make charts illegible. This is why, if possible, increasing the number of dimensions should be avoided in the analysis [Meulman, Heiser 1997]. These two dimensions provided valuable information about distances. If a variable discriminates well, subjects will be close to the category to which they belong. Subjects (respondents) in the same category will be situated close to each other (i.e., their results are similar, and the respondents selected the same or similar answers).

2. Empirical research results

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2.1. Characteristics of the sample investigated

Over 40% of the respondents were limited liability companies (Chart 13). Also strongly represented in terms of their number within the sample were joint stock companies and individual proprietorships (27.4% and 13.9%, respectively). The remaining 15.2% of the numerical sample size consisted of general partnerships, civil law partnerships, State Treasury companies, limited partnerships and cooperatives.

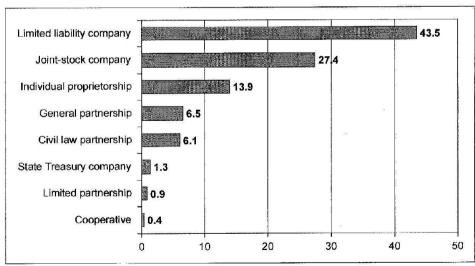


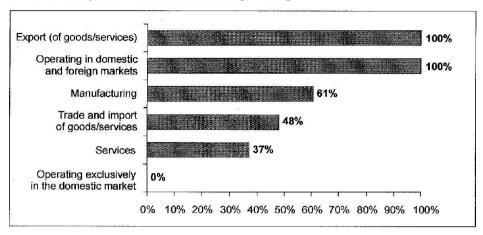
Chart 13. Legal forms of business [n = 230]

Source: own study on the basis of empirical research results.

Because of the way the businesses were sampled for the study, all of the analysed entities were involved in the export of goods and/or services, i.e., they oper-

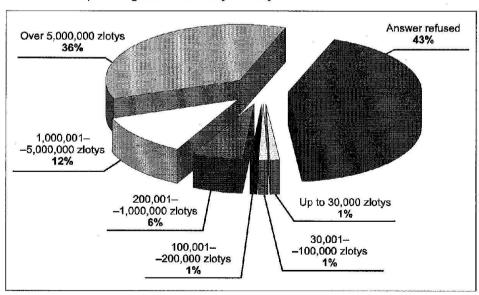
ated in both domestic and foreign markets (Chart 14). Of the companies analysed, 61% are manufacturing firms, while 37% declare that they provide services.

Chart 14. Companies' business activities $[n = 230]^{43}$



Source: own study on the basis of empirical research results.

Chart 15. Companies' gross revenues [n = 230]



⁴³ The responses do not add to 100%. The respondents could indicate several areas of their activity.

43% of the respondents refused to provide information about the gross income of the companies they represented (Chart 15). 36% of the companies surveyed declared gross revenues of more than 5 million zlotys. Among the entities which agreed to provide estimates of their gross revenue, there clearly emerged groups with revenues of 1 million zlotys to 5 million zlotys (12%) and 200 thousand zlotys to 1 million zlotys (6%). In total, the group of companies declaring gross revenues of over 1 million zlotys accounted for 54% of all the respondents.

Additionally, the vast majority of the respondents had a tertiary-level degree (Chart 16).

Secondary
5%

Vocational
1%

Post-secondary
6%

Secondary vocational
7%

Chart 16. The educational background of the surveyed companies' management staff [n = 230]

Source: own study on the basis of empirical research results.

2.2. The benefits and risks associated with Poland's accession to the euro zone

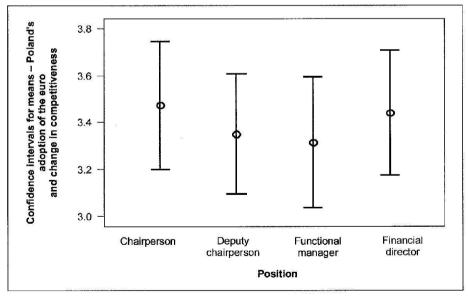
Taking into account the mean of all responses, Poland's adoption of the euro will increase the competitiveness of the companies surveyed (rating: 3.58) (Table 33). The impact of introducing the euro on company competitiveness was most positively seen by respondents representing companies with 100–249 employees (rating: 3.80), 50–99 employees (rating: 3.79) and 250–499 employees (rating: 3.63). The smallest firms had the greatest difficulty in determining the direction of this impact (rating: 3.11).

Table 33. The mean total response and group response according to employment size $[n = 230]^{44}$

The influence of Poland's	Total	≤49	50-99	100-249	250-499	>499
adoption of the euro on company competitiveness	3.58	3.11	3.79	3.80	3.63	3.24

In terms of the interviewee's position, the influence of Poland's accession to the euro zone on company competitiveness was most positively rated by Chairpersons and Financial directors (ratings: 3.47 and 3.44, respectively) (Chart 17, Table 34). Functional managers and Deputy chairpersons had slightly greater difficulty in determining the impact of introducing the euro on the competitiveness of the companies surveyed (ratings: 3.32 and 3.35, respectively). It should be emphasised, however, that the ratings of total average responses are close to the rating representing the statement "hard to say," and the differences between ratings in terms of the position held are small (up to 0.15).

Chart 17. Confidence interval for means – analysis of variance [n = 230]



⁴⁴ For questions which in the analysis were referred to different (unequal) numbers of observations in the category of the variable "Company size," weighted means were calculated. Subsequently, on the basis of the weighted means (and taking into consideration the questions corresponding to the variable "Company size"), the total weighted mean was calculated.

Table 34. Poland's adoption of the euro and change in the level of competitiveness – [analysis of variance – part 1]

Positions held	n	Mean	Standard deviation	Standard error		ence interval e mean
			deviation	Ciro	lower limit	upper limit
Chairperson	57	3.47	1.037	0.137	3.20	3.75
Deputy chairperson	57	3.35	0.973	0.129	3.09	3.61
Functional manager	57	3.32	1.055	0.140	3.04	3.60
Financial director	59	3.44	1.022	0.133	3.17	3.71
Total	230	3.40	1.017	0.067	3.26	3.53

Table 35. Poland's adoption of the euro and change in the level of competitiveness – [analysis of variance – part 2]

Levéne's test	df1	df2	Significance
0.206	3	226	0.892

Source: own study on the basis of empirical research results.

Table 36. Poland's adoption of the euro and change in the level of competitiveness – [analysis of variance – part 3]

	Sum of squares	df	Mean square	F	Significance
Between groups	0.945	3	0.315	0.301	0.824
Within groups	236.051	226	1.044		
Total	236.996	229		,	

Source: own study on the basis of empirical research results.

In Chart 17 we can see that the means first slightly decrease with the positions of "Chairperson" and "Functional manager," only to slightly increase at a later stage with the position of "Financial director." This is also confirmed by the values of standard deviations and standard errors, which first decrease and then increase (Table 34). This means that the condition of homogeneity of variance – i.e., Levene's test of homogeneity of variance – was met in the analysis. Therefore, we cannot reject the null hypothesis assuming the equality of variances in the four positions examined. In this case, the assumption of the equality of variances in the subgroups is satisfied. However, the value of test F is 0.301, which means that among the respondents (in different positions), from a statisti-

cal point of view, differences in mean ratings tend not to occur. Statistically, there are no differences between the respondents' ratings in terms of Poland's adoption of the euro and the level of companies' competitiveness.

Taking into consideration all respondents' mean responses, the companies analysed are of the opinion that their financial standing after Poland's accession to the euro zone will improve, but the change will not be considerable (Table 37). The most pessimistic opinions within the group under study were held by the largest companies employing 500 people or more (rating: 2.71). These companies believed that their financial situation will not change after the introduction of the common currency. This group of companies also found it relatively difficult to determine the overall influence of the introduction of the euro on the competitiveness of the companies surveyed.

Table 37. The mean total response and group response according to employment size $[n = 230]^{45}$

Assessment of companies' financial standing shortly	Total	≤49	50-99	100-249	250-499	>499
after Poland's accession to the euro zone	2.38	2.30	2.45	2.34	2.43	2.71

Source: own study on the basis of empirical research results.

Among the benefits of Poland's accession to the euro zone which could improve the competitive position of the companies surveyed, the respondents listed in the first place reduced exchange-rate risk thanks to the introduction of the curo (rating: 4.05) (Table 38, Chart 18). Among further benefits improving companies' competitive position, the respondents indicated reduced transaction costs (including those of currency exchange) and facilitated trade settlements (that is, transferring monetary and non-monetary resources between companies) (ratings: 4.01 and 3.96, respectively). A positive influence of these factors on the companies' competitive position was indicated by respondents from all subgroups of the companies under analysis.

The most sceptical opinions were expressed about the benefits of reduced manufacturing costs per unit and about increased capital availability, i.e., increased tangible/ intangible assets helpful in developing the company and its money resources. In the case of these factors, companies could not say whether the benefits, if any, will translate into their competitive position.

⁴⁵ For questions which in the analysis were referred to different (not equal) numerical sizes occurring in the category of the variable "Company size," weighted means were calculated. Subsequently, on the basis of the weighted means (and taking into consideration the questions corresponding to the variable "Company size"), the total weighted mean was calculated.

In 2007, the Institute for Market, Consumption and Business Cycles Research conducted a survey of exporters from the industrial processing sector⁴⁶ [Marczewski 2008]. Among other things, the survey asked about the expected benefits of Poland's accession to the euro zone. In the study, 49.4% of the respondents anticipated the elimination of exchange-rate risk, while 24.7% expected reduced transaction costs.

Table 38. Means for the total responses and the group responses categories [employment sizes] in connection with the assessment of Polish companies' financial standing after Poland's accession to the euro zone $[n = 230]^{47}$

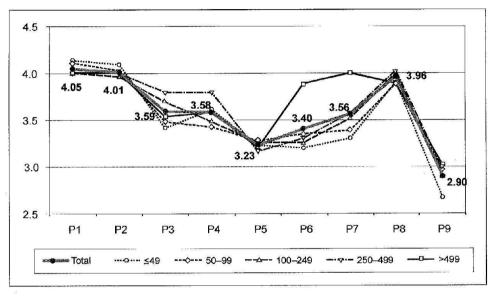
	Benefits of Poland's accession to the euro zone and companies' competitive position	Total	≤49	50- 99	100- 249	250- 499	>499
1.	Reduced exchange-rate risk through the introduction of a single currency – the euro	4.05	4.13	4.11	4.00	4.00	4.01
2.	Reduced transaction costs (including those of currency exchange)	4.01	4.09	4.02	3.96	4.00	4.00
3.	Reduced supply costs thanks to greater market transparency and better comparability of offers	3.59	3.41	3.48	3.70	3.80	3.54
4.	New trade relations established on better terms with other companies in euro-zone countries	3.58	3.61	3.43	3.48	3.80	3.58
5.	Increased capital availability, i.e., increased tangi- ble/ intangible assets helpful in developing the company and its money resources	3.23	3.24	3.28	3.26	3.17	3.20
6.	Reduced cost of credit, i.e., cost of obtaining and servicing credit	3.40	3.20	3.35	3.26	3.30	3.89
7.	Increased trade, i.e., a measure of trade activity, through increased activity in a given period of time	3.56	3.30	3.39	3.52	3.57	4.00
8.	Facilitated trade settlements, i.e., transferring monetary and non-monetary resources between companies	3.96	3.91	3.89	4.00	4.02	3.89
9.	Reduced manufacturing cost per unit	2.90	2.67	2.96	2.89	2.98	3.02

⁴⁶ In the 2007 survey of 600 companies, 271 correctly completed questionnaires were returned. Of the 41 questions, three directly addressed issues related to Poland's accession to the euro zone [Marczewski 2008].

⁴⁷ For questions which in the analysis were referred to different (not equal) numerical sizes occurring in the category of the variable "Company size," weighted means were calculated. Subsequently, on the basis of the weighted means (and taking into consideration the questions corresponding to the variable "Company size"), the total weighted mean was calculated.

Chart 18 presents the analysed companies' responses concerning the anticipated benefits of Poland's accession to the European Union's currency area, according to company size.

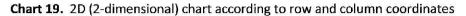
Chart 18. A total rating of Polish companies' financial standing after Poland's accession to the euro zone [benefits]

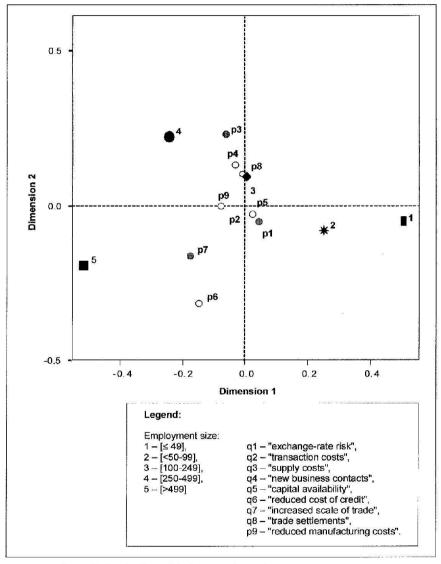


Source: own study on the basis of empirical research results.

In a correspondence analysis (whose results are presented below – see Chart 19, Table 39, Table 40, and Table 41) two dimensions were identified on the basis of question 3: "the benefits for companies of Poland's accession to the euro zone." The axes of the graph represent the two dimensions. Chart 19 provides some important information, such as:

- The distance between points and the origin. These distances inform us about relationships between variables. The relationship gets stronger as the distance between the origin of the coordinate system and points/profiles of variables increases. The most distant points influence the orientation of dimensions.
- The distance between points, when the points lie closer to each other or
 are relatively distant from others. Points situated more closely mean a greater
 likelihood of the co-occurrence of the assessed variables among different
 groups of companies (considered in terms of the feature "employment size").





Distances between points were determined by means of normalisation. In this case, a model based on symmetrical normalisation was used.⁴⁸

⁴⁸ Symmetrical normalisation causes rows and columns to be analysed symmetrically. Normalisation of this type distributes inertia equally into rows and columns. Distances between points are not Chi-square distances.

- A point's share to the inertia of a particular dimension is represented as a value within the range of $\{x: 0 \le x \le 1\}$ which informs us what contribution a variable has in a given dimension (where 0 stands for no share and 1 for an exclusive share in a dimension). In the analysis for question 3, we considered one independent variable "employment size" based on five categories (company sizes) (see Table 40) and nine dependent variables, that is responses given by respondents (see Table 41). The variables which constitute a dimension have a big share in the inertia of the dimension. For instance, the assessment of the row variables "company size" indicates that the greatest share in the first dimension with positive coordinates within this dimension belongs to companies employing 49 or fewer people, whereas the companies employing 250–499 people and companies whose employment size is greater than 499 people have the greatest share among those negative coordinates.
- The share of a dimension in total inertia informs us about the quality of representation of variables on all the dimensions adopted in the solution (1 stands for perfect representation and 0 for none). As can be seen, the least represented are the following variables (assessed by the respondents): q2 "Reduced transaction costs (including those of currency exchange)," q4 "New trade relations established on better terms with other companies in euro-zone countries," and q5 "Increased capital availability, i.e., increased tangible/ intangible assets helpful in developing the company and its money resources." The mean values for these variables (with respect to particular categories of the variable "company size") are virtually at the same level.

Table 39. Correspondence analysis – number of possible dimensions

			Singular		n of inertia	Confidence – singular value		
		Singular value	Inertia*	accounted for	cumulative	standard deviation	correlation (2)	
ø	1	0.130	0.017	0.966	0.966	0.031	0.110	
sion	2	0.021	0.000	0.025	0.99149	0.015		
Dimensions	3	0.011	0.000	0.007	0.998			
Dir	4	0.006	0.000	0.002	1.000			
Tot	al		0.017	1.000	1.000			

⁴⁹ Inertia – the proportion of inertia of 0.991 explains that there are only two dimensions.

Mass explains how big a variable's share is in a particular dimension. Variables with small masses of less than 0.05 should be removed from the analysis. In the analysis conducted it is not necessary to eliminate variables, because all of them have large mass values.

Table 40. Correspondence analysis - a review of scores by their contribution to the "company size" dimension

							Share		
Company size	Mass	Scores in dimension		Inertia	of point in inertia of dimension		of dimension in inertia of point		
	1	1	2		1	2	1	2	total
<49	0.200	0.508	-0.049	0.007	0.396	0.023	0.993	0.001	0.994
50–99	0.200	0.252	-0.079	0.002	0.098	0.060	0.959	0.015	0.974
100 249	0.200	0.005	0.096	0.000	0.000	0.087	0.007	0.446	0.452
250-499	0.200	-0.246	0.225	0.002	0.093	0.480	0.873	0.118	0.991
>499	0.200	-0.519	-0.192	0.007	0.413	0.350	0.978	0.022	1.000
Active in total	1.000		320	0.018	1.000	1.000			

Source: own study on the basis of empirical research results.

Table 41. Correspondence analysis - a review of scores by their contribution to "company benefits" dimension

					Share							
Benefits	Score in dimension		Inertia	of point in inertia of dimension		of dimension in inertia of point						
		1	2		1	2	1	2	total			
Firms	0.100	-1.111	0.470	0.016	0.948	0.011	1.000	0.000	1.000			
P1	0.100	0.039	-0.046	0.000	0.001	0.010	0.726	0.165	0.891			
P2	0.100	0.022	-0.026	0.000	0.000	0.003	0.430	0.100	0.531			
P3	0.100	-0.063	0.228	0.000	0.003	0.247	0.310	0.663	0.974			
P4	0.100	-0.034	0.135	0.000	0.001	0.087	0.112	0.294	0.406			
P5	0.100	0.021	-0.025	0.000	0.000	0.003	0.445	0.103	0.548			
P6	0.100	-0.150	-0.313	0.001	0.017	0.464	0.584	0.411	0.995			
P7	0.100	-0.177	-0.161	0.000	0.024	0.123	0.867	0.117	0.984			
Р8	0.100	-0.009	0.104	0.000	0.000	0.052	0.044	0.898	0.942			
P9	0.100	-0.080	0.001	0.000	0.006	0.000	0.670	0.000	0.670			
Active in total	1.000			0.017	1.000	1.000						

The first identified dimension (indicative of a close relationship between the analysed variable "employment size" and the variables "the benefits for companies of Poland's accession to the euro zone") applies to:

- 1) employment size: ≤ 49 , 50–99, and > 499,
- 2) benefits: q1 "currency-exchange risk," q2 "transaction costs," q5 "capital availability," q6 "reduced cost of credit," q7 "increased scale of trade," q9 "reduced manufacturing costs."

The second dimension is:

- 3) employment size: 100-249 and 250-499,
- 4) benefits: q3 "supply costs," q4 "new business contacts," q8 "trade settlements."

Table 42. Means for the total responses and the group responses categories [employment sizes] in connection with Polish companies' financial standing after Poland's accession to the euro zone $[n = 230]^{50}$

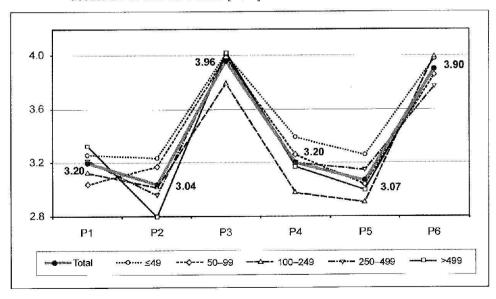
E	Risks associated with Poland's accession to the euro zone and companies' competitive position	Total	≤49	50-99	100-249	250-499	>499
1.	Slow development of internal demand (e.g., consum- crs' purchasing power) in the euro zone in relation to countries and members which are outside the zone	3.20	3.26	3.04	3.13	3.22	3.33
2.	Lack of independence in matters of national mone- tary policy, which is mainly the responsibility of the Polish central bank	3.04	3.24	3.17	3.02	2.96	2.80
3.	Increased prices in relation to people's earnings, and consequently reduced (consumer) demand in Poland	3.96	4.01	3.99	3.79	4.00	4.03
4.	Increased manufacturing cost per unit	3.20	3.39	3.26	2.98	3.20	3.17
5.	Unfavourable systemic solutions introduced by the euro zone	3.07	3.26	3.04	2.91	3.15	3.00
6.	Risk of setting an unfavourable conversion rate (zloty to euro conversion)	3.90	3.98	3.86	4.00	3.77	3.90

⁵⁰ For questions which in the analysis were referred to different (not equal) numerical sizes occurring in the category of the variable "Company size," weighted means were calculated. Subsequently, on the basis of the weighted means (and taking into consideration the questions corresponding to the variable "Company size"), the total weighted mean was calculated.

The main risks resulting from Poland's accession to the euro zone, which in companies' opinion will have an impact on the competitive position of the companies surveyed, are increased prices in relation to people's earnings and consequently weakened (consumer) demand in Poland, and the risk of setting an unfavourable conversion rate (the conversion rate of the zloty to the euro) (Table 42, Chart 20). In the case of these two risks, we can see the respondents' considerable agreement, regardless of the size of the companies they represented (all the companies under analysis rated the risks at above 3.75). As for the other risks, companies found it difficult to clearly determine the likelihood of their occurrence and the impact of the risks on their competitive position: mean ratings of the other risks in the total responses category were within the range of (3.04, 3.20). In the aforementioned study by the Institute for Market, Consumption and Business Cycles Research [Marczewski 2008] only 11.9% of the companies surveyed expected that the introduction of the euro in Poland will make it possible to adopt a euro conversion rate at a more favourable level than the euro exchange rate at the time of the study. This seems to confirm the prevailing concern among companies over establishing an unfavourable conversion rate.

The data shown in Table 42 are graphically presented in Chart 20.

Chart 20. A total rating of Polish companies' financial standing after Poland's accession to the euro zone [risks]



2.3. Poland's accession to the euro zone and the international competitiveness of the companies surveyed

During the interviews, the respondents were also asked to assess the competitive position of their companies in the Polish market and in the other EU markets at the time of the study and after Poland's accession to the euro zone (Table 43). In the study, the measures of company competitive position in relation to the key rival were market share and sales profitability. At the time of the study, in the case of the two measures, companies declared a position similar to that of the key rival⁵¹, both in the Polish market and in the other EU markets. At the same time, the respondents predicted that after Poland's accession to the euro zone their company's market share and sales profitability will improve in relation to their key rival's.

Table 43. Mean ratings of companies' competitive position in relation to the key rival (KR) in markets (at present and in the euro zone) [n = 230]

Measures of companies' competitive	Polish	market	The other EU markets		
position in relation to the rival, in terms of	at present we are	euro zone we will be	at present we are	euro zone we will be	
Market share	3.28	3.89	3.26	3.68	
Sales profitability	3.12	3.76	3.18	3.56	

Source: own study on the basis of empirical research results.

The respondents were also asked to assess companies' competitive potential in terms of its financial and cost-related elements in relation to the key rival in the Polish market and in the other EU markets at the time of the study and after Poland's accession to the euro zone (Table 44, Chart 21, Chart 22). Taking into consideration the mean for the *total responses* category, the companies under analysis – both at the time of the study and after Poland's entry into the euro zone – at the financial and cost-related level are characterised by a slightly higher competitive potential than that of the key rival. The most highly rated elements as part of the financial and cost-related competitive potential include: the company's accounting system in the Polish market and in the other EU markets, the funding of current activities with one's own resources in the Polish

⁵¹ Key rival, i.e., one who poses a direct threat to the company and competes with it for the same customers.

market and in the other EU markets, and the company's IT systems in the Polish market. It should also be emphasised that, in the respondents' opinion, Poland's adoption of the common currency will reduce their competitive potential in relation to the key competitor in the Polish market as part of several of its financial and cost-related elements (including IT systems and transaction costs as a percentage of annual turnover). Nevertheless, even after the expected deterioration in the surveyed companies' competitive potential, it will continue to be at a slightly higher level than that of the closest competitor. It can be concluded, therefore, that this unfavourable change will be caused by key competitors' need to meet the new requirements, in the case of which the companies surveyed were characterised by some competitive potential as early as the time of the study.

Table 44. Means for the total responses category [employment sizes] according to the financial and cost-related elements of companies' competitive potential in relation to the key rival [n = 230]

		Polish	market	The other EU mar- kets		
	Companies' financial and cost-related competitive potential in terms of [questions 6a and 6b]	at pre- sent we are	euro zone we will be	at pre- sent we are	euro zone we will be	
1.	Funding current activities with own resources	3.63	3.79	3.58	3.73	
2.	Funding current activities with external resources	3.25	3.41	3.22	3.33	
3.	Research and development outlays	3.22	3.32	3.17	3.24	
4.	Level of material costs and labour costs	3.42	3.41	3.34	3.40	
5.	Efficiency of collecting amounts due	3.48	3.46	3.32	3,44	
6.	Transaction costs (including those of currency exchange) as percentage of annual turnover	3.37	3.34	3.23	3.32	
7.	Costs of hedging against exchange-rate risk	3.34	3.38	3.25	3.34	
8.	Accounting systems in the company	3.70	3.84	3.76	3.80	
9.	IT systems in the company	3.84	3.77	3.41	3.50	

Source: own study on the basis of empirical research results.

Chart 21 presents ratings of the financial and cost-related elements of the analysed companies' competitive potential in the Polish market. Chart 22 shows analogous data for the other EU markets.

Chart 21. The financial and cost-related potential of company competitiveness

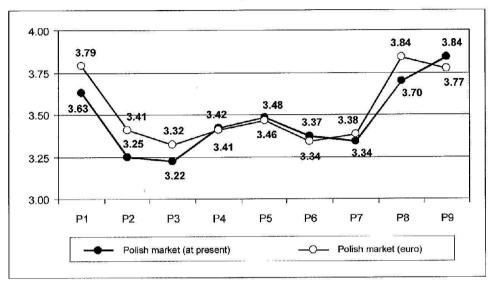
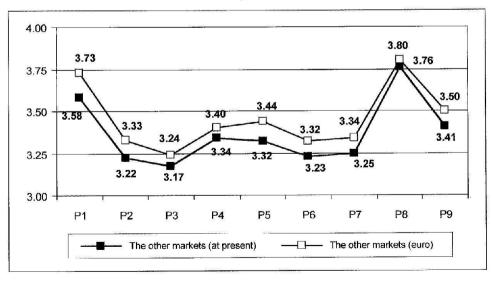


Chart 22. The financial and cost-related potential of company competitiveness



Source: own study on the basis of empirical research results.

Because of Poland's accession to the euro zone it will be necessary to make changes in some elements of companies' competitive potential (Chart 23). The respondents were asked to rate the difficulty of potential changes on a scale

of 1-5, with 5 standing for a very high level of difficulty. Eighty per cent of the respondents indicated that adopting the single currency will require that the companies represented make changes related to price-list adjustment and start the dual display of prices. At the same time, the task was rated as quite easy (rating 3.13), and the mean rating of the cost of these changes as percentage of the company's turnover was 5.24% (Table 45). Additionally, over 73% of all the companies surveyed anticipated a need for changes in the IT system and the accounting system used, as well as a need for staff training. The task perceived as the most difficult among the indicated changes was adapting the IT system (rating: 3.76), although it is worth emphasising that on the scale used this still is a relatively low rating of the difficulty level. As for changes in the accounting system, in the respondents' opinion these will result in incurring the highest costs (7.32% of the company's turnover).

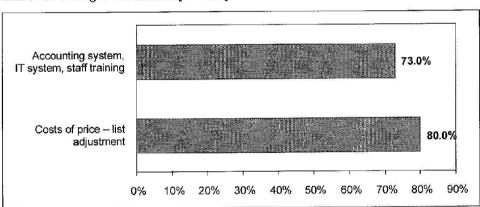


Chart 23. Changes introduced $[n = 230]^{52}$

Source: own study on the basis of empirical research results.

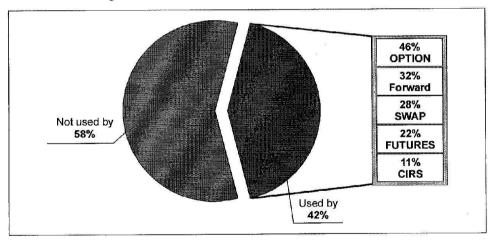
Companies' operation in foreign markets which do not participate in the monetary union should encourage business entities to use instruments hedging against exchange-rate risk. However, only 42% of all the companies surveyed admit using such instruments (Chart 24). The instruments most frequently used included currency options, and forward and swap transactions (respectively, 46%, 32% and 28% of declarations among companies which use instruments hedging against exchange-rate risk).

 $^{^{52}}$ The responses do not add to 100%. The respondents could indicate several answers.

Table 45. Mean difficulty levels of making changes in particular elements of competitive potential, and implementation costs as % of turnover $[n = 230]^{53}$

Elements of competitive potential [questions 7a and 7b]	Difficulty level of change implementation	Implementation costs as % of turnover	
Accounting system	3.29 Easy 1—2—3—4—5—6—7 Difficult	7.32	
IT system	3.76 Easy 1—2—3—4—5—6—7 Difficult	6.61	
Staff training	3.27 Easy 1—2—3—4—5—6 7 Difficult	6.06	
Price adjustment	3.13 Easy 1—2—3—4—5—6—7 Difficult	5.24	

Chart 24. Instruments used by Polish companies to hedge against exchange-rate risk $[n = 213]^{54}$



Source: own study on the basis of empirical research results.

Since all of the companies under analysis are engaged in export activities, the level seems to be surprisingly low. While processing the survey results, we

⁵³ For this question, a seven-point scale was used, with the bottom value of the scale = [1] standing for "a very low level of difficulty – or the opposite of a high intensity of difficulty," and the top value of the scale = [7] standing for "a very high level of difficulty – or the opposite of a minimum intensity of difficulty."

⁵⁴ The responses do not add to 100% within the hedging categories identified. The respondents could indicate several answers.

faced the question whether or not the declarations about the use of financial instruments hedging against exchange-rate risk were influenced by the position held by the respondent and the related knowledge of the issue. We decided, therefore, to statistically test the relationships between the respondents' declarations and the positions they occupied. The results of the analysis are presented in Table 46, Table 47 and Table 48.

Table 46. A cross table – instruments used according to the position occupied by the respondent

				Position				
			chairperson	deputy chairperson	functional manager	financial director	Total	
used	used by	number	31	36	31	35	133	
	useu by	expected number	33.0	33.0	33.0	34.1	133.0	
	not	number	26	21	26	24	97	
	used by	expected number	24.0	24.0	24.0	24.9	97.0	
Total		number	57	57	57	59	230	
TOtal		expected number	57.0	57.0	57.0	59.0	230.0	

Source: own study on the basis of empirical research results.

Table 47. Chi-square tests

-	Value	df	Asymptotic significance (bilateral)
Pearson's Chi-square	1.272	3	0.736
Reliability ratio	1.277	3	0.734
Linear relationship test	0.044	1	0.834
N valid observations	230		

Source: own study on the basis of empirical research results.

Table 48. Symmetric measures

History of	Value	Approximate significance
Phi	0.074	0.736
Cramer's V	0.074	0.736
Contingency coefficient	0.074	0.736

A Chi-square test applied to analyse relationships between the respondents' position and the use (or absence) of instruments to hedge against risk in the company did not confirm the existence of any significant relationships. The values of asymptotic and approximate significance clearly exceeded the level of 0.05, which means that there are no relationships significant enough to detect any major differences between the respondents' particular positions and their declared use of instruments.

The respondents were also asked to estimate the currency structure of investment and working capital loans raised by the companies under analysis at the time of the study and after Poland's accession to the euro zone (Chart 25, Table 49 and Table 50). According to the declarations, 63.5% of all the companies surveyed are currently taking out investment loans. What is more, the proportion cannot be expected to change after the introduction of the euro. It is similar with working capital loans: 67.4% of the business entities analysed finance their current activities with loans; in this respect, they anticipated only minor changes after Poland's accession to the euro zone's monetary union.

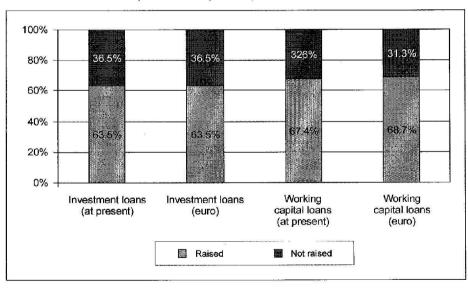


Chart 25. Loans raised by Polish companies [n = 213]

Source: own study on the basis of empirical research results.

At the time of the study, an average of 66.39% of all investment loans raised by the companies analysed were in the Polish currency, 20.32% in euros, and 9.75% in Swiss francs. An average total of less than 4% of investment loans were in US dollars, British pounds and yens. Polish companies anticipate only minimal changes in the share of the US dollar, the Swiss franc and the British pound in the currency structure of investment loans after Poland joins the euro area.

Table 49. Investment loans⁵⁵

<u>Investment loans</u> raised in the following currencies:	At present – % share	After Poland's accession to the euro zone – % share
PLN – zloty	66.39	10.65
EUR – euro	20.32	74.35
USD – US dollar	3.13	4.28
CHF – Swiss franc	9.75	10.65
GBP – pound sterling	0.13	0.07
JPY – yen	0.28	0.00
Total 100%	100.00	100.00

Table 50. Working capital loans⁵⁶

Working capital loans raised in the following currencies:	At present – % share	After Poland's accession to the euro zone – % share
PLN – zloty	67,39	9,68
EUR – euro	18,52	75,63
USD – US dollar	3,90	3,83
CHF – Swiss franc	9,93	10,58
GBP – pound sterling	0,26	0,28
JPY – yen	0,00	0,00
Total 100%	100.00	100.00

⁵⁵ The percentage share of each currency was calculated using the following analytical procedure. In the first place, we calculated (separately for each currency) the means for those companies which declared that they 1) are currently taking out a loan in a given currency and 2) will take out a loan after joining the euro zone. Then we added up the values of all the means for all the currencies, and finally calculated the percentage share of each currency.

The values presented in Table 49 show the share of investment loans raised by the companies surveyed in particular currencies

⁵⁶ The percentage share of each currency was calculated using the following analytical procedure. In the first place, we calculated (separately for each currency) the means for those companies which declared that they 1) are currently taking out a loan in a given currency and 2) will take out a loan after joining the euro zone. Then we added up the values of all the means for all the currencies, and finally calculated the percentage share of each currency.

The values presented in Table 50 show the share of working capital loans raised by the companies surveyed in particular currencies.

At the time of the study, the euro's share in the currency structure of working capital loans taken out by the companies analysed was just below 19% (a share similar to the level declared for investment loans). In the case of the other foreign currencies, the currency structure of working capital loans was also very similar to the shares declared with reference to investment loans.

One matter of concern, however, is the respondents' anticipation that after Poland's accession to the euro zone 10.65% of investment loans and 9.68% of working capital loans raised by the companies they represent will be in Polish zlotys. This is a clear indication that some Polish entrepreneurs are still unaware that after Poland joins the European monetary union the loans provided in Polish zlotys will be converted into curos.

The companies under study found it difficult to determine what changes in their competitive strategies will be effected by Poland's accession to the euro zone (Table 51, Chart 26). All the mean ratings in the *total responses* category fluctuated around the level of 3 (thus corresponding to the "hard to say" response). This may suggest that the companies are not fully aware that Poland's accession to the monetary union will dramatically change their situation, or that they cannot anticipate the implications of this changed situation for their competitive strategy. A cause for concern is the related inability to take advantage of particular opportunities and threats associated with the introduction of the euro and translate them into the company's actual operation. As for competitive strategy, the companies surveyed most clearly suggested that Poland's accession to the monetary union will result in:

- an increased share of supplies of raw materials and components from the other EU markets (rating: 3.46);
- an increased share of job order manufacturing under the brand of companies from the other EU markets (rating: 3.44);
- an increased role of competing on price at the expense of competing on differentiation (rating: 3.42).

In particular, companies employing 50–99 and 250–499 people declared that Poland's accession to the euro zone will increase the share of supplies of raw materials and components from the other EU markets and the role of competing on price at the expense of competing on differentiation (ratings: 3.63 and 3.54, and 3.63 and 3.54, respectively). Furthermore, companies employing 100 or more people thought that after the introduction of the euro there will be an increase in the share of job order manufacturing under the brand of companies from the other EU markets. On the other hand, the respondents were most sceptical about the possibility of manufacturing operations being outsourced with the participation of/ in favour of partners from "other markets" (rating: 2.65), the possibility of being involved in such cooperation with the participation of/ in favour of

partners from the other EU markets (rating: 2.69), and the possibility of more frequently cooperating in human resources management (e.g., temporary work, staff leasing, training) with entities from the other EU markets (score 2.88).

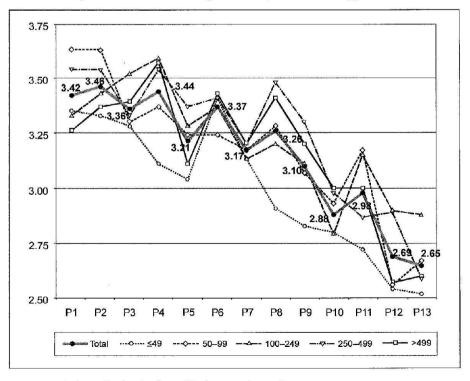
Table 51. Means for the total responses and the group responses categories [employment sizes] according to companies' opinions on changes in competitive strategy $[n = 230]^{57}$

The introduction of the euro will result in the follow- ing changes in strategy	Total	≤49	50–99	100–249	250-499	>499
1	2	3	4	5	6	7
An increased role of competing on price at the expense of competing on differentiation (e.g., on quality, warranty terms, terms of payment and delivery, service)	3.42	3.35	3.63	3.33	3.54	3.26
An increased share of supplies of raw materials and components from the other EU markets	3.46	3.33	3.63	3.43	3.54	3.37
3. An increased share of supplies of raw materials and components from "other markets"	3.36	3.28	3.30	3.52	3.33	3.39
An increased share of job order manufacturing under the brand of companies from the other EU markets	3.44	3.11	3.37	3.59	3.54	3.57
An increased share of job order manufacturing under the brand of companies from "other markets"	3.21	3.04	3.24	3.28	3.37	3.11
Cooperation in technology development with entities from the other EU markets	3.37	3.41	3.24	3.37	3.41	3.43
7. Cooperation in technology development with entities from "other markets"	3.17	3.13	3.17	3.13	3.20	3.20
8. The company more often than previously choosing to cooperate with partners from the other EU markets in the area of management support systems	3.26	2.91	3.28	3.20	3.48	3.41
9. The company more often than previously choosing to cooperate with partners from "other markets" in the area of management support systems	3.10	2.83	3.07	3.11	3.30	3.20

⁵⁷ For questions which in the analysis were referred to different (not equal) numerical sizes occurring in the category of the variable "Company size," weighted means were calculated. Subsequently, on the basis of the weighted means (and taking into consideration the questions corresponding to the variable "Company size"), the total weighted mean was calculated.

1	2	3	4	5	6	7
10. The company more often cooperating in human resources management (e.g., temporary work, staff leasing, training) with entities from the other EU markets	2.88	2.80	2.93	2.79	2.98	3.00
11. The company more often cooperating in human resources management (e.g., temporary work, staff leasing, training) with entities from "other markets"	2.98	2.72	3.17	3.15	2.87	3.00
12. Manufacturing operations being outsourced with the participation of/ in favour of partners from the other EU markets	2.69	2.54	2.56	2.90	2.89	2.57
13. Manufacturing operations being outsourced with the participation of/ in favour of partners from "other markets"	2.65	2.52	2.67	2.88	2.59	2.60

Chart 26. Companies' views on changes in competitive strategy



The results shown in Table 51 are graphically presented in Chart 26.

Next, the respondents were asked to assess the instruments used by their company at present and after Poland's entry into the euro zone to compete with the key rival in the Polish market and in the other EU markets (Chart 27 and Chart 28). All the mean ratings obtained are within the range of (3.4; 3.7). This means that the companies surveyed considered themselves to be a little more effective than the key rival in terms of all the competitive instruments indicated (product price, terms of delivery, terms of payment and servicing prices). In the case of the Polish market, the companies under analysis anticipated that joining the euro zone will limit their ability to compete on product price (this may be related to the anticipated increase in prices mentioned earlier), but will increase their potential with respect to terms of delivery, terms of payment and servicing prices. According to the companies, Poland's accession to the euro zone will facilitate using all the competitive instruments indicated, with the greatest progress being anticipated in the case of terms of delivery and terms of payment.

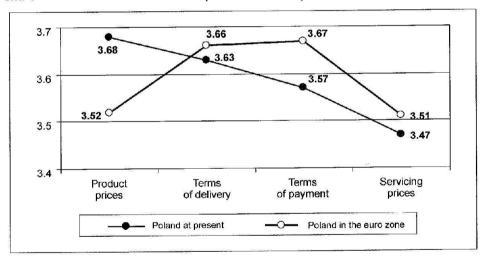


Chart 27. Instruments used to compete with the key rival in Poland

Source: own study on the basis of empirical research results.

The great significance of improved terms of payment is also confirmed by the results of the study by the Institute for Market, Consumption and Business Cycles Research [Marczewski 2008], according to which as many as 56.9% of companies exporting mainly to EU markets and 51.9% of companies exporting mainly to eastern markets positively welcomed the opportunity for Polish businesses to conduct transactions with each other in euros even before Poland's accession to the euro zone.

3.7 3.65 3.6 3.57 3.50 3.49 3.5 3.49 3.5 34 Servicina Product Terms Terms of delivery of payment prices prices Other markets at present Other markets in the euro zone

Chart 28. Instruments used to compete in the other EU markets

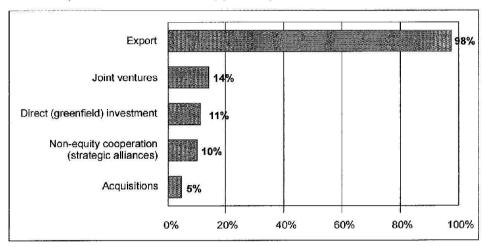
2.4. Poland's accession to the euro zone and company internationalisation

In the present study it is assumed that the basic strategies of company internationalisation are market, financial, ownership and coalition strategies. The respondents were asked to indicate forms of internationalisation used in EU markets (except Poland's) and in other markets (Chart 29 and Chart 30). 98% of the companies analysed declared conducting export activities targeted at the other EU markets, other than Poland's. It should be added that, from the viewpoint of customs formalities, the concept of export within the European Union does not exist, replaced as it is with the intra-community supply of goods. 14% of the respondents were involved in joint ventures with partners from the other EU markets, while 10% were engaged in non-equity cooperation with them. 11% of all the companies analysed undertook foreign direct investment in the other EU markets, and 5% opted for acquisitions.

Export activities in markets other than the EU were conducted on a somewhat smaller scale (71% of the companies surveyed were involved in them), whereas joint ventures with business entities from outside the EU were undertaken by almost a third of the companies under study. Compared with EU markets, in non-EU markets companies were more involved in foreign direct investment (14%) and acquisitions (6%). This state of affairs may have been caused by

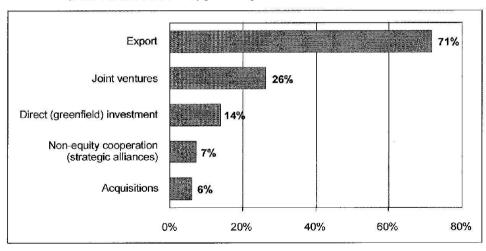
difficulty in entering non-EU markets with the use of export strategy, or by attempts to reach cheaper labour or raw- materials markets.

Chart 29. Forms of company internationalisation in relevant markets (THE OTHER EU MARKETS) $[n = 230]^{58}$



Source: own study on the basis of empirical research results.

Chart 30. Forms of company internationalisation in relevant markets (THE OTHER MARKETS) $[n = 230]^{59}$



⁵⁸ The responses do not add to 100%. The respondents could indicate several answers.

⁵⁹ The responses do not add to 100%. The respondents could indicate several answers.

The total exports of the companies under study accounted for an average of just over 46% of their revenues (Table 52). Almost 60% of these entities' foreign sales were to the euro-zone market. Furthermore, euro-zone markets were for these companies an important source of supplies as well ("imports" from the euro zone accounted for an average of almost 48% of total imports).

Table 52. Companies' share in exports and imports [n = 230]

Companies' share in exports and imports	Mean ratings [0–100]
Companies' current share in total exports to the euro-zonc market	59.41
2. Companies' current share in total imports to the euro-zonc market	47.91
3. Current share of exports in companies' total revenues (all possible markets, not just those of the euro zone)	46.70

Source: own study on the basis of empirical research results.

Geographically, the most important foreign partners of the entities surveyed were especially Germany, the Czech Republic, the UK, France, Spain, Italy, the Netherlands and Belgium (Table 53). These markets played a very important role in generating the companies' sales revenues (the mean rating of the markets was 83.54). A little less significant were the following markets: the US, Canada, Japan, China, Russia, Ukraine, Lithuania, Latvia and Belarus (the mean rating of these markets' significance was 62.65).

Table 53. Key foreign markets served by exports/ intra-community supplies [n = 230]

Market rank	Group of the most important markets listed by the respondents, according to their rank	
1.	Germany, Czech Republic, UK, France, Spain, Italy, Netherlands, Belgium	83.54
2.	US, Canada, Japan, China, Russia, Ukraine, Lithuania, Latvia, Belarus	62.65
3.	Others - less important, Taiwan, Uzbekistan, United Arab Emirates	50.23

Source: own study on the basis of empirical research results.

The respondents were also asked to indicate the changes in their companies' internationalisation anticipated as a result of Poland's accession to the euro zone (Table 54, Chart 31). The means for the *total responses* category are within

the range of (2.58, 3.5). This means that also in this area the companies under study found it difficult to define the expected changes, or they were not quite able to anticipate them. The highest ratings (closest to the level equivalent to the response "probably yes") were for the following changes:

- the share of exports to the other EU markets in the company's total exports will increase (rating: 3.50),
- the company will expand its market portfolio to include EU markets previously not taken into consideration (rating: 3.49),
- the share of exports to "other markets" in the company's total exports will increase (rating: 3.39),
- the company will expand its market portfolio to include non-EU markets previously not taken into consideration (rating: 3.33).

The changes which were least anticipated by the respondents concerned the company adopting the new role of a franchisee or franchisor in its relations with foreign business entities (ratings: 2.58 and 2.59, respectively).

Table 54. Means for the total responses and the group responses categories [employment sizes] - changes in company internationalisation caused by Poland's accession to the euro zone $[n = 213]^{60}$

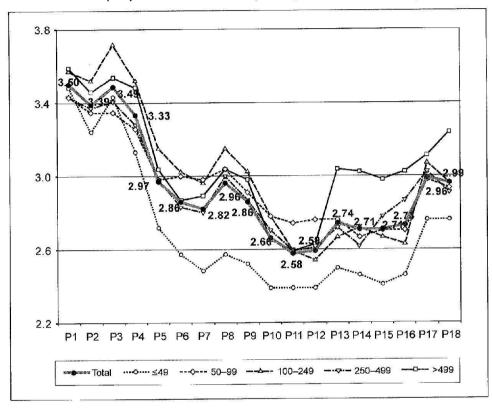
Areas related to internationalisation	Total	<50	50-99	100-249	250-499	>499
1	2	3	4	5	6	7
1. The share of exports to the other EU markets in the company's total exports will increase.	3.50	3.48	3.43	3.57	3.43	3.59
2. The share of exports to "other markets" in the company's total exports will increase.	3.39	3.24	3.35	3.52	3.37	3.46
The company will expand its market portfolio to include EU markets previously not taken into consideration.	3.49	3.43	3.35	3.72	3.41	3.54
4. The company will expand its market portfolio to include non-EU markets previously not taken into consideration.	3.33	3.13	3.26	3.52	3.28	3.48

⁶⁰ For questions which in the analysis were referred to different (not equal) numerical sizes occurring in the category of the variable "Company size," weighted means were calculated. Subsequently, on the basis of the weighted means (and taking into consideration the questions corresponding to the variable "Company size"), the total weighted mean was calculated.

1	2	3	4	5	6	7
The company will undertake more capital-intensive and risky forms of international expansion than export.	2.97	2.72	2.98	3.15	2.98	3.04
6. The company will choose to establish a joint venture company with a partner from the other EU markets.	2.86	2.57	3.00	3.02	2.83	2.87
7. The company will choose to establish a joint venture company with a partner from "other markets."	2.82	2.48	2.98	2.96	2.80	2.89
8. The company will opt for a strategic alliance with a partner from the other EU markets.	2.96	2.57	3.04	3.15	3.00	3.04
9. The company will opt for a strategic alliance with a partner from "other markets."	2.86	2.52	2.91	3.02	2.87	2.98
10. The company will adopt the role of a franchisee in its relations with a franchisor company from the other EU markets.	2.66	2.39	2.78	2.78	2.70	2.65
11. The company will adopt the role of a franchisor in its relations with a franchisee company from the other EU markets.	2.58	2.39	2.74	2.59	2.59	2.59
12. The company will adopt the role of a franchisce in its relations with a franchisor company from "other markets."	2.59	2.39	2.76	2.54	2.61	2.63
13. The company will adopt the role of a licensee in its relations with a licensor company from the other EU markets.	2.74	2.50	2.76	2.67	2.72	3.04
14. The company will adopt the role of a licensor in its relations with a licensee company from the other EU markets.	2.70	2.46	2.67	2.72	2.62	3.02
15. The company will adopt the role of a licensee in its relations with a licensor company from "other markets."	2.71	2.41	2.70	2.67	2.78	2.98
16. The company will adopt the role of a licensor in its relations with a licensee company from "other markets."	2.74	2.46	2.70	2.63	2.87	3.02
17. The company will establish its own subsidiary in the other EU markets.	2.99	2.76	2.98	3.07	3.02	3.11
18. The company will establish its own subsidiary in "other markets."	2.96	2.76	2.93	2.96	2.91	3.24

The data shown in Table 54 are graphically presented in Chart 31.

Chart 31. Poland's accession to the euro zone and the resultant changes in company internationalisation [n = 50]



Source: own study on the basis of empirical research results.

Taking into consideration all the potential benefits and risks resulting from entry into the euro zone, the respondents seem to have concluded that Poland should adopt the euro (the mean total rating was 3.83) (Table 55). It also seems significant that this necessity is recognised by all the companies, irrespective of their potential as expressed by employment size. As the aforementioned study by the Institute for Market, Consumption and Business Cycles Research [Marczewski 2008] found, 85.1% of the companies surveyed approved of the introduction of the euro.

Table 55. The mean total response and group responses according to employment size $[n = 213]^{61}$

The necessity for Poland to adopt the euro	Total	<50	50-99	100-249	250–499	>499
	3.83	3.87	3.72	3.87	3.72	3.96

2.5. Euro-sceptics, euro-neutrals and euro-enthusiasts – survey respondents

Having analysed the survey results, we can easily identify three groups among the respondents: euro-sceptics, euro-neutrals and euro-enthusiasts. An interesting research issue which may have practical implications is a profile of each thus defined respondent group.

By dividing (recoding) the responses to question 1 "Do you think Poland's adoption of the euro will change your company's level of competitiveness?," three separate groups of respondents were created: euro-sceptics, euro-neutrals and euro-enthusiasts. The structure of the division is presented in Table 56. The coding was performed as follows. The response values of 1 ("The level of competitiveness will definitely not rise") and 2 ("The level of competitiveness is unlikely to rise") were recoded into the "euro-sceptics" subcategory; the value of 3 ("Hard to say") was recoded as "euro-neutrals"; and the values of 4 ("The level of competitiveness will probably rise") and 5 ("The level of competitiveness will definitely rise") as "euro-enthusiasts." As can be seen, the entities surveyed are dominated by euro-enthusiasts (52.1%) (Table 56).

Table 56. The segmentation structure of three groups: euro-sceptics, euro-neutrals and euro-enthusiasts [n = 230]

Do you think Poland's adoption of the euro will change your company's level of competitiveness?	%	
Euro-sceptics	22.2	
Euro-neutrals	25.7	
Euro-enthusiasts	52.1	

⁶¹ For questions which in the analysis were referred to different (not equal) numerical sizes occurring in the category of the variable "Company size," weighted means were calculated. Subsequently, on the basis of the weighted means (and taking into consideration the questions corresponding to the variable "Company size"), the total weighted mean was calculated.

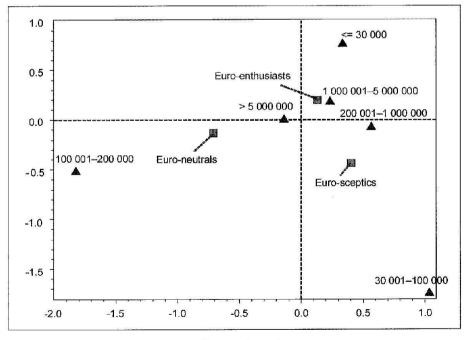
Even though, within the population of companies under study, we can identify curo-enthusiasts, euro-neutrals and euro-sceptics, there are no grounds for saying that these three groups of respondents have radically different perceptions of the impact of Poland's entry into the euro zone on their financial standing (Table 57). The opinions fluctuate between the levels of 2.63 and 2.88, which means that the respondents are of the opinion that their situation could improve a little, or that they cannot determine this, which is particularly evident in the case of euro-neutrals. It is worth adding that the response scale was from 1 to 5, where 1 stood for an optimistic response, indicating a significant improvement in the financial position, and 5 stood for a clear deterioration in the financial standing.

Table 57. The mean total response and group responses [n = 230]

Assessment of companies' financial situation shortly after Poland's accession to the euro zone	Total	Euro-sceptics	Euro- neutrals	Euro- enthusiasts
	2.73	2.63	2.88	2.68

Source: own study on the basis of empirical research results.

Chart 32. Two dimensions created for the variables "Gross revenues" and "Attitude towards Poland's entry into the euro zone"



To assess the characteristics of the companies surveyed (this time divided into three groups: euro-enthusiasts, euro-neutrals and euro-sceptics), correspondence analysis was employed again (only a map of the results generated was presented). Trying to develop a set of characteristics of the euro-enthusiast, the euro-neutral, and the euro-sceptic, we might wonder whether membership of a certain group implies belonging to a group of companies with a specific level of revenues. Chart 32 shows that euro-enthusiasts are companies with revenues of 1 million – 5 million zlotys. The group of euro-enthusiasts, however, also included companies whose gross revenues were in the range of 200 thousand – 1 million zlotys and over 5 million zlotys. But compared with the first group (with revenues of 1 million – 5 million zlotys), the latter two ranges of revenues do not correspond strongly with the group of euro-enthusiasts, although this group also includes companies with revenues of 200 thousand – 1 million zlotys and over 5 million zlotys. Finally, it is difficult to determine what revenues are typical of euro-neutrals and euro-sceptics.

2.6. A summary of the research results

The results of empirical research carried out among 230 companies from the whole of Poland clearly correspond to the results of exploratory research conducted in Wielkopolska region in 2008. It is difficult to find discrepancies between the opinions of companies participating in research conducted on a much smaller scale – in a single region only – and on a larger scale, with a significantly (more than four times) larger numerical size of the sample.

- The majority of the companies surveyed are in favour of Poland's accession to the euro zone. The acceptance of the move is fairly consistent, irrespective of the company's potential as expressed by employment size. The result is very close to the exploratory research results.
- The companies analysed are positive about the influence of introducing the euro on their competitiveness, although in this case more sceptical are the smallest firms (employing up to 50 people) and the largest ones (employing more than 499 people). All the companies quite clearly perceive the advantages of Poland's accession to the monetary union, not least because of reduced exchange-rate risk, reduced transaction costs and reduced loan costs. In the exploratory research, reduced exchange-rate risk also ranked first on a list of benefits. In the case of the companies under study, an average of over 20% of investment loans and over 18% of working capital loans are in euros, hence the importance of credit costs.
- The companies (regardless of their potential) agree that the greatest risk resulting from Poland's accession to the euro zone is an increase in prices

in relation to people's earnings, and thus a reduced demand in Poland, which is a result identical to that of the exploratory research conducted only in Wielkopolska region. The second biggest threat is a risk from an unfavourable conversion rate. This attitude may result from repeated media reports about an inevitable increase in prices of goods and services after the introduction of the common currency. The reports, however, are contradicted by statistical data on inflation rates in the euro-zone countries after 1999. What is important, therefore, is to provide the largest possible number of entrepreneurs with reliable information material. This is all the more important that some of them are not fully aware of the economic consequences of Poland's accession to the euro zone (as evidenced by declarations concerning the currency structure of loans after the introduction of the single currency).

- At the time of the study, the respondents declared that their competitive position was slightly more favourable than those of key rivals, a result which is more optimistic than the exploratory research result. The respondents expect the competitive position to improve after Poland's accession to the euro zone. Also in terms of financial and cost-related elements of competitive potential, both at the time of the study and after Poland's entry into the euro zone, companies expected to maintain their competitive potential at a level slightly higher than that of the key rival. However, in this particular case, the respondents were of the opinion that Poland's adoption of the euro will cause their competitive potential to deteriorate in relation to the key competitor in the Polish market in terms of several of its financial and cost-related elements (including IT systems and transaction costs as a percentage of annual turnover). The entrepreneurs also believed that joining the euro will not lead to radical changes in the competitive instruments used. This is evidenced by the mean ratings of potential changes in competitive strategy brought about by Poland's entry into the euro zone (the ratings fluctuate around the level of 3), which suggests that the respondents actually had difficulty in taking a clear position on the issue. Such opinions correspond to the exploratory research results.
- The identified dominance of euro-enthusiasts among the companies surveyed is difficult to reconcile with the inability to anticipate the impact of Poland's accession to the monetary union on the competitive strategies and internationalisation strategies used by the companies surveyed. A cause for concern is the related inability to translate anticipated opportunities and threats resulting from the introduction of the euro into the company's actual operation.