BANKA SLOVENIJE

EVROSISTEM

RESULTS OF THE 2014 WAGE DYNAMICS NETWORK SURVEY IN SLOVENIA

Philip Schnattinger
Nataša Jemec
Matija Lozej
Matija Vodopivec
Petra Mohorič Peternelj

PRIKAZI IN ANALIZE
1/2015

Izdaja BANKA SLOVENIJE
Slovenska 35
1505 Ljubljana
telefon: 01/ 47 19 000
fax: 01/ 25 15 516

CIP - Kataložni zapis o publikaciji
Narodna in univerzitetna knjižnica, Ljubljana

338.1(497.4)"2014"(0.034.2)
331.5(497.4)"2014"(0.034.2)

RESULTS of the 2014 Wage dynamics network survey in Slovenia [Elektronski vir] / Philip Schnattinger ... [et al.]. - El. knjiga. - Ljubljana : Banka Slovenije, 2015. - (Prikazi in analize, ISSN 1581-2316 ; 2015, 1)

Način dostopa (URL): http://www.bsi.si/en/publications.asp?MapaId=716

ISBN 978-961-6960-03-8 (pdf)
1. Schnattinger, Philip
278513408

Številka 1, Letnik 2015

RESULTS OF THE 2014 WAGE DYNAMICS NETWORK SURVEY IN SLOVENIA[1]

Philip Schnattinger, Nataša Jemec, Matija Lozej, Matija Vodopivec, Petra Mohorič Peternelj

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. 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.

[1] We are grateful to Biswajit Banerjee, Jana Drolc, Alenka Frim, Uroš Geršak, Vesna Luković, Boro Nikić for the help in the design and implementation of the survey. The opinions presented in this paper are those of the authors.

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.[2] It was conducted between May and June 2014, with most questions referring to the period between 2010 and 2013.

The assessment of the survey responses in this paper is selective. We review the effects of economic environment on the firms, the way firms adjusted their labour force, the influence of new labour market legislation, the union and collective agreements coverage, the wage rigidity, and the effects of minimum wage increase.

One important finding is that uncertain economic conditions are the main obstacle to hiring workers on permanent contracts. Firms adjusted to negative shocks mainly by layoffs, by reduction in hiring or by using flexible types of labour. Only 14% of firms reported that they were affected by the 2013 labour market legislation. However, the changed legislation seems to have achieved a modest reduction in labour market segmentation in firms that were affected, mainly by stimulating the hiring of workers on permanent instead of temporary contracts. Consistent with the finding in Banerjee, Vodopivec and Sila (2013), virtually all workers are covered by a collective pay agreement, although only about a quarter of them are union members. The proportion of firms that reported wage cuts increased in the later stages of the crisis (in 2012 and 2013), which indicates that downward nominal wage rigidity has decreased. Although the number of firms reporting wage cuts doubled compared to the pre-crisis levels, the percentage of firms that reduced wages still remains below 10%. Nevertheless, firms that did cut wages have cut them substantially (about 5%) and applied the cut to about a quarter of employees. Finally, the increase of the minimum wage caused a reduction in hiring for somewhat less than a quarter of firms, while about 7% of firms reported that they had to resort to layoffs due to minimum wage increase. Moreover, about one fifth of firms reported that they had to increase other (non-minimum) wages because the minimum wage increased.

2. General Information about the Wage Dynamics Survey in Slovenia

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+).[3] The selected firms were contacted by mail with instructions to fill out a web-based questionnaire.

[2] For the first time it was conducted in January and February 2008, and the reference period was 2006. The second round was conducted in 2008 and 2009 and included only a small sample of EU countries. Its aim was to investigate whether the results from the first WDN round are robust to the crisis. The findings and context of the first survey in Slovenia were described by Banerjee, Vodopivec and Sila (2013).

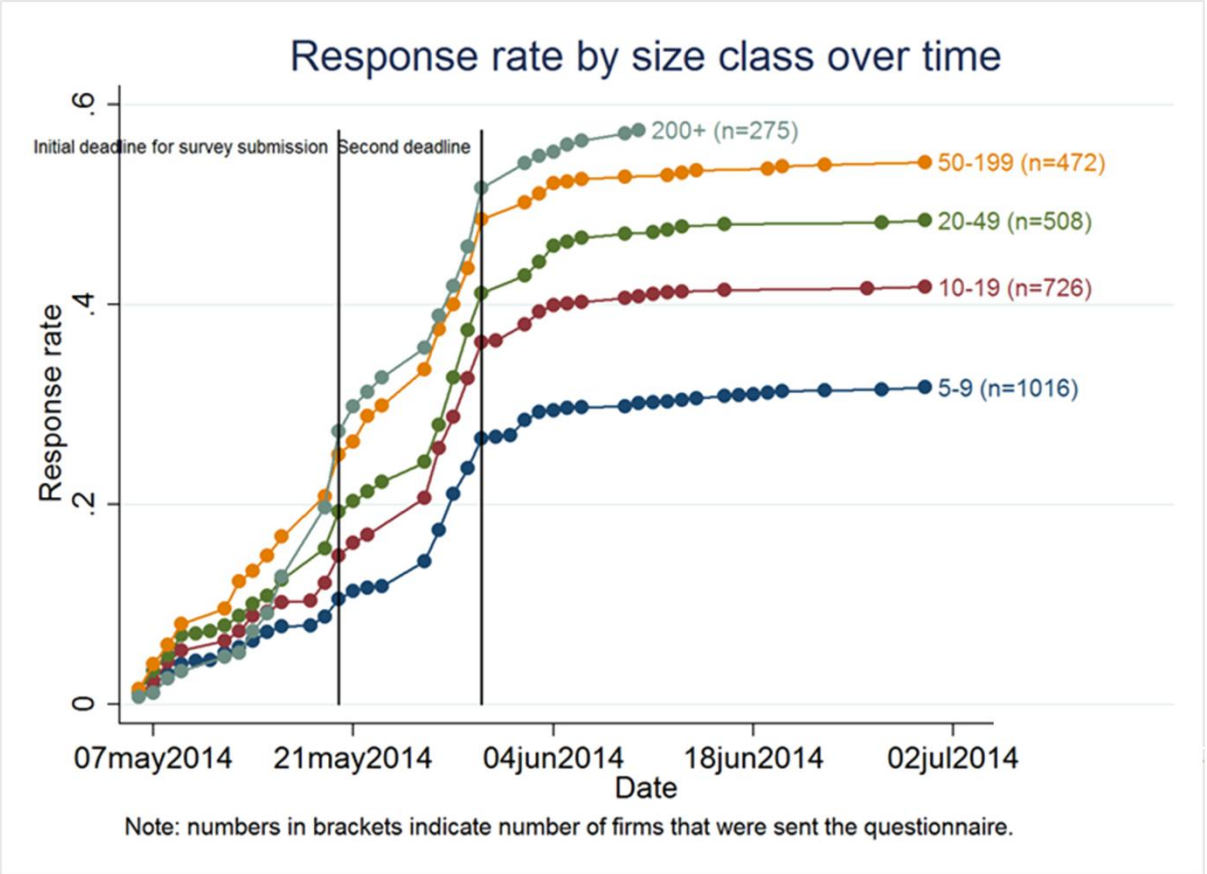
[3] The sample included all firms with more than 200 employees. Additionally, our population of firms consisted only of those firms that operated at least from 2010, that were not in the bankruptcy procedure and had one of the following legal forms: Unlimited liability company, limited liability company, 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.

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.[4]

The response rate varied across sectors and firm-size groups (Figure 1). 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.

Figure 1: Response rate of the survey



Source: 2014 BoS WDN Survey.

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-

[4] The reminder was also sent to the firms in the 2008 WDN survey.

versa for strata with high response rates), resulting in fairly representative responses across individual firm size-sector strata. For this reason, the statistics reported in this paper are based on unweighted answers and, where appropriate, size or sector-specific outliers are mentioned.

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.

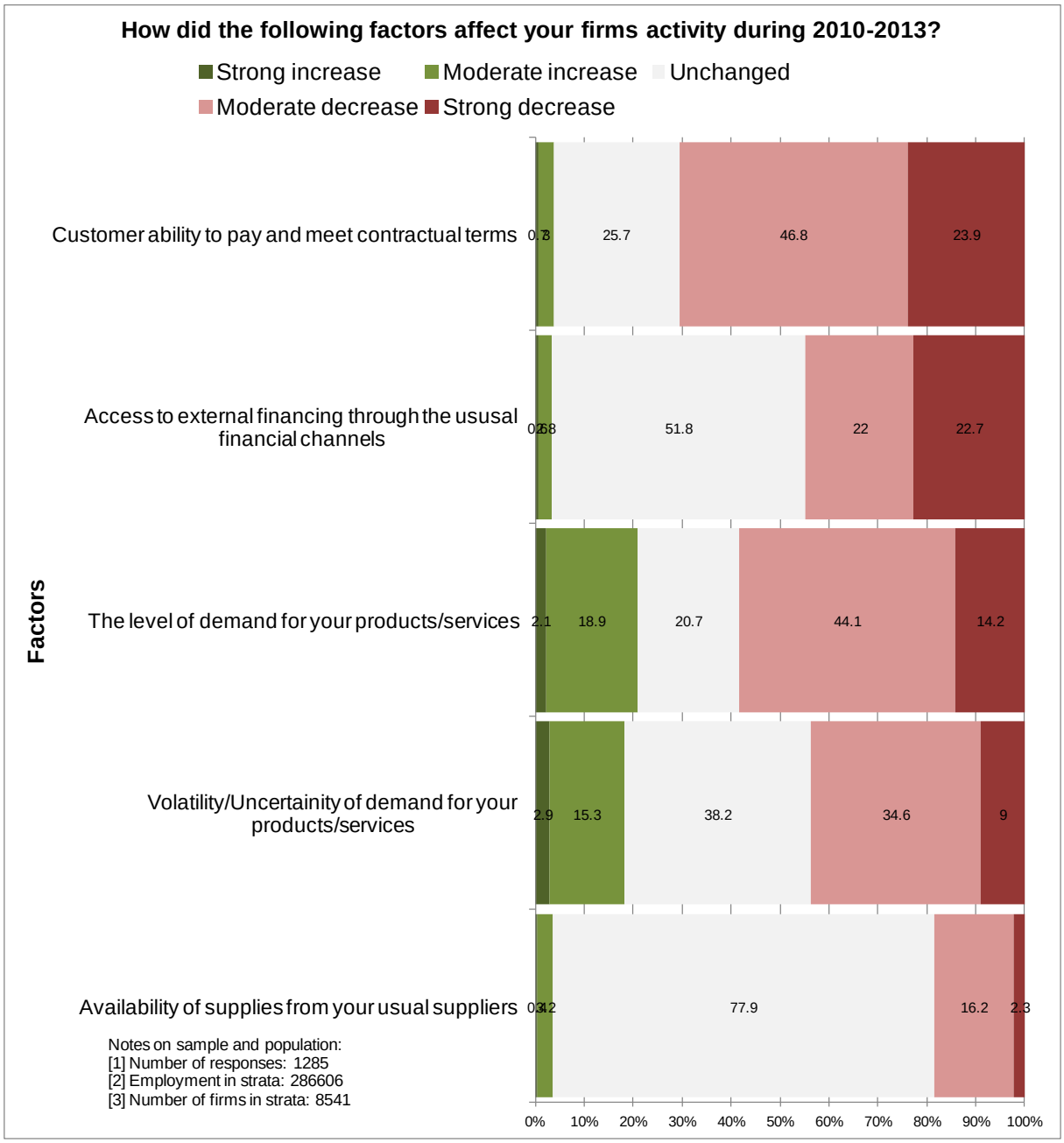
In addition, even though financing issues were not the focus of the survey, questions regarding firm financing were included in the core part of the questionnaire. The aim was to investigate potential linkages between firm financing and the behaviour of firms regarding both wage and labour force adjustment.

3. Main findings regarding changes in the economic environment

In the first part of the survey, firms answered questions regarding the impact of changes in the economic environment during the crisis (Figure 2). Most firms (70%) answered that customer's ability to pay and to meet contractual terms had a strong negative effect on their economic activity. The second most important factor that had a negative effect on their activity was the fall in demand for their products and services (about 60%). Among firms reporting that they were affected by these two factors, approximately one third of the respondents reported that their duration was "long-lasting".[5] The third and fourth most important factors were more difficult access to external financing through the usual financial channels (about 45% of firms) and volatility/uncertainty of demand for their products or services (about 44% of firms). These two factors had a "long-lasting" effect on approximately one quarter of firms. 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. Moreover, firms that reported access to finance as the factor with the strongest negative effect also reported that this factor had a "long-lasting" duration.

[5] For each relevant factor, firms were asked to rate its duration as transitory, partly-persistent, or long-lasting.

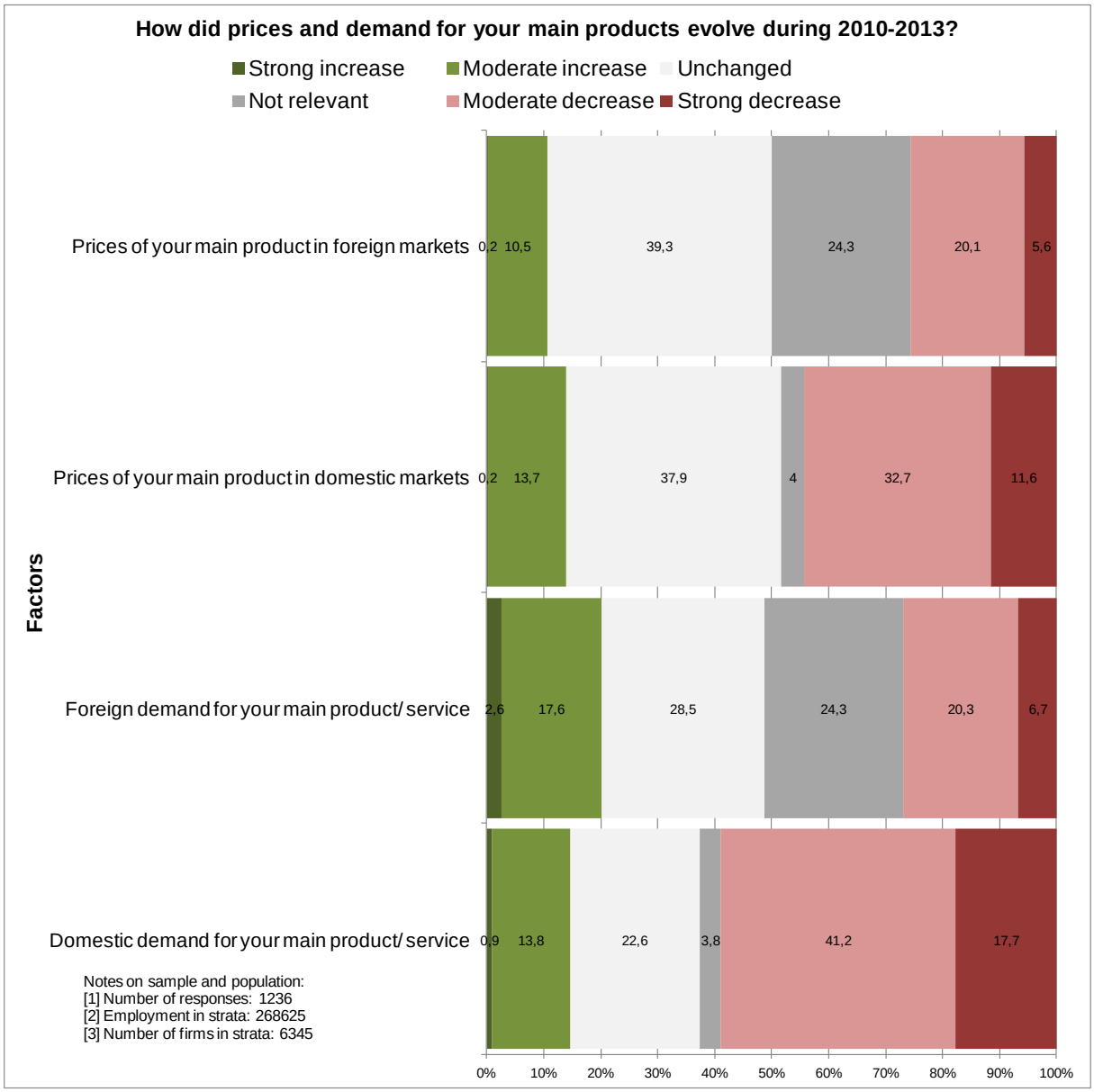
Figure 2: Factors affecting firms' activity



Source: 2014 BoS WDN Survey.

About 60% of firms reported having experienced a strong or moderate decrease in demand and 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 3). 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.

Figure 3: Change of prices and demand



Source: 2014 BoS WDN Survey.

4. Main findings regarding labour force adjustment

Consistent with the poor prevailing economic climate in Slovenia over the reference period, the survey respondents generally reported a reduction in employment.[6] Total employment for firms in our sample fell by 9.3%, from approximately 150 thousand workers in 2008 to 137 thousand in 2013.[7] 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).

[6] 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).
[7] These numbers are only representative for the firms that answered the survey.

About one quarter of firms in the survey reported that they had to significantly reduce their labour force between 2010 and 2013 (Table 1). In line with the broader macroeconomic climate, the most affected sectors were construction, and manufacturing. Employees in the electricity and water utilities sectors were virtually unaffected by labour force adjustments.

Table 1: Labour input reductions by size and sector, 2010-2013

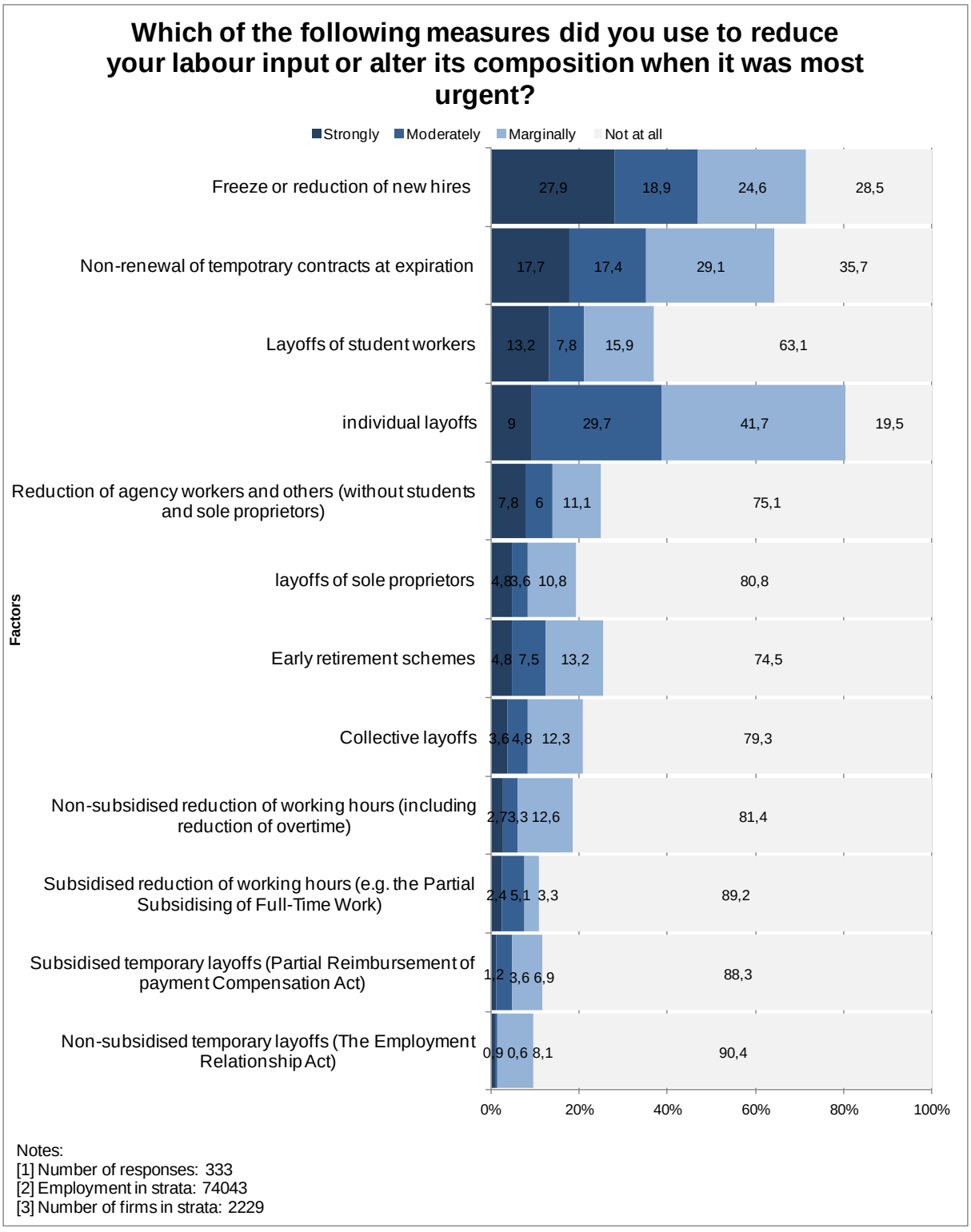
During 2010-2013, did you need to significantly reduce your labour input or to alters its composition?
Percentage of firms answering "Yes" - Unweighted results

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

Source: 2014 BoS WDN Survey.

In times of distress, firms reduced their labour input primarily via hiring freezes and, individual layoffs, and by not renewing temporary contracts (Figure 4). 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 disproportionally made use of individual dismissals.

Figure 4: Measures to change labour input



Notes:
[1] Number of responses: 333
[2] Employment in strata: 74043
[3] Number of firms in strata: 2229

Source: 2014 BoS WDN Survey.

4.1 Obstacles to hiring on permanent contracts

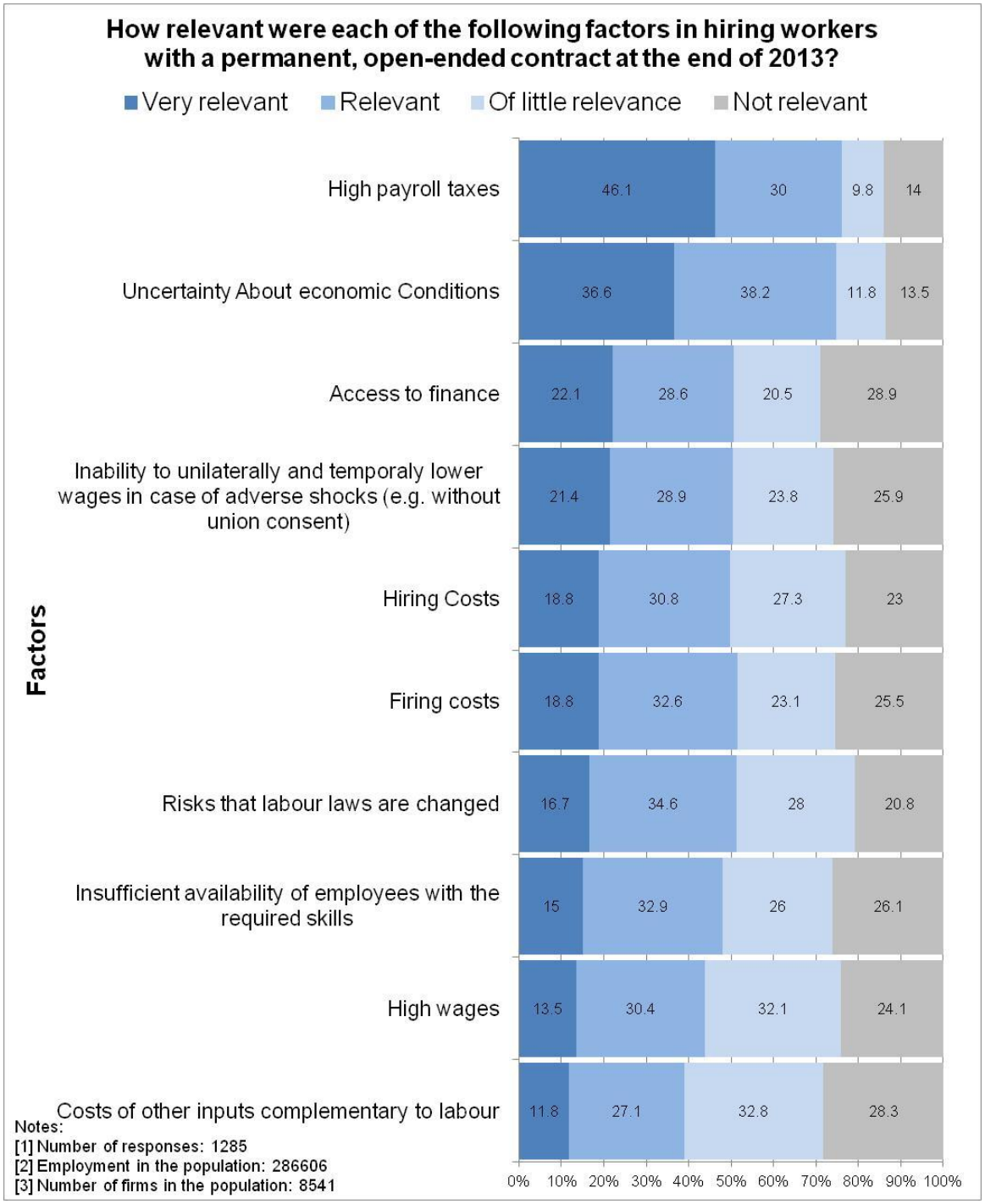
The survey revealed various factors that influence the number of new hires on permanent contracts. Figure 5 shows the answers of firms of all sizes across sectors. Payroll taxes seem to be the number one factor in preventing new permanent hires. This result, however, should be interpreted with extreme caution. 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).[8] Moreover, firms have not complained about the wage level as being one of the factors preventing new hires on a permanent contract, which – in the same way as taxes – represents a component of firms' labour cost.[9]

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 third and fourth most important factors, access to finance and the possibility to unilaterally and temporally lower wages in case of adverse shocks (e.g. without union consent) also 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.

[8] 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).

[9] We are grateful to Helena Schweiger for pointing out the pitfalls related to the interpretation of results pertaining to tax rates.

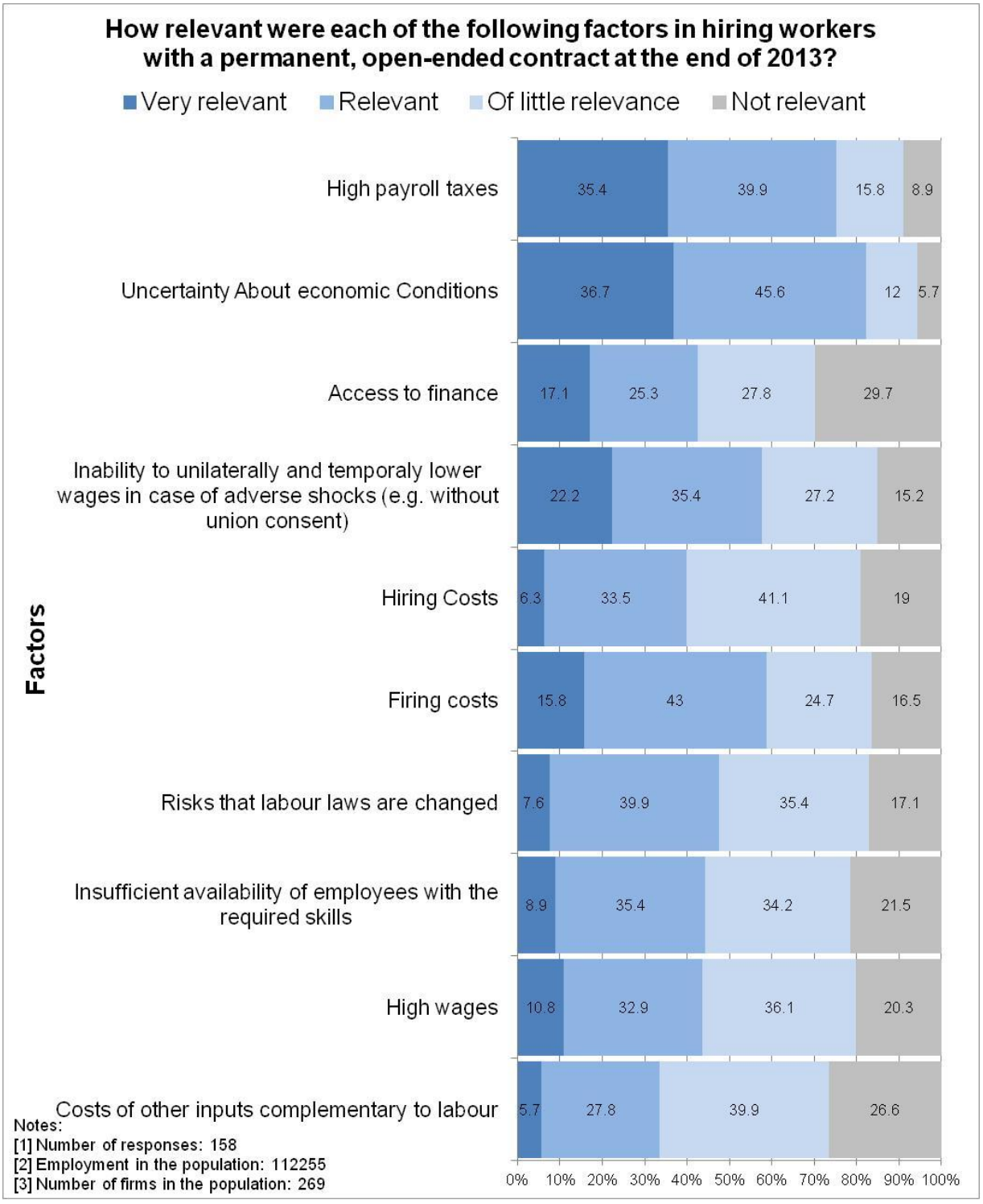
Figure 5: Relevance of factors in hiring workers on a permanent contract



Source: 2014 BoS WDN Survey.

For large firms, one salient finding is that enabling firms to unilaterally temporarily alter wages could facilitate hiring workers on permanent contracts (Figure 6). 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 hindering factor in hiring new employees for large firms (Table 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.

Figure 6: Relevance of factors in hiring workers on a permanent contract for firms with more than 200 employees



Source: 2014 BoS WDN Survey.

Table 2: Relevance of inability to unilaterally lower wages

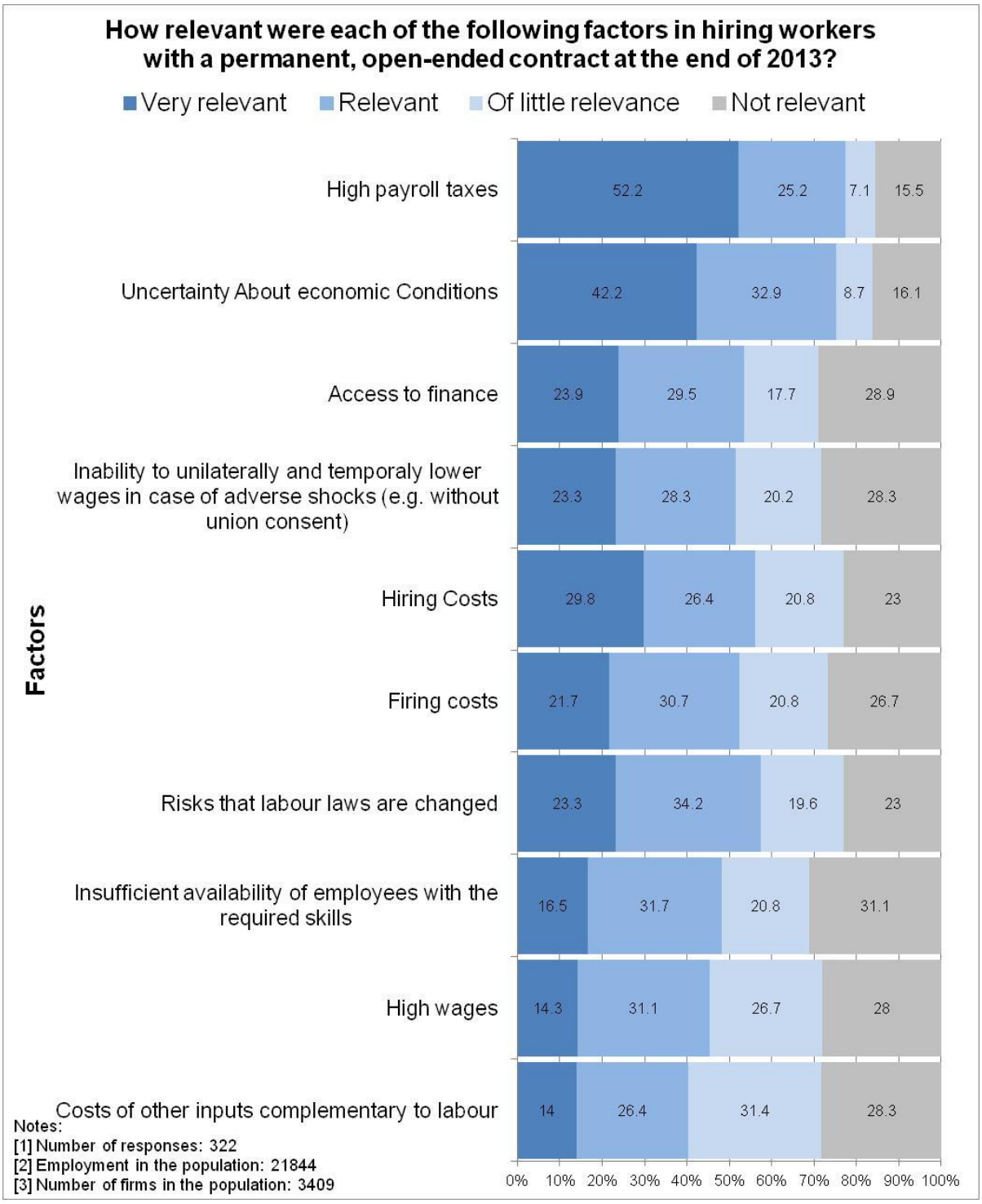
Inability to unilaterally temporarily lower wages in the event of a negative shock (without union consent)
Percentage of firms indicating this factor was "Relevant" or "Very relevant" - Unweighted results

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

Source: 2014 BoS WDN Survey.

In addition to uncertain economic environment, small Slovenian firms consider additional factors when hiring new employees with permanent contracts. As Figure 7 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.

Figure 7: Relevance of factors in hiring workers on a permanent contract for firms with less than 10 employees



Source: 2014 BoS WDN Survey.

4.2 The effects of new labour market legislation

In April 2013 the Employment Relationship Act and the Labour Market Regulation Act came into force. The aim of these acts was to increase labour market flexibility and decrease segmentation. The main changes included simplifying the administrative procedures related to hiring and firing (e.g. employer can notify an employee via e-mail, not only through a letter), shorter notice periods, reductions in severance payments and measures to curb temporary employment.

Measured by the OECD employment protection legislation (EPL) indicators, Slovenia's reform considerably liberalized labour market regulations (Table 3). 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).

Table 3: The employment protection legislation index in Slovenia prior to and following 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.

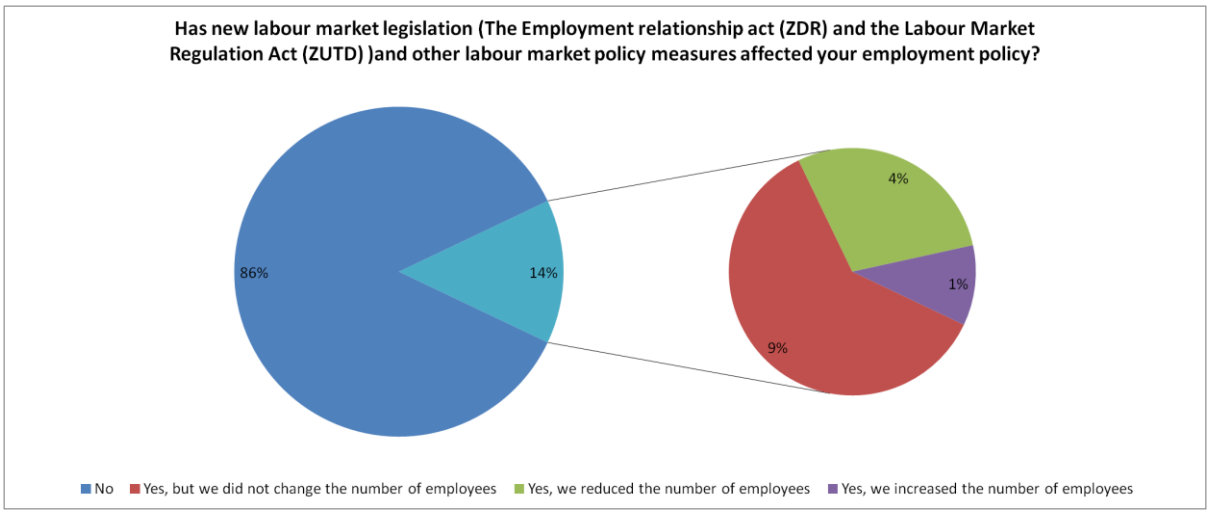
Despite the ostensibly large increase in the flexibility for hiring workers on permanent contracts, survey respondents report that the new legislation has had a comparatively limited impact on their HR policies (Figure 8). A mere 14% of firms (182 responses) in our sample answered that their employment 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 reducing their share of temporary workers.[10] 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 9). 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

[10] 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.

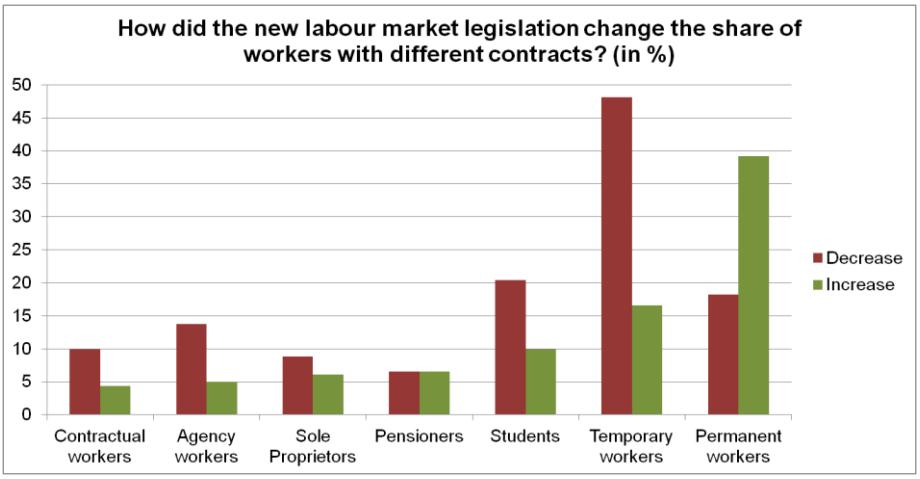
year earlier (IMAD, 2014). Similarly, the share of all employees that hold a temporary job has decreased from 17.1% in 2012 to 16.5% in 2013. We should reiterate, however, that the aggregate effects have been relatively small.

Figure 8: Effects of new labour market legislation on companies' employment policy



Source: 2014 BoS WDN Survey.

Figure 9: Change of the share of workers with different contracts due to new labour market legislation



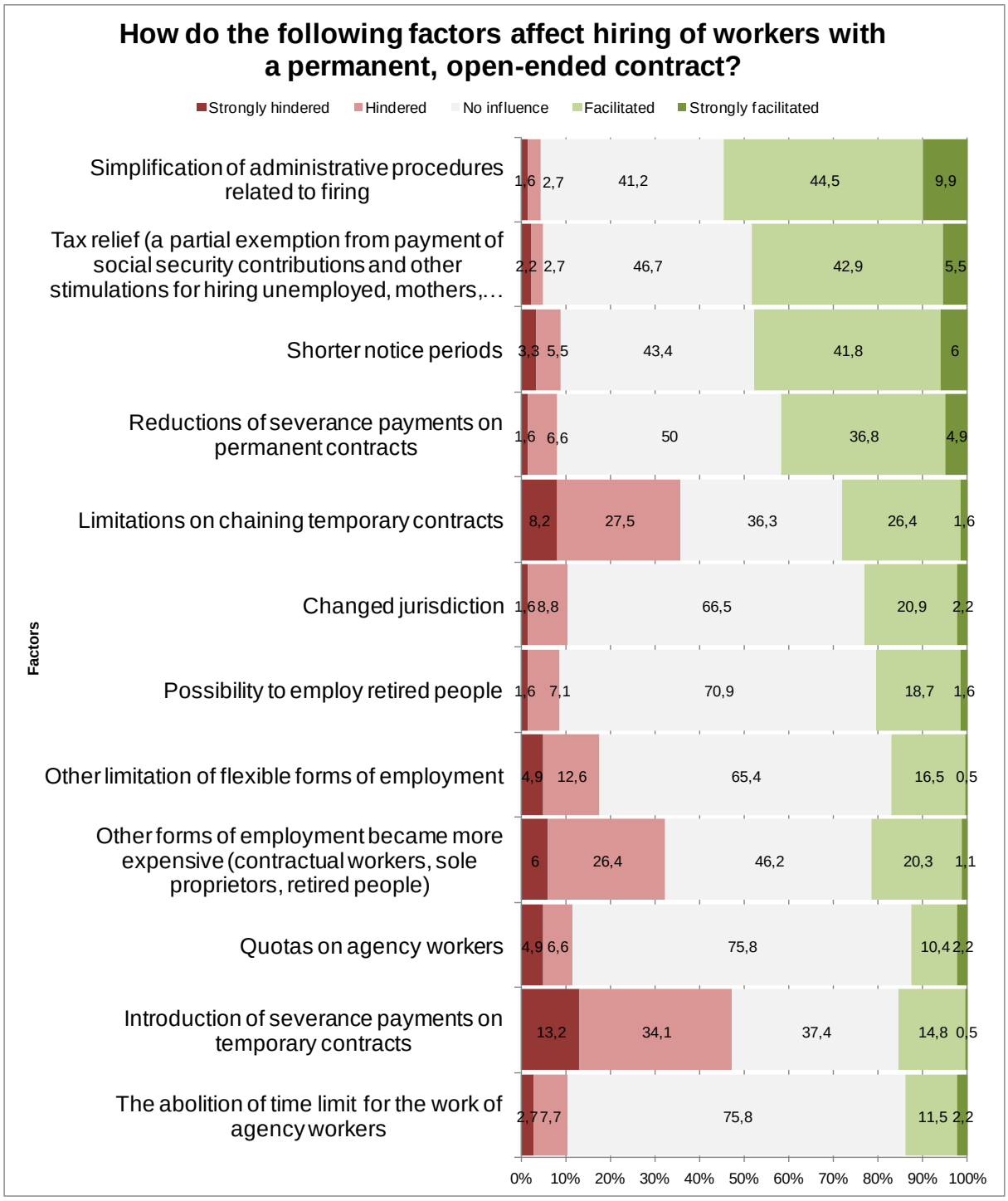
Source: 2014 BoS WDN Survey.

Most firms that answered that their employment policy has changed because of the labour market reforms agreed that several factors facilitated the employment of workers with permanent, open-ended contracts, as Figure 10 demonstrates. Employers saw the simplification of administrative procedures related to firing as the main facilitating factor.[11] Furthermore, they judged that tax reliefs,[12] 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. The interpretation of answers to this question should be cautious. The reason is that some firms viewed the factors that were meant to curb flexible forms of employment and consequently facilitate permanent form of employment, as having the opposite effect.

[11] 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.

[12] Tax relief includes a partial exemption from payment of social security contributions and other stimulations for hiring unemployed, mothers, young and old workers.

Figure 10: Factors affecting hiring workers with a permanent contract

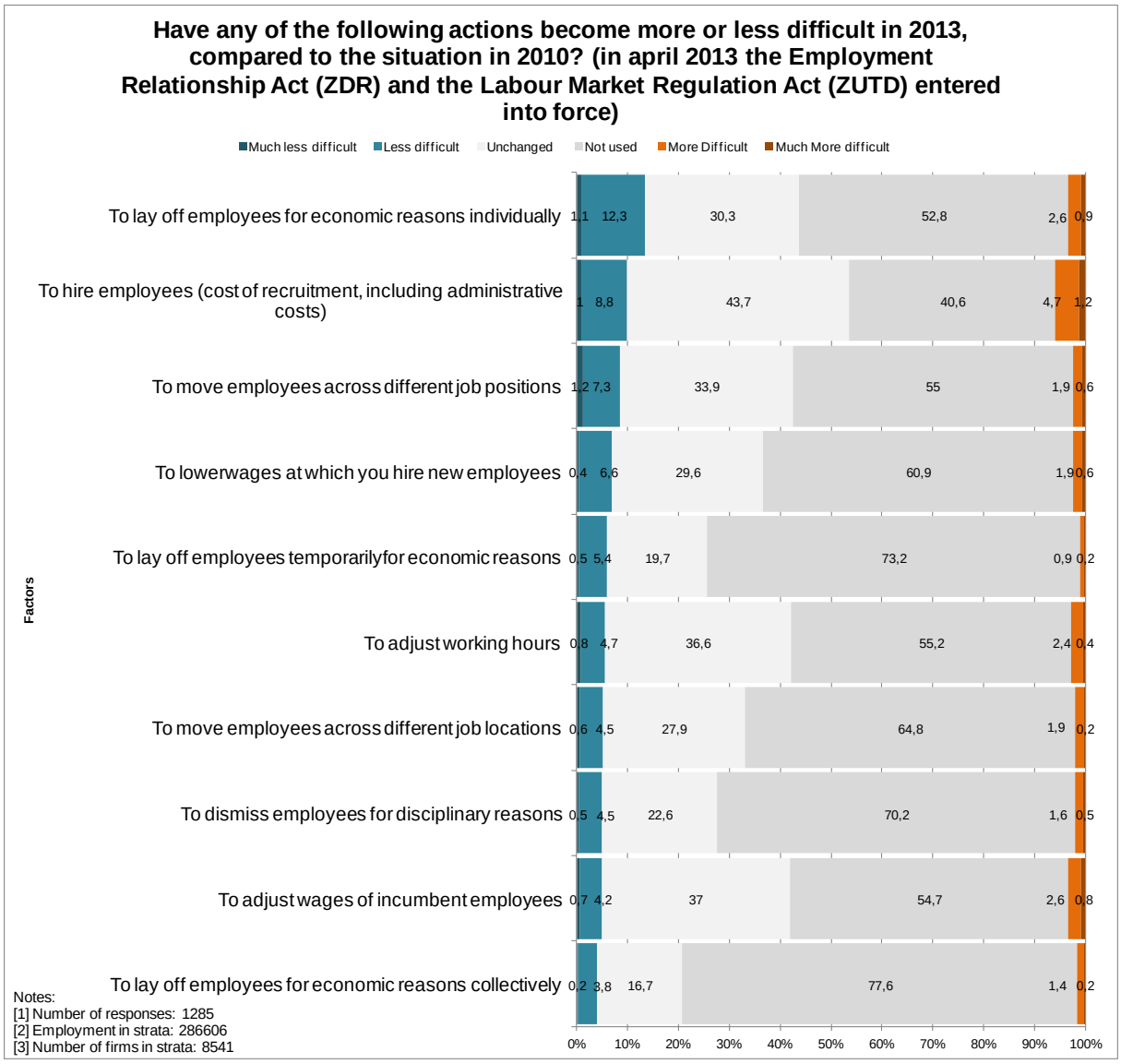


Source: 2014 BoS WDN Survey.

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 11). 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. More than one fifth of firms with more than 200 employees (Figure 12) reported that it has become easier for them to dismiss individual employees for

economic reasons. Moreover, a bit less than one fifth of the big firms reported that it has become easier for them to dismiss employees temporarily for economic reasons.[13]

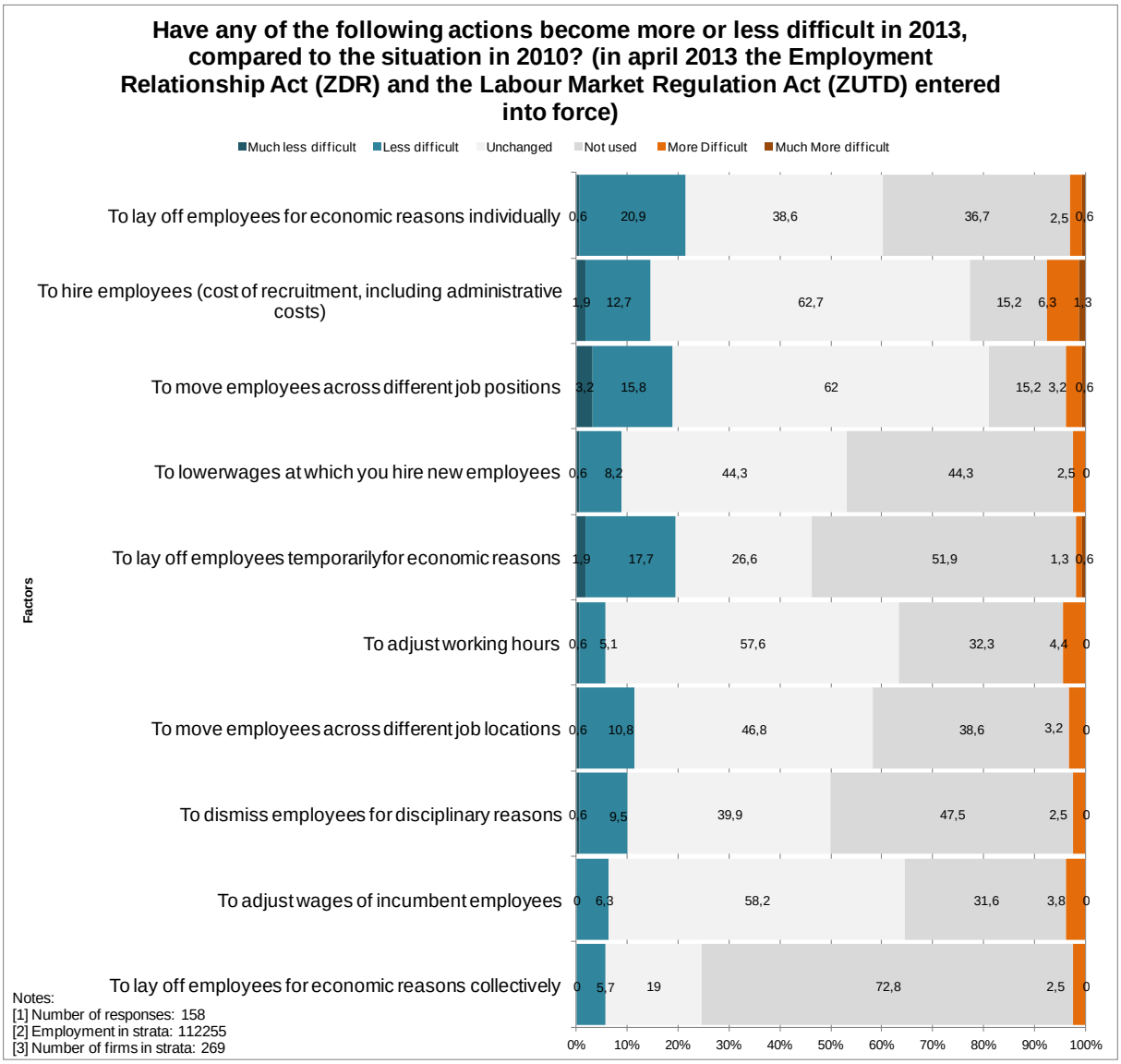
Figure 11: Changes in the difficulty of the following actions



Source: 2014 BoS WDN Survey.

[13] 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 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.

Figure 12: Changes in the difficulty of the following actions for firms with more than 200 employees



Source: 2014 BoS WDN Survey.

5. Main findings regarding wage adjustment

Companies in the sample were asked several questions regarding the wage structure and wage adjustment. The questionnaire included questions about the coverage of collective agreements, union membership, importance and adjustment of various wage components and the effect of minimum wage legislation.

About 80% of firms reported that their employees were covered by collective agreements (Table 4). Coverage tends to increase with firm size: virtually all of large firms reported having employees that are covered by collective agreements, while this proportion is only 66% in firms with 5-9 employees. Slightly over half of firms applied a collective agreement at the firm level, while a slightly less than half applied a collective agreement that was negotiated outside the firm (at the national, regional, sectoral or occupational level). Again, the proportion of firm-level agreements is higher (above 70%) for large firms.

The highest percentage of firms that applied firm-level collective agreements were found in manufacturing, electricity and real estate activities (slightly less than 70%), while most firms that applied a sectoral collective agreement are in the electricity sector. The sectors with the lowest coverage on any level were information and

communication sector and professional activities. In both sectors about 50% of the firms answered that they applied some kind of collective agreement.

The weighted results on collective agreement coverage show a slightly larger share of employees working in firms with collective agreements than the unweighted results (Table 4). On aggregate, 85.9% of workers are employed in firms that apply collective agreements to at least some of their workers. This reflects the fact that larger firms disproportionally employ workers covered by collective agreements.

Table 4: Share of firms employing workers covered by collective pay agreement – unweighted results

In 2013, did your firm apply a collective pay agreement at any level?
Percentage of firms answering "Yes" - Unweighted results

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
C - MANUFACTURING	75.7	87.9	92.4	92.2	100.0	90.1
D - ELECTRICITY	100.0	n.a.	100.0	100.0	100.0	100.0
E - WATER UTILITIES	80.0	60.0	75.0	86.7	100.0	81.6
F - CONSTRUCTION	67.9	73.3	85.0	100.0	100.0	76.1
G - TRADE	77.3	89.6	91.4	92.6	100.0	86.9
H - TRANSPORTATION	66.7	55.6	70.8	63.6	88.9	67.4
I - HOTELS AND RESTAURANTS	100.0	86.7	83.3	100.0	100.0	90.7
J - INFORMATION AND COMMUNICATION	50.0	50.0	40.0	50.0	40.0	46.8
K - FINANCIAL AND INSURANCE ACTIVITIES	63.6	42.9	50.0	88.9	100.0	75.5
L - REAL ESTATE ACTIVITIES	100.0	100.0	100.0	100.0	n.a.	100.0
M - PROFESSIONAL ACTIVITIES	51.0	57.1	39.1	63.6	60.0	52.3
N - ADMINISTRATIVE ACTIVITIES	66.7	73.3	90.9	83.3	75.0	78.8
Total	68.6	75.9	78.0	87.1	94.9	79.1

Source: 2014 BoS WDN Survey.

Table 5: Share of firms employing workers covered by collective pay agreement – results weighted by employment

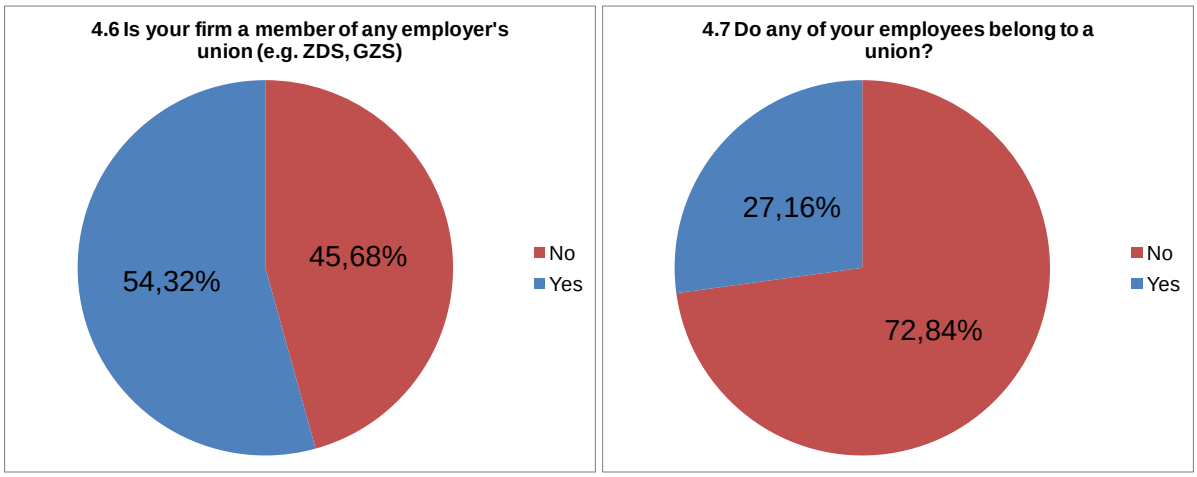
In 2013, did your firm apply a collective pay agreement at any level?
Percentage of firms answering "Yes" - Results using employment weight

	Size category (number of employees)					Total
	5-9	10-19	20-49	50-199	200+	
C - MANUFACTURING	69.8	84.4	93.0	92.0	100.0	94.9
D - ELECTRICITY	100.0	n.a.	100.0	100.0	100.0	100.0
E - WATER UTILITIES	84.7	47.5	72.6	82.9	100.0	85.8
F - CONSTRUCTION	67.1	73.5	83.4	100.0	100.0	85.8
G - TRADE	76.4	90.2	91.3	91.8	100.0	90.7
H - TRANSPORTATION	57.6	50.0	73.1	62.1	91.1	72.6
I - HOTELS AND RESTAURANTS	100.0	86.3	80.5	100.0	100.0	94.4
J - INFORMATION AND COMMUNICATION	51.6	46.5	38.9	52.5	18.8	38.3
K - FINANCIAL AND INSURANCE ACTIVITIES	62.8	45.2	61.4	93.9	100.0	92.9
L - REAL ESTATE ACTIVITIES	100.0	100.0	100.0	100.0	n.a.	100.0
M - PROFESSIONAL ACTIVITIES	49.7	53.1	47.1	65.8	56.2	54.0
N - ADMINISTRATIVE ACTIVITIES	72.7	84.7	89.5	79.5	60.9	70.8
Total	68.7	75.8	80.3	87.9	92.9	85.9

Source: 2014 BoS WDN Survey.

Estimates of membership in employers' unions and trade unions from the 2014 WDN survey are in line with other sources. More than half the firms answered that they are members of an employer's union (Figure 13). According to the data from our sample, 27% of firms employ people that are members of a union (Figure 13). This is approximately in line with the OECD data, according to which the union density in Slovenia was 25.6 percent in 2009.

Figure 13: Proportion of firms being members of any employer's union and employees being members of a trade union

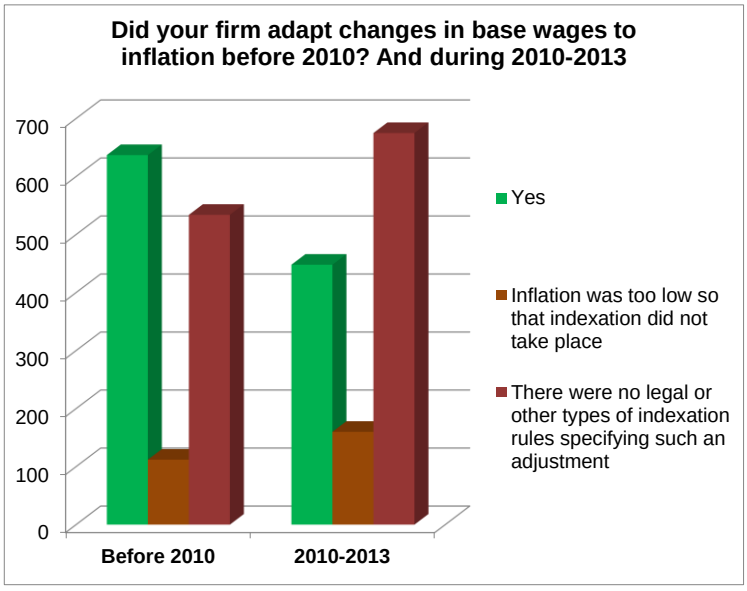


Source: 2014 BoS WDN Survey.

Regarding wage structure, the survey results indicate that the majority of wages in Slovenia are paid in fixed terms and only a minor percentage of wages is based on performance. The average part of the wage that is based on individual or company performance related bonuses and benefits is 11%.

Firms reported that they adapted base wages less frequently to inflation in the time frame 2010-2013 than before. Figure 14 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.

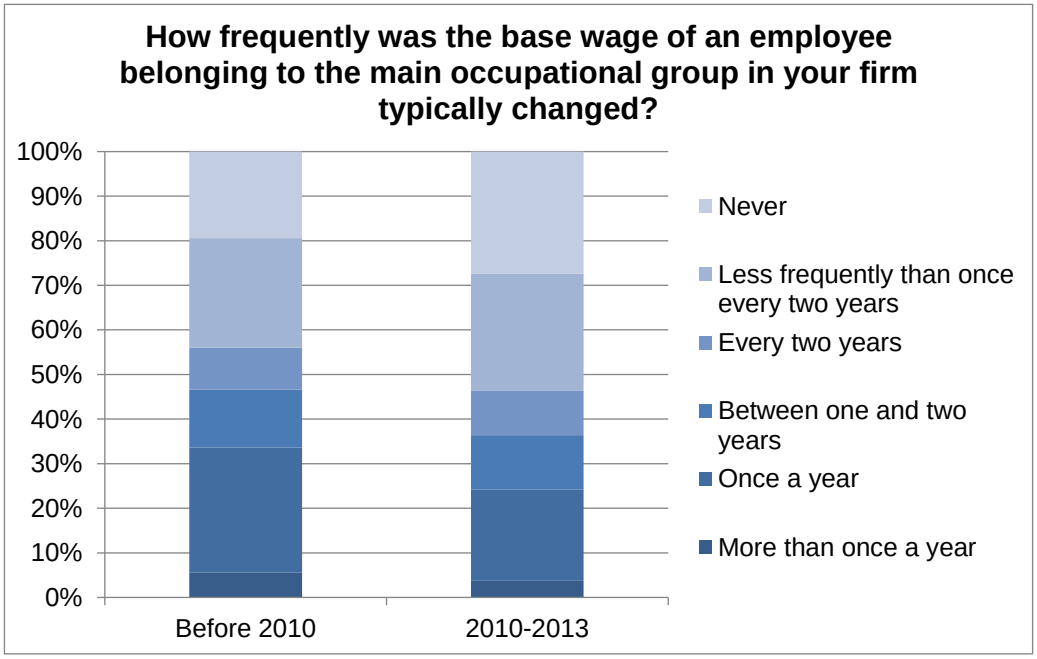
Figure 14: Adaption of base wages to inflation



Source: 2014 BoS WDN Survey.

Base wages changed less frequently during 2010-2013 than they did before (Figure 15). In the years before the crisis, changes were probably more frequent because they involved wage increases that are easier to accept, 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 changes of wages. Nevertheless, we can not interpret this as an indication of an increased downward nominal wage rigidity for reasons explained below.

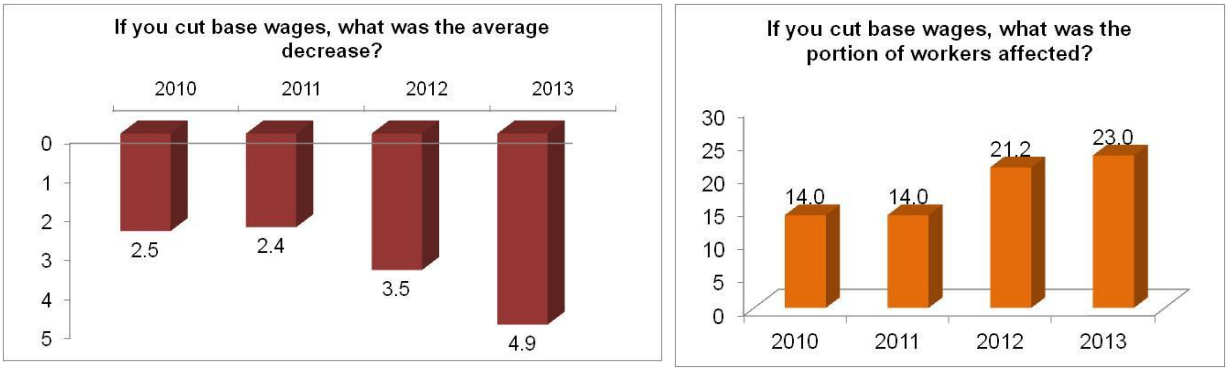
Figure 15: Frequency of base wage changes



Source: 2014 BoS WDN Survey.

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 less than 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 16: Average base wage cut and proportion of workers affected



Source: 2014 BoS WDN Survey.

5.1 Minimum wages

In February 2010 new minimum wage legislation was introduced with the Minimum Wage Act. About 40% of the firms included in the survey had at least one of the employees that received minimum wage at the time of the implementation of the survey. This percentage varies greatly across sectors and sizes (Figure 17). Hotels and restaurants as well as administrative activities had the highest proportion of firms that had employees on a minimum wage (around three quarters). Professional activities, financial and insurance activities and electricity have less than one fifth of firms with at least one employee receiving the minimum wage.

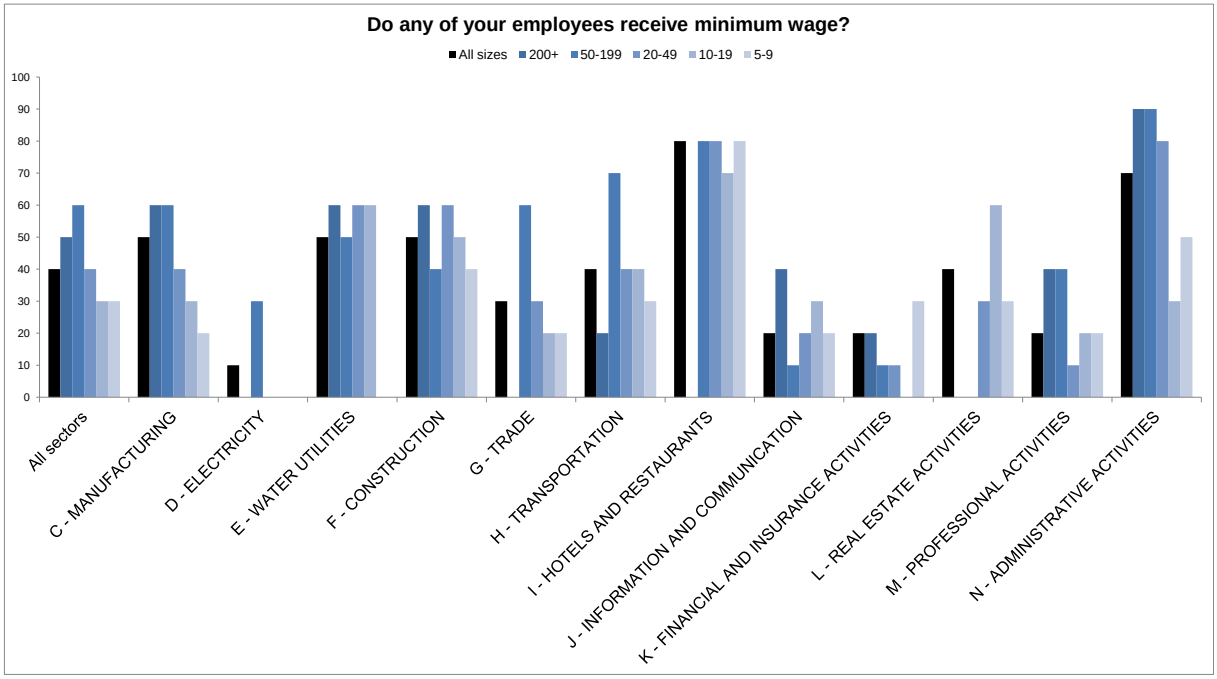
The rest of this section describes the findings of only those firms that had at least one of their employees receiving the minimum wage (around 40% of firms). Those firms were asked how the change in the minimum wage affected them (Figure 18).[14] Two-thirds of those firms said that they had to reduce other costs, one fifth of firms answered that they hired less people due to the increase in minimum wage, while a similar proportion of firms 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 bit more than one tenth of employers reported that they had to increase prices and 7% had to lay off people.

The increase in the minimum wage has caused that employees who belong to different tariff classes now receive the same minimum wage.[15] The questionnaire asked firms whether they attempt to compensate for that. Before the new minimum wage legislation, 15% of the firms that had at least one of their employees receiving the minimum wage compensated for the fact that employees in different tariff classes receive the minimum wage. After the increase in the minimum wage this proportion increased to 21%. The most frequently used form of compensation was giving a higher variable part of the wage to the employees in higher tariff classes. About one fifth of the firms used this method. Another form was to give occasional monetary bonuses to those receiving minimum wages, but classified in higher tariff classes. This was used by about 14% of the firms before the change in the legislation and by 17% thereafter. The least used measure of compensation were pecuniary rewards (e.g. education options) to employees, which were used by about 14% of the firms.

[14] The Minimum Wage Act, which came into force on the 23th of February 2010, increased the minimum wage from €597.42 to €734.15. The transitional period ended on the 31st of December 2011.

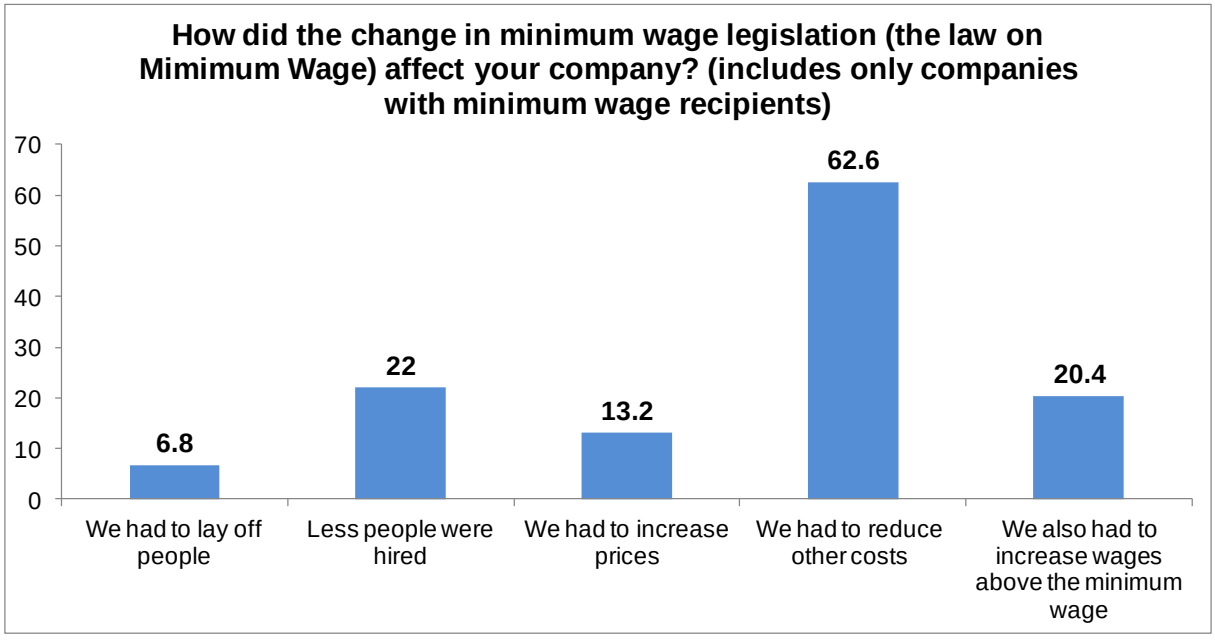
[15] All the employees that belong to tariff classes, where the base wage is below minimum wage, receive the same minimum wage determined by the Minimum Wage Act.

Figure 17: Proportion of minimum wage receivers according to the sector and the size of the company



Source: 2014 BoS WDN Survey.

Figure 18: Effect of the change in minimum wage on companies



Source: 2014 BoS WDN Survey.

6. Conclusion

The main messages of the Wage Dynamics Network survey in Slovenia are the following. First, 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 on domestic than on foreign markets, which indicates that the second downturn in the recent crisis was due to domestic factors.

The second finding is that firms reduced all types of jobs during the period 2010-2013, but tended to rely more strongly on hiring freezes and non-renewal of contracts at expiration, followed by layoffs of student workers. The burden of adjustment was thus disproportionally 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. The latter indicates that there are elements of flexicurity present on the flexible segment of the labour market, but the question remains whether the security-part is sufficient to compensate for the burden of adjustment borne by the workers in temporary forms of employment.

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, stability in both economic and legal terms and the ability to adjust to changed economic conditions would promote employment on a more permanent basis.

Finally, the main messages from the survey regarding the new labour market legislation from 2013 and the minimum wage increase are the following. 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. Finally, 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.

References:

- Banerjee, B., Vodopivec, M., Sila, U. (2013). Wage setting in Slovenia: Interpretation of the wage dynamics network (WDN) survey findings in an institutional and macroeconomic context. Bank of Slovenia Working Paper 3/2013
- 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.
- IMAD (2014), Economic Issues 2014, August, Institute of Macroeconomic Analysis and Development, Ljubljana.
- 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*