

This commentary presents the main results from a survey on company pricing. The results indicate that companies have recently experienced difficulty in passing on their costs to consumers and that their price mark-ups have thus been lower than normal. An explanation for this is that demand has been weak and uncertain. It is thus reasonable to expect that prices will begin rising faster when economic activity strengthens and demand increases. At the same time, the responding companies state that competition has increased significantly in recent years, which could indicate that the low price mark-ups are partly due to structural reasons. The survey also shows that larger companies have had lower cost increases and their margins have not been as squeezed as those of smaller companies.

Results from a survey on company pricing

Mikael Apel, Eric Frohm, Jyry Hokkanen, Christina Nyman and Stefan Palmqvist¹
The authors work in the Monetary Policy Department of the Riksbank and at Finansinspektionen (the Swedish financial supervisory authority).

Inflation in Sweden has been low in recent years. The fact that prices are increasing relatively slowly when resource utilisation in the economy is lower than normal is not in itself remarkable. But there are also elements in the development of inflation that are not easily explained, even with hindsight. One example is the downswing during the latter part of 2013 and beginning of 2014, which meant that inflation was close to zero per cent.

The rate of price increase in the economy is ultimately the overall result of the pricing decisions made by the individual companies. Information on how the companies reason when setting prices and on the main driving forces behind their decisions may therefore be valuable. However, the aggregate statistics often fail to provide such information.²

To gain a deeper understanding of companies' pricing recently, the Riksbank commissioned the National Institute of Economic Research to carry out a survey by questionnaire during spring and summer 2014. A number of questions were asked in an on-line questionnaire addressed to 1,530 companies that were assumed to have at least some sales to consumers. 895 of these companies chose to take part in the study and the response rate was thus 58 per cent.³ This Economic Commentary reports the main results from the survey.

A simple framework for pricing

The price a company sets for a product or service can be divided up into marginal costs and a mark-up. The costs consist of the price of the labour, capital and intermediate goods the companies need to manufacture their products.

If prices rise slowly, it may be because the companies' costs are increasing at a slower pace, while their price mark-ups are normal. Another possibility is that low price increases are due to companies for various reasons finding it difficult to pass on their cost increases to the end-consumers and therefore having to hold back their mark-ups.

Companies' costs and mark-ups vary according to demand in the economy. When this is low, wages tend to increase more slowly, and both companies selling input goods to other companies and companies selling directly to consumers are forced to be restrictive with price mark-ups. Price mark-ups are also affected by the degree of competition in the branch where the company is active. The more a company is exposed to competition, the greater the pressure to restrict its price mark-ups and the lower the margin the company has on its goods or services.

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2. In recent years, a number of central banks have carried out studies by means of questionnaires to look into companies' pricing behaviour in a broader sense. For a study of Swedish data, see Apel, M., R. Friberg and K. Hallsten "Microeconomic Foundations of Macroeconomic Price Adjustment: Survey Evidence from Swedish Firms", *Journal of Money, Credit and Banking* 37, 2005.

3. It should be noted that the sample is not representative for the composition of the CPI, for instance, or for the Swedish business sector as a whole. A more detailed description of the survey can be found in the appendix.

Questions to companies provide more detailed information

The low inflation rate in recent years can to some extent be explained by the weak development in company costs, particularly with regard to intermediate goods.⁴ In addition, there are indications that companies have not had the same scope to pass on their cost increases to consumers, that is, their price mark-ups have been lower than normal. For instance, consumer prices have been increasing more slowly than unit labour costs since 2010, and profit shares according to the National Accounts have been lower than normal.

However, it is difficult to draw any certain conclusions about company pricing and costs on the basis of this type of data. There is therefore good reason to also study the information from the companies themselves. One source of this type of information is the Riksbank's Business Survey, which is carried out three times a year. The May survey contained special questions about price mark-ups. Despite the indications resulting from the correlation between inflation and labour costs, the results of the Business Survey did not clearly point to price mark-ups being abnormally low.⁵

Such differences in the results from different sources means that there may sometimes be reasons to supplement with special surveys to obtain more detailed information. Another reason is that the Riksbank's Business Survey only includes the largest companies and it may sometimes be useful to survey a larger and more varied group of companies. More specifically, the current survey aims to gain better knowledge of how companies have perceived their price mark-ups and costs recently, as it is difficult to obtain information on these matters in other ways.

Lower price increases than normal

An introductory question in the survey was how companies have perceived their price increases over the past twelve months. They were asked to choose one of the alternatives on the scale "much lower than normal", "somewhat lower than normal", "as normal", "somewhat higher than normal" or "much higher than normal".⁶

Just over half of the responding companies stated that price increases had been normal (see Figure 1). However, as many as 43 per cent felt that price increases had been somewhat lower or much lower than normal. The clear skewness to the left of the distribution agrees well with the low inflation.

Larger companies appear to have found it easier to pass on costs

One reason for the survey was to obtain more information on how far the low price increases reflect unusually low price mark-ups and subdued cost increases respectively. We therefore asked the same question as for the price increases with regard to price mark-ups and cost increases, giving the same response alternatives.

The responses are reported in two ways. First as normal percentages in Figure 1, where each company has equal weight regardless of size, and second as percentages where the responses have been weighted using the number of employees in the companies. Thus, in the weighted columns, the companies with more employees have a greater impact.

Both the weighted and the unweighted responses indicate skewness in the distribution towards lower price mark-ups than normal (see Figure 2). The results are thus in line with the indications from the correlations between inflation and labour costs. The tendency for price mark-ups to be lower has been clearer with regard to the unweighed responses than the weighted responses. This implies that the larger the companies are, the better they have succeeded in maintaining their price mark-ups.

4. See, for instance, the article "Why is inflation low?" in the Monetary Policy Report published in July 2014.

5. See the Riksbank's Business Survey in May 2014.

6. In this and some other questions we allowed the companies themselves to define what they perceive to be a normal situation. We assumed that most companies have a relatively clear picture of this – typically a normal cyclical situation in the branch where the company is active – and that the question would therefore not be perceived as unclear. The fact that there was little non-response to the question and that we received only a few questions and comments supports this assumption.

The weighted results from the survey are thus also in line with the results in the Riksbank's Business Survey, which did not point to abnormally low price mark-ups. Judging by the responses to the questionnaire and to the Business Survey, larger companies may find it easier to maintain their price mark-ups, even when demand is weaker. One possible explanation could be that, compared with smaller companies, they have a stronger negotiating position and thus can more easily push down purchasing prices from their suppliers.

Weak demand and increased competition explain low price mark-ups

The companies stating that price mark-ups had been lower or much lower than normal were given a follow-up question regarding the main causes of this. They were asked to rate a number of different factors on the basis of the significance they perceived these factors had had.

As many as 69 per cent stated that competition had been higher than normal (see Figure 3). Not unexpectedly, many companies also cited weak demand or uncertainty over future demand as important factors behind the low price mark-ups.

The companies stating that competition was of considerable significance were given a follow-up question as to whether competition had increased in recent years or whether it was perceived as high but relatively constant.⁷

A large majority, 83 per cent, said that competition was not only high, but had also increased significantly in recent years (see Figure 4). It is of course difficult to distinguish effects that are due to competition increasing in a more structural sense and those that are solely due to the weaker demand. When demand is low and many companies are competing for a limited customer base, it is natural that competition is perceived as high. But even if the recovery in Sweden after the crisis has at times been relatively slow, it should not to any great extent be associated with *shrinking* demand and customer bases. The development in demand should therefore not be the entire explanation for many companies perceiving that competition has clearly *increased*.⁸ One possible conclusion is therefore that the increased competition reflects at least to some extent a structural change, something that is partly supported by the Riksbank's Business Survey.⁹

When asked where competition was mainly perceived to come from, 86 per cent of companies responded that it was primarily from other Swedish companies, while 39 per cent stated that competition from foreign companies has somewhat or large significance (see Figure 5).

The companies also had the opportunity to state to what extent e-commerce had led to an increase in competition. The percentage of companies stating that e-commerce had somewhat or large significance for the increased competition is not negligible, but much smaller than the percentage emphasising competition from traditional companies.¹⁰ However, one possibility is that the increased use of the internet has affected competition in ways that are not clearly captured by e-commerce specifically, and thus by the questionnaire. For instance, it has become easier to compare prices between traditional companies, not just between e-commerce companies. From the companies' point of view, this increased price awareness among customers may be perceived as competition having increased in a more conventional sense.

7. Apart from this question being interesting in itself, one purpose was to reduce the risk of companies more or less routinely citing high competition as a problem.

8. Around 36 per cent of the companies responding that a high level of competition has considerable or fairly considerable significance also responded that low demand only has some significance or no significance for the low price mark-ups.

9. In the Riksbank's Business Survey in May 2014 the consumer-related companies in particular indicated that competition had become tougher, mainly due to new ways of doing business. Examples mentioned include e-commerce and price comparison websites which make it easier for small companies and foreign companies to compete for the same customers as the established Swedish companies.

10. If a company were to consider that the competition from, for instance, Swedish companies that have started e-commerce in their normal business, to be significant, the possibility to respond both "competition from Swedish companies" and "competition from e-commerce companies" would have been significant.

Cost increases lower for large companies

The same question as for price increases and price mark-ups was also asked regarding cost increases. Here, too, there was some difference in the weighted and unweighted results.

The unweighted responses are almost symmetrically distributed, that is, the percentage of companies stating that the cost increases have been lower than normal is roughly the same size as the percentage of companies stating that the cost increases have been higher than normal (see Figure 6). When the responses have been weighted with the number of employees, however, there is some tendency towards lower cost increases. The weighted distribution for the costs is similar to the weighted distribution for the price mark-ups. The results are also in line with the hypothesis that larger companies have better opportunities to hold down their cost increases.

Low price mark-ups relatively more important – and more difficult to predict

By linking together the responses to the questionnaire, one can obtain an indication of the relative weight of low cost increases and low price mark-ups respectively with regard to the low price increases.

If one looks at the companies that have stated that price increases have been somewhat lower or much lower than normal (43 per cent of the respondents) and studies how they have responded to the questions regarding price mark-ups and cost increases, one finds that 69 per cent of them have also stated that the price mark-ups have been abnormally low (see Table 1). A smaller proportion, 27 per cent, has stated that the cost increases have been abnormally low. The weighted results give a somewhat more even distribution, 65 against 43 per cent, but the picture is the same, qualitatively. This implies that low price mark-ups are perceived as a more important factor behind the low price increases.

The questions regarding price mark-ups and cost increases were also followed up with questions regarding to what extent the companies had been surprised by the development. The idea was to try to capture the fact that price mark-ups and costs can be affected partly by the business cycle – which companies probably have relatively good knowledge of – and partly by more unexpected events.

On the whole, the development of costs and price mark-ups appears to have been largely expected (see Figure 7). However, the price mark-ups appear to have been somewhat more difficult to predict than the costs. Almost half of the companies that stated the price mark-ups had been lower than normal state that this is at least partly due to factors that were unexpected.

Particularly low price mark-ups in construction industry

It may also be interesting to examine whether there are differences in the responses between different sectors. One reason is that services prices began to increase at a slower rate in 2013 than during the past 15 years.¹¹ It is possible that this could be reflected in a tendency towards especially low price mark-ups or cost increases in the services industry.

One natural method of dividing up companies is into the retail trade, construction and services sectors that are represented in the sample (as in Table 2 in the appendix). One can thus approximately capture potential differences in the responses between companies that mainly sell goods, that is the retail trade, and companies that largely sell services.

¹¹ See, for instance, the article "Perspectives on the low rate of inflation" in Monetary Policy Report, February 2014.

The results for the questions on price increases, price mark-ups and cost increases are shown in Figures 8-10. The pattern for the three sectors is largely the same as for the sample as a whole, that is, there is a tendency for price increases and price mark-ups to have been lower than normal, while cost increases have been more normal.

The most noticeable exception, if any, is the results for the construction industry, where the tendency towards abnormally low price increases and price mark-ups is more evident than in the other two sectors. On the other hand, the results for the retail trade and services companies do not differ very much. In this sense, the survey does not give any clear clues regarding the recent weak development in services prices.

Questionnaire studies are a useful complement

Questionnaire studies like this one, regarding pricing at company level, may comprise an important complement to other types of analysis. They can increase understanding of the mechanisms behind pricing and can thus provide better guidance for the future. At the same time, one should bear in mind that the information provided by these surveys is often qualitative and thus cannot be easily translated into quantitative explanations of developments in the rate of price increase in the economy as a whole.

The results from the survey support the picture that companies have recently experienced difficulty in passing on their costs to consumers and that their price mark-ups have been lower than normal. An obvious explanation for this is that demand has been weak and its development has been uncertain. It is thus reasonable to expect that prices will begin rising faster when economic activity strengthens and demand increases. At the same time, the responding companies state that competition has increased clearly in recent years, which could indicate that the low price mark-ups are largely due to structural reasons. There is good reason to try to examine more closely to what extent this is the case, what exactly are the driving forces behind it, and what the implications may be.

The design of the questionnaire and background data

This survey posed a number of questions to 1,530 companies about their pricing. The questionnaire was designed as an on-line form that the companies could complete between 25 April and 25 June. During this period they received two reminders. 895 companies chose to take part in the study and the response frequency was thus just over 58 per cent.

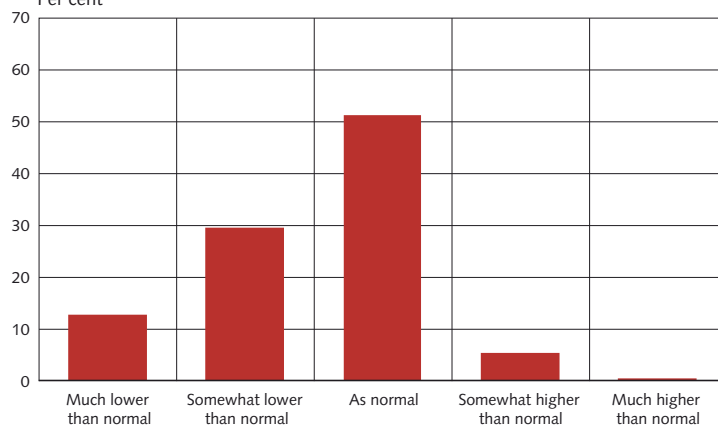
The companies surveyed are largely in the retail trade, construction industry and various services industries. The sample for the special survey comprised part of the National Institute of Economic Research's sample for the Economic Tendency Survey for companies. This sample consists of more than 6,000 companies who are asked every month, either by means of a paper questionnaire or by e-mail and electronic questionnaires. Just over half of the Economic Tendency Survey companies respond via e-mail and it was only companies that respond by this means who took part in this special survey.

The primary aim of the questionnaire was to illustrate prices charged to consumers. Industries that were assumed to have at least some sales to individuals were therefore selected.¹² Although the sample did not reflect, for instance, the industry composition in the CPI and was not representative for the business sector as a whole, it was assessed as suitable for providing important information on company pricing.

In response to an introductory question, 82 per cent of the companies stated that it is largely the companies themselves that set their prices. The others stated that they did not have this possibility; prices were set by either their parent company or in some other way, for instance, administratively in the public sector. These companies have been excluded from the report, which is thus based on 735 responding companies.

Of these, 38 per cent are active in the retail trade, 17 in the construction industry and 45 per cent in various services industries. Table 2 shows the selection of companies broken down into industry and size.¹³

Figure 1. Companies' price increases over the past year have been:
Per cent



12. However, branch codes do not provide sufficient information on this. In response to an introductory question, just over 30 per cent stated that they did not have any sales to individuals. We have nevertheless allowed them to remain in the report. They do not change the results to any great extent.

13. The reason why the sample has relatively few companies with fewer than 20 employees is that relatively few small companies with an e-mail address are included in the National Institute of Economic Research's register.



Figure 2. Companies' mark-ups over the past year have been:
Per cent

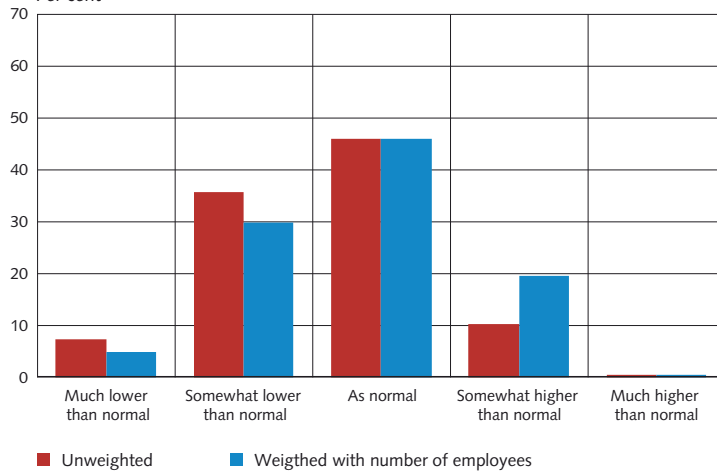


Figure 3. How important are the following factors for the lower mark-ups?
Per cent

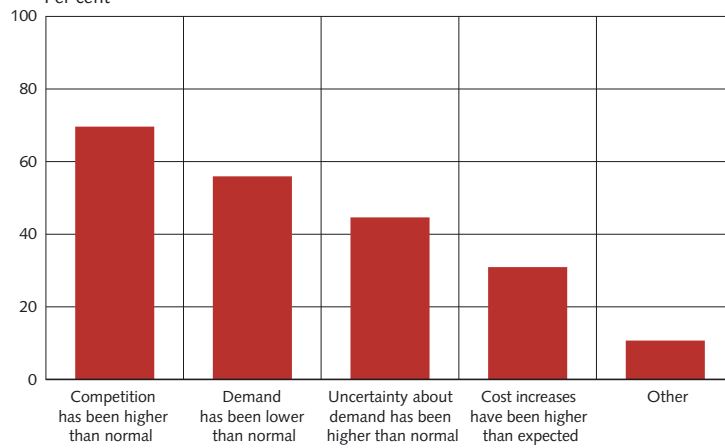


Figure 4. How has competition developed in recent years?
Per cent

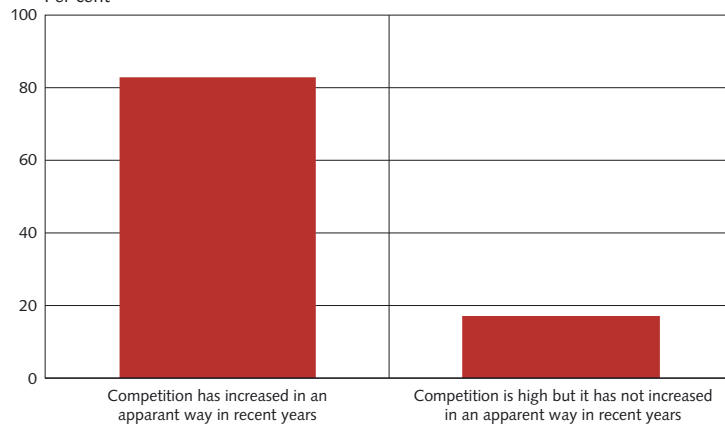




Figure 5. How important are the following factors for the increased competition?
Per cent

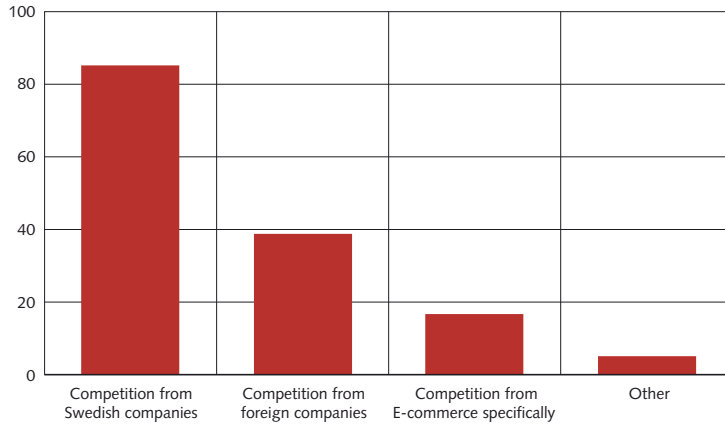


Figure 6. Companies' cost increases over the past year have been:
Per cent

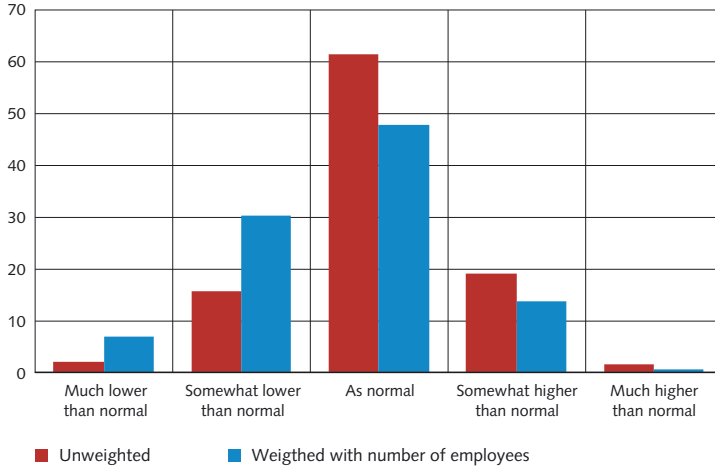


Figure 7. Have these developments been expected or unexpected?
Per cent

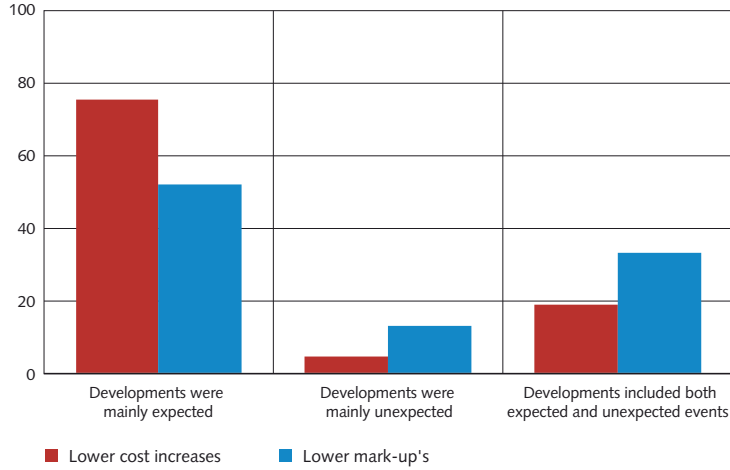




Figure 8. Companies' price increases over the past year have been:
Different sectors, per cent

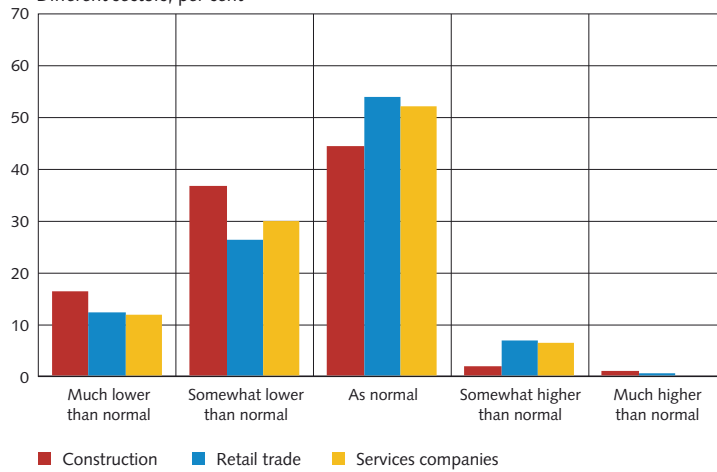


Figure 9. Companies' mark-ups over the past year have been:
Different sectors, per cent

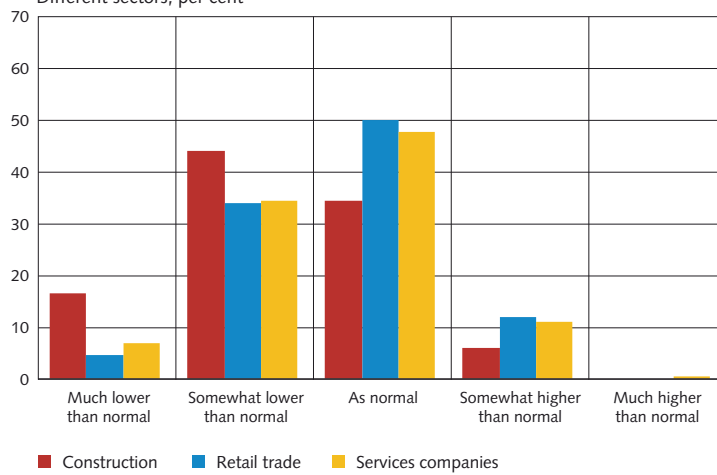


Figure 10. Companies' cost increases over the past year have been:
Different sectors, per cent

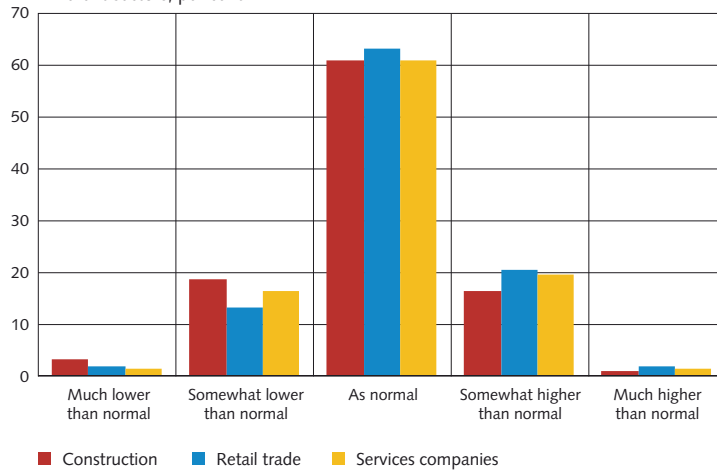


Table 1. The companies that have responded that the price increases have been lower or much lower than normal: Their assessment of price mark-ups and cost increases respectively

		PRICE MARK-UPS %	COST INCREASES %
Unweighted responses	Have been somewhat or much lower than normal	69	27
	As normal	25	52
	Have been somewhat or much higher than normal	6	21
Weighted responses	Have been somewhat or much lower than normal	65	43
	As normal	32	43
	Have been somewhat or much higher than normal	3	14

Table 2. The responding companies, broken down into industry and size

	< 20 EMPLOYEES	20-99 EMPLOYEES	> 100 EMPLOYEES	TOTAL
Construction*	8	72	45	125
Retail trade**	28	118	136	282
Services companies***	22	164	142	328
Total	58	354	323	735

* Construction companies refers to companies within the branch code classifications SNI 41 and 43.

** Retail trade companies are companies within SNI 45-47.

*** Services companies are those within SNI 49, 55, 56, 58, 60, 61, 63, 64-66, 68.3, 71.11, 74, 79, 81 and 95-96.