

Supplements to the Statistical Bulletin Sample Surveys

Survey on Inflation and Growth Expectations December 2006

New series

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CONTENTS

	page
1. Introduction	5
2. Main results	5
Appendix A:_Methodological note	11
Appendix B: Statistical tables	17
Annendix C: The questionnaire	29



SURVEY ON INFLATION AND GROWTH EXPECTATIONS (1)

1. Introduction

The interviews for the December 2006 wave of the Bank of Italy/II Sole 24 Ore quarterly survey on inflation and growth expectations were carried out between 4 December 2006 and 5 January 2007. 460 companies with at least 50 employees participated in the survey, 246 of which operate in the industrial sector and 214 in the services sector.

The companies were asked to provide forecasts on both macroeconomic topics, such as the inflation rate and the general situation of the industrial system in Italy, and issues related to their own activities. In some cases, the forward-looking opinions are accompanied by backward-looking assessments and, where possible, explanations are provided of the factors behind the reported or expected developments.

The main results of the survey are summarized below. The appendices contain the methodological note, the detailed statistical tables and the questionnaire used.

2. Main results

Expectations of consumer price inflation in Italy

Inflation is expected to be 2.2 per cent over the next 12 months, a slight decrease vis-à-vis the results from the previous quarter (Table 1 and Figure 1). In December 2006, the last month for which a comparison can be made between expectations and definitive macroeconomic data, the rate of consumer price inflation was 2.1 per cent, which was lower than expected in December 2005 (Figure 2).

Assessment of the general economic situation

The companies' assessments provide moderately positive signals. According to 58.3 per cent of companies, the general economic situation in Italy is unchanged compared with three months earlier. The proportion of companies who think that the situation has improved is greater than the proportion who think it has got worse (24.2 per cent compared with 17.5 per cent; Table 2). Compared with the last survey, however, the differential between positive and negative assessments has narrowed (from 32.4 to 6.7 percentage points).

The share of positive opinions was above average among companies with more than 1000 employees (35.8 per cent) and those in the Centre (28.9 per cent), while negative views were more widespread among medium-sized companies (18.5 per cent) and those in the North-East (20.8 per cent).

Companies are less optimistic about the future than they were in the past. In the current survey, 28 per cent of companies put the likelihood of an improvement in the general economic situation in the next three months at zero, while 23.2 per cent believe the likelihood to be more than a quarter. In the September survey, the corresponding results were 15.8 and 33.5 per cent respectively (Table 3). As in the past, the most optimistic signs come from the North and from large companies. There is a strong correlation between the views regarding the development of the economy in the previous three months and those regarding the likelihood of an improvement in the following three months (Table 4).

Business environment

Although 70.5 per cent of companies believe that their business environment will remain unchanged in the next three months, the share of those who expect a positive development is greater than the share of those who expect the situation to worsen (16.8 compared with 12.6 per cent; Table 5). The differential between the two options has narrowed since the last survey (4.2 percentage points compared with 14.9 percentage points in September). There is again a strong correlation between the opinions expressed and the views regarding economic developments in the previous three months (Table 6).

As in the past, companies expect that increases in raw materials prices and labour costs will have a slightly negative impact on their business in the next quarter. They expect a positive impact from demand, both domestic and foreign, and price effects (Table 7).

Expectations with regard to the business situation in the next three years remain positive, although the level of optimism is lower than in September: 50.1 per cent of companies expect an improvement (compared with 58.5 per cent in September), while 17.2 per cent expect conditions to worsen (compared with 15.6 per cent; Table 8). Positive responses were more common in the services sector (51.6 per cent) and among medium-sized companies (53.3 per cent), while negative responses were relatively more common in the South (22.3 per cent) and in the industrial sector (19.1 per cent).

Investment environment

59.2 per cent of companies judge that the investment environment has remained unchanged in the last three months (compared with 69.6 per cent in the last survey). Negative views are more widespread than positive views (24.1 per cent compared with 16.6 per cent; Table 9), by contrast with the situation in September (when the views stood as 11 and 19.4 per cent respectively). The strongest signs of a worsening came from companies in the North-East (34.6 per cent of whom gave negative assessments), while the highest shares of optimistic assessments were found in the South and the Centre (21.9 and 25.0 per cent respectively).

Employment rate

With regard to total employment, three-month forecasts of an increase outweigh those of a reduction (31.4 compared with 19 per cent). This was the case in the previous survey, and the differential has increased (Table 10). As in the past, companies in the services sector are more likely to expect an increase in employment (36.9 per cent foresee an increase, with 17.2 per cent expecting a decrease), as are those in the North-East (40.3 compared with 13.2 per cent) and large companies (33.3 compared with 22.5 per cent). In the industrial sector, signs are weaker (26.5 compared with 20.5 per cent). As in September, expectations of an increase also outweigh those of a decrease in the case of permanent employment (23.6 compared with 15.6 per cent who expect a fall). An exception is seen in the South and Islands, where 21.4 per cent of companies expect a reduction in permanent employment, and only 11.9 per cent expect an increase. As in the past, fixed-term employment is foreseen to increase in particular by large companies, in the services sector and in the South. The opposite trend is witnessed in the central regions.

Changes in companies' sales prices

On average, companies reported an increase in their sales prices of 2.3 per cent in the past 12 months, 0.6 percentage points more than they expected in December 2005. For the next year, they expect a rise of 2.4 percentage points, 0.3 percentage points more than they expected in the last survey (Table 11). Companies in the South seem to be experiencing a more sustained rise, while those in the North-East have witnessed a more contained increase. The increase can be

explained mainly by tensions in the market for raw materials and changes in the exchange rate of the euro (Table 12).

There is a general expectation among companies that their prices will increase by less than the general index in the course of the next 12 months. For the first time since the survey began, the differential vis-à-vis forecasts for December 2007 is a negative value, albeit modest in size (-0.2 percentage points; Figure 4). Looking back, companies usually report lower price increases than the general index. This trend is also confirmed for the December 2006 survey; the difference between the actual inflation rate in the previous 12 months and the price increases reported over the same time period is 0.2 percentage points (compared with 0.6 percentage points in September).

Figure 1 **Expectations of consumer price inflation in Italy and actual rate** (percentages)

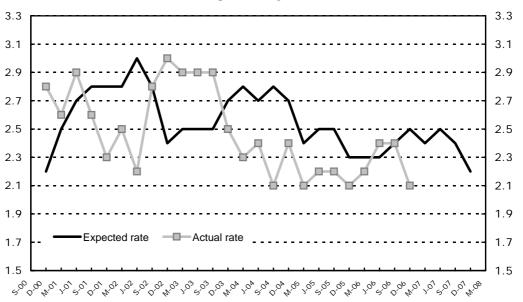


Figure 2

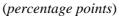
Differential between expected and actual inflation rates

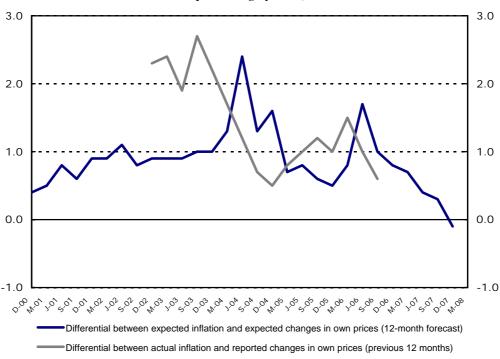
(percentage points)



Figure 3

Differential between price changes reported by companies and the inflation rate: forecasts and actual outcomes





Appendix A:

Methodological note

METHODOLOGICAL NOTE

A1. The sample

Since 1999, the Bank of Italy and the daily newspaper Il Sole 24 Ore have conducted a quarterly survey on inflation and growth expectations. The surveys are conducted in March, June September and December. The main findings are summarized in an article published in Il Sole 24 Ore at the beginning of the month following the reference month. At the same time, the detailed statistical tables and a short economic commentary are published on the Bank of Italy's website.

The sample usually consists of around 500 companies with at least 50 employees which operate in the main sectors of the economy, except for agriculture and construction. The most recent survey covered 460 companies, 246 from the industrial sector and 214 from the services sector.

The sample is stratified by number of employees (50-199, 200-999, 1000 and above), sector (industry, services) and geographical area (North-West, North-East, Centre, South and Islands) in order to increase the accuracy of the estimates. The need to ensure a minimum sample size for each category of company considered relevant means that, in some cases, the number of companies selected is not representative of the relative share of that category. This is in particular true of large companies.

Table 1a shows the composition of the sample broken down by number of employees, sector and geographical area.

Table 1a - Composition of sample and universe (units, percentages)

	Sample size (a)	Company universe (*) (b)	Sample coverage rate (a / b) * 100
Number of employees			
50-199	176	16,311	1.1
200-999	169	3,270	5.2
Over 999	115	470	24.5
Sector			
Industry	246	12,095	2.0
Services	214	7,956	2.7
Geographical area			
North-West	179	8,306	2.2
North-East	147	5,651	2.6
Centre	85	3,406	2.5
South and Islands	49	2,688	1.8
Total	460	20,051	2.3

^(*) ISTAT (2002).

A2. Data collection and evaluation

The survey data are collected by a specialist company which distributes the questionnaire to company managers who are well-informed about the topics covered by the survey. The questionnaire is usually compiled online via a purpose-designed interface made available to the respondents. A small number of the companies choose to submit their answers via fax (Table 2a).

Table 2a - Response rates and data collection via Internet(units; percentages)

	Companies contacted	Response rate (*)	Data collected via Internet
Number of employees			
50-199	525	33.5	93.2
200-999	338	50.0	97.0
Over 999	125	92.0	98.3
Sector			
Industry	532	46.2	95.1
Services	456	46.9	96.7
Geographical area			
North-West	388	46.1	94.4
North-East	305	48.2	98.0
Centre	182	46.7	96.5
South and Islands	113	43.4	93.9
Total	988	46.6	95.9

^(*) Percentage of companies contacted which participated in the survey. (**) Percentage of participating companies which completed the questionnaire via Internet (www.questlab.it).

The collected data are subject to an initial quality check so that any incorrect data (resulting from typing mistakes, for example) can be intercepted and the existence of outliers and missing data (*item non-response*) can be assessed. Using the correlation between the indicators obtained, the missing data are imputed by means of stochastic regression models, the parameters for which are set after neutralizing outliers, where appropriate.

The aggregates are evaluated using a weighting coefficient for each sample unit which, at the level of the stratification variables, takes into account the ratio between the number of respondent companies and the number of companies in the reference universe. In the evaluation of the development of the variables attributed to the companies, the weighting also takes account of the size in terms of the number of employees of the participating companies, in order to provide more accurate indications of expected macroeconomic developments.

In order to verify the impact of outliers on the mean values for the main variables, the standard estimators are accompanied by robust estimators; specifically, values outside the range between the 5th and the 95th percentile have been set at the threshold values of those percentiles. The results are generally in line with those obtained from the total sample (Table 3a).

Table 4a contains indicators of the standard errors in relation to the main variables for the total sample.

Table 3a – Evaluation of the main variables obtained and missing responses (percentages)

	Mean	Mean (robust)	Median	Missing responses (percentages)
Consumer price inflation in Italy	2.2	2.2	2.0	0.0
Change in own prices in the previous 12 months	2.3	2.1	2.0	35.0
Change in own prices in the next 12 months	2.4	2.1	2.0	35.0

Table 4a - Standard errors

Consumer price inflation in Italy	0.04
Change in own prices in the previous 12 months	0.33
Change in own prices in the previous 12 months (robust)	0.27
Change in own prices in the next 12 months	0.43
Change in own prices in the next 12 months (robust)	0.21
Factors which will affect business conditions:	
Domestic demand	0.09
Foreign demand	0.06
Own prices	0.09
Raw materials prices	0.09
Labour costs	0.08
Factors which will affect companies' prices:	
Demand	0.06
Raw materials prices	0.07
Labour costs	0.05
Exchange rate of the euro	0.07

Appendix B:

Statistical tables

Table 1 - Expectations of consumer price inflation in Italy for the next 12 months

(percentages)

	Consumer price inflation rate
Number of employees	
50-199	2.2
200-999	2.1
Over 999	2.1
Sector	
Industry	2.2
Services	2.2
Geographical area	
North-West	2.2
North-East	2.1
Centre	2.1
South and Islands	2.3
Total	2.2

	Better than previous quarter	Unchanged from previous quarter	Worse than previous quarter	Total
Number of employees				
50-199	23.9	58.5	17.5	100.0
200-999	24.0	57.5	18.5	100.0
Over 999	35.8	55.1	9.1	100.0
Sector				
Industry	21.2	58.3	20.5	100.0
Services	26.2	58.3	15.4	100.0
Geographical area				
North-West	20.7	64.4	14.9	100.0
North-East	25.6	53.5	20.8	100.0
Centre	28.9	53.3	17.8	100.0
South and Islands	25.5	56.6	17.9	100.0
Total	24.2	58.3	17.5	100.0
Memorandum items:				
September 2006	38.0	56.4	5.6	100.0
June 2006	25.4	59.7	14.8	100.0
March 2006	24.0	60.4	15.6	100.0

Table 3 - Likelihood of an improvement in the general economic situation in the next three months

(percentages)

	Zero	1-25%	26-50%	51-75%	76-100%	Total
Number of employees						_
50-199	29.5	49.5	12.2	8.7	0.0	100.0
200-999	22.0	45.9	20.4	8.8	3.0	100.0
Over 999	14.2	36.4	27.4	19.0	3.1	100.0
Sector						
Industry	28.8	52.4	13.4	5.2	0.1	100.0
Services	27.5	46.2	14.1	11.4	0.8	100.0
Geographical area						
North-West	33.7	43.3	13.5	8.9	0.5	100.0
North-East	26.0	43.4	17.8	12.0	0.7	100.0
Centre	19.1	58.5	12.1	9.6	0.7	100.0
South and Islands	26.1	64.0	8.5	1.4	0.1	100.0
Total	28.0	48.7	13.8	8.9	0.5	100.0
Memorandum items:						
September 2006	15.8	50.7	20.0	11.6	1.9	100.0
June 2006	27.9	47.0	16.1	6.7	2.3	100.0
March 2006	28.4	48.2	12.1	10.1	1.2	100.0

Table 4 - Likelihood of an improvement in the general economic situation in the next three months, by view of the current situation

(percentages)

	Zero	1-25%	26-50%	51-75%	76-100%	Total
View of the current general economic situation						
Better than in 9/2006	3.1	54.2	14.8	26.4	1.6	100.0
Unchanged from 9/2006	29.9	48.8	16.4	4.6	0.3	100.0
Worse than in 9/2006	53.3	40.3	6.0	0.4	0.0	100.0
Total	28.0	48.7	13.8	8.9	0.5	100.0

Table 5 - Three-month forecast of the business environment

(percentages)

	Improvement	No change	Worsening	Total
Number of employees				
50-199	16.2	71.5	12.3	100.0
200-999	19.5	66.1	14.4	100.0
Over 999	22.6	66.6	10.8	100.0
Sector				
Industry	18.8	73.1	8.1	100.0
Services	15.5	68.8	15.7	100.0
Geographical area				
North-West	18.1	77.5	4.4	100.0
North-East	17.3	61.2	21.4	100.0
Centre	9.3	74.7	16.1	100.0
South and Islands	21.9	64.0	14.1	100.0
Total	16.8	70.5	12.6	100.0
Memorandum items:				
September 2006	23.2	68.6	8.3	100.0
June 2006	21.3	67.0	11.7	100.0
March 2006	23.7	66.9	9.5	100.0

Table 6 - Three-month forecast of the business environment, by view of the general economic situation

(percentages)

	Improvement	No change	Worsening	Total
View of the current general economic situation				
Better than in 9/2006	52.7	41.8	5.4	100.0
Unchanged from 9/2006	6.1	84.4	9.4	100.0
Worse than in 9/2006	4.1	64.9	31.0	100.0
Total	16.8	70.5	12.6	100.0

Table 7 - Factors which will affect the business environment

(average scores)(*)

	Change in domestic demand	Change in foreign demand	Change in own prices	Change in raw materials prices	Change in labour costs
Number of employees					
50-199	0.7	0.6	0.1	-0.8	-0.5
200-999	0.6	0.6	0.3	-0.7	-0.5
Over 999	0.5	0.5	0.5	-0.6	-0.5
Sector					
Industry	0.5	1.0	0.1	-1.1	-0.6
Services	0.8	0.4	0.2	-0.5	-0.5
Geographical area					
North-West	0.7	0.7	0.4	-0.6	-0.5
North-East	0.7	0.5	-0.1	-1.1	-0.6
Centre	0.7	0.4	0.2	-0.5	-0.6
South and Islands	0.3	0.6	0.1	-1.0	-0.5
Total	0.7	0.6	0.2	-0.8	-0.5

^(*) Companies' views with regard to the direction and degree of the expected impact of each factor on their business conditions in the next three months (high/average/low increase or decrease) were measured on a scale of -3 to 3. A neutral position is indicated by 0.

Table 8 - Three-year forecast of the business environment (percentages)

(percentages)								
	Improvement	No change	Worsening	Total				
Number of employees								
50-199	49.6	33.0	17.4	100.0				
200-999	53.3	30.7	16.0	100.0				
Over 999	47.3	33.7	19.0	100.0				
Sector								
Industry	48.0	32.9	19.1	100.0				
Services	51.6	32.5	15.9	100.0				
Geographical area								
North-West	47.1	37.4	15.6	100.0				
North-East	50.3	31.0	18.7	100.0				
Centre	57.9	27.3	14.8	100.0				
South and Islands	49.0	28.8	22.3	100.0				
Total	50.1	32.7	17.2	100.0				
Memorandum items:								
September 2006	58.5	25.9	15.6	100.0				
June 2006	57.3	25.5	17.2	100.0				
March 2006	60.6	22.6	16.8	100.0				

Table 9 – View of investment environment (percentages)

	Better than previous quarter	3		Total
Number of employees				
50-199	17.7	57.1	25.2	100.0
200-999	11.4	67.8	20.8	100.0
Over 999	16.6	74.3	9.0	100.0
Sector				
Industry	14.7	62.2	23.1	100.0
Services	18.0	57.2	24.8	100.0
Geographical area				
North-West	11.8	69.8	18.4	100.0
North-East	16.5	48.9	34.6	100.0
Centre	21.9	55.4	22.8	100.0
South and Islands	25.0	52.5	22.5	100.0
Total	16.6	59.2	24.1	100.0
Memorandum items:				
September 2006	19.4	69.6	11.0	100.0
June 2006	15.7	69.5	14.8	100.0
March 2006	14.7	70.8	14.6	100.0

 $\textbf{Table 10 - Three-month forecast of employment} \\ \textit{(percentages)}$

	Total employment		Perma	Permanent employment			Fixed-term employment		
	Declining	Unchanged	Rising	Declining	Unchanged	Rising	Declining	Unchanged	Rising
Number of employees									
50-199	17.6	50.9	31.5	13.3	63.0	23.6	13.3	69.1	17.6
200-999	18.0	52.2	29.8	14.9	64.0	21.1	15.5	61.5	23.0
Over 999	22.5	44.1	33.3	19.8	53.2	27.0	14.4	55.0	30.6
Sector									
Industry	20.5	53.0	26.5	17.5	65.0	17.5	16.7	64.1	19.2
Services	17.2	45.8	36.9	13.3	56.2	30.5	11.8	61.1	27.1
Geographical area									
North-West	20.4	50.3	29.3	17.4	59.3	23.4	13.8	67.1	19.2
North-East	13.2	46.5	40.3	13.2	58.3	28.5	11.1	59.7	29.2
Centre	21.4	57.1	21.4	13.1	65.5	21.4	20.2	67.9	11.9
South and Islands	28.6	42.9	28.6	21.4	66.7	11.9	16.7	45.2	38.1
Total	19.0	49.7	31.4	15.6	60.9	23.6	14.4	62.7	22.9
Memorandum items:									
September 2006	18.9	53.4	27.8	16.3	64.2	19.5	16.3	58.8	24.9
June 2006	18.6	54.0	27.4	17.2	62.3	20.5	12.8	64.4	22.8
March 2006	21.3	48.9	29.8	20.7	61.7	17.6	15.2	56.7	28.0

	1						
	Rate of change in sales prices						
	compared wit	h 12 months earlier	in the n	ext 12 months			
	Mean	Mean (robust)	Mean	Mean (robust)			
Number of employees							
50-199	2.1	2.1	2.3	2.1			
200-999	2.3	2.0	2.2	2.1			
Over 999	2.4	2.3	2.7	2.2			
Sector							
Industry	3.0	2.4	2.3	2.1			
Services	2.0	2.0	2.5	2.1			
Geographical area							
North-West	2.4	2.2	2.2	2.2			
North-East	1.7	2.0	1.6	1.7			
Centre	2.1	2.1	3.3	2.3			
South and Islands	4.2	2.5	3.5	2.6			
Total	2.3	2.1	2.4	2.1			
Memorandum items:		Rate of change in	sales prices				
September 2006	2.0	1.8	2.1	2.1			
June 2006	1.4	1.5	2.1	2.0			
March 2006	0.7	0.7	1.7	1.7			

^(*) Companies' responses are weighted by the number of employees in order to account for the impact of size. (**) Values outside the range between the 5th and the 95th percentile have been set at the threshold values of those percentiles.

	Change in demand	Change in raw materials prices	Change in labour costs	Change in the exchange rate of the euro
Number of employees				
50-199	0.2	0.9	-0.0	0.8
200-999	0.2	0.8	0.0	0.7
Over 999	0.1	0.2	-0.2	0.0
Sector				
Industry	0.3	1.1	0.0	0.5
Services	0.1	0.4	-0.2	0.3
Geographical area				
North-West	0.2	0.6	-0.0	0.3
North-East	0.1	0.9	-0.0	0.6
Centre	0.0	0.0	-0.3	0.2
South and Islands	0.2	1.1	-0.0	0.6
Total	0.1	0.6	-0.1	0.4

^(*) Companies' views with regard to the direction and degree of the impact of each factor on future sales prices (high/average/low increase or decrease) were measured on a scale of -3 to 3. A neutral position is indicated by 0. Companies' responses are weighted by the number of employees in order to account for the impact of size.

Appendix C:

The questionnaire

IL SOLE 24 ORE – BANK OF ITALY SURVEY ON INFLATION AND GROWTH EXPECTATIONS – DECEMBER 2006									
Company									
AddressName and position of respondent									
TelephoneFaxE-Mail _									
Instructions: Where you are asked to state percentage changes, please indicate the sign in the first box on the left (+ for increases; − for									
decreases). Please indicate the NUMBER OF EMPLOYEES (most recent data available)									
SECTION A – GENERAL I	ECONOMIC SIT	UATION IN ITA	ALY						
A1. In October consumer price inflation, measured by the annual change in the HARMONIZED INDEX OF CONSUMER PRICES, stood at 1.9% in Italy and at 1.6% in the euro area. What will the consumer price inflation rate in ITALY be 12 months from now?									
A2. Compared with 3 months ago, do you think that the general econo		•		-	Worse				
A3. What is the likelihood of an improvement in the general economic		J							
☐ Zero ☐ Between 1% and 25% ☐ Between 26% and 50% ☐ Between				9% 🛮 100%					
SECTION B – Your com			IENT						
B1. <u>In the next 3 months</u> , do you think that <u>your company's business (</u> ☐ Better ☐ Unchanged ☐ Worse	<u>environment</u>	will be:							
B2. And in the next 3 years:									
☐ Better ☐ Unchanged ☐ Worse									
Please indicate if and to what degree the following FACTORS will affect your company's business in the next 3 months. Please indicate whether the impact will be negative, none or positive. Degree: 1=low, 2=average, 3=high.									
Factors which will affect the company's business	Impact or	n company's	business	Degree	(if negative/p	oositive)			
in the next 3 months	Negative	None	Positive	Low	Average	High			
B3. The impact of developments in DOMESTIC DEMAND on your business will be	1	2	3	1	2	3			
B4. The impact of developments in FOREIGN DEMAND on your business will be	1	2	3	1	2	3			
B5. The impact of developments in YOUR PRICES on your business will be	1	2	3	1	2	3			
B6. The impact of developments in RAW MATERIALS PRICES on your business will be	1	2	3	1	2	3			
B7. The impact of developments in LABOUR COSTS on your business will be	1	2	3	1	2	3			
B8. Compared with 3 months ago, do you think that the investment er			_						
B9. In the last 12 months, what has been the average change in prices	s charged by	your compan	ıy? .	, %					
B10. Over the next 12 months, what do you expect to be the average	change in pri	ces charged l	by your comp	oany? _	_ _ , %)			
Please indicate in which direction and to what degree the FACTORS below whether the impact will be downward, neutral or upward. Degree: 1=le	•	•	rices over th	e next 12 mo	onths. Please	indicate			
Factors which will affect the company's prices		the prices one company		Degree (if upward/do	wnward)			
in the next 12 months	Downward	Neutral	Upward	Low	Average	High			
B11. The impact of developments in OVERALL DEMAND on your prices will be	1	2	3	1	2	3			
B12. The impact of developments in RAW MATERIALS PRICES on your prices will be	1	2	3	1	2	3			
B13. The impact of developments in LABOUR COSTS on your prices will be	1	2	3	1	2	3			
B14. The impact of developments in the exchange rate of the Euro on your prices will be	1	2	3	1	2	3			
Please indicate the direction in which the employment situation in your	company wil	II change <u>ove</u>	r the next	Lower	Un-	Higher			
3 months:					changed				
B15. Number of TOTAL employees				1	2	3			
316. Number of employees with PERMANENT CONTRACTS 1 2 3 317. Number of employees with FIXED-TERM CONTRACTS 1 2 3					3 <u> </u>				