

Jerzy Dietl*, Krystyna Iwińska-Knop**

CONSUMPTION AND TRADE
IN CENTRALLY-PLANNED
AND MARKET-ORIENTED ECONOMIES
(POLISH AND GERMAN EXPERIENCE)

1. INTRODUCTION

The article is an attempt at comparing consumption and trade in two countries with completely different socio-economic systems and levels of economic development¹. Such comparison may arouse some doubts prompted both by a different macro-environment, including mainly the socio-political system, and by incomparability of certain types of information. The latter results from absence of market evaluation of factors of production and consumption in conditions of the centrally-planned economy, and from different systems of grouping statistical data and methodology of obtaining initial data. To the best of our abilities were tried, however, to ensure comparability of these data. The analysis is largely based on general statistics and on findings of empirical studies, including our own studies.

2. CONSUMPTION IN POLAND AND WEST GERMANY

As it could be expected differentiation of consumption is by far bigger in the FRG than in Poland. For this comparison we

* Full professor of marketing in the School of Economics and Sociology of Łódź University, Łódź, Poland.

** Assistant professor of marketing in the School of Economics and Sociology of Łódź University, Łódź, Poland.

¹ Thus e.g. per capita GDP amounted to US \$ 1,967 in Poland in 1986 and to US \$ 14,646 in the FRG (i.e. it was 7 times higher). P. Aleksandrowicz, 1700 Dollars per Capita, "Gazeta Bankowa" 1988 No. 7, p. 5 (in Polish).

shall use the Theil measure of entropy². This index amounted to 0.511 for Poland in 1960 and to 0.798 for the FRG. In 1982 it reached 0.532 and 0.843 respectively³.

The data quoted above allow to draw two conclusions. Firstly, in both years used for comparison dissimilarities as regards degree of differentiation of personal consumption are very big in favour of the FRG. Secondly, these dissimilarities have deepened considerably. It appears, moreover, that in as much as an extremely high level of consumption diversification has been achieved in the FRG, which was displaying an upward trend till the mid-70's (the relevant index amounted to 0.843 in 1976) a reverse trend could be observed in Poland. Although diversification of consumption had been increasing till the mid-70's it was later displaying a downward trend rising next a little in 1984 (the corresponding indices were: 0.682 in 1976; 0.532 in 1982 and 0.653 in 1984)⁴.

These differences result not only from the low consumption level in Poland but also from an extremely poor assortment of goods (this problem will be discussed further on). The above statements find their confirmation when we compare the share of

Table 1

Share of primary consumption in total personal consumption
(in %)

Years	1960	1968	1976	1982	1983	1984
Poland	84.6	84.9	74.4	77.5	74.7	72.2
FRG	60.5	57.9	52.8	52.0		

Source: M. Iwanek, op. cit., p. 34.

² Denoting by W_1, W_2, \dots, W_n shares of successive goods in in total individual consumption the measure H (entropy) may be defined as $H = -\sum_{i=1}^n W_i \cdot \log_{10} W_i$. This measure assumes the value equal to unity only when shares of all goods (groups of expenditure, groups of needs) are identical in consumption (i.e. $W_i = 1/n$). Such situation is a peculiar point of reference, the more heterogeneous is consumption (in the sense of absence of domination of some needs over others) the closer to unity is value of the measure H . (M. Iwanek, Consumption Changes in Poland against Background of International Comparisons. IRWiK, Warsaw 1987, p. 34 (in Polish).

³ Ibid., p. 34.

⁴ Ibid., p. 34.

primary consumption⁵ in total personal consumption and in retail sales.

The differences between Poland and the FRG appear to be very significant and, what is even worse, they tend to be increasing. On the other hand, if we compare the share of foodstuffs together with alcohol in retail sales⁶ it will appear that the above mentioned disproportions are even bigger.

Table 2

Share of foodstuffs sales in total retail sales (in %)

Years	Poland	FRG
1960	42	38
1975	34 (49)*	31
1980	34 (50)*	28
1988	36 (52)*	30

* including alcohol

Source: Statistical Yearbook 1970 Table 5, p. 323; 1976 Table 4, p. 357; 1986 Table 7, pp. 385 and 386 (in Polish); Statistisches Jahrbuch 1966, p. 30, Statistische Daten 1985-1986 Table 6, p. 28. Own computations.

It could be generally said that the share of food sales is much higher in Poland than in the FRG despite the fact that agricultural population (30% of total population) covers almost one-third of its food needs on its own. Moreover, there is quite big consumption of food items coming from private gardening plots gardens, etc. in Poland. It should be noted also that prices of foodstuffs in Poland are relatively low in relation to prices of non-food articles as a result of subsidizing the former by the State, while the latter carry also a high turnover tax⁷. Finally, over 10 per cent of all retail sales are sales of procurement

⁵ Primary consumption is understood here to mean satisfaction of needs in the area of food, alcohol and tobacco, clothing and footwear, and housing (rent, electricity, fuels).

⁶ In the FRG's statistics foodstuffs, beverages and alcohol are grouped together, and hence it became necessary to compile corresponding estimates for Poland (foodstuffs without and with alcohol) to obtain comparable data.

⁷ Existing price relations between staple and the so-called luxury items, and even between foodstuffs and consumer durables affect negatively equilibrium in the food market. Extremely high prices of consumer durables affect also the wealth of households and in this way of the entire national economy (H. Szulce, Influence of Trade Functions on Consumer Behaviour. "Przedsiębiorstwo i rynek" 1987 No. 4, pp. 13-14 (in Polish)).

goods meant for consumption i.e. mainly production supplies for farmers and procurement goods for offices and other institutions. In the FRG products for small consumers not meant for direct consumption are distributed through a network of mass-merchandisers, whose turnover is not included into retail trade statistics.

Making adjustments for the already mentioned subsistence consumption in Poland and for sales of non-food items through the trade network it may be accepted that the share of foodstuffs together with alcoholic drinks is almost twice higher in Poland than in the FRG. The much higher and increasing share of non-food items in total retail sales in the FRG involves quite naturally major differences in the structure of sales. Thus, for example, if we take into account garments their shares in retail sales in both countries were similar accounting for 25% in Poland in 1970 and 22% in the FRG; 19 and 21% in 1980; and 17 and 20% in 1985 respectively. In the case of furniture its share in the FRG was over twice bigger in comparison with Poland: in 1970 13% and 6% correspondingly; 15 and 7% in 1980; and 14 and 7% in 1985. It is quite obvious that differences in the assortment structure of retail sales result not only from different consumption levels but also from different structure of process, and shortages of goods and services in Poland.

A different structure of retail sales from the consumer's viewpoint finds reflection in differences as regards width and depth of goods assortment offered by retail trade. The comparison of findings of our own studies with those in the FRG indicates that in stores carrying basic food items and complementary non-food products their assortment is 8 times bigger and in large supermarkets - 15 times bigger in the FRG than in Poland. Moreover, in as much as in the FRG the number of different items belonging to one assortment tended to increase considerably over a longer period of time⁸ it was rather stable in Poland. It could be also added that the assortment of goods to be found in the Polish stores consists largely of those goods which are not very attractive for consumers, with a store's selling area often performing a function of storage area for products uninteresting for buyers. This situation finds its expression also in a very small number of products per 1 m² of a store's area. For example food stores in Poland have on the average three products per each

⁸ See: Mehr Märkte auf kleineren Flächen, Dynamik im Handel 1987 No. 2, p. 8.

1 m² of their area as compared with 12 products in small grocery stores and supermarkets in the FRG⁹. It should be added here that frequency of goods deliveries to the Polish stores is very small and simultaneously quite changeable over time. There are periods, including even hours of a day or days, in which it is difficult to obtain basic items. Finally, the monopolized Polish economy causes big similarities in goods assortment in all stores while in the FRG even in the case of staple products the stores belonging to different organizations but with a similar branch profile offer quite differentiated assortments of products.

It could be added that retail sales play a much bigger role in the population's consumption in Poland than in the FRG. The analysis of the period 1960-1985 reveals that the share of retail sales (in current prices) in consumption amounted to around 80% in Poland - 79% in 1960, 86% in 1975, and 78% in 1985 as compared with 46%, 46% and 47% respectively in West Germany. Thus, with a more stable level of this index in the FRG it is almost twice higher in Poland. That is not only a consequence of lower living standards but also of the already mentioned different structure of prices for consumer goods and services, e.g. very low housing rents in Poland. Somewhat bigger differences between Poland and the FRG can be observed as regards the share of trade in the population's discretionary fund, which amounted to 81% in Poland in 1970 and 73% in 1984 as against 40 and 41% in the FRG. These differences have decreased a little during the last few years as a result of a relative increase in prices of goods and services acquired in Poland outside the retail network.

3. CONSUMPTION OF CERTAIN CONSUMER GOODS PER 1 INHABITANT

The data shown in Table 3 lead to several interesting conclusions. Consumption of the so-called calorie-rich products and especially meat and fish, is much higher in the FRG. Thus, for example, in 1984 consumption of beef meat was by 37,5% higher than in Poland, pork - by 82.9%, and poultry - by 41.2%¹⁰. In the

⁹ See: E. Threis, Grössenbedingte Vor- und Nachteile mittel - ständische Einzelhandel im Wettbewerb, Vahlen Verlag München 1981, pp. 50-54.

¹⁰ It could be added that consumption of meat and pluck per capita in Poland in 1984 was the lowest among the socialist countries. By comparison it

Table 3

Per capita consumption of certain consumer items in Poland and the FRG between 1975 and 1984

Item	Unit of measure	1975		1980		1984	
		Poland	FRG	Poland	FRG	Poland	FRG
Products from 4 main grains	kg	120,0	66,9	127,0	67,8	124,0	72,7
Rice	kg	2,0	1,8	3,2	1,7	2,2	2,2
Protatoes	kg	173,0	79,5	158,0	80,5	149,0	72,6
Sugar	kg	43,0	34,3	41,4	35,6	45,0	35,6
Vegetables	kg	94,0	69,7	101,0	64,2	116,0	72,5
Fruits	kg	.	130,0	37,7	116,2	36,6	115,7
Meat and pluck	kg	70,3	82,5	74,0	90,6	57,2	90,3
Beef	kg	15,5	21,2	18,5	21,5	16,0	22,0
Pork	kg	40,9	43,7	37,2	50,3	28,0	51,2
Poultry	kg	.	9,1	11,2	9,6	6,8	9,6
Fish and fish products	kg	7,2	13,5	8,1	14,8	7,9	16,0
Fats	kg	23,0	25,0	24,8	26,2	22,4	26,0
animal	kg	8,1	6,3	8,1	6,4	6,4	6,6
vegetable oils	kg	7,5	13,2	7,8	13,9	7,6	13,3
butter	kg	7,4	5,5	8,9	5,9	8,4	6,1
Tea	g	400,0	168,1	713,0	240,8	790,0	252,9
Beer		36,8	147,8	30,4	145,9	26,6	144,8
Cigarettes	litres number	2499,0	.	2679,0	2086,0	2470,0	1962,0

Source: Statistical Yearbook 1976 Table 12, p. 85; 1985 Table 14, p. 128 (in Polish); SB in Zahlen 1986, p. 204.

case of fish the difference reached a high 102.5%. Moreover, consumption of products with high vitamin content, that is vegetables and primarily fruit, is extremely low in Poland (three times higher consumption of fruit in the FRG). And although various indices show that consumption of vegetables is higher in Poland than in the FRG it should not be forgotten that cabbage represents ca. 70% in the Polish vegetable diet. The fact that Poland consumes almost twice more cheap calories contained in grain products and potatoes is most alarming. Similar remarks can be referred to consumption of sugar, which was found to be nearly 40% higher than in the FRG. Consumption of fats, although remaining at a level similar to that in the FRG should be considered especially unfavourable in Poland, since it includes the so-called "cheap" and exceptionally unhealthy fats, mainly lard. On the other hand, consumption of vegetable oils cannot be evaluated only by comparing absolute figures, because Poles consume mainly unhealthy rape oil, while Germans consume exclusively soy, sun-flower, and olive oils.

A. STRUCTURE OF EXPENDITURE IN EMPLOYEE HOUSEHOLDS

This comparison will be based on the studies of family budgets in both countries. Two types of households were taken into account. The first of them were four-person employee households in Poland and four-person households of average-income employees in the FRG. The second type are households of retired persons in Poland, and of retirees and persons with low incomes obtaining welfare assistance in the FRG¹¹. We are aware that this comparison may arouse some doubts. Four-person employee households in Poland accounted for 33 per cent of all employee households in the FRG, while the budgets under study refer only to a part of the population, because they do not encompass employers.

reached 84.8 kg in Czechoslovakia, 75.4 kg in Bulgaria, 94.4 kg in the GDR, 78 kg in Hungary, and 60.4 kg in the USSR (H. Gwizdź, *Tendencies in Consumption of Consumer Goods in Czechoslovakia against the Background of other Socialist Countries*, HW 1986 No. 4-5, p. 75 (in Polish)).

¹¹ Three main types of households are distinguished by the German statistics. The first encompasses retirees and persons with low incomes benefiting from welfare assistance. The second are 4-person households of employees with average income. The third refers to 4-person households of white-collars with high incomes.

Table 4

Structure of expenditure in employee households in Poland and the FRG in the period 1970-1985

Item	1970		1975		1982		1985	
	Poland	FRG	Poland	FRG	Poland	FRG	Poland	FRG
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Foodstuffs	46,4	30,6	40,7	28,1	52,0	26,9	49,7	25,7
Clothing and footwear	14,8	10,6	15,5	10,3	11,5	8,5	14,1	8,2
Fuels, electricity and heating	4,0	3,7	2,9	4,5	2,7	7,0	2,4	7,3
Personal hygiene and health care	3,2	4,6	2,9	5,0	2,6	3,3	3,0	3,2
Culture, education, sport	9,0	7,3	9,4	7,6	9,5	8,8	10,4	9,0
Housing	9,2	24,8	12,6	24,7	9,7	26,1	11,2	27,6
Transport and communication	4,9	13,6	5,4	14,2	5,9	15,2	6,4	14,8
Other expenses	8,5	4,8	10,5	5,6	5,3	4,2	2,8	4,2

S o u r c e: Statistical Yearbook 1972 tab. 24, p. 544; 1976 tab. 20 p. 92; 1983 tab. 24 p. 120. Own computations. SB in Zahlen 1984 p. 178, 1986 p. 201.

- N o t e: 1. For Poland, there have been given average annual expenditures per one person in 4-person employee households.
 2. For the FRG - distribution of income in 4-person households of employees with average incomes.
 3. Housing: for the FRG - rents + running a household.

Table 5

Structure of expenditure in 2-person households of persons obtaining retirement and disability pensions in Poland and the FRG in the years 1982 and 1985

Item	1982		1985	
	Poland	FRG	Poland	FRG
Total	100,0	100,0	100,0	100,0
Food	67,2	33,0	58,3	30,5
Clothing and footwear	6,7	5,6	9,0	5,4
Fuels, electricity and gas	5,0	9,0	4,9	9,9
Higiene and health care	3,1	4,9	3,2	5,0
Culture, education, sport	5,1	5,1	5,4	4,7
Housing	6,5	30,7	9,5	31,9
Transport and communications	2,5	7,6	3,4	9,4
Other expenses	3,8	3,2	6,2	3,2

Source: Statistical Yearbook 1983, tabl. 24, p. 120; 1984 tabl. 24 p. 133; 1985 tabl. 24 p. 139. SB in Zahlen 1984 p. 180; 1985 p. 198; 1986 p. 200. Own computations.

It can be accepted, however, that the obtained results give an approximated picture of the structure of expenditure in both countries.

Tables 4 and 5 allow to formulate several interesting conclusions. Firstly, differentiated living standards in both countries find reflection in the structure of expenditures. Secondly, the share of expenditure on food is much higher in Poland than in the FRG. This concerns in particular persons obtaining old age and disability pensions. That is due to several reasons. The rationing of some foodstuffs, alcohol and cigarettes was forcing out purchases of these products exceeding real needs. Moreover, prices of foodstuffs in Poland are subsidized. Hence, if we accepted an assumption about non-subsidizing prices of agricultural products the share of food expenditure would be even higher. It could be added here that in the group of retired persons the elasticity of expenditure on food in relation to total expenditure is the highest, and among persons with the lowest incomes it is even higher than 1. Thus, the poorest households spend the entire increment of their income (including total expenditure) on food¹².

¹² A. Goryl, A. Walkosz, Differentiation of Food Consumption According to Household Types, "Wiadomości Statystyczne" 1987 No. 7, pp. 7-9 (In Polish).

Thirdly, per capita expenditure in both types of households under study was much higher in the FRG than in Poland. That is due to high housing rents, prices of goods and services satisfying needs in the field of housing, and availability of these products in the FRG. Housing is subsidized in Poland and, moreover, demand for it is not satisfied. Thus, if there was a free market for housing prices of flats and houses and, consequently, expenditure on housing would be even higher.

It should be noted, however, that in as much as in Poland persons receiving retirement and disability pensions spend less on housing than employee households a reverse trend can be observed in the FRG.

Fourthly, retired persons in both countries spend much more on fuels and electricity than employee households. In Poland, the share of expenditure on fuels and electricity is lower than in the FRG. It is determined by prices and a small size of flats. This share in the FRG was lower than in Poland only in 1970 which must have been due to the fact that after 1970 i.e. following the energy crisis the prices of fuels and electricity went up in the FRG.

Fifthly, the share of expenditure on clothing and footwear in both types of households under study is higher in Poland than in the FRG. These products are prestige items in Poland. Their purchases, especially in employee households, are often prompted by demonstration effect. The prices of clothing and footwear are high in Poland, because an element of their price is a high consumption tax in the form of turnover tax, while in the FRG turnover tax for these products is similar to that on foodstuffs and amounts to ca. 15%.

An even bigger and growing differentiation of living conditions of both these societies will be visible if we compare the purchasing power of mean wages in Poland and the FRG (Germany) in the years 1938-1985 expressed in minutes of working time necessary to buy some products. And thus, for example, to buy 1 kg of whole-meat bread in 1938 the difference between Poland and the FRG was only 1% in favour of Germany. This difference rose to 14% in 1958 and to a high 27% in 1985 despite exceptionally high subsidizing of grain products in Poland. In the case of milk these differences amounted to 41,90 and 125% respectively in spite of the fact that the price at which milk is purchased from farmers is several times higher than its retail price. As far as

butter is concerned the corresponding indices were 52, 227, and 1078% which means that to buy the same quantity of butter it was necessary to work 11 times longer in Poland than in the FRG although butter is also subsidized in Poland. In turn, for pork meat these differences amounted to 13, 42, and 932% which means they were over 9 times higher in Poland. Only in the case of electrical energy these relations were less favourable before the war than today although even today one has to work twice longer in Poland than in the FRG to purchase one unit of electricity despite the fact that it is incomparably cheaper in Poland than in the FRG. On the other hand, if we take into account such products as petrol, one had to work over 10 times longer in Poland to purchase it in 1985 than in the FRG, and to buy coffee - over 30 times longer as compared with 4.5 times longer in 1958¹³.

The above comparison shows that differences in living conditions between Poland and the FRG have been growing extremely rapidly in favour of the FRG in recent years.

5. ROLE OF TRADE IN ECONOMY

The main index describing the national role of trade is the share of trade in both countries in the GNP

Table 6
Share of trade in GNP in the period 1970-1985

Year	Poland	FRG
1970	7,9%	10,4%
1980	8,3%	10,2%
1985	12,7%	9,9%

Sources: World Bank Report: Poland, reform, adjustment and growth 1987 p. 82, Rocznik Statystyczny (Statistical Yearbook) 1987 p. 89; Statistisches Jahrbuch 1962 p. 564; 1987 p. 549.

Thus, the differences not only disappear but we could even observe a higher share of trade in the GNP of Poland in comparison with the FRG. It should be noted, however, that the share of trade in generation of the GNP in conditions of the centralized

¹³ Source: Call-Word - Consumption, "Profil" 1988 No. 10, p. 32; Small Statistical Yearbook GUS 1937, Table 24, p. 235; Statistical Yearbook 1960, p. 413, pp. 402-404; Statistical Yearbook 1988, pp. 399-405, p. 157 (all in Polish), and own computations.

management of economy was determined "from above" by rates of trade profit margins, wages of trade personnel, and investment at locations¹⁴. Till 1985, trade margins in Poland had been fixed by the state at a low level and they rose in that year, which found its reflection in values of the analyzed index. This should not be a reason for excessive optimism, as high accumulation in trade was not earmarked for development of this sector, and it was largely transferred to the state budget in form of taxes. On the other hand, in the FRG the accumulation was earmarked for entrepreneurs' incomes and interest on own capital.

Comparison of the share of employment in trade in the total employment in economy outside agriculture and forestry shows that it was much higher in the FRG than in Poland.

Table 7

Share of employment in trade in the total employment
in economy outside agriculture
and forestry in the period 1955-1985

Year	Poland	FRG
1955	9.2%	12.8%
1960	9.2%	13.4%
1975	7.0%	13.8%
1980	8.2%	14.0%
1985	9.2%	13.7%

Source: Rocznik Statystyczny 1961 p. 44, 336; 1976 p. 57; 1986 p. 64; Statistisches Jahrbuch 1962 p. 596; 1986 p. 105.

Thus, despite the fact that capital-intensity of the German trade increased during the 20-year postwar period, its role in the total employment decreased as a result of its big quantitative dynamics. On the other hand, in the last few years a marked process of concentration in trade, further growth of its capital-intensity, and technical-organizational progress made it possible to reduce its share of employment in relation to other services. The years 1980-1985 witnessed even a negative rate of employment growth in trade (-0.9), and its upward trend in other sectors of services¹⁵. That was due, to some extent, to

¹⁴ H. Mruk, Trade and National Income, "Przedsiębiorstwo i Rynek" No. 3-4, 1986 p. 31 (in Polish).

¹⁵ S. Szukalski, Structural Transformations in the FRG Economy in the Period 1960-1985, "Gospodarka Planowa" 1987 No. 5, p. 225 (in Polish).

economic recession and "relative saturation of economy by trade", which resulted in a drop in employment dynamics in trade.

As it has already been mentioned, trade in the FRG is much more capital-intensive than in Poland. In 1980, the ratio of gross fixed assets to the GNP generated by trade amounted to 0.6 for Poland and 1.5 for the FRG, and with regard to net fixed assets - 0.4 and 1.2 respectively¹⁶.

Apart from absolute and relative differences it must be pointed out that the rate of decapitalization of fixed assets in the Polish trade was higher than in the FRG¹⁷.

Differences in the share of investment outlays in trade in relation to the total investment outlays in economy between both countries were quite significant in favour of the FRG. They were, however, diminished, which was mainly a result of common investment cuts in Poland, and especially their large-scale freezing in industry.

6. EMPLOYMENT IN TRADE

We shall pass now to more detailed presentation of employment and its structure in trade taking into consideration main demographic characteristics, i.e. sex and age.

Feminization in trade was much greater in Poland than in the FRG. Index of the share of women in the total employment in trade reached 72% in Poland in 1984 and 54% in the FRG. That was due, at least to some extent, to the expanded wholesale trade and the institution of middlemen in the FRG characterized by much lower shares of women. Meanwhile, differences in the age structure of work force in trade are insignificant in both countries. Mean age was 35.6 years in the FRG and 36.2 years in Poland. On the other hand, there were employed more young men in the FRG, e.g. the share of men under 30 years of age was 44% in the FRG in 1985 and not quite 30% in Poland. That is due to more developed functions of wholesale trade in the FRG and to bigger professional activity of women in Poland.

The Structure of employment in both countries shows that the share of employment in wholesale trade in total employment in

¹⁶ Rocznik Statystyczny GUS 1983, p. 71; Statistisches Jahrbuch 1986 p. 532

¹⁷ P. Glikman, Reproduction of Fixed Assets in Poland, PWE, Warsaw 1987 pp. 142-143 (in Polish).

trade amounted to 25.2% in Poland in 1970, and to 18% in 1985. In the FRG it was 41.7% and 40.4% respectively. The share of employment in retail trade in total employment in trade was 81-82% in Poland in the period 1980-1985 and under 60% in the FRG¹⁸.

The above figures indicate that functions of wholesale trade and trade middlemen are much better developed in the FRG than in Poland. That is due to several reasons. Production in the Poland is much more concentrated than in FRG. Both in the industrial market and in the consumer market there exists administrative distribution in relation to a considerable part of all products. The seller's market causes that it is not necessary to perform many activities connected with selling of products. Functions of wholesale trade and products allocation are taken over, to some degree, by the economic Centre through centrally-controlled allotments and the so-called "government orders"¹⁹. Wholesale trade has its functions restricted mainly to physical distribution of products without fulfilling functions typical for it in the market economy countries. On the other hand, a high share of employment in retail trade in Poland in the total employment in trade does not result at all from more expanded functions of this trade. Low value added causes that the main activity of trade is physical distribution of products requiring primarily engagement of human factor in retail trade.

There were not revealed any differences in levels of mean wages in trade and in industry. In both countries, the former accounted for 72% of the latter in 1985²⁰.

Relative wages in trade display rather a downward trend in Poland as compared with some upward trend of these wages in the FRG. Consequently, motivation to work in trade is higher in the FRG than in Poland.

7. EFFECTIVENESS OF TRADE

The comparison of effectiveness of trade was arousing the biggest doubts. We took mainly into account a microeconomic ap-

¹⁸ Rocznik Statystyczny GUS 1976 p. 375, 376, 378; 1986 p. 394; Statistisches Jahrbuch 1980 p. 101; 1986 p. 105.

¹⁹ T. Wojciechowski, Rationing of Materials: Causes, Consequences and Possibilities of Restricting it, "Gospodarka Planowa" 1986 No 10 p 391 (in Polish).

²⁰ Rocznik Statystyczny GUS 1986 p. 382, 233; Statistisches Jahrbuch 1986 p. 477.

proach using symptomatic indices reflecting utilization of capital and labour. Thus, comparison of profitability of trade in conditions of trade margins being fixed in part centrally by the state and permanent shortages in Poland is very difficult. Moreover, economic relations in Poland have been shaped mainly through non-market regulation and not market regulation as in the FRG. Nevertheless, the gathered materials induce interesting conclusions and reflections.

The Polish trade is very cheap but, simultaneously, utilities provided for consumers by it are characterized by their exceptionally low level - both quantitative and qualitative. It moreover becomes a bottleneck in economy.

The gross margin in the consumer goods market in relation to retail sales in the period 1977-1985 was as follows: 14.4% in 1977; 15.4% in 1980; 13.8% in 1985²¹. In the FRG, for retail trade alone the margin was twice higher. It must be added, however, that this margin included also sales tax (Mehrwertsteuerinkasso) accounting for ca. 10% of retail sales. Still, after deducting sales tax (see: Table 8) the retail margin was over twice higher than in Poland.

On the other hand, smaller differences were observed with regard to wholesale margins (Table 9). They can be said to be reliable when comparing margins in the so-called "procurement trade" in Poland and wholesale trade in the FRG. Unfortunately wholesale trade margins in Poland are included into overall retail sales. The Polish statistical sources do not provide data about wholesale turnover, because it is not excluded from turnover of retail companies having their own wholesale networks. On the ba-

Table 8

Margin of retail trade in relation to sales
(in %)

Years	Poland	FRG	$\frac{\text{FRG}}{\text{Poland}}$	$\frac{\text{FRG}^*}{\text{Poland}}$
1975	-	28.5	.	.
1980	10.8	34.9	3.2	2.3
1981	11.0	34.5	3.1	2.2

* After subtracting sales tax from margin in the FRG (Mehrwertsteuerinkasso) amounting to around 10% in the years 1980-1984.

Source: Rocznik Statystyczny 1982 p. 322; Statistisches Jahrbuch 1981 p. 232; 1985 p. 239.

²¹ Rocznik Statystyczny GUS 1985, p. 370; 1986 p. 382.

Table 9

Wholesale margin in relation to sales
(in %)

Years	Poland		FRG
	consumer market	industrial market	
1980	4.6*	8.9	13.2
1981	4.8*	9.3	12.7
1983	-	-	12.7

* In relation to total retail sales.

Source: Rocznik Statystyczny 1982 p. 336; Statistisches Jahrbuch 1980 p. 237; 1985 p. 234.

sis of the presented data and other information, we estimate that wholesale margins in the FRG are only by ca. 30% higher than those of wholesale trade in Poland. This shows that wholesale trade in Poland both in industrial and consumer markets is very costly taking into account services it provides in relation to the remaining participants of a distribution channel. Such a statement can be supported by several arguments.

Wholesale trade especially in the case of means of production is carried out almost exclusively by means of administrative distribution. It requires costly hierarchical bureaucratic structures. Among its shortcomings are organizational concentration as a result of which there have been created in the wholesale market (consumer, agricultural products purchasing industrial supplies procurement, and foreign trade) branch monopolies strengthened by an intermediate management level displaying tendencies of pursuing allocations of products among companies. At the central level, balances of many products are drawn and production priorities were fixed in the form of operational programmes and government orders. Additionally, both in domestic trade and in foreign trade there had to be used compulsory middlemen, and this system is actually still binding despite apparent liberalization of the process of selecting a middleman. All these procedures are extremely costly, they pose an effective obstacle to the widening and deepening of products assortment and hamper appropriate allocation of goods introducing a discretionary element to it.

A characteristic feature of wholesale, especially in the industrial market, is its production orientation finding its re-

flection in integration ties with industry and undermining provision of numerous services typical for wholesale trade and justifying its existence.

In the FRG, similarly to the other market-oriented economies, wholesale companies are among smaller companies. In most cases, particular wholesale units have only a local coverage performing many operations and functions resulting from the intermediate position held by them between a producer and an end user. They organize selling systems, perform market information functions within a market channel, and carry out transmission of goods assortment from its production to consumption orientation.

It can generally be said that taking into consideration together wholesale and retail trade the Polish society carries much smaller costs of its functioning than the German society. However, if we include social costs of this trade the situation will be reversed. That is due to the fact that the range of services provided by trade in Poland is limited while their quality is very low. Underdevelopment of trade accounts for its high external costs, which besides consumers are also incurred by the remaining partners in a market channel, i.e. industry and agriculture.

Moreover, it could be added here that with prevailing high trade margins in the FRG, consumers have a possibility of choosing a "more expensive" or a "cheaper" trade, because costs, and consequently margins, are very much differentiated among trade companies and its forms. It should be also added that lower margins and costs are not always connected with worse quality of products. An example here could be Aldi Corporation. In its stores, there can be found the lowest prices of basic foodstuffs and a complementary assortment of non-food items. Their customers do not necessarily represent however lower incomes groups of the population.

As it can be concluded from earlier deliberations the level of trade costs was much higher in the FRG than in Poland. Thus, for instance, in 1984 it constituted 10.5% of retail sales for wholesale and retail trade taken together in Poland. Meanwhile, in the FRG for retail trade alone it reached 24.5%. Thus, it was 2.3 times higher than in Poland. Taking into account wholesale costs it may be accepted that the level of trade costs is 3 to 3.5 times higher in the FRG than in Poland. Hence, it is no wonder that trade in the FRG enjoys incomparably better conditions for provision of its services than trade in Poland. Of course, that

is also largely due to much better material-technical base of trade in the FRG and existence of the buyer's market.

Unfortunately, it is rather difficult to perform a reliable and comprehensive comparison of the structure of costs. Despite it some interesting conclusions could be drawn here.

Labour costs were substantially higher in the FRG than in Poland. For example, in 1984 they represented in Poland 3.3% of sales taking into consideration only wages of employees, reaching 5.2 together with wage tax and various benefits provided for employees. Basing on the latter figure, employees' pay in the FRG in relation to sales was 2.4 times higher (12.3%). Including also entrepreneurs' incomes to labour costs, it was 3.3 times higher (16.9% jointly)²². Even greater differences were to be found in the field of amortization. In 1984, it amounted to barely 0.18% in relation to sales in Poland and a high 1.3% in the FRG, and thus it was over 7 times higher. Omitting here certain differences, which may be a result of different amortization rates in both countries and valuation of fixed assets, there is no doubt that this difference reflects very well disparities in capital-intensity of trade in both countries.

A certain group of costs, which were relatively high in one of these countries, did not exist practically at all in the other. These were rental charges amounting to a high 3.2% of total sales and displaying an upward trend in the FRG in 1984 (2.6% in 1980). These costs were insignificant in Poland. That was due to the fact that in Poland rents were fixed at a very low level, stores and warehouses were largely a property of trade companies and, finally, the trade network itself was much smaller than in the FRG.

Costs of advertising represented 1.4% of sales in the FRG between 1980 and 1984 and they were one of the most stable items of costs in the German trade. On the other hand the Polish trade did not incur practically any costs connected with advertising.

Meanwhile, the level of the so-called "other costs" was relatively high in Poland (5% in relation to sales). These costs encompass primarily various services provided by other firms. For example, transport services accounted for 1.4% of sales, while in the FRG trade companies almost fully rely on their own transport

²² Rocznik Statystyczny GUS 1987 p. 386; 39 Arbeitsbericht, Hauptgemeinschaft des deutschen Einzelhandels 1986 p. 20.

Costs of repair and renovation services supplied by other specialized firms made up 0.4% of total sales.

Accumulation in trade in Poland and the FRG (figures for the latter in brackets) in relation to sales constituted 3.6% (4.7%) in 1980; 3.4% (3.8%) in 1981; 2.2% (3.3%) - 1982; 2.2% (3.7%) - 1983; 2.5% (3.2%) - 1984; and 3.2% (3.0%) in 1985.

In the FRG accumulation was earmarked for entrepreneurs' wages - 4.6% in relation to sales in the period 1980-1985 and interest on invested capital - 0.7% (same period). Together, it represented 5.3% on the average during that period. Thus, the balance-sheet outcome of trade was negative and ranged around 0.9% annually in relation to sales.

In Poland, on the other hand, a predominant part of accumulation earned by trade was transferred to the state budget in the form of taxes and various other payments. Simultaneously, however some companies were obtaining subsidies. There was, moreover, used the so-called "compensatory accounting", which implied in practice additional taxation of incomes obtained by certain companies. Consequently, net profitability of wholesale and retail trade together reached 1.55% in 1985 and 1.76% in 1986²³.

The financial effect of trade companies in Poland contains a completely different content than in the FRG. The difference concerns the already mentioned income of an entrepreneur and interest on invested capital in the FRG. Moreover, in Poland a part of the financial effect is transferred to personnel. Taking into account all these circumstances, it may be stated that profitability of trade in West Germany was twice higher than in Poland. Obviously, this profitability cannot be treated as an adequate measure of effectiveness because in Poland the majority of trade margins were fixed centrally and, consequently, profitability was determined in advance depending, to an insignificant degree, on performance of trade companies.

8. UTILIZATION OF MEANS OF PRODUCTION ENGAGED IN TRADE

Utilization of means of production in Poland and the FRG in 1985 is presented for comparative purposes in Table 10. It appears that labour productivity measured by volume of sales per one employee was only by 37% higher in the FRG with an incompa-

²³ Rocznik Statystyczny GUS 1987 p. 387.

rably bigger catalital-intensity of the German trade. That is yet another proof of a wide range of services provided by trade in this country, mainly as regards its offer of a full and wide assortment of goods. Meanwhile, low capital-intensity in the Polish trade, its primitive network, anachronistic way in which stores are supplied with their goods, and, finally, ill-adjustment of a part of all goods supplied to retailing requirements all cause that work in the Polish trade is very hard. Physical and psychic exertion of its employees is incomparably bigger than that of their counterparts in the FRG.

The material-technical base of the Polish trade was excessively burdened, as utilization of the total area of stores, measured by sales volume per 1 m^2 , was almost twice bigger than in the FRG, and three times bigger taking into account the selling area. As it could be expected, the total area of stores in West Germany was 3.4 times bigger or 5 times bigger as regards their selling area. Much smaller storage area in the FRG than in Poland is possible owing to introduction of modern information systems allowing for efficient monitoring of stocks and supplies, much greater frequency of deliveries, common containerization, properly specialized transport, and supply of pre-packaged goods.

Although the total number of employees per one store was by 45% higher in the FRG than in Poland, as a result of much bigger area of stores in the FRG the number of square metres of the selling area per one employee was 3.5 times bigger in the FRG than in Poland. Once again a reference should be made to a low capital-labour ratio in Poland, excessive administration personnel both in stores themselves and in the entire bureaucratic superstructure.

Despite many times bigger number of products sold in the German trade, the ratio of stocks to sales is much lower here while rotation of products is similar. Storage of goods occupies naturally much bigger area of stores in Poland. This demonstrates explicitly social costs incurred by economy as a result of non-market regulation. In the situation of such limited assortment common supply shortages, absence of hard constraints on demand side in the adjustment process of companies, an extremely huge capital is frozen in stocks of goods, which are generally little attractive for consumers.

Table 10

Utilization of means of production engaged in trade in 1985

Item	Poland	FRG	FRG Poland (in %)
1. Sales per 1 employees in DM	143.0	195.7	137
2. Sales per 1 store in DM'000	598	1187	199
3. Average total area of a store in m ²	99	338	341
4. Average selling area of a store in m ²	40	200	500
5. Sales volume per 1 m ² of total area in DM'000	6.0	3.5	58
6. Sales volume per 1 m ² of sel- ling area in DM'000	15.1	5.9	39
7. Number of employees per 1 store	4.2	6.1	145
8. Number of m ² of selling area per 1 employee	9.5	33.0	347
9. Stocks per 1 employee in DM'000	13.9 ^a	42.3 ^b	304
10. Stocks per 1 m ² of total area in DM'000	1200 ^a	1020 ^b	85
11. Stocks in relation to sales (in %)	20.0 ^a	12.1 ^c	61
12. Rotation of stocks	9.5 ^a	5.6 ^d	97
		12.9 ^e	

Note: a - wholesale trade and retail trade; b - retail trade in 1984; c - 1981; d - retail trade in 1980; e - wholesale trade in 1980.

Sources: Rocznik Statystyczny 1987 p. 385, p. 396; Statistisches Jahrbuch 1981 p. 245, p. 237; Handels und Gaststättenzahlung 1985 p. 29. Own conversions.

BIBLIOGRAPHY

- Aleksandrowicz P., 1700 Dollars per Capita, "Gazeta Bankowa" 1988 No. 7, p. 5 (in Polish).
 Call-Word-Consumption, "Profil" 1988 No. 10 p. 32.
 Glikman P., Reproduction of Fixed Assets in Poland, Warsaw 1987 (in Polish).
 Goryl A., Walkosz A., Differentiation of Food Consumption According to Household Types, "Wiadomości Statystyczne" 1987 No. 7, pp. 7-9 (in Polish).

- G w i Ź d Ź H., Tendencies in Consumption of Consumer Goods in Czechoslovakia against the Background of other Socialist Countries "Handel Wewnętrzny" 1986 No. 4-5, p. 75 (in Polish).
- I w a n e k M., Consumption Changes in Poland againsts Background of International Comparison, IRWiK, Warsaw 1987 (in Polish).
- Mehr Märkte auf Kleineren Flächen, Dynamik im Handel 1987 No. 2, p. 8.
- M r u k H., Trade and National Income, "Przedsiębiorstwo i Rynek", 1986 No. 3-4, p. 31 (in Polish).
- S z u k a l s k i S., Structural Transformations in the FRG Economy in the Period 1960-1985, "Gospodarka Planowa" 1987 No. 5, p. 225 (in Polish).
- S z u l c e H., Influence of Trade Functions on Consumer Behavior, "Przedsiębiorstwo i Rynek" 1987 No. 4, pp. 13-14 (in Polish).
- T h r e i s B., Größenbedingte Vor- und Nachteile mittel - ständische Einzelhandel im Wettbewerb, Vahlen Verlag München 1981.
- W o j c i e c h o w s k i T., Rationing of Materials: Causes, Consequences and Possibilities of Restricting it, "Gospodarka Planowa" 1986 No. 10 (in Polish).

Jerzy Dietl, Krystyna Iwińska-Knop

KONSUMPCJA I HANDEL W GOSPODARCE CENTRALNIE PLANOWANEJ I ZORIENTOWANEJ RYNKOWO (przykład Polski i RFN)

W artykule zaprezentowano wyniki badań odnoszące się do spożycia i handlu w Polsce i RFN. Uwzględniono stopień zróżnicowania konsumpcji w obu krajach oraz rolę handlu detalicznego w spożyciu ludności. Dokonano porównania spożycia niektórych artykułów konsumpcyjnych na 1 mieszkańca. Badania struktury wydatków w pracowniczych gospodarstwach domowych oraz emerytów i rencistów wskazały na znaczne odmienności między Polską a RFN, co wynika ze zróżnicowanej stopy życiowej w obu krajach. Porównano siłę nabywczą średniej płacy w Polsce i RFN wyrażoną w minutach czasu pracy niezbędnym do nabycia niektórych produktów.

Przedstawiono rolę handlu w gospodarce mierzoną udziałem handlu w GNP oraz wykorzystaniem czynników produkcji zaangażowanych w handel. Zanalizowano problem efektywności handlu w obu krajach, biorąc pod uwagę poziom marż, kosztów i akumulacji w relacji do sprzedaży.