

# Results of the Bank's survey of wage-setting in Belgian firms

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## Introduction: why conduct a survey on wage-setting?

This article presents the results of a one-off survey of wage-setting covering over 1,400 Belgian firms in manufacturing industry, the energy sector, the construction sector, trade, business services and financial institutions employing at least five workers. The sectors covered by the survey together represent 55 p.c. of dependent employment in Belgian firms. The survey which was conducted by the Bank in the autumn of 2007 is the Belgian component of an initiative launched by the Wage Dynamics Network (WDN). This research network set up by the European System of Central Banks (ESCB) examines wage dynamics in general and the existence of wage rigidity in particular.

The WDN is a sequel to the ESCB's previous Inflation Persistence Network (IPN), which had found considerable variations in price rigidity between sectors and products (Altissimo et al., 2006). Those variations were due in particular to the cost structure at firm and sector level. There were signs that the frequency of price adjustments is lower in sectors where the cost of labour forms a large proportion of total costs, particularly in the service sector. Further research on wage dynamics was therefore desirable.

The WDN is divided into four groups. A "meta-group" acts as overall coordinator and aims to present general conclusions and policy recommendations. The "macro-group" introduces concepts of wage rigidity into macroeconomic models. The "micro-group" uses microeconomic statistics to conduct econometric research into wage rigidity and the behaviour of firms. This article is part of the

work of the survey group. The WDN considered it useful – as in the case of the IPN – to conduct a survey in the various participating countries to accompany the empirical analysis based on individual employees' wage data obtained, for instance, from administrative data banks. Seventeen countries agreed to such a survey. This article discusses the results of the Belgian survey, though without wishing to anticipate the overall results at European level which will not be published until the end of 2008.

This article comprises six sections. Section 1 explains the subject of the survey. The second section discusses the wage-setting process, while the third section examines the existence of downward rigidity and the reasons for it. Section 4 focuses on the reaction to three types of shocks. Section 5 discusses wage and price adjustments and the connection between the two. The final section sums up the main findings of the survey.

## 1. Design of the survey

### 1.1 The questionnaire: preparation and content

The questionnaire was drawn up by the WDN in consultation with the seventeen participating countries, so that it is a harmonised questionnaire. Nonetheless, adjustments specific to particular countries were possible so long as

(1) The authors wish to thank the more than 1,400 firms for their cooperation, the Bank's short-term indicators section for conducting the survey, and the WDN participants for their comments.

they did not endanger the comparability of the results between countries. Thus, some specific questions were added to the Belgian survey form, e.g. concerning the wage cushion, i.e. the buffer between the wages actually paid and the sectoral pay scales, and concerning the automatic wage indexation mechanism. In addition, some questions were omitted because the information was already available in the IPN survey of price-setting or in the social balance sheets. It was necessary to simplify the Belgian survey form after the test run conducted on twenty-one firms showed that the response time for the first draft was too long.

The final questionnaire was sent out in September 2007 to all firms in the sample, namely a total of over 4,000. The questionnaire in Annex 1 relates to manufacturing industry, and the construction and energy sectors. With some minor terminological adjustments, a similar questionnaire was sent to firms in the trade sector, the business services sector and financial institutions. The questionnaire comprises three sections with a total of twenty-eight questions.

Section 1 contains questions on wage-setting – to provide some idea of the collective bargaining process, the total or partial application of pay scales and the variable element of wages – and on the automatic wage indexation mechanism. Wages paid to newly recruited employees are also considered. In addition, the frequency and timing of pay adjustments are examined in depth.

Section 2 of the questionnaire examines the existence of downward wage rigidity and its causes. The questions are based on similar research in the United States (Blinder and Choi, 1990; Campbell and Kamlani, 1997), Sweden (Agell and Bennmarker, 2002) and Germany (Franz and Pfeiffer, 2006). It also ascertains the response to three types of shock : a weakening of demand, an increase in the cost of intermediate inputs, and a general rise in labour costs. The section concludes by examining the frequency and timing of price adjustments, and their link with wage adjustments.

Finally, the questions in section 3 concern the size of the workforce, the importance of labour costs, and the firm's position in the economic cycle.

The answers have to be viewed in the context of the 2006 annual accounts. Where wages are concerned, most of the questions concern the basic wage – i.e. the fixed pay excluding bonuses but including commission – of the main occupational category in the firm. The occupational categories are defined in question 1.1 and permit a distinction between blue-collar and white-collar workers and

between their skill levels. The survey deliberately avoided the usual classifications applied here, which often take account only of the highest education obtained. In regard to prices, the participants were also asked to relate their answers to their main product, i.e. the product generating the largest volume of turnover.

The questionnaire contains three types of questions. The first type requires participants to tick one or more answers. The second type asks them to indicate the relevance of a particular statement, offering a choice between “not important”, “not very important”, “important”, “very important” and “don't know”. In both cases the response breakdown is given disregarding any questions left blank or marked as “don't know”. The third type of question asks for exact figures. A response rate is calculated for each answer (see Annex 2). The response is satisfactory in each case (roughly 80 p.c. or more), except for a few quantitative questions. This article therefore does not present the answer to these last questions.

## 1.2 The sample

The one-off survey sample was based on the sample used for the Bank's monthly business survey of manufacturing industry, construction, trade and business services; it was extended to include the energy sector and financial institutions. Conversely, firms with under five employees were omitted. Altogether the sample comprised 4,088 firms. In all, the sectors covered by the survey represent 55 p.c. of paid employment.

In total, 1,431 firms participated in the survey, representing a response rate of 35 p.c. In return for their cooperation, the participants were sent the average responses for their sector. The sample was composed in such a way that large firms were over-represented. While the participating firms represent 3 p.c. of the total numbers in the population, they account for 11 p.c. in terms of employment. Firms in manufacturing industry and the energy and financial sectors were heavily represented in terms of the number of employees.

Some of the survey results need to be given a weighting in order to make them representative of the total population of firms. For this purpose, the population was divided into twenty-four strata, namely six groups according to the sector of activity each of them composed of four groups according to the number of workers. The WDN had devised a weighting method which takes account of the availability in the seventeen countries of data on the total population of firms, divided into strata. In view of the survey subject, preference was accorded to weightings

**TABLE 1** SAMPLE  
(4,088 firms contacted, 1,431 participated: response rate 35 p.c.)

|                                | Population                     |                           | Participants    |                | Representativeness (percentages) |            |
|--------------------------------|--------------------------------|---------------------------|-----------------|----------------|----------------------------------|------------|
|                                | Number of firms <sup>(1)</sup> | Employment <sup>(2)</sup> | Number of firms | Employment     | Number of firms                  | Employment |
| <b>Total</b> .....             | <b>44,624</b>                  | <b>1,771,454</b>          | <b>1,431</b>    | <b>194,650</b> | <b>3</b>                         | <b>11</b>  |
| Manufacturing industry .....   | 10,390                         | 542,583                   | 650             | 106,695        | 6                                | 20         |
| Energy .....                   | 30                             | 14,888                    | 11              | 2,591          | 37                               | 18         |
| Construction .....             | 7,457                          | 157,591                   | 210             | 8,775          | 3                                | 6          |
| Trade .....                    | 15,871                         | 396,938                   | 297             | 29,541         | 2                                | 7          |
| Business services .....        | 10,485                         | 541,701                   | 237             | 19,965         | 2                                | 4          |
| Financial institutions .....   | 391                            | 117,953                   | 26              | 27,082         | 7                                | 23         |
| From 5 to 19 employees .....   | 32,052                         | 326,600                   | 578             | 5,298          | 2                                | 2          |
| From 20 to 49 employees .....  | 8,309                          | 274,436                   | 378             | 12,255         | 5                                | 4          |
| From 50 to 199 employees ..... | 3,257                          | 334,433                   | 335             | 32,840         | 10                               | 10         |
| 200 employees or more .....    | 1,006                          | 835,985                   | 140             | 144,257        | 14                               | 17         |

Source: NBB.

(1) Firms accountable for VAT in the sectors covered by the survey, 2005 data.

(2) Firms submitting declarations to the NSSO and belonging to the sectors covered by the survey, data for the 2nd quarter of 2006.

– also referred to as sample weighting ratios – based on employment. They are calculated by taking the employment of the total population of the stratum and dividing it by the number of firms in the stratum in question. For a given observation (firm) they thus indicate the number of workers which that figure represents in the total population, taking account of the firm's size class and the sector to which it belongs. The sum of the sample weights of all firms together is equal to total dependent employment of the population making up the sample.

In order to take account of the significance of a participating firm in the total sample – the response from a large firm is more important than that of a small firm in the wage-setting process as a whole – individual weights are calculated for each firm. Those weights are the ratio between employment in the firm and the total number of employees in the sample. Each firm is therefore given a dual weighting, namely the sample weighting of the stratum to which the firm belongs multiplied by the firm's individual weighting.

The division into strata and, consequently, the calculation of the sample weights take no account of the classification of the employees according to occupational status, because it is not possible to divide the staff in the total population of firms into the occupational categories identified

in the survey. It was therefore decided to present these results and all the results relating to them in unweighted form. That is more particularly the case in sections 2 and 3 of this article; each table and chart specifies whether or not the figures are weighted.

## 2. Wage-setting in firms

The first part of the survey contains questions on wage-setting in firms. They are directed mainly at how the institutional context of wage-setting in Belgium determines the wage policy of the firms. For example, it is evident that the collective pay negotiations organised at sectoral level and the wage indexation mechanism are very important. However, firms can nevertheless deal with this institutional context in different ways, e.g. by concluding supplementary collective agreements at firm level. These aspects are covered by questions 1.2 to 1.9 in the survey.

### 2.1 Institutional aspects

One of the main institutional aspects of wage-setting is the degree to which wages are determined by negotiations and specified in collective agreements. Other research by the WDN shows that in the great majority of

European countries wage negotiations are conducted collectively and at various levels in the hierarchy (cf. Du Caju et al., 2008a). Often there is a general national guideline combined with more specific wage bargaining at an intermediate level: sectoral, regional or per occupational category, possibly supplemented by more decentralised negotiations at firm level. In many cases the consultations have a hierarchical structure with agreements at a higher level being binding for the lower levels<sup>(1)</sup>. However, there are variations between countries in regard to the dominant level of pay negotiations. In Belgium this pattern, which is characteristic of many European countries, takes the form of the wage norm setting a national guideline and wage negotiations conducted predominantly at sectoral level in the joint committees, possibly supplemented by agreements at firm level. The indexation mechanism also plays an important role.

In the Bank's survey, question 1.2 asks about the competent joint committee, and questions 1.3, 1.4 and 1.5 look at the existence and importance of any collective wage agreements concluded at firm level. Around 98 p.c. of firms in the survey report at least one competent joint committee, which is what one would expect in a country where wage bargaining is highly organised at sectoral level, and sectoral agreements are generally declared to be

binding throughout the sphere of competence of the joint committee. In this regard there are hardly any variations between sectors<sup>(2)</sup> or between firms of differing sizes.

The situation is different for collective wage agreements concluded at the firm level. Only 26 p.c. of the firms claim to apply such an agreement. This result confirms what we have already found from another source, namely the Structure of Earnings Survey conducted by the DGSEI. This means that the dominant sectoral negotiations certainly do not preclude supplementary agreements at firm level. The survey results clearly show that pay agreements at firm level are, as expected, more common in the case of larger firms: 67 p.c. of firms employing 200 or more staff have such an agreement, compared to just 9 p.c. of firms with between 5 and 19 employees. This explains why the weighted total of the firms with a company agreement is 30 p.c. Partly as a result of the concentration of large firms in some sectors, collective pay agreements at firm level appear relatively common in the energy sector, manufacturing industry and financial institutions, and less so in construction, trade and business services.

(1) On the understanding that "opt-out" clauses can be applied in specific cases.  
(2) The figure for the energy sector is based on only a small number of firms, and must therefore be interpreted with caution.

**TABLE 2** INSTITUTIONAL ASPECTS OF WAGE-SETTING IN BELGIUM (QUESTIONS 1.2, 1.3, 1.4 AND 1.9)  
(percentages of the total)

|                                | Collective wage agreements |                                    | Wage indexation mechanism                                |                             |   |
|--------------------------------|----------------------------|------------------------------------|--|-----------------------------|---|
|                                | Competent joint committee  | Collective agreement at firm level | Indexation by a fixed amount of 2 p.c. (threshold index) | Indexation at set intervals | Average number of indexations per annum |
| <b>Total</b> .....             | <b>98</b><br>(98)          | <b>26</b><br>(30)                  | <b>57</b><br>(36)  | <b>43</b><br>(64)           | <b>2</b>                                |
| Manufacturing industry .....   | 98                         | 42                                 | 58   | 42                          | 1                                       |
| Energy .....                   | 55                         | 64                                 | 60   | 40                          | 12                                      |
| Construction .....             | 100                        | 15                                 | 34   | 66                          | 4                                       |
| Trade .....                    | 99                         | 9                                  | 63   | 37                          | 1                                       |
| Business services .....        | 98                         | 11                                 | 72   | 28                          | 1                                       |
| Financial institutions .....   | 100                        | 40                                 | 14   | 86                          | 6                                       |
| From 5 to 19 employees .....   | 98                         | 9                                  | 70   | 30                          | 2                                       |
| From 20 to 49 employees .....  | 98                         | 21                                 | 62   | 38                          | 2                                       |
| From 50 to 199 employees ..... | 98                         | 43                                 | 47   | 53                          | 2                                       |
| 200 employees or more .....    | 98                         | 67                                 | 41   | 59                          | 2                                       |

Source: NBB.  
Unweighted results, re-scaled by excluding missing answers. Weighted totals in brackets.

The percentage of workers covered by a collective wage agreement – i.e. the collective agreement coverage ratio – is particularly high in Belgian firms, compared with the ratio in other countries, the main reason being that the sectoral agreements are generally binding<sup>(1)</sup>. According to the survey data, that coverage ratio is at least 90 p.c., corresponding to traditional estimates for Belgium produced by international institutions (e.g. the OECD's Employment Outlook). The coverage ratio is high in all sectors and size classes.

In all European countries, price movements are among the key determinants of wages, and in many countries there is some form of automatic link between prices and wages for a (sometimes considerable) number of employees (e.g. for the minimum wage or for the public sector). However, together with Luxembourg and Cyprus, Belgium has a fairly general system of automatic indexation of nominal wages, although its effects are influenced by reference to the health index and by the operation of the wage norm. It is up to the joint committees to define the details of the general principle of wage indexation. Broadly speaking, two systems are possible. The first is the same as that for the public sector, whereby wages are adjusted in fixed instalments of 2 p.c. whenever the threshold is exceeded. A second system adjusts wages at fixed intervals (from once to twelve times a year), but by variable amounts.

The survey findings show that an unweighted 57 p.c. of firms apply a threshold index mechanism, whereas 43 p.c. operate a system of indexation at fixed intervals. The latter is more common in larger firms, so that the weighted results (64 p.c.) indicate that the majority of employees come under this mechanism. On average, these firms index wages twice a year, with more frequent adjustments in the energy sector, financial institutions and construction. In periods of low inflation, the system of indexation at fixed intervals leads to more frequent adjustments.

## 2.2 Wage levels

In view of the institutional framework of wage-setting in Belgium, outlined above, and the way in which it is implemented in practice in the firms, the wages which firms actually pay to their employees naturally depend to a large degree on the collective agreements. In the Bank's survey, question 1.12 asks about the factors determining the wage level of new staff recruited by the firm, and question 1.2 inquires about the ratio between wages actually paid and the pay scales determined by the joint committees.

(1) Question 1.5 in the survey concerns the coverage ratio. The results are not presented in this article.

**TABLE 3** DETERMINANTS OF THE WAGES OF NEWLY RECRUITED EMPLOYEES (QUESTION 1.12)  
(percentages of the total)

|                                | Collective agreement | Wages of comparable employees in the firm | Wages of comparable employees outside the firm | Availability of comparable employees on the labour market | None of these   |
|--------------------------------|----------------------|---|--|---|-----------------|
| <b>Total</b> .....             | <b>36</b><br>(45)    | <b>50</b><br>(44)                         | <b>4</b><br>(6)                                | <b>5</b><br>(4)   | <b>5</b><br>(1) |
| Manufacturing industry .....   | 35                   | 54  | 3  | 4   | 4               |
| Energy .....                   | 27                   | 64  | 9  | 0   | 0               |
| Construction .....             | <b>48</b>            | <b>44</b>                                 | 1  | 2   | 3               |
| Trade .....                    | 28                   | 49  | 6  | 6   | 10              |
| Business services .....        | 37                   | 47  | 6  | 8   | 3               |
| Financial institutions .....   | 38                   | 46  | 8  | 8   | 0               |
| From 5 to 19 employees .....   | 36                   | 47  | 3  | 5   | 10              |
| From 20 to 49 employees .....  | 30                   | 59  | 4  | 4   | 3               |
| From 50 to 199 employees ..... | 37                   | 53  | 3  | 5   | 2               |
| 200 employees or more .....    | <b>50</b>            | <b>36</b>                                 | <b>8</b>                                       | 5   | 1               |

Source: NBB.  
Unweighted results, re-scaled by excluding missing answers. Weighted totals in brackets.

**TABLE 4 THE WAGE CUSHION: A BUFFER BETWEEN ACTUAL WAGES AND SECTORAL PAY SCALES (QUESTION 1.2)**

(firms answering that actual wages exceeded the sectoral pay scales; percentages of the total)

|                                | Unskilled<br>blue-collar workers | Skilled and supervisory<br>blue-collar workers | Clerical staff | Highly-skilled<br>and management staff |
|--------------------------------|----------------------------------|--|----------------|--|
| <b>Total</b> .....             | <b>37</b>                        | <b>50</b>                                      | <b>54</b>      | <b>63</b>                              |
| Manufacturing industry .....   | 51                               | 65   | 59             | 66                                     |
| Energy .....                   | 0                                | 17   | 13             | 50                                     |
| Construction .....             | 9                                | 18   | 29             | 36                                     |
| Trade .....                    | 35                               | 54   | 56             | 65                                     |
| Business services .....        | 18                               | 30   | 56             | 67                                     |
| Financial institutions .....   | 14                               | 17   | 69             | 71                                     |
| From 5 to 19 employees .....   | 24                               | 35   | 41             | 49                                     |
| From 20 to 49 employees .....  | 31                               | 44   | 48             | 60                                     |
| From 50 to 199 employees ..... | 51                               | 63   | 68             | 72                                     |
| 200 employees or more .....    | 65                               | 68   | 75             | 80                                     |

Source: NBB.

Unweighted results, re-scaled by excluding missing answers.

According to the responses by firms in the survey sample, the level of wages paid to new employees is determined primarily by what is specified in collective agreements (at the level of the sector or the firm) and by the wage level of comparable employees in the firm. Almost 90 p.c. of firms mention one of these two factors as the key determinant for new employees' wages, with little variation between firms operating in different sectors. In large firms, the wages of new employees are slightly more dependent on collective agreements, possibly a firm agreement. Only around 5 p.c. of firms state that, in deciding the level of wages for new employees, they take account of the wages of comparable workers outside the firm (working for competitors) or the availability of the required workers on the labour market. Only really large firms, employing 200 or more staff, seem to take relatively greater account of the level of wages in other firms. Among the smallest firms, which are concentrated in the trade sector, 10 p.c. take no account of the determinants listed.

Although the wages of new employees are evidently determined largely by collective agreements, the wages which firms actually pay to their staff may still deviate from the scales fixed by the sectoral agreements concluded by the joint committees. This may be done via collective wage agreements concluded at firm level, or a unilateral, voluntary pay policy on the part of the firm, whereby the staff are paid above the minimum levels

for the sector. In the economic literature, this situation whereby the actual wages which a firm pays are higher than the mandatory pay scales set by collective agreements concluded at a higher level is described as a "wage cushion". Such a wage cushion can in fact provide a buffer between the actual wage and the lower limit for that wage, so that the firm has more scope for adjusting the actual wage in line with circumstances without coming up against the lower limit (cf. Cardoso and Portugal, 2005). A wage cushion may be formed where sectoral pay scales are very low, e.g. in heterogeneous sectors with wide variations between firms and workers, where it is difficult for the social partners to define generally valid pay conditions. A wage cushion may also exist as a result of circumstances in firms which perform well within the sector and have substantial ability to pay, so that the workers can demand a share of the proceeds via rent sharing (cf. Rycx and Rusinek, 2008 for an analysis of rent sharing in Belgium).

Survey question 1.2 deals in particular with this wage cushion. It is evident that the actual wages paid to unskilled blue-collar workers are equal to the pay scales fixed by the joint committees in most of the firms questioned (62 p.c.), and in 49 p.c. of firms the same applies to skilled and supervisory blue-collar workers. In contrast, in the case of white-collar workers – and for highly-skilled staff (63 p.c.) even more so than for clerical workers (54 p.c.) – actual wages exceed the sectoral pay scales in most of the firms.

A negligible number of firms (under 1 p.c.) pay wages below the sectoral pay scales, either because the firms do not have to implement the agreement, e.g. because it is not generally binding, or because the firm uses staff who can be paid a lower wage (e.g. young trainees).

Examination of the breakdown by sector shows that certain sectors are less inclined than others to pay wages above the levels set by the sectoral agreements. For instance, a wage cushion seems to be relatively uncommon in the construction sector, which comprises many small and comparable firms with specific types of blue-collar workers, whereas white-collar workers (both highly skilled and low-skilled) have a wage cushion, particularly in financial institutions. This is of course connected with the relative demand for this type of workers in the respective sectors.

The finding that the chance of a wage cushion increases with the skill level of the staff is also valid within each firm size class. However, the number of firms with a wage cushion rises the larger the firm's workforce. The chance of a wage cushion for each category of employee is greater in the larger size classes. This confirms the finding – which has already emerged from other research – of a “wage premium” for working in a large firm. A wage cushion is less common for the lower skilled than for highly-skilled staff, but the difference between the two is narrower in large firms than in small ones.

### 3. Downward wage rigidity

One of the main WDN research topics is downward wage rigidity, or the resistance to pay cuts in situations where, from a purely economic angle, such reductions in the price of labour would be desirable. In this respect the survey of firms, and more particularly questions 2.1 to 2.4, supplements the findings obtained from administrative statistics on the wages of individual employees; these findings were obtained by the WDN using the method developed by the International Wage Flexibility Project (IWFP) (cf. Du Caju et al., 2007 and Du Caju et al., 2008b for the results for Belgium).

#### 3.1 Wage freeze and wage reduction

The IWFP results for Belgium presented by Du Caju et al. (2007) indicate a relatively negligible degree of downward nominal wage rigidity, but a high degree of real wage rigidity (this may vary between groups of employees and between business sectors) which, for a country with substantial wage indexation, is totally in line with expectations. The survey of firms asks whether, in the past five years, the firm has frozen the basic wages of its employees (question 2.1) or reduced their basic wages (question 2.2). The two questions were answered separately, so that some overlapping is possible.

**TABLE 5** WAGE FREEZE AND/OR WAGE REDUCTION IN THE PAST FIVE YEARS (QUESTIONS 2.1 AND 2.2)  
(percentages of the total)

|                                | Basic wages were frozen | Basic wages were reduced |
|--------------------------------|-------------------------|--------------------------|
| <b>Total</b> .....             | <b>6.3</b>              | <b>1.7</b>               |
| Manufacturing industry .....   | 7.8                     | 2.0                      |
| Energy .....                   | 9.1                     | 0.0                      |
| Construction .....             | 1.0                     | 0.5                      |
| Trade .....                    | 6.8                     | 1.7                      |
| Business services .....        | 5.5                     | 2.1                      |
| Financial institutions .....   | 15.4                    | 0.0                      |
| From 5 to 19 employees .....   | 3.3                     | 0.4                      |
| From 20 to 49 employees .....  | 4.8                     | 1.9                      |
| From 50 to 199 employees ..... | 8.1                     | 3.3                      |
| 200 employees or more .....    | 18.6                    | 2.9                      |

Source: NBB.  
Unweighted results, re-scaled by excluding missing answers.

As expected, few firms answered that in the past five years they had frozen the basic wages of some of their staff (6.3 p.c.) and/or reduced their wages (1.7 p.c.). In the specific context of Belgium, with automatic wage indexation, both wage reductions and wage freezes amount to real wage moderation, i.e. the movement in wages remains below inflation. The results confirm a very small degree of such real wage moderation in the construction sector, as pointed out by Du Caju et al. (2008b). Just as in that study, which uses a more detailed definition of the economic sectors, the downward real wage rigidity in the service sector appears to be more pronounced in the case of business services than in financial institutions, where there has been more restructuring and real wage moderation in the last five years. It seems that real wage moderation is more common in large firms, possibly because of the more complex wage policy and the application of local agreements in those large firms.

### 3.2 Reasons for resistance to wage cuts and alternative ways of reducing labour costs

The literature on economic theory mentions various possible reasons why firms are unable or unwilling to reduce wages in a situation where such a move would be desirable from a purely economic angle. A number of established theories concerning the labour market imply

the individual worker's resistance to pay cuts. For instance, fairness theories state that pay cuts are regarded as unfair and unacceptable, and that they therefore damage the workers' morale. The efficiency wage theory states that there is a direct link between the workers' relative wage level and the effort that they are prepared to put in. Thus, lower wages would mean less effort (and less productivity). In this context, workers would compare their wages with those of comparable workers in similar jobs. Insurance theories state that workers are more risk averse than firms, and that their primary concern is security and a stable wage, which firms are in turn prepared to offer. In that sense, firms provide their workers with security against unpredictable pay cuts. According to turnover models, a reduction in wages would primarily result in the departure of the most productive workers (those who could most easily find other employment), discouraging firms from pursuing a policy of pay cuts. There are also theories which stress the reluctance of firms to reduce wages, owing to their concern for their reputation and the associated ability to attract staff, and the recruitment costs involved. Finally, there is also the institutional aspect, whereby collective agreements may prevent pay cuts.

Question 2.3 in the survey of wage-setting in firms tests the validity of these theories. It is clear that a great majority of the respondent firms consider almost all these theoretical explanations to be important or very important

**TABLE 6** RELEVANT REASONS WHY BASIC WAGES COULD NOT BE REDUCED (QUESTION 2.3)  
(percentage of firms considering the reason to be important or very important)

|  | From 5 to 19 employees | From 20 to 49 employees | From 50 to 199 employees | 200 or more employees | Total     |
|--|------------------------|-------------------------|--------------------------|-----------------------|-----------|
| It would damage staff morale .....   | 85                     | 89                      | 90                       | 89                    | <b>88</b> |
| It would have an adverse effect on the effort which staff put in   | 83                     | 88                      | 88                       | 87                    | <b>86</b> |
| Staff do not like unexpected cuts in income .....  | 79                     | 82                      | 82                       | 79                    | <b>80</b> |
| It would encourage the best staff to leave .....   | 75                     | 79                      | 82                       | 81                    | <b>78</b> |
| It is prohibited by the employment legislation or by collective wage agreements .....                        | 64                     | 75                      | 87                       | 93                    | <b>75</b> |
| It would make it difficult to attract new workers .....  | 64                     | 64                      | 71                       | 74                    | <b>67</b> |
| Staff compare their wages with those of comparable workers in other firms operating in the same market ..... | 62                     | 66                      | 68                       | 67                    | <b>65</b> |
| It would lead to substantial costs in taking on and training new staff .....                                 | 62                     | 66                      | 64                       | 63                    | <b>64</b> |
| It would damage the firm's reputation .....  | 45                     | 48                      | 55                       | 50                    | <b>49</b> |

Source: NBB.  
Unweighted results, re-scaled by excluding missing answers.



**TABLE 7** ALTERNATIVE STRATEGIES FOR REDUCING LABOUR COSTS (QUESTION 2.4)

(firms answering "important" or "very important"; percentages of the total)

|  | Unskilled<br>blue-collar workers | Skilled and<br>supervisory<br>blue-collar workers | Clerical staff | Highly-skilled and<br>management staff | Total |
|--|----------------------------------|---|----------------|--|-------|
| Recruitment of new workers at lower wages than those paid to staff leaving voluntarily . . . . . | 14                               | 7   | 13             | 7                                      | 12    |
| Early retirement to replace expensive staff with cheaper workers . . . . .                       | 6                                | 6   | 6              | 6                                      | 6     |
| Reduction or abolition of bonuses . . . . .  | 4                                | 3   | 6              | 9                                      | 5     |
| Reduction or abolition of remuneration in kind . . . . .   | 5                                | 3   | 3              | 4                                      | 4     |
| Adjustments to shift working . . . . .   | 7                                | 4   | 1              | 0                                      | 4     |
| Delaying or freezing promotion . . . . .   | 5                                | 5   | 7              | 8                                      | 6     |
| None of these strategies . . . . .   | 59                               | 72  | 64             | 65                                     | 63    |

Source: NBB.

Unweighted results, re-scaled by excluding missing answers.

in explaining the absence of pay cuts. It is the various theories on the personal commitment of the individual worker that seem to be particularly relevant, even more than the institutional impediments. The firm's reputation is less often cited.

If firms are unable or unwilling to reduce wages even though that is desirable from an economic angle, they have to look for other ways of responding to their economic environment. One possibility might be to reduce labour costs in alternative ways. Question 2.4 considers the potential options. Various possibilities are suggested: taking on new workers at lower wages than those paid to staff leaving the firm voluntarily; early retirement to replace expensive staff with cheaper personnel; reducing or abolishing bonuses and other forms of variable remuneration; reducing or abolishing remuneration in kind; adjusting shift working and bonuses, and finally, delaying or freezing promotion. The respondent firms were also able to answer that none of these strategies applied.

Two-thirds of the firms state that they do not use any of the above alternative ways of reducing labour costs. Replacing expensive workers with cheaper ones when an employee leaves the firm voluntarily or retires is the commonest strategy, particularly in the case of low-skilled blue-collar and white-collar workers. Reducing bonuses and delaying promotion are more common in the case of skilled staff and management, while reducing remuneration in kind is more often the approach for unskilled blue-collar workers. Adjustments to shift working are only relevant for blue-collar workers in manufacturing industry.

There remains the question of how firms react to adverse demand and supply shocks in a situation in which it is difficult to reduce wages, and there is little opportunity to use alternative instruments to cut labour costs. That question forms the subject of section 4 of this article.

#### 4. Reaction to shocks

Questions 2.5 to 2.10 concern the way in which firms respond to shocks, particularly a negative demand shock, an increase in the cost of intermediate inputs, or a general rise in labour costs. In these three cases it seems that the commonest strategy adopted is cost reduction. In addition, firms are more inclined to increase their prices after a "cost-push" shock than to cut prices in response to weaker demand. That is totally in line with the IPN findings (Aucremanne and Druant, 2005)<sup>(1)</sup>. Finally, firms generally only adjust their output in the event of a negative demand shock.

A sectoral analysis of the response (not presented in this article) shows that price adjustments are used to a significant extent in construction and trade. Section 5 of this article will show that it is precisely these sectors that have the most frequent price adjustments. Manufacturing industry is the only sector to cut output in response to a weakening of demand.

(1) The IPN survey showed that the principal motives for price increases lie in "cost-push" factors, while in the case of price reductions the main factors are competitors' price cuts and weakening demand.

**TABLE 8** REACTION TO SHOCKS (QUESTIONS 2.5, 2.7 AND 2.9)  
(firms answering "important" or "very important"; percentages of the total)

|  | Price adjustment | Margin adjustment | Output adjustment | Cost adjustment |
|--|------------------|-------------------|-------------------|-----------------|
| Weakening of demand .....                  | 40               | 52                | 34                | 75              |
| Rise in the cost of intermediate inputs .. | 57               | 42                | 13                | 75              |
| Rise in labour costs .....                 | 62               | 50                | 11                | 67              |

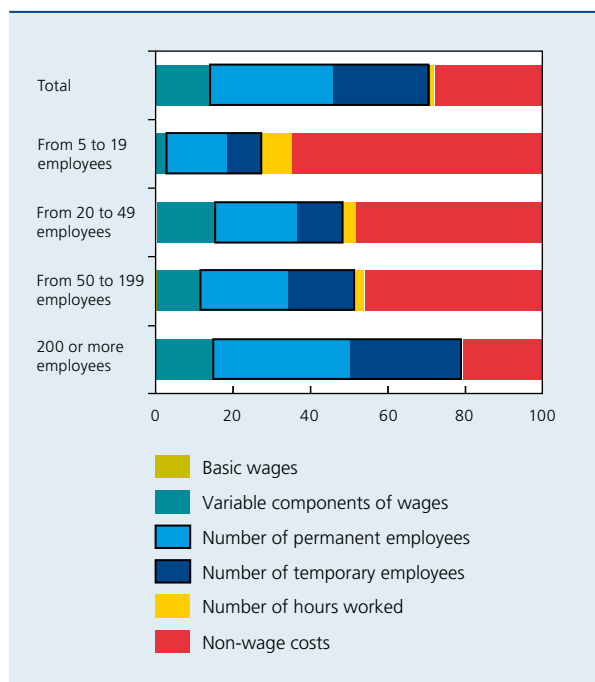
Source: NBB.  
Results weighted on the basis of employment and re-scaled by excluding missing answers.

Firms which responded to a shock by adjusting their costs were also asked what strategy they pursued. This article presents the average response of the firms taking all three shocks together. It shows that almost 60 p.c. of firms reduced their costs by adjusting employment. The contraction of the workforce mainly concerns the number of permanent employees, and to a somewhat lesser extent the number of temporary workers. 28 p.c. of firms reduce their non-wage costs. Very few firms respond by cutting basic wages, and that is consistent with the downward wage rigidity already discussed, while in 14 p.c. of cases

the variable pay components are reduced. Hardly any firms adopt the strategy of reducing working time.

However, the pattern varies widely according to the size of the firm's workforce. There is a clear, positive link between the size class and the response by adjusting employment: the larger the firm, the greater the reductions in the permanent and temporary workforce. While 25 p.c. of the smallest firms make staff cuts, two-thirds of the largest do so. The largest firms also make relatively more reductions in their temporary workforce, but they also employ more such workers. Conversely, the link with adjustments to non-wage costs is negative, and the proportion of firms using this strategy falls from two-thirds in the case of firms with 5 to 19 employees to one-fifth in the case of firms with 200 or more employees. Large firms are more likely than small ones to have greater scope to reduce their workforce in the event of difficulties. That is perhaps also the reason why it is virtually only the smallest firms with 5 to 19 employees which apply the strategy of reducing working time, although only 8 p.c. of them do so.

**CHART 1** COST-CUTTING STRATEGIES (QUESTIONS 2.6, 2.8 AND 2.10)  
(average response to three shocks; percentages of the total)



Source: NBB.  
Results weighted on the basis of employment and re-scaled by excluding missing answers.

It is not possible to demonstrate a clear link between the sector and the degree to which the adjustment is made via employment. Sectors where labour costs form a large proportion of the total expenses, namely business services and the financial sector, do not pursue this strategy any more often than sectors with a low proportion of labour costs, such as the energy sector: on the contrary. In the financial sector, the adjustment process largely operates via temporary employment, but that is hardly ever the case in the energy and construction sectors. Here it is not possible to show any link with the percentage of temporary workers in the total workforce.

The adjustment of wages, particularly variable pay, is the commonest strategy in the sectors which, on average, pay larger bonuses, namely trade and construction. The high figure of 24 p.c. in business services is rather odd since bonuses are not significant in this sector. Probably this section of the survey mistakenly regarded commission

– which is commonly paid – as a variable pay component, whereas the questionnaire defined it as part of the basic wage.

The importance of the employment channel as a cost reduction strategy is confirmed by the answers to question 2.4 (cf. section 3 of this article), which concerns alternative strategies aimed at cutting labour costs. Almost two-thirds of firms state that they do not use any of these strategies.

## 5. Wage and price adjustments

A major part of the questionnaire deals with the frequency and timing of price and wage adjustments. While the questions on price adjustments can be used to verify some of the results of the IPN survey on pricing<sup>(1)</sup>, the questions

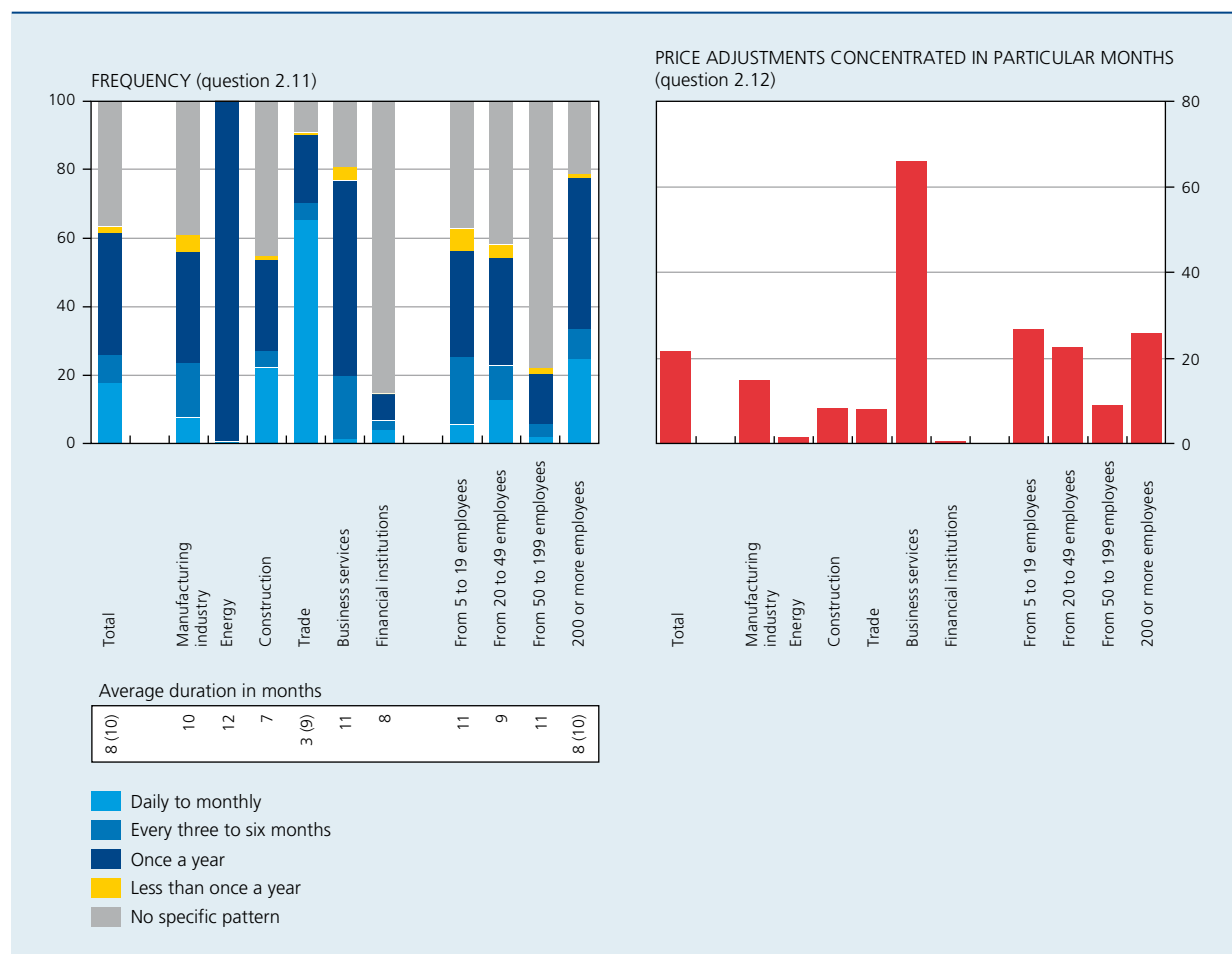
on wage adjustments are an additional source of information – supplementing the micro data – in the research on wage dynamics. By combining the answers to the two types of questions it is possible to examine in more detail the link between prices and wages. In addition, the survey includes an explicit question on the link between the timing of wage adjustments and price adjustments.

### 5.1 Frequency and timing of price adjustments

Question 2.11 asks firms to indicate how often they adjust the price of their main product under normal circumstances. The answer is no more than once a year

(1) That is the case for countries such as Belgium which conducted an IPN survey. For other countries it is a new source of information.

**CHART 2** FREQUENCY AND TIMING OF PRICE ADJUSTMENTS PER SECTOR AND PER SIZE CLASS  
(percentages of the total)



Source: NBB.  
Results weighted on the basis of employment and re-scaled by excluding missing answers.  
(...) Results adjusted for one outlier.

for 37 p.c. of firms. The same percentage say that they do not follow any specific pattern, while the remaining 26 p.c. adjust their prices more frequently. In the financial sector, in particular, there is a noticeable lack of any price adjustment pattern: the “price” is largely represented by the interest rate margin, so that the questions may be less relevant for this sector. Moreover, the survey took place in a period of financial market turmoil.

The level of detail in the possible answers (daily, weekly, etc.) permits an approximation of the average implicit duration between two successive price changes. That average interval is expressed in months. Naturally, it is not possible to take account of observations where no specific adjustment pattern is followed or where prices never change. In the case of firms answering “less than once every two years”, the duration is estimated at 36 months. On that basis the average interval between two successive price changes is 8 months. Following adjustment for an important outlier in the distribution sector – which comes under trade – where prices are adjusted very frequently, the figure comes to 10 months. That is shorter than the average duration found in the IPN survey, namely 13 months, but it may point to problems of comparability between the two sources. In the IPN survey, the firms themselves had to enter a figure for the total number of price adjustments, which permitted a more accurate calculation of the benchmark, and the options “no specific pattern” and “never” were not available, so that all the answers were taken into account. Moreover, the financial sector, which in the WDN survey featured frequent price adjustments for firms indicating a price adjustment pattern, was not included in the IPN survey sample.

Conversely, this benchmark duration can be used to compare the results per sector and per size class within the WDN survey. The average interval between two price adjustments is shortest in construction (7 months), the financial sector (8 months) and trade (9 months, following adjustment for the outlier). Price adjustments are least frequent in business services (11 months) and the energy sector (12 months). Manufacturing industry is in an intermediate position with 10 months. The IPN survey found similar differences between sectors. The variations between size classes are less pronounced: the average interval ranges between 9 and 11 months.

The timing of price adjustments, and particularly their potential concentration in particular months, is examined in question 2.12. The literature on the subject often distinguishes between time-dependent and state-dependent price strategies. In the case of time-dependent pricing, the timing of the adjustment is exogenous; in other words, it

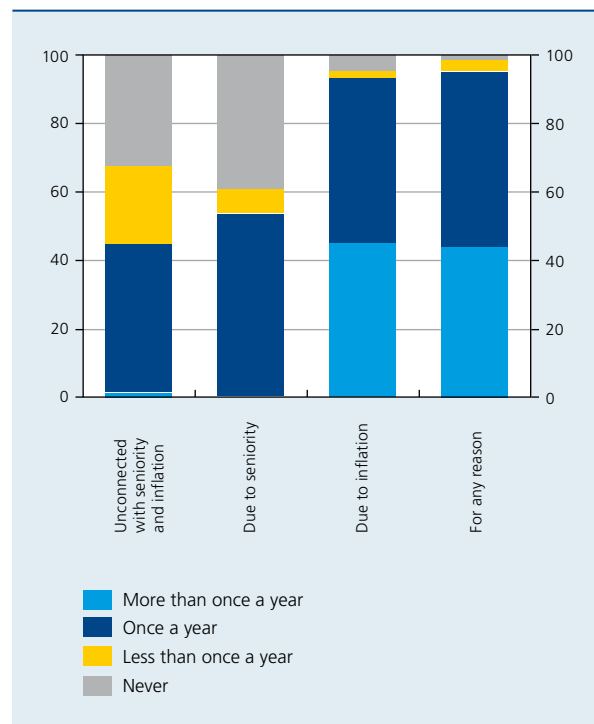
does not depend on the economic situation. In contrast, in the case of state-dependent behaviour, the timing of the price adjustment does depend on economic conditions. Which of the two approaches determines corporate pricing strategies is important for monetary policy. In a state-dependent context, prices will respond immediately if the shocks are sufficiently severe, whereas in a time-dependent context firms will wait for the predetermined moment even in the case of major shocks.

Time-dependent price adjustments are applied by 22 p.c. of firms, i.e. they adjust their prices in one or more specific months of the year. That figure was 26 p.c. in the IPN survey, even in the event of a sufficiently severe shock. Time-dependent pricing is particularly common in the business service sector, in combination with less frequent price adjustments, indicating price rigidity.

## 5.2 Frequency and timing of wage adjustments

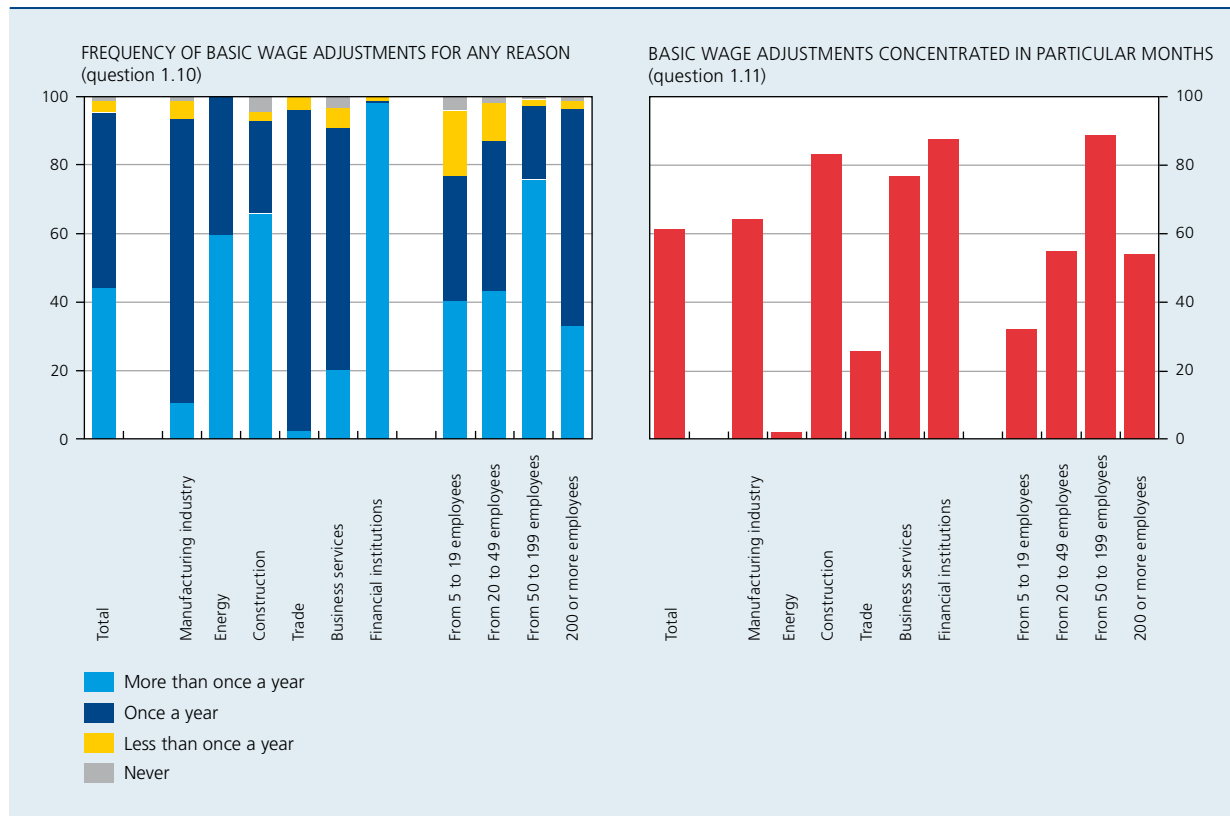
Question 1.10 examines the frequency of wage adjustments from three specific angles. Firms had to state how often they normally adjust the basic wage of their main

**CHART 3** FREQUENCY OF BASIC WAGE ADJUSTMENTS (QUESTION 1.10)  
(percentages of the total)



Source: NBB.  
Results weighted on the basis of employment and re-scaled by excluding missing answers.

**CHART 4** FREQUENCY AND TIMING OF BASIC WAGE ADJUSTMENTS PER SECTOR AND PER SIZE CLASS  
(percentages of the total)



Source: NBB.  
Results weighted on the basis of employment and re-scaled by excluding missing answers.

category of employees. It distinguished between wage adjustments due to inflation, those due to seniority and those unconnected with either of these factors. A composite variable was then devised to summarise the frequency of wage adjustments for any of the reasons mentioned, being, for each observation, the highest frequency of the three reasons of adjustment tested. The underlying idea here is that any wage adjustment, regardless of the reason, is a sign of flexibility.

Half of firms adjust wages once a year; 44 p.c. do so more often, and 5 p.c. less often. This means that 56 p.c. of firms adjust their wages no more than once a year, while in the case of price adjustments the figure was 37 p.c. The highest frequency applies to adjustments due to inflation, with a lower frequency for those due to seniority and reasons other than inflation. In the last two cases, only 1 p.c. of firms adjust wages more than once a year. These results tally with the picture revealed by the micro data, indicating negligible nominal rigidity and greater real rigidity (Du Caju et al., 2007).

In the absence of sufficiently detailed information on the number of wage adjustments, and in contrast to what was done for prices, it is not possible to calculate any average duration. The frequency distribution shows that wages change least frequently in trade, manufacturing industry and business services; over 80 p.c. of firms in these sectors adjust wages no more than once a year. A very high frequency of adjustments is found in the financial sector, where barely 2 p.c. of firms adjust wages annually or less often, followed by construction (34 p.c.) and the energy sector (40 p.c.). These are precisely the sectors where the highest frequency of indexation is found. In regard to the size classes, the frequency increases the larger the workforce, but in the case of very large firms with 200 or more employees it declines again.

Question 1.11 asks about time-dependent wage adjustments, i.e. adjustments to wages in one or more specific months: 61 p.c. of firms adopt this practice. The energy sector, trade and the smallest firms are those which make least use of this strategy.

### 5.3 Link between wage and price adjustments

If the answers to questions 1.11 and 2.12 are considered jointly, it is possible to compare the timing of wage adjustments and price adjustments. Both are concentrated in the month of January. Many price and wage adjustments also take place in July; in the case of wages, in particular, there is a degree of concentration at the beginning of the second and fourth quarters.

The fact that almost two-thirds of firms apply time-dependent wage adjustments, and that these adjustments are concentrated in particular months of the year, is inextricably linked with the automatic wage indexation mechanism discussed in section 2 of this article. The majority of firms in fact index wages at fixed intervals, with an average frequency of twice a year.

The picture of coordinated price and wage adjustments concentrated in January and July is not borne out by the answers to question 2.13 on the closeness and direction of the link between the timing of decisions to adjust prices and wages. In 62 p.c. of cases there is no connection between the two decisions, while in 17 p.c. of firms there is a connection but no specific pattern, and only the remaining 21 p.c. state that there is a close link. In regard to the direction, the decisions are simultaneous in 5 p.c. of firms, prices follow wages in 9 p.c. of firms, and wages follow prices in 6 p.c. of firms. The link between wages

and prices is strongest in business services, the construction and energy sectors and the largest firms. Further research will need to examine whether factors such as competitiveness and cost structure play a role here.

## Conclusion

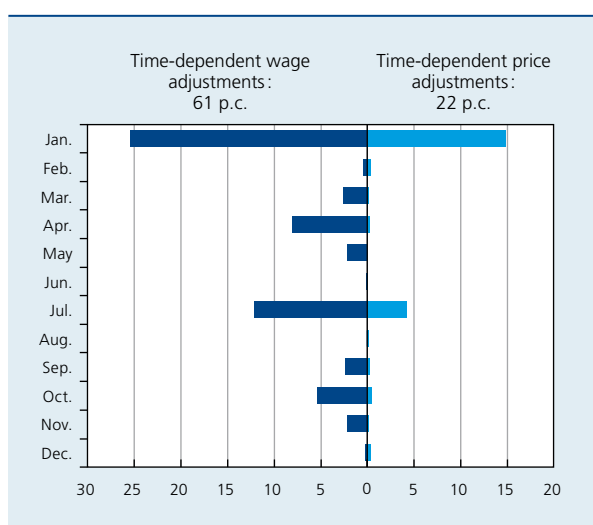
The analysis presented in this article is the outcome of a survey conducted by the Bank and forming the Belgian component of an initiative launched by the Wage Dynamics Network (WDN). The sectors covered by the survey together represent 55 p.c. of dependent employment in Belgian firms; 1,431 firms took part in the survey, implying a response rate of 35 p.c.

In Belgium the institutional model typical of many European countries, in which wages are negotiated successively at various levels in the hierarchy, takes the form of the wage norm (defining a national guideline), pay negotiations conducted primarily at sectoral level by the joint committees, and possibly additional agreements concluded at firm level. Almost all the respondent firms refer to at least one competent joint committee, and just over a quarter apply a collective wage agreement at the firm level. Such collective agreements are more common in large firms, and in the energy sector, manufacturing industry and financial institutions.

In all European countries, prices are one of the key determinants of wages, and in Belgium the indexation mechanism plays a significant role in that respect. The survey results show that just over half of firms apply a mechanism with a threshold index, while just under half operate in an environment where indexation takes place at fixed intervals. The latter system is more common in large firms, so that the weighted results indicate that this mechanism applies to the majority of employees.

In the respondent firms, the level of wages of new employees depends mainly on what is specified in collective agreements and on the wage level of comparable employees in the firm. However, the wages which the firm actually pays to its staff may deviate from the pay scales specified in the sectoral agreements by the joint committees. The actual wages paid to unskilled blue-collar workers correspond in the majority of the firms surveyed to the pay scales set by the joint committees. In contrast, in the case of white-collar workers – and for skilled staff, in particular, rather than clerical workers – the actual wages paid in the majority of the firms surveyed exceed the sectoral pay scales. Such a wage cushion, forming a buffer between the actual wages and the collectively agreed lower limits, is more common in large firms.

**CHART 5** TIMING OF WAGE AND PRICE ADJUSTMENTS (QUESTIONS 1.11 AND 2.12)  
(percentages of the total)



Source: NBB.  
Results weighted on the basis of employment and re-scaled by excluding missing answers.

Only a few firms have frozen or reduced the basic wage for some of their employees in the recent past. This is due mainly to labour market theories concerning the personal commitment of individual employees ("efficiency wages", "fairness" and "turnover"), and institutional obstacles. Overall, firms seldom respond to adverse shocks by cutting basic wages or using alternative ways of reducing labour costs per employee. Certainly in large firms, costs are reduced mainly via the employment channel, i.e. by reducing the number of primarily permanent staff, and to a lesser extent temporary workers. Reductions in non-wage costs are also important, while variable pay components are only cut in a small number of cases. Wage adjustments, particularly adjustments to the variable component, are most often applied in the sectors which, on average, pay higher bonuses, namely trade and construction. The strategy of reducing working time is little used except in small firms, which have a much narrower margin for resorting to the employment channel.

In regard to the frequency of price adjustments, only a quarter of firms state that they adjust their prices more than once a year. The average interval between two price adjustments is shortest in construction, the financial sector and trade. Prices are adjusted least frequently in business services and the energy sector. Manufacturing industry is in an intermediate position. As regards the timing of the price adjustments, a distinction which is relevant for monetary policy is made between time-dependent price strategies, in which the time of the adjustment does not depend on economic conditions, and state-dependent price strategies in which prices respond immediately if the shocks are sufficiently severe. Time-dependent price adjustments occur in 22 p.c. of firms, and are noticeably common in the business service sector. Combined with

the low frequency of price adjustments, this indicates price rigidity in that sector.

The frequency and timing of wage adjustments are closely linked to the indexation mechanism applied. Most firms adjust their wages no more than once a year. Adjustments due to inflation are made the most frequently, while adjustments due to seniority and reasons unconnected with inflation and seniority are the least frequent. Wages are adjusted least often in trade, manufacturing industry and business services. A very high frequency of adjustments is found in the financial sector, followed by construction and the energy sector. These are precisely the sectors where the frequency of indexation is highest. Time-dependent wage adjustments in a specific month apply to 61 p.c. of firms, and – like price adjustments – wage adjustments are concentrated in the month of January. Another peak occurs in July, and there is some concentration at the beginning of the second and fourth quarters, particularly in the case of wage adjustments. However, this picture of simultaneous wage and price adjustments is not borne out by other survey results on coordinated decisions to adjust wages and prices; only one-fifth of the participants state that the timing of the two decisions is closely linked.

To sum up, the results of this survey largely tally with information available elsewhere. However, they do add some new, relevant findings which already provide a clearer idea of the complex practice of wage-setting in firms. Nevertheless, more detailed research is needed on the basis of the data set combined with the survey results for other European countries. Such analyses are useful because the single monetary policy in the euro area increases the importance of balanced wage setting.



Telephone help-line concerning the questionnaire: +32(0)2 221 21 55

Please return the questionnaire duly completed by no later than **10 October 2007**

## WAGE-SETTING SURVEY

### Manufacturing Industry - Construction - Energy

You can send us your answers in the attached reply envelope, via our free fax line **0800 95 969** (only in Belgium) or via our standard fax line **+32(0)2 221 31 07** (from other countries).

This survey is being conducted under the supervision and on the authority of the National Bank of Belgium. The information obtained will be used exclusively for analysis purposes and will only be circulated in aggregate form, keeping individual answers strictly confidential. The participants will receive a summary of the survey's main results.

Below are some instructions on completing the questionnaire.

1. **Reference period:** the period covered by your annual accounts for the year 2006. In the questionnaire you will be asked to refer either to the "reference period" or to the "end of the reference period".
2. **Figures:** if you have any problems in supplying exact figures, please give an approximate value.
3. **Who is the person best placed to complete the questionnaire?** The personnel manager or the business manager seem to be the persons best able to answer the questions; the information on turnover and the cost structure of your business, requested in section 3, can be obtained from the annual accounts.

**What is your firm's main activity?**.....

**Your VAT number:** .....

#### SECTION 1: SETTING AND ADJUSTING WAGES

- 1.1 What was the breakdown per occupational category of workers in your firm at the end of the reference period? In classifying your staff, take account of the standard of qualifications, experience and content of the job (supervisory or non-supervisory position).**

|   |              |      |
|---|--------------|------|
| production workers                          | ..... %      | 1101 |
| skilled and supervisory blue-collar workers | ..... %      | 1102 |
| clerical staff                              | ..... %      | 1103 |
| highly-skilled and management staff         | ..... %      | 1104 |
| <b>TOTAL</b>                                | <b>100 %</b> |      |

- 1.2 What is the number of the joint committee or subcommittee applicable to your workers? (if more than one, list them in order of importance)**

|                       |          |          |          |
|-----------------------|----------|----------|----------|
| blue-collar workers:  | n° ..... | n° ..... | 1200 - 1 |
| white-collar workers: | n° ..... | n° ..... | 1203 - 4 |



**Do the wages actually paid in your firm differ, on average, from the current scales set by the joint committee? (Please tick one answer per column)**

|                        | Production<br>workers<br>1211 - 12-13 | Skilled and<br>supervisory<br>blue-collar workers<br>1221 - 22-23 | Clerical<br>staff<br>1231 - 32-33 | Highly-skilled<br>and<br>management staff<br>1241 - 42-43 |
|------------------------|---------------------------------------|---|-----------------------------------|---|
| • no                   | <input type="checkbox"/> 1            | <input type="checkbox"/> 1  | <input type="checkbox"/> 1        | <input type="checkbox"/> 1                                |
| • yes, they are higher | <input type="checkbox"/> 2            | <input type="checkbox"/> 2  | <input type="checkbox"/> 2        | <input type="checkbox"/> 2                                |
|                        | by how much?..... %                   | by how much?..... %   | by how much?..... %               | by how much?..... %                                       |
| • yes, they are lower  | <input type="checkbox"/> 3            | <input type="checkbox"/> 3  | <input type="checkbox"/> 3        | <input type="checkbox"/> 3                                |
|                        | by how much?..... %                   | by how much?..... %   | by how much?..... %               | by how much?..... %                                       |

**What level of wages does your firm pay in comparison with competitors? (Please tick only one answer)**

1251

- lower  1
- roughly the same  2
- higher  3
- don't know  4

**1.3 Is your firm covered by a collective wage agreement concluded outside the firm? (Please tick only one answer)**

1301

- no, there is no agreement  1
- no, we opt out  2
- yes, we apply it  3

**1.4 Is your firm covered by a collective wage agreement concluded within the firm?**

1401

- no  1
- yes  2

**1.5 If you have answered "yes" to question 1.3 or 1.4, what percentage of your workforce is covered by these collective wage agreements (taking all agreements together)?**

per cent

1501

In the rest of the questionnaire, some questions concern basic wages while others are interested in variable wages.  
**Basic wages** = fixed remuneration excluding bonuses; in other words, standard remuneration and wages, and commission.  
**Variable wages** = bonuses dependent on individual performance or the firm's results.

**1.6 What percentage of the wage bill during the reference period was variable?**

|   | Production<br>workers | Skilled<br>and supervisory<br>blue-collar workers | Clerical<br>staff | Highly-skilled<br>and<br>management staff |              |
|---|-----------------------|---|-------------------|---|--------------|
| • bonuses based on individual performance | ..... %               | 1601  | ..... %           | 1602                                      | ..... % 1603 |
| • bonuses based on the firm's results     | ..... %               | 1611  | ..... %           | 1612                                      | ..... % 1613 |

**1.7 Does your firm have a policy of adjusting basic wages in line with inflation?**

- 1701
- yes  1 → go to 1.8
  - no  2 → go to 1.10

**1.8 In what way do basic wage adjustments depend on inflation? (Please tick only one answer)**

- 1801
- wage adjustments are automatically linked to:
    - past inflation  1
    - forecast inflation  2
 } go to 1.9
  - wage adjustments take informal account of :
    - past inflation  3
    - forecast inflation  4
 } go to 1.10

**1.9 What is the current automatic indexation system? (Please tick only one answer)**

- indexation on exceeding a threshold index  1 1901
- indexation at fixed intervals  2 how many times a year? ..... 1902

**1.10 For the main occupational category represented in your firm (cf. question 1.1), how often are basic wages generally adjusted? (Please tick one answer per point)**

|   | More than<br>once a year   | Once a<br>year             | Every<br>two<br>years      | Less<br>than<br>every<br>two years | Never                      |      |
|---|----------------------------|----------------------------|----------------------------|------------------------------------|----------------------------|------|
| • wage adjustments according to criteria other than seniority and inflation | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4         | <input type="checkbox"/> 5 | 1111 |
| • wage adjustments according to seniority                                   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4         | <input type="checkbox"/> 5 | 1112 |
| • wage adjustments according to inflation                                   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4         | <input type="checkbox"/> 5 | 1113 |

4

**1.11 Under normal circumstances, are basic wages changed in any particular month(s)?**

- no  1 1121
- yes, please specify which month(s)

J  01    F  02    M  03    A  04    M  05    J  06    J  07    A  08    S  09    O  10    N  11    D  12    1122

**1.12 For the main occupational category represented in your firm (cf. question 1.1), what is the main determinant of the wages of new employees recruited by your firm? (Please tick only one answer)**

1131

- collective wage agreement (taking all agreements together)  1
- wages of comparable workers in the firm  2
- wages of comparable workers outside the firm  3
- availability of comparable workers on the labour market  4
- none of the factors mentioned  5

**SECTION 2: DOWNWARD WAGE RIGIDITY, RESPONSE TO SHOCKS AND  
PRICE ADJUSTMENTS**

**2.1 In the past five years, have the basic wages of certain workers in your firm been frozen?**

- no  1 2101
- yes  1 ..... % of personnel 2102 - 3

**2.2 In the past five years, have the basic wages of certain workers in your firm been reduced?**

- no  1 2201
- yes  1 ..... % of personnel 2202 - 3

**2.3 There are many reasons why basic wages should not be reduced – or should only be cut very slightly - even if your firm needs to reduce its labour costs. Please indicate how important these reasons are for your firm. (Please tick one answer per point)**

|   | Not<br>important           | Not very<br>important      | Important                  | Very<br>important          | Don't know                 |      |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------|
| • it is prohibited by the labour regulations or by collective wage agreements                                       | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2301 |
| • it would have an adverse effect on the efforts of workers   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2302 |
| • it would be bad for the workers' morale   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2303 |
| • it would damage the firm's reputation   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2304 |
| • it would encourage the best workers to leave  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2305 |
| • it would entail substantial costs relating to recruitment and the training of new workers                         | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2306 |
| • it would make it difficult to recruit new workers   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2307 |
| • workers do not like unexpected reductions in income   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2308 |
| • workers compare their wages with those of comparable workers employed in other firms operating in the same market | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2309 |

**2.4 Apart from reducing or freezing basic wages, do you use other strategies to reduce labour costs? (You may tick more than one answer per column)**

|   | Production<br>workers      | Skilled and<br>supervisory<br>blue-collar workers | Clerical<br>staff          | Highly-skilled<br>and<br>management<br>staff |      |
|---|----------------------------|---|----------------------------|--|------|
| • recruitment of new workers (comparable in terms of experience and qualifications) at wages lower than those paid to staff leaving voluntarily | <input type="checkbox"/> 1 | <input type="checkbox"/> 2                        | <input type="checkbox"/> 3 | <input type="checkbox"/> 4                   | 2401 |
| • use of early retirement to replace workers on high wages with workers on lower wages  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2                        | <input type="checkbox"/> 3 | <input type="checkbox"/> 4                   | 2402 |
| • reduction or abolition of bonuses   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2                        | <input type="checkbox"/> 3 | <input type="checkbox"/> 4                   | 2403 |
| • reduction or abolition of benefits in kind  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2                        | <input type="checkbox"/> 3 | <input type="checkbox"/> 4                   | 2404 |
| • adjustments to shift working  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2                        | <input type="checkbox"/> 3 | <input type="checkbox"/> 4                   | 2405 |
| • delaying or freezing promotion  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2                        | <input type="checkbox"/> 3 | <input type="checkbox"/> 4                   | 2406 |
| • none of the strategies mentioned  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2                        | <input type="checkbox"/> 3 | <input type="checkbox"/> 4                   | 2407 |

In answering the questions below, please refer to your **main product** (i.e. the one generating the largest percentage of your turnover during the reference period) and the **main occupational category** in your firm (identified in question 1.1).

**2.5 How does your firm respond to an unexpected weakening of demand?  
(Please tick one answer per point)**

|                      | Not<br>important           | Not very<br>important      | Important                  | Very<br>important          | Don't<br>know              |      |
|----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------|
| • it reduces prices  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2501 |
| • it reduces margins | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2502 |
| • it cuts production | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2503 |
| • it reduces costs   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2504 |

**2.6 If, in your answer to question 2.5, you attach any importance to cost reductions (boxes 2 to 4), indicate the main strategy which you use to achieve this objective. (Please tick only one answer)**

- reduce basic wages  1
- reduce the variable components of wages (e.g. bonuses)  2
- reduce the number of permanent staff  3
- reduce the number of temporary staff/other persons working for the firm  4
- adjust the number of hours per worker  5
- reduce costs unconnected with labour  6

**2.7 How does your firm respond to an unexpected increase in the cost of intermediate inputs affecting all firms in the market (e.g. a rise in oil prices)?  
(Please tick one answer per point)**

|                          | Not<br>important           | Not very<br>important      | Important                  | Very<br>important          | Don't<br>know              |      |
|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------|
| • it increases prices    | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2701 |
| • it reduces margins     | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2702 |
| • it cuts production     | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2703 |
| • it reduces other costs | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2704 |

**2.8 If, in your answer to question 2.7, you attach any importance to the reduction of other costs (boxes 2 to 4), indicate the main strategy that you use to achieve this objective. (Please tick only one answer)**

- reduce basic wages  1
- reduce the variable components of wages (e.g. bonuses)  2
- reduce the number of permanent staff  3
- reduce the number of temporary staff/other persons working for the firm  4
- adjust the number of hours per worker  5
- reduce costs unconnected with labour  6

**2.9 How does your firm respond to an unexpected and permanent increase in labour costs affecting all firms in the market? (Please tick one answer per point)**

|                          | Not<br>important           | Not very<br>important      | Important                  | Very<br>important          | Don't<br>know              |      |
|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------|
| • it increases prices    | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2901 |
| • it reduces margins     | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2902 |
| • it cuts production     | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2903 |
| • it reduces other costs | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | 2904 |

**2.10 If, in your answer to question 2.9, you attach any importance to the reduction of other costs (boxes 2 to 4), indicate the main strategy that you use to achieve this objective. (Please tick only one answer)**

- reduce the variable components of wages (e.g. bonuses)  1
- reduce the number of permanent staff  2
- reduce the number of temporary staff/other persons working for the firm  3
- adjust the number of hours per worker  4
- reduce costs unconnected with labour  5

**2.11 Under normal circumstances, how often does the price of your firm's main product change? (Please tick only one answer)**

2112

- more than once a year:
  - daily  1
  - weekly  2
  - monthly  3
  - quarterly  4
  - half-yearly  5
- once a year  6
- every two years  7
- less than every two years  8
- never  9
- there is no specific pattern  10

**2.12 Under normal circumstances, are prices changed in any particular month(s)?**

- no  1 2121
- yes, please specify which month(s)

J  01   F  02   M  03   A  04   M  05   J  06   J  07   A  08   S  09   O  10   N  11   D  12 2122

**2.13 To what extent are changes in the price of your main product linked to wage adjustments?  
(Please tick only one answer)**

2131

- there is no link  1
- there is a link but no particular rule  2
- the decisions are taken simultaneously  3
- prices are generally changed after wage adjustments  4
- wages are generally adjusted after price changes  5
- don't know  6

**SECTION 3: INFORMATION ABOUT YOUR FIRM**

**3.1 How many workers did your firm employ at the end of the reference period?**

|  |       |      |
|--|-------|------|
| Total number of workers  | ..... | 3101 |
| permanent full-time workers  | ..... | 3102 |
| permanent part-time workers  | ..... | 3103 |
| temporary workers (including apprentices and students)                     | ..... | 3104 |
| other persons working for your firm (agency workers,<br>consultants, etc.) | ..... | 3105 |

**3.2 During the reference period, what percentage of your firm's total costs consisted of labour costs  
(including basic remuneration and wages, bonuses, social contributions, training, taxes on labour  
and pension fund contributions)?**

per cent

3201

**3.3 During the reference period, how did your firm's turnover compare to that for the previous year?  
(Please tick only one answer)**

3202

- much lower  1
- lower  2
- approximately the same  3
- higher  4
- much higher  5

**INFORMATION ON THE PERSON COMPLETING THE QUESTIONNAIRE:**

- Name: .....
- Job: .....
- Telephone: .....
- E-mail address (the survey results will be sent to this address):  
.....

**THANK YOU FOR YOUR ASSISTANCE**

## Annex 2

### RESPONSE RATE PER QUESTION – UNWEIGHTED RESULTS

(percentages of the number of firms asked to answer the question)

|                                     | Total | Manufacturing industry | Energy | Construction | Trade | Business services | Financial institutions | From 5 to 19 employees | From 20 to 49 employees | From 50 to 199 employees | 200 or more employees |
|-------------------------------------|-------|------------------------|--------|--------------|-------|-------------------|------------------------|------------------------|-------------------------|--------------------------|-----------------------|
| Question 1.1                        | 100   | 100                    | 100    | 100          | 100   | 100               | 100                    | 100                    | 100                     | 100                      | 100                   |
| Question 1.2 part 2, options 1 to 3 | 83    | 91                     | 73     | 86           | 85    | 80                | 100                    | 70                     | 92                      | 93                       | 91                    |
| Question 1.2 part 2, percentages    | 66    | 68                     | 63     | 65           | 61    | 72                | 77                     | 63                     | 69                      | 72                       | 69                    |
| Question 1.2 part 3                 | 99    | 98                     | 100    | 100          | 99    | 99                | 96                     | 98                     | 99                      | 99                       | 99                    |
| Question 1.3                        | 100   | 100                    | 100    | 100          | 99    | 100               | 100                    | 100                    | 100                     | 99                       | 100                   |
| Question 1.4                        | 98    | 98                     | 100    | 97           | 97    | 97                | 96                     | 97                     | 98                      | 99                       | 99                    |
| Question 1.5                        | 26    | 41                     | 29     | 16           | 10    | 9                 | 42                     | 10                     | 20                      | 42                       | 66                    |
| Question 1.6                        | 21    | 22                     | 55     | 5            | 23    | 22                | 69                     | 7                      | 17                      | 32                       | 59                    |
| Question 1.7                        | 100   | 100                    | 100    | 100          | 100   | 100               | 100                    | 100                    | 100                     | 100                      | 100                   |
| Question 1.8                        | 100   | 100                    | 100    | 100          | 100   | 100               | 100                    | 100                    | 100                     | 100                      | 100                   |
| Question 1.9, options 1 and 2       | 53    | 58                     | 91     | 38           | 49    | 54                | 85                     | 44                     | 48                      | 64                       | 80                    |
| Question 1.9, numbers               | 96    | 97                     | 100    | 98           | 93    | 94                | 100                    | 96                     | 97                      | 95                       | 98                    |
| Question 1.10                       | 82    | 87                     | 91     | 80           | 74    | 85                | 88                     | 76                     | 83                      | 90                       | 88                    |
| Question 1.11                       | 98    | 98                     | 100    | 98           | 98    | 99                | 100                    | 97                     | 99                      | 99                       | 99                    |
| Question 1.12                       | 97    | 97                     | 100    | 97           | 97    | 99                | 100                    | 96                     | 99                      | 98                       | 97                    |
| Question 2.1, options 1 and 2       | 99    | 99                     | 100    | 99           | 99    | 100               | 100                    | 99                     | 100                     | 99                       | 100                   |
| Question 2.1, percentages           | 91    | 90                     | 100    | 100          | 95    | 85                | 100                    | 89                     | 94                      | 85                       | 96                    |
| Question 2.2, options 1 and 2       | 99    | 99                     | 100    | 99           | 99    | 100               | 100                    | 98                     | 100                     | 99                       | 99                    |
| Question 2.2, percentages           | 100   | 100                    | 100    | 100          | 100   | 100               | 100                    | 100                    | 100                     | 100                      | 100                   |
| Question 2.3                        | 96    | 97                     | 100    | 96           | 94    | 97                | 100                    | 94                     | 98                      | 98                       | 98                    |
| Question 2.4                        | 87    | 89                     | 100    | 79           | 85    | 89                | 92                     | 83                     | 89                      | 88                       | 96                    |
| Question 2.5                        | 95    | 96                     | 91     | 93           | 96    | 95                | 92                     | 93                     | 97                      | 95                       | 94                    |
| Question 2.6                        | 90    | 87                     | 100    | 90           | 96    | 92                | 90                     | 90                     | 90                      | 89                       | 93                    |
| Question 2.7                        | 93    | 95                     | 82     | 94           | 91    | 94                | 96                     | 91                     | 96                      | 94                       | 96                    |
| Question 2.8                        | 90    | 89                     | 100    | 85           | 93    | 90                | 100                    | 93                     | 88                      | 87                       | 91                    |
| Question 2.9                        | 93    | 94                     | 91     | 93           | 93    | 96                | 100                    | 92                     | 96                      | 93                       | 93                    |
| Question 2.10                       | 88    | 85                     | 100    | 85           | 92    | 90                | 91                     | 90                     | 84                      | 88                       | 88                    |
| Question 2.11                       | 98    | 97                     | 100    | 97           | 98    | 98                | 100                    | 98                     | 98                      | 97                       | 96                    |
| Question 2.12                       | 98    | 98                     | 100    | 97           | 98    | 98                | 100                    | 98                     | 99                      | 98                       | 96                    |
| Question 2.13                       | 98    | 98                     | 91     | 96           | 99    | 99                | 100                    | 98                     | 99                      | 97                       | 96                    |
| Question 3.1                        | 100   | 100                    | 100    | 100          | 100   | 100               | 100                    | 100                    | 100                     | 100                      | 100                   |
| Question 3.2                        | 87    | 88                     | 91     | 83           | 84    | 91                | 88                     | 84                     | 91                      | 88                       | 89                    |
| Question 3.3                        | 98    | 98                     | 100    | 97           | 99    | 98                | 100                    | 99                     | 98                      | 97                       | 96                    |

Source: NBB.



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