Funds	52	0.6%	14	0.2%	26.9%	74	0.8%				
Provisions	15	0.2%	9	0.1%	58.9%	9	0.1%				
Equity	**4 503**	*100.0%*	**3 839**	*100.0%*	**85.2%**	**4 164**	*100.0%*		**5 593**	*100.0%*	
Foundation fund	1 612	*38.8%*	1 613	*53.1%*		1 667	*51.1%*		2 685	*50.5%*	
Enterprise funds	2 891	*69.6%*	2 225	*73.2%*		2 498	*76.6%*		2 908	*54.7%*	
Retained earnings											
Previous year's profit		*0.0%*		*0.0%*		(798)	*(24.5%)*		(337)	*(6.8%)*	
Profit/Loss for year	(349)	*(8.4%)*	(798)	*(26.2%)*		(107)	*(3.3%)*		61	*1.1%)*	
Total Equity	**4 154**	**49.7%**	**3 041**	**35.3%**	**73.2%**	**3 260**	**33.4%**	**107.2%**	**5 317**	**47.7%**	**163.1%**
Total Liabilities+Equity	**8 366**	**100.0%**	**8 615**	**100.0%**	**103.0%**	**9 774**	**100.0%**	**113.4%**	**11 155**	**100.0%**	**114.1%**
Net Assets	**4 154**		**3 041**		**73.2%**	**3 260**		**107.2%**	**5 317**	**44.2%**	**163.1%**

Chart 7 – Assets Breakdown

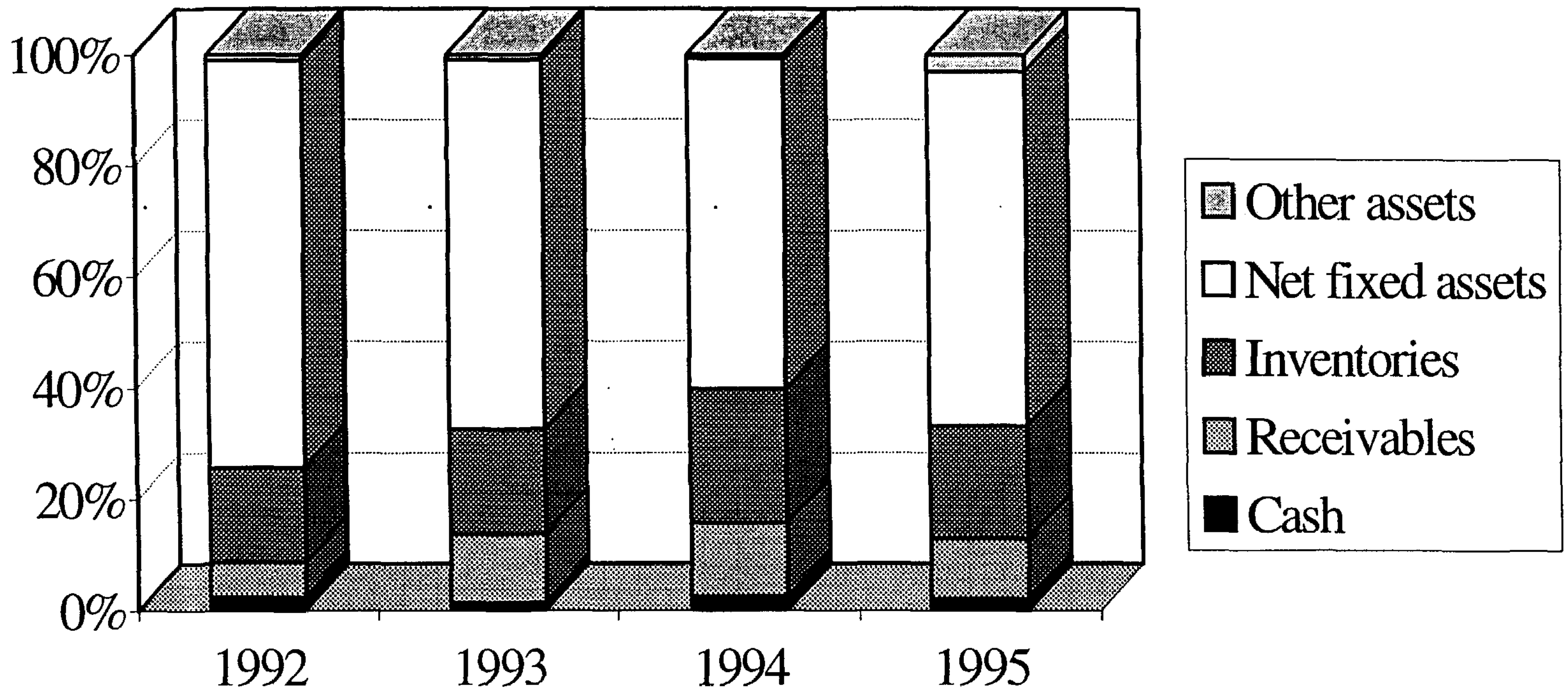
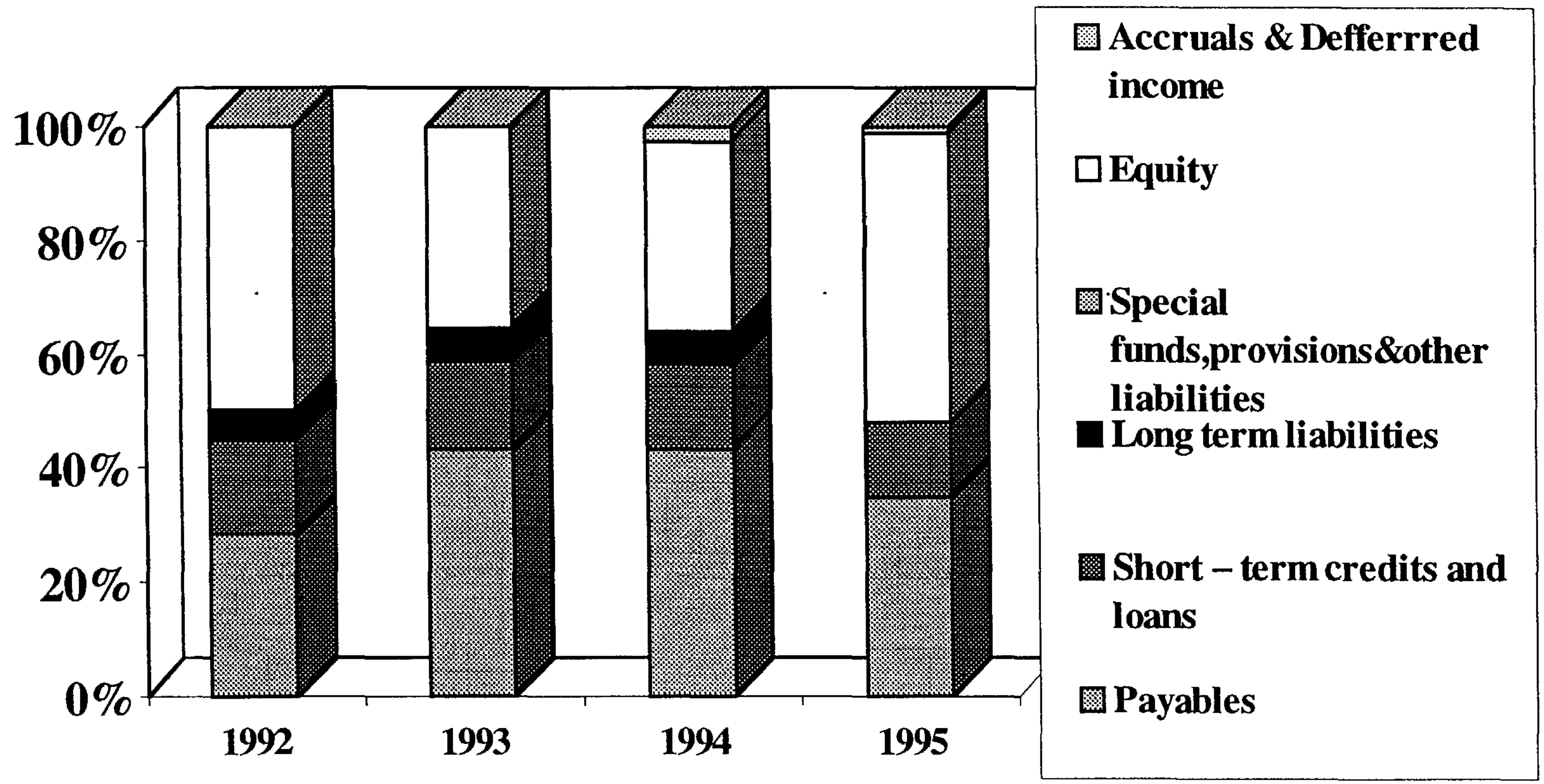


Chart 8 – Liabilities + Equity Breakdown



Below detailed information is presented on selected categories of the Balance Sheet.

Receivables:

This doubled in 1995 compared to 1992 results (528 000 PLN as at the end of 1992 versus 1 205 000 PLN three years later). Furthermore, the share in balance sheet totals rose almost twofold for the same period.

The share of trade debtors prevailed. constituting 96% of total receivables in 1992 and 93.5% in 1995.
The age structure of the Company's trade receivables was as follows (as of 31.12.1995):

Table 31. Trade recivables breakdown

Trade receivables breakdown		% of the total
to 30 days	474	42.1%
30–60 days	207	18.3%
60–90 days	47	4.2%
90–180 days	193	17.2%
older than 180 days	206	18.3%
Total	**1 127**	**100.0%**
– out of which receivables from companies under:		
bankruptcy proceedings	48	4%
liquidation	30	3%
conciliation proceedings	11	1%
legal proceedings	86	8%
after court verdicts	23	2%
Total	**197**	**17%**

Provision was created for the receivables from clients being under bankruptcy proceedings, liquidation and for the part of receivables older than 180 days, they charged other operating costs. The total amount of provisions as at the end of 1995 equalled 177 000 PLN.

Trade receivables greater than 10 000 PLN amounted to 984 000 PLN and constituted 87% of the total amount due from trade creditors, out of which domestic receivables share was 73.2% and export receivables share equalled 6.8%.
Table 32 presents this category breakdown according to amounts and main debtors as of 31.12.1995.

Table 32. Receivables

Domestic receivables	Thousand PLN	% structure	% of the total trade receivables
"Wropol" Wrocław	111	15.4%	9.8%
"Glass Impex" Kraków	55	7.7%	4.9%
"Woltar" Kielce	51	7.1%	4.6%
"Arged" Kraków	41	5.7%	3.6%
"Acumen" Kielce	36	5.0%	3.2%
"Sudetex" Stronie Śląskie	35	4.8%	3.1%
"Port Handlowy" Sandomierz	33	4.6%	2.9%
Hurtownia Rokietnica–Poznań	30	4.2%	2.7%
"Vibed" Pruszków	30	4.1%	2.6%
"Maria" Bielsko–Biała	27	3.8%	2.4%
SDH "Central" Białystok	25	3.4%	2.2%
"Luxpol" Ostrowiec	24	3.3%	2.1%
Banasik Warszawa	23	3.1%	2.0%
K.S. "Swit" Ćmielów	21	2.9%	1.9%
Others bigger than 10 000 PLN (10 clients)	179	24.8%	15.9%
Total domestic	720	100.0%	63.9%

Export receivables	Thousand PLN	% structure	% of the total trade receivables
"Boni" Germany	103	39.1%	9.2%
"Dalanim S.A." Spain	91	34.6%	8.1%
"Pignol" France	29	10.8%	2.5%
"Acimpex" Italy	25	9.6%	2.3%
"Top-Syntylis" Italy	15	5.8%	1.4%
Total export	264	100.0%	23.4%
Total domestic and export	984		87.3%

Stock:

Within the last years there has been a considerable increase in the share of stock in total assets (from 17% in 1992 to 24% in 1994). This resulted from an increase in the finished goods stock, the share of which in total stock rose from 29.79% in 1992 to 51.47% in 1994. In the case of remaining stock categories – work in progress and raw materials. a share decrease was recorded.

In 1995 the share of stock in total assets dropped to 20.2%, due to decrease of finished goods stock partially compensated by an increase of raw materials stock and due to the higher balance sheet total for this year.

Inventories of finished goods dominated total stock during the last two years. They constituted 51.5% and 43.4% of total stock in 1994 and 1995, respectively. In 1995 inventories of finished goods as recorded in the balance sheet equalled 979 000 PLN, out of which stock older than 1 year constituted less than 1% (79 000 PLN).

Inventories of work in progress constituted app. 33% of total inventories in 1994 and 1995 (versus 49% in 1993).

Raw materials stock were the smallest category of inventories and equalled 22% of the total stock according to the 1995 balance sheet. The age structure of raw materials stock was as follow:

Table 33. The age structure of raw materials

Raw materials stock breakdown		% of the total
to 3 months	350	67.6%
3–6 months	13	2.6%
6–12 months	32	6.3%
older than 12 months	122	23.5%
Total	517	100.0%

Please note that according to information obtained from ZP"Ćmielów" the stock of raw materials older than 6 months mainly included items relating to investment in progress.

Table 34 below reflects current assets breakdowns in the analysed period.

Table 34. Current assets breakdowns

Year	1992		1993			1994			1995		
Current Assets (thousand PLN)		**% of Total Assets**		**% of Total Assets**	*Changes 93/92*		**% of Total Assets**	*Changes 94/93*		**% of Total Assets**	*Changes 94/93*
Cash	**192**	**2.3%**	**110**	**1.3%**	**57.1%**	**241**	**2.5%**	**219.6%**	**215**	**1.9%**	**89.0%**
Receivables		*100.0%*		*100.0%*			*100.0%*			*100.0%*	
Trade debtors	508	*96.3%*	1 045	*97.8%*		1 288	*99.9%*		1 127	*92.3%*	
Tax receivables	0	*0.0%*	0	*0.0%*		0	*0.0%*		70	*7.0%*	
Others debtors	5	*0.9%*	23	*2.2%*		1	*0.1%*		9	*0.7%*	
Claims	15	*2.8%*	0	*0.0%*		0	*0.0%*		0	*0.0%*	
Total receivables	**528**	**6.3%**	**1 068**	**12.4%**	**202.3%**	**1 289**	**13.2%**	**120.7%**	**1 205**	**10.9%**	**94.7%**
Inventories		*100.0%*		*100.0%*			*100.0%*			*100.0%*	
Raw materials	500	*35.2%*	273	*16.7%*		377	*15.9%*		517	*22.9%*	
Work in progress	496	*34.8%*	803	*49.3%*		769	*32.5%*		755	*33.5%*	
Finished goods	424	*29.8%*	550	*33.8%*		1 216	*51.5%*		979	*43.4%*	
Goods for resale	3	*0.2%*	3	*0.2%*		2	*0.1%*		4	*0.2%*	
Total inventories	**1 423**	**17.0%**	**1 629**	**18.9%**	**114.5%**	**2 363**	**24.2%**	**145.1%**	**2 256**	**20.2%**	**95.4%**
Total Current Assets	**2 143**	**25.6%**	**2 807**	**32.6%**	**131.0%**	**3 893**	**39.8%**	**138.7%**	**3 675**	**33.1%**	**94.8%**

<u>Fixed assets:</u>

Total fixed assets as recorded in the balance sheet at the end of 1994 equalled 5 819 000 PLN and constituted 59.5% of total Company assets. Their share in balance sheet totals decreased considerably in comparison with 1992, amounting to 6 141 000 PLN, i.e. 73.4% of total assets.

The revaluation of fixed assets conducted in 1995 resulted in an increase in the value of assets to 7 131 000 PLN with a share in total assets to 64%. According to statement F–03, provided by the Company, gross tangible assets were revaluated at the average rate equal to 1.91.

Table 35 presents the main categories of net fixed assets as recorded in the balance sheet of 31.12.1994 in comparison with their net value after revaluation.

Table 35. The main categories of the net fixed assets

Item description	Net value after revaluation at	% structure	Net value as of 31.12.1994	Change
Buildings	3 508	63%	2 659	131.9%
Plant & Machinery	1 934	35%	1 419	136.3%
Motor vehicles	101	2%	83	121.8%
Other tangible assets	0	0%	3	
	5 543	100%	4 163	133.1%

The most important categories among fixed assets during the analysed period were buildings (50.9% in 1995 versus 54% in 1992). machinery & equipment (31.2% in 1995 versus 12.1% in 1992) and assets under construction (16% in 1995 versus 19.5% in 1992).

Motor vehicles and financial and intangible assets constituted less than 2% of fixed assets.

A revaluation of fixed assets was not conducted until the end of 1994, except for the category "Plants & Machinery" and "Vehicles", which were revaluated at the end of 1994. The revaluation was insignificant and increased the gross value of these categories by 4% and 2%, respectively.

An analysis of the fixed assets structure proves that in the analysed period the following changes took place:

1. the share of buildings in total assets decreased by 4 percentage points at the end of 1995 in comparison with 1992.

2. the share of machinery & equipment more than doubled for the same period (12.1% in 1992 versus 24.4% in 1994 and 31.1% in 1995 after revaluation), moreover the value of this category of fixed assets also significantly increased (from 746 000 PLN to 2 223 000 PLN), mainly due to completing assembly of the chamber furnace in 1993.

3. the assets under construction decreased their share in fixed assets to 16% in 1995 from 26.5% in 1992.

The Company's fixed assets (i.e. buildings. machinery and equipment and vehicles), as of 31.12.1995, were depreciated by 66.25%. Of this. machinery and equipment were depreciated most. i.e. by 78%.

Table 36 reflects the fixed assets breakdown as well as changes in fixed assets between 1992–1995.

Table 36. The fixed assets breakdown

Year	1992		1993			1994			1995		
Net fixed assets (thousand PLN)		% of Total Assets		% of Total Assets	*Changes 93/92*		% of Total Assets	*Changes 94/93*		% of Total Assets	*Changes 94/93*
		100.0%		*100.0%*			*100.0%*				
Net tangible assets											
Land	389	*6.3%*	518	*9.0%*		518	*8.9%*			*0.0%*	
Buildings	3 315	*54.0%*	2 689	*46.9%*		2 659	*45.7%*		3 631	*50.9%*	
Plant & Machinery	746	*12.1%*	1 328	*23.2%*		1 419	*24.4%*		2 223	*31.2%*	
Motor vehicles	55	*0.9%*	58	*1.0%*		83	*1.4%*		120	*1.7%*	
Other tangible assets	3	*0.0%*	3	*0.1%*		3	*0.1%*		10	*0.1%*	
Investment in progress	1 627	*26.5%*	1 138	*19.8%*		1 138	*19.5%*		1 142	*16.0%*	
Net intangible assets	7	*0.1%*	4	*0.1%*		0	*0.0%*		0	*0.0%*	
Financial assets	0	*0.0%*	0	*0.0%*		0	*0.0%*		5	*0.1%*	
Total fixed assets	6 141	73.4%	5 737	66.6%	93.4%	5 819	59.5%	101.4%	7 131	63.9%	122.5%

It should be stressed that most of the buildings owned by the Company (especially production premises) are in poor condition and do not comply with the technological needs of the production cycle.

Liabilities:

Between 1992 – 1994, a significant increase in the share of liabilities in financing total Company assets is observed – from 45% to 60%. In 1995 this proportion improved slightly (decrease to 50.6%). due to a revaluation of fixed assets, which increased the foundation fund and the enterprise fund.

To finance its activities. ZP "ĆMIELÓW" used short term loans in Polish zloty till the end of 1995. The total liabilities (equal to current liabilities) as recorded at the end of 1992, amounted to 3 757 000 PLN versus 5 914 000 PLN at the end of 1994.

In the 1995 balance sheet the part of liabilities included in BCP (the part to be paid in 1997) was recorded as a long term liability. It amounted to 712 000 PLN and constituted app. 6% of the total liabilities and equity.

The main category of liabilities in 1992–1995 constituted payables and short–term loans.

The level of short term loans increased slightly from 1 355 000 PLN in 1992 to 1 362 000 PLN in 1995 (1 431 000 PLN in 1994). while the share of this source of financing decreased from 16.2% to 12.2 % for the same period (see Table 20 on the next page).

The structure of short term credits and loans, as of 31.12.1995, was as follows:

Bank Depozytowo–Kredytowy S.A. in Lublin. Branch in Opatów:

730 000 PLN – working capital credit, floating interest based on the NBP rate. secured by the assignment of receivables of export contracts, a pledge on finished goods and pledge on a chamber furnace.

232 000 PLN – working capital credit of 8 January 1993, included in BCP, due to be repaid in 1996, secured by mortgage on a plot of land, assignment of receivables and a pledge on finished goods.

Wschodni Bank Cukrownictwa S.A. in Lublin. Branch in Ostrowiec Świętokrzyski:

150 000 PLN – working capital credit, fixed interest rate (amounting to 30% in December 1995), secured by assignment of export receivables and a pledge on finished goods.

Komitet Badań Naukowych in Warsaw:

232 000 PLN – loan included in BCP to be repaid in 1996

The level of payables increased significantly from 2 401 000 PLN as recorded at the end of 1992 to 4 232 000 PLN at the end of 1994. This growth was also recorded in the share of the payables in the total liabilities and equity (from 28.7% in 1992 to 43.3% in 1994). The 1995 balance sheet shows certain improvement, namely the level of payables decreased to 3 659 000 PLN (32.8% of the total liabilities + equity).

Table 37. Liabilities

Liabilities	1992	% of Total Liabilities+ Equity	1993	% of Total Liabilities+ Equity	% of Total Liabilities	1994	% of Total Liabilities+ Equity	% of Total Liabilities	1995	% of Total Liabilities+Equity	% of Total Liabilities
Current Liabilities											
Payables											
Trade creditors	1 512	*18.1%*	1 887	*21.9%*	*37.5%*	2 424	*24.8%*	*41.0%*	1 840	*16.5%*	*31.6%*
Tax liabilities	377	*4.5%*	862	*10.0%*	*17.1%*	1 040	*24.6%*	*17.6%*	871	*7.8%*	*14.9%*
Payroll liabilities	136	*1.6%*	163	*1.9%*	*3.2%*	206	*4.9%*	*3.5%*	257	*2.3%*	*4.4%*
Social security liabilities	274	*3.3%*	688	*8.0%*	*13.7%*	406	*9.6%*	*6.9%*	513	*4.6%*	*8.8%*
Other payables	102	*1.2%*	148	*1.7%*	*2.9%*	157	*3.7%*	*2.6%*	178	*1.6%*	*3.1%*
Payables	**2 401**	**28.7%**	**3 749**	**43.5%**	***74.5%***	**4 232**	**43.3%**	***71.6%***	**3 659**	**32.8%**	**86.4%**
Short – term credits and loans	1 355	16.2%	1 284	14.9%	*25.5%*	1 431	14.6%	*24.2%*	1 362	12.2%	*21.9%*
Accruals & Deferred income						251	2.6%	*4.2%*	106	1.0%	*7.7%*
Total Current Liabilities	**3 757**	**44.9%**	**5 034**	**58.4%**	**100.0%**	**5 914**	**60.5%**	**100.0%**	**5 127**	**46.0%**	**86.7%**
Long Term Liabilities	**0**		**0**			**0**			**712**	**6.3%**	**12.1%**

The most essential changes to take place in 1993 – 1994 were significant increases in the share of trade creditors and tax liabilities. although, in effect. all categories of payables rose.

It should be underlined that the Company's turnover ratio for trade payables equalled 182 days in 1992 versus 162 days in 1994. The Company had to pay penalty interest for delayed payments. This situation caused extraordinary losses of 70%–88% in penalty interest, These additional financial burden. as well as the financial costs themselves, resulted in the net loss during the last four years.

In order to solve this difficult situation, the bank reconciliation procedure commenced in March 1994. According to the bank reconciliation agreement signed the 29th of March 1994 by ZP "Ćmielów" and Bank Depozytowo–Kredytowy SA (Lublin), the procedure included liabilities towards 201 creditors for a total amount of 3 214 610.97 PLN.

Total liabilities were divided into two categories: liabilities amounting to less than 2 000 PLN for other creditors (131 entities) and liabilities greater than 2 000 PLN for main creditors (70 entities out of the total 59).

Other creditors should be fully repaid in 1994, and the main creditors' liabilities should be repaid according to the following schedule: 10% of the total in 1994. 40% in 1995 and 50% in 1995. Repayment should be in quarterly instalments, with the first falling due not later than 31.12.1994.

The bank reconciliation agreement called for the transition of the state owned ZP Ćmielów" company into a private one. The biggest creditors (with liabilities of more than 20 000 PLN) had a choice of converting their receivables into shares. However, this transition was not effected.

According to financial statements of 22.01.1995 received from ZP'"Ćmielów" the Company repaid 808 062.65 PLN (27.3% of the total due amount). In 1996–97 the Company should repay 2 155 483.6 PLN (72.7%).

The age structure of the Company's trade payables was as follows (as of 31.12.1995):

Table 38. The age structure of the payables

Trade payables breakdown	Thousand PLN	% of the total
to 30 days	666	36.21%
30–60 days	214	11.65%
60–90 days	159	8.63%
90–180 days	95	5.15%
older than 180 days	706	38.36%
Total	**1 840**	**100.00%**

2.3 *Cash Flow Statement*

Due to the interrelation of the three basic financial statements. conclusions from the analysis of Cash Flow Statement (Table 22. on the next page) confirm and summarise the previous remarks:

1. **gross operating sources** – a great impact of extraordinary losses on funds generated by the Company in its core activities in 1993–1994. These extraordinary losses result mainly from delays in settling the Company's current liabilities. This negative impact was completely reduced in 1995. This year extraordinary gains (a result of shifting certain deferred incomes into this category) amounted to 372 000 PLN, whereus gross operating sources equalled to 1 010 000 PLN.

2. **net operating sources** – gross operating sources were almost totally distributed for payment of financial costs and other obligatory charges paid to the State Treasury, and income tax. In 1993, due to negative gross operating sources, the cash outflow for covering these items created a financial gap amounting to (657 000 PLN). In 1994 almost 90% of this year's gross operating sources (753 000 PLN) went to covering these debts, resulting in a net operating sources income of 79 000 PLN. In the 1995 gross operating sources amounting to 638 000 PLN (excluding extraordinary gains) were to small to cover income tax. financial costs and the State treasury dividend.

3. **changes in working capital** – in 1993 the Company tried to account for the negative operating sources and the growth of stocks and receivables by a significant increase in payables (1.56 times bigger than in 1992). However, this did not alleviate the financial gap of 45 000 PLN. While analysing changes which took place in 1994. we noticed much higher increases in stock and receivables than in liabilities. Due to these changes, a demand for working capital appeared, amounting to 211 000 PLN and caused a financial gap of 132 000 PLN. In 1995 a higher decrease in payables than in inventories was observed and deffered incomes dropped by 145 000 PLN, which caused a demand for working capital equal to 814 000 PLN (including changes in prepayments).

4. **net operating sources less changes in working capital** – this category shows a negative result in the analysed period. In 1993 net operating sources decreased by changes in working capital to (45 000 PLN), whereas in 1994, the cash deficit was almost three times greater than the year before amounting to (132 000 PLN). This exacerbated in 1995. where the cash deficit amounted to (510 000 PLN).

5. **net cash – flow** – in 1993. the net cash flow was negative and amounted to 82 000 PLN. The out–flow of cash decreased the cumulated cash and its equivalents owned by the Company from 192 000 PLN to 110 000 PLN. In 1994 the net cash–flow was positive and amounted to 131 000 PLN, but this positive result was achieved only due to the increase of short term debts, a growth in equity and special funds. In 1995 once more the cash outflow amounting to 26 000 PLN decreased this year cash to 215 000 PLN (versus 241 000 PLN in 1994). The increase of equity recorded in this year amounting to 1 996 000 PLN was caused by the revaluation of fixed assets, which increased the foundation and enterprise fund, such there was no external financing to cover cash deficit. The increase of long term liabilities reflected only shifting certain liabilities included in BCP from the short term category to long term liabilities according to the accepted repayment schedule.

Table 39. Cash Flow Statement (thousand PLN)

Year	1992	1993	1994	1995
Sources				
EBIT		536	825	395
Depreciation of fixed assets		146	186	252
Extraordinary profits/losses		(805)	(257)	372
Changes in provisions		(6)	0	(9)
Gross operating sources		**(129)**	**753**	**1010**
Income tax		0	275	34
Financial costs/incomes		368	233	651
Other obligatory charges (State Treasury dividend. excess wage tax)		161	167	21
Net operating sources		**(657)**	**79**	**305**
Inventories (raw materials. commodity goods. advances)		206	734	(108)
Receivables		540	221	(69)
Prepayments (RMK–prepaid expenses)		(10)	(10)	272
Accruals&Deferred income		0	251	(145)
Payables		1 348	483	(573)
Total		**(612)**	**211**	**814**
Total sources		**(45)**	**(132)**	**(510)**
Change in fixed assets		(257)	268	1 564
External financing				
Short term debts (+/–)		(71)	147	(69)
Long term debts (+/–)		0	0	712
Changes in equity		(315)	326	1 996
Other sources/uses				
Changes in special funds		(38)	60	(74)
Changes in long term liabilities (land)		130	0	(518)
NET CASH FLOW		**(82)**	**131**	**(26)**
CUMULATED	**192**	**110**	**241**	**215**

2.4 *Ratio analysis*

Liquidity:

The Company's liquidity analysis was based on two ratios: current ratio (current assets/current liabilities) and quick ratio (current assets less stock/current liabilities).

During the analysed period values of both ratios were substantially below the recognised minimum level. Table 40 below represents the value of current ratio and quick ratio for ZP "Ćmielów" in the analysed period.

Table 40. Liquidity Ratios

Year	1992	1993	1994	1995
Liquidity Ratios				
Current Ratio	0.57	0.56	0.66	0.72
Quick Ratio	0.19	0.23	0.26	0.28

Turnover ratios:

Turnover ratios were calculated in days. for aggregated amounts of raw materials, work in progress, finished goods, trade debtors and trade creditors (Table 41). The values of these ratios presented the following trends (see also Chart 9):

a high turnover of trade creditors during the analysed period, although a downward trend was visible, decreasing from 182 days in 1992 to 162 days in 1994 and then to 101 days in 1995;

the turnover of trade debtors increased over the last three years. in 1994 it amounted to 50 days versus 29 days in 1992; however a positive change was observed in the last year, the turnover of trade debtors decreased to 32 days;

a downward trend was observed in the turnover of work in progress, this ratio dropped from 44 days in 1993 to 24 in 1995;

the turnover of raw materials ratios recorded a downward tendency and decreased in 1995 to 39 days from 32 days in 1993 (in 1992 it equalled to 78 days);

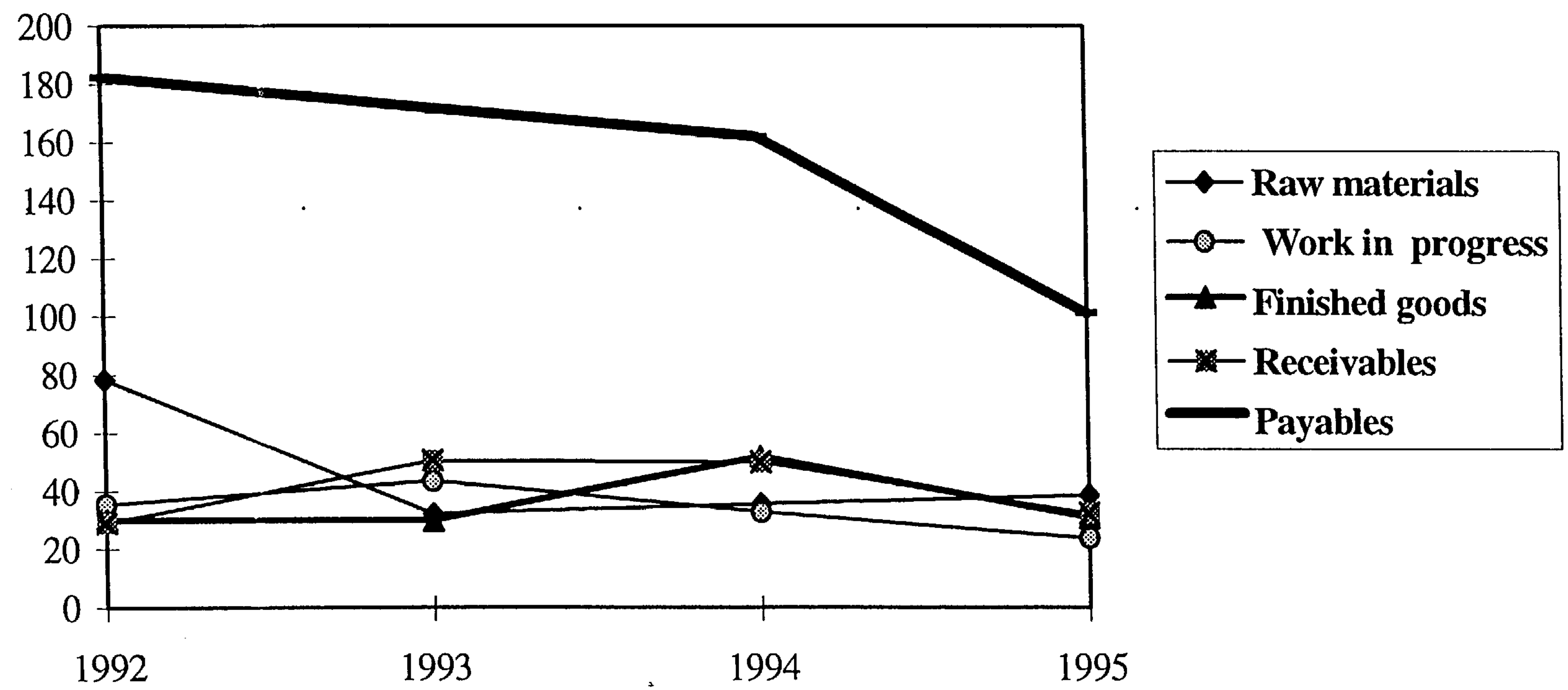
the finished goods turnover after an increase in 1994 to 52 days (in 1992 this amounted 30 days) dropped to 31 days in 1995.

Table 41. Turnover Ratios

Turnover Ratios	1992	1993	1994	1995
Inventory turnover				
– raw materials (1)	78	32	36	39
– work in progress (2)	35	44	33	24
– finished goods (3)	30	30	52	31
Receivables' turnover in days (5)	29	51	50	32
Payables' turnover in days (6)	182	172	162	101

*(1) (inventory of raw materials /cost of used raw materials+energy) * 360 days*
*(2) (work in progress / operating costs after adjustment) * 360 days*
*(3) (finished goods / operating costs after adjustment) * 360 days*
*(5) ((receivables + VAT)/ sales) * 360 days*
(6) ((payables +VAT)/ (costs of raw materials. energy. external services. other & cost of goods for resale)) 360 days*

Chart 9 – Turnover Ratios (in days)



Profitability:

All profitability ratios were negative during 1992–1994, due to the negative net result recorded by the Company. The worst results were recorded in 1993 (see Table 42 below and Chart 10, on the next page).

Table 42. Profitability ratios

Profitability Ratios	1992	1993	1994	1995
Return on Total Sales (1)	–5.6%	–10.7%	–1.2%	0.51%
Return on Assets (2)	–4.2%	–9.4%	–1.2%	0.55%
Return on Equity (3)	–8.4%	–22.2%	–3.4%	1.15%

(1) net profit / sales (– financial income)

(2) net profit /average assets

(3) net profit / average equity

Creditworthiness ratios:

Due to a lack of long term loans. when calculating the debt–equity ratio as well as the debt coverage ratio, we took into account short term debt.

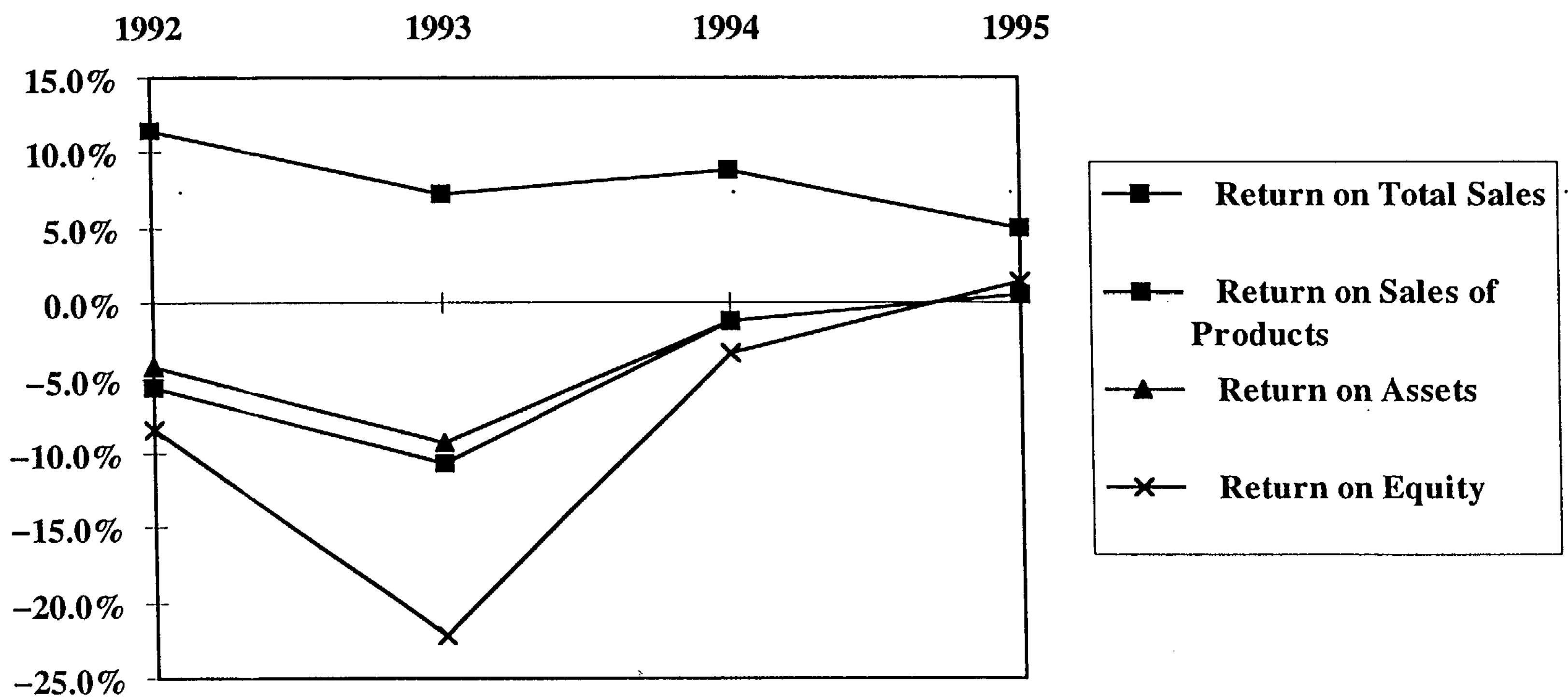
The value of the debt–equity ratio rose in the analysed period, reflecting an increase in the share of short term loans in total equity & liabilities.

The debt coverage ratio shows the permanent unsatisfactory value since 1992 to the end of 1995.

Table 43. Creditworthiness Ratios

Creditworthiness Ratios	1992	1993	1994	1995
Debt/Equity Ratio	0.33	0.42	0.44	0.39
Debt Coverage Ratio (*)	0.12	–0.18	0.19	0.50

Chart 10 – Profitability Ratios



2.6 Conclusions and recommendations

2.6.1 Conclusions

The key features of the financial situation of Zakłady Porcelany "Ćmielów" in 1992–1995 were:

1. ZP "Ćmielów" sales in 1992 prices consistently recorded a downward trend until 1994. However, data for 1995 reflect a real sales growth of 11 per cent.

2. The share of operating costs in the net income from sales of products has increased by 5 percentage points between 1992–1995. In 1992 operating costs after adjustments constituted **90%** of this year's net sales of products. This worsened in 1994 when operating costs after adjustment equalled **95%** of the net sales of products (this is also prevalent in data 1995).

3. Materials and energy costs dominated total operating costs, constituting almost 42.8% and 40% of net sales in 1994 and 1995 respectively. Labour costs (gross wages together with social security) were the second main cost category in the analysed period. The share of this category fluctuated between 39% and 43% in the last four years.

4. The Company suffered net losses during the analysed period, except the last year results. 1995 data reflects a net profit of 61 000 PLN (versus a net loss of 327 000 PLN according to the second version of financial statements for 1995). The last year net profit was caused by shifting certain categories from deffered incomes to extraordinary gains.

5. In 1992–1995 the Company was unable to function without external financing. Furthermore low profitability and a limited cash flow disabled ZP "Ćmielów" from settling its liabilities in time. The ensuing interest penalties exacerbated the financial debt burden.

6. The very high financial costs and extraordinary losses (mainly penalty interest on overdue liabilities) in the Company results, caused the net losses in 1992–1994. In 1992–93, financial costs covered almost 70% of EBIT. In 1994, due to the implementation of the bank reconciliation procedure, this share decreased to 30%. This was not maintained and in 1995, financial costs increased almost twofold in comparison with this year's EBIT.

7. The effective taxation rate in 1994 calculated upon EBT as recorded in the income statement equalled 82%. The income statement (F–01) for 1995 reflected the same, namely that the Company has been paying advances for corporate income tax despite recording losses. Moreover the taxation rate substantially surpassed 40% in the two first quarters of 1995.

8. In the Company's balance sheet, fixed asset value visibly decreased despite their revaluation in 1995 (64% in 1995 versus 73.41% in 1992). This resulted mainly from the limited investments effected in modernisation and reconstruction due to a lack of resources.

9. The Company's fixed assets (i.e. buildings, machinery and equipment, vehicles), as of 31.12.1995, depreciated by 66.25%. This was most evident in machinery and equipment which depreciated by 78%. Please note that most of the tangible assets are in poor condition and do not comply with the technological needs of the production cycle.

10. Between 1992 – 1994, a significant increase in the share of liabilities in financing total Company assets was observed (from 45% to 60%). This was caused by an increase in the level of payables (trade and tax). In 1995 this proportion improved slightly with a decrease in this category share in financing total Company assets to 50.6%. However this was caused only by a revaluation of fixed assets, which increased the foundation and enterprise fund.

11. Since 1992, trade payables turnover ratios have been very high equalling 182 days in 1992 in comparison with 162 days in 1994, resulting in additional financial costs (penalty interest). The 1995 data reflects an improved situation with trade payables ratio decreasing to 101 days.

12. Liquidity ratios as well as creditworthiness ratios were far below the minimum accepted level in the analysed period, confirming the Company's permanent liquidity problems, even before 1992.

13. All profitability ratios were negative between 1992–1995, due to the negative net result recorded by the Company. The worst results were recorded in 1993.

14. The Accountancy Department of ZP "Ćmielów" suffered from: rotation of employees (mainly managers), a lack of Financial Director, and a lack of computers and adequate software. All this increased consumption of labour and time and did not allow for proper and effective management of the Company's finance.

2.6.2 Recommendations

The financial situation of ZP "Ćmielów" during the analyzed period was bad, though certain data for the last year indicate positive changes in Company activity (for example – reduction of the trade payables' turnover, reduction of extraordinary losses, a real growth of sales of 11%).

In our opinion debt restructuring is of capital importance to stabilizing and to improving the financial position of ZP "Ćmielów" in the near future. Additionally, ZP "Ćmielów" should concentrate on the following key issues:

– Current control of operating costs and their reduction in the area of labour and material costs in order to improve ZP 'Ćmielów" competitive position
- Implementation of budgeting procedures based on a variable costing system
– Analysis of all categories of costs variances
- Implementation of effective financial information and internal reporting systems, which should be supported by a computer system

– The company should prepare profit statements based on a variable costing system
- Financial cost reduction by a decrease of payables' turnover and classification by banks into a client group with lower risk (the best clients category).
- Transformation from a state–owned company to a private one so as to reduce other obligatory deductions from the Company's net result.
- Employing a Financial Director and commitment to investment outlays in adequate hardware and software for the Accountancy Department.

3. OPERATIONS ANALYSIS

3.1 Production planning and control

"Ćmielów"'s management prepares two basic types of plans: *annual plans* and *monthly operating plans.*

Annual plans are specified in terms of value and volume. They are based on the available production capacity and on assumptions regarding developments in sales (revenues) and costs. Production Department specifies volume (in tons) of the white porcelain that can be produced in the course of the year. Similarly, the quality parameters and percentage of lossess are assumed. Marketing and Sales Department prepares its own sales plans. Numbers worked out by the Production and Marketing and Sales Departments are analysed further by the Cost Analysis Unit. The actual annual plan emerges as the outcome of discussions of three departments mentioned above. After signing by the Managing Director, it provides general framework for the company's operations.

Current operations are based on monthly plans. Marketing and Sales Department provides monthly plans of sales, which are based on existing foreign orders and to some extent on domestic orders. It has been indicated that new contracts are sometimes accepted without prior consultations with the Production Department, what causes unneccessary conflicts and tensions.

Monthly plans of sales determine monthly production plans, where product mix is specified. Production Department should know sales plans one month ahead. In fact, sometimes it does not happen this way because customers' orders or modifications of orders are accepted on the short notice. It is important to stress that the change of type of product in production may take one day (if moulds are available) or up to two weeks.

Production planning is specifically important from the point of view of the Decorating Units, which employ 90 workers. These units, to be operated efficiently require more or less constant work burden in the course of the whole month. Increase in orders for the white porcelain or the porcelain with limited decorations cause, that these workers have to be transferred to other production units.

Short–notice orders are inconvenient from the point of view of the efficiency of production process; some improvement in planning of monthly sales may be neccessary. On the other hand, the company as a small porcelain producer, must learn to be quick and flexible in reactions to orders which reflect changing market conditions.

3.2 *Inventory control*

Raw materials control is under responsibility of the Manager of the Inventory Management Section which is located in Procurement and Transportation Unit of the Maintanance and Investments Department. Due to the company's liquidity problems, the inventory of materials is very low, securing the production needs for 8–10 days. Purchases of materials are consulted with the Department of Production on the current basis.

The company have a system of rules describing the optimum level of inventory of raw materials. These rules are based on the norms of usage in production and the transportation time. In practice, due to the lack of financial resources, these rules are often not enforced.

Department of Marketing and Sales is responsible for the control of inventory of finished goods. The level of finished goods is high, what seems to be caused by the company's defficiency in selling porcelain of lower quality grades.

Table below presents the structure of "Ćmielów"'s inventories in 1992–95 (in thousands PLN):

Table 44. The Structure of Inventories

Inventories	1992	1993	1994	1995
Material	500	273	377	517
Work in progress	496	803	769	755
Finished goods	424	550	1,216	979
Goods for resale	3	3	2	4

3.3 *Quality assurance*

A quality control system is in operation and a programme listing the activities and the frequency of testing by the laboratory has been produced. The main activities are listed as under:

- raw materials on arriving at the factory are tested for their physical properties
- chemical analysis is contracted out to specialist units when considered necessary
- all materials are used on a first in first out
- the time of milling is recorded by time start/time finish
- feldspar and quartz materials when milled are tested by sieve residue.
- casting body is tested for density and viscosity after mixing and at the casting section
- plastic clay is tested after de–airing for moisture content and contraction

- the first inspection of the ware occurs at the finishing in the clay state after drying with defective pieces being recorded. This is termed clay loss

- the second inspection is after biscuit firing when the fired ware is examined and defects are recorded. The good selected ware is then marshalled for glazing

- the third inspection is after glost firing when the ware is categorised into quality grades as under:

First	Quality		
Second	Quality	Painting	(to cover faults)
Second	Quality	Decal	(to cover faults)

Second	Quality
Third	Quality

The quality grades for 1995 were given as:

First Grade	43%
Second Grade	39%
Third Grade	18%

The major defects in the second and third grades are given as:

Curvature	30%
Sand holes	19%
Melts	14%
Nicks	8%
Finishing defects	7%
Fly (Specking)	5%
Glazing defects	5%

Curvature (warping)

This fault can originate at a number of stages in the production process as follows:

Mould Release: If the item is not dried down to the required 2 – 3% moisture content, then handling of the ware can induce potential crookedness which will become apparent after biscuit or glost firing.

Biscuit Placing:	If ware is not placed symmetrically (as in bunged flat ware) then lack of support will encourage the warping fault.
Biscuit Firing:	This should not have flame impingement on the ware which results in 'selective contraction' at different points on the item and hence deviation from the required shape.
Glost Firing:	The body of the ware becomes 'pyroplastic' at high temperature and can then slump, or deform if not supported by the correct design of setter. It may be that the final temperature is designed to mature the glaze (which could be over–refractory) and this temperature could be too high for the underlying body. This applies particularly to the large pieces. The glaze may need to be modified slightly, in order to mature at, say, 1370íC – 1380íC. Prior to this modification, it is essential that the optimum bulk density of the body should be defined prior to any glaze change.

Sand Holes

Usually produced by calcium bearing minerals e.g. Whiting (CaCo3) and, more probably, by Gypsum or Plaster of Paris, the only constituent of moulds used in both plastic and casting production. This problem can be minimised by:

Improved mould quality by regular inspection of the moulds at the dryers.

Regular check of the plaster/water ratio in the mouldmaking department.

Nicks

This occurs by rough handling of the ware and more care is required in handling both clay and biscuit ware.

Finishing Defects

These defects are produced by bad quality towing, fettling, de–seaming and sponging in the clay state. It can be minimised by better on–site supervision of these operations.

Fly or Specking

Specking can be produced in glost ware from any of the following causes:

> Specking agents in the clay body or in the glaze (dust and dirt alighting on the clay ware, biscuit or glazed ware)
>
> Firing problems, dust at fan intake, poor kiln furniture and over firing.

Glaze Defects

These are knocked glaze, crawled glaze and blistering. They are recovered by grinding/polishing and light application of further glaze (normally sprayed) and refired at the final glost temperature.

The present activities of the laboratory on the control of quality in processing is given as follows:

DAILY	Hard Raw Materials	After milling – sieve 006 dia.
	Casting Body	Body preparation mixer – density and viscosity
	Mixed Body	At the mixer – cleanliness and sample firing
	Moulding Body	Storage arks – cleanliness and sample firing
	Casting Body	Storage arks – cleanliness and sample firing
	Body settled on Sieves	Storage arks – cleanliness and sample firing
	Moulding and Casting	Gathered from making dept
	Scraps	Cleanliness and sample firing
	Body from filter presses and extruder	Cleanliness and sample firing
EVERY TWO DAYS	Casting Body	Density, viscosity, temperature and cleanliness
TWICE WEEKLY	Moulding Body	Humidity (moisture content)
	Filter Pressed Body	Humidity (moisture content)
	Clayware	After drying – Humidity (moisture content)

WEEKLY	Glaze	After milling – sieve 006 dia. flow and density
EVERY TEN DAYS	Raw materials	Humidity (moisture content)
MONTHLY	Biscuit Ware	From the biscuit kiln – Water Absorption

These tests and the loss recording procedures are in line with established practice in a tableware manufacturing unit. However, the results of the information recorded by the laboratory and at the quality control check point in the factory are only fully discussed at the Quality Conference which it is understood is held monthly.

Although good records of losses and production are kept they appear to be historical with little immediate action. The control of losses in the factory should be given maximum priority and all biscuit and glost faults should be categorised and placed in a special area for inspection by quality control and chief of production. This will enable the required rectification of the fault to be implemented at all speed.

The management needs to be strengthened to give special attention to quality control and the analysis of production faults. Daily counts of faults and quality should be forwarded to the Managing Director with quality control reporting directly to the Managing Director on a weekly basis.

This is contrary to the present organisation of the factory where the Quality Control Department report to the Production Director.

3.4. *Maintenance*

The maintanance function is conducted by the Department of Maintanance and Investments, headed by the Director, member of the Managing Board. The department splits into two units: the Procurement and Transportation Unit (responsible for purchases of raw materials) and Chief Mechanician's Unit (responsible for maintanance).

The following sections operate within the Chief Mechanician's Unit:

Electrical Section (11 employees)

Most of the employees of this section (8) work in the continuous system. Their scope of responsibility includes:

- keeping the factory's machines and equipment in operation
- control and renovation of lifts and the control and measurement equipment
- servicing stations that supply the factory with electricity
- replacement the old and installing the new electrical installations
- repairs of the machines steering systems
- installation of new machines
- conservation and repairs of the telephone installation

Boiler (10 employees)

Most of the employees (8) work in the continuous system. The role of this section is:

- production of heat for the central heating and technology
- servicing the water–treatment station
- servicing the water–supply installation
- conducting small renovations and repairs of the appliances mentioned above

Air–compressor Section (3 employees)

Works in the two–shifts system. Its role is:

- production of compressed air
- servicing and renovations of air–compressors
- servicing the machinery in the firing section
- servicing the firing cars and ventilators

Industrial and Sanitary Sewage Treatment (3 employees)

Works in the two–shifts system. Its role is:

- servicing the industrial sewage treatment plant
- cleaning the tanks
- servicing and conservation of the sewage system

Plumbers Group (3 employees)

Works in the one–shift system. Its role is:

- conservation and renovation of the central heating system and water installations
- construction of new installations
- replacement of used parts in the all installations

Mechanical Section (26 employees)

There are 10 workers directly servicing the production units and 16 employed in the mechanical workshop. Workers servicing the raw materials preparation, forming, casting, modeling, decorating and screen print are responsible for keeping the machines and equipment in operation, conducting the small renovations and service functions.

The mechanical workshop's role is:

- conducting renovations of machines, equipment, mean of transportation and buildings
- production of spare parts that cannot be purchased (usually due to the old age of machinery)
- construction of new machines and equipment for the purpose of the factory
- installation of the new machines

The company prepares yearly plan of repairs and renovations which includes major repairs and those that require significant capital expenditures.

As reported by company's management, current revievs and small renovations should be conducted on the continuous basis. Sometimes they are not, which is due to the fact that the company does not have financial resources required to purchase neccessary machines, equipment and spare parts.

Spare parts are purchased only in case if major damage occurs and there is no possibility of producing such spare part in-house. Short stoppages due to minor damages are causing many problems for the production. For example: there is the old transport chain in the firing section which breaks fairly often; it should be replaced with the new one, but there is no money to do that.

Direct employement of the maintanance workers in the production sections is suppose to speed up the time of fixing the minor damages. The total number of maintanance employees has been decreasing for the last three years. According to the management, it was possible due to the high skills and experience of the remaining employees.

Despite the obsolete and machinery and equipment, the number of damages is not very high. In 1995 the total number of stoppage hours of the production machines was 337 and it constituted only 0.13% of the total number of the working hours.

Table below presents data on the number of stoppage hours in the production sections:

Table 45. Number of stoppage hours

Production Section	Number of machines' working hours	Number of stoppage hours	Share in the total number of hours
Raw materials preparat.	65,000	–	–
Forming	71,000	172.9	0.24
Casting	15,000	104.3	0.7
Firing	39,000	–	–
Decorating	52,000	5	0.01
Screen Print	15,000	58	0.01
Total	259,000	340.2	0.13

The total costs of repairs and renovations in 1995 amounted to 510 234 PLN (of which costs of labor constituted 399 508 PLN).

4. PRODUCTS AND MARKETS

4.1 Developments in International Porcelain Markets

The EC is the world's largest ceramic producing and exporting region. After a decline in 1992–1993, since 1994 the EU markets has showna tendency to grow. According to the assessment of the European Association of Ceramic Manufacturers, the value of ceramic tableware production in EU countries amounted to 3 bln ECUs in 1994, with the leaders being Germany, Italy and Great Britain. According to the retail audit data, the china tableware market amounts to about 45% of the total ceramic tableware market.

Table 46. Production of ceramic tableware in selected EU countries

Country	Production in mln. ECU	Employment in 000's	Productivity in 000's ECU per employee
Germany	850	30	28.3
Great Britain	730	23	31.7
Italy	859	n.a.	n.a
Portugal	251	9	27.8
France	247	5	49.4

source: EC Panorama 1994

The growth of ceramic tableware production is most rapid in Far East countries, especially China and ASEAN countries. Special emphasis should be put on the fact that Far Eastern producers have gained a significant share of the EU market during the last five years. Imports from Far East countries penetrate mostly low – price segments of the EU markets. This is confirmed by statistical data. According to these figures, despite greater exports than imports in EU countries in value terms, the volume of imported ceramic tableware is twice the size of the volume of EU exports.

The US market has shown slow growth in volume terms with a significant share of imports coming from Japan, China and Great Britain. At present USA are the main world importer of ceramic tableware.

Export from Eastern Europe countries to the EU has been increasing dynamically since 1990.

4.1.1 Major factors affecting competition and the structure of the international ceramic tableware market

The EU ceramic tableware market as whole is growing. This is due to the high number of market entrants from emerging markets (South East Asia, Eastern Europe) and also related to the introduction of cheaper lines such as stoneware products rather than fine china. ***Industry estimates are that the tableware sector, will grow by some 20% per annum in the nineties. New entrants are targeting mid range products*** and bypassing the traditional distribution channels. Although demand is growing in certain areas for European china and tableware, EU producers have higher fixed costs and are finding it more difficult to compete with low cost Eastern European producers.

Price competition will increase and give producers in low cost areas an advantage. ***Demand for mid priced and less formal products will increase more rapidly.***

Diminishing capacity utilisation of EU producers implies the intensification of competition on these markets. ***Producers able to compete on price terms and to produce a similar product more efficiently will have the biggest chances on these markets.***

Traditionally design houses were regional, based around the location of raw materials. *Nowadays, new factory locations are taking advantage of economies of scale, mass production facilities and access to distribution channels rather than sources of raw materials.* Fiscal and grant incentives are also taken into account. *High end producers will be forced to produce in other areas outside Europe to remain competitive.*

The importance of brand identity is diminishing. The cultivation of a brand identity is being eroded due to the increase in the sales of mass produced products through department stores and supermarkets. Far Eastern manufacturers have been copying designs, and offering products at lower prices. Consumers cannot always discern differences in quality when the set is boxed on a shelf. *High end producers will market their name and quality at the points of sale. Mid range producers will promote their products on the basis of value for money.*

In turn, access to distribution channels becomes a crucial success factor. The major producers appear to be highly integrated, arranging their own distribution and even implanting their own facilities in department stores. For example, Royal Doulton sell over 75% of their output through their own distribution channels. ***International importance is attached to trade shows, such as the Frankfurt*** show, where direct contact between producers, wholesalers and customers is achieved. *Distributors who are already established will become larger to enable greater market penetration.*

Fashion and product differences have also become of greater importance. Most EU manufacturers work to differentiate their products by varying colours, shapes, and designs. The larger manufacturers often introduce several designs per season. New machining techniques have led to the introduction of a greater number of designs per year. Manufacturers are working increasingly to recognise changing fashions. ***The tendency for consumer tastes to change quickly will continue. Products will become simpler in design. Traditional dated patterns will loose their market share, whilst modern shapes and styles for children*** (for example clowns and animals from tales) ***will penetrate the market more intensively.***

Differences in demand concerning product characteristics such as design, colour etc. on the particular markets do not involve the integration of manufacturers. *Moreover, increasing competition and tariffs will prevent companies in different areas from producing together.*

There is an increasing competition from plastic tableware manufacturers who are improving the quality of their products. This particularly affects institutional sales. *A move towards more casual dining, and towards oven–to–table ware favours more durable products, such as earthenware. Porcelain is replacing china, mostly in institutional segments. Demographic changes, such as the increase in single households with younger consumers will support this tendency.*

Price performance of substitute products seems to be very important for potential buyers. The ceramic tableware market is becoming increasingly price sensitive. Substitute products almost consistently out compete china and porcelain products by price. Established producers will concern and introduce cheaper ranges like stoneware to compete with new entrants.

4.1.2 Prices

The recession throughout Europe and the US has caused a change in spending patterns – customers want value for money over status. It is not clear whether this change will be reversed.

Most major manufacturers are reducing prices to compete and to recognise changes in demand. Wedgwood, for instance, has reduced their prices by 14% to appeal to the casual dinner.

Mid–prices areas provide significant growth opportunities for companies – the popularity of mid–priced casual dinnerware is increasing.

Italy and Portugal have taken advantage of their weak currencies to promote exports.

The EU ceramic tableware market is very price sensitive. Because of competition from the Far–East, producers are becoming more aggressive with price discounts and promotions.

Prices are the most important purchase criteria for 62% of surveyed housewives while colour, design, style and durability of ceramic tableware were mentioned as important by respectively 40%, 36%, 33%, 28% of respondents.

4.1.3 Distribution channels

The main distribution channels on the EU market are department stores and supermarkets, at which about 50% of the china tableware is sold. A breakdown of distribution channels is provided below:

Table 47. Structure of distribution channels in the EU markets

Channel	Market Share
Department Stores	30%
Supermarkets	20%
Specialist China Shops	18%
Hardware, Kitchen Shops	16%
Home Shopping	9%
Collectors Clubs, Other	7%

Source: Central Statistical Office

Promotion costs are shared in the distribution channels as follows: producers: 10–20%

wholesalers: 30–40%

retailers: 50%

Both high end and low end market producers which own distribution channels generate about 25% of the total sales. The difference lies in the type of the external distribution channels. ***Far East producers focus sales on department stores and supermarkets, whilst European producers sell mostly through specialist china shops.***

Main world wide distributors are: ICTC, Dexam, Tauffler, Dubbarry, House of Crystal, Lori–Fox, Royal China Porcelain (USA). China tableware share varies from 25% in House of Crystal to 100% in Lori Fox.

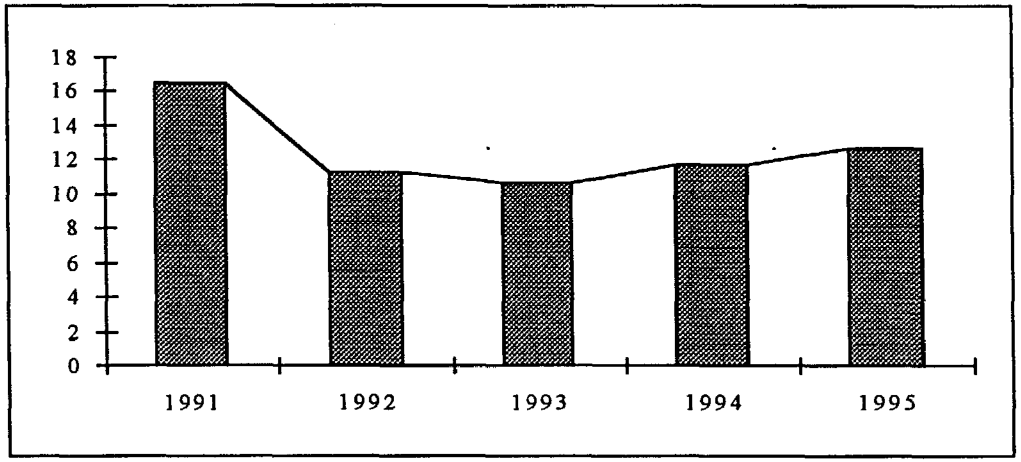
House of Crystal, Anglo–American Mercantile and Lori–Fox sell also china tableware from East Europe, which stands for 10–20% of the total sales. In all cases, china tableware from East Europe is sold under the original brand names and is appreciated for the relatively good quality, design and low price. Contacts with the Eastern European distributors are established during international trade fairs, especially in Frankfurt.

The companies mentioned above have never heard of "Ćmielow".

4.2 Developments on the Polish market

In the 90's the volume of the Polish porcelain market declined on aggregate by almost 25%. Declining tendency was particularly strong between 1991 and 1993 when size of the market diminished by over 35%. Since 1993 this downward trend has been reversed and the market is experiencing growth. In 1995 it grew by approximately 9% and was larger by 20% than its size in 1993.

Graph 11: Volume of Polish porcelain market, in 000's tonnes



Source: Central Statistical Office, and Ernst & Young estimates

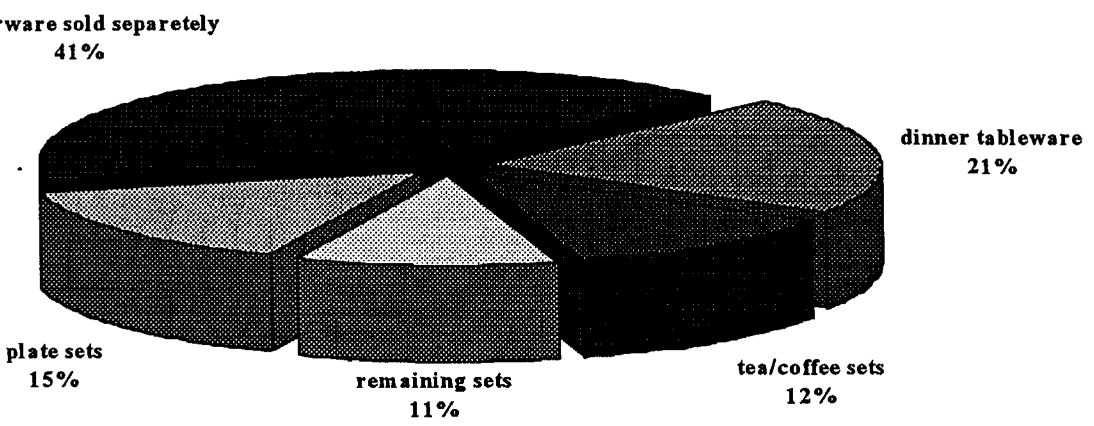
In 1995 Polish porcelain market was worth 90 mln PLN and increased by approximately 8.5 % in respect to 1994. In nominal terms it doubled between 1991 and 1995. However in real terms it was only 12% larger than in 1992.

Table 48. Polish porcelain tableware market

Polish porcelain tableware market	1991	1992	1993	1994	1995
value in PLN, mln	42.3	35.0	45.7	64.7	89.8

Source: Central Statistical Office

Graph 12: Structure of sales on the Polish market



Polish exports of tableware porcelain products almost doubled, from 30 mln USD in 1991 to 58 mln USD in 1995. In 1995 Polish export increased by approximately 27%. The volume of export increased by 12% from 20.1 thousand tonnes in 1994 to 22.5 thousand tonnes in 1995. Polish exports are highly concentrated in four key markets – Italy, Germany, France and USA – which account for over 60% of Polish exports.

Production of porcelain tableware and ornamental products in 1995 reached 34.6 thousand tonnes After a steep decline at the beginning of the 90's and recovery since 1993, output in 1995 exceeded the level of production in 1990.

Table 49. Production of porcelain tableware, in 000's tonnes

	1990	1991	1992	1993	1994	1995
Production	33.2	28.3	25.3	28.4	30.8	34.6
growth rate, in %		–14.9	–10.7	12.5	8.5	12.3

Source: Central Statistical Office

Production is highly export oriented with almost 2/3 of the output directed in 1995 towards international markets.

Table 50. Export share in production

	1992	1993	1994	1995
export share in production	59.5	61.7	62.5	65.0

Source: Central Statistical Office

Productivity of selected porcelain producers in Poland is shown below.

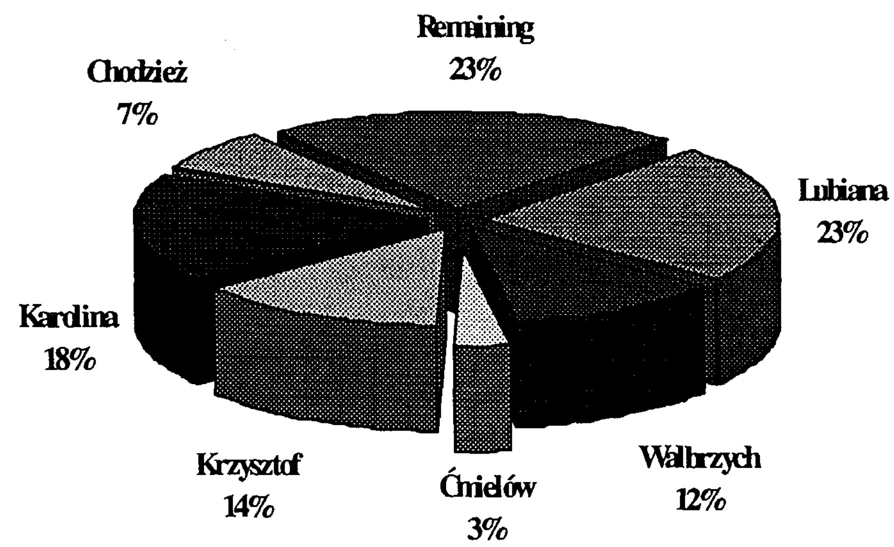
Table 51. Productivity of porcelain producers

Producer	000's tonnes of porcelain sold per 1 employee, 1994 data
Wałbrzych	4.5
Lubiana	6.8
Ćmielów	2.4
Karolina	5.0
Krzysztof	4.1

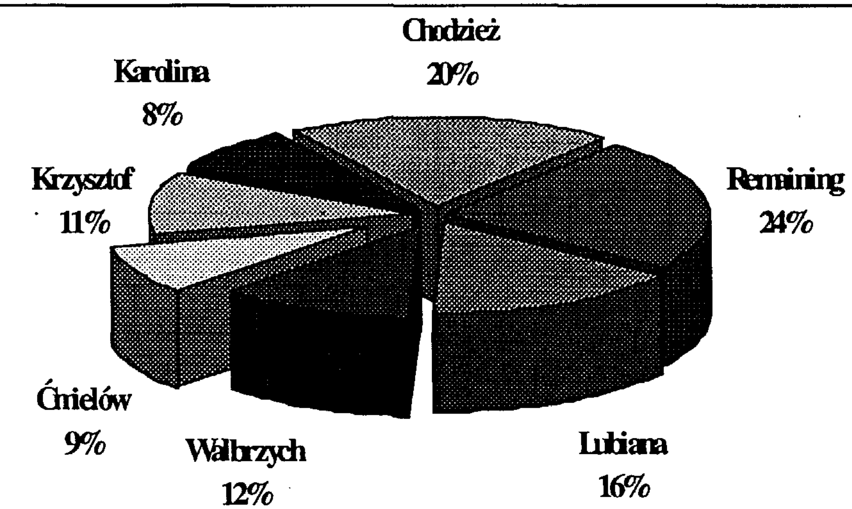
source: Ernst & Young data

Productivity in Ćmielów is three times lower then in Lubiana and on average 2 times lower then in other Polish porcelain producers.

Graph 13: Shares of selected Polish producers in the Polish export .....



Graph 14: ...and in the Polish market



In 1995 Ćmielów's market share on the domestic market declined and its share in Polish exports increased.

While the volume of the Polish porcelain tableware market grew at the rate of 8.5% in 1995, the volume of Ćmielów domestic sales increased only by 4.5%. As a result, part of the Ćmielów domestic market share was taken by other local players and its share declined from 9% in 1994 to 7.5% in 1995.

Ćmielów was able to increase its share of Polish exports from 3% in 1994 to 3.6% in 1995.

4.3 *ZP Ćmielów performance*

In 1995 total ZP ĆMIELÓW sales amounted to 12,1 mln PLN or the equivalent of USD 5 mln. **The sales of ZP Ćmielów** (in 1995 prices) after a real decline in 1993–1994 by 5%–6% annually, increased **in 1995** by 17% and reached the level formerly achieved in 1992 .

ZP Ćmielów's export of porcelain products in 1995 amounted to 2,1 mln USD. Relatively strong declining trends in exports (in dollar terms) from 1993–1994 were arrested. In 1995, the export of products of ZP Ćmielów increased by 36% in dollar terms . Good export performance can be explained to a large extend by a weak dollar on the international markets in 1995, which was stimulating export in other currencies (for example DM).

In 1995, exports accounted for close to 43% of ZP Ćmielów total sales. Compared to 1994, the share of exports has increased by two percentage points. It was still lower than at the beginning of the'90s. In the period between 1992–1994, ZP Ćmielów's domestic sales grew faster than its exports in nominal terms[1]. This tendency was reversed in 1995. It is clear that **Ćmielów's sales performance in 1995 was export–led** .

Table 52. Total ZP Ćmielów sales 1992–1995, in current and constant prices (in 000's PLN)

	1992	1993	1994	1995
Total (current prices)	5863,8	7064,9	8705,4	12114,8
growth rate in %		20,5%	23,2%	39,2%
deflator (price increase index in production of non metalic sector	100	127	130,6	122,0
Total (constant prices, 1995)	12196,2	11570,4	10916,6	12114,8
growth rate in constant prices		–5,1%	–5,7%	17,0%

source: Ernst & Young based on ZP Ćmielów data

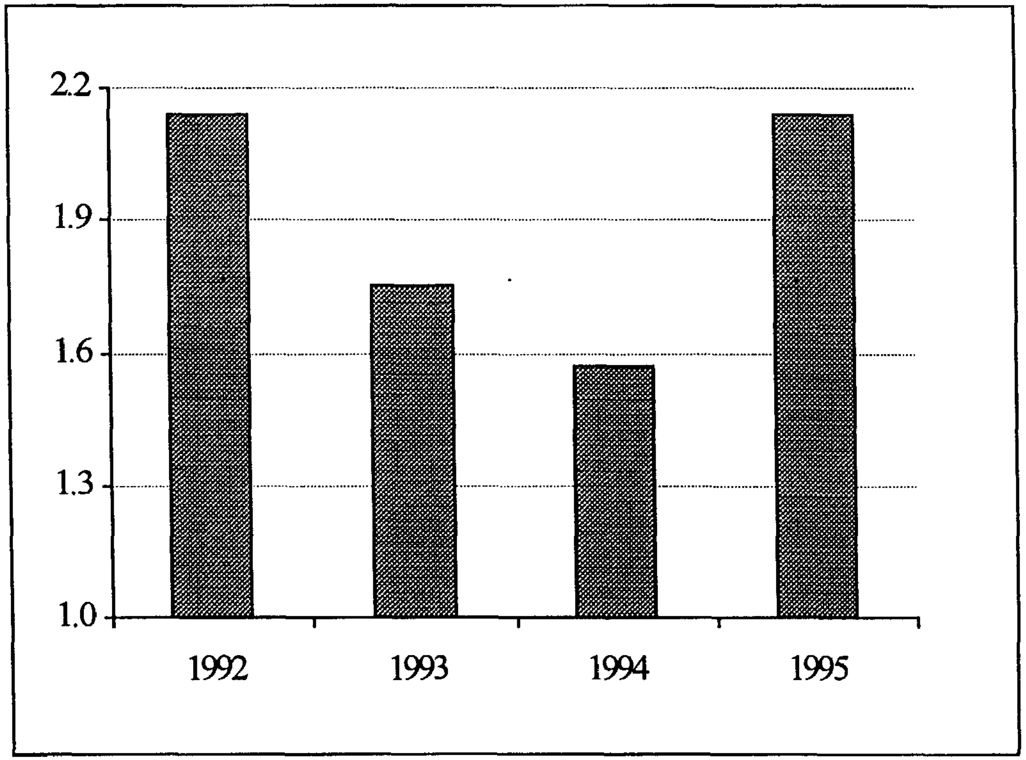
Table 53. Growth of exports and domestic sales in nominal and real terms

	1993	1994	1995
export, current prices	9,1%	12,0%	45,6%
domestic sales, current prices	31,8%	32,4%	34,7%
export, constant prices	(18,1)%	(10,6)%	36,5%
domestic sales, constant prices	(2,6)%	0,2%	10,4%

source: Ernst & Young based on ZP Ćmielów data

[1] During 1992-1994 while export were stagnant,domestic sales were growing - in real terms (constant prices). In 1995 exports achieved higher growth.

Graph 15: Ćmielów's exports in USD mln.



source: Ernst & Young based on ZP Ćmielów data

Markets

In 1995, Ćmielów's four major foreign markets (Spain, Italy, France, Germany) accounted for 92% of its export On the domestic market, the sales of ZP Ćmielów are spread among numerous customers. In 1995, the 32 largest customers claimed less then 43% of the domestic sales.

Products

All major product categories recorded increased exports in 1995. During 1993–1995 the fastest growing ZP Ćmielów's product groups for export in real terms were: porcelain dinnerware sets and porcelain dinnerware sold separately. In the latter's case, their export share has grown from 10% in 1994 up to 37% in 1995.

During 1993–1995 the fastest growing ZP Ćmielów product groups on the domestic market, were: tea and coffee porcelain sets. The largest decline was recorded in the sales of complete sets of dinnerware.

Table 54. Ćmielów's export performance by main products

	1993	1994	1995
dinnerware sets e			
in 000's PLN	1084	2232	2564
sets	15673	30845	29389
in 000's USD	597,5	982,0	1057,4
tea and coffee porcelain sets			
in 000's PLN	441	328	674
sets	19326	5363	23003
in 000's USD	242,8	144,1	277,8
remaining tableware			
in 000's PLN		37	45
sets	n.a	n.a	n.a
in 000's USD		16,1	18,6
products sold separately			
in 000's PLN	1660	970	1909
in 000's USD	914,8	427,0	787,5
TOTAL			
in 000's PLN	3185	3566	5191
in 000's USD	1755,2	1569,2	2141,3

source: Ernst & Young based on ZP Ćmielów data

Tabel 55. Ćmielów's sales on the domestic market

		1993	1994	1995
porcelain dinnerware:	in 000's PLN (current prices)	1266	1533	1672
	in 000's PLN (constant prices)	2057	1870	1672
sets		8668	8006	9854
tea and coffee porcelain sets:	in 000's PLN	167	730	602
	in 000's PLN (constant prices)	269	891	602
sets		3029	8284	9089
Sets of plates:	in 000's PLN	183	276	396
	in 000's PLN (constant prices)	295	337	396
sets		5598	8532	8647
remaining tableware sets:	in 000's PLN	59	178	85
	in 000's PLN (constant prices)	95	217	85
sets		1573	4098	2141
dinnerware sold separately:	in 000's PLN	2205	2423	4169
	in 000's PLN (constant prices)	3556	2956	4169
TOTAL	in 000's PLN	3880	5139	6923
	const. prices in 000's PLN	6258	6271	6923

4.4 *Product portfolio*

ZP Ćmielów produces and sells too many products. Therefore the company can not achieve the positive effects of economies of scale. The over diversification of production and sales particularly concerns activities on the domestic market. On the basis of sales performance in the second half of 1995 we tried to identify the key Ćmielów products, that is those having at least a 5% share of total sales (table 8). In exports, the following key products can be distinguished:

- dinnerware (sets for 6 and 12 persons),
- plates sold separately,
- remaining products sold separately (in this category key products can not be defined, so relatively high specialisation is rather the effect of putting together a number of various products than the strong performance of a given product).

On the domestic market the best selling product is a low value added – white porcelain (almost 19% by volume and over 10% of total Ćmielów sales), which is sold for further processing to other companies.

Other key products are similar to those exported –but differ in quality – and include:

- dinnerware (sets for 12 persons)
- plate sold separately
- remaining products sold separately

Table 56. ZP Ćmielów specialisation areas

	domestic sales		export	
	volume	value	volume	value
Dinnerware sets for 6 persons	2.1%	3.5%	5.3%	4.5%
Dinnerware sets for 12 persons	6.0%	10.4%	16.7%	17.1%
Black coffee sets 6 persons	0.0%	0.1%		
Black coffee sets 12 persons	0.4%	1.10%	3.3%	4.0%
White coffee sets 6 persons	0.1%	0.10%	0.3%	0.4%
White coffee sets 12 persons	1.3%	3.67%	0.2%	0.3%
Mocca coffee 6 persons sets	0.0%	0.00%	0.1%	0.1%
Mocca coffee 12 persons sets	0.0%	0.01%	1.9%	2.8%
Cake 6 persons sets	0.1%	0.1%		
Cake 12 persons sets	0.1%	0.4%	0.2%	0.1%
Sets for serving fruits and juices (6 persons)	0.0%	0.0%	0.1%	0.1%
Sets for serving fruits and juices (12 persons)	0.0%	0.1%	0.1%	0.1%
Milk sets	0.0%	0.0%		
Plate sets	3.4%	2.9%		
Plates sold separately	7.6%	6.8%	6.0%	4.2%
Porcelain sold separately	7.8%	10.4%	15.8%	12.2%
Ornamental porcelain products	0.4%	1.3%	0.2%	0.3%
White porcelain	18.9%	10.3%		

Source: Ernst and Young data

If it is taken into account that each category includes a number of different product lines additionally split, due to technological factors, into 3 different quality classes, then Ćmielów product portfolio appears to be very fragmented and difficult to manage. For example Ćmielów, currently produces and sells 5 different styles of dinnerware set, which is more then during the last 10 years, which are additionally split into 3 quality classes.

We recommend reducing the current portfolio by eliminating from production:

- product categories having the smallest share of total sales
- some product lines within specific categories.

We also recommend ***reducing white porcelain sales*** to intermediaries who are just ornamenting the purchased white porcelain and selling it to final customers. There is no available data to verify the profitability of this. But since this is a highly value added part of the process and it is profitable for others it also should be the same for Ćmielów. By volume, in the second half of 1995 sales of white porcelain exceeded 157 tonnes and were 2.4 higher than sales of dinnerware sets on the domestic market. However revenues from the sales of the former were 25% lower then the latter. The comparison of those two figures shows, that the value of sales could increase substantially if Ćmielów are able to switch white porcelain into dinnerware or other sets directed towards final customers.

We understand that white porcelain which is sold to intermediaries is of low quality, and even after ornamenting – the quality would be inferior to other existing Ćmielów products. This could have a negative impact on the brand image. Therefore we recommend selling such products under separate brand name.

4.5 Prices

ZP Ćmielów receives substantially higher prices for the products sold on the domestic market then for export (table 9 and 10). In many product categories domestic prices are ***two or more times higher*** than export prices. The price comparison allows the conclusion that ***export prices are relatively low – as compared with the prices of white porcelain*** sold to intermediaries in Poland. For example in the second half of 1995, the price of 1 tonne of first class quality dinnerware was on average only 75% higher then the price of 1 tonne of white porcelain not meeting any quality standards sold on the Polish market.

The difference between prices received on local markets and in foreign transactions can be partially explained by the differences in decorations of products sold on the domestic and international markets. In the latter, Ćmielów is exporting products with relatively simple ornaments.
Nevertheless, the price comparison shows that if the company could switch part of its exports sales into domestic market sales, it would increase its revenues. There are two major factors limiting Ćmielów's involvement in the domestic market:

- cash flow problems (through exports, the company receives pre–payments);
- a still partially developed Polish market and the risk of not receiving payments.

Our recommendation is too undertake efforts to increase prices on international markets by:

- Changes in agreements with major foreign purchasers who have exclusivity in a given market should be made.
- Company should seek in a more active way foreign clients offering better prices.

- If it is impossible to negotiate better prices with existing clients, the company should negotiate changes in the structure of export orders in terms of quality. Instead of almost exclusive selling I class quality products for export, more II class quality products should be offered. Obtained I class quality products should be reallocated to the Polish market, thus increasing Ćmielów revenues and helping in the creation of a consistent – high quality brand image.

Table 57. Ćmielów prices on the Polish market (Export prices = 100)

	I class quality	II class quality
Dinnerware sets for 6 persons	217.2	205.2
Dinnerware sets for 12 persons	267.2	143.8
Black coffee sets 12 persons	444.8	131.9
White coffee sets 6 persons	197.8	104.3
White coffee sets 12 persons	251.1	150.6
Coffee Mocca 6 persons sets		138.6
Coffee Mocca 12 persons sets	1339.8	
Tea coffee sets	287.5	140.7
cake 12 persons sets	426.7	187.3
Sets for serving fruits and juices (6 persons)		101.2
Sets for serving fruits and juices 12 persons	789.2	
Remaining 6/12 persons sets	435.0	101.2
Plates sold separately	277.1	116.0
Porcelain sold separately	289.1	164.0
Ornamental porcelain products (without distinction into classes)	133.2	

Source: Ernst and Young based on Ćmielów data

Tabel 58. Ćmielów relative export prices (white porcelain prices sold on domestic markets =100)

	I class	II class
Dinnerware sets for 6 persons	154.4	150.7
Dinnerware sets for 12 persons	186.3	184.0
Dinnerware sets	176.1	183.2
Black coffee sets 6 persons		
Black coffee sets 12 persons	210.0	246.8
White coffee sets 6 persons	242.1	226.8
White coffee sets 12 persons	248.7	255.2
Coffee Mocca 6 persons sets	288.7	292.4
Coffee Mocca 12 persons sets	277.8	278.0
Tea coffee sets	235.8	256.1
Cake 6 persons sets		
cake 12 persons sets	167.4	172.9
Sets for serving fruits and juices (6 persons)	234.9	228.6
Sets for serving fruits and juices 12 persons	198.4	
Milk sets		
Remaining 6/12 persons sets	179.5	224.2
Plates sold separately	126.1	132.0
Porcelain sold separately	149.4	136.7
Ornamental porcelain products (without distinction into classes)	379	

Source: Ernst and Young based on Ćmielów data

4.6 Quality

Ćmielów being the smallest manufacturer of porcelain with a high orientation towards the domestic market is in a good position to provide quality improvements to serve the medium and upper end segments of the Polish market. This however requires high quality delivered to local customers. Detailed analysis of products sold on the domestic market in the second half of 1995 reveals that to the local customers second class products (in terms of quality) are being offered (table below). If in the long term Ćmielów wants to build its competitive advantage on quality factors, therefore, the current policy should be changed and more top quality products should be offered on the Polish market. First class products are offered mainly to foreign customers .

Table 59. Share of sales on the domestic market in total sales by major product groups and quality classes (total sales within each product group =100%).

	I class quality		II class quality		III class quality	
	volume	value	volume	value	volume	value
Dinnerware sets for 6 persons	0.5%	0.9%	27.5%	43.0%		
Dinnerware sets for 12 persons	6.6%	14.8%	18.8%	22.6%	0.9%	0.6%
Black coffee sets 6 persons	63.3%	80.7%	27.8%	15.9%	8.9%	3.4%
Black coffee sets 12 persons	3.4%	12.6%	7.0%	9.1%	0.0%	0.0%
White coffee sets 6 persons	0.7%	1.5%	13.7%	13.7%	4.1%	3.6%
White coffee sets 12 persons	43.3%	57.8%	41.4%	34.1%	0.0%	0.0%
Mocca coffee 6 persons sets			0.2%	0.3%	0.2%	0.2%
Mocca coffee 12 persons sets	0.0%	0.4%			0.0%	0.0%
Cake 6 persons sets	0.3%	2.6%	99.7%	97.4%		
Cake 12 persons sets	34.0%	66.9%	6.0%	5.3%		
Sets for serving fruits and juices (6 persons)			32.7%	32.8%		
Sets for serving fruits and juices (12 persons)	10.3%	45.8%	13.1%	11.0%	0.4%	0.3%
Milk sets			100.0%	100.0%		
Plate sets	2.9%	7.1%	96.9%	92.8%	0.2%	0.1%
Plates sold separately	3.4%	8.0%	49.5%	51.4%	3.3%	2.3%
Porcelain sold separately	3.7%	9.1%	28.1%	35.9%	1.2%	0.9

Source: Ernst and Young based on Ćmielów data

Table 60. Share of exports in total sales by major product groups and quality classes (total sales within each product group =100%).

	I class quality		II class quality		III class quality	
	volume	value	volume	value	volume	value
Dinnerware sets for 6 persons	70.1%	54.7%	1.9%	1.4%		
Dinnerware sets for 12 persons	48.4%	40.9%	25.3%	21.1%		
Black coffee sets 6 persons						
Black coffee sets 12 persons	67.6%	56.6%	22.1%	21.7%		
White coffee sets 6 persons	40.8%	42.0%	40.7%	39.2%		
White coffee sets 12 persons	14.1%	7.5%	1.1%	0.6%		
Mocca coffee 6 persons sets	39.6%	39.2%	60.0%	60.2%		
Mocca coffee 12 persons sets	74.6%	74.2%	25.4%	25.3%		
Cake 6 persons sets						
Cake 12 persons sets	58.5%	27.0%	1.6%	0.8%		
Sets for serving fruits and juices (6 persons)	16.1%	16.4%	51.2%	50.8%		
Sets for serving fruits and juices (12 persons)	76.2%	43.0%				
Milk sets						
Plate sets						
Plates sold separately	19.7%	16.8%	24.0%	21.5%	0.3%	0.1%
Porcelain sold separately	39.5%	33.7%	24.7%	19.2%	2.8%	1.3%

Source: Ernst and Young based on Ćmielów data

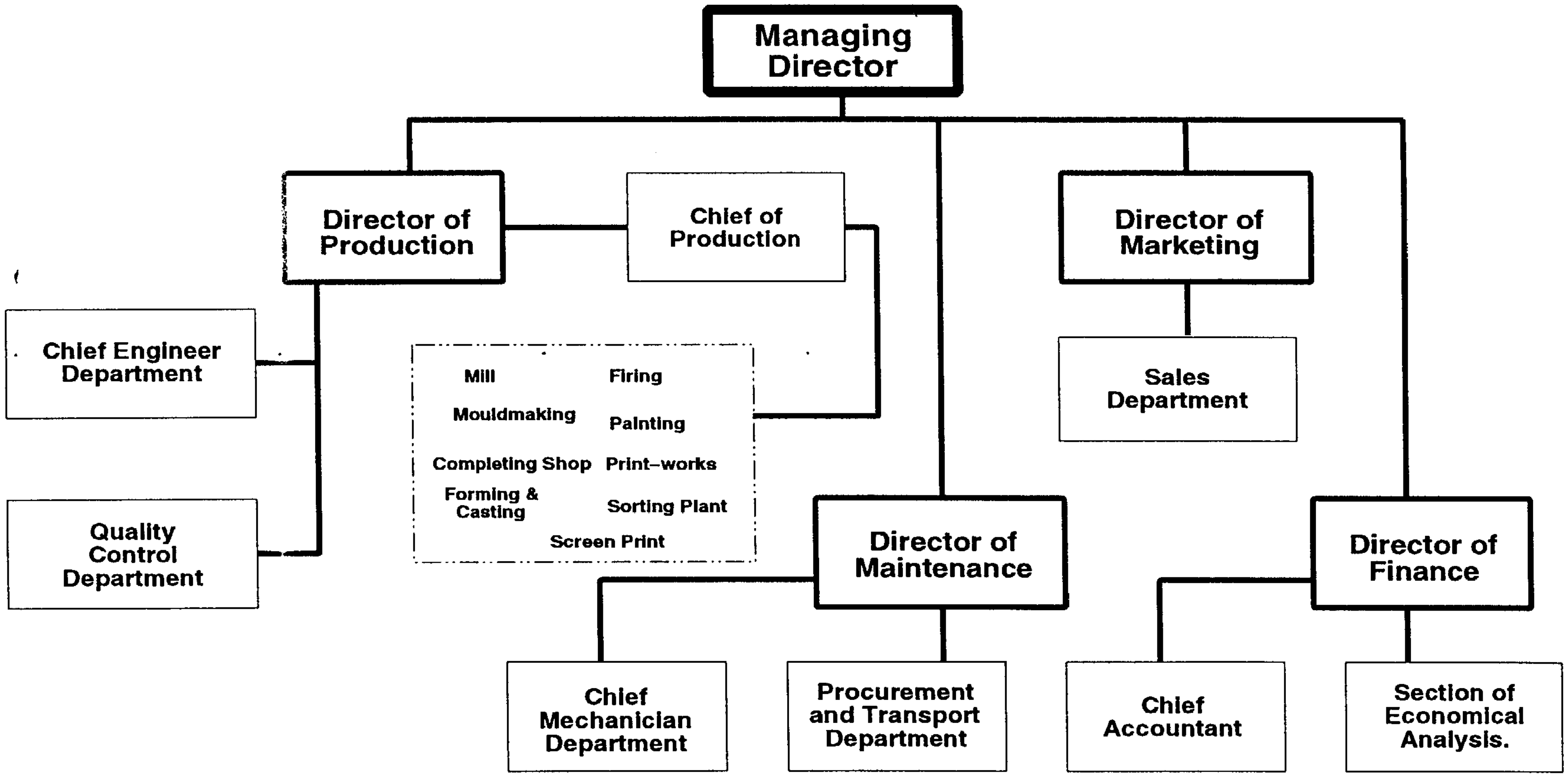
5. MANAGEMENT AND ORGANISATIONAL ANALYSIS

5.1 Organisation structure of ZP "Ćmielów"

The current organizational structure of ZP "Ćmielów" was introduced on January 1, 1995. Four departments have been created, each headed by the deputy director.

These departments are: Production, Maintenance and Investments, Marketing and Sales and Finances.

There are also separate units directly under supervision of the Managing Director: Workers' Affairs unit, the Office of the Managing Board, Safety and Hygiene Specialist and the Designe Unit.


Managing Director
Director of Production
Chief of Production
Director of Marketing
Chief Engineer Department
Quality Control Department
Mill
Firing
Mouldmaking
Painting
Completing Shop
Print-works
Forming & Casting
Sorting Plant
Screen Print
Sales Department
Director of Maintenance
Director of Finance
Chief Mechanician Department
Procurement and Transport Department
Chief Accountant
Section of Economical Analysis.

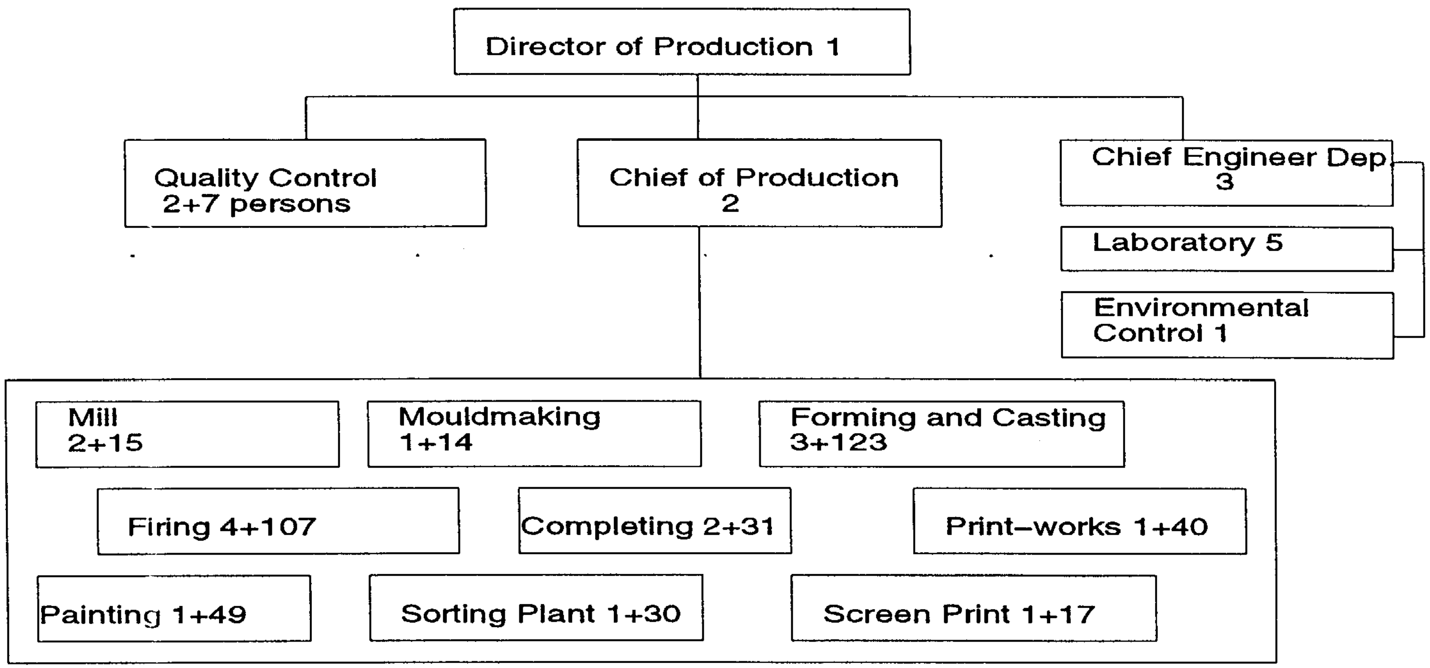
5.1.1 Production Department

By number of employees it is the largest department in the factory. It employs 18 administration and 426 direct labor workers. Considering the number of employees, the largest parts of the production section are: forming and casting – 126 employees, firing – 111 persons and painting – 50 persons.

Director of Production supervises the performance of the production processes and the utilisation of materials. This person has also the position of the first deputy of the Managing Director. Director of Production directly supervises: the Chief Engineer section, Quality Control Section and the Chief of Production.

Location of the quality control under the direct supervision of the Director of Production does not seem to be logical. Director of Production being responsible for the whole production process should not supervise the Quality Control Section that should provide independent information on certain weaknesses in the production. Therefore, the quality control should rather be placed under direct supervision of the Managing Director.

Organisational structure of Production Department



5.1.2 Maintenance and Investments Department

It employs 13 administration and 71 direct labor workers. Director of this department supervises: the Chief Mechanician Section and Procurement and Transportation Section. The section of Chief Mechanician employs 62 workers and consists of 3 units: mechanical, electric and gas and heat engineering. Procurement and Transportation Section employs 22 workers and is responsible for supply the factory with materials.

Director of Maintenance and Investments is responsible for developing and executing the company's investments'plans. It starts with the plans of modernisation and development, then goes through preparation of legal/ investment documentation, signing of investment agreements, and finally supervision of the investment.

5.1.3 Marketing and Sales Department

There are 47 employees in Marketing and Sales Department including 14 administration and 33 direct labor workers. The department consists of the Sales Section and the Marketing Section.

Sales Section (only 7 employees) deals with both domestic and export sales. It cooperates on the ongoing basis with the Production Department providing it with orders identified through contacts with customers.

Newly established Marketing Section is in the preliminary stage of development and employs only two persons. It is envisaged that this section will in future deal with promotion and advertisment of "Ćmielów"'s products.

5.1.4 Financial Department

This department has 20 employees. Financial Director supervises: the section of Chief Accountant responsible for book-keeping and the Economic Analyses Section. The latter employs only 3 workers and is responsible for providing management with various economic and financial analyses.

The post of the Financial Director is not occupied at present. Mrs. Leszczyńska, who was the last Financial Director worked in company only for three months. She left in the end of January and since then the company has problem with hiring a suitable person for this position.

The organizational structure of "Ćmielów" seems to be too complicated. Some of the functions of Maintanance and Investments Department could be transferred to Production Department and some could be contracted out. Quality control section should report directly to Managing Director.

5.2 Human Resources

According to data of December 31, 1995, the number of employees in ZP "Ćmielów" was 635. There were 419 of direct labor (66% of the total), 97 of indirect labor and 119 of administration.

Table 61. Employment structure by number of emloyment years in" Ćmielów"

Year	up to 2 years	3–10 years	11–20 years	21–30 years	over 30 years
1993	89	154	289	99	24
1994	88	159	288	96	24
1995	61	168	294	96	1

source: BMF based on ZP Ćmielów data

The dominating group in ZP "Ćmielów" are workers with 11–20 years of employment in the company; they constitute 46 % of all employees.

Table 62. Employment structure by age of workers

Year	up to 25 years of age	25–35 years	36–45 years	over 46 years of age
1993	122	246	199	88
1994	118	248	203	86
1995	95	226	232	82

source: BMF based on ZP Ćmielów data

Considering the age of workers, in ZP "Ćmielów", two groups are domineering: 5–35 years of age and 36–45 years. Yearly production plans and planned parameters of productivity are used for planning changes in the employment level. Plans may assume increase or decrease of the number of employees in the certain production units.

"Ćmielów" does not have the effective employement policy. Low level of wages and poorly developed local labor market are the main causes for the company's problems with hiring highly skilled employees, especially for the financial and marketing and sales functions.

Workers in the Production Department are highly skilled and experienced. Their knowledge of porcelain production is probably one of the company's strengths.
The company should try to develop the effective wage system that should provide incentives for specialists to accept a job in "Cmielów".

5.3 *Management*

The company is currently managed by the team consisting of the Managing Director and three Deputy Directors:

Managing Director	Mgr. inż. Wanda Koziarz	Specialist in ceramic production; academic degree from Akademia Górniczo–Hutnicza in Kraków. Ms. Koziarz has been working in "Ćmielów" since 1976; since 24 November 1994 as a Managing Director
Deputy Director	Mgr. inż. Halina Batugowska	Head of the lgowska has been working in "Ćmielów" since 1974, at the current position since 18 December 1994.
Deputy Director	Mgr. Mieczysław Stan	Head of the Marketing and Sales Department. MA in economics from Uniwersytet im. Marii Curie–Skłodowskiej in Lublin. In "Ćmielów" since 1981; at the current position since 18 December 1994.
Deputy Director	Mgr. inż. Jan Radoń	Head of the Maintanance and Investments Department. MSc. from the Politechnika Śląska. In "Ćmielów" since 1981, at the current position since 18 December 1994.

The organizational structure includes the position of the Deputy Director responsible for the Financial Department. This position is currently vacant and the company has problems with identifying the suitable candidate. The lack of Financial Director is a serious problem having a negative impact on the quality of overall management.

5.4 *Management Information System*

"Ćmiel6w" does not have the modern management information system. Existing system is based on the manual gathering, recording and processing data. Generation of reports is slow and data is not always reliable.
Tables below show the data generated by the main departments of factory:

Production Department: – plan accomplishment data; – information on the production quality; – final accomplishment of monthly plan; – labour employment data for all production units;	**Managing Director**	Production Department: – annual production plans; – monthly production plans; – plans of reparis;
Sales and Marketing Department: – information on the accomplishment of sales plan (once a week); – information on the accomplishment of the monthly sales plan;		Sales and Marketing Department: – annual sales plans; – monthly sales plans;
Maintenance and Investment Department: – proposals of the annual and monthly reapirs plans;		Maintenance and Investment Department: – annual and monthly repairs plans;
Financial Department: – daily cash statements; – proposals of outlays; – monthly plan of outlays divided by days; – monthly financial statements;		Financial Department: – order of payments;

Sales and Marketing Department:
- annual sales plans;
- monthly sales plans;
- annual sales plan diviede by production orders;

Maintenece and Investemnt Department:
- proposal of the annual and monthly repairs plans;
- proposal of purchase of raw materials;
- information on the accomplishment of the repairs plans;

Financial Department:
- monthly plan of outlays divided by days;
- monthly financial statements;

every days meetings chief of production and chief of sales

Production Department

Sales and Marketing Department:
- basic information for building monthly and annula sales plans;

Maintenece and Investemnt Department:
- request for supplies of raw materials and materials;
- request for repairs;
- twice a month information about made repairs;
- current reapirs needs;

Financial Department:
- plan accomplishment data;
- information about accomplishemnt production plans from all production units;

Production Department:
- plan accomplishment data;
- information on the accomplishemnt production plans from all production units;

Sales and Marketing Department:
- information on the accomplishment sales plans;
- income estimates;
- invoices;

Maintenance and Investment Department:
- information on the planned repairs;
- information on the planned in month layouts;

Financial Department

Production Department:
- montly plan of outlays divided by days;
- monthly financial statements.

Sales and Marketing Department:
- monthly plan of outlay;
- monthly financial statements;
- list of receivables;
- book with invoices;

Maintenance and Investment Department:
- monthly financial statements;

Restructuring Program – Diagnostic

Production Department:
- request for supplies of raw materials and materials;
- request for repairs;
- twice a month information about made repairs;
- current reapirs needs;

Sales and Marketing Department:
- orders of packages;
- orders for transport;

Financial Department:
- monthly financial statement;

Maintenance and Investment Department

Production Department:
- proposal of the annual and monthly repairs plans;
- proposal of purchase of raw materials;
- information on the accomplishment of the repairs plans;

Sales and Marketing Department:
- annual sales paln;
- monthly sales plan;

Financial Department:
- information on the planned repairs;
- information on the planned in month layouts;

Production Department:
- basic information for building monthly and annual sales plans;

Maintenance and Investment Department:
- information on the available transport;

Financial Department:
- monthly plan of outlay;
- monthly financial statements;
- list of receivables;
- book with invoices;

every days meetings chief of production adn chief of sales

Sales and Marketing Department

Production Department:
- annulan sales plans;
- monthly sales plans;
- annual sales plan divided by production orders.

Maintenance and Investment Department:
- orders of packages;
- orders for transport;

Financial Department:
- information on the sales results;
- estimates of revenues;
- invoices;

Financial Department does not generate information required for the effective management of the company. For example: there is no detailed information on costs and profitability of the separate product lines. As a result some important decisions are made on the base of intuition rather than knowledge.

Individual departments have their own systems of gathering data but these systems are not coordinated and combined together. Different organizational units possess certain pieces of information, but the use of this information is very difficult due to the lack of integrated, coordinating structure.

"Ćmielów"'s MIS is clearly one of the weak points of the company and this problem will have to be analysed in details and adressed in the course of the restructuring process.

5.5 *Rewards and Motivation*

The wage system being currently used in ZP "Ćmielów" consists of two sub–systems: for direct labor and for the administration.

Remuneration of the administration employees is based on three elements: the basic salary, an addition linked to the role in factory (for inspectors and supervisors) and a long service bonus. The latter is paid to employees who have been working in the company for over than five years; for the each year after the fifth one, the 1.5% of the basic salary is paid monthly as a bonus.

The company's wage regulation allows to pay other bonuses to the employees, but due to lack of cash there have been no such additional bonuses lately.

The current system is not particularly motivating for the administration workers. The employee can be fired in case of non acquittance of duties and can get a rise in salary when is committed. In fact it is a common thing, that almost everyone gets a rise. On the other hand, emloyees with the same position have different salaries, due to different employee valuation methods being used by directors. The supervisors' salary ranges from 350 PLN to 425 PLN.

System of wages for the production workers is based on a basic piece work. The wage is calculated by multiplication of pieces made and the rate for each specified piece or kilogramme. Wages of the rest of manual workers are based on personal pay grid.

Apart from the basic wage, direct labor workers get many additions:

- the long service bonus (based on the same rules as for the administration)
- addition for work on the second shift (10% of the basic wage)

- addition for work on the night shift (50% of the basic wage – referred to the limited number of stokers)
- work clothing laundry and personal hygiene products allowance of 40 PLN (after minimum one month of work)
- milk allowance (both for administration and direct labor – 20 PLN but the actual amount correlated with milk market price)
- addition for work in noxious conditions, calculated basing on the lowest remuneration in national economy: I degree of noxiousness 10%, II degree of noxiousness 15% and III degree of noxiousness 20% of the lowest remuneration in national economy. In ZP Ćmielów the I degree of noxiousness is dominating.

There are no motivation systems in ZP "Ćmielów" apart from wages based on the piece work system – 'the more you do the more you earn'. Wage structure is deformed by long service bonuses which equal to approximately 17% of the total wage bill. Employees who work in "Ćmielów" for a long time and have comparable skills to those who just started their work, may earn even 60% more than newcomers. Such system clearly provides disincentives for young and newly employed workers.

It is our opinion that in future the new wage system should be introduced. It should agressively motivate the best employees while penalizing those who are continuously ineffective. It is strongly recommended that the long service bonuses which darken the rules of remuneration system should be replaced with bonuses directly linked to results of employees' work.

6. TECHNOLOGY AND THE PRODUCTION PROCESS

6.1 Production Process

Each raw material used in the body, when arriving at the factory, is stored in covered storage pens. All the raw materials are ready for immediate processing and do not require any pre–treatment.

The materials on arrival at the factory are stored undercover in the material storage pens located in the main slip preparation area. The body recipe is determined by the laboratory after testing each of the materials for their quality. The feldspar and quartz are proportioned directly into the ball mills, by weighing each material, where, with the addition of the correct amount of water, they are ground for a period of 12 to 14 hours to the correct particle size and pumped to the mixing tank. Biscuit scraps are also added to ball mills to the required percentage for the plastic and castware body recipes.

Eleven ball mills are installed with the stated size of 2.00 m dia x 2.00 m long and having a nominal capacity of 4.50 m . Four to five mills are used for plastic clay production, two mills for casting slip body and two mills for glaze production. The remaining two mills were stated as being in reserve. The speed of the mills was given as 18 rpm.

The kaolins are weighed and fed directly to the blunger where, after the correct addition of the required amount of water, they are blunged to the required consistency and then pumped to the mixing tank.

The feldspar, quartz and kaolins are mixed for a period of 1.5 to 2.0 hours and then pumped, over a sieve and magnet, to the storage tank. The prepared body is then pumped to the filter presses for de–watering.

The clay cakes are then fed to the de–airing extruders to produce the clay at 23% moisture content and to the correct diameter and length for cup and flatware making. The requirement for plastic making was stated as 21 tonnes per day.

Casting slip is pumped to the required casting location, Lippert casting machine and bench casting to produce the required castware items. The requirement for castware production was stated as 6 to 7 tonnes per day.

Glaze is produced as a transparent raw glaze by milling the required materials in the ball mill and grinding for a period of 70 to 80 hours.

Fabrication of the plastic formed items cups, saucers, small, medium and large plates is carried out on conventional semi–automatic making machines. Drying of the made item is on conveyor dryers. Hand Jiggers are used for small run items and drying is done by simple rack type dryers. Outputs for the making machines was given as 2,500 to 3,000 pieces per 8 hours for cups and 2,500 pieces per 8 hours for flatware. Handles for the cups are cast and applied manually. All finishing of the ware, sponging and towing after drying, is done manually.

Castware items are produced on Lippert conveyor casting machine incorporating inline drying. Output of the 'flat Lippert' was given as 350 to 480 items per 8 hours. Output of the 'deep Lippert' was given as 1,150 to 1,360 items per 8 hours, depending on the size of the item. All fettling and finishing of the ware is done manually.

After drying, the ware is transported from the first floor to the biscuit tunnel kiln on the ground floor to be fired. This kiln, which is fired by direct flame natural gas, fires to a temperature of 900íC. The firing time is 24 hours and it is stated that the maximum capacity is 3,000 tonnes per annum.

Following the biscuit firing the ware is sorted and selected; the selected ware is then brushed manually and the items hand glazed. Flatware is then placed on the appropriate setter and positioned on an overhead chain conveyor to be transported to the glost kiln. At the glost kiln location it is removed from the conveyor and placed onto the glost kiln where it is fired by natural gas, in a reducing atmosphere, to a temperature of 1,400íC. The cycle time for preheating, firing and cooling being 40 hours. The capacity of the kiln at this cycle time was given as 1,700 tonnes per annum.

The kiln cars in both the biscuit and glost kilns are propelled through the kiln with hydraulic pusher gear. All kiln cars outside the kilns are moved manually.

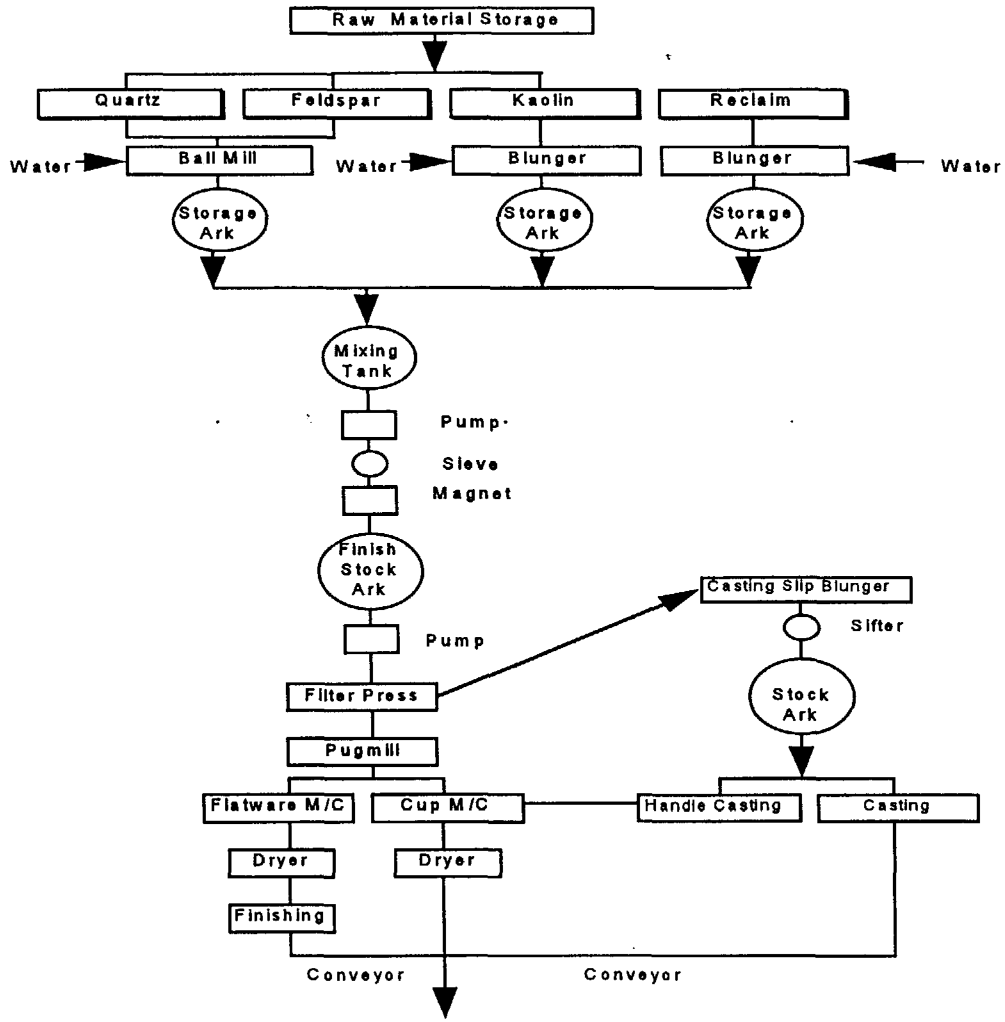
A chamber kiln having a capacity of 12 m3 has been installed for glost firing. This kiln is fired by natural gas, in a reducing atmosphere and the kiln cars are moved into and out of the kiln by mechanical means. The capacity of the kiln is stated as 850 kg per cycle.

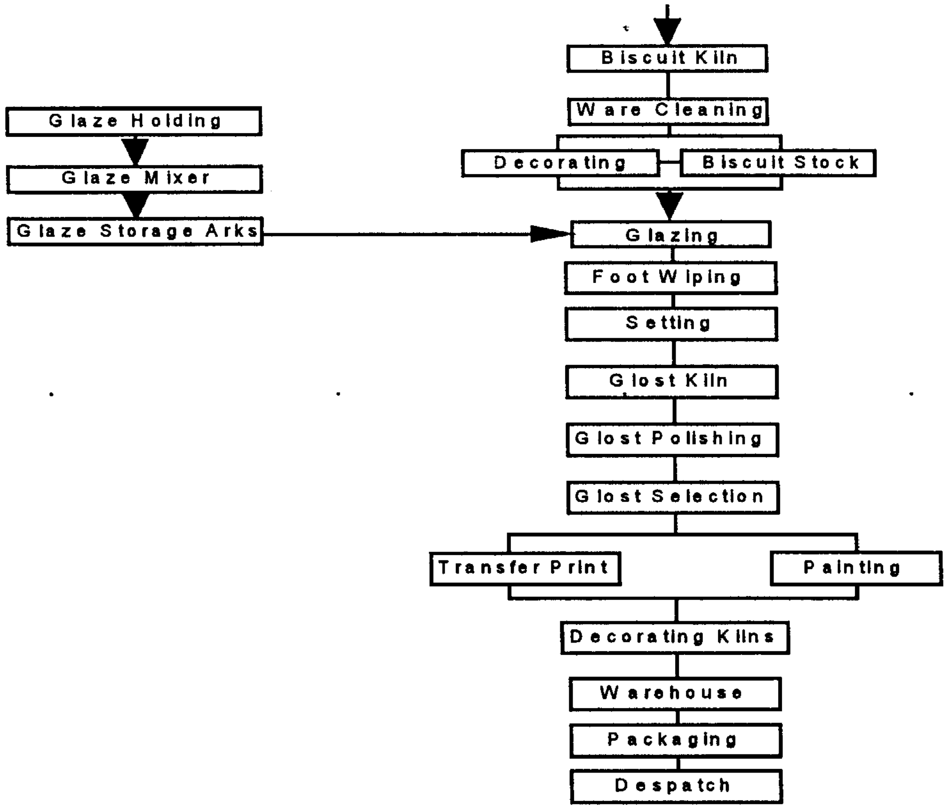
After firing the ware is selected according to the quality grades

All ware for decoration is transported to the department for the required decoration. After decoration the ware is fired in one of four kilns, two kilns are fired by natural gas and two are fired by electricity. The temperature of the kilns was stated as 760íC to 900íC depending on the temperature required for the particular decoration. The capacity of each kiln was stated as 750 tonnes per annum. n under glaze decorating kiln is also installed in the decorating section which is not in workable order and needs major repair work.

After decoration the ware is marshalled to orders and transported to the packing and despatch building.

The process in the factory is summarised in chart form:


Raw Material Storage
Quartz
Feldspar
Kaolin
Reclaim
Water
Ball Mill
Water
Blunger
Blunger
Water
Storage Ark
Storage Ark
Storage Ark
Mixing Tank
Pump
Sieve
Magnet
Finish Stock Ark
Pump
Filter Press
Casting Slip Blunger
Sifter
Stock Ark
Pugmill
Flatware M/C
Cup M/C
Handle Casting
Casting
Dryer
Dryer
Finishing
Conveyor
Conveyor


Biscuit Kiln
Ware Cleaning
Decorating
Biscuit Stock
Glaze Holding
Glaze Mixer
Glaze Storage Arks
Glazing
Foot Wiping
Setting
Glost Kiln
Glost Polishing
Glost Selection
Transfer Print
Painting
Decorating Kilns
Warehouse
Packaging
Despatch

6.2 *Main Equipment*

6.2.1 *Raw Material Preparation*

Ball Mills: Eleven ball mills are installed 2.0 metres diameter, 2.0 metres long having a nominal capacity of 4.5 m3 , five of which have rubber linings. The general mechanical condition of the mills appeared quite sound. No examination could be made on the linings and it is understood that it is planned to rubber line the remaining six mills. The date of installation of the mills is given as: 1963 (1), 1967 (1), 1973 (1), 1975 (1), 1977 (6), 1979 (1).

The speed of the mills was given as 18 rpm. This mill speed is usually associated with ball mills of this diameter when installed in the paint industry. It is usual in the ceramic industry for the grinding speed to be 22 to 24 rpm.

Filter Presses: Three filter presses are installed and provide a pressed clay cake of uniform moisture content. The date of installation of the presses is given as: 1936 (1), 1963 (1), 1991 (1).

It was reported that the older press is in need of hydraulic gear overhaul.

Agitator Units: The gear boxes appeared in good condition and it was reported that the blades need regular maintenance.

De–Airing Pugmills: Four de–airing pugmills are installed, two of which were reported to be working satisfactory and providing homogeneous de–aired clay body. These were installed in 1981/1982. The two pugmills models PVP 35 installed in 1982/1985 were reported to be defective due to a manufacturer's defect.

This problem should be investigated further, to determine if modifications can be carried out for this equipment to perform as required.

Pumps: The general condition of the pumps appeared to be good. However they do require regular maintenance and the necessary spare parts.

Vibrating Sieves: The sieves and magnets were in good condition and were well maintained.

6.2.2 *Plastic Forming*

The majority of flatware is made on the semi–automatic roller making machines. Two machines are positioned by a conveyor dryer. The machines produce at a rate of 2,300 pieces per day for 25 cm plates to 2,600 pieces per day for 21 cm plates. The dryer holds 1,600 moulds. These machines were installed in the late 80Ňs and do require high maintenance and spare parts to minimise break down.

Other semi–automatic machines are located by simple mangle dryers with no humidity control and by truck chamber dryers. Three machines were installed in the 60s and the remainder in the 70s, all requiring high maintenance and spare parts. A four head automatic roller making machine with integral dryer is installed but is not working due to mechanical problems and lack of spare parts.

Cups are made on a semi automatic roller machine and are dried by conveyor dryer. The machine produces at the rate of 2,500 to 3,000 pieces per day. All machines are requiring high maintenance and spare parts as they were installed in the 60s, 70s and 80s.

6.2.3 Casting

The majority of the casting is done on the Lippert automatic casting conveyors. One is used for large castware items and the other for dishes. Both were installed in 1976 and appeared well maintained, although due to the age, of some 20 years, it would appear that spare parts for these casting conveyors are becoming very difficult to obtain.

A Lippert plaster blender is installed in the mouldmaking department. This is a computer controlled system for the proportioning of the plaster/water ratio and is connected to mould pouring and setting turntables. It was in very good condition and well maintained to provide moulds for both casting and plastic forming.

6.2.4 Kilns

Biscuit Kiln: The biscuit kiln was installed in 1962 and it is understood that no repair work has been carried out on the kiln since its installation. It is reported that this kiln is in a critical condition. The kiln appeared to be firing evenly over its cross–section according to information from the laboratory. The temperature is checked by placing cones, to give squatting temperatures, on the kiln cars. No information can be given on the condition of the refractories in the firing zone until it is cooled. The instrumentation for temperature control is old and is out dated. The general housekeeping in the kiln area was good.

Glost Kilns:

The glost tunnel kiln was also installed in 1962 and it is understood that a major repair was carried out to the firing zone in 1987. The temperature is checked by placing cones, to give squatting temperatures, on the kiln cars. The instrumentation for temperature (flame) control is old and is out dated. It is proposed that Bullers Rings are used to provide more accurate information on the cross–sectional temperature in the firing zone. The general housekeeping in the kiln area was good.

The glost chamber kiln was installed in 1993. This kiln, which has a low thermal mass lining, is in good condition and the kiln cars are moved into and out of the kiln by mechanical means.

Decorating Kilns:

Four on–glaze decorating kilns are installed. The first in 1960 and is fired by gas. Two kilns were installed in 1964, one fired by gas and the other fired by electricity. The fourth kiln was installed in 1975 and fired by electricity. These kilns are of average condition, however the metal baskets, holding the decorated ware as it is fired in the kilns, are in need of repair.

An under glaze decoration kiln is also installed in the decorating section which is not in workable order and needs major repair work. This kiln after renovation would have a capacity of 1.8 tonnes per 24 hours.

6.3 *Labor Factor*

The factory is over staffed with the labour deployment given as follows:

	Plan	Actual 1/3/96		Plan	Actual 1/3/96
Mill	15	13	Laboratory	5	4
Mouldmaking	16	12	Quality Control	7	6
Forming	70	57	Mechanical	26	24
Casting	54	42	Electrical	29.5	19.5
Firing	106	66	Transport	12.5	8.5
Selection	25	19	Marketing	6	6
Painting	49	40	Procurement	3	3
Litograph	39	33	Finished Stock	8	7
Pregnant	7	1	Service	3	3
Decoration Firing	30	21	Office	2	1
Packaging	20	19	Union	2	1
Screen Print	18	17	Administration	89.75	69.75
Design	5	2			
			total:	**647.75**	**494.75**

It is difficult to assess the actual extent of the excessive labor in "Ćmielów". The fact is that "Ćmielów"'s production in tons per employee is the half of the number for other Polish factories like "Wałbrzych" or "Karolina". Similar in size and technology porcelain factory in Poland – "Bogucice", employs only 360 workers. This would be also the right number of employees for similar plant in Western Europe.

According to company's management, the high level of employement is justified by the following facts:

- "Ćmielów"'s technology is obsolete and highly labor intensive
- most of the machinery and equipment are old and require intensive maintanance
- the company is not computerized; administration functions are performed manually and require more labor

Although these arguments seem to be rational, there is doubt that the company employs too many people. It is possible that management's reluctance to cut labor comes mainly from the fact that "Ćmielów" is the major employer in the community with the relatively high unemployment level.

We recommend conducting by management detailed analysis of "Ćmielów"'s labor force. It should examine all jobs, section by section and should lead to conclusions about possible savings.

6.4 *Investment needs*

6.4.1 *Technical constraints*

The factory as is now operated, is in a serious state for the following reasons:

- the biscuit kiln is in a critical condition and it is not known how long this will last
- the glost kiln was installed at the same time as the biscuit kiln in 1962. However, in 1987 a renovation was carried out in the firing zone; the instrumentation is still as installed with ancient flame control
- the fabrication equipment, roller making machines and dryers are of old design and will need replacement to maintain outputs; this is particularly true for cup making
- the overall layout of the factory is poor and results in excessive interprocess handling with clayware being moved from the first floor to be placed on to the biscuit kiln cars kiln cars for both biscuit and glost are all moved outside the kiln area by manual labour

6.4.2 *Company's Investment Plan*

The need to improve the plant and reduce labour were foreseen by the management in 1989 when a restructuring plan was formulated. The layout of this plant is shown on the factory layout Drawing No ZT 6836.

since 1989 to 1991 – a new hall was built

1989 to 1993	–	a new boiler room was built
1995	–	a new glost chamber kiln was built 12m3

For the factory to compete in the future it is most important that some investment plan is implemented. This is essential if the factory is to maintain its present output and quality.

It is considered that the restructuring plan, as submitted by management, is a sensible way to proceed with the modernisation of the factory. The plan is proposed in 3 stages.

Stage 1
- prepared body pumped 120 metres to new location of filter press and extruder; this building has already finished body tanks set into ground
- installation of Spray Dryer and Isostatic Press for flatware – one – spray dryer to have capacity to feed additional machines
- new Cup Plant
- new Lippert Pressure Casting Unit
- existing Chamber kiln brought into use increasing the output from 1,700 tonnes per annum to 2,040 tonnes per annum. Conveyor track for glost kiln to convey trucks to and from making machines

Stage 2
- new glost kiln in the location of the old Gibbons Bros Kiln
- existing glost kiln to fire biscuit

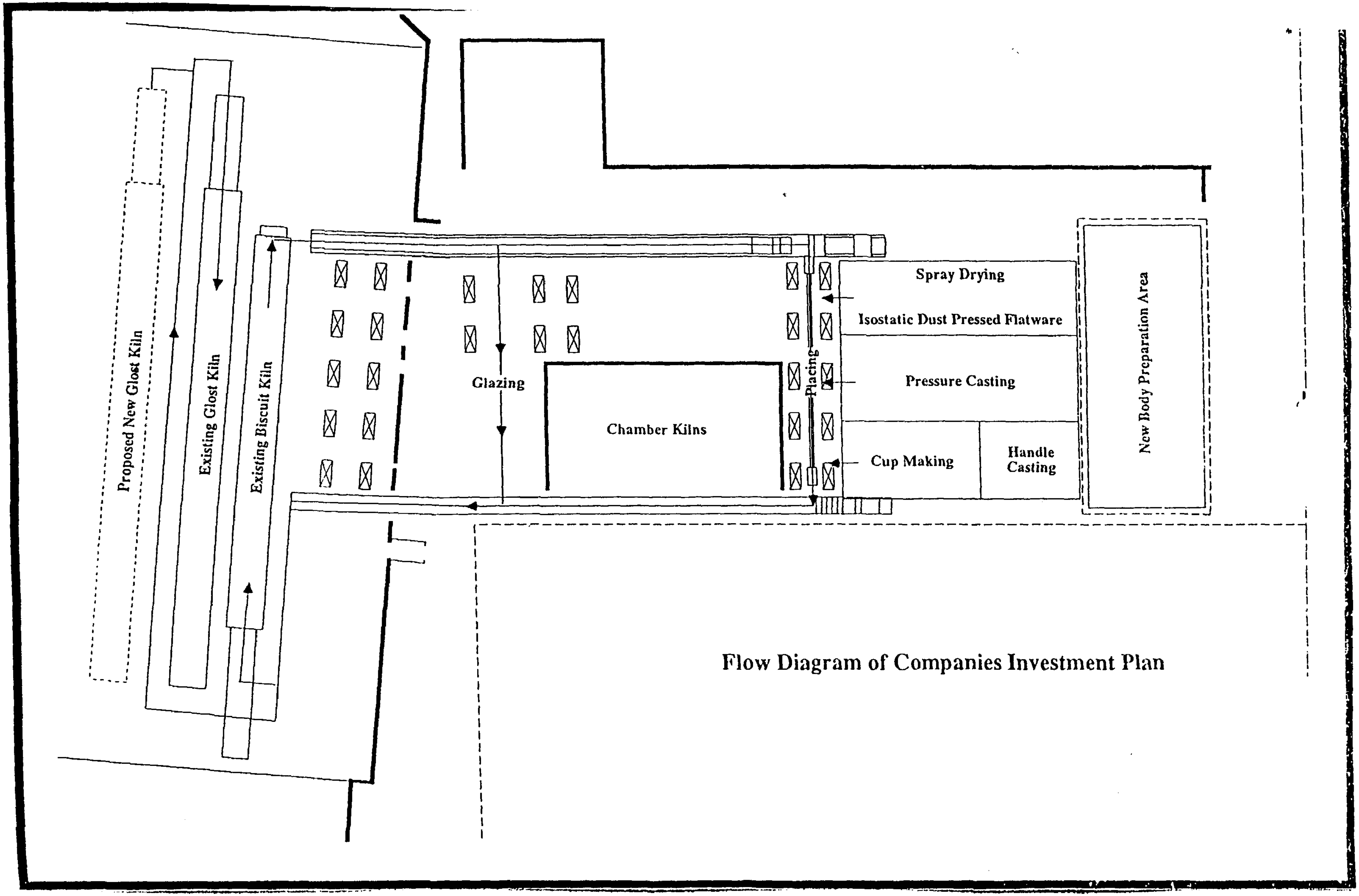
Stage 3
- installation of 2 Isostatic Presses
- new Chamber kiln installed
- installation of new Lippert Pressure Casting System
- raw material storage, milling, mixing and body preparation relocated

The completion of Stage 3 would increase production to 2,500 tonnes per annum with first quality increased to 70%. It is estimated by management that the labour required to operate the factory could be reduced by 100 to 535.

The equipment proposed, by the company, to improve the forming is the use of Isostatic Dust Pressing for flatware. This is the most advanced of all pottery forming methods and expensive. The advantages of this method of forming are summarised as under:

- no plaster moulds are required the dies and flexible membranes outlast plaster moulds, thus bringing about a reduction in cost
- less factory space is required as no mould storage is needed
- better utilisation of the body material due to elimination of clay scraps
- no shrinkage of the body occurs before firing as no drying is needed
- better size control of the item

A diagram of the production flow from making to glost firing on the proposed ground floor plan is shown on the following page:



Flow Diagram of Companies Investment Plan

21681 (2of2)

Zakłady Porcelany "Ćmielów"

RESTRUCTURING REPORT

A BRITISH KNOW–HOW FUND PROJECT EXECUTED BY
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION WITH THE SUPPORT OF
THE POLISH INDUSTRIAL DEVELOPMENT AGENCY

ĆMIELÓW

Part II – RECOMMENDATIONS

September 1996

53p. tables diagrams

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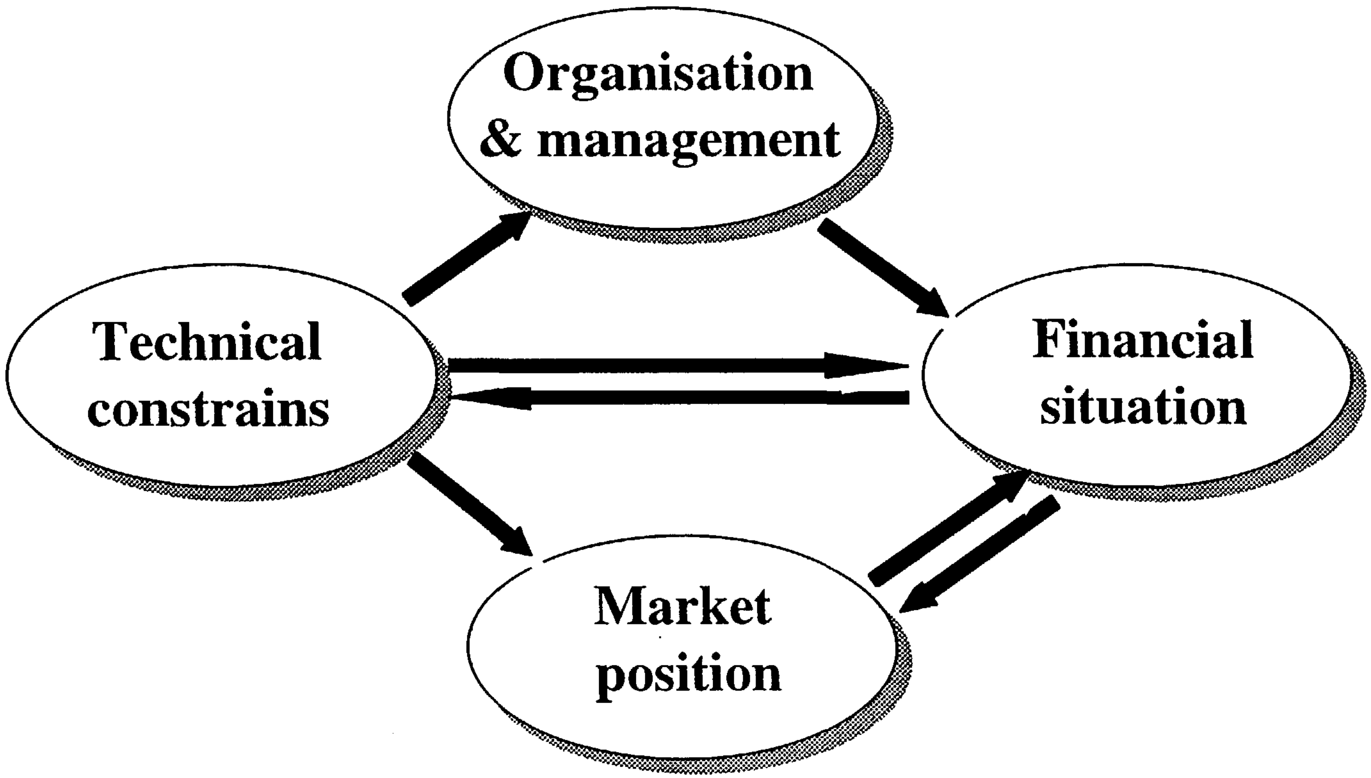
1. Introduction

Main findings of the diagnostic part of the project show that the company requires improvements in virtually all areas of its operations. The current situation is difficult with the main problems being as follows:

market position:	• low share in the domestic market and in exports of the polish porcelain products • lack of the clearly defined market strategy • lack of the developed marketing and sales department
financial position:	• inability to service debts owed to creditors within the framework of the bank's conciliatory procedure • high ratio of total operating costs in net sales of products • liquidity problems leading to the increase in financial costs • lack of the financial director and ineffective financial information system
organisation:	• excessive overall employment with shortage of specialists in finance and marketing • lack of the motivational system
technical constrains:	• obsolete and highly depreciated machinery and equipment • highly labour intensive production • inability to increase the volume of production without substantial additional expenditures.

Restructuring of ZP "Ćmielów", to be succesful, must include all fields of company's operations, taking into account existing interrelations and constraints:



2. "Ćmielów" 's Competitive Advantage

2.1 SWOT ANAYSIS

Strengths

Good brand image in the domestic market, especially with potential buyers from the higher end of the market.
Skilled labor with good decorating capabilities.

Weaknesses

Low productivity as compared to other Polish producers.
High costs of production.
High prices for the mass market.
Relatively low quality of the products, due to the aged machinery used in the production processes.
Management weaknesses (marketing, finance).
Portfolio of products which is too difficult to manage (too many products).
Poorly developed distribution channels, which do not allow for gathering market information about changes in demand and in customer preferences.
Insufficient promotion; undertaken efforts are not coherent and are not in line with the promotion strategy (which is not well developed).

Opportunities

Attractive market niche – suitable for "Ćmielów" (none of the Polish producers have built a consistent policy of focusing on serving higher segments of the market; "Ćmielów", being a low volume producer with good decorating skills, is well positioned to serve this market segment).

Potentially higher flexibility in relation to other Polish producers.

All products offered by the local manufacturers are very similar in shape and design. Therefore it is difficult to differentiate any particular producer. Aggressive promotion (stands, posters) can have a substantial influence on the sales performance.

Threats

Inability to repay debts owed to creditors within the framework of bank's concilatory procedure may lead breaking the agreement and the company's bankruptcy.

Increasing competition in both international and the domestic market.

Relatively low increase in sales in 1995 attributable only to market growth. With decline in market size, Ćmielów's sales could decline.
Lack of competitive advantage, in any product category, against other Polish producers;

If other Polish producers decide to reallocate sales from international markets to domestic markets (for a number of reasons) Ćmielów will be in a difficult position to compete with them on the mass market.

2.2 Competitive Position

"Ćmielów" is one the smallest porcelain producers in Poland. Volume of its domestic sales is almost three times lower than "Lubiana". "Krzysztof" sales are 50% higher in relation to "Ćmielów". Sales of both "Chodzież" and "Wałbrzych" on the Polish market are 2/3 larger than those of "Ćmielów" (Table 1).

Table 1: Domestic sales by major Polish porcelain producers, in tons

Producers	1992	1993	1994	1992	1993	1994
					Ćmielów =100	
Wałbrzych	1632	1433	1541	191	178	168
Lubiana	3314	2207	2661	387	275	291
Ćmielów	856.4	803.9	915.8			
Chodzież	988.3	1240.3	1525.1	115	154	167
Karolina		736.4	913.6		92	100

source: Ernst & Young data

Even larger differences occur when export performance is compared. "Lubiana" exports are over ten times more than "Ćmielów". "Chodzież" sells to foreign markets more than twice the amount in relation to "Ćmielów". "Karolina" whose domestic sales were the same as "Ćmielów"'s – sells almost six times abroad the volume of "Ćmielów" sales. "Krzysztof"'s export was over three times higher in 1994 (Table 2).

Table 2: Export sales by major Polish porcelain producers, in tons

Producers	1992	1993	1994	1992	1993	1994
				Ćmielów =100		
Wałbrzych	1676	1321	2086.6	244	185	340
Lubiana	4144	5288	6146	604	740	1001
Ćmielów	686.4	714.6	614.1			
Chodzież	1843.7	1618.2	1398.9	269	226	228
Karolina		2945.6	3654.4		412	595
Krzysztof	2177	2132	2121	317	298	345

source: Ernst & Young data

Among those producers analysed ***"Ćmielów" has the relatively lowest export orientation***. Sales on international markets account for 40–47% of its total sales in the 90's. In 1995 the share of exports in total sales was almost 43%. This implies that servicing well the domestic market is relatively the most important to "Ćmielów" (Table 3). By comparison, "Lubiana"'s share of exports in its total sales is 70%. "Karolina" had the strongest export orientation (80%), according to 1994 data. During 1992–1994 period "Chodzież" substantially decreased its export orientation from 65% to 48%. This indicates a changing strategy for this producer with a growing importance given to sales on the domestic markets.

Table 3: Export orientation of selected Polish producers

	1992	1993	1994
Wałbrzych	50.7%	48.0%	57.5%
Lubiana	55.6%	70.6%	69.8%
Ćmielów	44.5%	47.1%	40.1%
Chodzież	65.1%	56.6%	47.8%
Karolina		80.0%	80.0%
Krzysztof	60.4%	60.3%	60.8%

source: Ernst & Young data

Ćmielów and all other Polish producers, as far as the domestic market is concern, are aiming at the same market sector: mass market. (Table 4).

Table 4: Factors influencing competitive position and strategy

Competition factors	ĆMIELÓW	OTHER PRODUCERS
Product offer	similar	similar
distribution channels	specialist porcelain shops	department stores and specialist porcelain shops
most important market segment	mass market	mass market
prices	higher (upper end of the price range scale)	lower
scope of activities on Polish market	operating on local markets	local markets
style and design	similar (difficult to identify producer by its unique style)	similar (difficult to identify producer by its unique style)
quality	poorer	better
brand image and awareness	image: neutral, awareness: better then other Producers (but, as conducted research shows there is no clear relationship between brand awareness and purchasing decisions on the mass market)	image; neutral; awareness: poorer
brand loyalty	does not exist	does not exist
promotion	very limited	low

source: Ernst & Young

"Ćmielów" does not have a long term chance to compete successfully in this market sector with high volume producers, due to: small size of the factory in Ćmielów (impossible to achieve economies of scale), low productivity, "Ćmielów"'s declining share of the domestic market and and strong orientation of the other Polish producers towards the mass market segment.

2.3 Conclusions

"Ćmielów"'s current market position is weak in both international and the domestic markets.

In the domestic market:

Being a small volume producer, the company is trying to compete in the mass market segment of the domestic market, where all the other Polish producers are selling. "Ćmielów"'s lower productivity, lower quality of production and relatively high prices make its products uncompetitive.

Company's "natural" strengths (brand name in Poland and decorating skills of labor) and constraints (small size of the facility making impossible the high volume production) should create a base for choosing the market strategy for the domestic market:

In the medium to long term "Ćmielów" should try to establish its position as a low volume producer of the high value–added products sold in the upper segment of the market.

Internationally:

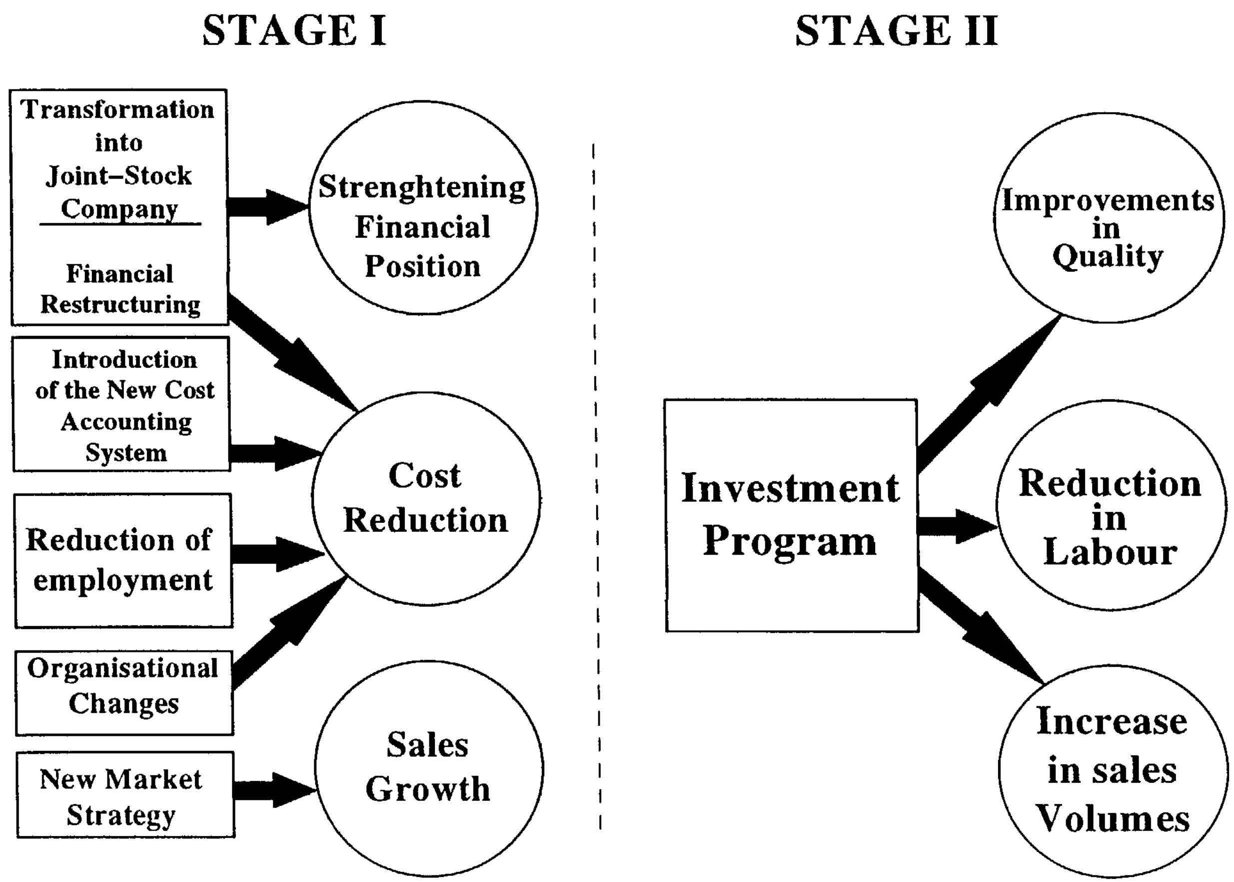
"Ćmielów"'s position is difficult due to: intense price competition, inferior quality and packaging, not well developed distribution channels and incoherent promotion efforts. Being a small and unknown producer with a very limited marketing and promotion budget, "Ćmielów" has no chances to target upper segments of the international markets.

Nevertheless, the company should continue to sell to foreign clients, trying to build its own network of reliable agents and negotiate better prices.

Strategically, "Ćmielów" should give a priority to the domestic sales over the exports. It does not mean that the export sales should be eliminated altogether.

3. Restructuring Recommendations

The following graph illustrates the main elements of the restructuring program:



3.1 Financial Restructuring

Succesful financial restructuring is the most important element of "Ćmielów"'s restructuring process. Without renegotiating the Bank's Conciliatory Agreement (BCA) the company will not be able to continue its operations in the long term. Finding a solution to BCA problem should strengthen company's financial position and enable "Ćmielów" to look for external sources of funds that are needed for financing the investment plan.

BCA Debt

BCA that came into force in May 1994 did not solve "Ćmielów"'s financial problems. There was no injection of fresh capital and company's balance sheet remained burdened with debt. In 1994, 1995 and 1996 the company was not able to repay its creditors in line with terms of the BCA. As for the end of 1995 there was still 2 155 755 PLN to be repaid.

The structure of BCA debt is as follows:

Table 5. The structure of BCA debt

Debt	No of creditors	PLN	Structure (%)
up to 10,000 PLN	26	56,082	2.6
10,000–50,000 PLN	20	209,038	9.7
50,000–100,000 PLN	4	111,675	5.2
over 100,000 PLN	7	1,778,960	82.5
Total	**57**	**2,155,755**	**100.0**

The large portion of debt (31%) is owed either to State Treasury or to different administration institutions.

Proposed Solution

Under current circumstances "Ćmielów" is not in the position to meet its BCA obligations. If the company is to continue its operations, radical solution is needed. We propose transformation of ZP "Ćmielów" into the joint stock company with most of the BCA creditors converting their debt for shares.

Steps to be Undertaken

(1) "Ćmielów" should be liquidated as a state–owned enterprise. The base for liquidation should be the "Act on Privatisation of State–Owned Enterprises" of 1991, Art. 37.1.2. This article allows the State Treasury to liquidate a state–owned enterprise and contribute its assets into the newly created limited liability or joint stock company.

(2) Liquidation has to be initiated by company's management and Workers Council. The proposal has to be approved by company's Founding Body, which in the case of "Ćmielów" is Wojewoda Tarnobrzeski. The office of Wojewoda establishes the Preparatory Committee responsible for liquidation procedure. The final decision belongs to the Ministry of Privatisation.

(3) The most important element of liquidation's procedure is company's valuation. It has to be prepared by the independent company and approved by the office of Wojewoda. The valuation is the base for negotiations of State Treasury with the other potential shareholders.

(4) In case of "Ćmielów" the liquidation will lead to establishing a joint stock company with participation of: State Treasury (shares reflecting value of company's assets), former BCA creditors (shares for debt) and the new investor(s). It is envisaged that only the main creditors, representing approximately 1.8 mln. PLN of debt will swap it for the equity. The remaining BCA debt (approximately 350,000 PLN) will be repaid within the six months from registration of the new company.

The structure of ownership in the new company will depend on the valuation of "Ćmielów"'s assets. The value of former creditors shares will be 1.8 mln. PLN and we expect that new investor will contribute not less than 1.0 mln. PLN.

(5) Bank Depozytowo–Kredytowy will formally close the bank's conciliatory proceedings with the date of establishing the new company.

Implementation of the plan described above will require detailed negotiations with all parties involved: State Treasury (Wojewoda and Ministry of Privatisation), current creditors and potential investors. These negotiations should start as soon as possible; Information Memorandum describing the project should be prepared and send to creditors and potential investors.

There are certain *threats* for implementation of such a program. Some of them are listed below:

Lack of an active investor:	Completing the transformation process without the injection of fresh capital may prove to be impossible. Without an investor there will be no funds to repay small creditor nor to cover the most urgent restructuring costs.
"Ćmielów"'s valuation:	After the liquidation process State Treasury will contribute "Ćmielów"'s assets to newly created commercial code company. If valuation of these assets is too high, creditors and potential investors will be unwilling to join the newly created company.
Legal issues:	The liquidation of "Ćmielów" and its transformation into the commercial code company will have to be done without violation of the bank's conciliatory agreement. Such agreement, in principle, can not be renegotiated; the only way for the company to complete the deal is to get an approval from the all creditors and the Ministry of privatisation.
Loss of liquidity:	The collapse in "Ćmielów"'s sales and a subsequent loss of liquidity may force the company to file for bancruptcy; in such case no transformation can be achieved.

3.2 Operations Management Improvement

3.2.1 Measures Improving the Quality of Production

Certain problems of quality of the ware were attributed to the use of the lower grade of feldspar in the body. The laboratory should commence trials using different kaolins and feldspars to produce the most economic body taking into account apparent cost of production losses and lower grade quality ware.

To improve the control of quality of the ware the following should be considered:

(1) Ball mills should be fitted with count down rev counters, preset to give optimum grinding.

(2) The speed of the mills should be checked and trials carried out to determine optimum speed for efficient grinding.

(3) The particle size of the material, after grinding, should be checked by soil hydrometer to determine the particle size and percentage fines. A more automatic means giving consistent results, would be by the particle size analysis apparatus.

(4) Bullers rings should be placed over the cross section and length of the glost kiln cars and measured to determine if any variation occurs.

(5) The porosity of the fired biscuit ware should be measured on a regular basis and the variations logged. This will show if the kiln is firing uniformly over its cross–section. Following this porosity test the biscuit piece should be further tested by firing it in the glost kiln to determine the bulk density of the ware. This test would show if the ware is under or over fired.

No equipment is available to carry out the measurement of the thermal expansion of the body. This is necessary to ensure that the body and glaze have the required 'fit'. The equipment would also be used to measure the expansion of the various kaolins which are now used in the body.

The implementation of the above measures will improve the quality, reduce overall losses and will be essential for the implementation of any restructuring plan.

3.3 Organisational Improvement

3.3.1 Implementation of Cost Control System

In order to implement the proposed project of cost control system at ZP Ćmielów, an appropriate software should be purchased and installed. The cost of purchasing and installation of the software is beyond the scope and budget of our project. We suggest that appropriate software company be chosen by tender by ZP Ćmielów.

Based on our knowledge of the market of software installation companies, we estimate that system implementation may take approx. 5 months, while the cost level would be 30.000 PLN.

The role of our consultants would be to periodically (i.e. on monthly basis) monitor the implementation of the system by way of one–day workshops between our consultants, programmists installing the system, and personnel of ZP Ćmielów. As our restructuring project may end earlier than the implementation of the cost control system is completed, during our last workshop in December 1996 we intend to monitor of the settlement of basis of whole project, while the software company will continue to implement the technical details through January and February 1997.

In order to effectively carry the tasks aimed at implementation of the cost control system, we recommend that a special task group be formed from the ZP Ćmielów side, supervised by the Financial Director (position still vacant).

The suggested action plan is presented in the table below.

Task	Responsibility Timing	
Selection of the software company	Ernst & Young/Financial Director/Chief Accountant of ZP Ćmielów	September 1996
Preparation and installation of the software package: 1. preparation of calculation models for particular cost centers 2 coding of particular calculation procedures 3 preparation of required formats for database 4 preparation of reporting formats 5 testing particular modules of the system 6 integrating modules into one system and initial testing 7 adopting necessary adjustments.	Software company	October 1996–February 1997
Preparation of user manual for information cost control system	Software company	January–February 1997
Final testing	Software company	February
Monitoring and implementation workshops.	Ernst & Young/Financial Director/Chief Accountant of ZP Ćmielów	October 1996 November 1996 December 1996

The cost information system will be working in the NOVELL network. The implementation of the system would also require investment into hardware equipment. The requirements are as follows: PC 386DX40, colour monitors, approx. 6 MB of RAM directly for the application, approx. 40 MB of disk memory.

3.3.2 Changes in the Organisational Structure

Different options of organizational changes in ZP "Ćmielów" have been considered in the course of the diagnostic part of the project. The changes that were proposed and accepted by company's management are as follows:

(1) The Quality Control Unit should report directly to the Managing Director. In the opinion of the technical consultant such a solution should improve the efficiency of the quality control. It is envisaged, that this change will be introduced in October 1996.

(2) Design Unit should report to Marketing and Sales Director, instead of Managing Director. The aim of this change is to create a direct link between company's design center and "Ćmielów"'s customers. This change will be introduced in October 96, as well.

(3) Strengthening of the Financial Department and Marketing and Sales Department is of crucial importance. The company must have the Financial Director and important decisions should be based on the analysis of the financial data.

The lack of well trained and highly skilled profesionals is still one of the most important problems of ZP "Ćmielów". This situation, however, is gradually improving. Marketing and Sales Department has employed a specialist capable of working in foreign languages. The decision has been made to promote the current Chief Accountant to the position of Financial Director. Furthermore, the Financial Department has been strengthened by hiring a financial analyst who is going to be responsible for management of receivables and payables.

In the initial recommendations the consortium proposed separation of the certain non–core activities from the company's main business. This included separation of the transportation unit, screen–print unit and the maintanance function in the form of the new limited liability companies. Such a change in the organization should rationalise costs of these activities and allow for the reduction of employment.

The financial analyses provided by ZP "Ćmielów" proved that, such separation is not neccessarily cost–effective. Below we present the calculations for the screen–print unit. They compare the cost of decalcs produced in "Ćmielów" with the price offered by outside producers:

	Cost of production	Price offered*
Decoration No 749	3.80 PLN	9.44 PLN
Decoration No 759	3.30 PLN	7.00 PLN
Decoration No 528	4.93 PLN	9.44 PLN

* Prices offered by the only Polish producer of decalcs: Wałbrzyskie Zakłady Graficzne "Kalkomania". The prices of imported decalcs are much higher.

It should be noted that the higher price of decalcs offered by the outside producers is compensated by the much higher quality. It is also possible that prices could be negotiated down, if "Ćmielów" decides to shut down its own production and to place bigger orders. It is obvious that the screen–print unit requires significant capital expenditure, which due to financial constraints may not materialize. In such a case, the company will have to shut down this unit in the near future anyway.

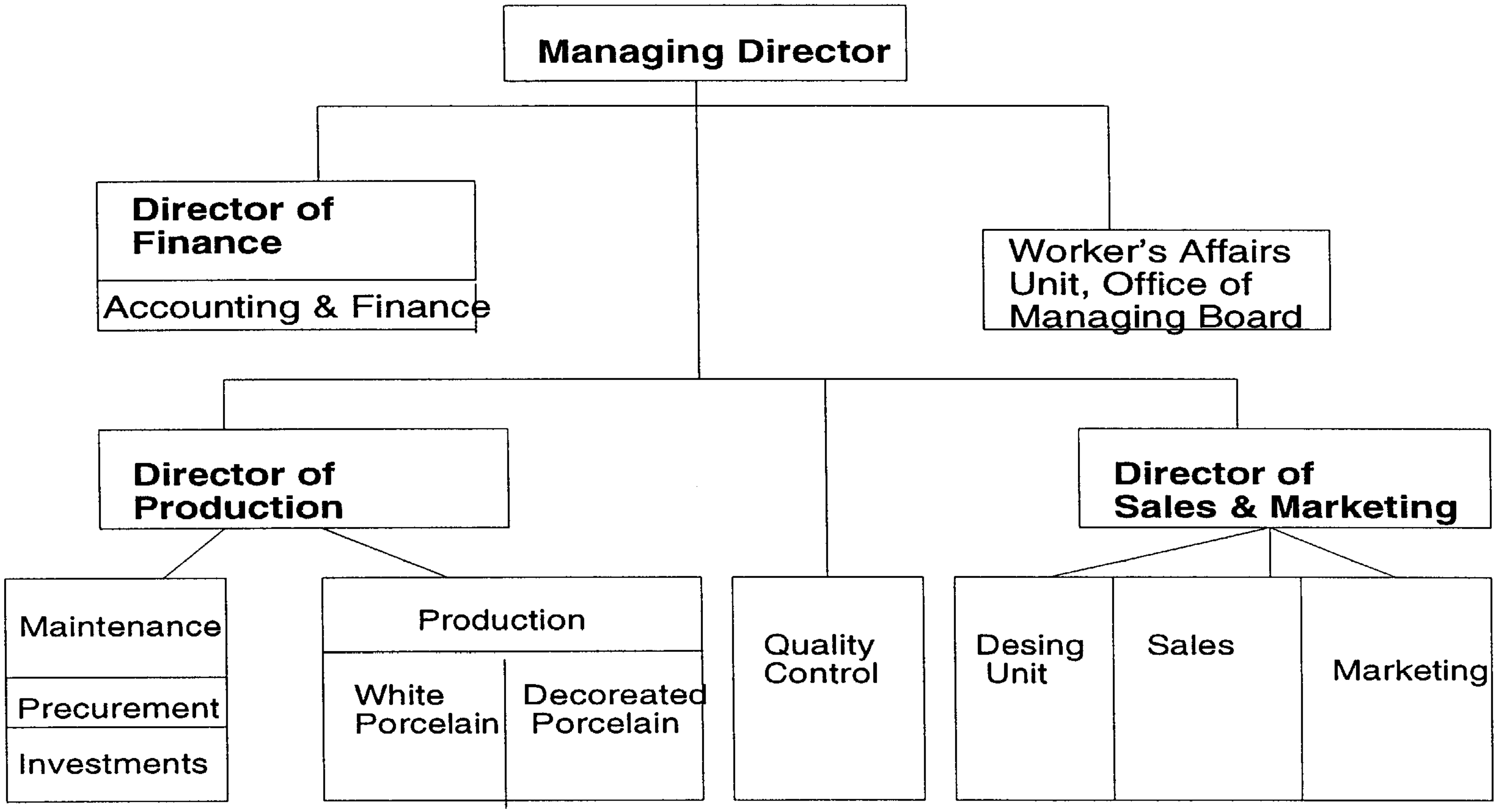
Similar analysis has been conducted for the transportation unit. It shows, as in the previous example, that the cost of transportation services rented outside is higher that the cost of company's own transportation. The analysis was based on the operational costs. It did not take into account capital expenditures required to replace the depreciating trucks and cars. If full analysis is conducted, the suggestion to separate transportation from the company may still be valid.

The most important organizational change discussed with the company's management was the separation of the Maintanance and Investment Department in the form of independent, limited liability company.

The maintanance function is important for the continuing flow of production. Given the highly depreciated and obsolete machinery and equipment in "Ćmielów" our final conclusion is that, this function should remain within the company's structure and should be incorporated into the Production Department. Such solution should ensure good cooperation of maintanance and production, allowing for some cost reduction.

The overall aim of organizational changes should be to make "Ćmielów" less labor intensive, faster in the decision–making, more flexible and market oriented. The tangible result would be a cost reduction caused by decrease in employement and increase in efficiency.

The graph on the following page shows the "Ćmielów"'s organizational structure after implementation of proposed changes.


Managing Director
Director of Finance
Accounting & Finance
Worker's Affairs Unit, Office of Managing Board
Director of Production
Director of Sales & Marketing
Maintenance
Precurement
Investments
Production
White Porcelain
Decoreated Porcelain
Quality Control
Desing Unit
Sales
Marketing

3.3.3 Changes in the Wage System

Current wage system does not motivate employees in the proper way. Wages consist of many elements but none of them is linked to direct results of employees' work.

The aim of changes would be to:

- make internal structure of wages simpler
- create mechanisms linking the wage with effectiveness of work
- create proper motivation system for company's management
- specify the rules of valuing of different kinds of work

Directions of chages of the internal structure of wages would be as follows:

- the number of wage elements that are not linked to results of work should be decreased; only those should be kept which are required by the law as obligatory; the liquidation of these additions can not lead to decrease in employee's wage
- new, motivating elements should be introduced: they should be based on the two separate systems of bonuses – one for the management and one for other employees

The company should create a special working group for the development of the new wage system. This subject is especially delicate and should be treated carefully.

3.4 Marketing and Sales Improvement

3.4.1 Market Strategy

Domestic Market

"Ćmielów"'s future market strategy should be based on *higher flexibility* to changes in the demand pattern and possibility of entering the market niches. *Upper end segment of the market* is currently the niche that the company should focus on. Such segment can be efficiently served by "Ćmielów", a low volume producer, provided that it is able to improve its marketing function and make the required investments to improve quality.

<u>*Product development strategy*</u>

We assume that during the next three years "Ćmielów" will be changing its status from a local manufacturer to a nation–wide manufacturer. The company should focus, besides its traditional markets (south–eastern Poland), also on central and north–eastern districts of the country.

To achieve a competitive advantage against other Polish porcelain manufacturers changes in the design and style of products are required. "Ćmielów" should refocus, step by step, on the domestic segment of potential buyers with relatively high purchasing power, and relatively high–level expectations concerning style and design. In order to achieve this task the company should work out its own style "á la Ćmielów" and additionally imitate some aspects of Rosenthal and Villeroy & Bosh models which are perceived in the target segments as the state–of–the–art porcelain tableware and good taste patterns. The company should also consider the return to the style that "Ćmielów" products had in twenties – thirties.

The market strategy for "Ćmielów" assumes the expansion to the so called higher segment, whose habits and preferences are quite different from the mass market ones. Demand in this market segment, based on our research, shows that contradictory to the mass market segment, frequency of purchasing would not decline.

In the districts, which are the traditional domestic markets of "Ćmielów", the sale of the products presently offered will be continued as regards position to the mass market. The structure of the products offered could change with the implementation of a effective cost control system. As a result certain products (in terms of shapes and designs) will be withdraw from the current offer.

In the mid–west districts and central districts of Poland, both the sale of products aimed at the mass market, and the sale of products aimed at the higher segment, will be developed. The penetration of the north–eastern districts of Poland is also suggested – mainly with the less expensive dinner sets and tableware sold separately. The plant will conduct different price, promotion and distribution strategies for the particular geographic markets.

Market strategy in the traditional markets of "Ćmielów"

On the traditional market of "Ćmielów", this covers the south–eastern districts of Poland, the following strategy is suggested: maintain the present level of prices, develop a more distinctive style of products on the retail market by use of "company" shelves and promotional leaflets, and further the development of the distribution channels presently used through more intensive contacts with new distributors.

Marketing strategy in the mid–western and central districts of Poland

When selling to the mass market in the mid–western and central districts of Poland, "Ćmielów" should slightly reduce their prices. The recommended retail prices of dinner sets should be 5–10% less than the average price on the mass market. In turn the recommended prices of coffee sets should be 5–10% higher than the average one. Prices of tableware sold separately/in plate sets should be within a range of average prices for these product groups.

The suggested promotional strategy will be based on the promotion in shops – "company" shelves, stands or posters placed in the most frequently visited shops.

The sale of products aimed at the upper end of the market segment in these districts should be conducted not only through traditional channels of distribution. Approaches to the specialist, well reputed porcelain shops, luxury department stores, galleries and boutiques is recommended. The plant should, for the time being, develop company authorised stands in the most popular stores in this segment. While selling to this segment products with modern shapes and designs for day–to–day use, the distribution channels usually used by producers of substitutive ceramics, are recommended. A broad promotional campaign should be conducted simultaneously with the launch of products aimed at the upper end segments of the market in these districts. It should cover retail promotion, sponsored articles, and advertisements in brightly–coloured magazines. It is planned that retail prices for products aimed at the upper end segment will be three – four times higher than the present ones.

Marketing strategy in north – eastern markets

On the north–eastern markets, prices for "Ćmielów" products should be near the average for this market. There is no need, in our opinion, to develop any promotional strategy, except retail. While operating on these markets the plant should focus on finding the most effective distribution channels covering not only main cities in these districts but also small, tourist towns – which are seasonally very attractive markets.

International Markets

"Ćmielów" should gain a stronger bargaining power as far as negotiating prices is concerned. If this is not possible company should consider reducing its international sales. The Company should enter the US market. "Ćmielów" should, as a minimum attend international fairs three times a year, selecting the most effective fairs and conducting an intensive promotional campaign. The marketing strategy also suggests a more active contact with the main distributors in foreign markets by direct marketing. If price increases willbe limited company should negotiate with its foreign clients – increase in the share of second class quality products in total deliveries.

3.4.2 Improvement in Marketing Functions

Improvements in the organisation of Marketing and Sales Division and introducing clear rules of communication between this Division, and other strategic units in "Ćmielów" are essential. A domestic marketing section should follow the product/segment managers' model, Domestic Sales Section – area managers' model and Export Section – continental model (Europe and US).

It will also be necessary to set up a consistent range of duties for particular Sections. The implementation of the marketing plan requires an increase in employment in the Marketing and Sales Division in 1996 – by at least two persons. In the following years the number of workers in Marketing and Sales Division should increase by another two – three persons.

3.4.3 Recommendations

General marketing recommendations:

Reduce current portfolio by eliminating from production:

- product categories having the smallest share in total sales
- some product lines within specific categories;

Reduce white porcelain sales to intermediaries;

White porcelain should be decorated and sold to the final customers under a separate brand (to avoid adverse effects of selling low quality products on the "core" part of business that is serving higher markets segments;

Increase prices on international markets through:.

- changes in contracts with major foreign purchasers who have the exclusive rights for servicing a given market should be made;

- the company should seek more actively foreign clients offering better prices.
- if it is impossible to negotiate with existing clients for better prices, the company should negotiate changes in the structure of export orders in terms of quality; instead of the almost exclusive selling of I class quality products for export, more II class quality products should be offered; obtained I class quality products should be reallocated to the Polish market, thus increasing Ćmielów revenues and helping in the creation of a consistent – high quality brand image;

Focus on the needs of the higher end of the market – as the segment presenting opportunities of growth for Ćmielów, as opposed to the mass market.

Strengthen the marketing and sales department by at least two persons in 1996. In 1997 an additional two–three persons should be employed.

"Ćmielów" should change its position from a local manufacturer operating mainly in South–East Poland to a producer operating globally throughout Poland.

"Ćmielów" should work out its own distinguished style, which will enable consumers to differentiate between its products and other Polish manufacturers'.

Develop more efficient distribution channels.

Promotion activities should be strengthened and coherent, aimed at realising developed goals.

Detailed recommendations:

Introducing two new sets until the year 2000 addressed to the upper end consumers;

- new dinner tableware set
- new coffee/tee set

Introducing sales of tea and coffee caps individually packed as a product fashionable for gifts and for collections;

Growth of sales of ornamental products through Poland through reputable shops;

Reaching agreements with the leading producers of furniture to exhibit Ćmielów products in their showrooms (to improve brand image and increase product awareness).

Monitoring of the demand trends on the international and Polish markets and making the appropriate adjustments in production;

Preparing unique Ćmielów stands, posters which will help customers to identify its products from others available in the shops (department stores).

Preparing attractive packaging for the products (colour picture and/or transparent top of the box);

Active price policy (discounts, rebates given to the best customer).

Promotion policy – participating in three or four fairs on international markets (including Frankfurt).

3.4.4 Marketing Action Plan

In June 1996 consultants from Ernst & Young held two marketing workshops in Ćmielów for managers and personnel from the sales & marketing department. The main aim of those workshops was to develop an action plan for the implementation of a new market strategy. The new market strategy in Ćmielów should consist following main elements:

1. extending distribution channels in Poland to change geographical orientation of the Ćmielów, from being local producer (with some penetration in larger cities) to being nation–wide supplier of porcelain products. Increased penetration of the Polish market should be achieved by November '96 (before Christmas season).

2. focusing its sales and marketing activities on the final consumer (not on the distribution channels). This includes increasing brand awareness, and undertaking number of promotional actions which will allow to differentiate Ćmielów products from other competitive products on the market (those activities were to be started in August, first results are to be seen by the year–end).

3. introducing new products aiming at higher end of the market to allow Ćmielów to concentrate more on higher segments he market instead on the mass market, which is difficult for Ćmielów to compete. (timing of the changes in the product portfolio will depend more on the marketing and production plans and abilities)

The table below presents ***what*** actions are to be undertaken and ***when***. In the case of activities which are to be repeated, information on ***how often*** these actions are to be taken is also presented. Sales and Marketing Director is responsibe for implementation of the listed below activities/changes.
Ernst & Young will held three workshops on monitoring implementation of the changes in marketing function in Ćmielów. Workshops will be primarily addressed to managers and personnel engaged in sales, marketing and designing.

Activities	Explanation	S Starting and ending date	Continuity
Monitoring of the effectiveness of the various distribution channels in Poland and abroad	Analysi Analysis of the volume of porcelain bought by different distributors vs. prices and discounts	August/ Continuos	Quarterly
Changes in the structure of sales and marketing department	To perform increased marketing functions changes within department are needed. More people should be involved only in marketing (not sales) As a result within department, marketing unit should be established.	October	
Search for potential new distributors abroad	Company should aim at having distributors at major international markets	July/ continuos	Continuos
Introduction of the new brand (contest)	Search for attractive new name for the second brand	September / September	
Analysis of the changes in price policy of other Polish porcelain producers	On the basis of selected sample of products competing directly with Ćmielów recommendations concerning price policy should be presented to the Managing Director	August	Monthly
Analysis of the changes in the demand pattern	Conclusions for Managing Director with recommendations of possible Ćmielów actions	September	Bimonthly
Analysis of the sales by main products, and decorations	Recommendations to the Marketing Director towards changes in product portfolio (deletion of products in certain decorations with poorest sales performance, and expansion of fastest growing products)	January'97/ Continuos	Monthly
Analysis of trends in decorating and ornamenting porcelain	Conclusions for Managing Director with recommendations	August/ September / continuos	Quarterly

Analyzing trends on international markets (shapes, decorations)	Ćmielów as the smallest Polish porcelain producer should be able to respond most quickly to changes in designs and fashions. Recommendations concerning possible Ćmielów actions to the Marketing Director.	August/ Continuos	Quarterly
Analysis of the advertisement costs by different media	Costs vs. possible reach by various media	September/October	
Creating advertising slogan for promotion campaigns	Ćmielów existing products need promotion in order to differentiate them from the mass market on which they are competing	August/September	September/October
Expanding distribution channels for serving potential clients in large cities	Own shops, new distributors, increasing sales to existing distributors.	August/ Continuos	Continuos
Reduction of the sales of white porcelain to intermediaries	Large part of the value added is captured by the intermediaries. Decorating white porcelain would help in keeping value added in Ćmiełow	August / Continuos	Continuos
Introduction of new attractive packaging	To distinguish Ćmielów products from competition	September/Continuos	Continuos
Initial selection of separate products which have the biggest chance to be bought as presents	Different marketing strategy for those products (attractive packaging, special promotion)	August	
Searching for possibilities of joint promotional efforts with a producer of complementary goods	To reduce promotion costs	August/ November	

3.5 Asset Rationalisation

Net value of fixed assets constitute 64% of "Ćmielów"'s total assets. Buildings and machinery are used for productive purposes. The company does not own significant non–core assets. The only exception are assets of the former plant "Świt". Before the Second World War this plant was an independent company. Then the ownership rights were transfered to "Ćmielów", which continued the porcelain production there.

Currently, "Ćmielów" does not use the facilities of "Świt". They are leased in part to private enterpreneur, but the rent the company gets is lower than costs (mainly property taxes) associated with keeping these assets. According to "Ćmielów"'s management, due to the conditions of the local market, it is impossible to negotiate higher rent. On the other hand, taking into account technical condition of these assets, restarting the production would not be rational from the financial point of view.

The assets of "Świt" should be sold. According to our estimates the sale could bring approximately 150,000 – 200,000 PLN and these proceeds should be used to repay some of the smaller creditors in the process of "Ćmielów"'s financial restructuring.

3.6 Investment Plan

Machinery and equipment of "Ćmielów" are obsolete and highly depraciated. It is estimated, that with no capital expenditures the company would not be able to keep its operations at the current level for more than two–three years. The lack of technological improvement in the longer term will lead to deterioration of the quality of products and subsequent lost of competitiveness.

The company's investment plan, as described in section 6.4.2 of the diagnostic part of the report, is logical way of upgrading "Ćmielów"'s technology and production. This plan is comprehensive and its implementation would be rather costly: it is estimated that total capital expenditures required would have to reach 14 mln. PLN. In our opinion, even after financial restructuring, the company would have problems with financing such an extensive program.

Taking this into account, the investment plan has been scaled down and certain priorities have been assumed. The proposal below is based on the discussions with "Ćmielów"'s management and the technical expert, Mr. M. Birch from CPIC.

Investment Plan to be Implemented:

(1) Completeing the installation of the second chamber kiln. The investment would start in the second half of 1996 and would take about 12 months. Estimated costs are 717,000 PLN. Result: increase in the volume of production by 300 tons.

(2) Purchase and installation of the cup producing machine. Second half of 1996, the time of installation: 12 months. Result: doubling the number of cups produced.

(3) Purchase of laboratory equipment. This would be done in 1997 at a cost of approximately 220,000 PLN. Result: improvement in the quality of production and decrease of the number of losses.

(4) Purchase of the two, second–hand izostatic presses. They would be purchased in 1997. The cost: 1,631 000 PLN. Result: 20% increase in the volume of flatware production and significant improvement in quality.

(5) Purchase of spray dryer working with izostatic presses. This would be done also in 1997 at a cost of 735,000 PLN.

(6) The investment plan assumes additional costs of construction and installation works, of 348,000 PLN.

Calculations assume: 3% import tax and 13% custom duty levied on purchased machinery and equipment (calculated from the total amount of 4,194,000 PLN). The 5% reserve for a possible prices increase has also been assumed. *Taking this into account, the total investment outlays would be: 5 439 000 PLN.*

Financing: it is assumed that investment plan will be financed out of the following sources: injection of the fresh capital by investor (1 mln. PLN); investment loans (1.4 mln. PLN in 1996 and 3.7 mln. PLN in 1997).

4 Financial projections

4.1 Assumptions

Long–term machinery and equipment utilisation, the necessity of labour and material costs reduction, and the growing competition and increasing quality requirements for the products of ZP"Ćmielów" were the main reasons behind the Company starting to consider the implementation of an investment program.

We conducted a financial analysis on the assumption that the Company would be privatised through the conversion into shares of 1 453 000 PLN of total liabilities included in BCP, and that the remainder would be repaid through the sale of the "Świt" Plant and using internal financial means generated from ZP "Ćmielów"'s current activities.

The analysed scenario involves total investment outlays of **5 439 000 PLN** (including 5% of reserves, 3% of import tax and 13% of customs duty), in which the purchase of machinery and equipment will amount to 4 807 400 PLN, while the remaining amount will include: construction works – 365 400 PLN – and a laboratory equipment – 266 200 PLN. The investor is expected, in this scenario, to contribute 1 000 000 PLN. Long term debts will amount to 5 100 000 PLN.

We have not included the possibility of obtaining an investment tax allowance (based on the Council of Ministry's Decree of January 25, 1994).

The projections cover five years, beginning from 1.01.1996 to the year 2000.

All calculations were made on a yearly basis. The starting point was assumed to be 31.12.1995, the date of the last available Balance Sheet of the Company.

Unless stated otherwise, all calculations have been made in thousands of "new" Polish zloties (PLN), and in constant prices from the end of December 1995.

Below we present detailed assumptions which were used for the financial projections of the Company's future development.

4.2 Income Statement

4.2.1 Sales projections

We assumed that the most urgent investment will be made and the company will follow a more active marketing strategy for growth in the most promising product markets.

Under this scenario the following assumptions were made:

- Required investments will be undertaken. This will allow increase the production of cups and mugs twofold and increase the production of plates by 20%.
- Product quality of the will improve (I class quality will amount to 60% of production).
- Production will reach 2120 tonnes in the year 2000 whereas production capacity will grow to 2300 tonnes.
- The company will be able to compete in the upper segments of the Polish market.
- Real export prices will increase by 5%–6% annually until the year 2000. Real domestic prices will grow by 3% annually.
- Product changes will be greater – the share of white porcelain, dinnerware sold separately, and plates sold separately will decrease. Due to investments the share of the plate sets will increase.
- Ćmielów will achieve competitive advantage against other Polish porcelain manufacturers in design and style of products offered. It is assumed that Ćmielów sales will focus, step by step, on the domestic segment of potential buyers with relatively high purchasing power, and relatively high–level expectations concerning style and design. In order to achieve this task their own style "á la Ćmielów" will be created. Additionally the company will imitate some aspects of Rosenthal and Villeroy & Bosh models perceived in the target segments as the state–of–the–art porcelain tableware and patterns of good taste.

- Export orientation of the company will decrease to 27% in 2000.
- We assume that the company will be able to develop a strong sales and marketing department both in terms of size and strength, able to carry out an active marketing policy. However, if it should prove difficult to import the appropriate personnel to Ćmielów, the company should consider the creation of external marketing links (i.e. finding the optimal solution under which marketing functions will be provided by external organisations).

Based on the above assumptions:

- Total Ćmielów sales will increase by 73% in relation to 1995 sales to 20.9 mln PLN in 2000.
- Export will grow by 5% over the projected period to 5.4 mln PLN.
- Domestic sales will grow by 124% to 15.4 mln PLN in 2000.

Table 6. Sales projections

SALES IN TONS	31 XII 1995	1996	1997	1998	1999	2000
Sales rate of growth		101.00%	107.00%	102.00%	108.00%	105.00%
Tableware	478	549	641	705	788	846
Coffee/Tea sets	120	136	174	192	218	268
Other porcelain sets	8	11	12	13	7	7
Sets of dishes	64	281	306	335	377	404
Other products – individual pieces	381	373	366	340	327	310
Dishes – individual pieces	233					
Porcelain artwork	11	15	22	28	32	35
White porcelain	361	312	275	220	223	213
Other	38	35	36	35	47	36
Total, out of which:	1 695	1712	1832	1867	2018	2119
domestic sales	956.7	959	968	978	978	978
export	738.5	753	761	768	768	768

NET SALES (thousand PLN)	31 XII 1995	1996	1997	1998	1999	2000
Rate of growth		*106%*	*101%*	*98%*	*100%*	*100%*
Export – products	5 138	5 444	5 515	5 393	5 399	5 412
Rate of growth		*123%*	*123%*	*113%*	*114%*	*114%*
Domestic sales – products	6 705	8 281	10 223	11 589	13 216	15 017
Domestic sales – services	202	248	307	348	396	451
Total domestic sales	6 907	8 529	10 530	11 937	13 612	15 468
Total sales rate of growth		116.21%	114.82%	107.97%	109.71%	109.82%
TOTAL SALES	12 045	13 974	16 045	17 330	19 011	20 880

4.2.2 Operating costs, other categories of Income Statement

During the preparation of the operating costs analysis we differentiate between fixed and variable costs according to data from ZP "Ćmielów" for 1995. Below we present the assumptions as to the main costs categories:

Fixed costs:

- department's fixed costs – contain materials, wages, social security, energy and other;
- overheads – include materials, wages, social security, insurance premiums, telecommunication, travel costs, local taxes, the cost of energy costs and others (e.g. external services);
- costs of sales – contains the cost of materials (packaging), other costs of sales (transportation).

We assumed, that fixed costs would grow three times slower than the sales value and that, due to the implementation of a restructuring programme, there would be a reduction of employment to 70 people in 1997.

Variable costs were divided into two categories: variable costs of white porcelain production per unit (1 ton) and variable costs of decoration for separate product groups per 1 ton. For both categories they include:

- direct production costs – raw materials, direct labour costs, direct energy and defects (unit costs were calculated on the basis of average rates and average labour consumption per production unit as of the second half of 1995).

We assumed that all variable costs will grow directly in proportion to the volume of sales in tones. In the second half of 1998 we assumed a reduction of employment amounting to 50 people as a result of the purchase of izostatic presses. In the case of material's direct costs of white porcelain production, we assumed an increase of the consumption ratio per 1 ton as a result of the purchase of more expensive raw materials in order to meet quality requirements and increases in the consumption of thermoinsulating covers per 1 ton of production due to technological requirements. Real growth of wages between 1998–2000 was assumed and this amounted to 3%, 13% and 10%, respectively.

The structure of operating costs is presented in the table below:

Table 7. Operating costs

OPERATING COSTS (thousand PLN)	31 XII 1995	% of total operating costs	1 996	% of total operating costs	1 997	% of total operating costs	1 998	% of total operating costs	1 999	% of total operating costs	2 000
Variable costs of white porcelain production											
Materials	2 441	22%	3 513	28%	4 246	31%	4 332	31%	4 678	30%	4 912
Direct labour + social security	1 642	15%	1 752	14%	1 875	14%	1 759	13%	1 921	13%	2 217
Energy	163	1%	174	1%	186	1%	189	1%	205	1%	215
Defects	190	2%	194	2%	208	2%	212	2%	229	1%	240
Total variable costs of white porcelain production	4 437	40%	5 633	45%	6 514	48%	6 492	47%	7 032	46%	7 584
Total variable costs of decoration	2 000	18%	1 907	15%	2 135	16%	2 294	16%	2 632	17%	2 955
Variable costs rate of growth			*117.15%*		*114.71%*		*101.58%*		*109.99%*		*109.05%*
Total variable costs of production	6 436	58%	7 540	60%	8 649	64%	8 786	63%	9 664	63%	10 539
Fixed cost s rate of growth			*105.34%*		*98.61%*		*104.26%*		*110.26%*		*109.00%*
Fixed costs											
Auxiliary materials	1 441	13%	1 517	12%	1 592	12%	1 635	12%	1 688	11%	1 743
Indirect labour + social security	2 592	23%	2 730	22%	2 548	19%	2 695	19%	3 144	20%	3 571
Energy	135	1%	142	1%	149	1%	153	1%	158	1%	163
External services	480	4%	506	4%	531	4%	545	4%	563	4%	581
Other	104	1%	109	1%	115	1%	118	1%	122	1%	126
Total fixed costs	4 751	42%	5 005	40%	4 935	36%	5 146	37%	5 674	37%	6 184
Operating costs rate of growth			*112.13%*		*108.29%*		*102.55%*		*110.09%*		*109.03%*
Total operating costs	11 187	100%	12 545	100%	13 585	100%	13 932	100%	15 338	100%	16 723

Depreciation:

The depreciation of "old" fixed assets and the depreciation of "new" fixed assets were shown as different categories within the operating costs.

The calculation of depreciation was made separately for the fixed assets existing in the Company as of 31.12.1994 and for the "new" fixed assets resulting from the investment program.

The depreciation of existing fixed assets was calculated based on the Company's depreciation plan for 1996.

The depreciation of new fixed assets was calculated separately for two categories: machinery and equipment, using an average depreciation rate of 10%, and construction works using a depreciation rate equal to 4.5%.

The depreciation calculation was based on the assumption that payments were made on average once a year or every half of a year before the fixed assets were recorded in the books. The basis of the depreciation calculations was the value of investment purchases increased by 5% reserved for unexpected expenses, 13% for customs duties, 3% of import tax and interests during construction.

Financial incomes and costs:

Financial income was assumed to be 0 within the projected period. Financial costs consist of interest on long and short term loans. The interest was calculated using the fixed rate of 36.7% (the interest rate for short term borrowing paid by ZP "Ćmielów" until 19 March, 1996) and an assumed level of inflation decrease. Due to the fact that projections were made in constant prices as of 1.01.1996, to find the present values of financial costs we discounted annual payments of interest using an inflation rate as the discount factor in each year of projections.

Extraordinary profits and losses:

In 1996 we assumed conversion of liabilities included in BCP of 1 453 000 PLN, recorded in the books as an extraordinary profit resulting from the redemption of these items. The same year, we assumed the sales of the "Świt" Plant, which caused an extraordinary loss equal to its net value (432 000 PLN).

For further years a constant balance of extraordinary items was assumed.

Income tax:

We assumed that income tax would be paid by the Company according to Polish law at a level of 40%. We deduct from the projected taxable base during the first three years of projections a part of the net losses for 1993–1995, which may be written off according to the tax law. We did not include the possibility of using the investment tax allowance and the accelerated depreciation of fixed assets.

4.3 Balance Sheet

4.3.1 Working capital

The table below presents the turnover ratios (in days) used for working capital components calculation in the optimistic scenario:

Table 8. Turnover ratios

WORKING CAPITAL – Turnover Ratios in days	31 XII 1995	1996	1997	1998	1999	2000
Inventories of raw materials	39	30	30	30	30	30
Work in progress	24	24	24	24	24	24
Finished goods	31	14	14	14	14	14
Trade receivables	32	32	32	32	32	32
Other receivables	30	30	30	30	30	30
Trade liabilities' decrease rate		*90%*	*90%*	*90%*	*90%*	*90%*
Trade liabilities	101	60	48	38	31	25

For the turnover of trade liabilities, we assumed the normalisation of turnover periods from 101 days as of 31.12.1995 to 25 days in the year 2000 for both scenarios. Other turnover ratios were based on the 1995 level in the pessimistic scenario, while in the optimistic scenario based on information from ZP "Ćmielów", we assumed a reduction of inventories of raw materials and finished goods to 30 and 14 days.

For the calculation of outlays for working capital, VAT due (from domestic sales) and VAT paid (from the purchase of raw materials, energy, other services and capital expenditures) was also considered. The rate of VAT due amounts to 22% for domestic sales, while the rates of VAT paid differ: for investment goods they amount to 22% and 7%, they are equal to 22%, 17% and 12% for the purchases of external services, raw materials and energy. Based on the information prepared by "ĆMIELÓW" we identified appropriate categories for each VAT rate.

The VAT (due and paid) was included in trade liabilities and receivables. It was assumed that the VAT balance was settled within 1 month. In the case of VAT paid for the investment purchases, VAT is included into receivables and settled within 6 months.

We assumed that the level of the following categories would not change during the period of projections in comparison with balance sheet of 31.12.1995:

1. stock of goods for resale – 4 000 PLN,
2. tax receivables – 85 000 PLN,
3. other receivables – 9 000 PLN,
4. other liabilities – 178 000 PLN.

The level of tax and ZUS liabilities is decreasing due to the redemption and repayment of liabilities included in BCP as well as the deduction of the repayment of overdue amounts according to the schedule agreed with ZUS received from ZP"Ćmielów"'s Accountancy Department.

Based on above mentioned information we assumed that tax liabilities would drop from 871 000 PLN to 340 000 PLN in 1997 and ZUS liabilities would diminish from 513 000 PLN to 124 000 PLN.

Additionally, ZUS liabilities and payroll liabilities were corrected by the projected increase of wages.

4.3.2 Fixed assets

We assumed that the existing fixed assets of the Company, as of 31.12.1995, would not change within the analysed period, with the exception of the production premises now under construction (the item described as "Investment in progress" in the 1995 balance sheet), which will be completed at the end of 1996. The changes in their value only result from depreciation.

In the case of "new" fixed assets the value of "gross new investment" results directly from an investment timetable envisaged by BMF S.A. in co–operation with ZP "ĆMIELÓW".

The "new investment" category excludes VAT paid. The VAT to be received by the Company is included in a separate item of receivables in the working capital demand projections.

We assumed that the balance as of 31.12.1995 of financial assets would not change during the period of projections.

Below we present the information on capital expenditure:

The scenario assumes a wide version of the investment programme aimed at increasing the production capacity, liquidation production "bottle necks", the replacement of old and obsolete production units by new ones in order to decrease labour and energy consumption as well as the improvement of product quality.

Due to a wider investment program, in this scenario, outlays are made over a longer period of time, namely over the first three years of projections. The total gross value of investment includes a 5% provision, and 3% import tax and 13% customs duty for imported machinery and laboratory equipment. VAT paid was calculated using the 7% rate for construction works and the 22% rate for other investment expenditures.

The total net value of investment in the optimistic scenario, including a 5% provision and other additional charges, amounting to 5 439 000 PLN. The gross value of investment including VAT paid amounts to 6 641 000 PLN.

Table 9. Investment Expenditures

INVESTMENT EXPENDITURES	1.74	DEM	thousand PLN	% of total
Laboratory		126 500	220	5%
Chamber furnace		412 000	717	16%
Cup machine		511 800	891	20%
Isostatic press		937 380	1 631	36%
Spray dryer		422 320	735	16%
Construction works		200 000	348	8%
Total basic investments expenditures		**2 610 000**	**4 541**	**100%**
Import tax	3%	72 300	126	
Customs duty	13%	313 300	545	
Provisions	5%	130 500	227	
IDC (interest during construction)				
Total		**3 126 100**	**5 439**	

4.3.3 Equity and liabilities, financing of the Program

We assumed that the long term liabilities amounting to 712 000 PLN (only including BCP liabilities) which were recorded in the 1995 balance sheet will be redeemed and partly converted into shares (414 000 PLN), and partly repaid using a means from the sale of the "Świt" plant.

The amount of short term credits is assumed to be at the same level for both scenarios and will decrease to 500 000 PLN in 1999.

Equity and Long Term Credits:

In the scenario, an investor is expected to invest 1 000 000 PLN in "ĆMIELÓW" in order to finance a part of investment outlays. We also assume two long term debts under the following conditions:

A. Long term credit amounting to 1 400 000 PLN drawn in 1996, payable in 5 years, with a grace period of 1 year, and a floating interest rate decreasing proportionally to the level of inflation starting from 33% per year in 1996, the principal of which is to be repaid over a period of 4 years in eight bi–annual instalments.

B. Long term credit amounting to 3 700 000 PLN drawn at the end of 1997, payable in 3 years, without a grace period and having a floating interest rate decreasing proportionally to the level of inflation starting from 18% per year in 1998, the principal of which to be repaid over a period of 3 years in six bi–annual instalments.

4.4 Results of financial analysis

Our analysis of the feasibility of each investment scenario was based on two groups of criteria:

- financial liquidity,
- profitability.

In the case of the financial ratios, we used the same methodology as in the historical analysis of the Company's financial statements.

The optimistic scenario with significantly broader investment program shows the positive cumulated cash within all the analysed periods. Though based on the value of liquidity ratios it can be stated that the Company's liquidity may be threatened untill 1999 – the value of the quick ratio is lower than 1.

Table 10. Cash Flow

CASH FLOW (thousand PLN)	tys. PLN	0	1 996	1 997	1 998	1 999	2 000
Sources							
EBIT		0	136	1 582	2 356	2 628	3 112
Depreciation		0	450	654	916	1 091	1 091
Other incomes		0	100	0	0	0	0
Extraordinary profits/losses		0	1 021	0	0	0	0
Changes in equity		1 000	0	0	0	0	0
Long term debts		1 400	0	3 700	0	0	0
Total sources		**2 400**	**1 707**	**5 936**	**3 272**	**3 719**	**4 202**
Uses							
Investments		1 780	867	3 500	0	0	
Changes in existing fixed assets			(432)				
Increase in working capital		263	685	1 370	(219)	418	419
Taxes		0	0	468	751	956	1 212
Installments of long term credits		0	0	350	1 583	1 583	1 583
Long term liabilities		0	414	0	297	0	0
Short term credit repayment		0	362	0	200	300	0
Interest		0	439	377	479	238	81
Accruals/Deferred incomes		0	0	0	106	0	0
Prepaid expenses		0	(133)	(133)	(68)	0	0
Total uses		**2 042**	**2 204**	**5 932**	**3 129**	**3 496**	**3 296**
Net cash flow		**358**	**(496)**	**4**	**143**	**224**	**906**
Cumulated cash flow		**572**	**76**	**80**	**223**	**446**	**1 353**

Table 11. Financial Ratios

FINANCIAL RATIOS	31 XII 1995	1 996	1 997	1 998	1 999	2 000
Liquidity						
Current Ratio	0.72	0.85	0.90	0.94	1.18	2.57
Quick Ratio	0.28	0.39	0.37	0.49	0.64	1.57
Creditibility						
Debt Coverage Ratio	0.31 *	2.30	2.61	1.14	1.30	1.80
Debt/Equity	0.42 *	0.25	0.65	0.39	0.19	0.03
Profitability						
ROA	0.55% *	6.28%	5.13%	7.25%	9.83%	12.59%
ROS	0.51% *	5.85%	4.59%	6.50%	7.54%	8.71%
ROE	1.15% *	12.16%	9.82%	13.35%	14.76%	16.03%

The debt coverage ratio has a positive value during the whole projection period. The share of debt in the financing of the Company's activities is increasing in 1997 causing decrease in the debt coverage ratio in 1998 to 1.14 (the lowest value during the projection period).

The sensitivity analysis describes the maximum change regarding prices and operating costs when the cumulative value of cash in each period of the projection remains positive. The basic conclusion from the above analysis is that the project is very sensitive to changes in operating conditions. This would imply a very high risk for the project.

5. Human Resources Development

The development of "Ćmielów"'s human capital is an important factor correlated positevly with the ultimate outcome of restructuring process. Therefore certain training programs have been planned to support the project:

Marketing workshops

We have already conducted two one–day training sessions on marketing strategy of ZP Ćmielów. They included presentation of major concepts underlying marketing strategy for ZP Ćmielów and interactive discussion on practical aspects of its implementation. In particular, the following aspects were discussed: designing new products, positioning products, developing price policy, searching for new distributors and developing new distribution channels, developing promotion policy. These actions were discussed in the context of recent market trends on domestic and international markets.

The outcome of the two marketing workshops allowed for the development of the action plan for implementation of the marketing recommendations as set in the marketing plan. The action plan is presented in Section 3.4.4

The marketing workshops on these topics were organized upon specific request of ZP Ćmielów. Preparation of the two workshops has taken one day.

Study Tour to the UK

Four members of "Ćmielów"'s top management visited the UK in July 1996. The purpose of the tour was to learn about the way the British tableware business is organized and managed and to acquire more information about the tableware distribution system. The visit included meetings with established British manufacturers of the machinery and equipment for the tableware industry (producers of kilns and forming machines) and suppliersof components (clay and paints).

Training to be conducted

After the assessment of ZP Ćmielów training needs, we present the following training sessions to be conducted within the frames of our project.

Title	Duration	Time	Main topics
Financial analysis, basis of financial management	2 day duration 1 day preparation	October/November 1996	Analysis of financial statements (balance sheet, P&L account, cash flow) Ratio analysis (liquidity, profitability, solvency, leverage ratios) Profitability by products (variable and fixed costs, break–even analysis)
Tools for effective cost control system	3 days duration 1 day preparation	November 1996	The difference between the concepts of financial and managerial accounting The use of different cost systems Practical methods of data collection and exchange for various needs within the managerial accounting system Standard product unit costing Basis of absorption costing and marginal costing Budgeting and analysis of cost variance Accounting in cost centers Break–even point

6. Action Plan

Proposed restructuring program will be implemented in the course of the next three years with the special concentration of activities in second half of 1996. Implementation of some elements of the program has already started, some other actions should be undertaken immediately. The major elements of the program to be implemented are as follows:

Elements of the Program	Start time	End time	Person Responsible in "Ćmielów"	Coordinating Person from the Consortium	Remarks
Financial Restructuring/ Transformation into the Joint–Stock Company	01.06.96	31.12.96	W. Koziarz (Managing Director)	L. Filipowicz (BMF)	Creditors and potential investors have got Information Memorandum describing the project. Negotiations started.
Implementation of the New Market Strategy	01.07.96		M. Stan (Marketing and Sales Director)	D. Zbytniewski (Ernst & Young)	Implementation of the new market strategy will be preceeded with marketing training conducted by E&Y; there is no fixed date of the end of implementation: pursuing the new market strategy will be the continuous process with the possible modifications.
Introduction of the Cost Accounting System	01.05.96	31.12.96	K. Popek (Chief Accountant)	D. Brzeziński (Ernst & Young)	Implementation of the new system started. Most of the job will have to be done by company's staff, but four days of training and consulting sessions with E&Y are also envisaged.
Organizational Changes and Reduction of Employment	01.10.96		W. Koziarz (Managing Director)	A. Drewniak (BMF)	MD of "Ćmielów" established special working groups (with participation of consultants) to develop detailed schedule of changes. Working Groups will prepare proposals by the end of July, 1996.
Investment Plan	01.10.96	31.12.97	J. Radoń (Maintanance and Investment Director)	L. Filipowicz (BMF)	The investment plan will start as soon as the financial restructuring is completed. It will be implemented according to schedule described above in section 3.6