

**LABOUR MARKET ADJUSTMENT DURING THE CRISIS IN  
SLOVENIA: FIRM-LEVEL EVIDENCE FROM THE WDN SURVEY**

***COUNTRY REPORT***

Nataša Todorovič Jemec and Matija Vodopivec<sup>1</sup>

March 2016

***Abstract***

*We present the results of a survey conducted by the Bank of Slovenia in conjunction with the European System of Central Banks in May 2014. The results are based on approximately 1300 responses of firms in the non-agricultural business sector. We find that Slovenian firms' labour market response to the crisis occurred mainly via the extensive margin – through layoffs, by a reduction in hiring or increased use of flexible types of labour – although firms experiencing financing difficulties were more likely to also cut wages. Uncertain economic conditions seem to be one of the key factors hindering hiring on a permanent basis. By contrast, only a handful of firms report that the 2013 Slovenian labour market reforms affected their hiring or firing policies. For those that were affected, the intended decrease in labour market segmentation seems to have been achieved. Finally, downward nominal wage rigidity has decreased slightly since the onset of the crisis, while the increase of the minimum wage has caused firms to hire fewer workers and led to dismissals.*

---

<sup>1</sup> Analysis and Research Department, Bank of Slovenia, Slovenska 35, 1505 Ljubljana, Slovenia.

Corresponding authors: [natasa.todorovic-jemec@bsi.si](mailto:natasa.todorovic-jemec@bsi.si) and [matija.vodopivec@bsi.si](mailto:matija.vodopivec@bsi.si). This report draws heavily on a similar report, Schnattinger *et al* (2015). The authors wish to thank to two anonymous referees for helpful comments and suggestions.

## Contents

1. Introduction.....	2
2. Macroeconomic background and institutional characteristics .....	5
3. The survey.....	7
4. Main results.....	9
4.1 Source and size of a shocks.....	9
4.2 Change in labour force size/composition as a method of adjustment – descriptive analysis	10
4.3 Changes in wage setting.....	11
4.3.1 Institutional characteristics of wage setting .....	11
4.3.2 Changes in adjustment of wages as a method of adjustment .....	14
4.3.3 Alternative margins for labour cost adjustments: layoffs and wage cuts.....	15
4.4 Main obstacles to hiring.....	17
4.5 Responses/Opinions about specific new labour market policies/proposals .....	18
4.5.1 The effects of new labour market legislation.....	18
4.5.2 Minimum wages.....	20
5. Conclusion .....	22
Appendix 1: Figures.....	24
Appendix 2: Tables .....	40
Appendix 3: WDN 3 survey .....	50

## 1. Introduction

Given the importance of wage flexibility as an adjustment mechanism in a monetary union, the European System of Central Banks (ESCB) established the Wage Dynamics Network (WDN) in 2006. The WDN's mandate is to observe the sources of labour cost dynamics most relevant to monetary policy and to investigate relationships between wages, labour costs and prices at the firm and the macro-economic level (ECB, 2010). One key component of the WDN is an *ad hoc* survey of firms, with two rounds having been conducted prior to 2014. The particular focus of the third round of the survey was to investigate the effect of the crisis and associated labour market reforms on the response of firms to shocks in terms of wage and price setting and other margins of adjustment. The Bank of Slovenia conducted the WDN survey for the second time between May and June 2014, with most questions referring to the period between 2010 and 2013.

Slovenia experienced an unusually large contraction in economic activity during the Great Recession, and the subsequent recovery has been relatively anaemic. Real GDP fell by 7.5% in 2009, and as of 2015 remained 4.1% below the peak in 2008. Slovenia's adoption of the euro in 2007 coincided with unusually high annual GDP growth, on the order of 6-7 percent, and correspondingly high inflation, which peaked at 5.6% in 2008. The large fall in GDP naturally resulted in a sharp moderation in inflation, which has averaged 1.4% in the period following the onset of the recession and even deflation in 2015. The sharp contraction in economic activity also resulted in a slow but steady decline in employment and a gradual increase in unemployment, with the latter increasing from 4.4% in 2008 to a peak of 10.1% in 2013. The fact that the (un)employment response was much slower than the sharp contraction in GDP since the recession can arguably be attributed to the high degree of employment protection for workers on indefinite contracts, which dampened the initial fall in employment but has since impeded the recovery.

In response to the deterioration in labour market conditions, several reforms have been adopted in the past few years. The largest reform was the 2013 labour market reform.<sup>2</sup> The stated goals of the reforms included increasing labour market flexibility while decreasing labour market duality. Certain legal aspects were reformed that increased flexibility (e.g. via streamlining administrative procedures pertaining to hiring and firing, as well as decreasing notice periods) and lowered costs of permanent employment contracts (reduced severance payments). On the other hand, for fixed-term contracts, the reform introduced redundancy payments and limited to two years the maximum duration of a fixed-term employment for a given job (OECD, 2013). For instances of fair termination, employers' costs are now the same regardless of contract type. However, because workers with a fixed-term contract

---

<sup>2</sup> In addition, several reforms affected unemployment benefit generosity. The 2011 reforms initially increased benefit generosity while increasing benefit accessibility, while the 2012 reforms decreased benefit generosity. Note that the reforms to unemployment benefits are outside the scope of this report.

cannot file a complaint in the court, the costs remain higher in the case of an unfair dismissal for permanent contracts (OECD, 2014).

A second major reform increased the minimum wage by 23% in February 2010. As a result, the minimum wage in 2012 stood at approximately 60% of the median wage, unusually high by international standards (OECD, 2014). The law also introduced full indexation of the minimum wage with inflation (previously, it had only been partially indexed).

The results from the Slovenian WDN survey indicate that firms believe the impact of the labour market reforms has been relatively limited. The new labour market legislation from 2013 affected only a relatively small proportion of firms. This may have been due to the fact that there was a relatively short period between the time when the legislation entered into force and the time of the survey, with a period of relative stability in between. Nevertheless, at those firms that were affected, the goal of the legislator to decrease the segmentation in the labour market seems to have been reached. In addition, the increase in the minimum wage had some adverse consequences. While less than one tenth of firms reported that they had to resort to worker dismissals, almost a quarter of firms reported that they hired fewer workers. Therefore, the minimum wage legislation may have had more adverse effects on employment prospects of unemployed and entrants in the labour market than on incumbent employed.

Crucially for a country in a monetary union with fairly restrictive wage and labour laws, a non-negligible share of firms have been able to decrease base wages during the economic crisis.<sup>3</sup> While initially low, the proportion of firms that reported wage cuts increased considerably in the later stages of the crisis (in 2012 and 2013), when the number of firms reporting wage cuts doubled compared to the pre-crisis levels. While the percentage of firms that reduced wages still remains low, at below 10%, the firms that did cut wages cut them substantially (about 5%) and applied the cut to about a quarter of employees. Regression results indicate that firms cut wages only if they also engaged in downsizing and that the latter, in particular, was associated with falls in demand on the product market. Intriguingly, the most significant predictor of whether a firm cut wages was whether it reported a difficulty in receiving financing from its usual channels. This last finding hints at the possibility of a latent, underlying flexibility of the Slovene labour market: when a firm is in a dire situation, employers and unions can agree on wage cuts.

Several other salient findings emerge from the survey. The main factors in the economic environment that contributed to the decrease in firms' activity were customers' inability to pay and the decrease in demand for goods and services. After 2010, firms faced more problems in the domestic than on foreign markets, which indicates that the second downturn in the recent crisis was due to domestic factors. Secondly, firms reduced all types of jobs during the period 2010-2013, but tended to rely

---

<sup>3</sup> Note that by law, base wages in Slovenia can only be decreased with worker and/or union consent.

more strongly on hiring freezes and non-renewal of contracts at expiration, followed by layoffs of student workers. The burden of adjustment was thus disproportionately borne by workers with loose ties to the firm, such as students, agency workers and freelance workers. On the other hand, newly created firms also created more flexible types of jobs. Third, uncertain economic conditions seem to be the major factor hindering employment on a permanent basis. This is especially the case for large firms, who are mostly exporters and have to quickly adjust to fluctuations in the international environment. For small firms, administrative factors such as hiring costs and risks of changes in labour laws are also hindering employment on a permanent basis. Therefore, an environment of economic and legislative stability would promote employment on a more permanent basis. Finally, consistent with the finding in Banerjee, Vodopivec and Sila (2013), virtually all workers are covered by a collective bargaining agreement, although only 14% of companies, or firms who collectively employ 51% of workers, have at least one employee in a trade union.

## 2. Macroeconomic background and institutional characteristics

Slovenia experienced an unusually large contraction in economic activity during the Great Recession, and the subsequent recovery has been relatively anaemic. Before the onset of the crisis, Slovenia experienced unusually high annual GDP growth (above 5%) and correspondingly high inflation, which peaked at 5.6% in 2008. High GDP growth before the crisis was a consequence of easy access to credit and a mispricing of risk, both of which led to an unsustainable investment boom. As a small open economy, the Slovenian economy was highly sensitive to the external economic environment and the economic slowdown at the end of 2008 coincided with the global economic and financial crisis. The crisis revealed important weaknesses in the growth model and led GDP to fall by 7.5% in 2009; as of 2015, it remained 4.1% below its 2008 peak (Figure 2 in Appendix 1). The large fall in GDP naturally resulted in a sharp moderation in inflation, which has averaged 1.4% in the period following the onset of the recession, with an especially strong moderation in 2014 and a deflation in 2015 (Figure 1 in Appendix 1). The sharp contraction in economic activity also resulted in a slow but steady decline in employment and a gradual increase in unemployment (Figure 2 and Figure 3 in Appendix 1). Unemployment has increased from 4.4% in 2008 to a peak of 10.1% in 2013. It has been decreasing since and also employment started growing again in 2014.

The fact that the (un)employment response was much slower than the sharp contraction in GDP since the recession can arguably be attributed to the high degree of employment protection for workers on indefinite contracts, which comprise the majority of employment. This dampened the initial fall in employment<sup>4</sup> but subsequently impeded job-creation. This appears even more important as the economy mainly adjusted via employment due to a common problem of downward nominal wage rigidity. Average nominal gross wage was only negative in 2012 and 2013<sup>5</sup>, mostly as a consequence of austerity measures (ZUJF) passed by the government affecting wages in the public sector and firms owned by the government that are otherwise part of the private sector (Figure 1 in Appendix 1).

According to the OECD Employment Protection Legislation (EPL) indicators, the Slovenian labour market is relatively rigid. Despite the 2013 reform, they remain above the OECD average (see Table 1 in Appendix 2). Additionally, union density and the coverage of collective bargaining are high compared to the EU average, which is the evidence of lower labour market flexibility.

When looking at union strength a key starting point is the level of union density, defined as the proportion of employees who are union members. Trade union density in Slovenia is 27%, which is higher compared to union density in EU28, where it amounts to 23% (Worker participation, 2015).

---

<sup>4</sup> An additional factor that dampened a fall in employment were government measures aimed at encouraging enterprises to keep workers on their payroll. These measures included subsidies for shorter-hour work schedule and for giving workers paid leave for a temporary period.

<sup>5</sup> Positive wage growth in 2009 and 2010 was mainly the consequence of a "composition effect" as workers with lower wages were laid off. In addition minimum wage was increased in 2010, which contributed to an increase in average nominal wage growth.

According to the OECD data, union density in Slovenia has decreased from 71% in 1991 to 23% in 2011.<sup>6</sup> This has happened due to the structural changes in the economy during the transition process. Sectors that have traditionally high union density (e.g. textiles, mining, leather) have been downsized markedly and employment has mainly grown in the services sectors, where the role of unions is less important. What is more, companies started to hire more workers on fixed-term contracts or temporary workers via employment agencies and these have little incentives to join unions (EIROnline 2010).

Regardless of a decrease in union density, virtually all employees have been covered by collective agreements over years, reflecting the legal framework in which collective bargaining takes place. This coverage has been around 90%, which is much higher than the EU28 average of 62%. The remaining share of employees, comprising of managerial workers, has been covered by individual agreements. The fact that almost all employees have been covered by collective bargaining in Slovenia is partly a result of the past position where the employers' side included chambers of commerce and industry, to which all employers had to belong. Negotiations take place at industry and company level, and at national level in the public sector (Worker participation, 2015, EIROnline 2009).

---

<sup>6</sup> Different data sources, e.g. next to the OECD also EIROline all show a decline, but disagree on the extent of it.

### 3. The survey

The survey was based on a gross sample of 2997 non-agricultural private-sector enterprises with 5 or more employees, which was constructed using the data on the number of employees available at the Statistical Office of the Republic of Slovenia. The stratification was done by sector (two-digit NACE classification with sectors C-N) and firm size (5-9, 10-19, 20-49, 50-199, 200+).<sup>7</sup> The selected firms were contacted by mail with instructions to fill out a web-based questionnaire.

The response rate was almost twice as high as in the first round of the WDN survey in Slovenia – 1285 firms, or 43% of those contacted, filled out the questionnaire. We can attribute this higher response rate to several factors. First, the survey was conducted after the deadline when firms have to submit their balance sheets, i.e., during a somewhat less busy period. Second, we performed a small pilot study, which helped us to simplify the survey and to make questions more understandable for the firms. Finally, a reminder was sent to the firms after three weeks, while firms in the strata with the lowest response rates were contacted via telephone to increase the response rate (Figure 4 in Appendix 1).<sup>8</sup>

The response rate varied across sectors and firm-size groups (Table 2 in Appendix 2). However, the variation was considerably lower than in the first WDN survey. The response rate was the lowest among small-sized enterprises (but still over 30 percent) and among firms in the construction sector (around 30 percent, which is most likely due to the fact that this sector was the most severely hit by the crisis).

Several consistency checks were performed to improve the quality of the data. These included both technical and logical controls. Companies that gave inconsistent answers were contacted and in most cases, the inconsistencies were corrected. This gives us more confidence in the quality of the collected data.

In order to account for the unequal probability of enterprises ending up in the final sample and to make the results applicable to the entire population of workers or firms, the survey responses can be scaled by employment-based or firm-based sampling weights. However, due to the manner the gross sample was constructed, the key takeaways are generally robust to using weighted or non-weighted results. This is because size-sector strata with disproportionately low response rates in the 2008 WDN survey were oversampled in the 2014 survey (and vice-versa for strata with high response rates), resulting in fairly representative responses across individual firm size-sector strata. For this reason,

---

<sup>7</sup> The sample included all firms with more than 200 employees. Additionally, our population of firms consisted only of those firms that operated at least from 2010, that were not in the bankruptcy procedure and had one of the following legal forms: unlimited liability company, limited liability company, public liability company, the main branch of a foreign business entity, limited partnership and limited partnership with equity capital. In other words, these were firms that can make their own economic decisions. The percentage of firms in a particular stratum was also determined by oversampling the strata which had lower response rate in the 1st WDN survey. We are grateful to Boro Nikić from the Statistical Office of the Republic of Slovenia for generating the sample.

<sup>8</sup> The reminder was also sent to the firms in the 2008 WDN survey.



the statistics reported in this paper are generally based on unweighted answers unless otherwise mentioned and, where appropriate, size or sector-specific outliers are specifically mentioned.<sup>9</sup> An additional reason for such presentation of results is also that this report does not include a cross-country comparison, where weights would be necessary.<sup>10</sup>

The Slovenian survey conformed closely to the template provided by the WDN. It included all the core questions of the WDN, supplemented by questions specific to Slovenia. The latter related to changes in the minimum wage in 2010 and to the labour market reform adopted in 2013. The survey incorporated both qualitative and quantitative types of questions that were designed to better understand how the recent crisis affected the firms, especially their employment and wage policies. In particular, the survey included questions regarding the impact of the economic environment on firms, labour force adjustment, wage adjustment, effects of the new labour market legislation, and the effects of minimum wage increase.

In addition, even though financing issues were not the focus of the survey, questions regarding firm financing were included in the core part of the questionnaire. The aim was to investigate potential linkages between firm financing and the behaviour of firms regarding both wage and labour force adjustment.

---

<sup>9</sup> Where relevant – that is to say, when responses differ markedly by firm size – we present the unweighted results separately for different firm size categories.

<sup>10</sup> An additional argument against using employment weights (particularly for questions referring to labour adjustment margins) is that employment weights are based on workers with employment contracts with given firm – i.e. they do not account for agency workers, student workers, civil contracts (self-employed contracting with firm) and are thus misleading.

## **4. Main results**

### **4.1 Source and size of a shocks**

The main factors from the economic environment affecting Slovenian firms during the 2010-2013 period concerned customer's ability to pay and a fall in demand for their products and services (Figure 5 in Appendix 1). Access to external financing through the usual financial channels and volatility/uncertainty of demand for their products or services were also important. However, there were some exceptions among different sectors and especially large firms from manufacturing, construction and hotels and restaurants sectors reported access to finance as the main obstacle. Generally speaking, the duration of the effects were temporary (Figure 6 in Appendix 1): less than one third of firms mentioned the effects as being "long-lasting". However, firms that reported access to finance as the factor with the strongest negative effect also reported that this factor had a "long-lasting" duration.

The survey respondents did not indicate any specific channels of financing that were particularly adversely affected during the 2010-2013 period (Figure 7 in Appendix 1). For all types of credit channels, slightly over half of respondents reported that the various credit channels were not relevant or were of little relevance. Larger firms, in particular, reported that the various credit channels were not relevant in affecting their firm's activity.

Domestic demand and prices in the domestic market were much more negatively affected in comparison to foreign demand and prices: 59% of firms reported having experienced a strong or moderate decrease in demand and 44% decrease in prices on the domestic market during the period 2010-2013, which is about twice as many as those that reported this to be the case on the foreign market (Figure 8 in Appendix 1). What is more, a non-negligible proportion of firms reported that they experienced an increase in demand (about 20%) and in prices (about 11%) on the foreign market. This was mostly due to the manufacturing sector, where one third of the firms saw an increase in foreign demand. These findings are in line with the interpretation that the weak or negative economic activity in Slovenia after 2010 was mostly due to the decreasing domestic demand.

## **4.2 Change in labour force size/composition as a method of adjustment – descriptive analysis**

One quarter of firms reported that they reduced labour inputs or altered its composition. Consistent with the poor prevailing economic climate in Slovenia over the reference period, the survey respondents generally reported a reduction in employment.<sup>11</sup> Total employment for firms in our sample fell by 9.3%, from approximately 150 thousand workers in 2008 to 137 thousand in 2013.<sup>12</sup> During this same period, aggregate employment in Slovenia in the relevant sectors fell by 13.3%, from 950 to 824 thousand (National Accounts Data based on headcount, SORS).

About one quarter of firms in the survey reported that they had to significantly reduce their labour force between 2010 and 2013 (Table 3 in Appendix 2). In line with the broader macroeconomic climate, the most affected sectors were construction, and manufacturing; in addition, respondents in the information and communication sector also reported being adversely affected. All sectors mentioned have experienced an important drop in value added in 2009. Employees in the electricity and water utilities sectors were virtually unaffected by labour force adjustments.

In times of distress, firms reduced their labour input primarily via hiring freezes and, individual layoffs, and by not renewing temporary contracts (Figure 9 in Appendix 1). A popular margin for adjustment was by dismissing workers for whom firing costs are lower or non-existent – e.g. students, agency workers and fixed-term contract workers – a result which holds true across sectors and size categories. Large firms more commonly reported dismissing agency workers, utilizing early retirement schemes or reducing hours worked, whereas small firms disproportionately made use of individual dismissals. Paralleling the above finding, firms reported the largest decreases among various labour cost components occurred using more flexible forms of employment (Figure 10 in Appendix 1). The largest decreases were among the number of students and number of temporary workers (workers on fixed-term contracts), with approximately 8% of respondents reporting strong decreases. Interestingly, the largest component for which firms reported moderate decreases were permanent employees, with almost 40 percent of respondents. This may be attributable to the time frame posed in the question, 2010-2013, and the fact that at that time, the initial restructuring arising from the crisis had already taken place.

---

<sup>11</sup> From the last quarter of 2008 to the first quarter of 2010, real GDP in Slovenia contracted by a cumulative 9.5% and had subsequently fallen a further 0.4% cumulatively as of the first quarter of 2014 (despite slight fluctuations in the intermittent period).

<sup>12</sup> These numbers are only representative for the firms that answered the survey.

## 4.3 Changes in wage setting

### 4.3.1 Institutional characteristics of wage setting

In Slovenia, collective bargaining agreements continue to play a prominent role in wage setting. On aggregate, 68.8% of firms apply collective agreements to at least some of their workers (Table 4 in Appendix 2) and these firms employ 79.4% of all workers (Table 5 in Appendix 2). This is in line with the institutional finding that 90% of all employees are covered by collective agreement. It also reflects the fact that larger firms disproportionately employ workers covered by collective agreements. From both tables we can see that coverage tends to increase with firm size. When using firm-based sampling weights, to make our results representative of the population of firms, we see that almost 90% of large firms reported having employees that are covered by collective agreements, while this proportion is only a little over 60% in firms with 5-9 employees.

The highest percentage of firms that applied any kind of collective agreements were found in electricity, real estate activities, hotels and restaurants and manufacturing (over 77% when using firm-based sampling weights and over 88% when using employment based sampling weights). For certain sectors, the high coverage rates can be attributable to extension procedures which result in automatic coverage for all firms within a given sector.<sup>13</sup> In 2013, extension procedures were in place for the following sectors: hotels and certain other sectors related to tourism; trade; road transport; electric utilities and certain sectors of manufacturing.<sup>14</sup> The sectors with the lowest coverage were information and communication sector and professional activities. In both sectors less than 50% of the firms answered that they applied some kind of collective agreement and those firms employed in general less than 50% employees.

When comparing our results from WDN 3 to the results from the previous WDN survey (WDN 1) that was executed in 2008 and asked the firms about the period 2006, we can observe that on average, collective agreement coverage decreased slightly in 2013 compared to 2006, particularly amongst the largest firms. The decrease in coverage amongst large firms may be due to a diminished role of collective bargaining and weak macroeconomic environment where firms experience an increasingly heterogeneous set of outcomes. In such circumstances, the importance of collective bargaining at the firm level increased: amongst the largest firms (those employing at least 200 workers), for example, the share of firms with firm-level agreements increased from 48.9% in 2006 to 62.4% in 2013. Measured by the number of employees covered, the increase in the share of firm-level agreements amongst the largest firms is even greater, increasing from 38.5% of employment to 63.1%.

---

<sup>13</sup> Extensions of collective bargaining agreements are approved by the labour ministry based on, *inter alia*, the representativeness of the signatory parties. Note that the sectoral classifications do not necessarily overlap with the ones presented here.

<sup>14</sup> Source: [Ministry of Labour, the Family, Social Affairs and Equal Opportunities](#).

Going more into detail, when using firm weights, the WDN 1 results indicate that only 55% of represented companies apply a bargaining agreement at the firm or sectoral level (Table 6 in Appendix 2), however this share of firms represents over 80% of employees (Table 7 in Appendix 2).<sup>15</sup> Similarly as indicated by WDN 3 results, coverage tends to increase with firms size – over 90% of large firms have employees that are covered by collective agreements, while this proportion is only a little over 50% in firms with 5-19 employees. The latter proportion is lower compared to WDN 3 survey mostly due to the fact that WDN 1 survey's target population included sole proprietors, whereas WDN 3 excluded them (sole proprietors are less likely covered by collective bargaining agreement).

The highest percentage of firms that applied the collective agreement at the firm or sectoral level in 2006 were found in energy<sup>16</sup> and financial intermediation<sup>17</sup>- over 86% represented firms that employed over 90% of workers in these sectors. We can see that in both sectors the share of firms and employees covered by collective bargaining agreement has decreased in WDN 3 compared to WDN 1. In the case of manufacturing, more companies applied a collective bargaining agreement in 2013 (78%) compared to 2006 (62%), while the share of employees covered was higher in 2006 (93%) compared to 2013 (89%). The sector with the lowest coverage at the firm or sectoral level in 2006 was market services<sup>18</sup>- only 44% of representative firms applied collective bargaining agreement and those firms employed around 60% of employees. As market activities represent 6 sectors in WDN 3 survey their development in time can not be compared properly. However, two sectors within market services – ICT and professional activities – also had the lowest coverage of any collective bargaining agreement in 2013.

Trade union membership is generally much lower compared to collective agreement coverage, due to the factors explained in Section 2. In total only 14% of represented companies have at least one employee that is a member of a trade union (Table 8 in Appendix 2), which represent 51% of employees (Table 9 in Appendix 2). These results point to a strong role of size – the larger the company, the more likely it will have at least one trade union member. However, it has to be kept in mind that firms were asked if any of their employees belong to a trade union, meaning that our results only give us the share of companies that have at least one trade union member and the proportion of all employees that such companies employ. In other words, we did not ask for a share of employees

---

<sup>15</sup> Note that in 2006, a general collective bargaining agreement covering all private-sector workers was in effect, while this was not the case in 2013 (also note that higher-level collective agreement must generally include stipulations that are at least as favourable as lower level agreements). The figures presented for WDN1 are thus directly comparable to those in WDN3.

<sup>16</sup> Energy from WDN1 is equivalent to electricity and water utilities from WDN3.

<sup>17</sup> Financial intermediation from WDN1 is comparable to financial and insurance activities from WDN3.

<sup>18</sup> Market services from WDN1 are comparable to the sum of the following sectors in WDN3: transportation, hotels and restaurants, information and communication, real estate activities, professional activities and administrative activities.

that are trade union member, and our results can not be compared to other estimates of trade union density in Slovenia, which is 27% according to Worker participation (2015).<sup>19</sup>

Membership in trade unions increases with firm size. Over 80% of large firms reported having at least one employee that is a member of a trade union, while this proportion is less than 5% in firms with 5-19 employees. Measured by the number of employees covered, these shares are approximately the same.

The highest percentage of firms that employ at least one trade union member were found in electricity and water utilities (over 50% of represented firms that employ over 78% employees). The sectors with the lowest share of firms that employ at least one trade union member were construction and trade – less than 3% of represented firms that employ less than 15% workers.

Although membership in employers' associations has been voluntary since 2006, membership rates remain comparatively high: the share of companies belonging to any employers' association is much higher compared to a share of companies that have at least one employee who is a member of a trade union, 47% (Table 10 in Appendix 2) compared to 14%, respectively. These 47% companies employ 68% of all employees (Table 11 in Appendix 2), which points to the fact that the larger the company is, more likely it will be a member of employers' association. This is probably also related to monetary compensation it has to provide in the case of membership.

Membership in employers' association increases with firm size. Around 86% of large firms (with more than 200 employees) reported that they are members of employers' association, while this proportion is slightly less than 40% in firms with 5-9 employees. Measured by the number of employees covered, these shares are approximately the same.

The highest percentage of firms that are members of employers' association were found in electricity and water utilities (over 70% of represented firms that employ over 80% employees). These are the same sectors where also the highest share of companies that have at least one employee in a trade union can be found. The correspondence in membership rates across industries may be attributable to the fact that sectoral collective agreements automatically apply to firms with employees who are union members (and vice versa), giving an incentive for employers (or employees) to join their respective unions in order to be able to influence the content of the collective agreements. The sector with the lowest share of firms that are members employers' association was construction – less than 40% of represented firms that employ less than 46% workers.

---

<sup>19</sup> Our estimate of 51% coverage is not inconsistent with such estimates, however, as it can be construed as an upper bound.

### **4.3.2 Changes in adjustment of wages as a method of adjustment**

Adapting base wages due to inflation was less frequently done during 2010-2013 than previously. Figure 11 in Appendix 1 shows that for the period 2010-2013 more firms said that inflation was too low or that they had no legal obligation to adapt to changes in inflation. When comparing this share with data from WDN 1 that refer to 2006 we see that at the time even lower percentage of firms did not adapt base wages to inflation (42.3%).

Paralleling the above finding, base wages were changed less frequently during 2010-2013 than they were before (Figure 12 in Appendix 1). In the years before the crisis, changes were probably more frequent because they involved wage increases that are easier to accept (e.g. see the example of 2006), while the long-lasting crisis induced firms to attempt lowering nominal wages. Because the decrease in nominal wages typically causes a strong resistance, this likely resulted in less frequent wage changes. Nevertheless, we can not interpret this as an indication of an increased downward nominal wage rigidity for reasons explained below.

The share of firms that over the period 2010-2013 decreased wages rose from 3.4% in 2010 to 6.5% in 2013. This share was higher than in 2003-2007, when it was slightly above 3%, and higher than the EU average in the period 2003-2007 (2.3%), or 2008-2009 (3.2%). Moreover, the reduction in downward nominal wage rigidity seems to have been more pronounced in manufacturing and in large companies, which are mostly exporters. For instance, in large manufacturing companies, the share of firms reporting wage decreases rose from 5.2% in 2010 to 11.7% in 2013. This indicates a decrease in the downward nominal wage rigidity, which can most likely be attributed to the economic crisis. Importantly, where there has been a reduction in nominal wages, it was relatively strong and covered a large proportion of workers in the company. Nominal wage reductions in firms that have decreased wages in 2013 amounted to 5% on average (about 7% in real terms), and the proportion of workers whose wages were reduced approached one quarter (Figure 13 in Appendix 1). Wage reductions were stronger and encompassed more workers in 2012 and 2013.

### 4.3.3 Alternative margins for labour cost adjustments: layoffs and wage cuts

The preceding discussion highlights several stylized facts about the Slovenian labour market – first, that relatively few firms cut wages, and second, that hiring freezes, quits or layoffs of the most flexible forms of employment are the preferred measure of adjustment along the extensive margin. In addition, all firms which reported that they had cut wages also engaged in some form of layoffs: specifically, 31.4% of firms reported laying-off at least some of their workers, and 11.7% reported wage cuts at some point in the 2010-2013 period (note that all of the latter also engaged in the former – i.e., there were no firms that only cut wages but not employment).

Which factors determine a firm's preferred margin for adjusting labour costs? In order to examine the simultaneous effects of the various factors affecting a firm's decisions, Table 12 in Appendix 2 reports the results of multinomial logistic regression where the omitted group is comprised of firms that engaged in layoffs but did not cut wages. The results indicate that what distinguished firms engaging in wage cuts is that they experienced a decline in their financing ability –firms which indicated that they experienced a moderate or strong decrease in "Access to external financing your firm's activity through the usual financial channels". Compared to firms with no deterioration in external financing, those reporting a decreased access to external financing were 1.71 times *more* likely to cut wages (in addition to laying off workers) compared to those only engaging in layoffs (holding the other variables in the model constant). Conversely, those reporting decreased access to external financing were 1.8 times *less* likely to not engage in layoffs compared to the baseline comprised of firms that engaged in layoffs (but not wage cuts).<sup>20</sup> Taken as a whole, decreased access to external financing was associated with a 3.1 times higher probability of both cutting wages and engaging in layoffs than not doing either,<sup>21</sup> after accounting for the other variables in the model, including decreases in demand. The findings from the multinomial logistic regression are corroborated by simple cross-tabulations. Of the 882 firms reporting that they did not cut wages or engage in layoffs, only 36% reported decreased access to financing; of the 253 firms reporting layoffs but not wage cuts, 60.5% reported decreased access to financing; and of the 151 firms reporting both layoffs and wage cuts, 68.9% reported decreased access to financing.

Decreases in demand are associated with a higher probability of both laying off workers and cutting wages – as would be expected – but the effect is larger for firms that reported only laying off workers. Firms experiencing falls in product demand were 4.1 times more likely to cut only employment and 2.4 times more likely to cut *both* employment and wages, compared to firms that did neither.<sup>22</sup> In other words, falls in firm-level *product* demand are associated with reduced firm-level *labour* demand.

---

<sup>20</sup> This relative risk ratio is calculated as the inverse of the one reported in Table 12, i.e.  $1/0.558=1.8$ .

<sup>21</sup> Here, the relative risk ratio can be calculated by multiplying the two coefficients, i.e.  $1.8*1.7=3.1$ . It can also be obtained directly from the regression by setting the baseline to firms which neither cut employment nor wages.

<sup>22</sup> These are calculated as  $4.1=1/0.245$  and  $2.4=4.1*0.593$ , respectively.



The other coefficients reported in Table 12 also offer some interesting insights. The largest firms reacted more vigorously along both margins of adjustment but particularly in cutting employment. For all size classes relative to the baseline of firms with more than 200 employees, compared to the cutting employees but not wages, smaller firms were *more* likely to cut neither employees nor wages and *less* likely to cut both.<sup>23</sup> The precise relationship is difficult to determine because size is highly collinear with the tendency to export. Exporters presumably operate in a more competitive environment, increasing the impetus for restructuring – although separate regressions (not reported) fail to back this up conclusively. In regressions also not reported here, the effect of firm size is statistically significant if excluding the dummy on exporting, with smaller firms exhibiting a lower probability of engaging in layoffs and, especially, cutting wages. Regarding the coefficients pertaining to sectors, firms in the construction sector – a sector even more adversely affected by the economic crisis than manufacturing, which comprises the baseline category – were significantly more likely to engage in both layoffs and wage cuts.<sup>24</sup> The converse is true for the utilities sector, which has fared much better during the economic crisis.

---

<sup>23</sup> All the coefficients pertaining to size are greater than 1 in column (1) and smaller than 1 in column (3). This means that, for example, compared to the omitted group of firms with 200 employees or more, firms with 10-19 employees were 1.73 times more likely to neither cut employment nor wages than to cut employment but not wages; similarly, they were 0.49 times as likely to cut both compared to just cutting employment.

<sup>24</sup> The coefficient pertaining to construction in column (1) is statistically significantly lower than 1, indicating that firms in this sector were less likely to neither cut wages nor employment than firms in manufacturing. On the other hand, they were not statistically significantly less likely to engage solely in layoffs than both layoffs and cutting wages.

#### 4.4 Main obstacles to hiring

Firms reported that the main obstacles to hiring new permanent employees were payroll taxes, uncertainty about economic conditions, access to finance and the possibility to unilaterally and temporally lower wages in case of adverse shocks (Figure 14 in Appendix 1). Although respondents reported that payroll taxes were most important in impeding new hires on permanent contracts, their responses regarding wage levels are somewhat inconsistent: firms did not view high wage levels as being one of the factors preventing new hires on a permanent contract, even though wages – in the same way as taxes – represents a component of firms' labour cost.<sup>25</sup> The second most important factor is uncertainty about economic conditions. While this is not a factor that can be altered easily through specific policies, it indicates that firms are reluctant to hire workers who are difficult to lay off in the absence of robust demand for their goods and services. The next relevant factors, ranked in order of importance, are access to finance, the possibility to unilaterally and temporally lower wages in case of adverse shocks (e.g. without union consent), hiring costs, firing costs and risk that labour laws are changed. These indicate that it is mainly the rigidity of employment on a permanent contract that makes other more flexible types of employment more attractive for firms, but also the instability of institutional environment plays a role.

For large firms, one salient finding is that enabling firms to unilaterally temporarily alter wages could facilitate hiring workers on permanent contracts (Figure 15 in Appendix 1). This factor is the third most important (apart from taxes) to this type of hiring. Some scope for more wage flexibility would alleviate employer's worries about future economic conditions when considering the permanent employment of new workers. The inability to unilaterally alter wages appears to be an especially important factor hindering the hiring of new employees for large firms (Table 13 in Appendix 2) in the manufacturing, transportation and tourism sectors, which are most exposed to changes in the international environment. Note that for large firms, uncertain economic environment is by far the most important non-tax factor that hinders the employment of workers on permanent contracts.

In addition to uncertain economic environment, small Slovenian firms consider additional factors when hiring new employees with permanent contracts. As Figure 16 in Appendix 1 demonstrates, high hiring costs and the risk that labour laws are changed are seen as important obstacles. Both may well be due to the inability of small firms to dedicate time and staff to study changes in labour laws and perform a thorough screening of newly employed workers, as small firms do not have specialised legal or human resource departments.

---

<sup>25</sup> Taxes often rank very high in surveys examining business environment, even in jurisdictions where taxes are relatively low (see, for instance, Carlin et al., 2010). This is one of the reasons why survey results regarding tax rates are often considered less reliable (e.g., in EBRD Transition Report, 2010). Another reason is that respondents may not refer to the same tax rate (for instance, although the WDN question has attempted to be precise in referring to taxes on labour, it may still be the case that due to progressive labour taxes, companies with employees in higher tax brackets may have responded differently than those with employees in lower tax brackets). We are grateful to Helena Schweiger for pointing out the pitfalls related to the interpretation of results pertaining to tax rates.

## **4.5 Responses/Opinions about specific new labour market policies/proposals**

### **4.5.1 The effects of new labour market legislation**

The Employment Relationship Act and the amendments to the Labour Market Regulation Act came into force in April 2013.<sup>26</sup> The aim of these acts was to increase labour market flexibility and decrease segmentation. Certain legal aspects were reformed that increased flexibility (e.g. via streamlining administrative procedures pertaining to hiring and firing<sup>27</sup>, as well as decreasing notice periods) and lowered costs of permanent employment contracts (reduced severance payments). On the other hand, for fixed-term contracts, the reform introduced redundancy payments and limited to two years the maximum duration of a fixed-term employment for a given job (OECD, 2013). For instances of fair termination, employers' costs are now the same regardless of contract type. However, because workers with a fixed-term contract cannot file a complaint in the court, the costs remain higher in the case of an unfair dismissal for permanent contracts (OECD, 2014).

Measured by the OECD employment protection legislation (EPL) indicators, Slovenia's reform considerably liberalized labour market regulations (Table 1 in Appendix 2). Before the reform of the Employment Relations Act, Slovenia had one of the most restrictive EPL for permanent contracts, while after the reform, Slovenian legislation on this dimension strongly approached the OECD country average (OECD, 2014).

Despite the ostensibly large increase in the flexibility for hiring workers on permanent contracts, survey respondents report that the new legislation has had a comparatively limited impact on their HR policies (Figure 17 in Appendix 1). A mere 14% of firms (182 responses) in our sample answered that their employment policy was affected by the new legislation and only 5% of firms (72 responses) reported that the new legislation actually led to changes in the absolute numbers of their employees. In fact, the vast majority of the latter reported that the new legislation led them to reduce their number of employees. A possible explanation for this is that in unfavourable economic conditions, the introduction of such reform can lead to increased firing (Bouis et al., 2012). In addition, the full effects of the new legislation may not yet have been felt because of the relatively short time since the adoption of the new legislations.

In the following analysis, we focus only on the 14% of firms (182 responses) who stated that their employment policy was affected by the new legislation. Approximately 40% of the affected firms (71 responses) reported that the new labour market legislation and other labour policy measures led them to increase their share of employees with permanent contracts, while 50% (88 responses) reported

---

<sup>26</sup> Initial version of the Labour Market Regulation Act came into force in January 2011.

<sup>27</sup> Employer can notify an employee via e-mail, not only through a letter.

reducing their share of temporary workers.<sup>28</sup> Furthermore, a higher share of firms reduced (rather than increased) other types of flexible forms of employment, e.g. students, agency workers, contractual workers and sole proprietors (Figure 18 in Appendix 1). This indicates that at those firms that were affected by the new legislation, the goal of reducing labour market segmentation seems to have been achieved. This is also confirmed by the data on the whole economy. In the first year after the reform (April 2013-March 2014) the share of fixed-term contracts in total new hiring dropped to 72% from 76% compared to a year earlier (IMAD, 2014). Similarly, the share of all employees that hold a temporary job has decreased from 17.1% in 2012 to 16.5% in 2013. We should reiterate, however, that the aggregate effects have been relatively small.

Most firms reporting a change in employment policy attributable to the labour market reforms agreed that several factors facilitated the employment of workers with permanent, open-ended contracts, as Figure 19 in Appendix 1 demonstrates. Employers saw the simplification of administrative procedures related to firing as the main facilitating factor.<sup>29</sup> Furthermore, they judged that tax reliefs,<sup>30</sup> shorter notice periods for worker dismissal and the reduction of severance payments on permanent contracts made it easier to employ workers on a permanent basis. On the other hand, employers perceived an introduction of severance payments on temporary contracts as a factor that *hindered* the hiring workers on permanent contracts. This factor was meant to curb flexible forms of employment and consequently facilitate permanent form of employment, but it apparently had the opposite effect.

In a series of related questions, firms reported that the aggregate effect of reforms adopted from 2010 to 2013 and the changing macroeconomic environment had a negligible effect on their HR policies (Figure 20 in Appendix 1). Firms were asked whether they perceived any changes in the difficulty of various aspects of HR policy, such as hiring, lay-offs, lowering wages, reassigning employees to different positions. No single aspect affected more than one fifth of firms. Approximately 13% of firms reported greater ease of dismissals for economic reasons, followed by the hiring of employees (around 10%) and transferring employees across different job positions within a company (around 9%). Larger firms perceived more changes than smaller firms as in general larger firms have higher capacity to absorb and apply new legislation. More than one fifth of firms with more than 200 employees (Figure 21 in Appendix 1) reported that it has become easier for them to dismiss individual employees for economic reasons. Moreover, slightly less than one fifth of the big firms reported that it has become easier for them to dismiss employees temporarily for economic reasons.<sup>31</sup>

---

<sup>28</sup> Note that this survey question was framed in terms of shares. Therefore, a firm may have responded that it changed the share of a certain type of workers, but the absolute number of workers in that firm remained the same.

<sup>29</sup> Firms viewed this factor as the most important even though the new legislation introduced mainly administrative changes to facilitate firing, while the content of firing procedures has not changed.

<sup>30</sup> Tax relief includes a partial exemption from payment of social security contributions and other stimulations for hiring unemployed, mothers, young and old workers.

<sup>31</sup> According to the Employment Relationship Act (ZDR), the employer may temporarily dismiss a worker for at most 6 months per calendar year in order to prevent permanent dismissal of workers. The employer should pay such worker

#### 4.5.2 Minimum wages

Slovenia increased its statutory minimum wage by 23% in February 2010 with a new Minimum Wage Act. Measured by the number of employees covered, the share of minimum wage recipients increased from 8 to 11.3% due to the increase in minimum wage (see Table 14 and Table 15 in Appendix 2). This percentage varies greatly across sectors and sizes. The highest proportion of minimum wage recipients were in the hotels and restaurants sector as well as administrative activities (more than 20%). Financial and insurance activities, electricity, water utilities and information and communication sector had less than 4% of minimum wage recipients before the change in minimum wage and less than 6.5% after. In terms of firm size, minimum wage recipients constituted 12% of employment in small firms (those with 5 to 9 employees) and 7% of employment in large firms (those with more than 200 employees). After the change in minimum wage legislation, those shares increased to 14% for small firms and to 11% for large firms.

Firms were asked more detailed questions about minimum wages only if they employed at least one minimum wage recipient. Therefore, in the following paragraphs, we report the share of firms that had at least one of the employees that received minimum wage, which of course differs from the share of minimum wage recipients that were reported above. Also, the results reported below are employment-weighted, making them representative of the population of workers.

Amongst firms with minimum wage recipients, the share of workers employed in firms that had at least one minimum wage recipient was a little over 40% before the change in minimum wage (Table 16 in Appendix 2) and close to 50% (Table 17 in Appendix 2) after the change in minimum wage. The distribution with respect to sector is broadly similar to that described above: hotels and restaurants as well as administrative activities have the highest proportion of workers that were employed in firms that had at least one minimum wage recipient (more than 70%). Firms that have at least one minimum wage recipient in professional activities, financial and insurance activities and electricity employ in general less than one fifth of workers. In the ICT sector the share of employees in such firms increased from 14% before the change in minimum wage to 23% after the change.

Regarding firm size, the share of workers employed in companies with at least one minimum wage receiver shows the opposite picture compared to the share of minimum wage recipients. This can be explained by the fact that the larger the company is, the more likely it will employ at least one person on minimum wage. Around 50% of employees were employed in large companies that have at least one person receiving minimum wage, while this share is about two times lower in companies with 5-9 employees.

---

compensation in the amount of 80% of his/her average wage in the last three months. During this period temporarily dismissed workers are obliged to participate in training.

The rest of this section describes the findings of only those firms that had at least one of their employees receiving the minimum wage (close to 50% of employees were working in them). Those firms were asked how the change in the minimum wage affected them (Figure 22 in Appendix 1).<sup>32</sup> Firms that represented around two-thirds of employees said that they had to reduce other costs, the ones that represented one quarter of employees answered that they hired less people due to the increase in minimum wage, a similar proportion reported that they had to increase other wages (above the minimum wage) due to the increase in the minimum wage. This indicates that the increase in the minimum wage had a broader effect. A share of firms that employed a bit more than one tenth of workers reported that they had to increase prices and those representative of 6% of employees had to lay off people. The last two are usually the main responses of firms to an increase in the minimum wage, however, in Slovenia, the sharp contraction in economic activity in 2009 and weak recovery in 2010 meant that firms had already laid-off many lower paid workers in 2009, prior to the minimum wage hike in February 2010, and had little scope for raising prices. Additionally, firms could use a transitory period of the minimum wage adjustment which eased the negative effects on employment and competitiveness of firms.

Given the high minimum wage relative to average wage, the increase in the minimum wage has caused spill over effects as the employees belonging to different tariff classes now receive the same minimum wage.<sup>33</sup> Before the new minimum wage legislation, the share of firms that represented 14% of employees had at least one minimum wage receiver compensated for the fact that employees in different tariff classes receive the minimum wage. After the increase in the minimum wage such firms employ 21% workers. The most frequently used form of compensation is giving a higher variable part of the wage to employees in higher tariff classes (Figure 23 in Appendix 1). Firms that employ around 30% of workers use this method. Another form is to give occasional monetary bonuses to those receiving minimum wages, but classified in higher tariff classes. This was used by firms that employed about one fifth of the workers before the change in the legislation and one quarter thereafter. The least used measure of compensation are pecuniary rewards (e.g. education options) for employees, which are used by firms that represent about one fifth of workers.

---

<sup>32</sup> The Minimum Wage Act, which came into force on the 23<sup>rd</sup> of February 2010, increased the minimum wage from €597.42 to €734.15. The transitional period ended on the 31<sup>st</sup> of December 2011.

<sup>33</sup> All the employees that belong to tariff classes, where the base wage is below minimum wage, receive the same minimum wage determined by the Minimum Wage Act.

## 5. Conclusion

Our survey documents a variety of interesting facts about the Slovenian labour market and its adjustments in response to the recent economic crisis – particularly with regard to legislative changes. The labour market reforms enacted after the crisis, whose stated goals included decreasing the labour market duality without imposing excessive rigidity on firms, can be considered moderately successful but relatively timid. Firms generally reported that the reforms had little effect, but amongst those reporting an effect, the reforms appeared to have achieved their desired effects. Regarding minimum wage policy, the increase in the minimum wage appeared to have some adverse consequences on marginalized labour force participants. While less than one tenth of firms reported that they had to resort to worker dismissals, almost a quarter of firms reported that they hired fewer workers. Therefore, the minimum wage legislation may have had more adverse effects on employment prospects of unemployed and entrants in the labour market than on incumbent employed.

Given that Slovenia is part of a monetary union and that its wage levels significantly affect cost competitiveness, an important set of findings concerns downward nominal wage rigidity. Our survey results show that a non-negligible share of firms have been able to decrease base wages during the economic crisis. While initially low, the proportion of firms that reported wage cuts increased considerably in the later stages of the crisis (in 2012 and 2013), when the number of firms reporting wage cuts doubled compared to the pre-crisis levels. While the percentage of firms that reduced wages still remains low, at below 10%, the firms that did cut wages cut them substantially (about 5%) and applied the cut to about a quarter of employees. Regression results indicate that firms cut wages only if they also engaged in downsizing and that the latter, in particular, was associated with falls in demand on the product market. Intriguingly, the most significant predictor of whether a firm cut wages was whether it reported a difficulty in receiving financing from its usual channels. This latter finding, especially, may have interesting policy implications from the perspective of the central bank – ones which should be further explored.

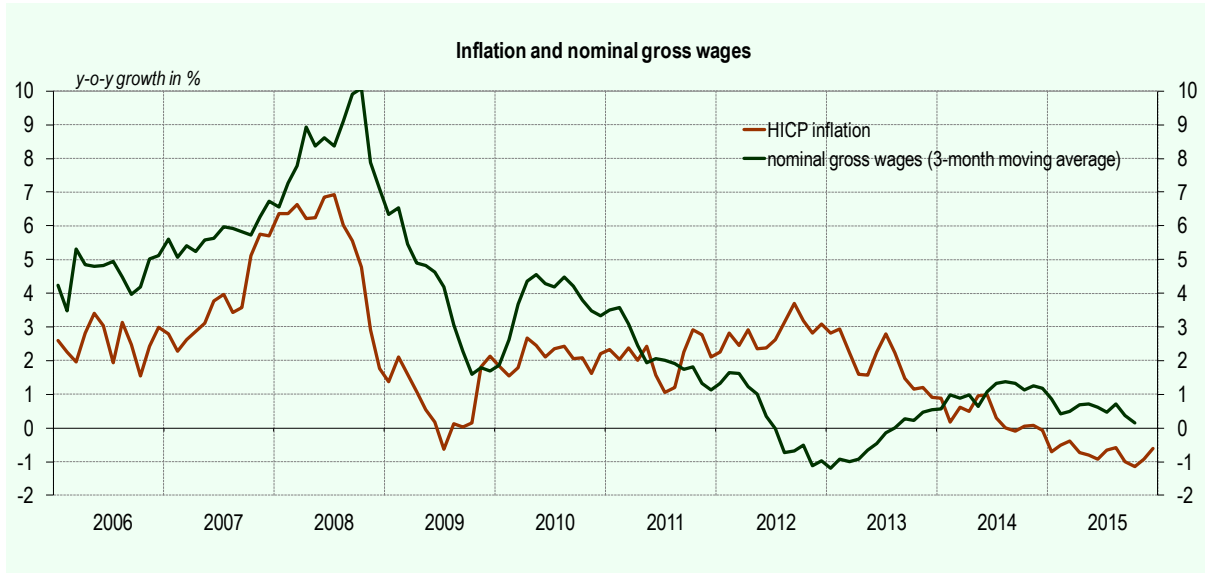
## References

- BANERJEE, Biswajit, VODOPIVEC, Matija, SILA, Urban. Wage setting in Slovenia : interpretation of the Wage Dynamics Network (WDN) survey findings in an institutional and macroeconomic context. *IZA Journal of European Labor Studies*, ISSN 2193-9012, 2013, vol. 2, p. 2-23.
- Bouis, R., Causa, O., Demmou, L., Duval, R., Zdzienicka, A. (2012). The Short-Term Effects of Structural Reforms. OECD Economics Department Working Paper No. 949.
- Carlin, W., Schaffer, M. E., Seabright, P. (2010). A Framework for Cross-Country Comparisons of Public Infrastructure Constraints of Firm Growth. CEPR Discussion Paper No. 7662.
- EBRD (2010). Transition Report. European Bank for Reconstruction and Development.
- ECB (2010). Wage Dynamics in Europe. Final report of the wage dynamics network (WDN), 2010.
- European Industrial Relations Observatory On-line (EIROOnline) (2009) Slovenia: Industrial relations profile <http://www.eurofound.europa.eu/eiro/country/slovenia.htm>
- European Industrial Relations Observatory On-line (EIROOnline) (2010) Trade union strategies to recruit new groups of workers – Slovenia.  
<http://www.eurofound.europa.eu/eiro/studies/tn0901028s/si0901029q.htm>
- IMAD (2014), Economic Issues 2014, August, Institute of Macroeconomic Analysis and Development, Ljubljana.
- OECD (2013), *Entrepreneurship at a Glance 2013*, OECD Publishing, Paris. DOI:  
[http://dx.doi.org/10.1787/entrepreneur\\_aag-2013-en](http://dx.doi.org/10.1787/entrepreneur_aag-2013-en)
- OECD (2014), OECD Better Policies Series: Slovenia, Reforms for a strong and sustainable recovery, May 2014, OECD Publishing, <http://www.oecd.org/slovenia/2014-05-Better-Policies-Slovenia-EN.pdf>
- SCHNATTINGER, Philip, JEMEC, Nataša, LOZEJ, Matija, VODOPIVEC, Matija, MOHORIČ PETERNELJ, Petra. *Rezultati ankete Wage dynamics network za leto 2014 v Sloveniji*, (Prikazi in analize, 2015, letn. 21, št. 1). Ljubljana: Banka Slovenije, 2015.
- Worker participation webpage: <http://www.worker-participation.eu/National-Industrial-Relations/Across-Europe/>



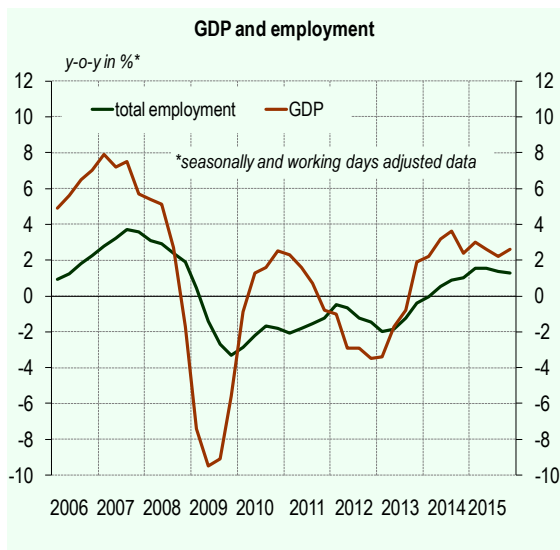
## Appendix 1: Figures

**Figure 1: Inflation and nominal gross wages in Slovenia, 2006-2015**

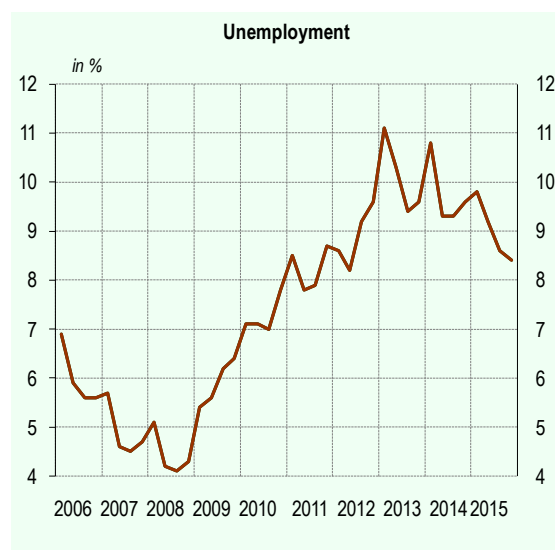


Source: SORS.

**Figure 2: GDP and employment in Slovenia** **Figure 3: Unemployment in Slovenia, 2006-15**

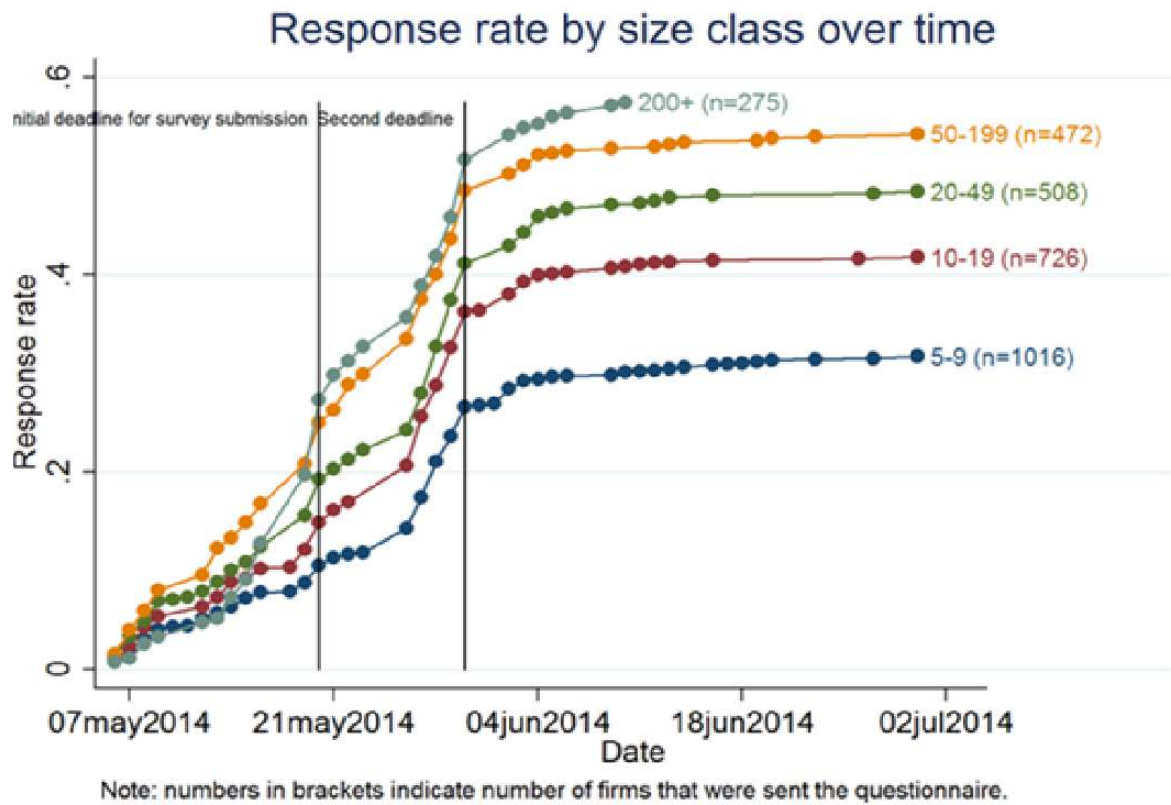


Source: SORS, Bank of Slovenia calculations.



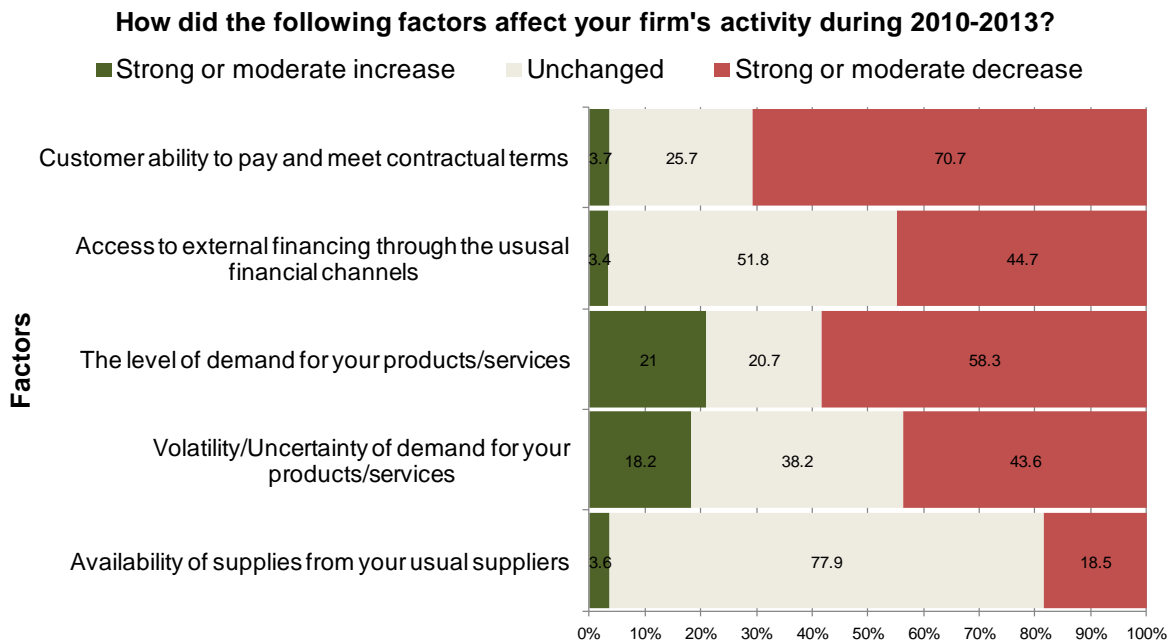
Source: Eurostat.

Figure 4: Response rate of the survey



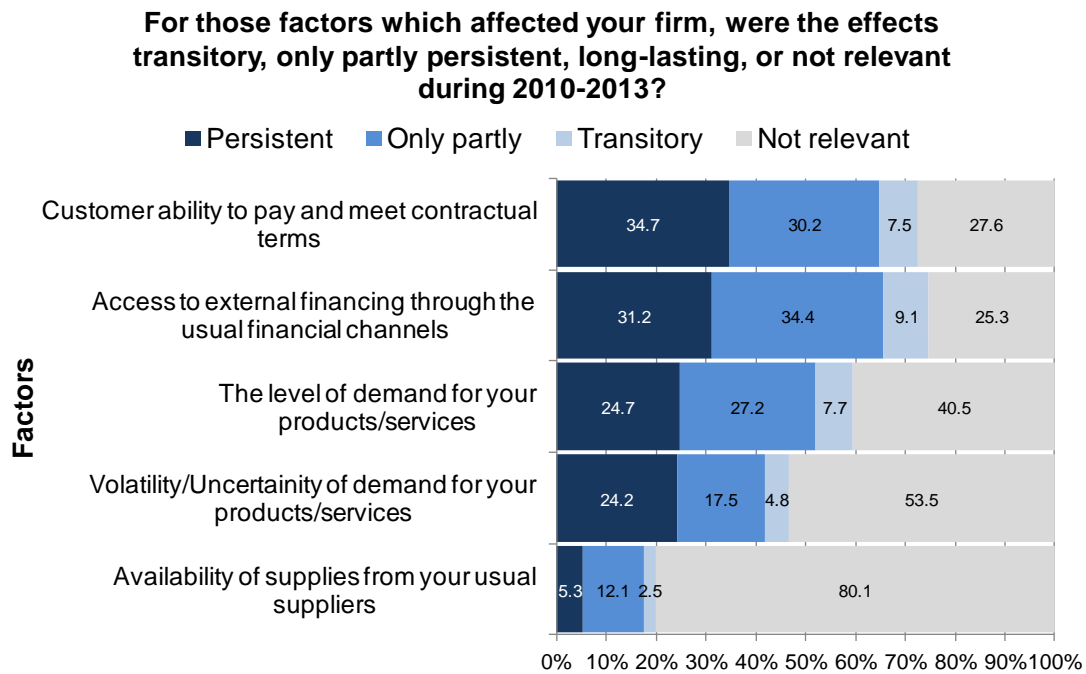
Source: 2014 BoS WDN Survey.

**Figure 5: Factors affecting firms' activity**



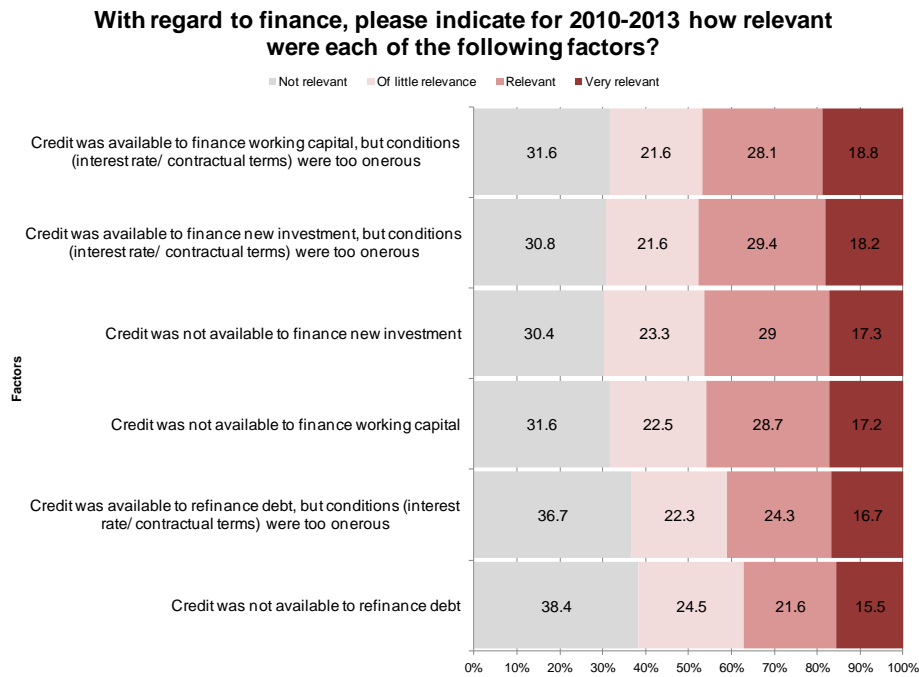
Source: 2014 BoS WDN Survey.

**Figure 6: Persistence of factors affecting firms' activity**



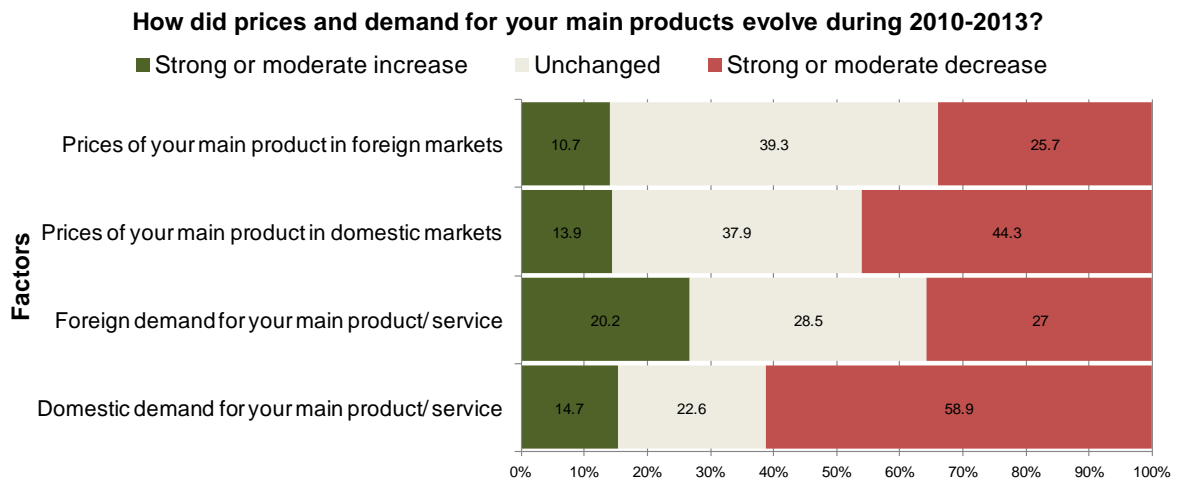
Source: 2014 BoS WDN Survey.

**Figure 7: Relevance of different types of credit availability**



Source: 2014 BoS WDN Survey.

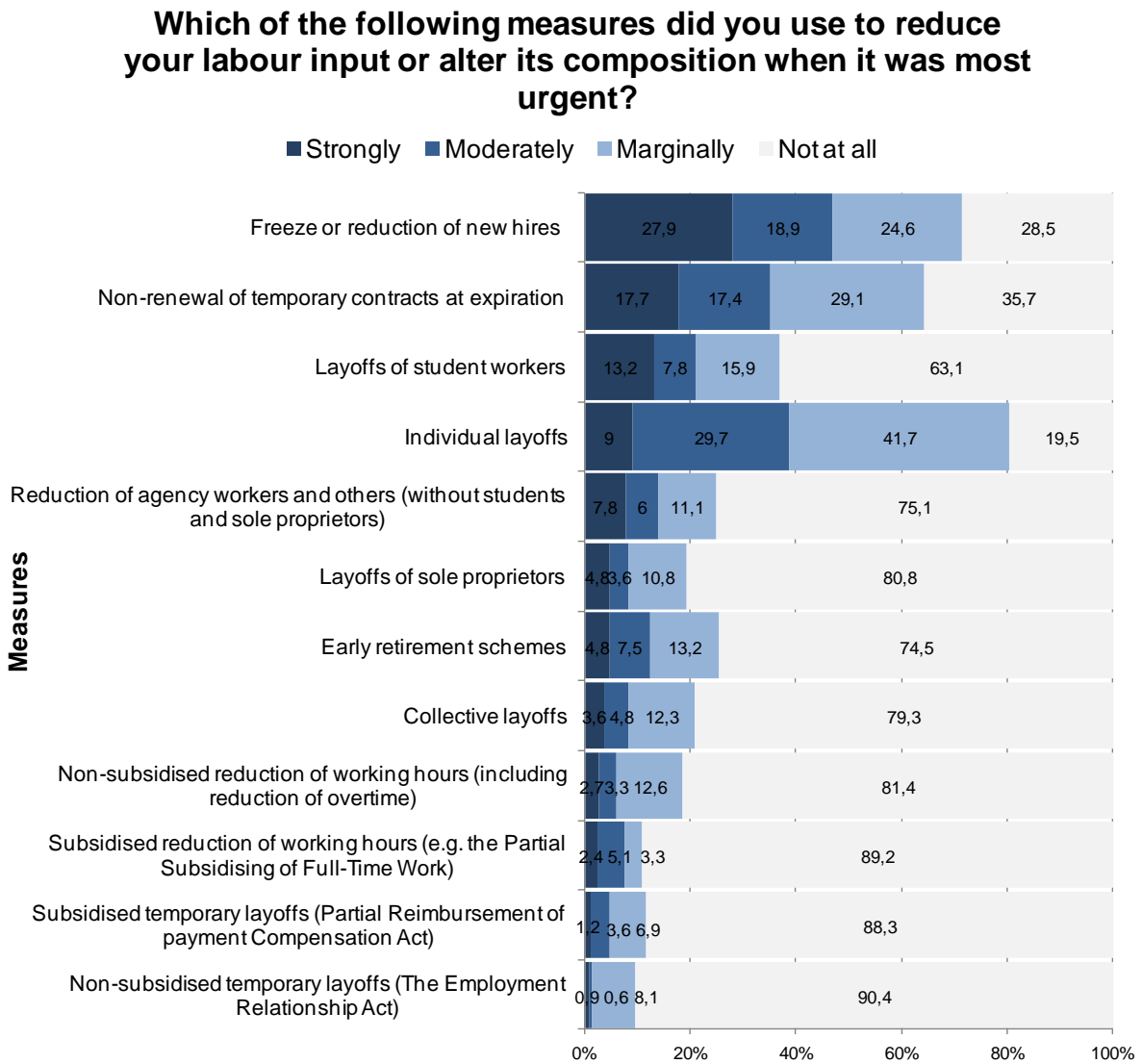
**Figure 8: Change of prices and demand**



Note: Excludes respondents indicating particular factor was not relevant.

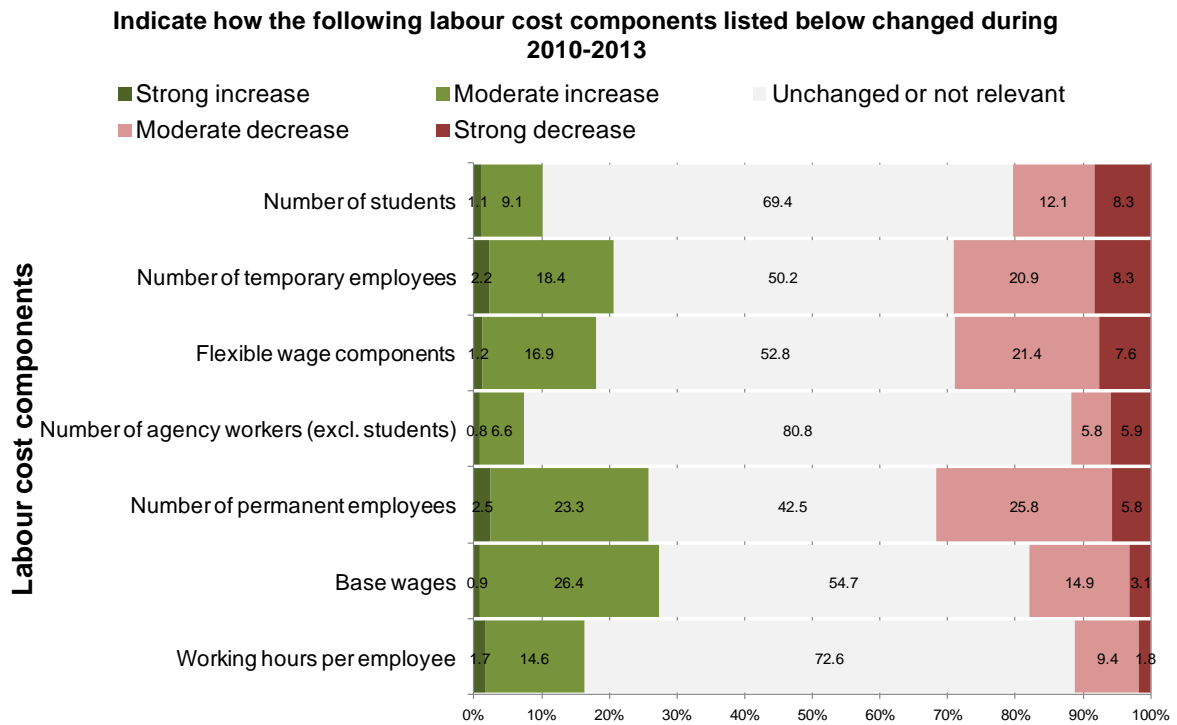
Source: 2014 BoS WDN Survey.

**Figure 9: Measures used to reduce labour inputs**



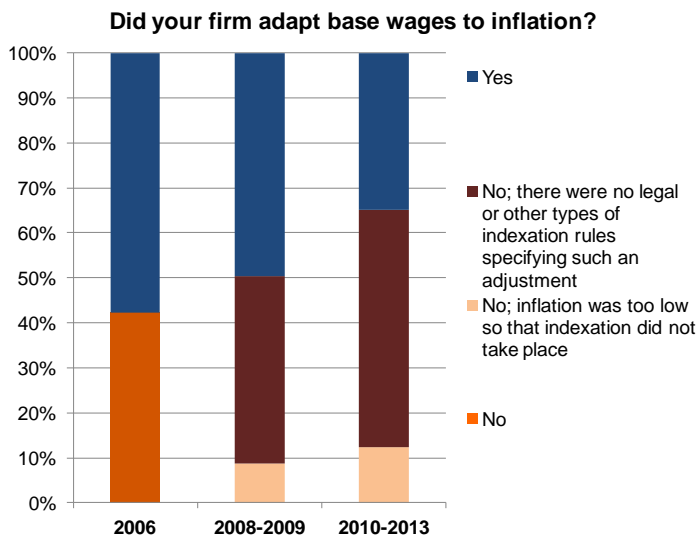
Source: 2014 BoS WDN Survey.

**Figure 10: Labour cost adjustments**



Source: 2014 BoS WDN Survey.

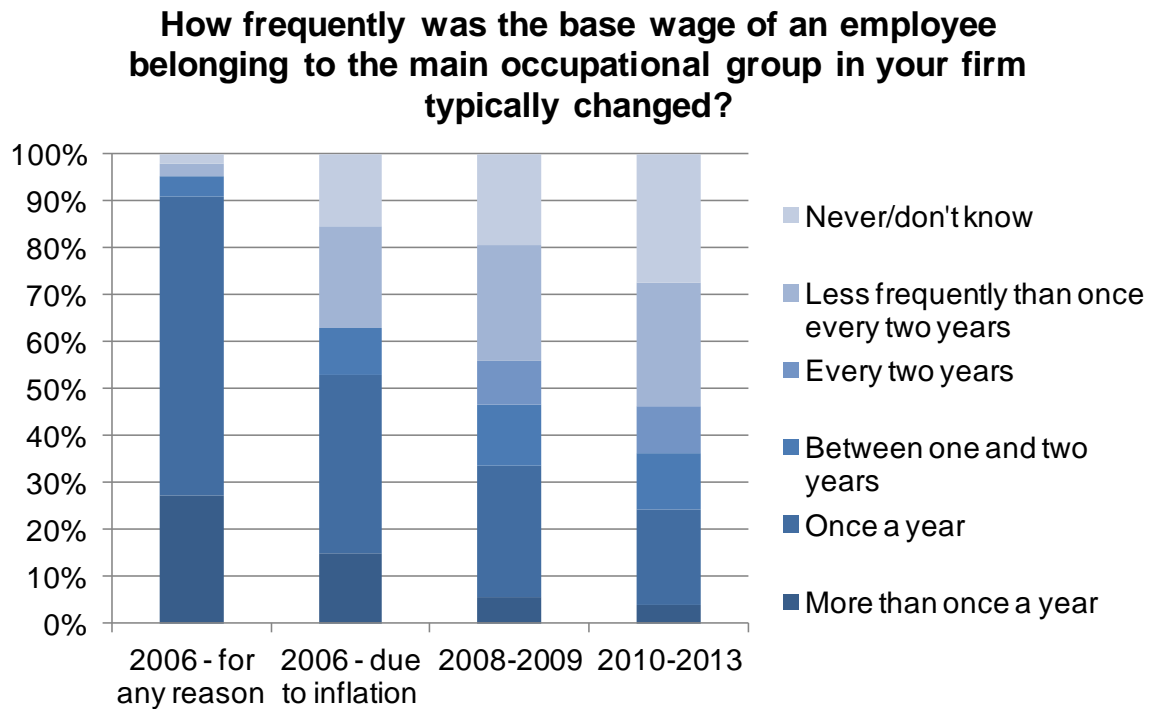
**Figure 11: Adaption of base wages to inflation**



Note: Due to different survey questions in WDN 1, detailed breakdown is not possible for 2006. Answers referring to 2008-2009 refer to responses to question pertaining to "prior to 2010", but consistent with other questions in the survey (which never refer to periods prior to 2008) are assumed to refer 2008-2009. Results are unweighted and based on 681 responses for WDN 1 and 1,286 responses for WDN 3.

Sources: 2014 and 2008 BoS WDN Surveys.

**Figure 12: Frequency of base wage changes**



Note: Due to different survey questions in WDN 1, two types of comparable responses are presented for 2006. The WDN 1 survey asked three separate questions: frequency of base wage changes due to a.) inflation, b.) tenure, c.) other reasons. Base wage changes "for any reason" represent a composite of the three answers (e.g. if a respondent indicated the frequency was "more than once a year" for one reason and "every two years" for the other two, the frequency was assumed to be "more than once a year"). Results are unweighted and based on 681 responses for WDN 1 and 1,286 responses for WDN 3.

Sources: 2014 and 2008 BoS WDN Surveys.

**Figure 13: Average base wage cut and proportion of workers or firms affected**

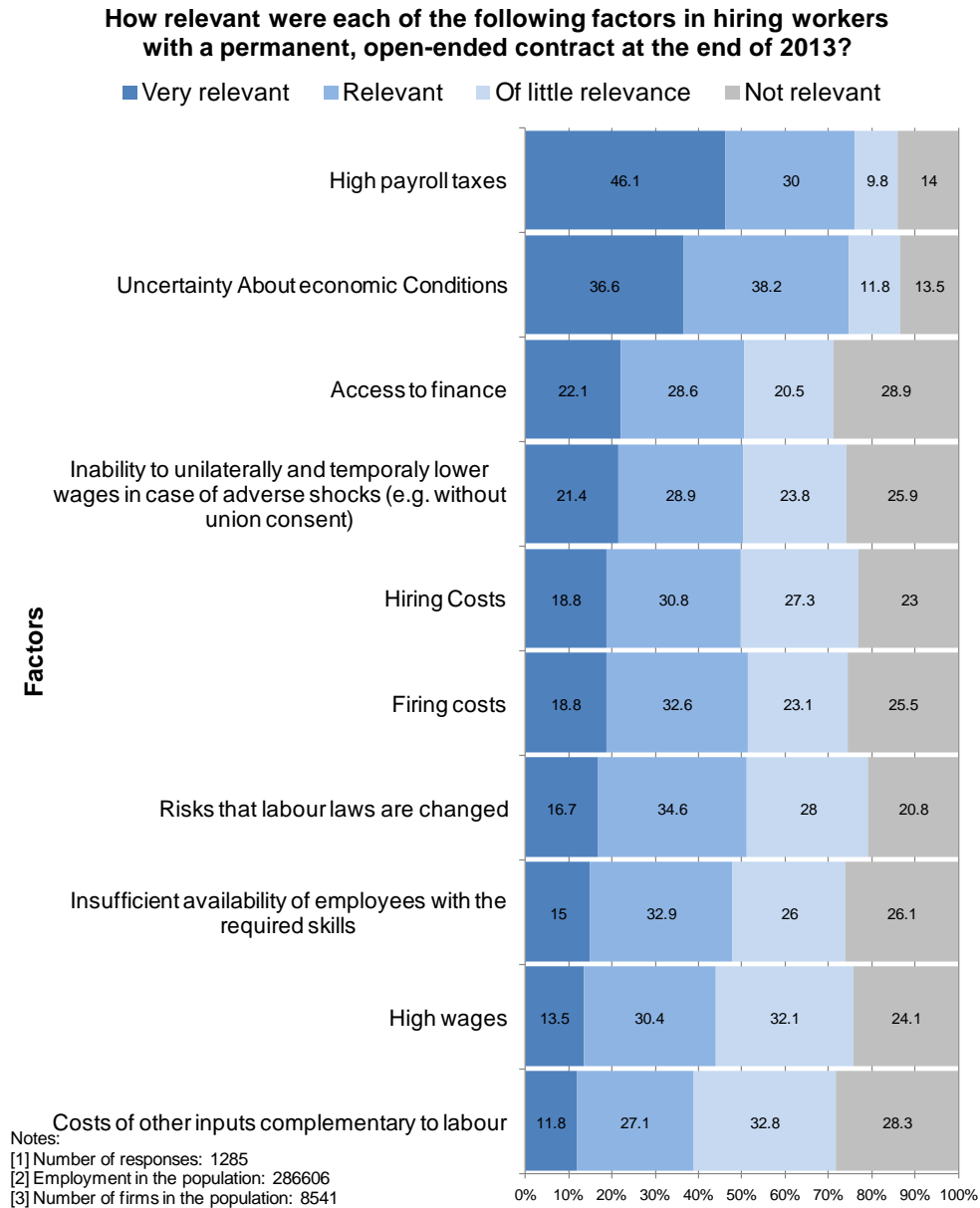


Note: The survey question in WDN 1 referred to the prior past five years (2003-2007). Results are unweighted and based on 681 responses for WDN 1 and 1,286 responses for WDN 3.

Sources: 2014 and 2008 BoS WDN Surveys.

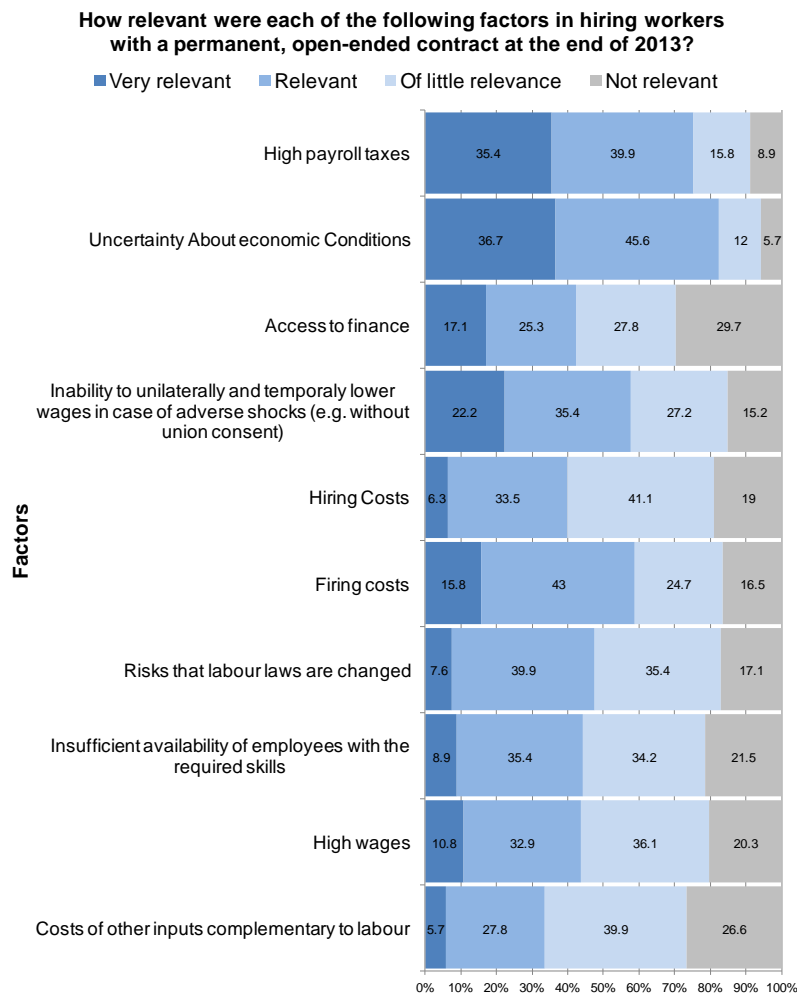


**Figure 14: Relevance of factors in hiring workers on a permanent contract**



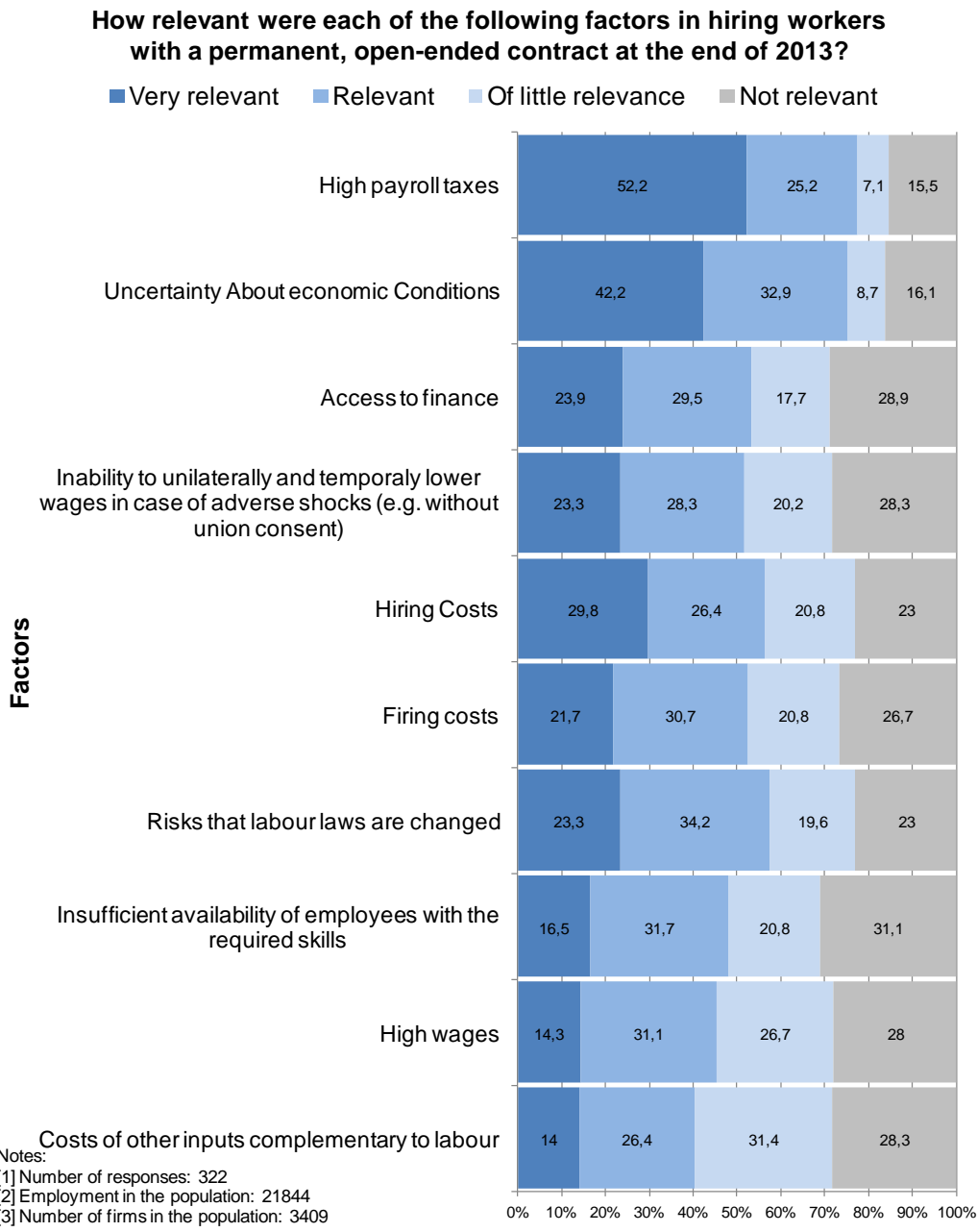
Source: 2014 BoS WDN Survey.

**Figure 15: Relevance of factors in hiring workers on a permanent contract for firms with more than 200 employees**



Source: 2014 BoS WDN Survey.

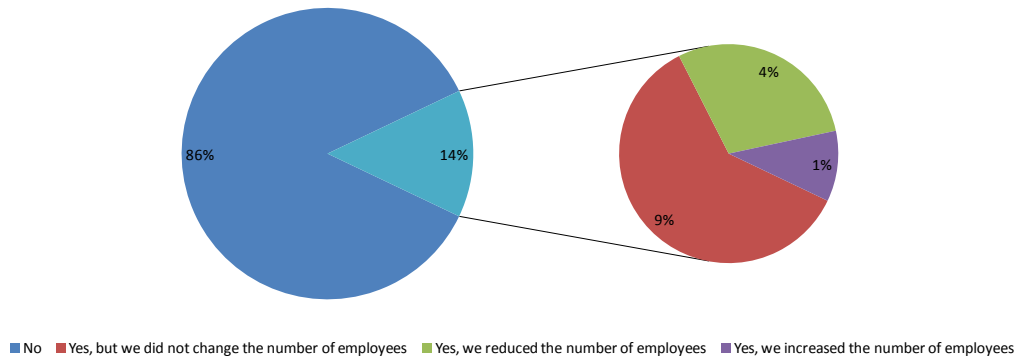
**Figure 16: Relevance of factors in hiring workers on a permanent contract for firms with less than 10 employees**



Source: 2014 BoS WDN Survey.

**Figure 17: Effects of new labour market legislation on companies' employment policy**

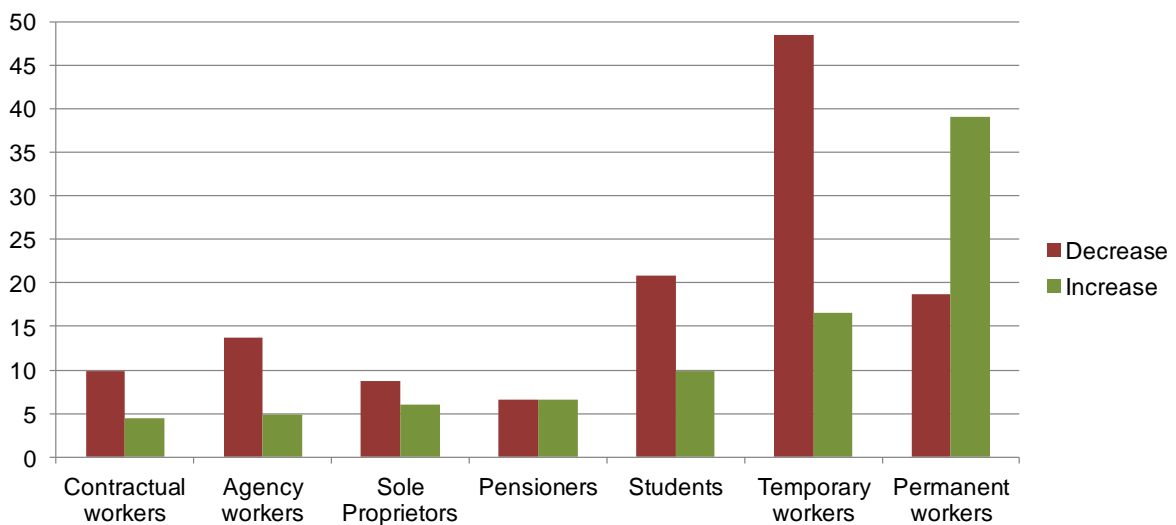
Has new labour market legislation (The Employment relationship act (ZDR) and the amendments to the Labour Market Regulation Act (ZUTD) )and other labour market policy measures affected your employment policy?



Source: 2014 BoS WDN Survey.

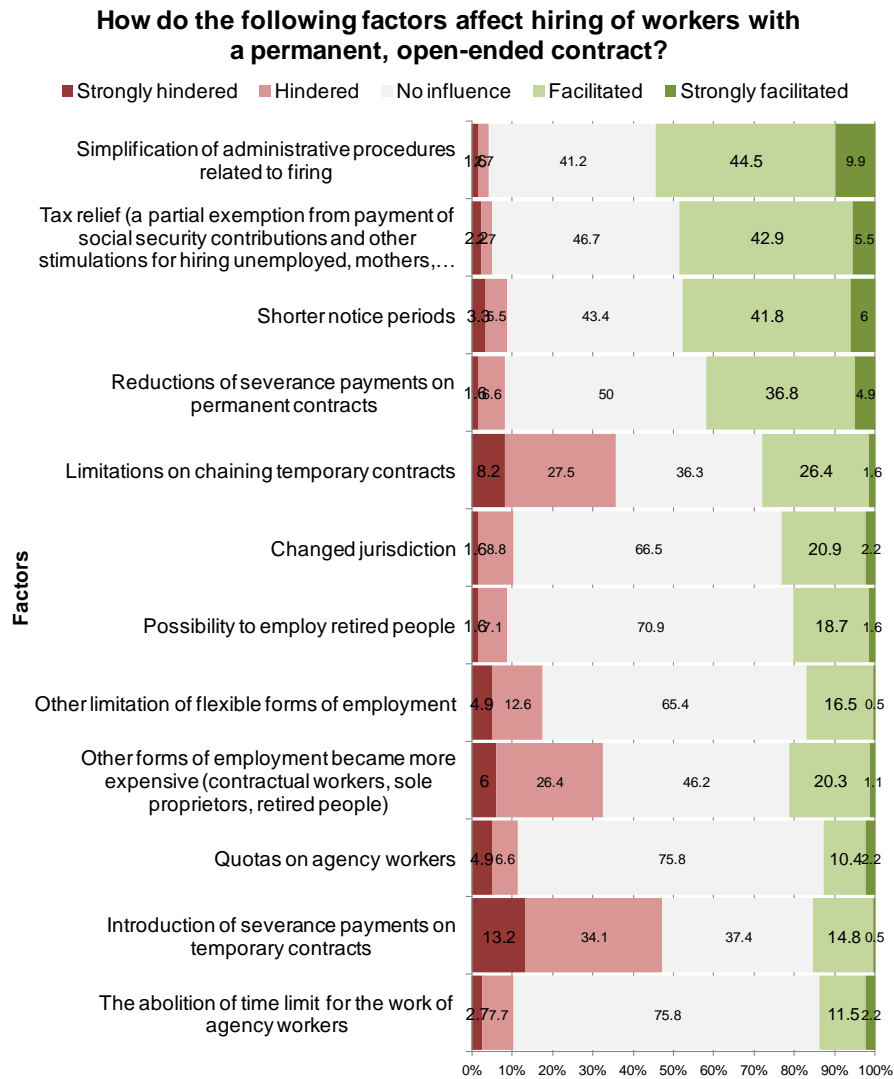
**Figure 18: Change of the share of workers with different contracts due to new labour market legislation**

How did the new labour market legislation change the share of workers with different contracts? (in %)



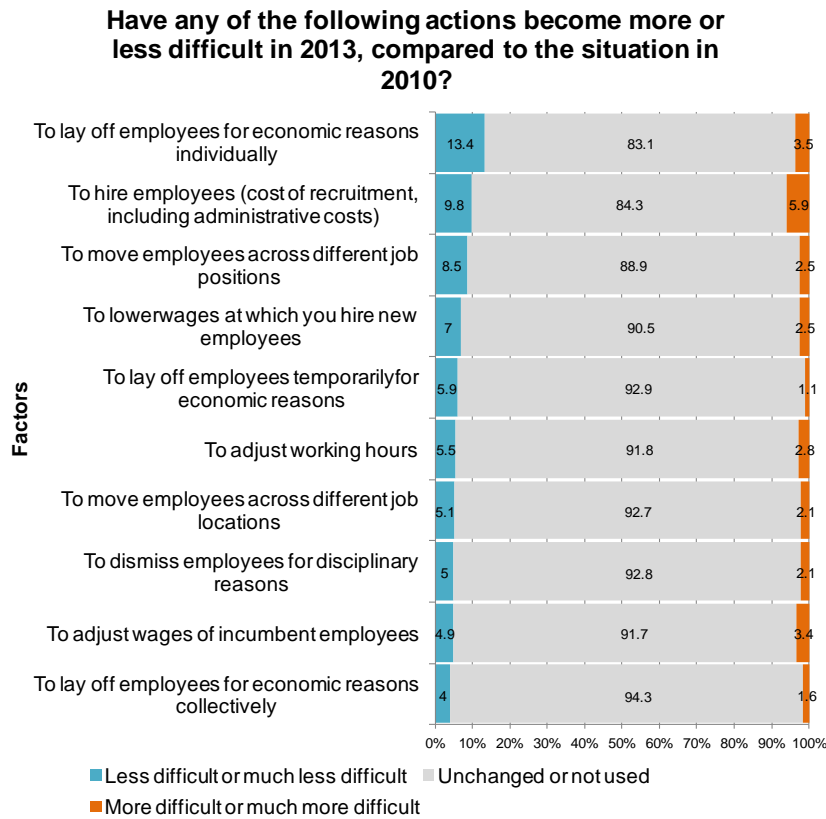
Source: 2014 BoS WDN Survey.

**Figure 19: Factors affecting hiring workers with a permanent contract**



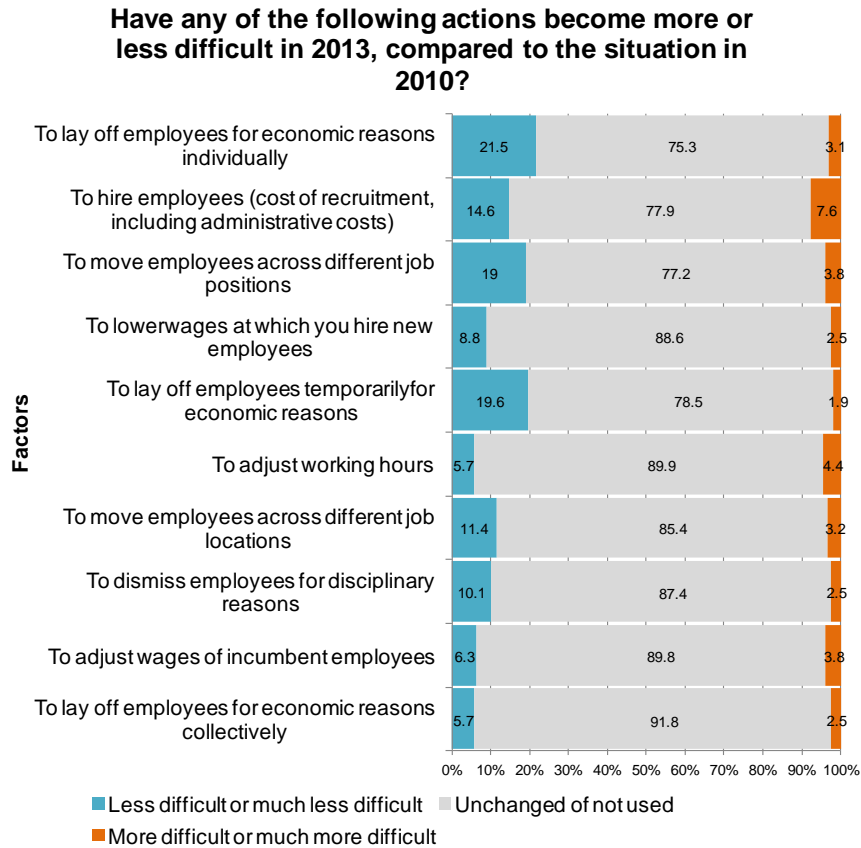
Source: 2014 BoS WDN Survey.

**Figure 20: Changes in the difficulty of labour (cost) adjustments**



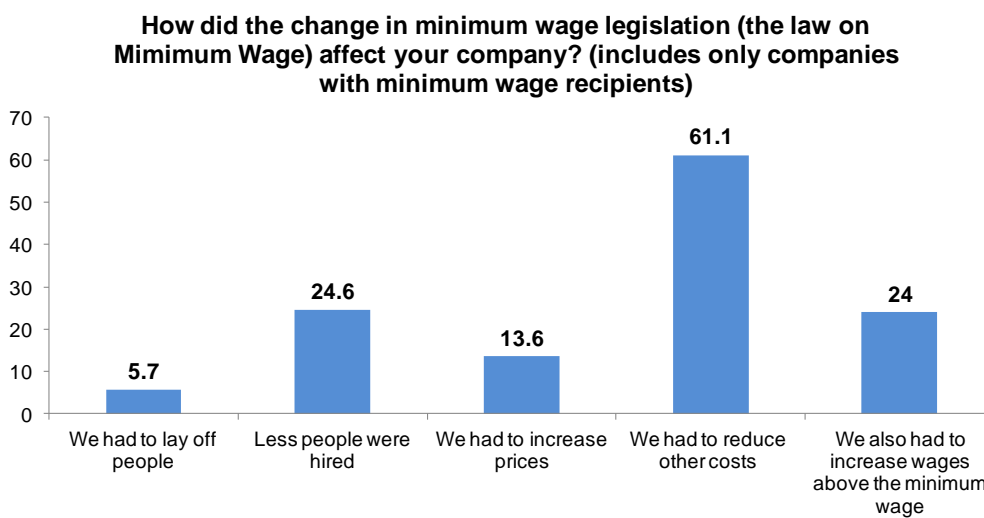
Source: 2014 BoS WDN Survey.

**Figure 21: Changes in the difficulty of labour (cost) adjustments, firms with over 200 employees**



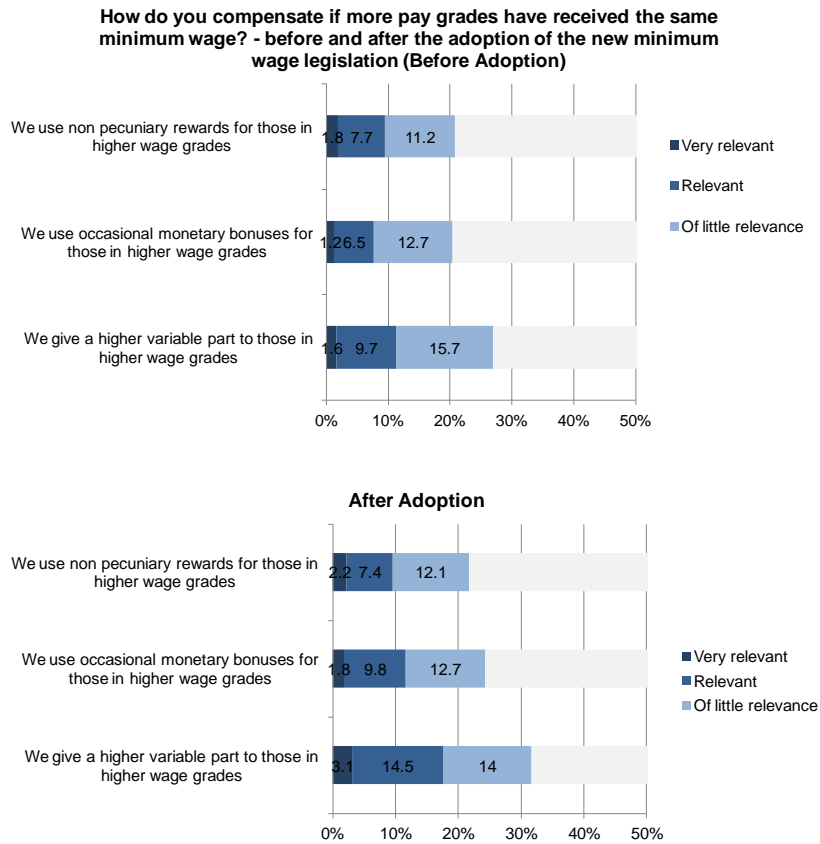
Source: 2014 BoS WDN Survey.

**Figure 22: Effect of the change in minimum wage on companies- – results weighted by employment**



Source: 2014 BoS WDN Survey.

**Figure 23: Effect of the change in minimum wage on companies- – results weighted by employment**



Source: 2014 BoS WDN Survey.



## Appendix 2: Tables

**Table 1: The employment protection legislation index in Slovenia prior to and after the change in 2013**

	The protection of an employee with a permanent employment contract against an individual and collective dismissal (EPRC)	The protection of employees with permanent employment contracts against an individual dismissal (EPR)	The additional provisions for collective dismissal (EPC)	The regulation on temporary contracts (EPT)
Slovenia – 2013 (prior to the change)	2.67	2.39	3.38	2.50
Slovenia – May 2013 (following the change)	2.39	1.99	3.38	2.13
Non-weighted OECD average	2.29	2.04	2.91	2.08

Note: The indicator runs from 0 to 6, representing the least to most restrictive EPL.

Source: OECD.

**Table 2: Response rate by size and sector**

### Response rate

*Percentage - Unweighted results*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	34.1	36.2	54.5	57.1	60.6	47.3
<b>D - ELECTRICITY</b>	33.3	n.a.	75.0	72.7	90.0	72.4
<b>E - WATER UTILITIES</b>	55.6	45.5	61.5	60.0	62.5	57.6
<b>F - CONSTRUCTION</b>	24.9	36.0	31.3	38.5	45.5	30.2
<b>G - TRADE</b>	31.4	45.8	44.3	48.2	31.4	39.1
<b>H - TRANSPORTATION</b>	25.7	43.9	47.2	44.0	56.3	37.5
<b>I - HOTELS AND RESTAURANTS</b>	14.3	35.7	48.0	36.4	50.0	33.6
<b>J - INFORMATION AND COMMUNICATION</b>	40.0	40.0	54.1	59.3	62.5	47.5
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	55.0	46.7	66.7	75.0	81.8	65.4
<b>L - REAL ESTATE ACTIVITIES</b>	30.0	53.8	60.0	60.0	n.a.	48.5
<b>M - PROFESSIONAL ACTIVITIES</b>	43.2	57.5	51.1	52.4	66.7	49.8
<b>N - ADMINISTRATIVE ACTIVITIES</b>	27.3	42.9	40.7	48.3	45.0	41.4
<b>Total</b>	31.8	41.7	48.4	54.2	57.5	42.9

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 3: Labour input reductions by size and sector, 2010-2013**

During 2010-2013, did you need to significantly reduce your labour input or to alters its composition?  
 Percentage of firms answering "Yes" - Unweighted results

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	23.0	25.8	29.1	34.1	26.0	28.5
<b>D - ELECTRICITY</b>	0.0	n.a.	0.0	0.0	11.1	4.8
<b>E - WATER UTILITIES</b>	0.0	20.0	0.0	6.7	0.0	5.3
<b>F - CONSTRUCTION</b>	39.6	33.3	25.0	36.4	20.0	34.3
<b>G - TRADE</b>	30.3	22.4	14.3	29.6	27.3	24.8
<b>H - TRANSPORTATION</b>	18.5	11.1	12.5	27.3	33.3	18.0
<b>I - HOTELS AND RESTAURANTS</b>	20.0	13.3	25.0	20.0	50.0	23.3
<b>J - INFORMATION AND COMMUNICATION</b>	50.0	25.0	15.0	37.5	60.0	33.8
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	27.3	0.0	37.5	11.1	38.9	26.4
<b>L - REAL ESTATE ACTIVITIES</b>	0.0	28.6	0.0	50.0	n.a.	20.0
<b>M - PROFESSIONAL ACTIVITIES</b>	23.5	21.4	8.7	27.3	60.0	22.0
<b>N - ADMINISTRATIVE ACTIVITIES</b>	66.7	33.3	9.1	16.7	25.0	26.9
<b>Total</b>	28.9	23.8	19.5	28.9	29.1	25.9

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 4: Share of employees covered by collective bargaining agreement – results weighted to be representative of firms**

In 2013, what percentage of your employees were covered by a CBA?

Percentage of employees - Results using firm weight

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	67.5	74.4	84.4	86.7	95.8	77.8
<b>D - ELECTRICITY</b>	100.0	n.a.	93.0	94.4	87.5	93.7
<b>E - WATER UTILITIES</b>	75.6	42.5	73.1	76.8	95.2	73.9
<b>F - CONSTRUCTION</b>	57.6	63.6	73.2	92.8	99.8	64.4
<b>G - TRADE</b>	67.1	81.0	82.5	85.7	98.1	75.6
<b>H - TRANSPORTATION</b>	49.9	43.9	59.0	43.6	74.6	50.7
<b>I - HOTELS AND RESTAURANTS</b>	97.4	84.7	78.7	97.8	92.7	90.7
<b>J - INFORMATION AND COMMUNICATION</b>	53.7	46.6	23.2	49.8	25.0	44.9
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	61.6	36.2	56.3	91.3	91.2	62.7
<b>L - REAL ESTATE ACTIVITIES</b>	93.3	91.1	95.4	95.3	n.a.	93.2
<b>M - PROFESSIONAL ACTIVITIES</b>	45.5	50.5	44.2	63.5	51.9	47.6
<b>N - ADMINISTRATIVE ACTIVITIES</b>	59.2	69.6	88.0	87.3	53.4	71.7
<b>Total</b>	62.8	68.1	71.8	82.6	88.5	68.8

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 5: Share of employees covered by collective bargaining agreement – results weighted by employment**

In 2013, what percentage of your employees were covered by a CBA?

*Percentage of employees - Results using employment weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	66.7	74.3	84.6	86.5	94.5	88.9
<b>D - ELECTRICITY</b>	100.0	n.a.	93.0	94.4	87.5	88.9
<b>E - WATER UTILITIES</b>	73.2	44.2	73.7	77.0	95.2	81.1
<b>F - CONSTRUCTION</b>	57.4	63.5	72.9	92.8	99.8	77.6
<b>G - TRADE</b>	67.1	80.7	82.7	85.5	98.1	83.6
<b>H - TRANSPORTATION</b>	49.9	44.3	58.8	44.0	77.1	59.2
<b>I - HOTELS AND RESTAURANTS</b>	97.3	84.7	78.1	97.8	92.7	90.7
<b>J - INFORMATION AND COMMUNICATION</b>	52.8	46.5	24.6	52.3	18.8	35.2
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	62.8	37.0	58.6	91.7	91.3	85.9
<b>L - REAL ESTATE ACTIVITIES</b>	93.3	91.1	95.4	95.6	n.a.	94.4
<b>M - PROFESSIONAL ACTIVITIES</b>	45.3	50.0	44.3	66.3	45.8	50.7
<b>N - ADMINISTRATIVE ACTIVITIES</b>	59.2	70.8	87.4	87.2	49.9	65.6
<b>Total</b>	62.5	67.9	71.9	82.8	86.5	79.4

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 6: Share of firms employing workers covered by firm or sectoral collective bargaining agreement, WDN 1 – results weighted to be representative of firms**

Did your firm apply a collective pay agreement at the firm level or sectoral level?

*Percentage of employees - Results using firm weight*

	Size category (number of employees)				Total
	5-19	20-49	50-199	200+	
<b>Construction</b>	50.4	46.0	100.0	90.9	51.0
<b>Energy</b>	n.a.	100.0	100.0	100.0	100.0
<b>Financial intermediation</b>	83.2	100.0	87.2	100.0	85.8
<b>Manufacturing</b>	53.4	58.7	94.6	100.0	61.9
<b>Market services</b>	44.1	33.7	81.3	77.3	43.8
<b>Trade</b>	66.0	91.2	93.5	100.0	68.2
<b>Total</b>	53.1	53.2	91.2	96.5	54.7

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses. Note that in 2006, a general collective bargaining agreement covering all private-sector workers was in effect, while this was not the case in 2013. The figures presented for WDN1 are thus directly comparable to those in WDN3.

Source: 2008 BoS WDN Survey.

**Table 7: Share of firms employing workers covered by firm or sectoral collective bargaining agreement, WDN 1 – results weighted by employment**

**Did your firm apply a collective pay agreement at the firm level or sectoral level?**

*Percentage of employees - Results using employment weight*

	Size category (number of employees)				Total
	5-19	20-49	50-199	200+	
<b>Construction</b>	52.0	56.8	100.0	90.9	73.8
<b>Energy</b>	n.a.	100.0	100.0	100.0	100.0
<b>Financial intermediation</b>	50.1	100.0	79.6	100.0	95.5
<b>Manufacturing</b>	59.7	63.6	95.7	100.0	92.6
<b>Market services</b>	43.5	47.4	76.3	70.3	60.1
<b>Trade</b>	72.6	85.5	90.6	100.0	88.8
<b>Total</b>	55.4	62.0	90.8	92.9	81.1

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses. Note that in 2006, a general collective bargaining agreement covering all private-sector workers was in effect, while this was not the case in 2013. The figures presented for WDN 1 are thus directly comparable to those in WDN 3.

Source: 2008 BoS WDN Survey.

**Table 8: Share of firms with employees who are trade union members – results weighted to be representative of firms**

**In 2013, were any employees in your firm members of a trade union?**

*Percentage of firms answering "Yes" - Results using firm weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	1.8	8.6	28.1	68.1	93.9	26.2
<b>D - ELECTRICITY</b>	0.0	n.a.	66.7	75.0	100.0	61.0
<b>E - WATER UTILITIES</b>	37.5	18.2	39.8	78.3	100.0	56.4
<b>F - CONSTRUCTION</b>	1.2	0.0	3.3	9.2	72.7	2.3
<b>G - TRADE</b>	0.0	1.4	2.8	12.9	47.1	2.6
<b>H - TRANSPORTATION</b>	3.3	0.6	10.0	42.9	100.0	9.8
<b>I - HOTELS AND RESTAURANTS</b>	22.0	6.9	30.7	53.6	100.0	21.2
<b>J - INFORMATION AND COMMUNICATION</b>	20.5	10.6	4.2	25.5	25.0	14.9
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	0.0	0.0	16.7	39.1	81.2	18.0
<b>L - REAL ESTATE ACTIVITIES</b>	0.0	42.9	66.7	100.0	n.a.	34.3
<b>M - PROFESSIONAL ACTIVITIES</b>	4.1	4.5	3.1	34.5	52.2	5.7
<b>N - ADMINISTRATIVE ACTIVITIES</b>	17.2	0.0	49.3	56.4	58.0	26.4
<b>Total</b>	4.7	4.7	15.9	50.0	81.7	13.8

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.



**Table 9: Share of firms with employees who are trade union members – results weighted by employment**

**In 2013, were any employees in your firm members of a trade union?**

*Percentage of firms answering "Yes" - Results using employment weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	1.8	8.6	27.8	67.9	95.2	71.5
<b>D - ELECTRICITY</b>	0.0	n.a.	66.7	75.0	100.0	93.7
<b>E - WATER UTILITIES</b>	35.4	20.3	44.4	78.5	100.0	77.9
<b>F - CONSTRUCTION</b>	1.3	0.0	3.2	10.2	73.6	14.5
<b>G - TRADE</b>	0.0	1.4	2.9	13.8	48.2	13.5
<b>H - TRANSPORTATION</b>	3.3	0.6	9.5	43.3	100.0	44.7
<b>I - HOTELS AND RESTAURANTS</b>	22.1	6.9	32.2	59.3	100.0	49.2
<b>J - INFORMATION AND COMMUNICATION</b>	19.5	9.6	4.7	28.8	18.8	17.0
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	0.0	0.0	14.6	39.5	80.7	64.1
<b>L - REAL ESTATE ACTIVITIES</b>	0.0	42.9	66.7	100.0	n.a.	68.6
<b>M - PROFESSIONAL ACTIVITIES</b>	4.0	4.4	3.0	39.9	46.1	17.1
<b>N - ADMINISTRATIVE ACTIVITIES</b>	17.5	0.0	49.3	55.4	57.5	50.6
<b>Total</b>	4.6	4.6	16.3	53.0	84.6	50.8

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 10: Share of firms that are members of employers' associations – results weighted to be representative of firms**

**In 2013, was your firm a member of any employer's association?**

*Percentage of firms answering "Yes" - Results using firm weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	37.9	29.6	58.8	75.2	91.5	49.7
<b>D - ELECTRICITY</b>	100.0	n.a.	100.0	100.0	100.0	100.0
<b>E - WATER UTILITIES</b>	75.0	18.2	69.0	73.9	100.0	69.7
<b>F - CONSTRUCTION</b>	33.2	45.4	38.9	57.7	51.5	39.6
<b>G - TRADE</b>	37.5	47.9	55.1	47.5	82.9	44.9
<b>H - TRANSPORTATION</b>	36.4	50.2	63.2	58.0	100.0	50.9
<b>I - HOTELS AND RESTAURANTS</b>	55.9	19.6	33.3	100.0	100.0	44.2
<b>J - INFORMATION AND COMMUNICATION</b>	50.8	24.8	54.8	60.8	81.3	45.7
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	20.9	44.2	66.1	60.9	76.4	45.6
<b>L - REAL ESTATE ACTIVITIES</b>	66.7	42.9	100.0	0.0	n.a.	57.8
<b>M - PROFESSIONAL ACTIVITIES</b>	35.4	52.8	78.6	75.4	17.4	48.0
<b>N - ADMINISTRATIVE ACTIVITIES</b>	60.9	58.7	47.4	39.1	70.5	54.8
<b>Total</b>	39.7	40.9	57.5	65.9	85.7	47.3

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 11: Share of firms that are members of employers' associations – results weighted by employment**

**In 2013, was your firm a member of any employer's association?**

*Percentage of firms answering "Yes" - Results using employment weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	37.4	29.9	58.8	75.3	92.9	78.3
<b>D - ELECTRICITY</b>	100.0	n.a.	100.0	100.0	100.0	100.0
<b>E - WATER UTILITIES</b>	74.0	20.3	69.6	73.4	100.0	79.6
<b>F - CONSTRUCTION</b>	33.1	45.5	39.6	57.7	52.7	46.4
<b>G - TRADE</b>	37.5	47.9	54.6	46.1	82.8	54.1
<b>H - TRANSPORTATION</b>	36.4	50.0	62.2	56.9	100.0	70.0
<b>I - HOTELS AND RESTAURANTS</b>	55.8	19.6	33.3	100.0	100.0	66.5
<b>J - INFORMATION AND COMMUNICATION</b>	50.3	24.9	54.4	56.8	68.9	55.1
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	20.5	45.2	59.8	60.5	76.0	69.5
<b>L - REAL ESTATE ACTIVITIES</b>	66.7	42.9	100.0	0.0	n.a.	38.6
<b>M - PROFESSIONAL ACTIVITIES</b>	35.4	53.2	79.2	75.9	11.7	55.8
<b>N - ADMINISTRATIVE ACTIVITIES</b>	61.0	60.3	48.5	35.7	68.9	56.8
<b>Total</b>	39.5	41.1	57.5	66.2	86.5	68.1

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 12: Relative probability of layoffs, wage cuts or inaction – estimates from multinomial logistic regressions**

Probabilities of firms resorting to layoffs and/or wage cuts			
Relative risk ratios from multinomial logistic regression estimates			
	Neither layoffs nor wage cuts (1)	Layoffs but not wage cuts (2)	Both layoffs and wage cuts (3)
<b>Dummy variable for economic activity (omitted group: manufacturing)</b>			
Utilities	5.310*** (1.097)		1.092 (1.295)
Construction	0.644*** (0.107)	(baseline)	0.968 (0.369)
Trade & Transport	1.437* (0.286)		1.504 (0.682)
Business Services	1.091 (0.207)		1.857** (0.514)
<b>Dummy variable for firm size (omitted group: 200 employees or over)</b>			
5-9 employees	1.309 (0.348)		0.498* (0.178)
10-19 employees	1.730* (0.512)	(baseline)	0.489* (0.199)
20-49 employees	1.589 (0.468)		0.803 (0.300)
50-199 employees	1.312 (0.329)		0.978 (0.253)
<b>Variables for external factors</b>			
Exporter	0.868 (0.137)		0.716 (0.152)
Decline in customer ability to pay	0.914 (0.179)		0.823 (0.252)
Decline in input availability	0.731 (0.176)	(baseline)	0.856 (0.263)
Decline in demand	0.245*** (0.0477)		0.593** (0.158)
Decline in financing ability	0.558*** (0.105)		1.711** (0.417)
<b>Baseline risk ratio (constant)</b>			
	9.140*** (2.848)		0.941 (0.424)
Observations	882	253	151
Pseudo R-squared		0.1047	

Standard errors clustered by 2-digit NACE 2.1 sector in brackets

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Note: Coefficients represent relative risk ratios from multinomial logistic regressions where the baseline refers to firms who indicated they had cut employment, but not wages. Coefficients greater than 1 indicate relatively higher probabilities of observing the given outcome indicated in the column based on the predictor variable, whereas coefficients less than 1 indicated relatively lower probabilities; joint effects can be calculated by multiplying the relevant coefficients. Since the relative risk ratios are obtained by exponentiating the multinomial logit coefficients, they are bounded below by zero. No firms reported cutting wages without layoffs. The dependent variable is constructed based on questions 4.10: "Over 2008-2013, did you freeze or cut base wages in a given year?" and questions 3.3b: "Which of the following measures did you use to reduce your labour input or alter its composition, when it was most urgent?" Firms responding that any type of layoffs were at all relevant were deemed to have engaged in layoffs (note that this excluded the options referring to hiring freezes or downsizing from quits). Standard errors are clustered by 2-digit NACE 2.1 sector.

Source: own calculations based on 2014 BoS WDN Survey.

**Table 13: Relevance of inability to unilaterally lower wages**

**Inability to unilaterally temporarily lower wages in the event of a negative shock (without union consent)**  
*Percentage of firms indicating this factor was "Relevant" or "Very relevant" - Unweighted results*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	64.9	45.5	54.4	57.4	63.6	57.4
<b>D - ELECTRICITY</b>	100.0	n.a.	33.3	25.0	33.3	33.3
<b>E - WATER UTILITIES</b>	40.0	60.0	50.0	53.3	40.0	50.0
<b>F - CONSTRUCTION</b>	58.5	53.3	50.0	63.6	60.0	56.0
<b>G - TRADE</b>	50.0	38.8	37.1	40.7	54.5	43.2
<b>H - TRANSPORTATION</b>	44.4	44.4	41.7	45.5	88.9	48.3
<b>I - HOTELS AND RESTAURANTS</b>	80.0	46.7	50.0	80.0	100.0	62.8
<b>J - INFORMATION AND COMMUNICATION</b>	40.0	43.8	30.0	43.8	60.0	40.3
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	27.3	14.3	62.5	44.4	22.2	32.1
<b>L - REAL ESTATE ACTIVITIES</b>	33.3	28.6	0.0	0.0	n.a.	20.0
<b>M - PROFESSIONAL ACTIVITIES</b>	41.2	52.4	43.5	54.5	40.0	46.2
<b>N - ADMINISTRATIVE ACTIVITIES</b>	33.3	46.7	72.7	66.7	62.5	57.7
<b>Total</b>	51.6	45.2	47.2	53.1	57.6	50.3

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 14: Minimum wage recipients prior to minimum wage increase**

**Share of minimum wage recipients prior to March 2010 increase**  
*Percentage - Results using employment weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	6.9	7.8	4.2	7.8	2.2	4.6
<b>D - ELECTRICITY</b>	0.0	n.a.	0.0	0.7	0.0	0.1
<b>E - WATER UTILITIES</b>	0.0	7.2	9.6	4.7	0.6	4.1
<b>F - CONSTRUCTION</b>	25.1	24.2	19.9	3.9	5.4	15.5
<b>G - TRADE</b>	7.7	6.4	2.2	3.0	5.3	4.6
<b>H - TRANSPORTATION</b>	12.8	23.6	8.7	19.8	0.4	10.5
<b>I - HOTELS AND RESTAURANTS</b>	48.0	34.0	30.8	8.3	8.2	22.9
<b>J - INFORMATION AND COMMUNICATION</b>	4.1	3.6	1.8	4.8	0.5	2.6
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	3.7	0.0	1.2	3.8	0.5	1.1
<b>L - REAL ESTATE ACTIVITIES</b>	20.0	6.1	9.0	3.1	n.a.	7.3
<b>M - PROFESSIONAL ACTIVITIES</b>	1.5	1.5	2.5	9.5	6.3	4.1
<b>N - ADMINISTRATIVE ACTIVITIES</b>	30.4	11.1	36.1	38.2	45.1	39.4
<b>Total</b>	12.3	11.7	9.8	8.4	7.2	8.0

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.



**Table 15: Minimum wage recipients after minimum wage increase**

Share of minimum wage recipients after March 2010 increase

*Percentage - Results using employment weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	8.1	8.5	8.7	12.6	5.1	8.0
<b>D - ELECTRICITY</b>	0.0	n.a.	0.0	0.7	0.0	0.1
<b>E - WATER UTILITIES</b>	0.0	6.0	19.1	6.2	1.5	6.5
<b>F - CONSTRUCTION</b>	28.2	22.5	24.6	5.2	8.2	17.4
<b>G - TRADE</b>	8.8	8.1	2.5	11.0	17.8	9.6
<b>H - TRANSPORTATION</b>	19.3	24.6	10.2	20.0	0.7	11.6
<b>I - HOTELS AND RESTAURANTS</b>	48.0	34.7	43.0	18.0	13.1	28.4
<b>J - INFORMATION AND COMMUNICATION</b>	6.8	8.4	1.7	4.6	1.0	3.6
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	16.3	0.0	1.2	3.8	1.8	2.5
<b>L - REAL ESTATE ACTIVITIES</b>	26.7	8.4	9.0	5.5	n.a.	9.7
<b>M - PROFESSIONAL ACTIVITIES</b>	3.4	2.6	2.5	9.1	31.7	7.8
<b>N - ADMINISTRATIVE ACTIVITIES</b>	30.4	12.8	38.3	44.7	53.2	45.7
<b>Total</b>	14.4	12.6	11.7	11.9	11.2	11.3

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 16: Firms with minimum wage recipients prior to minimum wage increase**

Share of firms with minimum wage recipients prior to March 2010 increase

*Percentage - Results using employment weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	16.6	21.7	25.1	53.9	47.4	44.4
<b>D - ELECTRICITY</b>	0.0	n.a.	0.0	25.0	0.0	4.0
<b>E - WATER UTILITIES</b>	0.0	47.5	57.0	34.7	20.9	33.3
<b>F - CONSTRUCTION</b>	38.4	44.6	56.7	32.1	41.7	43.0
<b>G - TRADE</b>	12.8	15.2	20.6	46.4	96.4	39.3
<b>H - TRANSPORTATION</b>	16.5	38.4	39.2	75.5	22.2	39.2
<b>I - HOTELS AND RESTAURANTS</b>	88.5	68.5	66.7	39.6	100.0	72.5
<b>J - INFORMATION AND COMMUNICATION</b>	12.2	14.2	10.9	22.1	9.4	13.7
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	16.7	0.0	8.0	8.8	19.9	16.6
<b>L - REAL ESTATE ACTIVITIES</b>	33.3	42.9	33.3	39.3	n.a.	37.9
<b>M - PROFESSIONAL ACTIVITIES</b>	6.5	7.4	6.7	24.1	42.2	15.1
<b>N - ADMINISTRATIVE ACTIVITIES</b>	46.7	17.4	74.9	91.9	89.7	82.2
<b>Total</b>	22.2	25.6	28.0	39.7	48.3	41.0

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

**Table 17: Firms with minimum wage recipients after minimum wage increase**

Share of firms with minimum wage recipients after March 2010 increase

*Percentage - Results using employment weight*

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
<b>C - MANUFACTURING</b>	18.6	24.8	39.4	63.6	52.8	51.8
<b>D - ELECTRICITY</b>	0.0	n.a.	0.0	25.0	0.0	4.0
<b>E - WATER UTILITIES</b>	0.0	47.5	71.8	39.1	33.1	41.2
<b>F - CONSTRUCTION</b>	41.9	46.5	56.7	32.1	52.7	45.6
<b>G - TRADE</b>	14.3	20.2	23.2	56.6	100.0	44.3
<b>H - TRANSPORTATION</b>	26.4	38.4	39.2	75.5	22.2	40.0
<b>I - HOTELS AND RESTAURANTS</b>	88.5	68.5	73.6	80.2	100.0	83.1
<b>J - INFORMATION AND COMMUNICATION</b>	16.7	28.2	17.9	22.1	28.4	23.3
<b>K - FINANCIAL AND INSURANCE ACTIVITIES</b>	29.9	0.0	8.0	8.8	24.6	20.4
<b>L - REAL ESTATE ACTIVITIES</b>	33.3	57.1	33.3	39.3	n.a.	40.5
<b>M - PROFESSIONAL ACTIVITIES</b>	10.2	9.9	6.7	24.1	42.2	16.4
<b>N - ADMINISTRATIVE ACTIVITIES</b>	46.7	17.4	79.6	91.9	89.7	82.6
<b>Total</b>	25.2	29.0	32.7	46.5	54.4	46.5

Note: n.a. denotes strata in which no firms exist in Slovenia. Statistics are based on 1,286 responses.

Source: 2014 BoS WDN Survey.

## **Appendix 3: WDN 3 survey**



## WDN SURVEY

### Information about the respondent

Name and surname

Position in the firm

Telephone number or e-mail address

## Information about the firm

### 1.1 Where did your firm operate at the end of 2013?

- At one location
- At more locations

### What is the ownership status of your firm at the end of 2013?

- Mainly domestic
- Mainly foreign

### What is the autonomy of your firm at the end of 2013?

- Parent company<sup>1</sup>
- Subsidiary/affiliate<sup>2</sup>
- Does not apply<sup>3</sup>

## Changes in the economic environment

This section aims at assessing the main changes in economic environment your firm suffered during 2010-2013.

### 2.1 How did the following factors affect your firm's activity affected during 2010-2013?

Please choose ONE option for each line.

	<b>Strong decrease</b>	<b>Moderate decrease</b>	<b>Unchanged</b>	<b>Moderate increase</b>	<b>Strong increase</b>
The level of demand for your products/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volatility/uncertainty of demand for your products/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to external financing your firm's activity through the usual financial channels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers' ability to pay and meet contractual terms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of supplies from your usual suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>1</sup> Parent company: The parent company is a company which has subsidiaries in foreign countries.

<sup>2</sup> Subsidiary/affiliate: Subsidiary/affiliate of a foreign company is a company in which a foreign investor has a decisive role in management.

<sup>3</sup> The company operates in Slovenia and only reaches its decisions, but it does not have subsidiaries in other countries.

**2.2 For those factors which affected your firm, were the effects transitory, only partly persistent, long-lasting, or not relevant during 2010-2013?**

Please choose ONE option for each line.

	Transitory	Only partly persistent	Long-lasting	Not relevant
The level of demand for your products/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volatility/uncertainty of demand for your products/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to external financing needed for financing your firm's usual activity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers' ability to pay and meet contractual terms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to supplies from your firm's usual suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**2.3 With regard to financing, please indicate for 2010-2013 how relevant were each of the following factors.**

Please choose ONE option for each line.

	Not relevant	Of little relevance	Relevant	Very relevant
Credit was not available to finance working capital <sup>4</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credit was not available to finance new investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credit was not available to refinance debt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credit was available to finance working capital, but conditions (interest rate and other contractual terms) were too onerous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credit was available to finance new investment, but conditions (interest rate and other contractual terms) were too onerous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Credit was available to refinance debt, but conditions (interest rate and other contractual terms) were too onerous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>4</sup> Working capital: Inventories and operating receivables.

**2.4 Please indicate how the labour cost components listed below changed during 2010-2013.**

Please choose ONE option for each line.

	<b>Strong decrease</b>	<b>Moderate decrease</b>	<b>Unchanged</b>	<b>Moderate increase</b>	<b>Strong increase</b>	<b>Not relevant</b>
Base wages <sup>5</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible wage components <sup>6</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of permanent employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of temporary/fixed-term employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of agency workers and others (without students) <sup>7</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working hours per employee	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**2.5 How did prices and demand for your main product evolve during 2010-2013?**

Please choose ONE option for each line.

	<b>Strong decrease</b>	<b>Moderate decrease</b>	<b>Unchanged</b>	<b>Moderate increase</b>	<b>Strong increase</b>	<b>Not relevant</b>
Domestic demand for your main product/service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign demand for your main product/service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prices of your main product in domestic markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prices of your main product in foreign markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>5</sup> Base wage: the total nominal gross wage without the variable part and other supplements.

<sup>6</sup> Flexible wage components: bonuses, fringe benefits, etc.

<sup>7</sup> Agency workers and others: agency workers, freelance workers, sole proprietors, students and pensioners.

## Labour force adjustments

### 3.1 How many employees did your firm have on the payroll at the end of 2008?

Permanent full-time <sup>8</sup>	<input type="text"/>
Temporary or Fixed-term <sup>9</sup>	<input type="text"/>
Permanent part-time <sup>10</sup>	<input type="text"/>
Total number of employees <sup>11</sup>	<input type="text"/>
Agency workers and others	<input type="text"/>

### If your company is strongly influenced by seasonal factors, how many people were employed on average in 2008?

The number of temporary employees	<input type="text"/>
The number of agency workers and others	<input type="text"/>

### How many employees did your firm have on the payroll at the end of 2013?

Permanent full-time	<input type="text"/>
Temporary or Fixed-term	<input type="text"/>
Permanent part-time	<input type="text"/>
Total number of employees	<input type="text"/>
Agency workers and others	<input type="text"/>

<sup>8</sup> Permanent full-time: Those with employment contracts that do not set a termination date, and whose regular working hours are the same as the collectively agreed or customarily worked.

<sup>9</sup> Temporary or Fixed term: Those with employment contracts that set a termination date or a specific period of employment (also include apprenticeships).

<sup>10</sup> Permanent part-time: Those with employment contracts that do not set a termination date, and whose regular working hours are less than those specified for permanent full-time.

<sup>11</sup> Employees: Include all type of employees, i.e. those with employment contracts. Agency and other workers are excluded).



**If your company is strongly influenced by seasonal factors, how many people were employed on average in 2013?**

The number of temporary employees

The number of agency workers and others

**3.2 At the end of 2013, how were your firm's employees approximately distributed across the following occupational groups?**

**Total (=100%)**

Higher skilled white-collar (ISCO: 1, 2, 3)

 %

Lower skilled white-collar (ISCO: 4 in 5)

 %

Higher skilled blue-collar (ISCO: 7 in 8)

 %

Lower skilled blue-collar (ISCO: 9)

 %

**Note to question 3.2.**

Groups according to the ISCO-08 Structure

- 1 Managers
- 2 Professionals
- 3 Technicians and associate professionals
- 4 Clerical support workers
- 5 Service and sales workers
- 6 Skilled agricultural, forestry and fishery workers
- 7 Craft and related trades workers
- 8 Plant and machine operators, and assemblers
- 9 Elementary occupations

**At the end of 2013, how were your firm's employees approximately distributed according to job tenure<sup>12</sup>?**

**Total (=100%)**

Less than 1 year (new employees in 2013)  %  
Between 1 and 5 years  %  
More than 5 years  %

**3.3a During 2010-2013 did you need to significantly reduce your labour input or to alters its composition?**

- Yes  
 No

---

<sup>12</sup> Job tenure: (OECD definition) is typically measured by the length of time workers have been in their current job or with their current employer, and so refers to continuing spells of employment.

**3.3b Which of the following measures did you use to reduce your labour input or alter its composition, when it was most urgent?**

Please choose ONE option for each line.

	<b>Not at all</b>	<b>Marginally</b>	<b>Moderately</b>	<b>Strongly</b>
Collective layoffs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individual layoffs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subsidized temporary layoffs (the Partial Reimbursement of Payment Compensation) <sup>13</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-subsidized temporary layoffs (Labour Relations Act ) <sup>14</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subsidised reduction of working hours (e.g. the Partial Subsidising of Full-Time Work) <sup>15</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-subsidised reduction of working hours (including reduction of overtime)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-renewal of temporary contracts at expiration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Early retirement schemes <sup>16</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Freeze or reduction of new hires	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Layoffs of student workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Layoffs of sole proprietors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduction of agency workers and others (without students and sole proprietors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>13</sup> The Partial Reimbursement of Payment Compensation was in force between May 2009 to March 2011. Edited by the partial reimbursement of compensation paid to the employees on "temporary layoff". An employer may place on hold a maximum of 50% of its workforce and to be paid compensation amounting to 85% of his average salary during the last three months. The state is to reimburse the employer 50% of the salary. Workers on temporary layoff had the right and obligation to 20% of the time spent on training. Training programs has been provided by the employer, the state has co-financed the training costs of EUR 500 per worker.

<sup>14</sup> Labour Relations Act has been in force since April 2013. Employer may temporarily lay worker for more than 6 months in any calendar year in order to maintain employment. In the meantime, the worker is entitled to wage compensation and 80% of his average salary over the last three months. During this period, the employee is obliged to educate.

<sup>15</sup> The Partial Reimbursement of Payment Compensation has been in force since May 2009 to March 2011. Edited by the partial reimbursement of compensation paid to the employees on "temporary layoff". An employer may place on hold a maximum of 50% of its workforce and to be paid compensation amounting to 85% of his average salary during the last three months. The state is the employer reimburse 50% of the salary. Workers on temporary layoff had the right and obligation to 20% of the time spent on training. Training programs has been provided by the employer, the state has co-financed the training costs of EUR 500 per worker.

<sup>16</sup> Early retirement schemes is to be understood as measures allowing persons being made redundant to receive a monthly pension and / or lump sum payment before reaching the statutory retirement age.

**3.4 Have any of the following actions become more or less difficult in 2013, compared to the situation in 2010? (in April 2013 the act of the Partial Subsidising of Full-Time Work (ZDR) and the Labour Market Regulation Act (ZUTD) entered into force<sup>17</sup>).**

**Please choose ONE option for each line.**

	<b>Much less difficult</b>	<b>Less difficult</b>	<b>Unchanged</b>	<b>Difficult</b>	<b>More difficult</b>	<b>Not used</b>
To lay off employees for economic reasons (collectively)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To lay off employees for economic reasons (individually)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To dismiss employees for disciplinary reasons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To lay off employees temporarily for economic reasons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To hire employees (cost of recruitment, including administrative costs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To adjust working hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To move employees to positions in other locations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To move employees across different job positions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To adjust wages of incumbents employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To lower wages at which you hire new employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>17</sup> ZDR and ZUTD entered into force on the 12th of April 2013 and introduced shorter notice periods, reduction in severance payments for permanent employees, introduction of severance payments for temporary contracts, simplification of administrative procedures related to hiring and firing, quotas to agency workers (up to 25% of headcount), sole proprietors who generate more than 80% of their revenue with a single client have the right to demand limited employment protection rights from him and pensioners are allowed to engage in temporary occasional work.

**3.5 To what extent did the following factors impede hiring of workers with a permanent contract at the end of 2013?**

Please choose ONE option for each line.

	Not relevant	Of little relevance	Relevant	Very relevant
Uncertainty about economic conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insufficient availability of employees with the required skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to finance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High firing costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High hiring costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High payroll taxes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High prescribed wages <sup>18</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk that labour laws are changed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Costs of other inputs complementary to labour <sup>19</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inability to unilaterally temporarily lower wages in the event of a negative shock (without union consent)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**3.6 What is the proportion of non-taxable income (such as expenses for meals and transportation cover labour costs)? Please specify the % of total labour costs.**

%

**3.7 Has new labour market legislation (The Employment Relationship Act (ZDR) and the Labour Market Regulation Act (ZUTD) and other labour market policy measures affected your employment policy?**

- Yes  
 No

<sup>18</sup> Statutory earnings can be set with the minimum wage, the tariff classes in collective agreements, the Labour Relations Act (e.g., a seniority bonus) etc.

<sup>19</sup> For example, if a company employees an office worker, they also need to provide computer, desk etc. for him or her.

**3.8 If your company was affected by the new labour market legislation and other labour market policy measures, how did that change the share of workers with different contracts?**

Please choose ONE option for each line.

	Decrease	Unchanged	Increase	Not relevant
Permanent workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temporary workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agency workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Workers with project contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pensioners (temporary work)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sole proprietors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**3.9 If your company was affected by the new labour market legislation and other labour market policy measures, did you change the number of employees?**

- Yes, we reduced the number of employees
- Yes, we increased the number of employees
- No

**3.10 How have the following factors affected your decision of whether to employ permanent contract workers?**

Please choose ONE option for each line.

	<b>Strongly hindered</b>	<b>Hindered</b>	<b>No influence</b>	<b>Facilitated</b>	<b>Strongly facilitated</b>
Introduction of severance pay for fixed-contract workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reductions in severance pay for workers with indefinite contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduced advanced notice periods for layoffs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Simplification of administrative procedures related to firing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possibility of employing retired people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduction of quotas on agency workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abolishment of restrictions on agency worker contract durations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restrictions on fixed-term employment contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased taxation of other forms of employment (employment contracts, sole proprietors, employment of pensioners)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other restrictions on the use of flexible forms of employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tax relief (a partial exemption from payment of social security contributions and other stimulations for hiring unemployed, mothers, young and old workers )	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changed jurisprudence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**If there is any other factor which significantly affected your decision to hire permanent contract workers, please indicate it below.**

	<b>Strong hindered</b>	<b>Hindered</b>	<b>No influence</b>	<b>Facilitated</b>	<b>Strongly facilitated</b>
Indicate its impact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Wage adjustments

### 4.1 In 2013: What percentage of your firm's wage bill<sup>20</sup> was comprised of flexible wage components?

%

### 4.2a In 2013, did your firm apply a collective pay agreement?

- At the firm level No Yes
- Outside of the firm (at the national, regional, sectoral or occupational level)
- (If yes, please specify)

### 4.2b What is the proportion of your employees covered in 2013 by any collective pay agreement?

%

### 4.3 How often does the collective pay agreement applied at you firm typically change?

- More than once a year
- Once a year
- Between one and two years
- Every two years
- Less frequently than once every two years
- Never/Not applicable

### 4.4 If your company has a collective pay agreement at the firm level, is there a determined the amount of severance payment for the case when an employer terminates an employment contract?

- No, we use the stipulations from higher level collective bargaining agreements or from the Law on labour relations
- Yes (specify the conditions below):

---

<sup>20</sup> Total costs= Operating expenses: include costs of merchandise, material and services, labour costs, write-downs in value and provisions and other external charges.



**4.5 If your company has a collective pay agreement at the firm level, is there the length of the notice period determined for the case of ordinary termination of the employment contract by the employer?**

- No, we use the stipulations from higher level collective bargaining agreements or from the Law on labour relations
- Yes (specify the conditions below):

**4.6 Is your firm a member of any employer's union (e.g. ZDS, GZS)? If yes, which one(s)?**

- No
- Yes, we are members of (please specify)

**4.7 Do any of your employees belong to a union? If yes, which one(s)?**

- No
- Yes, we are members of (please specify)

**4.8 Did your firm adapt changes in base wages to inflation before 2010? And during 2010-2013?**

Under the coordination of the movement of basic wages do not fall within the indexation of the minimum wage, which is required under the law.

Please choose ONE option for each line.

	Yes	Inflation was too low so that indexation did not take place	There were no legal or other types of indexation rules specifying such an adjustment
Before 2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2010-2013	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**4.9 How frequently was the base wage of an employee belonging to the main occupational group in your firm (largest group in Question C3.2) typically changed in your firm?**

The base wage is the total nominal gross wage without the variable component and other benefits. Minimum wage increases mandated by law should not be considered to constitute indexation.

Please choose ONE option for each line.

	More than once a year	Once a year	Between one and two years	Every two years	Less frequently than once every two years	Never
Before 2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2010-2013	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**4.10 Over 2008-2013, did you freeze or cut base wages in a given year (please indicate in which years)?**

Freeze in base wage: base wage in nominal terms remains unchanged (from a revision to the next).

	Base wages were frozen	Base wages were cut	Base wages were neither frozen nor cut
2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2011	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2012	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2013	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**What percentage of workers was affected by the base wage freeze?**

2010	<input type="text"/>	%
2011	<input type="text"/>	%
2012	<input type="text"/>	%
2013	<input type="text"/>	%

**What percentage of workers was affected by the base wage cut?**

2010	<input type="text"/>	%
2011	<input type="text"/>	%
2012	<input type="text"/>	%
2013	<input type="text"/>	%

**What was the average base wage cut?**

2010	<input type="text"/>	%
2011	<input type="text"/>	%
2012	<input type="text"/>	%
2013	<input type="text"/>	%

**4.11 Did the decrease of public sector wages (coming from Fiscal Balance Act (ZUJF<sup>21</sup>)) directly or indirectly affect the average wage in your company?**

**Please choose ONE option for each line.**

	<b>Not relevant</b>	<b>Of little relevance</b>	<b>Relevant</b>	<b>Very relevant</b>
Yes, it had a demonstrational effect <sup>22</sup> , which helped us to justify lowering of wages in our company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yes, it reduced the attractiveness of alternative employment options in the public sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yes, it had a direct effect because some of our employees also belong to public sector <sup>23</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Had the indirect effect, since the reduction in purchasing power of public sector employees adversely affect our business, resulting in a reduced wage growth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>21</sup> The government passed a series of austerity measures (ZUJF) at the end of May 2012 with the estimated effect on the total public sector wage bill of about 3.5%. Regular promotions (amounting to approximately 1% average public sector wage increase each year) that have been on hold in the past are currently postponed until 1st of April of 2014. Public sector wage indexation has been on hold and is not expected to occur before 2015. Austerity measures also included measures to limit the number of employees and to limit conclusion of other agreements in the public sector as well as the measures to reduce certain reimbursements and other benefits of employees in the public sector.

<sup>22</sup> Demonstration effect occurs if a reduction in wages in other sectors increases the acceptability of wage reduction for employees or a union.

<sup>23</sup> The channel through which this took effect is that the government limited holiday allowances in firms that are owned by the government, but are otherwise part of the private sector.

**4.12 Do any of your employees receive minimum wage?**

- Yes  
 No

**Price setting and price changes**

**4.13 How did the change in minimum wage legislation (the Law on Minimum Wage<sup>24</sup>) affect your company?**

**Choose all the relevant options**

- We had to lay off people  
 Less people were hired  
 We had to increase prices  
 We had to reduce other costs  
 We also had to increase wages above the minimum wage  
 Other (please specify)

**4.14 Specify the highest tariff class where base wage was below the minimum wage**

Before the adoption of the new minimum wage legislation

After the adoption of the new minimum wage legislation (*After the 31st of December 2011, when the transitional period ended*)

---

<sup>24</sup> The Law on Minimum Wage, which came into force on the 23th of February 2010, increased the minimum wage from €597.42 in 2009 to €734.15. The transitional period ended on the 31st of December 2011.

**4.15 What % of the employees received the minimum wage?**

Before the adoption of the new minimum wage legislation  %

After the adoption of the new minimum wage legislation  %

**4.16 If more pay grades have received the same minimum wage before and/or after the adoption of the new minimum wage legislation, do you try to compensate for that?**

	Yes	No
Before the adoption	<input type="radio"/>	<input type="radio"/>
After the adoption	<input type="radio"/>	<input type="radio"/>

**4.17 If more pay grades have received the same minimum wage before and/or after the adoption of the new minimum wage legislation, how do you try to compensate for that?**

**Period: before the adoption (please choose ONE option for each line)**

	<b>Not relevant</b>	<b>Of little relevance</b>	<b>Relevant</b>	<b>Very relevant</b>	<b>Not relevant</b>
We give higher variable part to those in higher wage grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We use occasional bonuses (also e.g. higher pay for annual leave) for those in higher wage grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We use non-pecuniary rewards (education etc.) for those in higher wage grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Period: after the adoption (please choose ONE option for each line)**

	<b>Not relevant</b>	<b>Of little relevance</b>	<b>Relevant</b>	<b>Very relevant</b>	<b>Not relevant</b>
We give higher variable part to those in higher wage grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We use occasional bonuses (also e.g. higher pay for annual leave) for those in higher wage grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We use non-pecuniary rewards (education etc.) for those in higher wage grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Completion of survey**

**Write if you would like to add anything to your reply or relating to the questionnaire.**