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## **LABOUR MARKET ADJUSTMENT DURING 2008–2013 IN LATVIA: FIRM LEVEL EVIDENCE**



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**ABBREVIATIONS**

AMECO – Annual Macroeconomic Database of the European Commission
COICOP – Classification of Individual Consumption According to Purpose
CSB – Central Statistical Bureau of Latvia
EC – European Commission
ECB – European Central Bank
ESCB – European System of Central Banks
EU – European Union
GDP – gross domestic product
NACE Rev. 2 – Statistical Classification of Economic Activities in the European Community
OECD – Organisation for Economic Co-operation and Development
UK – United Kingdom
US – United States
WDN – Wage Dynamics Network

**ABSTRACT**

In this paper we examine firm level survey data collected in the framework of the Eurosystem's Wage Dynamics Network (WDN) in Latvia. The survey explores labour cost adjustment strategies during 2008–2009 and 2010–2013 with the aim to uncover wage, employment, and price adjustment channels for different firm categories during crisis and post-crisis periods. The results show that more than half of firms were affected by a slump in demand and credit conditions during 2008–2009, with the effect being particularly strong on non-exporting firms. Unlike what the macroeconomic picture of average wage suggests, both flexible and permanent wages were adjusted strongly in response to the shock. One third of firms reduced employment or altered its structure strongly, with freeze of new hires and reduction of permanent employees used particularly often. The demand improved during 2010–2013 despite still tight credit conditions. Decrease in working hours, freeze of wages and new employment remained significant measures of labour cost adjustment during the latter period. Improvements in demand conditions transmitted into the increase in base wage, while bonuses were raised relatively less often.

**Keywords:** firm survey data, wage adjustment, labour force adjustment, price setting

**JEL codes:** J31, J38, J24, D22, C25

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## NON-TECHNICAL SUMMARY

This paper presents the results of firm level survey on labour cost adjustment strategies during the crisis (2008–2009) and the post-crisis (2010–2013) period in Latvia. The purpose of the survey was to obtain detailed information on wage, employment and price adjustments in firms facing different economic and financial conditions. There are various factors that can affect firm behaviour, e.g. firm-specific or market-specific characteristics such as the number of employees, sector, type of ownership, export share in revenues, and changes in demand and credit availability. This detailed information about every individual firm (called micro-level data) allows of exploring factors that determine the firm behaviour regarding wage, labour and price adjustment strategies during the cycle. Unlike macro-level data, micro-level data allow of conducting detailed analysis of structural changes in employment and wages.

The survey was developed within the Wage Dynamics Network (WDN), a research network of 25 central banks in the EU coordinated by the ECB. Latvia's WDN survey was conducted by market and social research agency FACTUM, collecting responses of 557 firms in the summer of 2014. The survey targeted firms, which were established before 2011 and had at least 10 employees at the end of 2013. Two sets of weights were applied to aggregate the results of the survey so that it represents the population of firms (firm number weights) and the population of employees (employment weights).

The survey results show that Latvia experienced a substantial negative demand shock during 2008–2009, while the access to financing and supplies was affected less. Furthermore, the negative demand shock was mostly domestic and reflected the economic overheating before 2008, whereas the subsequent economic revival was primarily based on export growth. Despite a relatively swift strengthening of demand during 2010–2013, the financial conditions improved only gradually, and credit constraints were binding for around half of firms during 2008–2009 and 2010–2013.

The analysis of labour cost adjustment channels in Latvia shows that during the crisis firms decreased their labour costs mainly by reducing base wage and flexible wage components, lowering the number of employees and, to a lesser extent, reducing working hours per employee. The reduction of base and flexible wages was especially pronounced during 2008–2009. Wage freezes were used extensively in 2010 and 2011. Particularly, we show that both frequency and magnitude of wage changes were crucial for labour cost adjustment in Latvia, unlike what the macroeconomic picture of average wage suggests. Labour force reductions were used by one third of firms during the crisis, with freeze of new hires and reduction of permanent employees being the most popular measures. For the majority of firms, competition has tightened since 2008. Along with higher frequency of labour cost adjustments, it explains higher frequency of producer price changes. Overall, this paper affirms the flexibility of labour market in Latvia. Flexible wages, employment and prices have been crucial in engineering the necessary and timely adjustments in the economy, thus paving the way for a quick recovery.

## 1. INTRODUCTION

Latvia kept an exchange rate peg during the recent boom-bust cycle. While returning to robust economic growth on the back of restoring competitiveness through an internal adjustment strategy, the adjustment channels are far from clear. Macroeconomic data reveal that the unit labour cost adjustment was based on a spectacular labour productivity growth, while the average wage in the private sector remained broadly flat, raising concerns about downward rigidity of wages (Blanchard et al. (2013); Krugman (2013)). Yet the macroeconomic picture may suffer from structural changes, particularly from labour hoarding of high-skilled employees which may bias up the statistics of both average wage and productivity (Krasnopjorovs (2011)). Therefore, using micro-level data in research is crucial for understanding the wage, price and employment adjustment channels of firms over the cycle.

This paper presents the results of the firm level survey uncovering labour cost adjustment strategies of firms during the crisis (2008–2009) and the post-crisis (2010–2013) period in Latvia. The survey was developed within the WDN, a research network of 25 central banks in the EU coordinated by the ECB, and conducted during the summer of 2014. The purpose of the survey was to obtain detailed information on wage, employment and price adjustments in firms facing different economic and financial conditions. In addition, the survey collects information on firm self-reported characteristics, e.g. sector of activity, its size, ownership, structure, export share, level of competition, structure of labour force and its institutional features, etc. Therefore, the resulting dataset allows for detailed analysis of labour force adjustment strategies in different types of firms during the business cycle.

The aim of this research is to provide an overview of the whole set of survey results for Latvia. A detailed cross-country research concentrating on different aspects of labour force adjustment will be developed during the next year.

The harmonised survey questionnaire contains five major parts: firm characteristics, changes in the economic environment (demand and credit conditions) as well as labour force, wage and price adjustments. Special attention is paid to financial conditions of firms and wage and price setting mechanisms.

The analysis of labour cost adjustment channels in Latvia shows flexibility of both wages and employment during the recent economic cycle. More than half of firms were affected by a slump in demand and credit conditions during 2008–2009, with the effect being particularly strong on non-exporting firms. Both flexible and permanent wages were significantly adjusted in response to the shock (around one third of firms reduced wages). The average base wage reduction was 20%. One third of firms reduced employment or altered its structure. Freeze of new hires and reduction of permanent employees were the most widespread measures. Demand conditions improved during 2010–2013 despite still tight credit conditions. Decrease in working hours, freeze of wages and new employment remained significant measures of labour cost adjustment during the latter period. Improvement in demand conditions transmitted into the increase in base wage in 70% of firms, while bonuses were raised less often (in only 40% of firms). The price setting frequency increased, transmitting more frequent changes of labour costs. The competitive pressure grew during both the crisis and the post-crisis period.

The paper is structured as follows. Section 2 gives an overview of Latvian economic development during 2008–2013 and labour market institutions. Section 3 presents sample characteristics of the survey and provides the data robustness check. Section 4 reviews the methodology of general ordered logit analysis. Empirical results are presented in two subsequent sections, with labour cost adjustment strategies of Latvian firms being in the focus of Section 5 and Section 6 presenting characteristics of price setting and its changes. Finally, Section 7 concludes."

## 2. ECONOMIC AND INSTITUTIONAL CHARACTERISTICS

During the last decade, Latvia experienced a boom-bust cycle followed by economic recovery. For three years in a row (2004, 2005 and 2006), Latvia's GDP growth was the fastest among the EU countries. Latvia closed one third of its income gap with the EU average income level in just 5 years before 2007. This strong income convergence created perception that Latvia could achieve the EU average income in just one generation. Fuelled by low borrowing costs after the EU accession in 2004 and euro peg as from 2005, this led to pro-cyclical behaviour of Latvian households and a real estate bubble. Economic overheating, i.e. the economic growth faster than augmented by fundamentals, was further enhanced by pro-cyclical expansionary fiscal policy, EU fund inflows and emigration. While unemployment decreased below its natural rate and entrepreneurs were claiming that labour shortages were a major business obstacle, real wages were increasing faster than productivity in every sector of the economy, consumer price inflation increased and the demand-driven economic growth resulted in unsustainably high current account deficits. Latvia's output gap exceeded 11% of GDP in 2007 (EC AMECO; March 2015), which was among the highest numbers in the EU.

*Table 1*

### Key macroeconomic variables (Latvia; 2002–2014)

Variable	2002	2003	2004	2005	2006	2007	2008
Real GDP (year-on-year growth; %)	7.2	8.6	8.9	10.2	11.6	9.8	–3.2
GDP per capita PPS (EU28 = 100)	41	45	48	51	55	60	60
Unemployment rate (%)	12.5	11.6	11.7	10.0	7.0	6.1	7.7
Inflation (consumer prices; %)	1.9	2.9	6.2	6.7	6.5	10.1	15.4
Variable	2009	2010	2011	2012	2013	2014	
Real GDP (year-on-year growth; %)	–14.2	–2.9	5.0	4.8	4.2	2.4	
GDP per capita PPS (EU28 = 100)	53	53	57	60	64	NA	
Unemployment rate (%)	17.5	19.5	16.2	15.0	11.9	10.8	
Inflation (consumer prices; %)	3.5	–1.1	4.4	2.3	0.0	0.6	

Sources: CSB and Eurostat data.

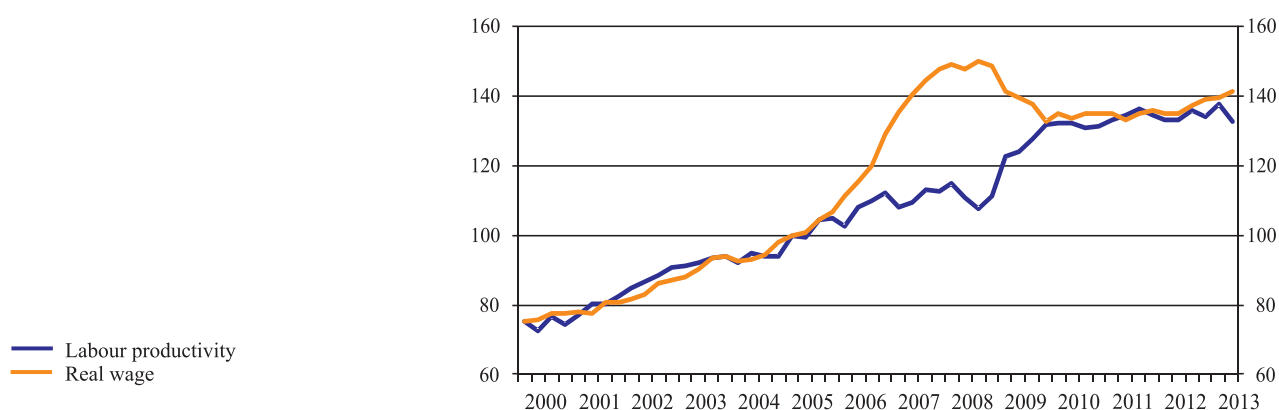
As the global financial crisis started, internal imbalances became increasingly visible, materialising as a bursting domestic housing bubble; the slump of global demand, in turn, had deteriorated exporting opportunities. The mix of these factors has determined the depth of the economic slowdown: Latvia lost 20% of its GDP during 2008–2010, which was the biggest slowdown in the EU.

Unemployment sky-rocketed from 6% in 2007 to above 20% at the beginning of 2010, the highest level in the EU at that time, and led to another wave of emigration. Society's understanding that economic developments were unsustainable during the short boom period determined general acceptance of the large wage cuts, which, in turn, helped restore competitiveness. Meanwhile, high flexibility of consumer prices in Latvia transmitted the effects of contracting demand and decline in world food and energy prices through a sharp drop in inflation. The robust economic growth within 4%–5% per year in 2011–2013 helped the country close the output gap and return the unemployment rate on the track of both the EU average and Latvia's (high) natural rate.

Latvia is one of the few examples of competitiveness restoration through internal adjustment while maintaining an exchange rate peg. However, the question of which was the main adjustment channel remains open. For instance, whether the balance between wages and productivity was restored due to a fast labour productivity rise, as suggested by macro-level data, while the average wage in the private sector remained almost flat; or firms hoarded highly-skilled labour and it biased up the statistics of both average wage and productivity (see Krasnopjorovs (2011)). The WDN survey data have a potential to explain firms' strategies of coping with the crisis and to answer the above question.

Figure 1

Real hourly wage and labour productivity (index; Q1 2005 = 100; seasonally adjusted data)



Labour market in Latvia is rather flexible, characterised by swift changes in wages, employment and working hours during crises. The employment protection legislation (EPL) in Latvia is rather rigid compared with the OECD standards (*OECD Employment Outlook* (2013)). However, it says little about how a particular dispute might be resolved in practice. In the case of Latvia, strict EPL may not imply well-protected workplaces or rigid labour market as argued by Krasnopjorovs (2013). For instance, the Labour Law prohibits the employer from terminating the employment contract with a trade union member without a prior consent of the relevant trade union (and if the trade union does not agree, only the court can dismiss the employee). However, given that trade union density in Latvia is one of the lowest in Europe and trade unions are particularly rare in the private sector, the issue does not add much to the actual employment protection.

The minimum wage in Latvia increased several times during the recent years: by one third in 2008, 12.5% in 2009, 11.1% in 2011, and 12.5% in 2014 and 2015. The impact of a minimum wage rise on the average wage in Latvia is not large. Even though it defines the minimum hourly wage (and monthly wage for full-time employees) mandatory for all sectors, occupations and regions, significant distortions due to minimum wage increases are unlikely to arise. For instance, despite the minimum wage rise by one third as from January 2008, it reflected a 32% average wage rise during 2007. Therefore, the minimum wage to average wage ratio, which increased somewhat during the recent years (from 33% in 2008 to 40% in 2013), just reversed the previous decreasing trend (it was 38% in 2004) and, by EU standards, remained rather modest.

There were also some changes in the amount and duration of unemployment benefit payments, which could alter the motivation to obtain the status of a registered



unemployed person, however without any significant impact on the real unemployment (job seekers) rate. The temporary public works programme "Workplace with Stipend" was limited to temporal low-skilled employment in public enterprises and lasted for two years, starting from the fourth quarter of 2009.

Historically, the role of collective bargaining has not been significant in Latvia. Trade union density (16%) and collective bargaining rates (20%; both according to the European Participation Index 2.0) are among the lowest in the EU. Although the impact of trade unions is much higher in education and healthcare, they are generally weak and unlikely to force the government to raise wages sharply.

### 3. THE SURVEY

Since the beginning of Eurosystem's WDN, which started operation in July 2006, two waves of surveys have been conducted. In 2014, the third WDN survey round started, focusing on the wage, labour force and prices adjustments in Europe (Latvia participated in this WDN survey for the first time). The harmonised survey questionnaire covers the period from 2010 to 2013, i.e. the years of economic slowdown in the majority of EU countries. Due to earlier exposure to the financial crisis, several countries (Latvia, Estonia, Lithuania, Poland, Bulgaria, and Luxembourg) extended the survey period by including 2008 and 2009.

The current survey was undertaken within the WDN framework by 25<sup>1</sup> central banks in the EU in 2014. The aim of the survey is to uncover labour market adjustment channels of firms during the crisis. Special attention is paid to financial conditions of firms and labour market reforms as well as wage and price setting mechanisms.

The resulting questionnaire is shown in Table A1 in Appendix. The questionnaire contains five major parts: firm characteristics, changes in the economic environment as well as labour force, wage and price adjustments. Several countries used the opportunity to add country-specific question blocks exploring unique labour market features. Thus the Latvian questionnaire contains country-specific questions about the minimum wage and performance-related bonuses for employees with different skills.

#### 3.1 The sample

The Latvian WDN survey was conducted by market and social research agency FACTUM in the summer of 2014. The survey was done electronically with a pre-survey invitation and follow-up calls. The response rate of 27 per cent resulted in the final sample of 557 firms. The sampling strategy was based on an equal probability basis, stratified by four categories of the number of employees and ten NACE Rev. 2 sectors. Firms established prior to 2011 with at least 10 employees were targeted. The resulting dataset is analysed for four firm employment size categories (10–19, 20–49, 50–199 and 200–..) and five sector groups (Manufacturing (C), Construction (F), Trade (G), Business services (H, I, J, L, M, N) and Financial intermediation (K)).

<sup>1</sup> Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Germany, Estonia, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain and the UK.

Two sets of weights are applied: 1) the firm number weights ( $wb$ ) targeting population of firms, and 2) employment weights ( $wl$ ), which aim at ensuring that the sample represents employees in the population. Both weights are constructed at NACE Rev. 2 two digit level.

The firm number weights  $wb$  correct for unequal probability of firms to be included in the realised sample. They are set by dividing the number of firms in population ( $N_h$ ) by the number of firms in realised sample ( $n_h$ ) for corresponding strata ( $h$ ) at NACE Rev. 2 two digit sector ( $wb = N_h/n_h$ ). The employment weights  $wl$  are constructed by using the average size of firms in the realised sample ( $l_h/n_h$ ) to estimate employment in population strata ( $N_h(l_h/n_h)$ ) and then dividing it by the number of firms in the realised sample ( $wl = (N_h(l_h/n_h))/n_h$ ).

The composition of the resulting and weights-adjusted sample is presented in Table 2. The first four columns describe the sample and population of firms; the remaining three show the distribution of employment. The structure of sample and population of firms is very similar by construction. There is a slight over-sampling of trade firms and under-sampling of construction firms. A larger difference is evident in firm distribution by size. Small firms are under-represented and big firms are over-represented in the sample, which is corrected by the firm number  $wb$  and employment  $wl$  weights.

Table 2

**Sample composition by sector and size**

	Number of firms				Employment		
	Sample		wb*	Population** (commercial companies)	Sample	wl*	Population (including firms with less than 10 employees)
	Number	%	%	%	%	%	%
Manufacturing	100	18	17	18	22	21	23
Construction	69	12	14	14	11	11	12
Trade	173	31	29	29	14	19	24
Business services	203	36	37	37	48	43	37
Financial intermediation	12	2	3	2	5	6	5
Total	557	100	100	100	100	100	100
10–19	264	47	51		9	19	
20–49	144	26	30	81	12	14	
50–199	118	21	15		29	31	
200–..	31	6	4	19	51	37	
Total	557	100	100	100	100	100	

Note:  $wb$  – weighted to represent firm population,  $wl$  – weighted to represent employees in the population.

\* The structure of the weighted sample and population differs due to the absence of some subsectors in the sample.

\*\* Official statistics on firm size/sector groups uses slightly different size groups (10–49, 50–249, 250–..), therefore we present population distribution for two groups: 10–49 and 50–.. .

### 3.2 Robustness check and sample descriptive statistics

Before analysing labour force adjustment channels, it is useful to have a closer look at the obtained data and to compare firm characteristics of the sample with those of the official statistics from the CSB and the Lursoft database of Latvian enterprises.

The majority of firms participating in the survey (95%) were established prior to 2008 (firms established after 2011 are not included in the sample). That is why almost all firms were able to answer questions about their labour adjustment strategies during the crisis (2008–2009) and the post-crisis (2010–2013) period in Latvia. Lursoft data on active enterprise demographics show that the share of enterprises established prior to 2008 accounts for 73% of the total number of firms established prior to 2011. Thus, younger firms are under-represented in our sample.

Due to the fact that the minimum size of firms was limited to 10 employees, our survey does not cover the segment of very small firms. Firms with less than 10 employees, however, represent only 14% of employment<sup>2</sup>, therefore the results of the study cover the major part of labour market. Still, one needs to keep in mind the structure of firms involved in the study while interpreting the results.

Around 18% of the weighted firm sample are multi-establishment firms (see Table A3), which is in line with the CSB's data for 2012 (enterprise groups represent around 15% of all firms). Less than half of the multi-establishment firms in the sample are mainly foreign-owned (44%) and 38% of them are parent companies (see Table A4). These numbers are only slightly above the official CSB's estimate of 33.5% for foreign-owned enterprise groups in the total number of firms in 2012.

At the end of 2013, 96% of employees in the sample had permanent contracts, which is in line with the official statistics. According to the weighted sample data on employment structure, a vast majority of employees (85%) had permanent full-time contracts (see Table A5), which is slightly less than the CSB's evaluation (91%). Only one out of nine permanent employees in the sample was working part-time at the end of 2013, while temporary and agency workers accounted for 4% and 1.5% of the workforce respectively. In large firms and the financial intermediation sector, temporary workers were more prevalent while permanent part-time workers were less prevalent (see Table A5). Agency workers were more prevalent in business services and less prevalent in large firms.

The share of manual and non-manual workers in the firm-weighted sample matches precisely the CSB's estimated proportion of 57% and 43% in 2013. Inside the groups, however, the sample share of lower-skilled manual workers is slightly below official 15% (11.8%), which is probably due to under-sampling of construction firms. About one third of all employees (33%) are higher-skilled manual workers; this group is more prevalent in manufacturing and construction (see Table A6). As to higher-skilled non-manual and lower-skilled non-manual worker groups, each accounts for about one fourth of the total employees' number. The former is more prevalent in financial intermediation and the latter in trade.

<sup>2</sup> Authors' estimation based on Lursoft data for 2012 <http://blog.lursoft.lv/2013/05/30/lursoft-petijums-mikro-un-mazie-uznemumi-latvijas-ekonomika-ienem-aizvien-nozimigaku-lomu/>.

According to the sample data, one half of employees have been working for the current employer for more than five years and one third of employees for between one and five years. The share of employees with long tenure was higher in small firms and those operating in manufacturing and construction (see Table A7).

The WDN survey confirms that the collective bargaining coverage is low in Latvia. Only 2% of employees are working in firms that have a binding collective pay agreement signed outside the firm, while 17% have such an agreement inside the firm (see Table A8 and Figure A34). The collective bargaining coverage relates positively to the firm size. Among large firms, 6% have binding collective pay agreement outside the firm and 34% inside the firm. Collective bargaining inside the firm is more prevalent in domestically-owned firms, particularly in finance and business services, whereas in trade it is less prevalent. The most popular frequency at which collective pay agreement inside the firm is adjusted is once per year (40%; see Table A9).

The average revenue share from the main product or service due to sales in foreign markets is around 20%, according to the firm number weighted sample (see Table A10). The manufacturing sector shows the biggest export activity (around 42% from total revenue), which is in line with the estimation from the CSB's sector output and export data.

At the beginning of 2013, around 17% of employees received wages equal to the minimum wage or below it (according to the CSB's Labour Force Survey data). In the sample, 15% of employees receive minimum wage (according to the employment weights). The discrepancies between the sample and official statistics can be explained, to a large extent, by exclusion of firms with less than 10 employees from the sample. However, even within the existing sample, minimum wage is more prevalent in small firms (see Table A63). Financial intermediation firms have the lowest share of minimum wage received due to generally high wage level in the sector.

Overall, the robustness check shows that aggregate statistics obtained from the collected database are in line with the official statistics, and, therefore, the results of the study can be attributed to the population of Latvian firms (of corresponding size and sector).

#### 4. THE GENERALISED ORDERED LOGIT (GLOGIT) MODEL

The majority of responses collected in the survey database are ordered categorical variables (e.g. 1 = Strong decrease, 2 = Decrease, 3 = Unchanged, 4 = Increase, 5 = Strong increase) or binary variables (e.g. 1 = Relevant, 0 = Not relevant) (see questionnaire in Table A1). To provide a detailed overview of information obtained, we use both qualitative and quantitative techniques. Besides cross-tabulations and corresponding figures we provide marginal effects of ordered logistic regressions<sup>3</sup>. This lets us be more specific about factors determining the actions undertaken by firms.

A generalised ordered logit regression was applied to analyse ordinal dependent variable. The model can be written as

<sup>3</sup> All tables and figures can be found in the Appendix.

$$P(Y_i > j) = g(X\beta_j) = \frac{\exp(\alpha_j + X_i\beta_j)}{1 + \{\exp(\alpha_j + X_i\beta_j)\}}, \quad j = 1, 2, \dots, M - 1, \quad (1)$$

where  $M$  is the number of categories of ordinal dependent variable. If  $M = 2$ , the model is equivalent to the logistic regression model. Estimation and interpretation of coefficients in the ordered logistic model is similar to the simple logit in the sense that the chosen  $j$  category is contrasted against all the other groups, e.g. if  $M = 5$  and  $j = 3$ , the reference group is formed from  $j = 1, 2, 4, 5$ .

The main difference of the generalised ordered logit model from the regular ordered logit model is a relaxation of the assumption that the effect of explanatory variables is the same for all levels of ordered explained variable, i.e.  $\beta$  is the same for all  $j$ . STATA routine proposed by Williams (2006)<sup>4</sup> allows keeping some  $\beta$  equal for all levels of ordered variable while letting the chosen  $j$ 's differ. Automatic backward stepwise selection procedure was applied at 0.05 significance level for  $\beta$  equality check. The description of explanatory variables used in regressions is given in Table A2.

## 5. MAIN RESULTS OF ADJUSTMENTS AND WAGE SETTING CHANGES

This section illustrates the main sources of shocks for Latvian firms and labour cost adjustment strategies undertaken. The survey results are presented in the Appendix. Cross-tabulations and figures show weighted responses of firms for two distinct periods of 2008–2009 and 2010–2013. Particularly, we show that both frequency and magnitude of wage adjustment were significant, unlike what the macroeconomic picture of average wage suggests.

### 5.1 Sources and size of shocks

In the survey, the firms were asked about three types of shocks: of the demand for products and services, of the access to external financing through conventional financial channels, and of availability of supplies from usual suppliers. The WDN survey results show that Latvia experienced a substantial negative demand shock during 2008–2009, while changes in access to financing and usual supply chains were less pronounced. Furthermore, the negative demand shock was mostly domestic, reflecting economic overheating just before the first WDN period, whereas the subsequent economic revival was primarily based on export growth. Despite a relatively swift improvement of demand in 2010–2013, financial conditions improved only gradually, and credit constraints were binding during both periods on half of firms.

#### 5.1.1 Change in overall demand for products and services

The global financial crisis of 2008 together with the burst of real estate price bubble provoked a broad-based contraction of the Latvian economy during 2008–2009, the severity of which was enhanced by a build-up of domestic imbalances during the previous years of economic overheating. More than half of firms claimed some decrease in demand for their products or services during 2008–2009 (see Table A11 and Figure A1), with more than 28% of them considering it to be particularly strong.

<sup>4</sup> STATA `gologit2` command.

The results are not uniform across the economy. Particularly in 2010–2013, a larger export share not only decreased the probability of facing a demand slowdown but also increased the probability of facing a demand rise. Construction firms, in turn, experienced demand slowdowns more often (see Table A13 and Figures A2 and A3).

Despite global weakening of the demand and recession in Latvia's main trade partner countries, strong competitiveness gains (declining unit labour costs in particular) helped Latvian firms expand their market shares in other countries' imports, while the magnitude of demand slowdown gave rise to search for new markets. This can be illustrated by the fact that almost two thirds of firms reported an increase in demand during 2010–2013 (see Table A11), with the effect being more pronounced for large exporting firms, since the recovery of domestic demand was subdued given the strong economic overheating just before the crisis. The analysis of change in demand conditions during 2010–2013 shows that 68% of the firms stating that the demand for their main product or service decreased in 2008–2009 experienced an increase in demand during 2010–2013 (see Table A12). On the other hand, only 23% of firms experiencing deterioration of demand in 2008–2009 answered that the demand for their product was still decreasing.

### 5.1.2 Domestic versus foreign demand and prices

A detailed analysis of firm exposure to changes in foreign and domestic demand shows that on average the foreign market was characterised by more stable demand and prices (see Table A15 and Figure A17). For instance, 60% and 50% of firms reported that the foreign demand for their main product or service has not changed in 2008–2009 and 2010–2013 respectively (twice as much as in the domestic demand). The share of firms reporting foreign market price stability for their main product or service is broadly similar (around 62%) and twice higher than the corresponding share in the domestic market. The demand volatility did not transmit fully to prices, with the shares of firms whose prices experienced strong decreases or increases being on average twice as small as the corresponding shares of changes in demand.

The logistic regression analysis shows that large firms experienced a stronger demand rise in both domestic and foreign markets particularly in 2010–2013 (see Table A16 and Figures A18 and A19). Construction firms were most likely to face a fall of domestic demand in 2008–2009, while manufacturing ones were more likely to face a rise in foreign demand in 2010–2013 even after controlling for the export share.

In each period, the price changes were positively related to the demand changes for both domestic and foreign markets (see Table A17). The extent of domestic competition increased the probability of price changes in the domestic market in both periods, while foreign competition increased the probability of price decreases in the foreign market only during 2010–2013. Over 2008–2009, construction firms were more likely to face a price decrease in the domestic market and less likely to face a price increase in the foreign market. The subsidiaries were less likely to face a price decrease in both periods.

### 5.1.3 Customers' ability to pay and availability of supplies

Customers' ability to pay deteriorated together with a decrease in demand in 2008–2009 and improved afterwards, however, at a lesser frequency. Half of firms had not reported any change in both periods (see Table A11 and Figure A1). There is also a strong positive relation between customers' ability to pay and demand for firms' products (see Table A14).

The global economic crisis had not changed the access to usual suppliers for about two thirds of Latvian firms, reflecting the demand nature of economic crisis without notable impact on supply chains (see Table A11). Interestingly, the domestically-owned firms were more likely to experience improving availability of supplies during 2010–2013. However, supply availability may partly reflect a firm's own ability to pay (supplies may be limited to firms with low ability to pay), mirroring a strong positive relation between availability of supplies and the demand for firm's products (see Table A14).

### 5.1.4 Availability of external financing and credit conditions

Besides negatively affecting the demand conditions of the economy, the crisis of 2008–2009 worsened the financial conditions of firms. Despite relatively swift recovery of demand in 2010–2013, the financial conditions improved only marginally. According to the Financial Stability Report of Latvijas Banka, loans to residents have shrunk on average by 8% per year since the end of 2008 (*Financial Stability Report* (2015)). By February 2015, the domestic loan portfolio had contracted by 8.4 billion euro, or 40%, compared to the end of 2008, reflecting the on-going deleveraging process of borrowers and credit institutions.

According to the results of Bank Lending Survey (*Euro area bank lending survey* (2014)), during the crisis period, credit standards were tightened sharply in 2008 in Latvia and have remained broadly unchanged since. The WDN survey results confirm a tight credit standard environment for Latvian firms, showing also that despite improvements in demand for half of firms credit constraints were binding in both 2008–2009 and 2010–2013 (see Tables A18 and A19; Figure A5). About 10% of firms described the unavailability of credit (to finance working capital, new investment or to refinance debt) or too onerous credit conditions as very relevant.

The problem of financing working capital was classified as very relevant by almost half of firms in each period (by 42% of firms in both periods altogether). Insufficient availability of credit to finance new investment or refinance debt was relevant for 40% and 30% of firms correspondingly. Manufacturing firms were more likely to be credit-constrained to finance working capital and new investment during both periods, and also to refinance debt during 2008–2009 (see Tables A20 and A21; Figures A6 and A7). Large firms were more likely to be credit-constrained during 2008–2009, while subsidiaries faced less onerous credit conditions, particularly during 2010–2013, in respect to working capital financing and debt refinancing. The impact of export share on credit availability or credit conditions was not significant.

Availability of external financing has changed as well. More firms experienced some tightening rather than loosening of the access to external financing over the period of 2008–2009; the opposite was true for 2010–2013. Five out of six firms

having stated that availability of external financing had not changed over 2008–2009 gave the same answer also regarding the latter period (see Table A11).

Overall, firms with a more pronounced demand slowdown experienced also a more substantial tightening of credit constraints (see Tables A20 and A21; Figure A8). Insufficient demand was likely to worsen financial indicators, which, in turn, decreased credit availability. Furthermore, during the latter period, larger firms enjoyed more favourable changes in the access to credit.

## 5.2 Methods of labour cost adjustment (wages versus employment and hours)

The economic revival of 2010–2013 was primarily export-based and reflected sizeable competitiveness gains due to the labour cost adjustment in 2008–2009 and productivity growth in 2010–2013. The analysis of total cost components shows that financing costs did not change much over years, while supply-related costs increased during both the crisis and the post-crisis period. Therefore, the adjustment of labour costs determined a change in total costs and explains its cyclical behaviour (see Table A22 and Figure A9).

Total costs decreased somewhat during 2008–2009 and rose thereafter. Although firms were as likely to decrease total costs during 2008–2009 as to increase them, the share of firms recording strong decreases in total costs was considerably larger than that recording a strong increase. By contrast, about two thirds of firms increased their total costs during 2010–2013.

Changes in demand are highly correlated with changes in labour costs (firms with a demand slowdown were more likely to decrease their costs and vice versa; see Table A23 and Figure A12). Firms in the construction sector, large firms and parent companies were most likely to decrease their labour costs during 2008–2009 even after controlling for the demand changes. In turn, the financial firms decreased their labour and financing costs considerably during 2010–2013 (see Table A24 and Figures A10 and A11). The fall of labour costs is confirmed by the CSB's business survey, according to which the construction and finance sectors have shown worst employment developments since mid-2007, while a period of very low interest rates may have lowered financial costs for financial intermediation enterprises.

### 5.2.1 Fixed and flexible wage components

Low collective bargaining coverage (wages negotiated mainly at individual level) and over-optimistic wage growth prior to 2008 both explain the remarkable flexibility of wages in Latvia during the recent crisis. According to the survey results, around 33% of firms decreased wages of their employees. Roughly the same share of firms reduced the number of their permanent workers (see Table A25 and Figure A13). Therefore both wage and employment adjustments were the main channels of labour cost adjustment.

Over 2008–2009, base wages or piece work rates were as likely to be reduced as flexible wage components. In this period, firms decreased their base wages or piece work rates for 32% of workers and flexible wage components for 37% correspondingly. After controlling for demand changes, base wages and piece work rates were more likely to fall in the construction sector (see Table A26 and Figures A14 and A15). In the meantime, flexible wage components were more likely to be



reduced by large enterprises, parent companies, firms in domestic ownership, and in the financial sector.

During 2010–2013, with the improvement in foreign and domestic demand, more than 70% of firms raised base wages or piece work rates for their employees, and 40% of firms raised flexible wage components. Base wages were more likely to be increased in the manufacturing sector, while flexible wage components were less likely to rise in financial intermediation companies (see Table A26). A decrease in base or flexible wages was still an issue for only 12% of firms during 2010–2013 mostly due to sluggish demand developments (see Figure A16).

A detailed description of wage adjustment is presented in Subsection 5.3.

### 5.2.2 Employment and working hours

During 2008–2009, the number of permanent employees was reduced twice more often than the number of temporary and fixed-term employees (by 31% and 15% respectively) (see Table A25 and Figure A13). It is in line with the results of labour flow analysis carried out by Braukša and Fadejeva (2013). Over 70% of firms did not adjust the number of employees with fixed or temporary contracts, which can be partly explained by the relatively small share of this type of contracts (approximately 4% at the end of 2013) and their increasing popularity after the crisis.

The results of logistic regression analysis show that during 2008–2009 the construction sector experienced most pronounced layoffs of permanent employees even after controlling for the demand changes. The financial sector, on the other hand, had lower probability to increase the number of temporary or fixed-term employees compared with other sectors (see Table A27 and Figures A14 and A15).

In 2010–2013, 40% of firms increased the number of permanent employees and 17% raised the number of fixed-term contracts, with the probability to increase employment being higher for firms with positive demand developments (see Table A27 and Figure A16). It is important to note that the relative share of firms reporting some growth in employment in 2010–2013 is almost twice as small as the share of firms reporting a wage rise. More details on labour force adjustment are presented in Subsection 5.5.

About 16% of firms reduced hours worked per employee during 2008–2009 (75% of firms stated no changes in average hours worked; see Tables A25 and A8). During 2010–2013, 19% of firms reported an increase of hours worked per employee. Therefore, varying workload was one of the buffers that may have decreased the magnitude of layoffs during the crisis. A notable exception was the financial sector where the workload was stable (see Table A28 and Figures A14 and A15).

### 5.2.3 Labour productivity and profit margins

Overall, 50% of firms stated that average productivity per employee (as compared to labour costs per employee) did not change during 2008–2009 (see Table A29 and Figure A20). In manufacturing and business services, more firms increased the average productivity per employee than decreased it, while the opposite was true for the construction, trade and financial intermediation (see Figure A21). In turn, the

labour productivity rise exceeded the labour cost increase in each sector of the economy during 2010–2013 (especially in manufacturing and the financial sector). During both periods, firms with foreign ownership were more likely to increase labour productivity faster than labour costs (see Table A30 and Figure A22). Furthermore, productivity gains in relation to labour cost developments were positively linked with changes in the demand level and access to credit (see Figure A23).

Profit margins, measured as prices compared to total costs, decreased in 30% of firms during 2008–2009 (see Table A29 and Figure A20). Particularly, 11% of firms decreased profit margins strongly, while firms with a strong increase were almost absent. A larger need to decrease profit margins was observed in firms facing a more pronounced drop in demand and customers' ability to pay (see Table A30 and Figure A23). Profit margins decreased particularly strongly in construction, exporting and domestically-owned firms. In 2010–2013, profit margins increased in every sector of the economy (less so in construction companies). Firms experiencing improvements in demand growth and problems in access to credit had a higher probability to increase their profit margins (see Table A30). We also checked for the effect of wage changes on profit margins, controlling for demand changes. A wage increase is positively related to an increase in profit margins during both periods; hence we do not find evidence of firms raising their profit margins by reducing the base wage of employees.

The share of non-labour costs in total costs increased in both periods. During 2008–2009, labour costs declined substantially, while financing costs did not change significantly and cost of supplies went up moderately. In the meantime in 2010–2013, the increase of financing costs as well as costs of supplies exceeded the rise of labour costs (see Table A29). In both periods, the increase of non-labour costs compared to labour costs was positively related to the demand level and was present particularly in the manufacturing and financial sectors (see Table A31 and Figures A21–A23).

### 5.3 Wage adjustment

The previous section showed that, according to the results of the survey, the degree of synchronisation between changes in labour costs and total costs is very significant in Latvia (see Subsection 5.2). Adjustments in both wages and employment help balance firms' expenses during the times of sharp demand drops and increasing credit constraints. In line with the general knowledge about firms, the balance sheet structure survey results show that base and flexible wage components before taxes together with training expenses and contributions to the pension funds accounted for 36% of all operating expenses in 2013. Capital intensity varies across sectors, thus the labour cost share is lower in the manufacturing sector and higher in financial intermediation (see Table A44).

#### 5.3.1 Wage setting mechanism

About one third of all firms adjusted base wages once a year and one fifth of them did it less frequently than once every two years (see Table A52). This proportion did not change much during or after the crisis. There was some marginal substitution towards reducing the share of firms that change base wages more often than once a

year and increasing the share of firms that change wages every two years or less frequently. However, the overall composition of wage change frequency remained unchanged. Firms with more stable demand tended to change wages less frequently. Construction was a sector with most frequent wage changes: 10% of employees were employed in firms where base wages were changed more often than once a year. Trade, on the other hand, was a sector with least frequent wage changes: 22% of employees were not subject to base wage change at all during 2010–2013 (see Figures A37 and A38).

The share of firms indexing base wages to inflation has been steadily declining since 2008–2009. In 2010–2013, only 24% of employees were working in a firm adjusting base wages to inflation (almost 20 percentage points lower than before 2008; see Table A51). This is attributable to lower inflation only partly: the share of firms that claimed no wage inflation indexation mechanism because of too low inflation rose only marginally. A particularly steep decline was present among large firms (see Figure A35). Before 2008, wage indexation to inflation was most prevalent in large firms (53% of employees working in large firms), whereas during 2010–2013 it was the least prevalent in this category of firms (15%). During 2010–2013, wage indexation to inflation was less pronounced in financial intermediation (a steep decline during 2008–2009).

Moreover, analysing the probability of linking base wages to inflation, we found out that non-exporting firms following state-dependent pricing (prices are adjusted solely according to changes in costs and profit margins, disregarding any imposed frequency of price change) have higher probability to adjust base wages to inflation (see Table A54).

It is interesting that in all periods wage inflation indexation was more prevalent in firms with no significant change in demand for their products or services (see Figure A36). This could reflect the situation in which firms with no changes in demand place more emphasis on the general economic situation and adjust wages to inflation.

Only 6% of the wage bill was related to individual or company performance bonuses and benefits in 2013 (9% according to the employment weights). Flexible wage components were more prevalent in large firms as well as in financial intermediation and other business services (see Table A45). Both manual and non-manual higher-skilled employees are more likely to receive performance-related bonuses, while lower-skilled manual workers are less likely to receive them (see Table A46).

### 5.3.2 Adjustment of base and flexible wages

As already mentioned in Subsection 5.2, wage adjustment was one of the two main channels of labour cost adjustment. Moreover, base wages were as likely to be reduced as flexible wage components. Both wage cuts and freezes were used intensively during the crisis and the post-crisis periods.

Wage cuts were particularly widespread in 2009 (29% of employees were working in a firm that applied the wage cut strategy) when a strong demand slowdown created the necessity to decrease labour costs significantly. Wage freezes, meanwhile, were mostly used in 2010 and 2011 (27% and 26% respectively; see Table A53 and Figure A39). In 2012 and 2013, in line with the robust economic

growth, the prevalence of wage cuts and freezes decreased markedly. However, it should be noted that the absence of wage freeze or cutting strategy does not necessarily mean a wage rise.

Wage freezes and cuts were applied relatively more by large firms (see Figure A39). In 2009, for instance, 39% of large firm employees worked in companies that applied the wage cut strategy, while 20% of employees worked in companies that applied wage freezes (twice as many as small firms). This difference declined over time. The analysis of marginal effects from ordered logistic regressions (see Tables A58 and A59) shows that the elasticity of wage freeze to firm size increased with time, whereas the elasticity of wage cut to firm size declined. This clearly points to a change in wage adjustment strategies for firms with different number of employees. Therefore, after the crisis of 2008–2009, wage freezes were more dominant in larger firms, yet the probability of wage reductions was solely dependent on demand conditions.

Comparing wage adjustment strategies across sectors, we see that wage freezes and cuts were less prevalent in financial intermediation and business services during the analysed period (except 2013 when the probability of wages to be reduced in the financial sector was higher; see Figure A39 and Table A59).

Improvements in labour productivity had a significant positive effect on wage increases after 2011. As shown in Table A59, the probability of cutting or freezing wages declined along with changes in labour productivity, thus indicating that workers benefited from an increase in labour productivity after the crisis.

As from 2010, wage freezes and cuts became more prevalent in domestically-owned firms (see Table A59). For instance, in 2012 and 2013, the prevalence of wage freezes among domestically-owned firms was twice as high (see Figure A39). Also, a higher share of exporting firms were freezing base wages of their employees (the export share effect was statistically insignificant, however). During 2010–2013, the share of exporting firms implementing a wage freeze (weighted by employment) was by about 10 percentage points larger than that of non-exporting firms (see Figure A39).

It is noteworthy that before 2012 firms with a strong demand decrease were as likely to implement wage cuts and freezes as firms with a strong demand increase (see Figure A40). It means that during the crisis some firms took advantage of the overall tendency to decrease wages during 2008–2009 and reduced labour costs despite favourable demand conditions. In later years, however, the situation changed significantly: in firms with a strong demand increase wage cuts were not implemented at all, while among firms with a strong demand decrease, 24% and 19% of firms (weighted by employment) cut wages in 2012 and 2013 respectively.

If a firm had implemented the wage freeze strategy, wages of about 90% of employees were frozen on average (see Table A55). In turn, the implementation of wage cut strategy affected 60% of employees on average; however, this proportion was falling steadily over time (see Table A56). If a firm decreased the wage of a particular employee, the average decrease varied from 16% to 26% in different years. Small firms tended to decrease wages more sharply (see Table A57) and for a larger share of employees (see Table A56).

Overall changes in flexible wages are analysed in Subsection 5.2. It shows that individual or company-related bonuses and base wages were reduced in the similar share of firms (around 30% and 12% in 2008–2009 and 2010–2013 respectively; see Table A25). With the improvement of demand conditions, around 40% of firms increased their flexible wage, this share being smaller than that of firms with base wage increase (almost 70%). There are differences in adjustment by employee skill level (see Tables A47 and A48). It should be noted that the number of firms keeping the share of performance-related benefits unchanged was roughly 50% in both periods and for all types of workers.

During 2008–2009, the decreasing share of performance-related benefits in the total wage bill affected non-manual workers slightly more than manual workers. This tendency was observed in all sectors. One out of three employees experienced reduction of performance-related benefits both in higher and lower non-manual skill groups (see Table A47). In the financial intermediation sector, 70% of employees experienced benefit cuts, which is almost twice more than in the manufacturing sector. The lowest share of employees affected was in the trade sector (around 15%).

In 2010–2013, around 30% of employees (somewhat less for low-skilled manual workers) experienced an increase in the share of performance-related benefits (see Table A48). Benefits were increased for more than 40% of employees in business services. Firms in the financial intermediation sector, in line with the findings about base wage cuts, were reducing benefits for around 40% of employees, at the same increasing them for 30% of employees. Therefore, the overall effect on average performance-related benefits in the financial sector is mixed. In the manufacturing and construction sectors, more than one third of employees in the higher skilled manual labour group received a rise in performance-related benefits (compared with a lower share of employees with different skill level), which can be explained by the limited supply of high skilled manual labour in the respective sectors. In the trade sector, on the other hand, a higher share of non-manual workers experienced an increase in bonuses than in the manual labour group. In the business services sector, the share of people receiving higher performance-related bonuses increased similarly across all skill types.

Developments in demand determine changes in flexible wage, thus firms experiencing negative demand shocks have a higher probability to decrease flexible wage, and vice versa (see Tables A49 and A50). The share of performance-related benefits decreased particularly strongly in larger firms (with higher elasticity for 2008–2009), which is in line with the results for the base wage. It is interesting that the decline in flexible wage for higher-skilled non-manual workers was particularly strong for firms with a large number of respective employees in 2008–2009. For other periods and employee skill types, this factor was statistically significant mostly in cases of flexible wage increases, which can be explained by the fact that the decrease of flexible wage was uniform across all types of employers, but the likelihood of an increase in flexible wage was higher if the respective firm had a bigger share of particular employees.

#### **5.4 New employees: hiring obstacles and wages**

The most important obstacles to hiring employees at the end of 2013 (not relevant for only 7%–9% of firms) were insufficient supply of skilled labour and high wages

(see Table A40 and Figure A31). Insufficient supply of skilled labour was ranked as very relevant by 41% of firms and high wages by 24%. Large firms claimed insufficient supply of skilled labour as very relevant more often (see Figure A32). Manufacturing firms were more likely to face insufficient supply of skilled labour, while firms operating in business services were less likely to regard the wage level to be high (see Tables A41–A43 and Figures A32 and A33).

Economic uncertainty, access to financing, and high payroll taxes were relevant for five out of six firms (around 40% of firms claimed high payroll taxes to be a very relevant obstacle to hiring workers). All three factors were more often pointed out by smaller firms (see Figure A32). Firing costs rather than hiring costs were a somewhat more important obstacle for firms to hire a new employee (81% and 76% respectively). Both factors were most relevant in finance but less relevant in trade and business services (see Figure A32).

Overall, the wage of newly hired workers tended to be smaller than the wage of incumbent workers, after controlling for experience and task assignment (see Table A60 and Figure A41). For instance, both before 2008 and during 2008–2009, about 25% of firms claimed it was lower (compared to 3%–4% of firms claiming that it was higher). However, the situation changed significantly in the latter period: during 2010–2013, the share of firms claiming that the wage of newly hired worker was higher exceeded 10%.

Compared to the non-exporting firms, the exporting firms tended to underpay new hires more. Large firms tended to underpay new hires more both before 2008 and during 2008–2009 (see Figure A41). New hires were underpaid more often in manufacturing. Even during 2010–2013, about 40% of manufacturing firms (weighted by employment) claimed that, compared with incumbent workers, they paid lower wages to new hires. Meanwhile, financial intermediation tended to overpay its new hires, with 29% of firms paying them more than could be justified by their experience and tasks. In 2010–2013, new hires were both underpaid and overpaid more often by firms with large increases in demand (see Figure A42).

Comparing the wages of newly hired workers and similar (in terms of experience and task assignment) incumbent workers by employee skill level, we see that around 75% of firms answered for all skill types that wages were similar, while more than 20% of firms stated that wages were lower (see Table A61). Interestingly, that using the employment weights, the proportion of answers balanced out for non-manual workers (the shares of firms answering that their wages for new workers were either higher or lower were similar) for 2010–2013; however, the relative share of firms claiming prevalence of lower wages for the new manual workers declined only marginally. This indicates that in larger firms wage discrimination against newly hired manual workers in comparison with non-manual workers was slightly higher in 2010–2013.

The wage gap between newly hired and existing workers showed weak pro-cyclical behaviour during the analysed period (see Table A62). Around 12% of firms claimed that the gap between wages narrowed in 2008–2009, and around 20% of firms reported a moderate increase in 2010–2013 (14% for manual lower-skilled labour). The majority of firms reported, however, that the wage gap did not change over the cycle.

## 5.5 Labour force adjustment

During 2008–2009, more than one third of firms significantly reduced labour input or altered its composition; 30% of them repeated the action in 2010–2013 (see Table A32). Overall, one fourth of all firms had to undertake labour force adjustment in 2010–2013. Firms operating in manufacturing and construction as well as firms with a higher number of employees had a stronger probability to reduce labour input in 2008–2009 (see Table A33 and Figure A24), which is likely to reflect a drop in demand. Finance sector firms, at the same time, showed significant adjustment in labour force during 2010–2013. Firms with declining demand and no access to credit resources had a higher probability to reduce their labour input during both periods (see Table A33 and Figure A26). Exporting and non-exporting firms are characterised by broadly similar employment adjustment measures.

The most popular measures to reduce labour input in 2008–2009 were freezes on new hires as well as individual layoffs and reduction of working hours (see Table A34 and Figure A27). Freezes on new hires were particularly important. Of those firms that reduced labour input, more than 80% used the above measure during 2008–2009. The logistic regression analysis shows that the likelihood to apply this measure grew with the number of employees and severity of demand shocks (see Table A35 and Figures A28 and A29).

The second most widely used measure to reduce labour input in 2008–2009 was individual layoffs, implemented by two thirds of firms that reduced labour input or altered its composition (see Table A35 and Figures A28 and A29). The probability to apply individual layoffs was higher for domestic, exporting, multi-establishment firms with higher than average developments in demand. The fact that even firms with growing demand applied individual layoffs signals that they managed to improve their labour force composition by getting rid of unnecessary employees and possibly substituting them by better candidates. A similar tendency was observed in wage adjustments, when firms decreased wages even if the demand for their product was rising, in such a way taking advantage of the common trends in wage reduction and decreasing labour costs.

The high share of firms implementing individual layoffs may reflect low collective bargaining coverage, with employment conditions negotiated primarily at individual level amidst rather strict EPL environment. For instance, some firms may have fired employees because of "misconduct" or forced them to quit job at their "free will" in order not to provide a severance pay (one to four monthly wages depending on job tenure as defined in the Labour Law). Moreover, it may reflect firm's avoidance of special regulations in case of collective dismissals (45–60 day long advance notice of collective dismissal and consultations with employee representatives, the State Employment Agency and municipalities). Besides, it may partly reflect the survival bias of surveyed firms, as those firms that went bankrupt during the crisis were more likely to implement collective layoffs.

Reduction of working hours was used by two thirds of firms adjusting labour force during 2008–2009, thus reflecting flexibility of working week length. Being very popular in manufacturing and the construction sector as well as in larger firms, reduction of working hours was not so widespread in services where working time depends more on customer flows (see Table A35). Particularly, this measure was

almost non-existent in finance and was not used in more than half of firms working in the trade sector (see Figure A28).

Non-renewal of contracts was used by 30% of firms that reduced labour input or altered its composition in 2008–2009 according to the firm number weights (or 46% of firms aggregated by employment weights). The discrepancy between different weights indicates the particular importance of the measure for larger firms. The probability to use non-renewal of contracts is higher for larger firms, construction and finance sector enterprises as well as firms with credit access problems (see Table A35 and Figures A28 and A29).

Early retirement schemes were used in one quarter of firms that reduced labour input or altered its composition. However, the results are not uniform across the economy. Of firms that reduced labour input or altered its composition, early retirement schemes were used by 30%–40% firms operating in trade and business services as well as by almost 20% of manufacturing and construction firms but were virtually non-existent in finance (see Figure A28). Large firms tended to use them more often than small firms (35% and 20% respectively). Controlling for demand developments, the probability to use early retirement schemes declines in exporting and parent companies (see Table A36). Of exporting firms that reduced labour input or altered its composition, 30% used early retirement schemes, whereas among non-exporting ones the share was twice as large.

Reduction of agency workers was used by less than 20% of firms that reduced labour input or altered its composition. The probability to implement this measure was higher for exporting enterprises, firms in the construction and finance sectors as well as subsidiary firms (see Table A36 and Figures A28 and A29). The manufacturing sector, on the other hand, used this measure only marginally.

Finally, the collective lay-off measure was not widespread owing to low collective bargaining coverage and survival bias. Only 10% of firms applied it during 2008–2009, mostly in the manufacturing, trade and other business services sectors.

During 2010–2013, the economic recovery had decreased the need to reduce labour force. However, one fourth of all firms still had to use some labour force adjustments (see Table A32). The composition of measures applied changed slightly compared to the previous period (see Table A34 and Figure A27). Freezes on new hires continued to be the most applied measure, with more than 70% of firms having reduced labour input or altered its composition using it to adjust employment. Bigger firms and firms with decline in demand applied this measure more frequently (see Table A35 and Figures A28 and A29). Reduction of hours, on the other hand, was used by a larger share of firms that reduced labour input or altered its composition (53%), whereas the share of firms using individual layoffs was smaller (37%) during 2010–2013. The probability to apply reduction of hours was higher for manufacturing firms, parent firms and firms with decline in demand (see Table A35). Individual layoffs, in turn, were used more frequently by subsidiary firms with smaller export shares and demand problems.

The difficulty to adjust labour input did not change significantly over 2008–2009. A vast majority of firms claimed that there was no change between 2008–2009 and the period before 2008 with respect to the easiness of firing employees for economic or disciplinary reasons, adjusting working hours, moving employees to other locations,



adjusting wages of incumbent employees as well as hiring new employees and lowering wages at which to hire them (see Table A37 and Figure A30). Nevertheless, some firms considered that in 2010–2013 in comparison with 2008–2009 it became more difficult to adjust labour input. Specifically, one out of three firms claimed that it had become more difficult to hire employees and adjust wages of incumbent employees. The probability of the respective measures becoming more difficult was higher for domestic firms and those with a higher share of exporting activity, for financial sector and credit constrained firms (see Tables A38 and A39). Given that no important legislation measures were introduced, the former finding is likely to suggest that it became more difficult for entrepreneurs to find suitable candidates as unemployment rate decreased. However, the latter finding may also reflect increased reluctance of employees to accept wage cuts as the general economic conditions were improving.

## 6. PRICE ADJUSTMENT

The degree of price and wage stickiness is a major issue determining the impact of various shocks on the economy. Moreover, price (and wage) flexibility partly determines how long it takes for inflation and real economic variables to return to their potential levels after a shock: the higher the flexibility, the faster the adjustment process is. In the previous sections, we showed that according to the survey results wage setting in Latvia is flexible (see Section 5). Responding to the demand and financial conditions shock of 2008–2009, employers were able to adjust the number of employees and wages quickly. The decline in labour costs permitted them to reduce prices of main products and services and recover competitiveness in foreign markets.

### 6.1 Price setting mechanism

In recent years several micro-level data studies about the price setting mechanism in Latvia, based on COICOP records for prices of individual products, have been conducted by Latvijas Banka (see Beņkovskis et al. (2010), Beņkovskis et al. (2012), Beņkovskis and Fadejeva (2013)). The WDN survey gives an excellent opportunity to double-check the features of price setting mechanisms from firms' perspective and to analyse the interaction of wage and price adjustments.

According to Beņkovskis et al. (2010) and Beņkovskis et al. (2012), the process of consumer price formation in Latvia is a combination of both state-dependent and time-dependent behaviour, with prices of services following the time-dependent pricing mechanism (prices change at a defined frequency) and those of goods mostly following the state-dependent mechanism (a price change is determined by changes in demand and/or other costs). The WDN survey results show that five firms out of six change the price of the main product whenever costs and/or demand conditions change, while the rest adjust prices according to a regular time pattern (see Table A79 and Figures A52 and A53). Changing prices according to a regular time pattern is somewhat more prevalent among large firms, firms operating in trade and business services as well as in multi-establishment firms.

Previous studies on price adjustment frequency have shown that during 2003–2012 on average 24.7% of consumer prices were changed each month in Latvia, meaning that the average duration of a price spell was approximately 4 months (Beņkovskis

and Fadejeva (2013)). This indicates a rather high degree of price flexibility, which exceeds the one in euro area countries (between 10.0% and 23.0% for individual countries and 15.8% for the euro area; Dhyne et al. (2005)) and is roughly equal to price flexibility in the US (24.8%; Bils and Klenow (2004)).

Calculating the average price adjustment frequency from the WDN data, a rough estimate of 9 months is obtained for firms with a regular price setting mechanism and of 12 months for firms with state-dependent pricing. Discrepancies in the estimates can be explained by the fact that the WDN depicts the frequency of producer rather than consumer price change. In addition, our sample excludes very small firms with a potentially high price changing frequency. Also, the survey examines the price adjustment frequency of only the main product or service, disregarding the whole set of products, which restricts precision and, therefore, could result in a biased estimate.

The year was the most popular period for firms to adjust their prices on a regular time pattern (22%) in 2013 (see Table A80 and Figure A54). It is noteworthy that firms with state-dependent price setting adjust prices less often (37% of firms change prices more often than once a year compared with 45% of firms with time-dependent pricing). Despite the fact that a major part of firms claim that they change prices only according to changes in demand or other costs, we nevertheless observed a widespread annual price change frequency in both groups (in around 20% of firms).

In 2013, three main price setting mechanisms were used: the price was set following the price setting behaviour of the main competitor, the price was negotiated with individual customers, and the price was regulated and therefore could not be set autonomously. Around one quarter of firms operating in the domestic or foreign market cannot set prices autonomously (see Tables A70 and A71; Figures A43 and A44). Around 30% of firms follow the main competitor in setting the price (slightly less so in the foreign market). Around 23% of firms negotiate prices individually with customers in the domestic market (27% in the foreign market). Finally, only 18% of firms in the domestic market and 12% of firms abroad set prices fully according to costs and self-determined profit margins. The results by sector differ significantly for different sets of weights. On the one hand, the employment weights place more focus on price setting being regulated in both foreign and domestic markets, thus stressing the importance of this price setting mechanism for larger firms. The firm number weights, on the other hand, attach more importance to price being negotiated with an individual customer or following the behaviour of the main competitor.

The choice of a price setting mechanism to a large extent depends on competition in the market. According to the survey, the competition level for Latvian firms is broadly similar in foreign and domestic markets (see Tables A75 and A76; Figures A48 and A49). However, the results are not uniform across sectors. For instance, in financial intermediation, 60% of firms replied that competition in the domestic market is very severe (particularly, among small firms; in comparison with 28% in the foreign market). Meanwhile, the opposite is true for manufacturing and business services. The analysis of firm exposure to change in foreign and domestic demand presented in Subsection 5.1 shows that the level of competition is positively related to the probability of a price change.

Evaluating changes in competitive pressure in 2008–2009 and 2010–2013 in comparison with the situation before 2008, firms stated that it was growing during both periods (see Table A77 and Figures A50 and A51). In 2008–2009, firms with decreasing demand had a higher probability to experience an increase in competitive pressure in the domestic market (see Table A78), which depicts extra efforts made to keep the firm afloat during the crisis. Firms in the financial sector had a lower probability to experience a decrease in competitive pressure in the domestic market in 2010–2013 and in the foreign market in 2008–2009. The level of competition is positively related to the change in competitive pressure, thus firms operating a priori in competitive market had a higher probability to experience an extra rise of competition level. It is noteworthy that the EC Business and Consumer Survey results show that in the view of Latvian firms their overall competitive positions deteriorated somehow in 2008–2009 and improved in 2010–2013. Therefore, despite the overall increase in competition pressure (as shown by the WDN survey), the Latvian firms still managed to improve their competitive positions after the crisis (as shown in the EC Business and Consumer Survey).

## 6.2 Changes in price setting frequency

In 2010–2013, prices were changed more frequently than before 2008, which is in line with findings by Benkovskis and Fadejeva (2013) that since 2003, the price change frequency has been steadily growing, increasing from 20% to 27% on average. Around 25% of exporting firms and 29% of non-exporting firms admitted that they changed prices more frequently during 2010–2013 compared with the period before 2008, while only 7% and 8% of the respective firms claimed that they changed prices less frequently (see Table A72). The frequency of price changes increased markedly in the financial intermediation sector and only marginally in manufacturing. Also, the price adjusting frequency increased in domestic and non-exporting firms (see Figures A45 and A46).

The main reason behind a more frequent price adjustment in 2010–2013 was frequent changes in labour costs and other input costs (see Table A73 and Figure A47). More frequent changes in labour costs were particularly important in manufacturing, business and construction. More frequent price changes by main competitors were marked as the next important factor behind the increase in price setting frequency in many sectors. Together with volatile demand, it was the most important factor for the financial intermediation sector. Strong competition in the main product market was important in the construction and business services sectors, and less so in the other sectors.

Less frequent price adjustment during 2010–2013 was to a large extent determined by weaker competition in the main product market (see Table A74). This factor was marked as the most important one in the trade and business services sectors. Construction firms reduced their price changing frequency mainly due to less frequent changes in other input costs. Manufacturing firms, on the other hand, were more dependent on changes in labour costs.

## 7. CONCLUSIONS

In this paper we examine the firm level survey data collected in the framework of the Eurosystem's WDN on labour cost adjustment strategies in Latvia in 2008–2009 and 2010–2013, i.e. the crisis and post-crisis periods. The survey was conducted in the summer of 2014, collecting responses of 557 firms. The questionnaire included questions about wage, labour force and price adjustments as well as firm-specific information.

The analysis of labour cost adjustment channels in Latvia shows that in the crisis period firms decreased labour costs mainly through reducing base wages and flexible wage components, lowering the number of permanent and temporary employees, and, less so, reducing working hours per employee. Particularly, we show that, unlike what the macroeconomic picture of average wage suggests, both frequency and magnitude of wage adjustment was significant. Base wages were as likely to be reduced as were flexible wage components. For instance, almost 30% of employees faced a wage cut by 18% on average in 2009. Moreover, wage freezes were used extensively during 2010 and 2011. Wage freezes and cuts were applied relatively more often in large firms, while the average magnitude of wage cuts was larger in small firms. The improvement in demand conditions and labour productivity after 2010 (despite still tight credit conditions) resulted in increased base wages in 70% of firms, while bonuses were affected positively in 40% of firms.

Labour force reduction was used extensively as well. One third of firms reduced or altered employment structure strongly during the crisis, 30% of them had to continue the reduction after 2010. Manufacturing and construction were affected most in 2008–2009; the financial intermediation sector, on the other hand, showed significant adjustment of labour force in 2010–2013. Freezes on new hires and reduction of permanent employees' numbers were the most widespread measures. After 2010, decrease in working hours and freeze on new employment remained significant measures of labour cost adjustment.

It is interesting that during the crisis some firms with growing demand applied both individual layoffs and wage reductions, which can be explained by adjusting the composition of labour force and taking advantage of the labour cost reduction trend of the country.

According to firms' responses, problems related to adjusting labour input did not change significantly in 2008–2009. However, some firms stated that in comparison with 2008–2009 it became more difficult to adjust labour input in 2010–2013, particularly, to hire employees and adjust the wages of incumbent employees. Given that no important legislation measures were introduced, the former finding may suggest that it became more difficult for entrepreneurs to find suitable candidates as unemployment rate decreased.

As regards new employees, the study shows that the most important obstacle to hiring them in 2013 was the insufficient supply of skilled labour (especially in the manufacturing sector). Overall, wages of newly hired workers tended to be smaller than those of incumbent workers with similar experience and task assignment. This tendency is more pronounced in the manufacturing sector, and the opposite is true for the financial intermediation sector. After the crisis, the share of firms claiming that they pay lower wages to new employees decreased. The wage gap between

newly hired and existing workers, on the other hand, widened slightly, thus pointing to weak pro-cyclical behaviour.

The price section of the survey shows that the majority of firms change the price of main product whenever costs or/and demand conditions change. One third of firms set prices following the price setting behaviour of their main competitor while one fifth negotiate prices individually with customers. The level of competition for the majority of firms increased after 2008 as did the frequency of price change. A more frequent labour cost adjustment was mentioned by firms as the main reason behind a more frequent price adjustment. Our analysis also shows that the probability of a price change is positively related to the level of competition in the market. Also, firms experiencing a decrease in demand had a higher probability to face an increase in competitive pressure, which depicts an extra effort to stay afloat.

Overall, this paper affirms the flexibility of labour market in Latvia. Flexible wages, employment and prices were crucial in engineering the necessary and timely adjustments in the economy, thus paving the way for a quick recovery.

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Table A1  
WDN Questionnaire – Latvian version

Core/ Non-core/ Country specific questions	Question/ number	Question	Answers
1	2	3	4
<b>C1 Information about the firm</b>			
C	Sector	Sector of activity in 2013 (NACE 2)	1 = Manufacturing, 3 = Construction, 4 = Trade, 5 = Business services, 6 = Financial intermediation
C	Structure	Structure of the firm at the end of 2013	1 = Single establishment firm, 2 = Multi-establishment firm
C	Ownership	Ownership status of the firm at the end of 2013	1 = Mainly domestic, 2 = Mainly foreign
C	Autonomy	Autonomy of the firm at the end of 2013	1 = Parent company, 2 = Subsidiary/affiliate, 3 = Does not apply
<b>C2 Changes in the economic environment</b>			
C		How did the following factors affect your firm's activity during 2008–2009 and 2010–2013?	
	C21a	Level of demand for the firm's products/services	1 = Strong decrease, 2 = Moderate decrease, 3 = Unchanged, 4 = Moderate increase, 5 = Strong increase
	C21b	Volatility/uncertainty of demand for your products/services	
	C21c	Access to external financing through the usual financial channels	
	C21d	Customers' ability to pay and meet contractual terms	
	C21e	Availability of supplies from your usual suppliers	
C		For those factors which affected your firm strongly, were the effects transitory, partly persistent or long-lasting for 2008–2009 and 2010–2013?	
	C22a	Level of demand for the firm's products/services	1 = Transitory, 2 = Only partly persistent, 3 = Long-lasting
	C22b	Volatility/uncertainty of demand for your products/services	
	C22c	Access to external financing through the usual financial channels	
	C22d	Customers' ability to pay and meet contractual terms	
	C22e	Availability of supplies from your usual suppliers	
C		With regard to financing, please indicate the relevance of each of the following happenings for your firm in 2008–2009 and 2010–2013. <i>Note: credit here refers to any kind of credit, not only bank credit.</i>	
	C23a	Credit was not available to finance working capital	1 = Not relevant, 2 = Of little relevance, 3 = Relevant, 4 = Very relevant
	C23b	Credit was not available to finance new investment	
	C23c	Credit was not available to refinance debt	
	C23d	Credit was available to finance working capital, but conditions (interest rate and other contractual terms) were too onerous	
	C23e	Credit was available to finance new investment, but conditions (interest rate and other contractual terms) were too onerous	
	C23f	Credit was available to refinance debt, but conditions (interest rate and other contractual terms) were too onerous	

Table A1 (cont.)

1	2	3	4
C		How did these components of total costs evolve during 2008–2009 and 2010–2013?	
	C24a	Total costs	1 = Strong decrease, 2 = Moderate decrease, 3 = Unchanged, 4 = Moderate increase, 5 = Strong increase
	C24b	Labour costs	
	C24c	Financing costs	
	C24d	Costs of supplies	
	C24e	Other costs	
C		Please indicate how each of the components of labour costs listed below has changed during 2008–2009 and 2010–2013.	
	C25a	Base wages or piece work rates	1 = Strong decrease, 2 = Moderate decrease, 3 = Unchanged, 4 = Moderate increase, 5 = Strong increase
	C25b	Flexible wage components (bonuses, fringe benefits, etc.)	
	C25c	Number of permanent employees	
	C25d	Number of temporary/fixed-term employees	
	C25e	Number of agency workers and others (freelance work, etc., not hired under employment contracts)	
	C25f	Working hours per employee	
	C25g	Other components of labour costs	
C		How did prices and demand for your main product evolve during 2008–2009 and 2010–2013?	
	C26a	Domestic demand for your main product/service	1 = Strong decrease, 2 = Moderate decrease, 3 = Unchanged, 4 = Moderate increase, 5 = Strong increase
	C26b	Foreign demand for your main product/service	
	C26c	Prices of your main product in domestic markets	
	C26d	Prices of your main product in foreign markets	
C		How did the following factors evolve in your firm during 2008–2009 and 2010–2013?	
	C27a	Average productivity per employee (as compared to labour costs per employee)	1 = Strong decrease, 2 = Moderate decrease, 3 = Unchanged, 4 = Moderate increase, 5 = Strong increase
	C27b	Prices (as compared to total costs)	
	C27c	Other (non-labour) costs (as compared to labour costs)	
<b>C3 Labour force adjustment</b>			
C		How many employees did your firm have on the payroll at the end of 2013?	
	C31a	Total number of employees	(C31a = C31b + C31c + C31d) number of employees
	C31b	Of which permanent full-time	
	C31c	Of which permanent part-time	
	C31d	Of which temporary or fixed-term	
	C31e	Total number of agency workers and others	
C		At the end of 2013, how were your firm's employees approximately distributed by occupational group or tenure?	
		<i>Occupational group</i>	
	C32a	Higher skilled non-manual (ISCO: 1, 2, 3)	(C32a + C32b + C32c + C32d = 100%) percentage
	C32b	Lower skilled non-manual (ISCO: 4 and 5)	
	C32c	Higher skilled manual (ISCO: 7 and 8)	
	C32d	Lower skilled manual (ISCO: 9)	
		<i>Tenure</i>	
	C32e	Below 1 year	(C32e + C32f + C32g = 100%) percentage
	C32f	Between 1 and 5 years	
	C32g	More than 5 years	
C		During 2008–2009 and 2010–2013 did you need to significantly reduce your labour input or to alter its composition?	
	C33a		0 = No, 1 = Yes

Table A1 (cont.)

1	2	3	4	
C		If yes in question C33a Which of the following measures did you use to reduce your labour input or alter its composition when it was most urgent? (2008–2009 and 2010–2013)		
	C33b1	Collective layoffs	1 = Not at all, 2 = Marginally, 3 = Moderately, 4 = Strongly	
	C33b2	Individual layoffs		
	C33b5	Non-subsidised reduction of working hours (including reduction of overtime)		
	C33b6	Non-renewal of temporary contracts at expiration		
	C33b7	Early retirement schemes		
	C33b8	Freeze or reduction of new hires		
	C33b9	Reduction of agency workers and others		
C		Have any of the following actions become more or less difficult during 2008–2009 and 2010–2013, compared to the situation before 2008 and before 2010 correspondingly?		
	C34a	To lay off employees for economic reasons (Collectively)		1 = Much less difficult, 2 = Less difficult, 3 = More difficult, 4 = Much more difficult
	C34b	To lay off employees for economic reasons (individually)		
	C34c	To dismiss employees for disciplinary reasons		
	C34e	To hire employees (Cost of recruitment, including administrative costs)		
	C34f	To adjust working hours		
	C34g	To move employees to positions in other locations		
	C34h	To move employees across different job positions		
	C34i	To adjust wages of incumbent employees		
	C34j	To lower wages at which you hire new employees		
C		How relevant is each of the following factors as obstacles in hiring workers with a permanent, open-ended contract at the end of 2013?		
	C35a	Uncertainty about economic conditions	1 = Not relevant, 2 = Of little relevance, 3 = Relevant, 4 = Very relevant	
	C35b	Insufficient availability of labour with the required skills		
	C35c	Access to financing		
	C35d	Firing costs		
	C35e	Hiring costs		
	C35f	High payroll taxes		
	C35g	High wages		
	C35h	Risks that labour laws are changed		
	C35i	Costs of other inputs complementary to labour		
	C35j	Other		
<b>C4 Wage adjustment</b>				
C	C41	What percentage of your firm's total costs (all operating expenses) was due to labour costs (wages, salaries, bonuses, social security contributions, training, tax contributions, contributions to pension funds, etc.) in 2013?		
C	C42	What percentage of your total wage bill in 2013 was related to individual or company performance related bonuses and benefits?		
CS		For different types of employees what percentage of wage bill in 2013 was related to individual or company performance related bonuses and benefits? (approximately)		
		<i>Occupational group</i>	percentage	
	LV42a	Higher skilled non-manual (ISCO: 1, 2, 3)		
	LV42b	Lower skilled non-manual (ISCO: 4 and 5)		
	LV42c	Higher skilled manual (ISCO: 7 and 8)		
	LV42d	Lower skilled manual (ISCO: 9)		

Table A1 (cont.)

1	2	3	4
C		In 2013, did your firm apply a collective pay agreement bargained and signed inside of the firm (at the firm level)? and signed outside of the firm (at the national, regional, sectoral or occupational level)?	
	C43 1	At the firm level	1 = No, such an agreement does not exist, 2 = No, the agreement exists but the firm opted-out, 3 = Yes, such an agreement is in effect
	C43 3	Outside the firm	
NC	NC43 2	Proportion of employees covered by an agreement at the firm level	percentage
NC	NC43 4	Proportion of employees covered by an agreement at the national level	percentage
C	C43b	What is the proportion of your employees covered in 2013 by any collective pay agreement (%)?	
C		How often does the collective pay agreement applied at you firm typically change?	
	C44		1 = More than once a year, 2 = Once a year, 3 = Between one and two years, 4 = Every two years, 5 = Less frequently than once every two years, 6 = Never/Not applicable
C		Did your firm adapt changes in base wages to inflation before 2008? And during 2008–2009 and 2010–2013? <i>Definition of base wage – direct remuneration excluding bonuses (regular wage and salary, commissions, piecework payments).</i>	
	C45ax	Before 2008	1 = Yes, 2 = No, 3 = Inflation was too low so that indexation rules were no operative, 4 = There were no legal or other types of indexation rules specifying such an adjustment
	C45bx	During 2008–2009	
	C45b	During 2010–2013	
C		How frequently was the base wage of an employee belonging to the main occupational group in your firm typically changed in your firm?	
	C46ax	Before 2008	1 = More than once a year, 2 = Once a year, 3 = Between one and two years, 4 = Every two years, 5 = Less frequently than once every two years, 6 = Never/Not applicable
	C46bx	During 2008–2009	
	C46b	During 2010–2013	
CS		How did share of individual or company related bonuses evolve for different types of employees during 2008–2009 and 2010–2013, compared to the situation before 2008 and before 2010 correspondingly?	
	LV46ba	Higher skilled non-manual (ISCO: 1, 2, 3)	1 = Decreased strongly, 2 = Decreased moderately, 3 = Did not change, 4 = Increased moderately, 5 = Increased strongly
	LV46bb	Lower skilled non-manual (ISCO: 4 and 5)	
	LV46bc	Higher skilled manual (ISCO: 7 and 8)	
	LV46bd	Lower skilled manual (ISCO: 9)	
C		Over 2008–2013, did you freeze or cut base wages in a given year (please indicate in which years)?	
	C47a	Yes, wages were frozen In 2008, 2009, 2010, 2011, 2012, 2013	0 = No, 1 = Yes Percentage of workers affected
	C47b	Yes, wages were cut In 2008, 2009, 2010, 2011, 2012, 2013	0 = No, 1 = Yes Percentage of workers affected Average wage cut (%)
	C47c	Wages were neither frozen nor cut In 2008, 2009, 2010, 2011, 2012, 2013	0 = Not applicable, 1 = Applicable
NC		How did the labour cost of a newly hired worker compare with that of similar (in terms of experience and task assignment) workers at your firm?	
	NC48ax	Before 2008	1 = Much lower, 2 = Lower, 3 = Similar, 4 = Higher, 5 = Much higher
	NC48bx	During 2008–2009	
	NC48b	During 2010–2013	

Table A1 (cont.)

1	2	3	4
CS		How did the labour cost of a newly hired worker compare with that of similar (in terms of experience and task assignment) workers at your firm? Please differentiate between types of employees.	
	LV48aa	Higher skilled non-manual (ISCO: 1, 2, 3)	1 = Much lower, 2 = Lower, 3 = Similar, 4 = Higher, 5 = Much higher
	LV48ab	Lower skilled non-manual (ISCO: 4 and 5)	
	LV48ac	Higher skilled manual (ISCO: 7 and 8)	
LV48ad	Lower skilled manual (ISCO: 9)		
CS		How did the base wage gap between wages of a newly hired worker and similar workers (in terms of experience and task assignment) evolve for different types of employees during 2008–2009 and 2010–2013, compared to the situation before 2008 and before 2010 correspondingly?	
	LV48ba	Higher skilled non-manual (ISCO: 1, 2, 3)	1 = Decreased strongly, 2 = Decreased moderately, 3 = Did not change, 4 = Increased moderately, 5 = Increased strongly
	LV48bb	Lower skilled non-manual (ISCO: 4 and 5)	
	LV48bc	Higher skilled manual (ISCO: 7 and 8)	
LV48bd	Lower skilled manual (ISCO: 9)		
NC		What was the percentage of minimum wage receivers in your company before and after the increase in the minimum wage (Jan 2014)?	
	NC49a	share of minimum wage receivers before the change in minimum wage	percentage
	NC49b	share of minimum wage receivers after the change in minimum wage	
NC		Did the increase in the minimum wage in January 2014 brought about a need to raise wages or other type of compensation for those employees in your company who earned more than the minimum wage?	
	nc4 10		0 = Don't know, 1 = Yes, 2 = No
NC		Please indicate the percentage of employees whose wages or other type of compensation increased in response to the rise in the minimum wage (including those who earned minimum wages and who earned higher wages before date).	
	nc4 11		1 = 0%–20%, 2 = 20%–40%, 3 = 40%–60%, 4 = 60%–80%, 5 = 80%–100%, 6 = Don't know
NC		Please indicate the increase in your total labour costs (wages and other compensation) in response to the rise in the minimum wage. Please give the percentage change.	
	NC4 12		1 = Less than 3%, 2 = 3%–5%, 3 = 5%–11%, 4 = More than 11%, 5 = Don't know
NC		How did the minimum wage rise (Jan 2014) affect your company?	
	NC4 13a	We had to lay off people	1 = Not relevant, 2 = Of little relevance, 3 = Relevant, 4 = Very relevant, 5 = Don't know
	NC4 13b	We could hire less people	
	NC4 13c	We had to increase product prices	
	NC4 13d	We had to reduce non-labour costs	
	NC4 13e	We had to increase the wages of employees earning above the minimum wage level	
	NC4 13f	We increased productivity	
NC4 13g	Other		
NC		How many additional employees would you currently hire if the minimum wage in January 2014 had remained unchanged at the level of EUR 285 instead of EUR 320? <i>Please give a numerical answer.</i>	
	NC4 14		[number], Don't know
<b>C5 Price setting and price change</b>			
NC		In 2013, how was the selling price of your main product, activity or service typically set in its main market (both domestically and internationally)?	
	NC51a	Domestic market	1 = There is no autonomous price setting policy because the price is regulated,
NC51b	Foreign market		

Table A1 (cont.)

1	2	3	4
			2 = There is no autonomous price setting policy because the price is set by a parent company/group, 3 = There is no autonomous price setting policy because the price is set by the main customer(s), 4 = The price is set following the main competitors, 5 = The price is set fully according to costs and a completely self-determined profit margin, 6 = Negotiated with individual customers
NC	NC52a NC52b	In 2013, what share of the revenues from your firm's main product, activity or service was due to sales in domestic markets and in foreign markets respectively? Domestic market Foreign market	percentage
NC	NC53	Over 2010–2013, did you change the frequency of price changes with respect to the period before 2008?	0 = No, 1 = Yes, prices have changed more frequently, 2 = Yes, prices have changed less frequently
NC	NC53a 1 NC53a 2 NC53a 3 NC53a 4 NC53a 5	If recently you changed prices more frequently, higher frequency because of: <i>Please attach a ranking in order of importance to the factors listed below (5 – most important)</i> More volatile demand More frequent changes in labour costs More frequent changes in other input costs Stronger competition in the main product market More frequent price changes by main competitors	1, 2, 3, 4, 5, 0 = Not marked
NC	NC53b 1 NC53b 2 NC53b 3 NC53b 4 NC53b 5	If recently you changed prices less frequently, lower frequency because of: <i>Please attach a ranking in order of importance to the factors listed below (5 – most important)</i> Less volatile demand Less frequent changes in labour costs Less frequent changes in other input costs Weaker competition in the main product market Less frequent price changes by main competitors	1, 2, 3, 4, 5, 0 = Not marked
NC	NC54a NC54b	How would you characterise the degree of competition in the domestic and foreign markets for your main product? Domestic market Foreign market	1 = Weak, 2 = Moderate, 3 = Severe, 4 = Very severe, 5 = Not applicable
NC	NC55a NC55b	How has the competitive pressure on your main product domestic and foreign markets changed in 2008–2009 and 2010–2013 compared to the situation before 2008? Domestic market Foreign market	1 = Strong decrease, 2 = Moderate decrease, 3 = Unchanged, 4 = Moderate increase, 5 = Strong increase, 6 = Does not apply
NC	NC56a NC56b	In 2013, how and how often did you typically change the price of your main product? On a regular time pattern Whenever costs and/or demand conditions changed	1 = Daily, 2 = Weekly, 3 = Monthly, 4 = Quarterly, 5 = Half-yearly, 6 = Once a year, 7 = Between one and two years, 8 = Less frequently than once every two years, 9 = Never, 10 = Don't know, 11 = More than once a year (unspecified frequency)

Table A2

**Explanatory variables used in the regressions**

Variable name in regressions	Explanation	Question number in survey
Employment, ln	Natural logarithm of number of employees in the firm at the end of 2013	Size
Manufacturing, D	Dummy variable is equal to 1 if the firm operates in the corresponding sector in 2013	Sector
Construction, D		
Financial intermediation, D		
Export share	The % of revenues in the foreign market in 2013 (1 = 100%)	NC52
Mainly foreign, D	Is equal to 1 if the ownership status of the firm at the end of 2013 was mainly foreign	Ownership
Parents, D	Is equal to 1 if the autonomy status of the firm at the end of 2013 was parent company	Autonomy
Subsidiary, D	Is equal to 1 if the autonomy status of the firm at the end of 2013 was subsidiary/affiliate	Autonomy
Demand	Change in demand	C21a
Domestic/foreign demand	Change in demand	C26a, C26b
Domestic/foreign competition	Degree of competition – from 1 = Weak to 4 = Very severe	NC54a, NC54b
No access to credit, D	Is equal to 1 if the firm responded that credit was not available (at any level of relevance – Of little relevance, Relevant, Very relevant)	C23a, C23b, C23c
Productivity	Change in labour productivity	C27a

Note: D – dummy variable.



Table A3

**Firm structure and ownership characteristics (at the end of 2013; %)**

	Single establishment firm	Multi- establishment firm	Total	Single establishment firm	Multi- establishment firm	Total
	wb			wl		
Size						
10–19	88.1	11.9	100.0	88.4	11.6	100.0
20–49	85.3	14.7	100.0	86.0	14.0	100.0
50–199	64.3	35.7	100.0	64.4	35.6	100.0
200–..	46.8	53.2	100.0	45.6	54.4	100.0
Total	82.0	18.0	100.0	65.0	35.0	100.0
Sector						
Manufacturing	85.0	15.0	100.0	81.6	18.4	100.0
Construction	87.7	12.3	100.0	74.8	25.2	100.0
Trade	78.4	21.6	100.0	64.7	35.3	100.0
Business services	83.0	17.0	100.0	58.3	41.7	100.0
Financial intermediation	58.2	41.8	100.0	40.2	59.8	100.0
Total	82.0	18.0	100.0	65.0	35.0	100.0
Ownership status						
Mainly domestic	96.0	55.7	88.8	96.3	76.8	89.5
Mainly foreign	4.0	44.3	11.2	3.7	23.2	10.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Observations	440	117	557	440	117	557

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A4

**Firm autonomy characteristics for multi-establishment firms (at the end of 2013; %)**

	Parent company	Sub- sidiary	Does not apply	Don't know	Total	Parent company	Sub- sidiary	Does not apply	Don't know	Total
	wb					wl				
Size										
10–19	32.8	51.2	6.1	9.9	100.0	32.5	53.5	6.6	7.4	100.0
20–49	50.8	43.7	5.5	0.0	100.0	54.2	38.2	7.5	0.0	100.0
50–199	26.4	64.5	9.1	0.0	100.0	26.2	65.2	8.6	0.0	100.0
200–..	55.9	34.3	9.8	0.0	100.0	66.7	30.1	3.1	0.0	100.0
Total	38.0	51.4	7.3	3.4	100.0	51.3	42.9	5.3	0.5	100.0
Sector										
Manufacturing	50.5	36.9	12.5	0.0	100.0	51.5	42.2	6.3	0.0	100.0
Construction	29.7	66.0	4.3	0.0	100.0	61.3	33.6	5.1	0.0	100.0
Trade	34.2	63.8	2.0	0.0	100.0	21.9	76.0	2.1	0.0	100.0
Business services	39.3	45.5	5.6	9.6	100.0	58.9	36.8	3.3	1.0	100.0
Financial intermediation	35.2	24.0	40.7	0.0	100.0	64.3	18.9	16.8	0.0	100.0
Total	38.0	51.4	7.3	3.4	100.0	51.3	42.9	5.3	0.5	100.0
Observations	50	58	8	1	117	50	58	8	1	117

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A5

**Average number of employees and share of different contract types by sector and size of firm (at the end of 2013; %)**

	Average number of employees	Permanent full-time (%)	Permanent part-time (%)	Temporary (fixed term) (%)	Total	Agency workers (%)
wl – weighted to represent employees in the population						
Manufacturing	244	89.1	8.6	2.3	100	0.8
Construction	88	81.4	10.8	7.8	100	1.1
Trade	114	84.1	12.3	3.5	100	1.5
Business services	413	84.2	12.9	2.9	100	1.8
Financial intermediation	344	84.6	3.6	11.8	100	0.5
Total	277	85.0	10.9	4.1	100	1.4
Size						
10–19	13	77.5	20.7	1.9	100	2.6
20–49	31	79.5	17.5	2.9	100	2.9
50–199	95	86.9	9.5	3.6	100	1.2
200–..	655	89.3	4.7	6.0	100	0.3
Total	277	85.0	10.9	4.1	100	1.4
wb – weighted to represent firm population						
Manufacturing	61	81.4	17.0	1.7	100	0.7
Construction	34	78.2	16.0	5.8	100	1.7
Trade	33	83.5	15.2	1.3	100	2.3
Business services	51	77.0	20.2	2.8	100	4.5
Financial intermediation	139	82.1	9.9	8.0	100	1.1
Total	47	79.9	17.3	2.7	100	2.7
Size						
10–19	12	77.5	20.7	1.8	100	2.9
20–49	30	79.7	17.2	3.0	100	3.5
50–199	92	87.1	9.2	3.7	100	1.1
200–..	442	85.6	6.2	8.2	100	0.3
Total	47	79.9	17.3	2.7	100	2.7

Note: Agency workers are not employees of the firm and therefore the share of agency workers is estimated as the number of agency workers to the number of total firm employees.

Table A6

**Share of employee skills by size and sector of a firm (at the end of 2013; %)**

	Non-manual		Manual		Total
	higher skilled (%)	lower skilled (%)	higher skilled (%)	lower skilled (%)	
wb – weighted to represent firm population					
Manufacturing	16.5	16.6	49.8	17.1	100
Construction	23.4	15.5	48.9	12.1	100
Trade	30.3	40.6	20.0	9.1	100
Business services	33.9	28.3	26.2	11.6	100
Financial intermediation	41.3	48.4	2.8	7.6	100
Total	28.6	28.7	30.9	11.8	100
Size					
10–19	33.7	32.0	25.9	8.4	100
20–49	23.4	23.5	37.8	15.2	100
50–199	20.4	29.1	35.3	15.2	100
200–..	32.7	21.9	28.4	17.0	100
Total	28.6	28.7	30.9	11.8	100
wl – weighted to represent employees in the population					
Manufacturing	14.7	15.2	57.3	12.8	100
Construction	21.0	13.9	49.5	15.7	100
Trade	27.7	45.7	17.1	9.4	100
Business services	30.7	24.3	29.0	16.0	100
Financial intermediation	63.8	23.7	0.8	11.8	100
Total	28.2	25.6	32.6	13.6	100
Size					
10–19	33.4	30.4	27.8	8.4	100
20–49	22.7	22.7	39.8	14.8	100
50–199	19.8	29.3	36.5	14.4	100
200–..	34.6	21.1	29.2	15.1	100
Total	28.2	25.6	32.6	13.6	100

Table A7

**Structure of employees' tenure by size and sector of a firm (at the end of 2013; %)**

	Tenure			Total
	Below 1 year (%)	Between 1 and 5 years (%)	More than 5 years (%)	
wb – weighted to represent firm population				
Manufacturing	10.2	32.6	57.1	100
Construction	12.5	30.0	57.5	100
Trade	9.9	29.4	60.7	100
Business services	11.3	34.0	54.7	100
Financial intermediation	13.2	31.9	54.9	100
Total	10.9	31.8	57.3	100
Size				
10–19	8.9	28.9	62.3	100
20–49	11.7	32.3	55.9	100
50–199	15.1	38.0	47.0	100
200–..	15.4	42.3	42.2	100
Total	10.9	31.8	57.3	100
wl – weighted to represent employees in the population				
Manufacturing	10.7	32.4	56.9	100
Construction	13.9	30.0	56.1	100
Trade	14.2	40.7	45.1	100
Business services	14.2	37.7	48.2	100
Financial intermediation	14.3	35.2	50.5	100
Total	13.4	36.2	50.4	100
Size				
10–19	9.3	28.8	61.9	100
20–49	12.0	32.1	55.9	100
50–199	15.3	38.5	46.3	100
200–..	14.5	39.5	46.0	100
Total	13.4	36.2	50.4	100

Table A8

**Share of collective pay agreement bargained and signed inside the firm (at firm level) and outside the firm (at national, regional, sectoral or occupational level) in 2013 (%)**

	Outside firm		Inside firm	
	wb	wl	wb	wl
No, such an agreement does not exist	95.3	93.5	90.0	76.7
No, the agreement exists but the firm opted-out	3.7	3.4	5.3	6.0
Yes, such an agreement is in effect	0.5	2.3	4.2	16.5
Don't know	0.5	0.8	0.5	0.8
Total	100	100	100	100
Number of observations	557		557	
Proportion of employees covered by such an agreement (if applicable)	80.0	86.0	98.0	95.8

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A9

**Frequency of collective pay agreement change at firm level (if applicable; %)**

	Inside the firm	
	wb	wl
More than once a year	6.2	6.9
Once a year	36.0	40.6
Between one and two years	15.3	16.5
Every two years	0.8	6.4
Less frequently than once every two years	31.3	18.1
Never/Not applicable	10.4	11.4
Total	100	100
Number of observations	32	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A10

**Share of revenues from the main product, activity or services due to sales in domestic and foreign markets in 2013 (%)**

	wb – firm number weights		wl – employment weights	
	Domestic market	Foreign market	Domestic market	Foreign market
Size				
10–19	84.6	15.4	83.0	17.0
20–49	75.9	24.1	74.8	25.2
50–199	79.2	20.8	78.6	21.4
200–..	58.6	41.4	61.9	38.1
Total	80.1	19.9	72.7	27.3
Sector				
Manufacturing	58.5	41.5	38.3	61.7
Construction	92.8	7.2	95.0	5.0
Trade	85.8	14.2	79.4	20.6
Business services	80.6	19.4	83.8	16.2
Financial intermediation	82.4	17.6	66.0	34.0
Total	80.1	19.9	72.7	27.3

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A11

**Change in the level of demand, availability of external financing, customers' ability to pay and availability of supplies during 2008–2009 and 2010–2013 (%)**

	Level of demand (C21a)				Availability of external financing (C21c)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	28.3	21.3	11.0	7.4	11.8	10.5	8.1	4.1
Moderate decrease	25.3	28.8	17.6	14.4	8.3	12.1	6.2	7.0
Unchanged	18.2	18.8	15.1	14.0	67.7	63.6	60.4	56.6
Moderate increase	21.1	23.5	45.2	46.7	9.0	10.3	21.0	22.8
Strong increase	7.1	7.6	11.1	17.4	3.2	3.5	4.3	9.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of observations	532		556		398		414	

	Customers' ability to pay (C21d)				Availability of supplies (C21e)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	20.9	22.9	10.8	6.2	5.7	3.7	4.5	2.8
Moderate decrease	25.8	29.0	17.9	19.7	11.2	15.9	6.5	5.5
Unchanged	46.9	43.0	48.1	46.5	72.2	70.2	69.5	69.9
Moderate increase	5.2	3.5	20.3	25.1	9.1	8.9	16.6	19.1
Strong increase	1.3	1.6	2.9	2.5	1.9	1.4	3.0	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of observations	519		534		507		519	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A12

**Comparison of a change in the level of demand, availability of external financing, customers' ability to pay and availability of supplies in 2010–2013 to the change in 2008–2009 (cross tabulations; rows – 2008–2009; %)**

	2010–2013													
	Level of demand (C21a)						Availability of external financing (C21c)							
	Decrease		Unchanged		Increase		Total	Decrease		Unchanged		Increase		Total
	wb	wl	wb	wl	wb	wl		wb	wl	wb	wl	wb	wl	
Decrease	22.8	18.0	9.1	6.9	68.2	75.1	100.0	33.1	16.8	13.5	5.6	53.5	77.6	100.0
Unchanged	30.1	22.6	38.9	49.0	31.0	28.4	100.0	3.9	2.5	84.8	84.3	11.3	13.2	100.0
Increase	39.1	29.8	10.4	5.5	50.4	64.7	100.0	34.0	41.7	15.4	11.0	50.6	47.3	100.0

	Customers' ability to pay (C21d)						Availability of supplies (C21e)							
	Decrease		Unchanged		Increase		Total	Decrease		Unchanged		Increase		Total
	wb	wl	wb	wl	wb	wl		wb	wl	wb	wl	wb	wl	
	Decrease	35.5	33.9	21.4	17.3	43.0	48.8	100.0	22.8	12.2	25.6	33.9	51.6	53.5
Unchanged	17.5	14.2	78.7	82.3	3.7	3.5	100.0	4.7	3.1	89.8	90.6	5.5	6.3	100.0
Increase	48.9	51.7	24.3	22.1	26.9	26.2	100.0	31.6	34.4	10.7	5.3	57.7	60.3	100.0

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Explanation: According to the firm number weights, 22.8% of firms having answered that the demand for their production decreased in 2008–2009, answered the same in 2010–2013. On the other hand, 68.2% of firms experienced improvement in the level of demand in 2010–2013.

Table A13

**Factors explaining probability of a firm to experience a decrease, increase or no change in the level of demand for the firm's main product and availability of external financing in 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Level of demand (C21a)				Availability of external financing (C21c)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	-0.026 (0.03)	-0.015 (0.04)	-0.060** (0.02)	-0.039* (0.02)	0.022 (0.02)	0.014 (0.03)	-0.024* (0.01)	-0.008 (0.01)
Manufacturing, D	0.044 (0.07)	-0.066 (0.10)	-0.077 (0.05)	-0.010 (0.05)	-0.017 (0.03)	-0.128* (0.06)	0.025 (0.03)	-0.007 (0.03)
Construction, D	0.076 (0.07)	-0.057 (0.09)	0.142* (0.07)	0.119 (0.06)	0.006 (0.05)	-0.045 (0.06)	-0.014 (0.03)	0.019 (0.03)
Export share	-0.156 (0.09)	-0.001 (0.16)	-0.165* (0.07)	-0.315*** (0.09)	-0.028 (0.04)	0.090 (0.09)	-0.001 (0.04)	0.012 (0.04)
Mainly foreign, D	0.079 (0.09)	0.087 (0.11)	-0.110 (0.06)	-0.079 (0.05)	-0.041 (0.03)	0.015 (0.08)	-0.042 (0.03)	-0.027 (0.02)
Parents, D	-0.073 (0.10)	-0.006 (0.16)	0.027 (0.09)	0.192 (0.11)	0.059 (0.06)	-0.158* (0.07)	0.083 (0.06)	0.068 (0.06)
Subsidiary, D	0.067 (0.09)	0.165 (0.13)	-0.109 (0.06)	-0.085 (0.05)	-0.024 (0.03)	-0.154** (0.05)	0.055 (0.05)	0.102 (0.06)
Demand					-0.124*** (0.01)	-0.095*** (0.03)	-0.074*** (0.01)	-0.063*** (0.01)
<b>Unchanged</b>								
Employment, ln	0.005 (0.01)	0.002 (0.01)	-0.015** (0.01)	-0.023 (0.01)	-0.041* (0.02)	-0.005 (0.01)	-0.019 (0.01)	-0.020 (0.02)
Manufacturing, D	-0.009 (0.02)	0.008 (0.01)	-0.023 (0.02)	-0.006 (0.03)	0.002 (0.00)	0.008 (0.04)	0.015 (0.02)	-0.017 (0.07)
Construction, D	-0.106* (0.04)	0.007 (0.01)	-0.085* (0.04)	0.051* (0.02)	-0.001 (0.01)	0.013 (0.01)	-0.013 (0.03)	0.036 (0.04)
Export share	0.030 (0.02)	0.000 (0.02)	-0.041* (0.02)	0.043 (0.09)	0.005 (0.01)	-0.036 (0.04)	-0.000 (0.03)	0.029 (0.10)
Mainly foreign, D	-0.018 (0.02)	-0.016 (0.02)	-0.037 (0.03)	-0.056 (0.04)	-0.002 (0.02)	-0.007 (0.04)	-0.054 (0.06)	-0.093 (0.10)
Parents, D	0.011 (0.01)	0.001 (0.02)	0.006 (0.02)	0.072* (0.03)	-0.024 (0.03)	-0.002 (0.05)	0.017 (0.02)	0.090 (0.05)
Subsidiary, D	-0.015 (0.02)	-0.036 (0.04)	-0.037 (0.03)	-0.059 (0.04)	0.001 (0.01)	-0.028 (0.05)	0.020 (0.01)	0.091* (0.04)
Demand					0.069*** (0.02)	0.038 (0.02)	-0.057** (0.02)	-0.151*** (0.04)
<b>Increase (next page)</b>								
Observations	530		553		396		412	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A13 (cont.)

	Level of demand (C21a)				Availability of external financing (C21c)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.021 (0.02)	0.013 (0.03)	0.075** (0.03)	0.062* (0.03)	0.019 (0.01)	–0.008 (0.02)	0.042* (0.02)	0.028 (0.03)
Manufacturing, D	–0.035 (0.05)	0.058 (0.09)	0.101 (0.07)	0.016 (0.08)	0.015 (0.03)	0.120 (0.08)	–0.039 (0.05)	0.024 (0.10)
Construction, D	0.030 (0.07)	0.051 (0.09)	–0.057 (0.08)	–0.170* (0.08)	–0.004 (0.03)	0.032 (0.05)	0.027 (0.06)	–0.054 (0.07)
Export share	0.127 (0.07)	0.001 (0.14)	0.206* (0.09)	0.272* (0.12)	0.022 (0.03)	–0.054 (0.06)	0.001 (0.07)	–0.042 (0.14)
Mainly foreign, D	–0.061 (0.06)	–0.070 (0.08)	0.147 (0.09)	0.136 (0.09)	0.043 (0.04)	–0.009 (0.04)	0.096 (0.09)	0.120 (0.12)
Parents, D	0.062 (0.09)	0.005 (0.13)	–0.033 (0.10)	–0.263 (0.14)	–0.035 (0.03)	0.160 (0.10)	–0.100* (0.05)	–0.158 (0.10)
Subsidiary, D	–0.052 (0.07)	–0.129 (0.10)	0.146 (0.09)	0.144 (0.10)	0.023 (0.04)	0.182* (0.08)	–0.075 (0.06)	–0.193** (0.07)
Demand					0.055*** (0.01)	0.057*** (0.02)	0.131*** (0.02)	0.214*** (0.04)
Observations	530		553		396		412	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

#### Interpretation of coefficients:

Marginal effect shows by how much the probability of a firm to experience the defined event (e.g. decrease, increase, or unchanged level of demand) changes if the value of the corresponding level of the explanatory variable changes by one unit.

Explanation (0.206\*): an increase in the share of revenues in the foreign market by 1% increased the probability of the firm to experience an increase in the demand by 0.206%.



Table A14

**Factors explaining probability of a firm to experience a decrease, increase or no change in the availability of supplies and customers' ability to pay in 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Customers' ability to pay (C21d)				Availability of supplies (C21e)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.078** (0.03)	0.064 (0.04)	0.023 (0.02)	0.015 (0.02)	0.021 (0.01)	0.038* (0.02)	-0.014 (0.01)	0.005 (0.01)
Manufacturing, D	0.029 (0.08)	-0.012 (0.10)	-0.034 (0.05)	-0.078 (0.06)	-0.011 (0.03)	-0.055 (0.06)	-0.006 (0.02)	-0.020 (0.02)
Construction, D	0.025 (0.08)	-0.087 (0.12)	-0.058 (0.05)	0.004 (0.08)	0.084 (0.05)	0.045 (0.05)	-0.041** (0.02)	0.003 (0.03)
Export share	-0.072 (0.09)	-0.047 (0.13)	-0.125 (0.08)	0.099 (0.09)	0.037 (0.04)	0.088 (0.08)	0.009 (0.02)	0.055 (0.03)
Mainly foreign, D	-0.121 (0.10)	-0.294** (0.10)	0.136 (0.08)	0.136 (0.10)	-0.079** (0.03)	-0.047 (0.05)	0.060 (0.04)	0.059 (0.04)
Parents, D	0.087 (0.10)	-0.034 (0.18)	-0.097* (0.05)	-0.196** (0.06)	0.059 (0.08)	-0.144*** (0.04)	-0.023 (0.02)	-0.015 (0.03)
Subsidiary, D	0.051 (0.11)	0.155 (0.12)	-0.118* (0.06)	-0.140 (0.08)	0.090 (0.07)	0.140 (0.11)	-0.000 (0.03)	0.058 (0.07)
Demand	-0.240*** (0.03)	-0.249*** (0.04)	-0.148*** (0.02)	-0.116*** (0.03)	-0.095*** (0.01)	-0.091*** (0.02)	-0.061*** (0.01)	-0.043*** (0.01)
<b>Unchanged</b>								
Employment, ln	-0.076** (0.03)	-0.063 (0.04)	-0.007 (0.01)	-0.002 (0.00)	-0.009 (0.01)	-0.020 (0.01)	-0.014 (0.01)	0.008 (0.01)
Manufacturing, D	-0.029 (0.08)	0.012 (0.10)	0.009 (0.01)	-0.005 (0.02)	0.004 (0.01)	0.023 (0.02)	-0.007 (0.02)	-0.041 (0.06)
Construction, D	-0.024 (0.08)	0.086 (0.12)	0.012 (0.01)	-0.000 (0.01)	-0.192** (0.07)	-0.144* (0.06)	-0.083 (0.06)	0.005 (0.05)
Export share	0.070 (0.09)	0.046 (0.13)	0.161* (0.08)	-0.011 (0.02)	-0.017 (0.02)	-0.046 (0.05)	0.009 (0.02)	0.089 (0.05)
Mainly foreign, D	0.161 (0.10)	0.323*** (0.10)	-0.065 (0.05)	-0.046 (0.05)	0.119*** (0.03)	0.018 (0.01)	0.015 (0.01)	0.036 (0.02)
Parents, D	-0.086 (0.10)	0.033 (0.18)	0.006 (0.02)	-0.089 (0.06)	-0.170 (0.09)	-0.040 (0.08)	-0.037 (0.06)	-0.030 (0.07)
Subsidiary, D	-0.060 (0.11)	-0.161 (0.12)	0.002 (0.03)	-0.043 (0.08)	-0.209* (0.09)	-0.256* (0.10)	-0.000 (0.03)	-0.336** (0.12)
Demand	0.236*** (0.03)	0.246*** (0.04)	-0.024 (0.02)	-0.101* (0.04)	0.043** (0.01)	0.048* (0.02)	-0.059*** (0.02)	-0.068** (0.02)
<b>Increase (next page)</b>								
Observations	516		531		504		516	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A14 (cont.)

	Customers' ability to pay (C21d)				Availability of supplies (C21e)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	–0.001*	–0.001	–0.016	–0.013	–0.011	–0.018**	0.028	–0.013
	(0.00)	(0.00)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
Manufacturing, D	–0.000	0.000	0.025	0.084	0.006	0.032	0.013	0.062
	(0.00)	(0.00)	(0.04)	(0.07)	(0.02)	(0.04)	(0.04)	(0.08)
Construction, D	–0.000	0.001	0.046	–0.003	0.108*	0.098*	0.123	–0.008
	(0.00)	(0.00)	(0.05)	(0.07)	(0.05)	(0.05)	(0.07)	(0.08)
Export share	0.001	0.001	–0.035	–0.089	–0.020	–0.042	–0.018	–0.144
	(0.00)	(0.00)	(0.05)	(0.08)	(0.02)	(0.03)	(0.05)	(0.07)
Mainly foreign, D	–0.040***	–0.029**	–0.072*	–0.090	–0.040*	0.029	–0.075*	–0.095*
	(0.01)	(0.01)	(0.03)	(0.05)	(0.02)	(0.04)	(0.03)	(0.05)
Parents, D	–0.001	0.000	0.092	0.285**	0.111	0.184	0.061	0.045
	(0.00)	(0.00)	(0.06)	(0.10)	(0.08)	(0.10)	(0.09)	(0.10)
Subsidiary, D	0.009	0.006	0.116	0.183	0.119	0.116	0.001	0.279*
	(0.01)	(0.00)	(0.08)	(0.15)	(0.07)	(0.08)	(0.06)	(0.14)
Demand	0.004***	0.003***	0.173***	0.217***	0.052***	0.043***	0.120***	0.111***
	(0.00)	(0.00)	(0.02)	(0.03)	(0.01)	(0.01)	(0.01)	(0.03)
Observations	516		531		504		516	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A15

**Change in the demand and price of the firm's main product during 2008–2009 and 2010–2013 (%)**

	Level of domestic demand (C26a)				Level of foreign demand (C26b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	25.7	18.7	9.3	6.3	10.7	8.3	5.1	3.9
Moderate decrease	22.4	25.6	13.9	11.1	14.6	16.4	5.6	4.5
Unchanged	28.7	34.3	22.3	29.1	61.7	58.1	51.7	43.7
Moderate increase	20.6	19.2	46.4	44.5	9.2	13.1	27.7	34.5
Strong increase	2.6	2.1	8.1	8.9	3.8	4.1	9.9	13.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	528		540		405		415	
	Price in domestic market (C26c)				Price in foreign market (C26d)			
Strong decrease	12.5	10.5	5.0	3.6	7.5	5.9	2.4	1.6
Moderate decrease	17.8	14.4	9.1	7.7	12.1	10.5	7.7	5.3
Unchanged	41.2	45.2	31.6	35.3	61.8	57.4	50.3	51.1
Moderate increase	27.6	29.3	50.7	51.3	18.1	26.1	36.9	37.1
Strong increase	0.9	0.7	3.7	2.0	0.5	0.2	2.7	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	523		537		392		400	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A16

**Factors explaining probability of a firm to experience a decrease, increase or no change in the level of domestic and foreign demand in 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Level of domestic demand (C26a)				Level of foreign demand (C26b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	-0.052 (0.03)	-0.014 (0.03)	-0.057* (0.02)	-0.046*** (0.01)	-0.026 (0.03)	-0.034 (0.04)	-0.016 (0.01)	-0.023* (0.01)
Manufacturing, D	0.076 (0.07)	-0.021 (0.10)	-0.035 (0.04)	-0.014 (0.04)	0.058 (0.06)	0.047 (0.08)	-0.057** (0.02)	-0.053** (0.02)
Construction, D	0.172* (0.07)	0.132 (0.09)	0.038 (0.06)	-0.012 (0.05)	-0.017 (0.08)	0.023 (0.08)	0.014 (0.03)	0.022 (0.03)
Export share	-0.072 (0.08)	-0.055 (0.15)	-0.049 (0.05)	-0.097 (0.07)	0.193** (0.07)	0.227 (0.13)	0.048 (0.04)	0.064 (0.05)
Mainly foreign, D	0.032 (0.10)	0.042 (0.11)	-0.072 (0.05)	0.019 (0.06)	-0.079 (0.07)	0.009 (0.11)	0.012 (0.04)	-0.030 (0.02)
Parents, D	0.094 (0.10)	0.108 (0.16)	-0.008 (0.07)	0.048 (0.08)	0.154 (0.11)	0.144 (0.19)	0.017 (0.06)	0.159 (0.12)
Subsidiary, D	0.110 (0.10)	0.145 (0.15)	-0.119** (0.04)	-0.124** (0.04)	0.122 (0.10)	0.127 (0.13)	-0.059** (0.02)	-0.055* (0.02)
<b>Unchanged</b>								
Employment, ln	0.015 (0.01)	0.006 (0.01)	0.042 (0.02)	0.062* (0.03)	0.014 (0.01)	0.011 (0.01)	-0.024 (0.02)	-0.071 (0.04)
Manufacturing, D	-0.025 (0.03)	0.008 (0.04)	-0.017 (0.02)	-0.014 (0.05)	-0.034 (0.04)	-0.018 (0.04)	-0.122* (0.06)	-0.211* (0.09)
Construction, D	-0.185*** (0.05)	-0.064 (0.05)	-0.112* (0.05)	-0.120* (0.05)	0.009 (0.04)	-0.009 (0.03)	0.019 (0.04)	0.056 (0.06)
Export share	0.021 (0.02)	0.022 (0.06)	-0.022 (0.02)	-0.095 (0.07)	-0.416*** (0.05)	-0.480*** (0.07)	-0.533*** (0.08)	-0.461** (0.16)
Mainly foreign, D	-0.010 (0.03)	-0.018 (0.05)	-0.040 (0.03)	0.017 (0.05)	0.032 (0.02)	-0.003 (0.04)	0.016 (0.05)	-0.117 (0.10)
Parents, D	-0.033 (0.04)	0.119 (0.15)	-0.003 (0.03)	0.040 (0.05)	-0.146 (0.08)	-0.069 (0.11)	-0.264** (0.09)	-0.184 (0.17)
Subsidiary, D	-0.039 (0.04)	-0.070 (0.08)	-0.077* (0.04)	-0.175* (0.08)	-0.080 (0.07)	-0.062 (0.08)	-0.146 (0.08)	-0.243* (0.12)
<b>Increase (next page)</b>								
Observations	526		537		402		412	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A16 (cont.)

	Level of domestic demand (C26a)				Level of foreign demand (C26b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.037*	0.008	0.016	–0.016	0.012	0.022	0.040	0.095*
	(0.02)	(0.02)	(0.03)	(0.03)	(0.01)	(0.03)	(0.03)	(0.05)
Manufacturing, D	–0.051	0.013	0.052	0.028	–0.024	–0.029	0.179*	0.263**
	(0.05)	(0.06)	(0.07)	(0.09)	(0.02)	(0.05)	(0.08)	(0.10)
Construction, D	0.013	–0.068	0.074	0.133	0.008	–0.014	–0.033	–0.078
	(0.07)	(0.04)	(0.07)	(0.09)	(0.04)	(0.05)	(0.08)	(0.09)
Export share	0.051	0.033	0.071	0.192	0.223***	0.253*	0.485***	0.397*
	(0.05)	(0.09)	(0.08)	(0.14)	(0.04)	(0.10)	(0.10)	(0.18)
Mainly foreign, D	–0.022	–0.024	0.111	–0.036	0.047	–0.006	–0.028	0.147
	(0.06)	(0.06)	(0.08)	(0.11)	(0.05)	(0.07)	(0.09)	(0.12)
Parents, D	–0.061	–0.228***	0.011	–0.088	–0.008	–0.075	0.247*	0.025
	(0.06)	(0.05)	(0.10)	(0.13)	(0.04)	(0.09)	(0.11)	(0.19)
Subsidiary, D	–0.071	–0.075	0.195*	0.299**	–0.042	–0.066	0.205*	0.299*
	(0.06)	(0.07)	(0.08)	(0.11)	(0.03)	(0.06)	(0.10)	(0.14)
Observations	526		537		402		412	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A17

**Factors explaining probability of a firm to experience a decrease, increase or no change in the domestic and foreign price for the firm's main product in 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Price in domestic market (C26c)				Price in foreign market (C26d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	-0.005 (0.02)	-0.019 (0.02)	0.005 (0.01)	0.003 (0.01)	-0.022 (0.02)	-0.023 (0.01)	0.005 (0.01)	0.001 (0.01)
Manufacturing, D	-0.079* (0.04)	-0.023 (0.06)	-0.027 (0.02)	-0.006 (0.01)	-0.064 (0.04)	0.016 (0.04)	-0.021 (0.02)	-0.003 (0.02)
Construction, D	0.190* (0.08)	0.175* (0.07)	0.018 (0.03)	0.037 (0.04)	-0.002 (0.09)	-0.012 (0.06)	0.057 (0.04)	0.024 (0.03)
Export share	0.079 (0.06)	0.012 (0.12)	0.031 (0.03)	-0.038 (0.02)	0.145* (0.06)	0.097 (0.06)	0.066 (0.04)	0.039 (0.03)
Mainly foreign, D	0.047 (0.08)	0.128 (0.10)	0.062 (0.04)	0.038 (0.04)	-0.026 (0.04)	-0.042 (0.03)	0.021 (0.03)	0.005 (0.03)
Parents, D	0.115 (0.08)	0.025 (0.10)	-0.041* (0.02)	-0.014 (0.02)	0.033 (0.05)	0.010 (0.06)	-0.020 (0.02)	-0.003 (0.03)
Subsidiary, D	-0.161*** (0.05)	-0.137* (0.07)	-0.051** (0.02)	-0.054** (0.02)	0.041 (0.05)	0.064 (0.06)	-0.039* (0.02)	-0.008 (0.02)
Domestic demand	-0.213*** (0.02)	-0.165*** (0.03)	-0.087*** (0.01)	-0.051*** (0.01)				
Domestic competition	0.024 (0.02)	0.017 (0.02)	0.014 (0.01)	0.021 (0.01)				
Foreign demand					-0.127*** (0.02)	-0.128*** (0.03)	-0.063*** (0.01)	-0.045** (0.01)
Foreign competition					0.011 (0.01)	-0.000 (0.01)	0.019** (0.01)	0.001 (0.01)
<b>Unchanged</b>								
Employment, ln	-0.001 (0.00)	-0.004 (0.01)	0.011 (0.02)	0.018 (0.03)	0.016 (0.01)	0.006 (0.00)	0.013 (0.02)	0.004 (0.03)
Manufacturing, D	-0.025 (0.02)	-0.006 (0.02)	-0.070 (0.05)	-0.031 (0.07)	0.077* (0.04)	-0.005 (0.01)	-0.065 (0.06)	-0.013 (0.09)
Construction, D	-0.226** (0.08)	-0.190* (0.09)	0.037 (0.05)	0.133 (0.08)	0.169* (0.09)	0.227** (0.07)	0.089** (0.03)	0.074 (0.07)
Export share	0.008 (0.01)	0.002 (0.02)	0.069 (0.06)	-0.190 (0.11)	-0.164** (0.06)	-0.188*** (0.05)	-0.330*** (0.09)	-0.641*** (0.14)
Mainly foreign, D	-0.001 (0.01)	-0.017 (0.04)	0.100* (0.05)	0.136 (0.09)	0.018 (0.03)	-0.004 (0.02)	0.044 (0.06)	0.018 (0.11)
Parents, D	-0.019 (0.03)	0.003 (0.01)	-0.119 (0.06)	-0.076 (0.12)	-0.026 (0.04)	-0.003 (0.02)	-0.066 (0.09)	-0.011 (0.13)
Subsidiary, D	0.202** (0.08)	0.258** (0.08)	-0.155** (0.06)	0.040 (0.16)	-0.032 (0.04)	-0.031 (0.04)	-0.157 (0.08)	-0.035 (0.11)

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A17 (cont.)

	Price in domestic market (C26c)				Price in foreign market (C26d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Domestic demand	0.053*	-0.031	-0.110***	-0.147***				
	(0.03)	(0.03)	(0.03)	(0.04)				
Domestic competition	-0.061**	0.003	-0.054*	-0.087**				
	(0.02)	(0.01)	(0.02)	(0.03)				
Foreign demand					0.094***	0.032	-0.164***	-0.181**
					(0.02)	(0.04)	(0.04)	(0.06)
Foreign competition					-0.019	0.000	-0.055**	0.002
					(0.01)	(0.00)	(0.02)	(0.03)
<b>Increase</b>								
Employment, ln	0.006	0.022	-0.016	-0.021	0.006	0.017	-0.019	-0.004
	(0.02)	(0.03)	(0.03)	(0.04)	(0.00)	(0.01)	(0.03)	(0.04)
Manufacturing, D	0.104	0.029	0.098	0.037	-0.013	-0.011	0.086	0.016
	(0.05)	(0.08)	(0.07)	(0.08)	(0.01)	(0.03)	(0.08)	(0.11)
Construction, D	0.036	0.016	-0.055	-0.169	-0.168***	-0.215***	-0.145*	-0.098
	(0.08)	(0.07)	(0.08)	(0.12)	(0.02)	(0.05)	(0.07)	(0.11)
Export share	-0.087	-0.014	-0.100	0.228	0.020	0.090	0.264*	0.602***
	(0.06)	(0.14)	(0.08)	(0.12)	(0.02)	(0.05)	(0.11)	(0.16)
Mainly foreign, D	-0.046	-0.111	-0.162	-0.174	0.008	0.046	-0.065	-0.023
	(0.07)	(0.07)	(0.08)	(0.12)	(0.01)	(0.05)	(0.09)	(0.14)
Parents, D	-0.097	-0.028	0.160*	0.090	-0.007	-0.007	0.086	0.014
	(0.05)	(0.11)	(0.08)	(0.13)	(0.01)	(0.04)	(0.11)	(0.16)
Subsidiary, D	-0.041	-0.121	0.206**	0.014	-0.009	-0.034	0.196*	0.043
	(0.08)	(0.07)	(0.07)	(0.16)	(0.01)	(0.03)	(0.10)	(0.14)
Domestic demand	0.159***	0.196***	0.197***	0.197***				
	(0.02)	(0.03)	(0.03)	(0.04)				
Domestic competition	0.038	-0.021	0.039	0.067*				
	(0.02)	(0.02)	(0.02)	(0.03)				
Foreign demand					0.033***	0.096***	0.227***	0.226***
					(0.01)	(0.02)	(0.04)	(0.07)
Foreign competition					0.008*	0.000	0.035	-0.003
					(0.00)	(0.01)	(0.02)	(0.03)
Observations	521		534		389		397	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A18

**Financial condition of firms during 2008–2009 and 2010–2013 (%)**

	Credit was NOT available to finance working capital (C23a)				Credit CONDITIONS to finance working capital were onerous (C23d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Not relevant	53.0	51.4	49.4	49.9	57.7	51.9	55.5	53.4
Of little relevance	12.7	16.2	15.7	16.4	12.5	21.0	14.9	20.2
Relevant	24.6	23.2	25.3	25.7	20.2	17.4	18.6	17.5
Very relevant	9.8	9.1	9.5	8.0	9.6	9.7	11.0	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	523		531		502		512	
	Credit was NOT available to finance new investment (C23b)				Credit CONDITIONS to finance new investment were onerous (C23e)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Not relevant	63.4	58.7	60.8	61.0	66.9	56.3	63.0	56.6
Of little relevance	15.6	15.0	16.5	16.1	11.5	20.4	13.9	24.2
Relevant	14.1	16.3	15.9	17.6	12.7	12.0	14.1	11.7
Very relevant	6.8	10.0	6.9	5.3	8.9	11.3	9.0	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	509		517		492		499	
	Credit was NOT available to refinance debt (C23c)				Credit CONDITIONS to refinance debt were onerous (C23f)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Not relevant	72.2	61.8	69.9	64.5	71.7	61.7	70.0	63.7
Of little relevance	11.7	16.8	12.4	15.0	11.4	20.8	12.8	23.5
Relevant	10.2	11.2	11.3	15.1	9.3	7.7	9.8	7.3
Very relevant	6.0	10.1	6.4	5.4	7.5	9.8	7.5	5.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	495		505		484		489	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.



Table A19

**Persistence of the financial condition of firms from 2008–2009 to 2010–2013 (diagonal elements of cross tabulations; %)**

	2010–2013							
	Not relevant		Of little relevance		Relevant		Very relevant	
	wb	wl	wb	wl	wb	wl	wb	wl
Credit was NOT available								
to finance working capital (C23a)	88.4	91.5	73.8	49.9	68.8	61.1	50.9	42.0
to finance new investment (C23b)	93.9	96.1	76.9	77.6	76.6	80.7	61.8	36.1
to refinance debt (C23c)	95.5	95.6	78.3	69.5	76.5	81.9	59.6	32.0
Credit CONDITIONS to (re)finance								
working capital were onerous (C23d)	93.3	96.2	76.8	74.2	64.4	63.2	68.9	63.1
new investment were onerous (C23e)	93.4	95.3	83.5	90.1	71.7	74.2	68.6	49.1
debt were onerous (C23f)	96.7	98.4	86.8	91.4	76.0	70.9	71.8	44.5

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Explanation: 68.8% of firms, who answered that credit was not available to finance working capital and used option "Relevant" for 2008-2009, answered the same for 2010–2013.

Table A20

**Factors explaining probability of a firm to experience problems with financing working capital and new investment (marginal effect of logit model)**

	Credit was NOT available to finance working capital (C23a)				Credit CONDITIONS to finance working capital were onerous (C23d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Employment, ln	0.062*	0.019	0.051	0.002	0.076**	0.076*	0.057*	0.054
	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.04)
Manufacturing, D	0.175*	0.159	0.141*	0.114	0.034	0.050	–0.003	–0.029
	(0.07)	(0.10)	(0.07)	(0.09)	(0.07)	(0.10)	(0.07)	(0.10)
Construction, D	0.038	–0.019	0.026	0.065	0.028	0.011	0.030	0.009
	(0.08)	(0.08)	(0.07)	(0.10)	(0.08)	(0.09)	(0.08)	(0.09)
Export share	–0.049	–0.132	–0.072	–0.159	0.043	–0.269	0.051	–0.221
	(0.09)	(0.14)	(0.08)	(0.14)	(0.09)	(0.15)	(0.08)	(0.15)
Mainly foreign, D	0.034	–0.042	0.023	0.004	0.018	0.099	0.019	0.093
	(0.09)	(0.11)	(0.09)	(0.12)	(0.09)	(0.12)	(0.09)	(0.13)
Parents, D	–0.012	–0.240	–0.091	–0.247	0.005	–0.227	–0.103	–0.248
	(0.09)	(0.13)	(0.09)	(0.14)	(0.10)	(0.14)	(0.09)	(0.13)
Subsidiary, D	–0.072	–0.019	–0.144	–0.099	–0.127	–0.279*	–0.186*	–0.320**
	(0.09)	(0.14)	(0.09)	(0.15)	(0.08)	(0.13)	(0.08)	(0.11)
Demand	–0.043*	–0.079**	0.007	–0.014	–0.042*	–0.045	0.027	0.001
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.04)
	Credit was NOT available to finance new investment (C23b)				Credit CONDITIONS to finance new investment were onerous (C23e)			
Employment, ln	0.035	0.013	0.026	–0.010	0.068**	0.101**	0.031	0.055
	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)
Manufacturing, D	0.208**	0.200	0.203**	0.129	0.046	0.058	–0.006	–0.046
	(0.07)	(0.11)	(0.07)	(0.10)	(0.07)	(0.11)	(0.07)	(0.10)
Construction, D	–0.007	–0.021	–0.014	0.019	–0.032	–0.041	–0.023	–0.025
	(0.07)	(0.09)	(0.07)	(0.09)	(0.07)	(0.10)	(0.07)	(0.09)
Export share	–0.044	–0.113	0.004	0.026	0.016	–0.282	0.034	–0.237
	(0.08)	(0.16)	(0.08)	(0.14)	(0.08)	(0.17)	(0.08)	(0.16)
Mainly foreign, D	–0.021	–0.121	0.027	–0.052	0.008	–0.016	–0.009	–0.060
	(0.08)	(0.10)	(0.09)	(0.11)	(0.09)	(0.13)	(0.09)	(0.12)
Parents, D	0.087	0.062	–0.072	–0.145	0.073	–0.034	0.024	–0.011
	(0.09)	(0.16)	(0.09)	(0.13)	(0.10)	(0.15)	(0.09)	(0.15)
Subsidiary, D	0.112	0.156	0.085	0.118	–0.060	–0.213	–0.040	–0.205
	(0.10)	(0.15)	(0.09)	(0.15)	(0.08)	(0.14)	(0.09)	(0.14)
Demand	–0.032	–0.026	0.009	–0.022	–0.030	–0.016	0.037	0.044
	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.04)

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Relevant. Explanatory variables are described in Table A2.

Comment: Groups are combined into Not relevant and Relevant due to a small number of observations in some groups. Scale of Demand – from 1 – Strong decrease to 5 – Strong increase.

Table A21

**Factors explaining probability of a firm to experience problems with debt refinancing (marginal effect of logit model)**

	Credit was NOT available to refinance debt (C23c)				Credit CONDITIONS to refinance debt were onerous (C23f)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Employment, ln	0.081*** (0.02)	0.076 (0.04)	0.056* (0.02)	0.041 (0.04)	0.085*** (0.02)	0.095* (0.04)	0.061* (0.02)	0.058 (0.04)
Manufacturing, D	0.090 (0.07)	0.142 (0.11)	0.087 (0.07)	0.072 (0.10)	0.009 (0.07)	0.027 (0.11)	-0.026 (0.07)	-0.055 (0.10)
Construction, D	0.023 (0.07)	-0.009 (0.09)	0.047 (0.07)	0.149 (0.10)	-0.036 (0.06)	-0.076 (0.09)	-0.046 (0.07)	-0.083 (0.08)
Export share	-0.054 (0.08)	-0.162 (0.16)	-0.024 (0.08)	-0.054 (0.15)	-0.026 (0.08)	-0.219 (0.17)	0.009 (0.08)	-0.199 (0.16)
Mainly foreign, D	-0.076 (0.07)	-0.149 (0.10)	-0.022 (0.09)	-0.096 (0.11)	0.059 (0.09)	0.039 (0.13)	0.076 (0.10)	0.022 (0.13)
Parents, D	-0.022 (0.09)	-0.093 (0.17)	-0.111 (0.08)	-0.192 (0.13)	-0.018 (0.08)	-0.088 (0.15)	-0.080 (0.08)	-0.077 (0.14)
Subsidiary, D	0.087 (0.09)	0.089 (0.15)	0.038 (0.09)	0.017 (0.16)	-0.110 (0.07)	-0.259* (0.12)	-0.120 (0.08)	-0.281** (0.10)
Demand	-0.040* (0.02)	-0.069* (0.03)	0.019 (0.02)	0.006 (0.03)	-0.046** (0.02)	-0.044 (0.03)	0.012 (0.02)	0.063 (0.04)
Observations	492		502		481		486	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Relevant. Explanatory variables are described in Table A2.

Comment: Groups are combined into Not relevant and Relevant due to a small number of observations in some groups. Scale of Demand – from 1 – Strong decrease to 5 – Strong increase.

Table A22

**Change in total cost components during 2008–2009 and 2010–2013 (%)**

	Total costs (C24a)				Labour costs (C24b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	13.5	18.8	5.0	7.4	14.9	16.1	4.5	4.8
Moderate decrease	23.1	23.1	11.8	8.7	20.6	24.9	8.1	7.8
Unchanged	22.7	21.3	13.8	18.5	30.9	20.7	15.2	18.6
Moderate increase	32.7	29.3	48.8	46.1	27.8	32.5	54.5	51.6
Strong increase	7.9	7.4	20.6	19.3	5.7	5.8	17.6	17.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	528		545		532		549	
	Financial costs (C24c)				Costs of supplies (C24d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	5.4	4.9	3.5	2.4	4.8	5.4	0.8	0.9
Moderate decrease	14.0	22.7	9.5	14.1	14.8	23.9	4.5	6.1
Unchanged	50.7	42.2	44.1	41.4	31.0	22.2	16.6	16.1
Moderate increase	26.0	25.6	33.0	32.6	40.2	38.9	54.0	55.5
Strong increase	3.9	4.7	10.0	9.5	9.3	9.6	24.0	21.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	453		472		510		525	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A23

**Factors explaining probability of a firm to experience a decrease, increase or no change in total costs and labour costs during 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Total costs (C24a)				Labour costs (C24b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.025 (0.03)	0.043 (0.03)	-0.007 (0.02)	0.014 (0.02)	0.055* (0.03)	0.127*** (0.04)	0.003 (0.01)	0.010 (0.01)
Manufacturing, D	-0.079 (0.06)	-0.194* (0.08)	-0.004 (0.04)	-0.050 (0.04)	-0.046 (0.05)	-0.166* (0.07)	-0.038 (0.02)	-0.019 (0.02)
Construction, D	0.152* (0.07)	0.093 (0.09)	0.060 (0.05)	0.028 (0.04)	0.217** (0.07)	0.211* (0.08)	0.015 (0.03)	-0.001 (0.01)
Financial intermediation, D	0.325 (0.17)	0.504** (0.17)	0.148 (0.13)	0.238 (0.24)	0.337 (0.20)	0.154 (0.19)	0.229 (0.15)	0.500* (0.20)
Export share	0.030 (0.07)	0.162 (0.14)	-0.023 (0.04)	-0.084 (0.08)	-0.062 (0.06)	0.088 (0.10)	-0.023 (0.03)	-0.019 (0.03)
Mainly foreign, D	0.105 (0.08)	0.000 (0.10)	0.082 (0.07)	0.009 (0.06)	0.023 (0.08)	-0.081 (0.08)	-0.019 (0.03)	-0.026* (0.01)
Parents, D	0.216* (0.09)	0.127 (0.14)	0.037 (0.06)	0.012 (0.08)	0.233* (0.10)	-0.034 (0.11)	-0.016 (0.03)	-0.029 (0.02)
Subsidiary, D	0.086 (0.09)	0.151 (0.14)	-0.066 (0.04)	-0.046 (0.06)	0.034 (0.07)	0.106 (0.10)	0.014 (0.04)	0.042 (0.03)
Demand	-0.219*** (0.02)	-0.272*** (0.04)	-0.082*** (0.01)	-0.073*** (0.02)	-0.216*** (0.02)	-0.240*** (0.03)	-0.069*** (0.01)	-0.052*** (0.01)
<b>Unchanged</b>								
Employment, ln	-0.038* (0.02)	-0.003 (0.01)	-0.006 (0.01)	0.015 (0.02)	-0.071*** (0.02)	-0.156*** (0.03)	0.004 (0.02)	0.043 (0.03)
Manufacturing, D	-0.020 (0.02)	-0.021 (0.03)	-0.003 (0.03)	-0.064 (0.06)	-0.007 (0.01)	-0.017 (0.02)	-0.065 (0.04)	-0.188* (0.07)
Construction, D	-0.001 (0.01)	-0.014 (0.02)	0.041 (0.03)	0.029 (0.04)	-0.039 (0.03)	-0.038 (0.03)	0.023 (0.04)	-0.005 (0.06)
Financial intermediation, D	-0.068 (0.08)	-0.194 (0.11)	0.074* (0.03)	0.120*** (0.03)	-0.381* (0.15)	-0.022 (0.05)	0.157*** (0.03)	-0.183 (0.15)
Export share	0.005 (0.01)	-0.011 (0.02)	-0.018 (0.03)	-0.096 (0.09)	-0.005 (0.01)	-0.001 (0.01)	-0.036 (0.05)	-0.082 (0.12)
Mainly foreign, D	0.004 (0.01)	-0.000 (0.01)	0.053 (0.04)	0.010 (0.06)	0.001 (0.00)	-0.005 (0.01)	-0.032 (0.05)	-0.133 (0.07)
Parents, D	-0.020 (0.03)	-0.019 (0.03)	0.026 (0.04)	0.013 (0.09)	-0.196** (0.06)	-0.000 (0.00)	-0.026 (0.05)	-0.141 (0.08)
Subsidiary, D	0.004 (0.01)	-0.028 (0.04)	-0.062 (0.05)	-0.209*** (0.06)	0.001 (0.00)	-0.010 (0.02)	0.022 (0.06)	0.149 (0.11)
Demand	0.078*** (0.02)	0.124** (0.04)	0.003 (0.01)	0.022 (0.02)	0.092*** (0.02)	0.004 (0.02)	-0.040** (0.01)	-0.071** (0.03)
<b>Increase (next page)</b>								
Observations	526		542		530		546	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A23 (cont.)

	Total costs (C24a)				Labour costs (C24b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.013 (0.03)	-0.040 (0.03)	0.013 (0.03)	-0.029 (0.04)	0.016 (0.02)	0.029 (0.04)	-0.007 (0.03)	-0.053 (0.04)
Manufacturing, D	0.100 (0.08)	0.215* (0.10)	0.007 (0.07)	0.114 (0.10)	0.053 (0.07)	0.184* (0.09)	0.103 (0.06)	0.206* (0.08)
Construction, D	-0.151* (0.06)	-0.079 (0.07)	-0.101 (0.07)	-0.057 (0.08)	-0.178*** (0.05)	-0.173** (0.06)	-0.038 (0.07)	0.007 (0.07)
Financial intermediation, D	-0.257** (0.09)	-0.310*** (0.07)	-0.222 (0.16)	-0.357 (0.24)	0.044 (0.21)	-0.131 (0.14)	-0.386* (0.16)	-0.317 (0.20)
Export share	-0.034 (0.08)	-0.151 (0.13)	0.041 (0.08)	0.179 (0.17)	0.067 (0.07)	-0.087 (0.10)	0.059 (0.08)	0.101 (0.15)
Mainly foreign, D	-0.109 (0.07)	-0.000 (0.09)	-0.135 (0.10)	-0.019 (0.12)	-0.024 (0.08)	0.087 (0.09)	0.050 (0.08)	0.159* (0.08)
Parents, D	-0.196** (0.06)	-0.107 (0.11)	-0.063 (0.09)	-0.025 (0.16)	-0.038 (0.08)	0.034 (0.12)	0.042 (0.08)	0.169 (0.10)
Subsidiary, D	-0.091 (0.08)	-0.124 (0.10)	0.128 (0.09)	0.255** (0.10)	-0.034 (0.07)	-0.096 (0.08)	-0.036 (0.10)	-0.191 (0.14)
Demand	0.141*** (0.02)	0.148*** (0.03)	0.079*** (0.02)	0.052 (0.04)	0.124*** (0.02)	0.237*** (0.03)	0.109*** (0.02)	0.123*** (0.03)
Observations	526		542		530		546	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A24

**Factors explaining probability of a firm to experience a decrease, increase or no change in financial costs and costs of supplies during 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Financial costs (C24c)				Costs of supplies (C24d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.042* (0.02)	0.062* (0.03)	-0.016 (0.01)	-0.009 (0.02)	0.022 (0.02)	0.116*** (0.03)	0.001 (0.01)	0.008 (0.01)
Manufacturing, D	-0.072* (0.03)	-0.096 (0.06)	-0.024 (0.03)	-0.024 (0.04)	-0.002 (0.04)	-0.112* (0.06)	-0.010 (0.01)	-0.029* (0.01)
Construction, D	0.120 (0.07)	0.244 (0.15)	-0.020 (0.03)	-0.072* (0.03)	0.039 (0.05)	0.039 (0.07)	-0.014 (0.01)	-0.019 (0.01)
Financial intermediation, D	-0.016 (0.09)	0.005 (0.24)	0.473* (0.21)	0.689*** (0.17)	0.168 (0.14)	-0.012 (0.16)	0.053 (0.07)	0.143 (0.12)
Export share	0.091 (0.05)	0.077 (0.12)	0.031 (0.04)	0.038 (0.06)	0.083 (0.04)	0.212* (0.08)	-0.006 (0.02)	0.008 (0.02)
Mainly foreign, D	-0.018 (0.05)	-0.165** (0.06)	0.042 (0.04)	0.006 (0.05)	-0.101** (0.04)	-0.223*** (0.05)	0.031 (0.02)	0.022 (0.03)
Parents, D	0.027 (0.06)	-0.024 (0.13)	0.053 (0.05)	-0.023 (0.06)	0.010 (0.05)	0.079 (0.11)	-0.028** (0.01)	-0.021 (0.02)
Subsidiary, D	0.041 (0.06)	0.290* (0.13)	0.113 (0.07)	0.173 (0.13)	-0.001 (0.04)	0.081 (0.11)	-0.004 (0.02)	0.054 (0.05)
Demand	-0.081*** (0.01)	-0.122*** (0.03)	-0.016 (0.01)	-0.029 (0.02)	-0.097*** (0.01)	-0.075*** (0.02)	-0.025*** (0.01)	-0.040*** (0.01)
<b>Unchanged</b>								
Employment, ln	-0.062** (0.02)	-0.072* (0.03)	-0.019 (0.01)	0.008 (0.02)	-0.041 (0.02)	-0.138*** (0.03)	0.002 (0.02)	0.032 (0.03)
Manufacturing, D	-0.072 (0.04)	-0.045 (0.04)	-0.032 (0.04)	0.024 (0.04)	-0.164** (0.05)	-0.045 (0.03)	-0.035 (0.05)	-0.118* (0.06)
Construction, D	-0.148 (0.08)	-0.244** (0.09)	-0.026 (0.05)	0.071* (0.03)	0.030 (0.03)	0.010 (0.02)	-0.048 (0.04)	-0.078 (0.05)
Financial intermediation, D	-0.012 (0.08)	0.001 (0.05)	-0.045 (0.21)	-0.242 (0.17)	0.056** (0.02)	-0.004 (0.05)	0.132 (0.12)	-0.310** (0.10)
Export share	0.055 (0.03)	0.018 (0.03)	0.036 (0.04)	-0.038 (0.06)	0.076 (0.04)	0.062 (0.03)	-0.020 (0.05)	0.030 (0.08)
Mainly foreign, D	-0.012 (0.04)	0.202* (0.10)	0.036 (0.03)	-0.006 (0.05)	0.135 (0.08)	0.212* (0.10)	0.089 (0.06)	0.074 (0.08)
Parents, D	0.012 (0.02)	-0.007 (0.04)	0.041 (0.02)	0.022 (0.06)	0.008 (0.04)	-0.237*** (0.07)	-0.105** (0.04)	-0.085 (0.08)
Subsidiary, D	0.017 (0.02)	-0.327*** (0.09)	0.057*** (0.02)	-0.172 (0.13)	-0.001 (0.04)	0.017 (0.02)	-0.014 (0.06)	-0.134* (0.06)
Demand	0.043* (0.02)	0.063* (0.03)	-0.018 (0.01)	0.028 (0.02)	0.035* (0.02)	-0.022** (0.01)	-0.005 (0.01)	-0.012 (0.02)
<b>Increase (next page)</b>								
Observations	451		469		508		522	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A24 (cont.)

	Financial costs (C24c)				Costs of supplies (C24d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.020 (0.03)	0.011 (0.03)	0.035 (0.03)	0.000 (0.00)	0.019 (0.03)	0.022 (0.03)	–0.002 (0.03)	–0.040 (0.03)
Manufacturing, D	0.144* (0.07)	0.142 (0.10)	0.055 (0.07)	0.000 (0.00)	0.166* (0.07)	0.157 (0.08)	0.045 (0.06)	0.147* (0.06)
Construction, D	0.029 (0.08)	–0.001 (0.10)	0.046 (0.09)	0.001 (0.00)	–0.068 (0.08)	–0.049 (0.08)	0.062 (0.05)	0.097 (0.06)
Financial intermediation, D	0.027 (0.17)	–0.006 (0.28)	–0.428*** (0.03)	–0.448*** (0.05)	–0.225 (0.13)	0.015 (0.21)	–0.185 (0.19)	0.167* (0.07)
Export share	–0.146 (0.08)	–0.095 (0.14)	–0.068 (0.08)	–0.000 (0.00)	–0.159 (0.08)	–0.274* (0.11)	0.026 (0.07)	–0.037 (0.10)
Mainly foreign, D	0.030 (0.08)	–0.037 (0.11)	–0.078 (0.07)	–0.000 (0.00)	–0.035 (0.08)	0.010 (0.11)	–0.120 (0.09)	–0.095 (0.11)
Parents, D	–0.039 (0.08)	0.031 (0.17)	–0.094 (0.08)	0.000 (0.00)	–0.018 (0.09)	0.157 (0.11)	0.133** (0.05)	0.106 (0.10)
Subsidiary, D	–0.057 (0.07)	0.036 (0.11)	–0.170* (0.07)	–0.001* (0.00)	0.002 (0.09)	–0.098 (0.12)	0.018 (0.08)	0.080 (0.09)
Demand	0.039* (0.02)	0.059* (0.03)	0.034 (0.02)	0.000 (0.00)	0.062** (0.02)	0.097*** (0.03)	0.030 (0.02)	0.052* (0.02)
Observations	451		469		508		522	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.



Table A25

**Change in labour cost components of firm during 2008–2009 and 2010–2013 (%)**

	Base wages or piece work rates (C25a)				Flexible wage components (C25b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	12.1	8.9	4.8	2.6	14.9	20.9	8.0	7.6
Moderate decrease	21.3	23.5	7.3	7.7	14.4	16.0	4.5	3.3
Unchanged	33.3	36.3	17.1	20.4	54.3	44.2	48.5	40.3
Moderate increase	28.9	27.3	61.7	60.4	14.5	17.6	35.4	42.3
Strong increase	4.4	3.9	9.1	8.9	1.9	1.2	3.7	6.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	535		550		509		526	
	Number of permanent employees (C25c)				Number of temporary/fixed-term employees (C25d)			
Strong decrease	12.5	10.9	5.9	5.6	10.1	7.6	7.7	7.1
Moderate decrease	18.2	20.9	15.7	15.0	5.0	9.3	4.5	6.9
Unchanged	48.4	44.9	38.3	32.1	76.9	74.6	70.9	62.9
Moderate increase	18.9	21.4	32.1	31.9	7.3	8.1	15.3	21.9
Strong increase	2.0	1.9	8.1	15.5	0.7	0.4	1.6	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	534		548		453		462	
	Number of agency workers (C25e)				Working hours per employee (C25f)			
Strong decrease	7.8	9.9	7.7	11.0	6.5	3.9	2.7	1.6
Moderate decrease	2.3	2.4	4.1	2.7	9.5	11.1	7.0	5.4
Unchanged	84.8	83.9	75.2	69.3	75.2	77.5	70.8	75.0
Moderate increase	4.5	3.6	11.6	16.5	7.9	7.2	16.6	15.7
Strong increase	0.7	0.2	1.4	0.6	0.9	0.4	2.8	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	413		423		522		535	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A26

**Factors explaining probability of a firm to experience a decrease, increase or no change in base and flexible wage components during 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Base wages or piece work rates (C25a)				Flexible wage components (C25b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.015 (0.02)	0.058 (0.03)	0.005 (0.01)	0.006 (0.00)	0.047* (0.02)	0.117*** (0.03)	0.005 (0.01)	-0.005 (0.01)
Manufacturing, D	0.014 (0.06)	-0.018 (0.08)	-0.045** (0.02)	-0.025 (0.01)	-0.100 (0.06)	-0.056 (0.08)	-0.001 (0.02)	0.001 (0.03)
Construction, D	0.268*** (0.07)	0.268** (0.09)	0.034 (0.03)	0.008 (0.01)	0.063 (0.06)	0.077 (0.09)	0.101 (0.06)	0.026 (0.04)
Financial intermediation, D	-0.115 (0.12)	-0.181* (0.08)	0.057 (0.08)	0.073 (0.07)	-0.055 (0.16)	0.307* (0.14)	0.044 (0.06)	0.354 (0.25)
Export share	-0.034 (0.07)	0.180 (0.10)	0.010 (0.02)	0.003 (0.02)	0.113 (0.07)	-0.015 (0.12)	0.029 (0.03)	-0.065 (0.05)
Mainly foreign, D	-0.009 (0.08)	-0.059 (0.07)	-0.033 (0.02)	-0.014 (0.01)	-0.136* (0.05)	-0.188** (0.07)	-0.064** (0.02)	-0.020 (0.03)
Parents, D	0.148 (0.09)	-0.052 (0.11)	0.015 (0.04)	-0.020 (0.01)	0.247* (0.10)	0.037 (0.14)	-0.043 (0.02)	-0.017 (0.05)
Subsidiary, D	-0.117 (0.07)	-0.086 (0.08)	0.073 (0.06)	0.067 (0.04)	0.055 (0.08)	0.140 (0.13)	0.003 (0.04)	-0.015 (0.04)
Demand	-0.181*** (0.02)	-0.173*** (0.03)	-0.066*** (0.01)	-0.042** (0.01)	-0.131*** (0.02)	-0.199*** (0.03)	-0.050*** (0.01)	-0.036** (0.01)
<b>Unchanged</b>								
Employment, ln	0.001 (0.00)	-0.001 (0.01)	0.010 (0.02)	0.034 (0.03)	-0.081*** (0.02)	-0.134*** (0.04)	-0.074** (0.03)	-0.013 (0.02)
Manufacturing, D	0.001 (0.00)	-0.000 (0.00)	-0.107* (0.04)	-0.163* (0.08)	0.149* (0.06)	0.028 (0.04)	-0.001 (0.04)	0.003 (0.08)
Construction, D	-0.192** (0.07)	-0.238** (0.09)	0.063 (0.04)	0.043 (0.06)	-0.030 (0.04)	-0.046 (0.06)	-0.132 (0.07)	0.057 (0.06)
Financial intermediation, D	-0.046 (0.10)	-0.089 (0.08)	-0.146 (0.08)	0.257 (0.13)	0.015 (0.02)	-0.219 (0.11)	0.048 (0.04)	-0.147 (0.15)
Export share	-0.003 (0.01)	-0.003 (0.03)	0.021 (0.05)	0.019 (0.12)	-0.046 (0.03)	0.312* (0.13)	0.046 (0.05)	0.320* (0.14)
Mainly foreign, D	-0.001 (0.01)	-0.006 (0.02)	-0.077 (0.05)	-0.092 (0.08)	0.011 (0.03)	0.045 (0.03)	-0.167* (0.08)	-0.059 (0.10)
Parents, D	-0.022 (0.03)	-0.003 (0.02)	0.029 (0.07)	-0.134 (0.08)	-0.230** (0.08)	-0.020 (0.08)	-0.100 (0.07)	-0.409*** (0.08)
Subsidiary, D	0.181* (0.08)	-0.012 (0.03)	0.117 (0.07)	0.257* (0.11)	-0.027 (0.05)	-0.216* (0.09)	0.004 (0.06)	-0.042 (0.12)
Demand	0.038 (0.02)	0.003 (0.03)	-0.070*** (0.02)	-0.129*** (0.03)	0.053*** (0.01)	0.105*** (0.03)	-0.080*** (0.02)	-0.092** (0.03)
<b>Increase (next page)</b>								
Observations	533		547		506		523	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A26 (cont.)

	Base wages or piece work rates (C25a)				Flexible wage components (C25b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	–0.016 (0.02)	–0.056* (0.03)	–0.014 (0.03)	–0.040 (0.03)	0.034* (0.02)	0.017 (0.03)	0.069* (0.03)	0.018 (0.03)
Manufacturing, D	–0.015 (0.06)	0.018 (0.09)	0.152** (0.06)	0.188* (0.08)	–0.049 (0.03)	0.029 (0.04)	0.002 (0.07)	–0.004 (0.11)
Construction, D	–0.076 (0.07)	–0.030 (0.08)	–0.097 (0.07)	–0.051 (0.08)	–0.032 (0.03)	–0.031 (0.03)	0.031 (0.08)	–0.083 (0.10)
Financial intermediation, D	0.161 (0.21)	0.270 (0.15)	0.088 (0.13)	–0.330 (0.19)	0.040 (0.14)	–0.087** (0.03)	–0.092 (0.10)	–0.207 (0.18)
Export share	0.037 (0.07)	–0.177 (0.10)	–0.031 (0.08)	–0.022 (0.14)	–0.067 (0.04)	–0.297** (0.10)	–0.075 (0.08)	–0.255 (0.15)
Mainly foreign, D	0.010 (0.09)	0.065 (0.08)	0.110 (0.07)	0.106 (0.09)	0.125 (0.08)	0.143 (0.08)	0.231* (0.10)	0.079 (0.13)
Parents, D	–0.126 (0.06)	0.055 (0.12)	–0.043 (0.10)	0.154 (0.09)	–0.017 (0.05)	–0.016 (0.06)	0.143 (0.10)	0.427*** (0.10)
Subsidiary, D	–0.065 (0.08)	0.098 (0.10)	–0.190 (0.12)	–0.324* (0.14)	–0.029 (0.04)	0.076 (0.09)	–0.007 (0.09)	0.056 (0.16)
Demand	0.143*** (0.02)	0.169*** (0.04)	0.136*** (0.02)	0.172*** (0.03)	0.078*** (0.01)	0.093*** (0.02)	0.130*** (0.02)	0.128** (0.04)
Observations	533		547		506		523	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A27

**Factors explaining probability of a firm to experience a decrease, increase or no change in the number of permanent and temporary employees during 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Number of permanent employees (C25c)				Number of temporary/fixed-term employees (C25d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.038 (0.03)	0.044 (0.04)	-0.011 (0.02)	0.021 (0.02)	0.021 (0.02)	0.013 (0.02)	0.004 (0.01)	-0.007 (0.01)
Manufacturing, D	0.033 (0.06)	0.305 (0.16)	-0.023 (0.03)	-0.039 (0.03)	0.007 (0.05)	-0.035 (0.04)	-0.021 (0.02)	-0.087*** (0.03)
Construction, D	0.270*** (0.08)	0.286** (0.09)	0.138* (0.06)	0.002 (0.04)	0.142* (0.06)	0.059 (0.08)	0.132* (0.06)	0.021 (0.03)
Financial intermediation, D	-0.159** (0.06)	-0.023 (0.13)	-0.012 (0.07)	0.272 (0.29)	0.027 (0.10)	0.035 (0.15)	-0.001 (0.05)	-0.018 (0.05)
Export share	-0.075 (0.06)	0.077 (0.13)	-0.098* (0.05)	-0.062 (0.06)	0.003 (0.05)	-0.004 (0.08)	0.009 (0.04)	-0.011 (0.03)
Mainly foreign, D	0.123 (0.09)	0.058 (0.10)	0.013 (0.05)	0.035 (0.06)	-0.003 (0.05)	0.030 (0.08)	0.071 (0.06)	-0.020 (0.02)
Parents, D	-0.003 (0.06)	-0.020 (0.13)	-0.029 (0.04)	-0.074 (0.05)	0.063 (0.06)	0.084 (0.10)	0.010 (0.04)	0.077 (0.06)
Subsidiary, D	0.000 (0.07)	-0.024 (0.09)	0.083 (0.07)	0.173 (0.15)	0.058 (0.07)	0.086 (0.10)	0.029 (0.07)	0.415* (0.17)
Demand	-0.175*** (0.02)	-0.142*** (0.04)	-0.126*** (0.01)	-0.132*** (0.02)	-0.054*** (0.01)	-0.074*** (0.02)	-0.054*** (0.01)	-0.041** (0.01)
<b>Unchanged</b>								
Employment, ln	-0.052* (0.02)	-0.009 (0.01)	-0.009 (0.01)	0.025 (0.02)	-0.013 (0.01)	-0.011 (0.02)	0.002 (0.00)	-0.012 (0.02)
Manufacturing, D	-0.008 (0.02)	-0.276* (0.12)	-0.021 (0.03)	-0.055 (0.06)	-0.004 (0.03)	0.031 (0.04)	-0.013 (0.02)	0.092 (0.08)
Construction, D	-0.316*** (0.07)	-0.325*** (0.09)	-0.204** (0.08)	0.003 (0.05)	-0.210** (0.07)	-0.083 (0.07)	-0.285*** (0.08)	-0.235* (0.10)
Financial intermediation, D	-0.103 (0.13)	0.004 (0.02)	-0.010 (0.07)	-0.271 (0.18)	0.038 (0.10)	0.013 (0.15)	-0.000 (0.02)	-0.044 (0.17)
Export share	0.014 (0.01)	-0.016 (0.03)	-0.076* (0.04)	-0.076 (0.07)	-0.002 (0.04)	0.029 (0.08)	0.004 (0.01)	-0.019 (0.05)
Mainly foreign, D	-0.047 (0.05)	-0.017 (0.04)	0.009 (0.03)	0.035 (0.05)	0.002 (0.03)	-0.017 (0.08)	-0.003 (0.02)	-0.050 (0.08)
Parents, D	0.001 (0.01)	0.004 (0.02)	-0.028 (0.05)	-0.123 (0.10)	-0.047 (0.05)	-0.078 (0.09)	0.003 (0.01)	0.048 (0.03)
Subsidiary, D	-0.000 (0.01)	0.004 (0.01)	0.034** (0.01)	-0.244* (0.11)	-0.043 (0.06)	-0.157* (0.08)	0.005 (0.01)	-0.318* (0.13)
Demand	0.079*** (0.02)	0.029 (0.02)	-0.098*** (0.02)	-0.161*** (0.05)	0.035*** (0.01)	0.072*** (0.02)	-0.023 (0.01)	-0.070** (0.03)
<b>Increase (next page)</b>								
Observations	531		545		450		459	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A27 (cont.)

	Number of permanent employees (C25c)				Number of temporary/fixed-term employees (C25d)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.014 (0.02)	-0.035 (0.03)	0.020 (0.03)	-0.046 (0.04)	-0.007 (0.01)	-0.001 (0.00)	-0.006 (0.02)	0.019 (0.03)
Manufacturing, D	-0.025 (0.04)	-0.029 (0.08)	0.044 (0.07)	0.094 (0.09)	-0.002 (0.02)	0.004 (0.01)	0.034 (0.04)	-0.005 (0.07)
Construction, D	0.046 (0.06)	0.038 (0.08)	0.066 (0.08)	-0.005 (0.08)	0.068 (0.04)	0.024 (0.02)	0.153* (0.07)	0.215* (0.10)
Financial intermediation, D	0.261 (0.18)	0.019 (0.12)	0.022 (0.14)	-0.002 (0.22)	-0.066*** (0.01)	-0.048*** (0.01)	0.001 (0.07)	0.062 (0.22)
Export share	0.061 (0.05)	-0.061 (0.10)	0.174* (0.08)	0.138 (0.13)	-0.001 (0.02)	-0.024* (0.01)	-0.013 (0.05)	0.031 (0.08)
Mainly foreign, D	-0.076 (0.04)	-0.041 (0.07)	-0.022 (0.08)	-0.070 (0.12)	0.001 (0.02)	-0.013*** (0.00)	-0.069 (0.04)	0.070 (0.10)
Parents, D	0.003 (0.05)	0.016 (0.11)	0.056 (0.10)	0.197 (0.15)	-0.016 (0.01)	-0.006 (0.00)	-0.014 (0.05)	-0.125* (0.06)
Subsidiary, D	-0.000 (0.06)	0.020 (0.07)	-0.117 (0.07)	0.071 (0.17)	-0.015 (0.01)	0.071 (0.05)	-0.034 (0.06)	-0.096 (0.08)
Demand	0.096*** (0.01)	0.113* (0.05)	0.224*** (0.02)	0.294*** (0.05)	0.019*** (0.00)	0.002 (0.00)	0.077*** (0.01)	0.111*** (0.03)
Observations	531		545		450		459	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A28

**Factors explaining probability of a firm to experience a decrease, increase or no change in the number of agency workers and working hours per employee during 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Number of agency workers (C25e)				Working hours per employee (C25f)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.035** (0.01)	0.018 (0.01)	-0.004 (0.01)	0.001 (0.01)	0.003 (0.01)	0.012 (0.01)	-0.001 (0.01)	0.003 (0.01)
Manufacturing, D	-0.064* (0.03)	-0.059 (0.05)	-0.053* (0.02)	-0.031 (0.03)	0.036 (0.04)	-0.039 (0.03)	-0.015 (0.01)	0.001 (0.01)
Construction, D	-0.006 (0.03)	0.002 (0.04)	0.011 (0.04)	-0.018 (0.03)	0.099 (0.06)	0.063 (0.04)	0.012 (0.02)	0.001 (0.01)
Financial intermediation, D	0.002 (0.07)	0.268 (0.18)	0.084 (0.13)	0.592** (0.22)	-0.032 (0.08)	-0.076** (0.03)	0.011 (0.03)	-0.014 (0.03)
Export share	-0.001 (0.06)	-0.100 (0.08)	0.012 (0.05)	-0.040 (0.05)	-0.007 (0.04)	0.073 (0.06)	0.015 (0.02)	0.015 (0.02)
Mainly foreign, D	0.064 (0.06)	0.064 (0.08)	0.045 (0.05)	0.059 (0.06)	-0.033 (0.03)	-0.029 (0.03)	0.010 (0.03)	-0.007 (0.01)
Parents, D	-0.034 (0.04)	-0.041 (0.06)	-0.040 (0.03)	0.092 (0.07)	0.043 (0.05)	-0.004 (0.04)	0.015 (0.03)	0.037 (0.04)
Subsidiary, D	-0.062* (0.03)	-0.065 (0.03)	0.087 (0.08)	0.031 (0.06)	-0.042 (0.03)	-0.052* (0.03)	0.023 (0.03)	0.008 (0.02)
Demand	-0.029** (0.01)	-0.029** (0.01)	-0.039*** (0.01)	-0.053*** (0.01)	-0.090*** (0.01)	-0.080*** (0.02)	-0.056*** (0.01)	-0.038*** (0.01)
<b>Unchanged</b>								
Employment, ln	-0.029** (0.01)	-0.018 (0.01)	-0.000 (0.00)	0.001 (0.00)	-0.001 (0.01)	-0.010 (0.01)	-0.001 (0.01)	0.012 (0.02)
Manufacturing, D	0.076* (0.03)	0.059 (0.05)	-0.028 (0.03)	-0.024 (0.03)	-0.020 (0.03)	0.030 (0.02)	-0.030 (0.04)	0.003 (0.04)
Construction, D	0.005 (0.03)	-0.002 (0.04)	-0.000 (0.00)	-0.013 (0.03)	-0.067 (0.05)	-0.057 (0.04)	0.016 (0.02)	0.002 (0.04)
Financial intermediation, D	-0.002 (0.06)	-0.268 (0.18)	-0.031 (0.09)	-0.580*** (0.17)	0.115 (0.08)	0.140*** (0.03)	0.014 (0.03)	-0.069 (0.20)
Export share	-0.025 (0.06)	0.100 (0.08)	0.001 (0.00)	-0.019 (0.03)	0.003 (0.02)	-0.061 (0.04)	0.024 (0.04)	0.052 (0.06)
Mainly foreign, D	-0.057 (0.05)	-0.064 (0.08)	-0.009 (0.02)	0.000 (0.02)	0.009 (0.01)	0.023 (0.02)	0.014 (0.03)	-0.028 (0.07)
Parents, D	0.072 (0.04)	0.066 (0.06)	-0.020 (0.03)	-0.008 (0.04)	-0.025 (0.04)	0.003 (0.03)	0.019 (0.03)	0.065 (0.03)
Subsidiary, D	0.039*** (0.01)	0.065 (0.03)	-0.188* (0.08)	0.006 (0.01)	0.008 (0.01)	0.036 (0.02)	0.025 (0.02)	0.022 (0.05)
Demand	0.024** (0.01)	0.029** (0.01)	-0.002 (0.01)	-0.025 (0.02)	0.077*** (0.01)	0.075*** (0.02)	0.003 (0.02)	0.039 (0.03)
<b>Increase (next page)</b>								
Observations	410		420		519		532	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A28 (cont.)

	Number of agency workers (C25e)				Working hours per employee (C25f)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	–0.006*	–0.000	0.004	–0.002	–0.002	–0.002	0.002	–0.015
	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.02)	(0.02)
Manufacturing, D	–0.012	–0.000**	0.080	0.056	–0.016	0.009	0.045	–0.004
	(0.01)	(0.00)	(0.05)	(0.06)	(0.02)	(0.01)	(0.05)	(0.05)
Construction, D	0.001	–0.000	–0.011	0.031	–0.033**	–0.006	–0.027	–0.003
	(0.01)	(0.00)	(0.04)	(0.06)	(0.01)	(0.01)	(0.05)	(0.05)
Financial intermediation, D	–0.000	0.000	–0.052	–0.012	–0.083***	–0.064***	–0.025	0.083
	(0.01)	(0.00)	(0.05)	(0.12)	(0.01)	(0.02)	(0.06)	(0.23)
Export share	0.026*	0.000	–0.013	0.059	0.004	–0.012	–0.038	–0.067
	(0.01)	(0.00)	(0.05)	(0.08)	(0.02)	(0.02)	(0.06)	(0.08)
Mainly foreign, D	–0.007	–0.000	–0.037	–0.059	0.024	0.007	–0.024	0.035
	(0.01)	(0.00)	(0.03)	(0.05)	(0.03)	(0.01)	(0.07)	(0.08)
Parents, D	–0.039***	–0.025*	0.060	–0.084*	–0.018	0.001	–0.034	–0.102
	(0.01)	(0.01)	(0.06)	(0.04)	(0.02)	(0.01)	(0.05)	(0.07)
Subsidiary, D	0.023	0.000	0.102	–0.038	0.034	0.017	–0.049	–0.029
	(0.02)	(0.00)	(0.09)	(0.06)	(0.03)	(0.02)	(0.05)	(0.07)
Demand	0.005*	0.000*	0.041***	0.077**	0.013	0.005	0.053**	–0.001
	(0.00)	(0.00)	(0.01)	(0.02)	(0.01)	(0.00)	(0.02)	(0.03)
Observations	410		420		519		532	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A29

**Change in labour productivity, prices to total costs and non-labour costs to total costs in 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit; %)**

	Labour productivity (C27a)			
	2008–2009		2010–2013	
	wb	wl	wb	wl
Strong decrease	7.8	8.8	5.7	2.7
Moderate decrease	14.9	12.6	8.4	7.5
Unchanged	54.9	53.0	38.9	38.4
Moderate increase	21.2	24.9	42.2	44.0
Strong increase	1.2	0.7	4.9	7.4
Total	100.0	100.0	100.0	100.0
Observations	514		501	
	Prices to total costs (C27b)			
	2008–2009		2010–2013	
	wb	wl	wb	wl
Strong decrease	10.7	10.1	5.2	3.2
Moderate decrease	19.7	18.6	10.8	9.6
Unchanged	45.2	44.7	33.2	32.3
Moderate increase	23.1	25.7	47.0	49.9
Strong increase	1.3	0.9	3.8	5.0
Total	100.0	100.0	100.0	100.0
Observations	512		500	
	Non-labour costs to labour costs (C27c)			
	2008–2009		2010–2013	
	wb	wl	wb	wl
Strong decrease	6.1	3.6	2.5	1.1
Moderate decrease	15.5	19.1	6.6	6.5
Unchanged	42.1	46.1	27.5	27.7
Moderate increase	33.4	29.5	53.3	56.9
Strong increase	2.9	1.8	10.1	7.7
Total	100.0	100.0	100.0	100.0
Observations	482		471	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.



Table A30

**Factors explaining probability of a firm to experience a decrease, increase or no change in the average productivity per employee and prices during 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Average productivity per employee (as compared to labour costs per employee) (C27a)				Prices (as compared to total costs) (C27b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.001 (0.02)	0.002 (0.01)	-0.004 (0.01)	0.004 (0.01)	0.000 (0.02)	0.004 (0.02)	0.001 (0.01)	-0.003 (0.01)
Manufacturing, D	-0.056 (0.03)	-0.047 (0.04)	-0.030 (0.02)	-0.034 (0.02)	-0.006 (0.05)	-0.073 (0.07)	-0.009 (0.03)	-0.004 (0.03)
Financial intermediation, D	0.010 (0.08)	0.070 (0.11)	-0.057 (0.04)	-0.033 (0.04)	-0.003 (0.13)	-0.022 (0.12)	-0.020 (0.06)	0.043 (0.10)
Construction, D	0.074 (0.06)	0.070 (0.06)	-0.010 (0.02)	-0.036 (0.02)	0.185 (0.10)	0.280 (0.20)	-0.027 (0.03)	0.122 (0.07)
Export share	0.023 (0.05)	0.122 (0.08)	0.017 (0.03)	0.007 (0.03)	0.086 (0.06)	0.113 (0.11)	0.035 (0.04)	0.043 (0.04)
Mainly foreign, D	-0.093** (0.03)	-0.064 (0.03)	-0.041 (0.02)	-0.017 (0.03)	-0.173*** (0.04)	-0.054 (0.06)	0.004 (0.04)	-0.007 (0.04)
Parents, D	0.115 (0.09)	-0.024 (0.06)	0.003 (0.03)	-0.021 (0.03)	0.068 (0.08)	-0.094 (0.08)	-0.009 (0.03)	-0.045 (0.03)
Subsidiary, D	0.066 (0.07)	-0.065 (0.04)	-0.014 (0.03)	-0.012 (0.03)	-0.044 (0.05)	-0.176** (0.06)	-0.026 (0.03)	-0.040 (0.03)
Demand	-0.125*** (0.02)	-0.123*** (0.02)	-0.080*** (0.01)	-0.055*** (0.01)	-0.137*** (0.02)	-0.099** (0.04)	-0.073*** (0.01)	-0.052*** (0.01)
No access to credit, D	0.007 (0.03)	0.037 (0.04)	-0.008 (0.02)	-0.003 (0.02)	-0.046 (0.03)	-0.081 (0.06)	-0.060** (0.02)	-0.054* (0.03)
Base wage					-0.131*** (0.03)	-0.150*** (0.04)	-0.054*** (0.01)	-0.035* (0.02)
<b>Unchanged</b>								
Employment, ln	0.000 (0.00)	0.002 (0.01)	-0.009 (0.02)	0.010 (0.02)	-0.000 (0.00)	0.000 (0.00)	0.002 (0.02)	-0.006 (0.02)
Manufacturing, D	-0.019 (0.02)	-0.044 (0.05)	-0.076 (0.06)	-0.110 (0.07)	0.000 (0.00)	0.201** (0.07)	-0.014 (0.04)	-0.009 (0.06)
Financial intermediation, D	0.001 (0.00)	0.015 (0.02)	-0.199 (0.24)	-0.119 (0.18)	0.000 (0.00)	-0.002 (0.02)	-0.033 (0.11)	-0.240* (0.09)
Construction, D	-0.007 (0.02)	0.015 (0.02)	-0.023 (0.05)	-0.132 (0.09)	-0.247*** (0.07)	-0.258* (0.13)	-0.045 (0.05)	-0.121 (0.08)
Export share	0.003 (0.01)	0.079 (0.04)	0.037 (0.06)	0.020 (0.09)	-0.002 (0.01)	-0.263** (0.09)	0.051 (0.05)	0.097 (0.09)
Mainly foreign, D	-0.060 (0.04)	-0.088 (0.08)	-0.116 (0.08)	-0.053 (0.09)	0.128 (0.07)	-0.009 (0.02)	0.005 (0.05)	-0.016 (0.08)

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A30 (cont.)

	Average productivity per employee (as compared to labour costs per employee) (C27a)				Prices (as compared to total costs) (C27b)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Parents, D	-0.199* (0.08)	-0.301** (0.11)	0.005 (0.06)	-0.067 (0.11)	-0.013 (0.02)	-0.022 (0.05)	-0.014 (0.05)	-0.119 (0.10)
Subsidiary, D	-0.171* (0.08)	-0.085 (0.07)	-0.033 (0.07)	-0.036 (0.11)	-0.005 (0.01)	0.269*** (0.08)	-0.044 (0.06)	-0.106 (0.10)
Demand	0.071*** (0.02)	0.072* (0.03)	-0.081** (0.02)	-0.152*** (0.04)	0.105*** (0.02)	0.077* (0.03)	0.008 (0.02)	-0.029 (0.03)
No access to credit, D	0.001 (0.00)	0.025 (0.03)	-0.017 (0.03)	-0.008 (0.06)	0.002 (0.01)	0.001 (0.02)	-0.082** (0.03)	-0.115* (0.05)
Base wage					0.004 (0.02)	-0.002 (0.03)	-0.078*** (0.02)	-0.078* (0.04)
<b>Increase</b>								
Employment, ln	-0.001 (0.02)	-0.004 (0.02)	0.013 (0.03)	-0.013 (0.03)	-0.000 (0.02)	-0.004 (0.02)	-0.003 (0.03)	0.009 (0.04)
Manufacturing, D	0.075 (0.05)	0.091 (0.09)	0.106 (0.08)	0.144 (0.09)	0.006 (0.05)	-0.127* (0.06)	0.022 (0.07)	0.013 (0.09)
Financial intermediation, D	-0.010 (0.08)	-0.084 (0.10)	0.256 (0.28)	0.153 (0.21)	0.003 (0.13)	0.024 (0.13)	0.054 (0.17)	0.196 (0.16)
Construction, D	-0.068 (0.04)	-0.085 (0.05)	0.033 (0.07)	0.168 (0.11)	0.062 (0.08)	-0.021 (0.11)	0.072 (0.08)	-0.001 (0.10)
Export share	-0.026 (0.05)	-0.201 (0.11)	-0.054 (0.08)	-0.028 (0.12)	-0.084 (0.06)	0.150 (0.10)	-0.086 (0.09)	-0.140 (0.12)
Mainly foreign, D	0.153* (0.07)	0.152 (0.11)	0.158 (0.11)	0.071 (0.12)	0.046 (0.07)	0.063 (0.08)	-0.009 (0.08)	0.024 (0.12)
Parents, D	0.084 (0.09)	0.326* (0.14)	-0.008 (0.09)	0.089 (0.14)	-0.056 (0.05)	0.117 (0.12)	0.024 (0.09)	0.163 (0.13)
Subsidiary, D	0.105 (0.08)	0.149 (0.10)	0.048 (0.10)	0.048 (0.14)	0.049 (0.06)	-0.093 (0.07)	0.070 (0.09)	0.145 (0.12)
Demand	0.054*** (0.02)	0.051 (0.03)	0.161*** (0.03)	0.207*** (0.04)	0.033 (0.02)	0.022 (0.03)	0.065** (0.02)	0.081* (0.04)
No access to credit, D	-0.007 (0.03)	-0.061 (0.06)	0.025 (0.05)	0.011 (0.08)	0.044 (0.03)	0.079 (0.05)	0.142** (0.05)	0.170* (0.08)
Base wage					0.127*** (0.02)	0.152*** (0.04)	0.132*** (0.03)	0.114* (0.05)
Observations	487		508		485		505	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A31

**Factors explaining probability of a firm to experience a decrease, increase or no change in non-labour costs as compared to labour costs during 2008–2009 and 2010–2013 (marginal effect of generalised ordered logit)**

	Other (non-labour) costs (as compared to labour costs) (C27c)			
	2008–2009		2010–2013	
	wb	wl	wb	wl
<b>Decrease</b>				
Employment, ln	0.017 (0.02)	0.041* (0.02)	0.004 (0.01)	0.007 (0.01)
Manufacturing, D	-0.101*** (0.03)	-0.140* (0.06)	-0.032* (0.02)	-0.036* (0.01)
Financial intermediation, D	-0.069 (0.07)	-0.033 (0.08)	-0.046* (0.02)	-0.048** (0.02)
Construction, D	0.098 (0.06)	0.242 (0.14)	0.019 (0.03)	0.027 (0.03)
Export share	0.103 (0.06)	0.116 (0.10)	-0.003 (0.02)	0.010 (0.03)
Mainly foreign, D	-0.108** (0.04)	-0.013 (0.05)	0.048 (0.04)	0.026 (0.03)
Parents, D	0.097 (0.08)	-0.078 (0.07)	-0.023 (0.02)	-0.037 (0.02)
Subsidiary, D	-0.051 (0.04)	-0.077 (0.05)	-0.028 (0.02)	-0.036* (0.02)
Demand	-0.099*** (0.02)	-0.084*** (0.02)	-0.043*** (0.01)	-0.034*** (0.01)
No access to credit, D	0.056 (0.04)	-0.018 (0.05)	-0.040* (0.02)	-0.019 (0.02)
<b>Unchanged</b>				
Employment, ln	0.011 (0.01)	0.012 (0.01)	0.011 (0.02)	0.027 (0.03)
Manufacturing, D	-0.105* (0.05)	-0.110 (0.07)	-0.098 (0.05)	-0.148* (0.07)
Financial intermediation, D	-0.073 (0.12)	-0.014 (0.05)	-0.168 (0.09)	-0.225* (0.10)
Construction, D	-0.123 (0.07)	-0.211* (0.10)	0.046 (0.06)	0.083 (0.07)
Export share	0.064 (0.04)	0.035 (0.03)	-0.008 (0.06)	0.034 (0.10)
Mainly foreign, D	0.135 (0.08)	-0.004 (0.02)	0.103 (0.07)	0.081 (0.09)
Parents, D	0.026* (0.01)	-0.041 (0.06)	-0.070 (0.07)	-0.150 (0.10)
Subsidiary, D	-0.045 (0.05)	-0.045 (0.05)	-0.088 (0.07)	-0.151 (0.09)
Demand	0.043* (0.02)	-0.025 (0.02)	0.010 (0.02)	0.006 (0.03)
No access to credit, D	-0.118* (0.05)	-0.005 (0.02)	-0.102** (0.03)	-0.068 (0.06)
<b>Increase (next page)</b>				
Observations	469		480	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A31 (cont.)

	Other (non-labour) costs (as compared to labour costs) (C27c)			
	2008–2009		2010–2013	
	wb	wl	wb	wl
<b>Increase</b>				
Employment, ln	–0.028 (0.03)	–0.053* (0.02)	–0.015 (0.03)	–0.034 (0.03)
Manufacturing, D	0.206** (0.08)	0.250* (0.12)	0.130 (0.07)	0.183* (0.08)
Financial intermediation, D	0.142 (0.19)	0.047 (0.13)	0.214* (0.10)	0.273** (0.10)
Construction, D	0.025 (0.08)	–0.030 (0.10)	–0.065 (0.08)	–0.110 (0.10)
Export share	–0.167 (0.09)	–0.151 (0.12)	0.011 (0.09)	–0.044 (0.12)
Mainly foreign, D	–0.028 (0.08)	0.017 (0.07)	–0.151 (0.11)	–0.107 (0.12)
Parents, D	–0.123 (0.08)	0.119 (0.13)	0.093 (0.09)	0.187 (0.12)
Subsidiary, D	0.096 (0.09)	0.123 (0.10)	0.116 (0.09)	0.187 (0.10)
Demand	0.056** (0.02)	0.109*** (0.03)	0.034 (0.02)	0.028 (0.03)
No access to credit, D	0.062 (0.05)	0.023 (0.07)	0.142** (0.05)	0.087 (0.08)
Observations	469		480	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations. Explanatory variables are described in Table A2.

Table A32

**A need to significantly reduce labour input or alter its composition during 2008–2009 and 2010–2013 (C33a) (%)**

	2008–2009		2010–2013		Share of firms which repeated the action in 2010–2013	
	wb	wl	wb	wl	wb	wl
No	64.4	62.3	75.6	74.4	79.0	83.3
Yes, we had to reduce labour input or alter its composition	35.6	37.7	24.4	25.6	29.4	38.6
Total	100.0	100.0	100.0	100.0		
Observations	548		557		548	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Explanation: 79.0% of firms having answered that there was no need to reduce labour input or alter its composition in 2008–2009, answered the same in 2010–2013 according to the firm number weights.

Table A33

**Factors explaining probability of a firm to significantly reduce labour input or to alter its composition during 2008–2009 and 2010–2013 (logit regression coefficients and marginal effects)**

	Necessity to significantly reduce labour input (C33a)							
	Coefficients				Marginal effects			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Employment, ln	0.289*	0.203	–0.069	0.337	0.063*	0.046	–0.011	0.059
	(0.13)	(0.15)	(0.16)	(0.21)	(0.03)	(0.04)	(0.03)	(0.04)
Manufacturing, D	0.680*	1.144*	0.112	0.952	0.158*	0.272*	0.019	0.188
	(0.31)	(0.47)	(0.38)	(0.60)	(0.08)	(0.11)	(0.06)	(0.14)
Construction, D	0.544	0.990*	0.800*	0.754	0.126	0.239*	0.153*	0.152
	(0.31)	(0.43)	(0.33)	(0.46)	(0.08)	(0.11)	(0.07)	(0.11)
Financial intermediation, D	–1.915*	–1.681	2.083**	1.736*	–0.264***	–0.273*	0.467**	0.387*
	(0.77)	(1.22)	(0.77)	(0.77)	(0.05)	(0.12)	(0.17)	(0.18)
Export share	–0.408	–0.211	0.442	–0.386	–0.089	–0.048	0.073	–0.067
	(0.39)	(0.58)	(0.44)	(0.57)	(0.08)	(0.13)	(0.07)	(0.10)
Mainly foreign, D	0.424	0.764	0.232	–0.057	0.097	0.183	0.040	–0.010
	(0.38)	(0.50)	(0.52)	(0.62)	(0.09)	(0.12)	(0.09)	(0.11)
Parents, D	0.274	–0.802	–0.709	–0.917	0.062	–0.164	–0.096	–0.134
	(0.45)	(0.64)	(0.59)	(0.71)	(0.11)	(0.12)	(0.06)	(0.10)
Subsidiary, D	–0.219	–0.653	–0.266	–0.784	–0.046	–0.135	–0.041	–0.116
	(0.40)	(0.63)	(0.57)	(0.70)	(0.08)	(0.11)	(0.08)	(0.09)
Demand	–0.592***	–0.253	–0.690***	–0.534*	–0.129***	–0.057	–0.113***	–0.093**
	(0.11)	(0.16)	(0.11)	(0.23)	(0.02)	(0.04)	(0.02)	(0.03)
No access to credit, D	0.556*	0.339	0.758**	0.152	0.120*	0.076	0.123**	0.026
	(0.22)	(0.36)	(0.25)	(0.45)	(0.05)	(0.08)	(0.04)	(0.08)
Constant	–0.527	–1.057	0.505	–0.956				
Observations	537		554					

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – no need for labour input adjustment, 1 – significant reduction in labour input. Explanatory variables are described in Table A2.

Table A34

**Relevance of measures a firm used to reduce labour input or alter its composition when it was most urgent during 2008–2009 and 2010–2013 (for firms which reduced labour input or altered its composition; %)**

	Collective layoff (C33b1)				Individual layoffs (C33b2)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Not at all	89.3	92.3	90.6	81.6	44.0	33.5	63.0	60.6
Marginally	5.1	2.8	5.6	4.5	21.2	32.0	18.4	18.3
Moderately	1.5	0.5	0.8	0.2	22.0	23.1	10.3	10.2
Strongly	4.1	4.3	3.1	13.7	12.8	11.3	8.3	10.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	196		123		194		124	
	Reduction of working hours (C33b5)				Non-renewal of contracts (C33b6)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Not at all	37.6	24.7	46.6	41.8	71.3	53.9	70.7	44.2
Marginally	22.7	40.3	18.2	37.6	14.6	23.2	14.2	35.6
Moderately	16.7	18.6	16.2	8.6	8.1	4.5	7.1	3.0
Strongly	22.9	16.4	19.0	12.1	6.0	18.4	8.0	17.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	195		122		191		122	
	Early retirement (C33b7)				Freeze of new hires (C33b8)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Not at all	78.9	73.4	87.0	79.6	19.0	11.5	29.6	23.2
Marginally	15.7	17.5	9.0	18.8	17.2	19.6	19.3	39.5
Moderately	3.3	8.2	3.1	1.4	23.9	18.9	25.5	25.5
Strongly	2.1	1.0	0.9	0.2	39.9	50.0	25.5	11.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	194		121		186		120	
	Reduction of agency workers (C33b9)							
	2008–2009		2010–2013					
	wb	wl	wb	wl				
Not at all	82.3	75.3	80.8	55.0				
Marginally	8.2	7.1	10.7	36.8				
Moderately	5.3	3.6	1.6	5.0				
Strongly	4.2	14.0	6.9	3.1				
Total	100.0	100.0	100.0	100.0				
Observations	185		118					

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A35

**Factors explaining probability of applying individual layoffs, hour reduction, non-renewal of contracts and freeze or reduction of new hires during 2008–2009 and 2010–2013 (marginal effects of logit analysis) for firms which reduced labour input or altered its composition**

	Individual layoffs (C33b2)				Reduction of working hours (C33b5)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Employment, ln	0.073 (0.05)	0.035 (0.03)	0.052 (0.06)	0.032 (0.05)	0.075 (0.04)	0.108*** (0.02)	-0.000 (0.07)	0.059 (0.05)
Manufacturing, D	0.081 (0.12)	0.044 (0.07)	0.080 (0.18)	0.353 (0.20)	0.256** (0.09)	0.145 (0.09)	0.103 (0.18)	0.327* (0.16)
Construction, D	0.094 (0.11)	0.088 (0.05)	-0.135 (0.11)	-0.090 (0.12)	0.209* (0.09)	0.137* (0.06)	-0.092 (0.13)	-0.071 (0.17)
Financial intermediation, D	-0.045 (0.49)	0.008 (0.28)	-0.077 (0.23)	0.058 (0.22)	-0.347 (0.35)	-0.798*** (0.04)	-0.577*** (0.07)	-0.336 (0.25)
Export share	0.394* (0.19)	0.219* (0.11)	-0.498* (0.22)	-0.494* (0.24)	0.001 (0.16)	0.024 (0.13)	0.011 (0.23)	0.369 (0.27)
Mainly foreign, D	-0.363* (0.16)	-0.609*** (0.17)	0.054 (0.29)	0.006 (0.31)	-0.136 (0.15)	-0.326 (0.18)	0.222 (0.16)	0.200 (0.15)
Parents, D	0.282* (0.12)	0.227*** (0.05)	0.256 (0.27)	0.171 (0.29)	0.106 (0.13)	-0.032 (0.14)	0.510*** (0.06)	0.107 (0.29)
Subsidiary, D	0.463*** (0.05)	0.264*** (0.05)	0.623*** (0.11)	0.722*** (0.09)	-0.186 (0.17)	-0.039 (0.14)	-0.187 (0.22)	-0.350 (0.22)
Demand	0.006 (0.03)	0.063** (0.02)	-0.078 (0.05)	-0.191** (0.06)	-0.035 (0.03)	-0.011 (0.03)	-0.050 (0.05)	-0.127* (0.06)
No access to credit, D	-0.069 (0.09)	0.028 (0.08)	0.158 (0.11)	-0.050 (0.14)	0.011 (0.09)	-0.010 (0.08)	0.148 (0.11)	-0.178 (0.14)
Observations	191		124		192		122	
	Non-renewal of contracts (C33b6)				Freeze or reduction of new hires (C33b8)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Employment, ln	0.110** (0.04)	0.145* (0.07)	0.109 (0.06)	0.365*** (0.09)	0.093* (0.04)	0.068*** (0.02)	-0.043 (0.06)	0.104* (0.05)
Manufacturing, D	0.039 (0.10)	0.030 (0.16)	0.023 (0.15)	-0.103 (0.26)	0.008 (0.09)	-0.023 (0.06)	-0.048 (0.20)	-0.188 (0.26)
Construction, D	0.396** (0.13)	0.326** (0.12)	0.333** (0.13)	0.426*** (0.10)	0.050 (0.08)	0.038 (0.04)	0.054 (0.11)	0.059 (0.09)
Financial intermediation, D	0.317 (0.25)	0.467*** (0.09)	0.103 (0.22)	0.257 (0.14)	0.126 (0.08)	0.088** (0.03)	0.089 (0.18)	-0.069 (0.20)
Export share	0.020 (0.14)	0.128 (0.20)	-0.010 (0.17)	0.229 (0.31)	0.017 (0.11)	0.086 (0.07)	0.317 (0.22)	0.282 (0.24)
Mainly foreign, D	-0.131 (0.09)	0.047 (0.18)	0.026 (0.19)	0.123 (0.25)	-0.164 (0.14)	-0.082 (0.10)	0.160 (0.12)	0.136 (0.08)
Parents, D	0.230 (0.16)	-0.109 (0.26)	0.066 (0.36)	-0.710*** (0.11)			0.130 (0.17)	-0.267 (0.35)
Subsidiary, D	0.058 (0.16)	0.008 (0.21)	-0.136 (0.12)	-0.172 (0.25)	-0.278 (0.18)	-0.258 (0.14)	-0.016 (0.20)	-0.305 (0.23)
Demand	0.021 (0.03)	0.079 (0.05)	-0.004 (0.04)	-0.035 (0.07)	-0.022 (0.02)	-0.030 (0.02)	-0.116** (0.04)	-0.034 (0.04)
No access to credit, D	0.193** (0.07)	0.106 (0.13)	0.115 (0.09)	0.048 (0.14)	0.069 (0.07)	0.021 (0.05)	0.082 (0.11)	0.037 (0.10)
Observations	188		122		165		120	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Not applied and Applied due to a small number of observations in some groups. 0 – Not applied, 1 – Applied. Explanatory variables are described in Table A2.

Table A36

**Factors explaining probability of applying early retirement or reduction of agency workers during 2008–2009 and 2010–2013 (marginal effects of logit analysis) for firms which reduced labour input or altered its composition**

	Early retirement (C33b7)				Reduction of agency workers (C33b9)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Employment, ln	0.038 (0.03)	0.041 (0.03)	0.032 (0.03)	0.106* (0.04)	-0.002 (0.03)	-0.013 (0.03)	0.043 (0.06)	0.269** (0.09)
Manufacturing, D	0.151 (0.12)	0.118 (0.11)	0.173 (0.15)	0.266 (0.19)	-0.126* (0.05)	-0.010 (0.07)	0.097 (0.14)	0.336 (0.25)
Construction, D	0.073 (0.10)	-0.078 (0.06)	-0.016 (0.07)	-0.102 (0.06)	0.225 (0.12)	0.423* (0.19)	0.244 (0.14)	0.205 (0.28)
Export share	-0.199 (0.16)	-0.370* (0.17)	-0.266 (0.21)	-0.528* (0.21)	0.312** (0.10)	0.396*** (0.11)	0.164 (0.11)	0.253 (0.35)
Mainly foreign, D	-0.078 (0.12)	-0.132 (0.08)	0.272 (0.19)	0.100 (0.22)	-0.155* (0.06)	-0.263*** (0.06)	-0.137** (0.05)	-0.294 (0.15)
Parents, D	-0.140** (0.05)	0.021 (0.11)	-0.098** (0.04)	-0.111 (0.07)	0.199 (0.15)	-0.085 (0.09)	0.133 (0.45)	-0.181 (0.31)
Subsidiary, D	0.031 (0.16)	0.083 (0.15)			0.234 (0.27)	0.766*** (0.14)	0.485** (0.18)	0.389 (0.20)
Demand	0.009 (0.02)	0.010 (0.03)	-0.036 (0.03)	-0.070 (0.05)	0.015 (0.02)	0.047* (0.02)	-0.057 (0.03)	0.024 (0.10)
No access to credit, D	0.105 (0.06)	0.174 (0.09)	0.088 (0.07)	0.094 (0.08)	0.058 (0.06)	-0.039 (0.07)	0.071 (0.08)	0.146 (0.21)
Financial intermediation, D					0.709*** (0.16)	0.788*** (0.09)	0.095 (0.23)	0.359 (0.23)
Observations	187		107		182		118	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Not applied and Applied due to a small number of observations in some groups. 0 – Not applied, 1 – Applied. Explanatory variables are described in Table A2.



Table A37

**Evaluation of whether the following actions became more or less difficult for a firm during 2008–2009 and 2010–2013 compared to the previous period (%)**

	Layoff due to economical reasons (C34b)				Layoff due to disciplinary reasons (C34c)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Much less difficult	3.9	2.6	1.5	0.5	4.3	2.5	2.7	2.2
Less difficult	8.3	5.5	6.8	6.7	5.3	5.7	4.8	4.0
Unchanged	79.6	80.9	77.7	74.1	83.2	82.5	79.8	76.1
More difficult	5.8	7.1	8.7	11.6	5.3	7.3	7.7	13.6
Much more difficult	2.4	3.9	5.3	7.2	1.9	2.0	5.0	4.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	451		451		471		475	
	To hire employees (C34e)				To lower wage for new employees (C34j)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Much less difficult	4.4	4.3	1.9	1.2	3.0	2.4	2.4	4.1
Less difficult	11.2	12.0	9.2	7.4	10.5	9.9	7.7	4.1
Unchanged	69.5	67.8	58.8	53.3	74.5	69.6	69.1	68.0
More difficult	9.8	13.2	19.4	24.8	7.8	11.1	14.1	12.8
Much more difficult	5.0	2.7	10.8	13.4	4.3	6.9	6.8	10.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	488		497		476		480	
	To move employees to position in other location (C34g)				To move employees across different job positions (C34h)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Much less difficult	1.3	0.8	0.9	0.4	2.2	1.8	1.5	0.7
Less difficult	3.7	7.6	3.0	3.1	6.6	9.1	6.2	5.3
Unchanged	90.7	87.4	89.1	83.7	86.0	82.7	82.0	78.2
More difficult	3.2	3.9	5.3	10.0	4.1	4.7	8.8	12.9
Much more difficult	1.0	0.4	1.6	2.8	1.2	1.8	1.6	3.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	452		456		478		481	
	To adjust working hours (C34f)				To adjust wages of incumbent workers (C34i)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Much less difficult	2.3	2.5	0.9	0.8	3.7	1.5	1.5	1.1
Less difficult	9.2	6.9	5.9	4.0	13.0	13.8	11.9	9.9
Unchanged	78.9	79.9	75.5	74.7	63.8	58.7	56.5	54.3
More difficult	8.1	8.7	14.0	14.6	14.0	16.0	19.8	17.8
Much more difficult	1.4	2.0	3.7	5.9	5.5	9.9	10.3	16.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Observations	486		490		499		504	
	To lay off employees collectively (C34a)							
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Much less difficult	1.5	1.1	0.3	0.1				
Less difficult	2.2	3.2	1.4	4.3				
Unchanged	93.4	93.5	91.8	89.1				
More difficult	1.8	1.5	2.7	1.5				
Much more difficult	1.1	0.7	3.8	5.1				
Total	100.0	100.0	100.0	100.0				
Observations	390		395					

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A38

**Factors explaining probability of wage and working hours adjustment becoming more or less difficult during 2008–2009 and 2010–2013 compared to the previous period (marginal effect of generalised ordered logit)**

	To adjust wages of incumbent workers (C34i)				To adjust working hours (C34f)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Less difficult</b>								
Employment, ln	–0.009 (0.01)	–0.019 (0.01)	–0.003 (0.01)	–0.006 (0.01)	–0.001 (0.01)	–0.010 (0.01)	0.003 (0.01)	0.000 (0.00)
Manufacturing, D	0.072 (0.05)	0.047 (0.07)	0.020 (0.03)	0.042 (0.04)	0.080 (0.05)	0.015 (0.03)	0.033 (0.03)	–0.003 (0.00)
Construction, D	0.037 (0.05)	0.006 (0.04)	–0.009 (0.03)	–0.001 (0.02)	0.030 (0.04)	0.018 (0.03)	–0.004 (0.01)	0.005 (0.00)
Financial intermediation, D	0.222 (0.17)	0.580*** (0.16)	–0.049 (0.04)	0.038 (0.11)	0.023 (0.14)	–0.008 (0.07)	–0.056*** (0.01)	–0.033* (0.01)
Export share	0.092 (0.05)	0.067 (0.07)	0.042 (0.04)	0.010 (0.05)	0.010 (0.03)	–0.059 (0.04)	0.012 (0.02)	0.007 (0.00)
Mainly foreign, D	0.059 (0.06)	0.072 (0.07)	0.105 (0.07)	0.090 (0.06)	0.012 (0.03)	0.047 (0.06)	0.041 (0.02)	0.014 (0.01)
Parents, D	0.108 (0.08)	0.049 (0.08)	–0.050* (0.02)	–0.044 (0.03)	0.056 (0.07)	–0.034 (0.04)	–0.031** (0.01)	–0.015* (0.01)
Subsidiary, D	–0.015 (0.04)	–0.014 (0.06)	–0.010 (0.03)	–0.036 (0.03)	0.024 (0.03)	0.009 (0.03)	–0.004 (0.01)	–0.005 (0.00)
Demand	0.006 (0.01)	–0.019 (0.02)	–0.001 (0.01)	–0.017 (0.01)	–0.033** (0.01)	–0.006 (0.01)	–0.022*** (0.01)	–0.006** (0.00)
No access to credit, D	0.030 (0.04)	0.061 (0.04)	0.056 (0.03)	–0.023 (0.02)	0.096** (0.03)	0.095** (0.03)	0.012 (0.02)	0.003 (0.01)
<b>Unchanged</b>								
Employment, ln	0.000 (0.00)	–0.001 (0.00)	–0.004 (0.01)	–0.015 (0.02)	0.000 (0.00)	–0.002 (0.00)	0.007 (0.01)	0.006 (0.02)
Manufacturing, D	–0.016 (0.02)	–0.005 (0.02)	0.024 (0.03)	0.075 (0.06)	–0.028 (0.03)	0.002 (0.00)	–0.089 (0.05)	–0.056 (0.07)
Construction, D	–0.006 (0.01)	0.000 (0.00)	–0.014 (0.04)	–0.003 (0.06)	–0.007 (0.02)	0.001 (0.01)	–0.011 (0.04)	0.051 (0.04)
Financial intermediation, D	–0.370* (0.17)	–0.784*** (0.07)	–0.118 (0.14)	–0.520*** (0.08)	–0.005 (0.05)	–0.003 (0.04)	–0.239 (0.17)	–0.509*** (0.15)
Export share	–0.129* (0.06)	–0.247*** (0.07)	–0.156* (0.07)	–0.357** (0.11)	–0.000 (0.00)	0.157* (0.08)	0.029 (0.04)	0.098 (0.07)
Mainly foreign, D	–0.013 (0.02)	–0.016 (0.03)	–0.105 (0.07)	0.105** (0.04)	–0.001 (0.01)	–0.006 (0.03)	0.044** (0.02)	0.090* (0.04)
Parents, D	–0.038 (0.05)	–0.006 (0.02)	–0.113 (0.06)	–0.142 (0.10)	–0.020 (0.04)	–0.025 (0.06)	–0.187* (0.09)	–0.035 (0.12)
Subsidiary, D	–0.001 (0.01)	–0.002 (0.01)	–0.014 (0.05)	–0.111 (0.10)	–0.005 (0.01)	0.001 (0.00)	–0.010 (0.04)	–0.103 (0.12)
Demand	–0.000 (0.00)	0.064** (0.02)	–0.002 (0.01)	–0.041 (0.03)	0.058*** (0.01)	–0.001 (0.00)	0.060*** (0.02)	0.027 (0.03)
No access to credit, D	–0.097* (0.04)	–0.102* (0.05)	–0.152** (0.05)	–0.055 (0.06)	–0.126*** (0.04)	–0.155** (0.06)	–0.129*** (0.04)	–0.192** (0.06)
<b>More difficult (next page)</b>								
Observations	481		494		478		487	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Less difficult, Unchanged, More difficult due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A38 (cont.)

	To adjust wages of incumbent workers (C34i)				To adjust working hours (C34f)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>More difficult</b>								
Employment, ln	0.009 (0.01)	0.020 (0.01)	0.007 (0.02)	0.021 (0.03)	0.001 (0.01)	0.013 (0.01)	-0.010 (0.02)	-0.007 (0.02)
Manufacturing, D	-0.056 (0.03)	-0.042 (0.05)	-0.044 (0.05)	-0.117 (0.09)	-0.052* (0.02)	-0.017 (0.03)	0.057 (0.05)	0.059 (0.07)
Construction, D	-0.031 (0.04)	-0.006 (0.04)	0.023 (0.07)	0.005 (0.08)	-0.024 (0.03)	-0.019 (0.03)	0.016 (0.06)	-0.056 (0.04)
Financial intermediation, D	0.149 (0.15)	0.204 (0.17)	0.167 (0.18)	0.482*** (0.11)	-0.018 (0.09)	0.012 (0.11)	0.295 (0.17)	0.542*** (0.15)
Export share	0.037 (0.05)	0.180* (0.09)	0.114 (0.08)	0.347** (0.13)	-0.009 (0.03)	-0.098 (0.07)	-0.042 (0.05)	-0.105 (0.07)
Mainly foreign, D	-0.046 (0.04)	-0.056 (0.05)	0.001 (0.07)	-0.194* (0.09)	-0.011 (0.03)	-0.041 (0.04)	-0.085** (0.03)	-0.104* (0.05)
Parents, D	-0.069 (0.04)	-0.044 (0.06)	0.163* (0.08)	0.186 (0.13)	-0.036 (0.03)	0.059 (0.10)	0.218* (0.10)	0.050 (0.12)
Subsidiary, D	0.015 (0.05)	0.016 (0.07)	0.024 (0.08)	0.147 (0.13)	-0.019 (0.02)	-0.011 (0.04)	0.013 (0.05)	0.108 (0.13)
Demand	-0.006 (0.01)	-0.046* (0.02)	0.003 (0.02)	0.059 (0.04)	-0.025* (0.01)	0.007 (0.01)	-0.038* (0.02)	-0.022 (0.03)
No access to credit, D	0.067 (0.03)	0.041 (0.05)	0.095* (0.05)	0.078 (0.08)	0.030 (0.03)	0.061 (0.05)	0.117** (0.04)	0.189** (0.06)
Observations	481		494		478		487	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Comment: Groups are combined into Less difficult, Unchanged, More difficult due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A39

Factors explaining probability of hiring new employees and lowering their wages becoming more or less difficult during 2008–2009 and 2010–2013 compared to the previous period (marginal effect of generalised ordered logit)

	To hire new employees (C34e)				To lower wage for new employees (C34j)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Less difficult</b>								
Employment, ln	–0.009 (0.01)	–0.019 (0.01)	–0.003 (0.01)	–0.006 (0.01)	–0.001 (0.01)	–0.010 (0.01)	0.003 (0.01)	0.000 (0.00)
Manufacturing, D	0.072 (0.05)	0.047 (0.07)	0.020 (0.03)	0.042 (0.04)	0.080 (0.05)	0.015 (0.03)	0.033 (0.03)	–0.003 (0.00)
Construction, D	0.037 (0.05)	0.006 (0.04)	–0.009 (0.03)	–0.001 (0.02)	0.030 (0.04)	0.018 (0.03)	–0.004 (0.01)	0.005 (0.00)
Financial intermediation, D	0.222 (0.17)	0.580*** (0.16)	–0.049 (0.04)	0.038 (0.11)	0.023 (0.14)	–0.008 (0.07)	–0.056*** (0.01)	–0.033* (0.01)
Export share	0.092 (0.05)	0.067 (0.07)	0.042 (0.04)	0.010 (0.05)	0.010 (0.03)	–0.059 (0.04)	0.012 (0.02)	0.007 (0.00)
Mainly foreign, D	0.059 (0.06)	0.072 (0.07)	0.105 (0.07)	0.090 (0.06)	0.012 (0.03)	0.047 (0.06)	0.041 (0.02)	0.014 (0.01)
Parents, D	0.108 (0.08)	0.049 (0.08)	–0.050* (0.02)	–0.044 (0.03)	0.056 (0.07)	–0.034 (0.04)	–0.031** (0.01)	–0.015* (0.01)
Subsidiary, D	–0.015 (0.04)	–0.014 (0.06)	–0.010 (0.03)	–0.036 (0.03)	0.024 (0.03)	0.009 (0.03)	–0.004 (0.01)	–0.005 (0.00)
Demand	0.006 (0.01)	–0.019 (0.02)	–0.001 (0.01)	–0.017 (0.01)	–0.033** (0.01)	–0.006 (0.01)	–0.022*** (0.01)	–0.006** (0.00)
No access to credit, D	0.030 (0.04)	0.061 (0.04)	0.056 (0.03)	–0.023 (0.02)	0.096** (0.03)	0.095** (0.03)	0.012 (0.02)	0.003 (0.01)
<b>Unchanged</b>								
Employment, ln	0.000 (0.00)	–0.001 (0.00)	–0.004 (0.01)	–0.015 (0.02)	0.000 (0.00)	–0.002 (0.00)	0.007 (0.01)	0.006 (0.02)
Manufacturing, D	–0.016 (0.02)	–0.005 (0.02)	0.024 (0.03)	0.075 (0.06)	–0.028 (0.03)	0.002 (0.00)	–0.089 (0.05)	–0.056 (0.07)
Construction, D	–0.006 (0.01)	0.000 (0.00)	–0.014 (0.04)	–0.003 (0.06)	–0.007 (0.02)	0.001 (0.01)	–0.011 (0.04)	0.051 (0.04)
Financial intermediation, D	–0.370* (0.17)	–0.784*** (0.07)	–0.118 (0.14)	–0.520*** (0.08)	–0.005 (0.05)	–0.003 (0.04)	–0.239 (0.17)	–0.509*** (0.15)
Export share	–0.129* (0.06)	–0.247*** (0.07)	–0.156* (0.07)	–0.357** (0.11)	–0.000 (0.00)	0.157* (0.08)	0.029 (0.04)	0.098 (0.07)
Mainly foreign, D	–0.013 (0.02)	–0.016 (0.03)	–0.105 (0.07)	0.105** (0.04)	–0.001 (0.01)	–0.006 (0.03)	0.044** (0.02)	0.090* (0.04)
Parents, D	–0.038 (0.05)	–0.006 (0.02)	–0.113 (0.06)	–0.142 (0.10)	–0.020 (0.04)	–0.025 (0.06)	–0.187* (0.09)	–0.035 (0.12)
Subsidiary, D	–0.001 (0.01)	–0.002 (0.01)	–0.014 (0.05)	–0.111 (0.10)	–0.005 (0.01)	0.001 (0.00)	–0.010 (0.04)	–0.103 (0.12)
Demand	–0.000 (0.00)	0.064** (0.02)	–0.002 (0.01)	–0.041 (0.03)	0.058*** (0.01)	–0.001 (0.00)	0.060*** (0.02)	0.027 (0.03)
No access to credit, D	–0.097* (0.04)	–0.102* (0.05)	–0.152** (0.05)	–0.055 (0.06)	–0.126*** (0.04)	–0.155** (0.06)	–0.129*** (0.04)	–0.192** (0.06)
<b>More difficult (next page)</b>								
Observations	481		494		478		487	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Less difficult, Unchanged, More difficult due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A39 (cont.)

	To hire new employees (C34e)				To lower wage for new employees (C34j)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>More difficult</b>								
Employment, ln	0.009 (0.01)	0.020 (0.01)	0.007 (0.02)	0.021 (0.03)	0.001 (0.01)	0.013 (0.01)	-0.010 (0.02)	-0.007 (0.02)
Manufacturing, D	-0.056 (0.03)	-0.042 (0.05)	-0.044 (0.05)	-0.117 (0.09)	-0.052* (0.02)	-0.017 (0.03)	0.057 (0.05)	0.059 (0.07)
Construction, D	-0.031 (0.04)	-0.006 (0.04)	0.023 (0.07)	0.005 (0.08)	-0.024 (0.03)	-0.019 (0.03)	0.016 (0.06)	-0.056 (0.04)
Financial intermediation, D	0.149 (0.15)	0.204 (0.17)	0.167 (0.18)	0.482*** (0.11)	-0.018 (0.09)	0.012 (0.11)	0.295 (0.17)	0.542*** (0.15)
Export share	0.037 (0.05)	0.180* (0.09)	0.114 (0.08)	0.347** (0.13)	-0.009 (0.03)	-0.098 (0.07)	-0.042 (0.05)	-0.105 (0.07)
Mainly foreign, D	-0.046 (0.04)	-0.056 (0.05)	0.001 (0.07)	-0.194* (0.09)	-0.011 (0.03)	-0.041 (0.04)	-0.085** (0.03)	-0.104* (0.05)
Parents, D	-0.069 (0.04)	-0.044 (0.06)	0.163* (0.08)	0.186 (0.13)	-0.036 (0.03)	0.059 (0.10)	0.218* (0.10)	0.050 (0.12)
Subsidiary, D	0.015 (0.05)	0.016 (0.07)	0.024 (0.08)	0.147 (0.13)	-0.019 (0.02)	-0.011 (0.04)	0.013 (0.05)	0.108 (0.13)
Demand	-0.006 (0.01)	-0.046* (0.02)	0.003 (0.02)	0.059 (0.04)	-0.025* (0.01)	0.007 (0.01)	-0.038* (0.02)	-0.022 (0.03)
No access to credit, D	0.067 (0.03)	0.041 (0.05)	0.095* (0.05)	0.078 (0.08)	0.030 (0.03)	0.061 (0.05)	0.117** (0.04)	0.189** (0.06)
Observations	481		494		478		487	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Less difficult, Unchanged, More difficult due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A40

**Obstacles in hiring workers with a permanent, open-ended contract (%)**

	Uncertainty about economic conditions (C35a)		Insufficient availability of labour with the required skills (C35b)		Access to financing (C35c)	
	wb	wl	wb	wl	wb	wl
Not relevant	10.6	15.9	8.8	6.0	12.9	16.3
Of little relevance	12.3	19.6	8.0	9.1	19.7	20.4
Relevant	48.6	44.4	42.6	40.8	45.7	44.2
Very relevant	28.4	20.2	40.6	44.0	21.8	19.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Observations	524		521		514	
	Firing costs (C35d)		Hiring costs (C35e)		High payroll taxes (C35f)	
Not relevant	19.2	19.4	23.8	23.9	9.3	15.9
Of little relevance	35.6	34.5	42.1	40.7	11.7	10.5
Relevant	35.6	38.0	28.2	29.3	38.1	41.1
Very relevant	9.7	8.0	5.9	6.0	41.0	32.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Observations	518		519		530	
	High wages (C35g)		Risks that labour laws are changed (C35h)		Other labour costs (C35i)	
Not relevant	6.8	7.8	17.3	19.2	20.0	21.9
Of little relevance	12.9	16.2	29.8	37.2	30.5	37.2
Relevant	56.5	53.2	38.7	31.3	36.2	30.6
Very relevant	23.8	22.8	14.3	12.3	13.3	10.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Observations	505		485		451	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A41

**Factors explaining relevance of obstacles in hiring workers with a permanent, open-ended contract at the end of 2013 (marginal effect of generalised ordered logit)**

	Uncertainty about economic conditions (C35a)		Insufficient availability of labour with the required skills (C35b)		Access to financing (C35c)	
	wb	wl	wb	wl	wb	wl
<b>Not relevant</b>						
Employment, ln	0.022** (0.01)	0.030** (0.01)	-0.003 (0.01)	-0.010 (0.01)	0.018 (0.01)	0.011 (0.01)
Manufacturing, D	-0.037* (0.02)	-0.075** (0.03)	-0.024 (0.01)	-0.037* (0.02)	-0.030 (0.02)	-0.027 (0.04)
Construction, D	-0.049** (0.02)	-0.076** (0.02)	-0.007 (0.02)	-0.013 (0.02)	-0.032 (0.02)	-0.040 (0.04)
Export share	-0.000 (0.03)	0.014 (0.05)	0.030 (0.02)	0.022 (0.03)	0.017 (0.03)	-0.012 (0.07)
Mainly foreign, D	-0.041 (0.03)	0.032 (0.05)	-0.031 (0.02)	-0.001 (0.02)	0.046 (0.04)	0.062 (0.07)
Parents, D	0.053 (0.05)	0.194 (0.13)	0.020 (0.03)	0.027 (0.04)	0.023 (0.04)	0.047 (0.12)
Subsidiary, D	-0.026 (0.03)	0.134 (0.13)	-0.008 (0.03)	-0.020 (0.02)	-0.011 (0.03)	0.028 (0.09)
Demand	0.032*** (0.01)	0.028 (0.03)	-0.002 (0.01)	-0.002 (0.01)	0.022** (0.01)	0.030 (0.02)
No access to credit, D	-0.042* (0.02)	-0.027 (0.03)	-0.055* (0.03)	-0.017 (0.02)	-0.139*** (0.03)	-0.087 (0.05)
<b>Of little relevance</b>						
Employment, ln	0.022* (0.01)	0.038* (0.02)	-0.003 (0.01)	-0.014 (0.01)	0.023 (0.01)	0.009 (0.01)
Manufacturing, D	-0.040* (0.02)	-0.110* (0.06)	-0.022 (0.01)	-0.052* (0.02)	-0.041 (0.03)	-0.023 (0.04)
Construction, D	-0.054** (0.02)	-0.122** (0.05)	-0.006 (0.02)	-0.019 (0.03)	-0.044 (0.03)	-0.036 (0.04)
Export share	-0.000 (0.03)	0.019 (0.07)	0.025 (0.02)	0.030 (0.03)	0.022 (0.03)	-0.009 (0.05)
Mainly foreign, D	0.064 (0.06)	0.037 (0.05)	-0.029 (0.02)	-0.002 (0.03)	0.050 (0.03)	0.041 (0.04)
Parents, D	0.046 (0.04)	-0.027 (0.13)	0.016 (0.02)	0.035 (0.05)	0.026 (0.04)	0.166 (0.14)
Subsidiary, D	-0.028 (0.03)	-0.198** (0.07)	-0.007 (0.02)	-0.027 (0.03)	-0.014 (0.05)	0.021 (0.06)
Demand	0.032*** (0.01)	-0.028 (0.03)	-0.002 (0.01)	-0.002 (0.01)	0.028** (0.01)	0.024 (0.02)
No access to credit, D	-0.041* (0.02)	-0.034 (0.04)	0.031 (0.02)	-0.023 (0.02)	0.013 (0.04)	-0.066* (0.03)
<b>Relevant (next page)</b>						
Observations	521		518		511	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Of little relevance, 2 – Relevant, 3 – Very relevant. Explanatory variables are described in Table A2.

Table A41 (cont.)

	Uncertainty about economic conditions (C35a)		Insufficient availability of labour with the required skills (C35b)		Access to financing (C35c)	
	wb	wl	wb	wl	wb	wl
<b>Relevant</b>						
Employment, ln	0.007 (0.01)	-0.025 (0.01)	-0.004 (0.01)	-0.024 (0.02)	-0.010 (0.01)	-0.007 (0.01)
Manufacturing, D	-0.029 (0.02)	0.031 (0.02)	-0.042 (0.03)	-0.125 (0.07)	0.010 (0.01)	0.016 (0.02)
Construction, D	-0.053 (0.04)	0.001 (0.04)	-0.011 (0.03)	-0.039 (0.06)	0.009 (0.01)	0.022 (0.02)
Export share	-0.000 (0.01)	-0.012 (0.05)	0.041 (0.03)	0.053 (0.07)	-0.009 (0.01)	0.008 (0.04)
Mainly foreign, D	0.120 (0.07)	-0.030 (0.05)	-0.062 (0.04)	-0.003 (0.06)	-0.033 (0.03)	-0.048 (0.06)
Parents, D	-0.008 (0.03)	-0.286* (0.13)	0.021 (0.02)	0.049 (0.04)	-0.015 (0.03)	-0.300** (0.10)
Subsidiary, D	-0.018 (0.03)	-0.014 (0.14)	-0.012 (0.04)	-0.060 (0.09)	0.005 (0.01)	-0.020 (0.06)
Demand	0.010 (0.01)	0.057 (0.03)	-0.003 (0.01)	-0.004 (0.02)	-0.012* (0.01)	-0.020 (0.02)
No access to credit, D	-0.011 (0.01)	0.022 (0.03)	0.058 (0.05)	-0.041 (0.04)	0.037 (0.05)	0.058 (0.04)
<b>Very relevant</b>						
Employment, ln	-0.052** (0.02)	-0.043*** (0.01)	0.010 (0.02)	0.048 (0.03)	-0.031 (0.02)	-0.013 (0.01)
Manufacturing, D	0.106 (0.06)	0.153 (0.08)	0.088 (0.06)	0.214* (0.10)	0.061 (0.04)	0.033 (0.05)
Construction, D	0.156* (0.07)	0.197* (0.09)	0.024 (0.07)	0.071 (0.10)	0.067 (0.05)	0.054 (0.07)
Export share	0.001 (0.06)	-0.021 (0.08)	-0.096 (0.07)	-0.105 (0.12)	-0.030 (0.05)	0.013 (0.08)
Mainly foreign, D	-0.143* (0.06)	-0.040 (0.05)	0.122 (0.08)	0.007 (0.12)	-0.063 (0.04)	-0.056 (0.06)
Parents, D	-0.091 (0.06)	0.119 (0.10)	-0.057 (0.07)	-0.112 (0.13)	-0.034 (0.05)	0.087 (0.15)
Subsidiary, D	0.071 (0.09)	0.078 (0.10)	0.026 (0.09)	0.107 (0.15)	0.020 (0.07)	-0.029 (0.08)
Demand	-0.073*** (0.02)	-0.056*** (0.02)	0.006 (0.02)	0.008 (0.04)	-0.038** (0.01)	-0.033 (0.02)
No access to credit, D	0.094** (0.04)	0.039 (0.05)	-0.033 (0.05)	0.081 (0.07)	0.090* (0.04)	0.096* (0.04)
Observations	521		518		511	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Of little relevance, 2 – Relevant, 3 – Very relevant. Explanatory variables are described in Table A2.



Table A42

**Factors explaining relevance of obstacles in hiring workers with a permanent, open-ended contract at the end of 2013 (marginal effect of generalised ordered logit)**

	Firing costs (C35d)		Hiring costs (C35e)		High payroll taxes (C35f)	
	wb	wl	wb	wl	wb	wl
<b>Not relevant</b>						
Employment, ln	0.000 (0.01)	-0.002 (0.02)	0.008 (0.02)	-0.004 (0.02)	0.008 (0.01)	0.096*** (0.02)
Manufacturing, D	-0.022 (0.04)	-0.026 (0.05)	-0.011 (0.04)	0.021 (0.06)	-0.010 (0.02)	-0.031 (0.02)
Construction, D	0.001 (0.04)	0.024 (0.05)	0.031 (0.05)	0.050 (0.06)	-0.017 (0.02)	0.029 (0.06)
Export share	0.074 (0.04)	0.049 (0.07)	0.115* (0.05)	-0.002 (0.09)	0.007 (0.02)	-0.191*** (0.05)
Mainly foreign, D	0.001 (0.04)	0.008 (0.07)	-0.095* (0.04)	-0.072 (0.06)	0.025 (0.02)	-0.031 (0.03)
Parents, D	0.009 (0.05)	0.048 (0.11)	-0.020 (0.06)	0.023 (0.10)	0.059 (0.03)	-0.046 (0.04)
Subsidiary, D	0.044 (0.05)	0.079 (0.12)	-0.001 (0.06)	0.058 (0.10)	0.060 (0.04)	0.036 (0.04)
Demand	0.035** (0.01)	0.042 (0.02)	0.020 (0.02)	0.053 (0.04)	0.013* (0.01)	0.115*** (0.02)
No access to credit, D	-0.082** (0.03)	-0.169** (0.06)	-0.129** (0.04)	-0.193** (0.07)	-0.073** (0.03)	0.011 (0.02)
<b>Of little relevance</b>						
Employment, ln	0.000 (0.01)	-0.002 (0.01)	0.002 (0.01)	-0.001 (0.01)	0.010 (0.01)	-0.108*** (0.02)
Manufacturing, D	-0.015 (0.03)	-0.022 (0.04)	-0.003 (0.01)	0.006 (0.02)	-0.013 (0.02)	-0.036 (0.03)
Construction, D	0.000 (0.03)	0.017 (0.03)	0.006 (0.01)	0.010 (0.01)	-0.021 (0.02)	-0.145** (0.05)
Export share	0.048 (0.03)	0.037 (0.06)	0.031 (0.02)	-0.001 (0.03)	0.008 (0.02)	0.157* (0.07)
Mainly foreign, D	0.001 (0.03)	0.006 (0.05)	-0.050 (0.03)	-0.038 (0.05)	0.029 (0.03)	0.201** (0.07)
Parents, D	0.005 (0.03)	0.031 (0.05)	-0.007 (0.02)	0.007 (0.02)	0.060* (0.03)	0.202* (0.10)
Subsidiary, D	0.023 (0.02)	-0.099 (0.09)	-0.000 (0.02)	0.012 (0.01)	0.062 (0.03)	0.037 (0.04)
Demand	0.023** (0.01)	0.032* (0.02)	-0.011 (0.02)	-0.062 (0.03)	0.015* (0.01)	-0.123*** (0.03)
No access to credit, D	-0.050** (0.02)	0.085 (0.08)	0.098* (0.05)	0.171* (0.08)	0.027 (0.03)	0.013 (0.03)
<b>Relevant (next page)</b>						
Observations	515		516		527	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Of little relevance, 2 – Relevant, 3 – Very relevant. Explanatory variables are described in Table A2.

Table A42 (cont.)

	Firing costs (C35d)		Hiring costs (C35e)		High payroll taxes (C35f)	
	wb	wl	wb	wl	wb	wl
<b>Relevant</b>						
Employment, ln	–0.000 (0.02)	0.004 (0.02)	–0.008 (0.02)	0.004 (0.02)	0.009 (0.01)	0.042 (0.03)
Manufacturing, D	0.024 (0.04)	0.038 (0.07)	0.012 (0.04)	–0.021 (0.06)	–0.013 (0.02)	–0.031 (0.03)
Construction, D	–0.001 (0.05)	–0.033 (0.07)	–0.029 (0.05)	–0.048 (0.06)	–0.023 (0.03)	0.092 (0.08)
Export share	–0.081 (0.05)	–0.069 (0.10)	–0.115* (0.05)	0.002 (0.10)	0.008 (0.02)	0.134 (0.12)
Mainly foreign, D	–0.002 (0.04)	–0.012 (0.09)	0.110* (0.05)	0.084 (0.08)	0.020 (0.01)	–0.027 (0.09)
Parents, D	–0.010 (0.05)	–0.064 (0.13)	0.021 (0.06)	–0.024 (0.10)	0.024* (0.01)	0.126 (0.13)
Subsidiary, D	–0.046 (0.05)	0.106 (0.14)	0.001 (0.06)	–0.056 (0.09)	0.026* (0.01)	0.009 (0.01)
Demand	–0.038** (0.01)	–0.059 (0.03)	0.012 (0.02)	0.032 (0.03)	0.014* (0.01)	0.005 (0.03)
No access to credit, D	0.088** (0.03)	0.103 (0.09)	0.059 (0.04)	0.053 (0.08)	0.022 (0.05)	0.007 (0.02)
<b>Very relevant</b>						
Employment, ln	–0.000 (0.01)	0.001 (0.01)	–0.002 (0.01)	0.001 (0.01)	–0.027 (0.02)	–0.031 (0.03)
Manufacturing, D	0.013 (0.02)	0.010 (0.02)	0.003 (0.01)	–0.006 (0.02)	0.036 (0.06)	0.098 (0.08)
Construction, D	–0.000 (0.02)	–0.008 (0.02)	–0.007 (0.01)	–0.012 (0.01)	0.061 (0.08)	0.025 (0.07)
Export share	–0.041 (0.02)	–0.017 (0.03)	–0.030* (0.01)	0.001 (0.03)	–0.023 (0.06)	–0.100 (0.11)
Mainly foreign, D	–0.001 (0.02)	–0.003 (0.02)	0.035 (0.02)	0.027 (0.03)	–0.074 (0.06)	–0.143 (0.07)
Parents, D	–0.005 (0.03)	–0.015 (0.03)	0.006 (0.02)	–0.006 (0.03)	–0.143* (0.06)	–0.282** (0.09)
Subsidiary, D	–0.021 (0.02)	–0.086*** (0.02)	0.000 (0.02)	–0.014 (0.02)	–0.147* (0.07)	–0.083 (0.08)
Demand	–0.019** (0.01)	–0.015 (0.01)	–0.020** (0.01)	–0.024** (0.01)	–0.043* (0.02)	0.002 (0.02)
No access to credit, D	0.044** (0.02)	–0.019 (0.02)	–0.028 (0.02)	–0.031 (0.03)	0.023 (0.05)	–0.031 (0.06)
Observations	515		516		527	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Of little relevance, 2 – Relevant, 3 – Very relevant. Explanatory variables are described in Table A2.

Table A43

**Factors explaining relevance of obstacles in hiring workers with a permanent, open-ended contract at the end of 2013 (marginal effect of generalised ordered logit)**

	High wages (C35g)		Risks that labour laws are changed (C35h)		Other labour costs (C35i)	
	wb	wl	wb	wl	wb	wl
<b>Not relevant</b>						
Employment, ln	-0.005 (0.00)	0.002 (0.01)	0.002 (0.01)	0.022 (0.02)	0.030 (0.02)	0.041 (0.02)
Manufacturing, D	0.012 (0.01)	0.006 (0.02)	-0.082** (0.03)	-0.098* (0.05)	-0.066* (0.03)	-0.055 (0.06)
Construction, D	0.002 (0.01)	-0.002 (0.06)	-0.012 (0.05)	-0.049 (0.05)	-0.040 (0.05)	-0.019 (0.07)
Export share	0.009 (0.01)	0.024 (0.04)	0.034 (0.04)	0.004 (0.07)	0.016 (0.05)	-0.055 (0.09)
Mainly foreign, D	0.011 (0.02)	0.027 (0.04)	-0.003 (0.04)	0.001 (0.07)	0.023 (0.05)	0.045 (0.09)
Parents, D	0.037 (0.03)	0.168 (0.09)	0.019 (0.07)	-0.016 (0.11)	-0.014 (0.04)	-0.037 (0.08)
Subsidiary, D	0.088 (0.05)	0.148 (0.09)	0.042 (0.06)	0.047 (0.10)	0.007 (0.05)	0.028 (0.10)
Demand	0.007 (0.00)	-0.001 (.)	0.024 (0.01)	-0.002 (0.03)	0.024 (0.01)	-0.029 (0.03)
No access to credit, D	-0.086*** (0.02)	-0.002 (0.02)	-0.049 (0.03)	-0.009 (0.05)	-0.081* (0.03)	-0.037 (0.06)
<b>Of little relevance</b>						
Employment, ln	-0.011 (0.01)	0.004 (0.02)	0.001 (0.01)	0.014 (0.01)	0.017 (0.01)	0.018* (0.01)
Manufacturing, D	0.028 (0.03)	0.012 (0.04)	-0.081* (0.03)	-0.089 (0.06)	-0.048 (0.03)	-0.031 (0.04)
Construction, D	0.004 (0.03)	-0.153** (0.05)	-0.010 (0.04)	-0.040 (0.05)	-0.027 (0.04)	-0.009 (0.04)
Export share	0.022 (0.03)	-0.123 (0.10)	0.026 (0.03)	0.003 (0.04)	0.010 (0.03)	-0.025 (0.04)
Mainly foreign, D	0.025 (0.03)	0.051 (0.06)	-0.003 (0.03)	0.001 (0.05)	0.012 (0.03)	0.015 (0.03)
Parents, D	0.076 (0.05)	0.210** (0.08)	0.220* (0.09)	0.348** (0.12)	-0.008 (0.03)	-0.020 (0.05)
Subsidiary, D	-0.012 (0.05)	0.008 (0.13)	0.027 (0.03)	0.023 (0.04)	0.004 (0.03)	0.011 (0.03)
Demand	0.017 (0.01)	-0.002 (0.02)	0.018 (0.01)	0.026 (0.03)	0.014 (0.01)	0.023 (0.03)
No access to credit, D	-0.029 (0.03)	-0.004 (0.04)	-0.037 (0.02)	-0.006 (0.03)	-0.045** (0.02)	-0.016 (0.02)
<b>Relevant (next page)</b>						
Observations	502		482		448	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Of little relevance, 2 – Relevant, 3 – Very relevant. Explanatory variables are described in Table A2.

Table A43 (cont.)

	High wages (C35g)		Risks that labour laws are changed (C35h)		Other labour costs (C35i)	
	wb	wl	wb	wl	wb	wl
<b>Relevant</b>						
Employment, ln	–0.002 (0.00)	–0.001 (0.00)	–0.002 (0.01)	–0.022 (0.02)	–0.026 (0.01)	–0.039* (0.02)
Manufacturing, D	0.002 (0.00)	–0.002 (0.01)	0.069*** (0.02)	0.101* (0.04)	0.057* (0.03)	0.054 (0.06)
Construction, D	0.001 (0.00)	0.226** (0.07)	0.011 (0.04)	0.052 (0.05)	0.034 (0.04)	0.018 (0.07)
Export share	0.005 (0.01)	0.333** (0.12)	–0.032 (0.04)	–0.004 (0.07)	–0.014 (0.04)	0.052 (0.09)
Mainly foreign, D	0.002 (0.00)	–0.020 (0.04)	0.003 (0.04)	–0.001 (0.07)	–0.020 (0.04)	–0.040 (0.08)
Parents, D	–0.017 (0.03)	–0.186 (0.11)	–0.242*** (0.07)	–0.302*** (0.06)	0.012 (0.04)	0.036 (0.08)
Subsidiary, D	–0.025 (0.08)	–0.186 (0.10)	–0.039 (0.06)	–0.045 (0.09)	–0.006 (0.05)	–0.026 (0.09)
Demand	0.004 (0.00)	0.000 (0.00)	–0.022 (0.01)	0.012 (0.02)	–0.021 (0.01)	0.029 (0.03)
No access to credit, D	0.064 (0.05)	0.001 (0.01)	0.045 (0.03)	0.009 (0.05)	0.070* (0.03)	0.035 (0.05)
<b>Very relevant</b>						
Employment, ln	0.018 (0.02)	–0.005 (0.02)	–0.001 (0.01)	–0.014 (0.01)	–0.021 (0.01)	–0.021* (0.01)
Manufacturing, D	–0.042 (0.04)	–0.015 (0.06)	0.095* (0.04)	0.085 (0.06)	0.057 (0.03)	0.032 (0.04)
Construction, D	–0.007 (0.04)	–0.071 (0.05)	0.011 (0.04)	0.038 (0.05)	0.032 (0.04)	0.010 (0.04)
Export share	–0.036 (0.05)	–0.234* (0.11)	–0.029 (0.04)	–0.003 (0.04)	–0.012 (0.04)	0.027 (0.05)
Mainly foreign, D	–0.038 (0.05)	–0.058 (0.06)	0.003 (0.04)	–0.001 (0.05)	–0.015 (0.03)	–0.020 (0.04)
Parents, D	–0.095 (0.05)	–0.191*** (0.05)	0.003 (0.06)	–0.030 (0.06)	0.010 (0.03)	0.021 (0.05)
Subsidiary, D	–0.051 (0.07)	0.030 (0.11)	–0.030 (0.04)	–0.026 (0.05)	–0.005 (0.04)	–0.013 (0.04)
Demand	–0.028 (0.01)	0.003 (0.02)	–0.020 (0.01)	–0.036* (0.02)	–0.017 (0.01)	–0.024* (0.01)
No access to credit, D	0.051 (0.04)	0.005 (0.05)	0.040 (0.02)	0.006 (0.03)	0.056* (0.02)	0.018 (0.03)
Observations	502		482		448	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 0 – Not relevant, 1 – Of little relevance, 2 – Relevant, 3 – Very relevant. Explanatory variables are described in Table A2.

Table A44

**Share of labour costs in firm's total costs in 2013 by firm's size and sector (%)**

Size	Manufacturing	Construction	Trade	Business services	Financial intermediation	Total
wl – weighted to represent employees in the population						
10–19	27.8	39.6	35.5	40.1	87.8	37.6
20–49	31.6	27.5	30.7	34.4	56.0	32.4
50–199	27.8	33.4	31.6	37.2	38.5	33.5
200–..	24.5	9.0	50.0	37.8	54.3	38.9
Total	27.2	32.7	37.4	37.6	53.6	36.1
wb – weighted to represent firm population						
10–19	28.3	39.0	35.4	41.8	88.5	38.5
20–49	30.4	27.6	30.9	34.5	56.5	32.0
50–199	25.3	33.3	31.7	37.6	39.4	33.0
200–..	29.2	10.6	50.0	48.8	53.4	44.1
Total	28.7	33.6	34.4	39.2	64.2	35.9

Table A45

**Percentage of total wage bill related to individual or company-related bonuses and benefits in 2013 by firm size and sector (%)**

Size	Manufacturing	Construction	Trade	Business services	Financial intermediation	Total
wl – weighted to represent employees in the population						
10–19	3.4	7.1	4.9	7.0	10.5	5.9
20–49	4.3	4.6	5.5	7.0	7.9	5.6
50–199	4.7	7.3	11.8	7.0	13.8	8.0
200–..	10.7	30.0	5.7	15.1	17.2	12.9
Total	7.0	7.2	7.7	10.0	16.1	9.1
wb – weighted to represent firm population						
10–19	3.8	7.3	4.8	6.8	10.4	5.9
20–49	4.6	4.3	5.5	6.8	7.9	5.6
50–199	4.3	6.9	12.1	6.4	14.8	7.9
200–..	12.6	30.0	6.0	13.6	14.0	11.8
Total	4.8	6.1	6.1	7.0	11.5	6.4

Table A46

**Percentage of total wage bill related to individual or company-related bonuses and benefits in 2013  
(by employee skills; %)**

	Bonus share of total wage	Non-manual		Manual	
		Higher skilled	Lower skilled	Higher skilled	Lower skilled
wl – weighted to represent employees in the population					
Manufacturing	7.0	6.0	5.8	7.2	5.1
Construction	7.2	9.3	5.6	3.6	3.7
Trade	7.7	4.5	4.3	5.5	2.7
Business services	10.0	9.7	11.4	13.4	12.2
Financial intermediation	16.1	4.8	2.9		0.6
Total	9.1	7.5	7.5	8.9	6.8
wb – weighted to represent firm population					
Manufacturing	4.8	3.1	4.4	4.9	4.0
Construction	6.1	5.8	3.7	4.1	3.9
Trade	6.1	4.1	4.0	3.6	2.3
Business services	7.0	6.5	5.2	6.9	4.5
Financial intermediation	11.5	7.8	2.2		0.4
Total	6.4	5.1	4.4	5.1	3.7
Size					
10–19	5.9	4.1	3.6	3.2	3.0
20–49	5.6	5.5	5.1	6.0	4.4
50–199	8.0	5.8	5.2	6.6	2.6
200–..	12.9	11.1	11.3	14.2	12.3
Total	9.1	7.5	7.5	8.9	6.8
Size					
10–19	5.9	4.1	3.5	3.1	2.9
20–49	5.6	5.5	4.7	5.9	4.2
50–199	7.9	5.5	5.0	6.6	2.5
200–..	11.8	9.6	8.3	10.6	10.4
Total	6.4	5.1	4.4	5.1	3.7

Note: Bonus share by skills wasn't reported for all firms, therefore the average bonus share and the bonus share by skills may differ.

Table A47

**Change in total wage bill related to individual or company-related bonuses and benefits (by skills) in 2008–2009 (wl – weighted to represent employees in the population; %)**

Size	Manufacturing	Construction	Trade	Business services	Financial intermediation	Total	Number of observations
Higher skilled non-manual							
Decrease	32.6	43.3	17.5	44.2	67.5	37.6	123
Unchanged	54.4	44.3	69.8	34.9	14.3	45.9	269
Increase	13	12.4	12.7	20.9	18.2	16.4	62
Total	100	100	100	100	100	100	454
Lower skilled non-manual							
Decrease	34.2	39.4	15.2	41.3	69.2	36	101
Unchanged	50.3	47.4	72.1	35	12.2	45.7	272
Increase	15.5	13.2	12.7	23.7	18.6	18.2	63
Total	100	100	100	100	100	100	436
Higher skilled manual							
Decrease	32.3	26	12.3	35.2	75.8	31.4	78
Unchanged	49.6	57.4	77.3	45.6	14.1	52.5	271
Increase	18.1	16.5	10.4	19.1	10.1	16.1	59
Total	100	100	100	100	100	100	408
Lower skilled manual							
Decrease	30.7	20.7	10.9	30.8	51.5	26.4	54
Unchanged	52.9	68.4	83.1	45.8	19.2	56.7	286
Increase	16.3	10.9	6	23.3	29.3	16.9	41
Total	100	100	100	100	100	100	381

Table A48

**Change in total wage bill related to individual or company-related bonuses and benefits (by skills) in 2010–2013 (wl – weighted to represent employees in the population; %)**

Size	Manufacturing	Construction	Trade	Business services	Financial intermediation	Total	Number of observations
Higher skilled non-manual							
Decrease	24.6	24.4	12.8	19.5	31.7	20.5	64
Unchanged	50.2	44.8	63.9	39.3	18.6	45.9	256
Increase	25.2	30.9	23.3	41.3	49.7	33.6	147
Total	100	100	100	100	100	100	467
Lower skilled non-manual							
Decrease	23.4	29.5	11.4	18.4	32.4	20	58
Unchanged	49	44.2	63.9	38.9	16.8	45.3	247
Increase	27.6	26.4	24.7	42.8	50.7	34.7	138
Total	100	100	100	100	100	100	443
Higher skilled manual							
Decrease	25	14.8	5.8	9.2	38	14.4	37
Unchanged	43.4	47.9	77.4	45.3	14.1	49.9	249
Increase	31.6	37.3	16.8	45.5	47.9	35.7	133
Total	100	100	100	100	100	100	419
Lower skilled manual							
Decrease	25.9	10.8	7.1	6.2	51.5	13.8	30
Unchanged	48.8	60.9	85.7	52.6	19.2	58.2	284
Increase	25.3	28.4	7.3	41.2	29.3	28	75
Total	100	100	100	100	100	100	389



Table A49

**Factors explaining probability of a firm to experience a decrease, increase or no change in individual or company-related bonuses for non-manual employees during 2008–2009 and 2010–2013 compared to the situation before 2008 and 2010 correspondingly (marginal effect of generalised ordered logit)**

	Higher skilled non-manual (LV46ba)				Lower skilled non-manual (LV46bb)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.080** (0.03)	0.203*** (0.05)	0.038** (0.01)	0.052 (0.03)	0.069** (0.02)	0.187*** (0.04)	0.036* (0.02)	0.040 (0.03)
Manufacturing, D	-0.054 (0.05)	0.001 (0.12)	-0.001 (0.03)	0.093 (0.09)	-0.094* (0.04)	-0.011 (0.11)	-0.097** (0.03)	0.053 (0.08)
Construction, D	0.105 (0.08)	0.173 (0.11)	-0.034 (0.03)	0.024 (0.08)	0.054 (0.07)	0.167 (0.12)	0.002 (0.04)	0.088 (0.11)
Financial intermediation, D	-0.095 (0.07)	0.050 (0.14)	0.027 (0.07)	0.294 (0.25)	0.039 (0.11)	0.319* (0.15)	0.005 (0.07)	0.240 (0.23)
Export share	0.031 (0.06)	-0.003 (0.13)	-0.018 (0.04)	-0.066 (0.09)	0.030 (0.06)	0.053 (0.12)	-0.007 (0.04)	-0.024 (0.09)
Mainly foreign, D	0.002 (0.06)	-0.190 (0.11)	-0.016 (0.03)	-0.076 (0.05)	0.067 (0.07)	-0.015 (0.09)	-0.034 (0.03)	-0.165** (0.05)
Demand	-0.095*** (0.02)	-0.100** (0.04)	-0.043*** (0.01)	-0.011 (0.03)	-0.074*** (0.01)	-0.066 (0.04)	-0.037** (0.01)	0.006 (0.03)
No access to credit, D	0.004 (0.04)	-0.104 (0.09)	0.008 (0.02)	-0.026 (0.06)	-0.009 (0.04)	-0.058 (0.09)	-0.017 (0.02)	-0.038 (0.06)
Share of corresponding type of employees	0.004*** (0.00)	0.005** (0.00)	0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001* (0.00)	-0.001 (0.00)
<b>Unchanged</b>								
Employment, ln	-0.094*** (0.03)	-0.253*** (0.05)	-0.060*** (0.01)	-0.090* (0.04)	-0.094*** (0.02)	-0.248*** (0.05)	-0.064** (0.02)	-0.091* (0.04)
Manufacturing, D	0.019 (0.01)	-0.000 (0.05)	-0.001 (0.03)	0.021 (0.02)	0.009 (0.02)	0.004 (0.04)	0.112 (0.07)	0.020 (0.02)
Construction, D	-0.171* (0.08)	-0.088 (0.07)	-0.042 (0.05)	0.008 (0.02)	-0.168* (0.09)	-0.088 (0.08)	0.002 (0.04)	0.020 (0.02)
Financial intermediation, D	0.013 (0.02)	-0.275 (0.15)	0.019 (0.03)	-0.362* (0.15)	-0.017 (0.06)	-0.409* (0.17)	0.004 (0.06)	-0.405* (0.16)
Export share	-0.013 (0.03)	0.001 (0.05)	-0.017 (0.04)	-0.028 (0.04)	-0.010 (0.02)	-0.021 (0.05)	-0.008 (0.04)	-0.012 (0.04)
Mainly foreign, D	-0.001 (0.03)	0.281** (0.10)	-0.018 (0.04)	-0.056 (0.04)	-0.031 (0.04)	0.006 (0.03)	-0.046 (0.05)	0.080 (0.10)
Demand	0.041*** (0.01)	0.038** (0.01)	-0.040*** (0.01)	-0.005 (0.02)	0.026* (0.01)	-0.048 (0.03)	-0.037** (0.01)	0.003 (0.02)
No access to credit, D	-0.002 (0.02)	0.041 (0.04)	0.008 (0.02)	-0.011 (0.02)	0.003 (0.01)	0.023 (0.04)	-0.017 (0.02)	-0.019 (0.03)
Share of corresponding type of employees	-0.003*** (0.00)	-0.008*** (0.00)	-0.003*** (0.00)	-0.000 (0.00)	-0.001 (0.00)	0.000 (0.00)	-0.001 (0.00)	-0.000 (0.00)
<b>Increase (next page)</b>								
Observations	452		464		434		441	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A49 (cont.)

	Higher skilled non-manual (LV46ba)				Lower skilled non-manual (LV46bb)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.014 (0.02)	0.049 (0.04)	0.022 (0.02)	0.037 (0.03)	0.025 (0.02)	0.061 (0.04)	0.028 (0.02)	0.052 (0.03)
Manufacturing, D	0.036 (0.03)	-0.000 (0.07)	0.002 (0.05)	-0.114 (0.09)	0.084 (0.05)	0.007 (0.07)	-0.015 (0.07)	-0.073 (0.10)
Construction, D	0.066 (0.06)	-0.085 (0.05)	0.076 (0.08)	-0.033 (0.10)	0.114 (0.07)	-0.079 (0.05)	-0.003 (0.08)	-0.108 (0.11)
Financial intermediation, D	0.082 (0.08)	0.225 (0.19)	-0.046 (0.11)	0.067 (0.19)	-0.022 (0.05)	0.090 (0.18)	-0.009 (0.13)	0.165 (0.22)
Export share	-0.017 (0.04)	0.002 (0.08)	0.034 (0.08)	0.094 (0.12)	-0.020 (0.04)	-0.032 (0.08)	0.015 (0.08)	0.036 (0.13)
Mainly foreign, D	-0.001 (0.04)	-0.091 (0.07)	0.034 (0.07)	0.131 (0.09)	-0.036 (0.03)	0.009 (0.06)	0.080 (0.07)	0.086 (0.11)
Demand	0.054*** (0.01)	0.061* (0.03)	0.083*** (0.02)	0.015 (0.05)	0.048*** (0.01)	0.114*** (0.03)	0.074*** (0.02)	-0.009 (0.05)
No access to credit, D	-0.002 (0.02)	0.063 (0.05)	-0.016 (0.04)	0.037 (0.08)	0.006 (0.02)	0.035 (0.05)	0.034 (0.04)	0.057 (0.08)
Share of corresponding type of employees	-0.000 (0.00)	0.003* (0.00)	0.003** (0.00)	0.002 (0.00)	0.002** (0.00)	0.001 (0.00)	0.002* (0.00)	0.001 (0.00)
Observations	452		464		434		441	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A50

**Factors explaining probability of a firm to experience a decrease, increase or no change in individual or company-related bonuses for manual employees during 2008–2009 and 2010–2013 compared to the situation before 2008 and 2010 correspondingly (marginal effect of generalised ordered logit)**

	Higher skilled manual (LV46bc)				Lower skilled manual (LV46bd)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	0.047*	0.135***	0.029*	–0.010	0.053**	0.161***	0.032**	0.032
	(0.02)	(0.04)	(0.01)	(0.01)	(0.02)	(0.05)	(0.01)	(0.02)
Manufacturing, D	–0.071*	–0.033	0.007	0.072	–0.042	0.032	–0.018	0.165
	(0.03)	(0.09)	(0.03)	(0.08)	(0.03)	(0.10)	(0.01)	(0.10)
Construction, D	0.051	0.060	0.101	0.017	0.027	0.115	–0.023	–0.011
	(0.07)	(0.09)	(0.06)	(0.05)	(0.05)	(0.10)	(0.01)	(0.04)
Financial intermediation, D	0.182	0.360	0.008	0.279	–0.031	0.433*	–0.004	0.440
	(0.18)	(0.25)	(0.08)	(0.30)	(0.07)	(0.19)	(0.06)	(0.24)
Export share	0.045	0.082	0.004	0.027	0.008	0.078	–0.009	0.019
	(0.06)	(0.12)	(0.03)	(0.08)	(0.05)	(0.11)	(0.02)	(0.05)
Mainly foreign, D	–0.006	–0.082	–0.015	–0.033	0.008	–0.083	0.036	–0.075*
	(0.05)	(0.08)	(0.02)	(0.06)	(0.04)	(0.07)	(0.04)	(0.03)
Demand	–0.060***	–0.036	–0.027**	0.002	–0.053***	–0.067*	–0.033***	–0.010
	(0.01)	(0.04)	(0.01)	(0.03)	(0.01)	(0.03)	(0.01)	(0.02)
No access to credit, D	0.040	–0.034	–0.017	0.001	–0.002	–0.050	–0.013	0.011
	(0.04)	(0.08)	(0.02)	(0.05)	(0.03)	(0.08)	(0.01)	(0.03)
Share of corresponding type of employees	0.001	0.001	–0.001**	–0.000	–0.001	0.001	0.000	–0.002**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
<b>Unchanged</b>								
Employment, ln	–0.058*	–0.146***	–0.055*	–0.009	–0.090***	–0.242***	–0.076***	–0.116**
	(0.02)	(0.04)	(0.02)	(0.02)	(0.02)	(0.05)	(0.02)	(0.04)
Manufacturing, D	–0.003	0.012	0.015	0.046	0.001	–0.006	–0.055	–0.205
	(0.02)	(0.03)	(0.05)	(0.03)	(0.01)	(0.03)	(0.05)	(0.11)
Construction, D	–0.147*	–0.029	–0.189*	0.014	–0.009	–0.043	–0.078	–0.018
	(0.07)	(0.05)	(0.08)	(0.04)	(0.03)	(0.05)	(0.07)	(0.07)
Financial intermediation, D	–0.110	–0.243	0.016	–0.392**	–0.001	–0.761**	–0.011	–0.627**
	(0.15)	(0.21)	(0.14)	(0.13)	(0.03)	(0.25)	(0.15)	(0.22)
Export share	–0.010	–0.034	0.010	0.026	–0.002	–0.011	–0.021	0.028
	(0.02)	(0.05)	(0.06)	(0.07)	(0.01)	(0.02)	(0.05)	(0.08)
Mainly foreign, D	0.001	0.023	–0.040	–0.039	–0.002	–0.013	0.041*	0.223*
	(0.01)	(0.02)	(0.06)	(0.06)	(0.01)	(0.04)	(0.02)	(0.09)
Demand	0.013	–0.041	–0.059***	0.002	0.013	0.010	–0.004	–0.015
	(0.01)	(0.04)	(0.02)	(0.03)	(0.01)	(0.02)	(0.02)	(0.03)
No access to credit, D	–0.100*	0.014	–0.036	0.001	0.000	0.008	–0.027	0.016
	(0.04)	(0.04)	(0.03)	(0.04)	(0.01)	(0.02)	(0.03)	(0.04)
Share of corresponding type of employees	–0.002***	–0.000	–0.002*	–0.000	0.000	–0.004*	–0.002***	–0.003*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
<b>Increase (next page)</b>								
Observations	407		417		380		388	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A50 (cont.)

	Higher skilled manual (LV46bc)				Lower skilled manual (LV46bd)			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.011 (0.02)	0.010 (0.03)	0.026 (0.02)	0.019 (0.03)	0.037*** (0.01)	0.080 (0.04)	0.044* (0.02)	0.083* (0.03)
Manufacturing, D	0.074 (0.05)	0.021 (0.06)	-0.023 (0.07)	-0.118 (0.10)	0.041 (0.04)	-0.026 (0.07)	0.073 (0.06)	0.040 (0.10)
Construction, D	0.096 (0.07)	-0.032 (0.04)	0.087 (0.09)	-0.031 (0.09)	-0.017 (0.03)	-0.072 (0.06)	0.101 (0.08)	0.028 (0.11)
Financial intermediation, D	-0.072 (0.04)	-0.118** (0.05)	-0.024 (0.22)	0.113 (0.29)	0.032 (0.10)	0.328 (0.23)	0.015 (0.21)	0.187 (0.21)
Export share	-0.035 (0.05)	-0.049 (0.07)	-0.014 (0.09)	-0.053 (0.15)	-0.006 (0.04)	-0.067 (0.10)	0.030 (0.08)	-0.048 (0.13)
Mainly foreign, D	0.005 (0.04)	0.059 (0.07)	0.055 (0.08)	0.071 (0.12)	-0.006 (0.03)	0.096 (0.09)	-0.077 (0.05)	-0.148 (0.09)
Demand	0.047*** (0.01)	0.077** (0.03)	0.085*** (0.02)	-0.004 (0.06)	0.040*** (0.01)	0.057 (0.03)	0.037 (0.02)	0.025 (0.04)
No access to credit, D	0.060 (0.03)	0.020 (0.05)	0.053 (0.05)	-0.001 (0.09)	0.001 (0.02)	0.042 (0.06)	0.040 (0.04)	-0.027 (0.07)
Share of corresponding type of employees	0.001* (0.00)	-0.000 (0.00)	0.003** (0.00)	0.000 (0.00)	0.001 (0.00)	0.002 (0.00)	0.002** (0.00)	0.005** (0.00)
Observations	407		417		380		388	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A51

**Share of firms adapting changes in the base wage to inflation (%)**

	Before 2008		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl
Yes	34.8	43.1	32.1	31.6	26.8	23.6
No	24.2	18.3	22.1	16.7	19.0	16.4
No, inflation was too low	6.9	3.7	7.7	6.8	7.3	8.3
There were no indexation rules	34.1	35.0	38.1	44.9	46.9	51.7
Total	100	100	100	100	100	100
Observations	525		543		552	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A52

**Frequency of a typical base wage change (employee belonging to the main occupational group; %)**

	Before 2008		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl
More than once a year	9.0	6.7	6.3	5.9	4.3	5.3
Once a year	35.5	42.5	32.2	32.3	32.2	31.2
Between one and two years	18.7	18.2	18.4	17.1	19.7	12.8
Every two years	6.2	4.5	6.4	4.2	8.1	6.1
Less frequently than once every two years	22.3	23.6	22.0	21.7	22.6	34.4
Never/Not applicable	8.4	4.4	14.8	18.7	13.0	10.2
Total	100	100	100	100	100	100
Observations	440		475		491	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A53

**Share of firms having frozen or cut base wages in a given year (%)**

	2008		2009		2010		2011		2012		2013	
	wb	wl	wb	wl	wb	wl	wb	wl	wb	wl	wb	wl
Frozen	8.3	14.1	11.4	15.5	14.6	27.0	13.4	25.6	10.4	20.1	10.1	19.4
Reduced	15.4	15.4	21.8	29.4	11.5	10.7	6.4	6.2	5.6	2.6	4.7	4.1
Other	76.3	70.6	66.8	55.1	73.9	62.3	80.1	68.2	84.0	77.3	85.2	76.5
Total	100	100	100	100	100	100	100	100	100	100	100	100
Observations	539		549		547		542		542		537	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A54

**Factors explaining probability of a firm adapting changes in base wages to inflation (marginal effects of logit model)**

	Exporting firm				Non-exporting firm			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Manufacturing, D	0.104 (0.09)	0.033 (0.15)	0.124 (0.08)	-0.022 (0.13)	0.114 (0.14)	0.092 (0.14)	-0.044 (0.13)	0.001 (0.13)
Trade, D	0.204* (0.08)	0.357* (0.15)	0.105 (0.07)	0.033 (0.13)	-0.013 (0.07)	0.025 (0.08)	-0.041 (0.07)	-0.068 (0.06)
Domestic competition	0.062 (0.04)	0.025 (0.06)	0.041 (0.03)	-0.019 (0.05)	0.072 (0.04)	0.035 (0.05)	-0.016 (0.04)	-0.037 (0.04)
Foreign competition	-0.068 (0.04)	-0.025 (0.05)	-0.029 (0.03)	-0.040 (0.05)				
State-dependent pricing, D	0.038 (0.09)	0.104 (0.13)	0.003 (0.08)	0.053 (0.11)	0.197** (0.08)	0.323*** (0.06)	0.149* (0.07)	0.196** (0.07)
Observations	242		242		248		248	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Adapt base wage change to inflation and Not: 0 – Not, 1 – Adapt base wage change to inflation.

Table A55

**Share of employees with frozen wages if the firm performed wage freeze during the specified year (%)**

	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013
	wb – firm number weights						wl – employment weights					
Manufacturing	92.4	83.2	88.7	86.8	86.0	88.9	88.9	90.7	92.7	89.1	93.0	93.2
Construction	99.0	99.2	98.9	98.0	97.4	97.4	96.8	98.0	97.7	96.3	96.0	96.0
Trade	98.5	87.0	95.2	97.3	96.6	92.5	96.6	85.5	96.5	91.4	97.8	86.3
Business services	88.0	91.9	99.8	81.3	81.9	96.2	95.0	94.6	99.9	73.0	55.9	99.3
Financial intermediation			25.0	25.0	25.0	100.0			25.0	25.0	25.0	100.0
Total	93.8	90.8	96.2	90.2	89.3	94.0	94.6	92.7	96.9	82.5	79.8	95.1
Size												
10–19	99.6	92.5	94.8	96.9	91.3	92.7	99.6	93.6	95.5	97.7	92.6	94.2
20–49	90.6	91.7	100.0	90.3	96.1	100.0	90.4	91.7	100.0	90.2	97.3	100.0
50–199	81.1	85.1	93.2	80.3	86.5	88.1	80.7	84.7	92.4	75.7	86.4	86.7
200–..	100.0	100.0	98.5	80.3	67.7	96.8	100.0	100.0	98.1	82.0	74.9	97.0
Total	93.8	90.8	96.2	90.2	89.3	94.0	94.6	92.7	96.9	82.5	79.8	95.1

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A56

**Share of employees with decreased wages if the firm decreased wages during the specified year (%)**

	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013
	wb – firm number weights						wl – employment weights					
Manufacturing	99.2	81.5	73.2	20.0	59.0	50.0	98.9	88.4	48.6	20.0	43.5	50.0
Construction	75.1	89.2	80.9	79.3	100.0	100.0	74.9	67.1	65.1	76.8	100.0	100.0
Trade	91.0	73.7	76.2	48.9	67.3	74.9	95.3	74.7	80.8	49.3	50.6	74.2
Business services	86.5	77.7	68.4	45.2	78.5		79.8	67.0	54.5	30.1	78.7	
Financial intermediation		100.0	80.0			16.0		100.0	80.0			16.0
Total	87.6	79.2	73.7	53.9	75.5	70.2	87.1	71.7	62.6	38.6	62.6	29.4
Size												
10–19	86.9	83.6	83.9	72.7	81.1	83.7	86.6	84.5	85.2	77.9	81.9	85.8
20–49	92.0	77.0	77.5	54.7	87.2	100.0	93.2	76.0	74.8	51.6	86.0	100.0
50–199	83.0	80.2	59.8	14.0	30.0	50.0	82.6	79.5	60.1	13.5	30.0	50.0
200–..	99.0	51.5	35.0			16.0	98.2	60.6	35.0			16.0
Total	87.6	79.2	73.7	53.9	75.5	70.2	87.1	71.7	62.6	38.6	62.6	29.4

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A57

**Average decrease of wages if the firm decreased wages during the specified year (%)**

	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013
	wb – firm number weights						wl – employment weights					
Manufacturing	25.7	23.9	18.4		30.0		25.3	13.7	18.2		30.0	
Construction	24.0	14.4	21.1	18.8	16.9	16.9	21.3	15.7	15.6	18.6	16.2	16.2
Trade	24.3	24.4	26.0	29.3	47.7	35.0	25.6	19.5	20.6	21.7	46.5	35.0
Business services	37.6	26.7	26.1	26.3	16.5		31.3	20.3	32.1	24.8	17.3	
Financial intermediation		30.0				15.0		30.0				15.0
Total	28.3	24.2	24.6	25.5	26.2	22.5	26.2	17.9	22.7	22.3	24.5	16.0
Size												
10–19	33.7	28.2	25.7	24.8	26.1	25.8	32.7	27.1	24.5	23.3	23.8	23.6
20–49	20.8	20.6	24.7	27.7	26.4	20.0	20.7	20.7	23.9	26.0	27.0	20.0
50–199	24.3	28.0	24.4	10.0			24.2	29.1	25.8	10.0		
200–..	24.1	11.8	10.0			15.0	27.3	11.8	10.0			15.0
Total	28.3	24.2	24.6	25.5	26.2	22.5	26.2	17.9	22.7	22.3	24.5	16.0

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A58

**Factors explaining probability of adjusting labour costs by reducing or freezing the base wage during the corresponding year (marginal effect of generalised ordered logit)**

	2008		2009		2010	
	wb	wl	wb	wl	wb	wl
<b>Other</b>						
Employment, ln	-0.028 (0.02)	-0.027 (0.03)	-0.097*** (0.03)	-0.089** (0.03)	-0.068*** (0.02)	-0.053 (0.03)
Manufacturing, D	0.029 (0.05)	0.038 (0.09)	0.058 (0.06)	0.075 (0.11)	0.133** (0.05)	0.186* (0.09)
Construction, D	-0.080 (0.06)	-0.126 (0.09)	-0.036 (0.07)	-0.154 (0.11)	-0.086 (0.06)	-0.188 (0.11)
Financial intermediation, D	0.172*** (0.04)	0.202** (0.07)	0.234* (0.10)	0.388*** (0.07)	0.178** (0.06)	0.306*** (0.07)
Export share	-0.002 (0.06)	-0.213 (0.12)	0.141 (0.08)	-0.024 (0.15)	0.092 (0.08)	0.159 (0.15)
Mainly foreign, D	0.038 (0.06)	0.053 (0.07)	0.081 (0.09)	0.060 (0.10)	0.061 (0.06)	0.088 (0.11)
Parents, D	-0.200* (0.10)	-0.052 (0.10)	-0.233* (0.11)	-0.050 (0.15)	-0.089 (0.08)	-0.013 (0.14)
Subsidiary, D	0.031 (0.07)	-0.086 (0.11)	0.044 (0.09)	0.018 (0.11)	-0.063 (0.09)	-0.195 (0.13)
Demand	0.090*** (0.02)	0.119*** (0.02)	0.104*** (0.02)	0.156*** (0.03)	-0.000 (0.02)	-0.023 (0.04)
Productivity	0.022 (0.02)	0.039 (0.03)	0.057* (0.03)	0.027 (0.04)	0.040 (0.03)	-0.018 (0.05)
No access to credit, D	-0.044 (0.04)	-0.142** (0.05)	-0.086 (0.05)	-0.186* (0.09)	-0.087* (0.04)	-0.180* (0.07)
<b>Frozen</b>						
Employment, ln	0.013 (0.01)	0.027 (0.03)	0.051*** (0.01)	0.023** (0.01)	0.035** (0.01)	0.072* (0.03)
Manufacturing, D	-0.014 (0.03)	-0.038 (0.09)	-0.099*** (0.02)	-0.021 (0.03)	-0.072* (0.03)	-0.135 (0.07)
Construction, D	0.037 (0.03)	0.126 (0.09)	0.008 (0.02)	0.030 (0.02)	0.042 (0.03)	0.118 (0.06)
Financial intermediation, D	-0.044 (0.04)	-0.080 (0.06)	-0.141* (0.06)	-0.142*** (0.04)	-0.154*** (0.02)	-0.920** (0.32)
Export share	0.001 (0.03)	0.213 (0.12)	-0.034 (0.02)	0.006 (0.04)	-0.048 (0.04)	-0.111 (0.10)
Mainly foreign, D	-0.019 (0.03)	-0.053 (0.07)	-0.021 (0.03)	-0.017 (0.03)	-0.033 (0.03)	0.039 (0.12)
Parents, D	0.082* (0.03)	0.052 (0.10)	0.036** (0.01)	0.012 (0.03)	0.043 (0.04)	0.009 (0.10)
Subsidiary, D	-0.015 (0.03)	0.086 (0.11)	-0.011 (0.02)	-0.005 (0.03)	0.031 (0.04)	0.124 (0.07)
Demand	-0.043*** (0.01)	-0.119*** (0.02)	-0.054*** (0.01)	-0.117*** (0.02)	0.022 (0.01)	0.016 (0.03)
Productivity	-0.011 (0.01)	-0.039 (0.03)	-0.014 (0.01)	-0.007 (0.01)	-0.021 (0.01)	0.012 (0.03)
No access to credit, D	0.021 (0.02)	0.142** (0.05)	0.021 (0.01)	0.049* (0.02)	0.045* (0.02)	0.124* (0.05)
<b>Reduced (next page)</b>						
Observations	482		487		503	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p&lt;0.1, \*\* p&lt;0.05, \*\*\* p&lt;0.01.

Explained variable: 1 – Other, 2 – Frozen wage, 3 – Reduced wage. Explanatory variables are described in Table A2.



Table A58 (cont.)

	2008		2009		2010	
	wb	wl	wb	wl	wb	wl
<b>Reduced</b>						
Employment, ln	0.014 (0.01)	0.000 (0.00)	0.046* (0.02)	0.066* (0.03)	0.033*** (0.01)	-0.019* (0.01)
Manufacturing, D	-0.015 (0.03)	-0.000 (0.00)	0.041 (0.06)	-0.054 (0.08)	-0.060** (0.02)	-0.052* (0.02)
Construction, D	0.043 (0.04)	0.000 (0.00)	0.028 (0.06)	0.124 (0.10)	0.044 (0.03)	0.070 (0.05)
Financial intermediation, D	-0.128*** (0.02)	-0.122*** (0.03)	-0.093 (0.15)	-0.247*** (0.05)	-0.025 (0.06)	0.614 (0.31)
Export share	0.001 (0.03)	0.000 (0.00)	-0.107 (0.06)	0.018 (0.11)	-0.045 (0.04)	-0.049 (0.05)
Mainly foreign, D	-0.020 (0.03)	-0.000 (0.00)	-0.060 (0.06)	-0.043 (0.07)	-0.029 (0.03)	-0.128*** (0.03)
Parents, D	0.118 (0.06)	0.000 (0.00)	0.197 (0.10)	0.038 (0.12)	0.046 (0.04)	0.004 (0.04)
Subsidiary, D	-0.016 (0.03)	0.000 (0.00)	-0.033 (0.07)	-0.013 (0.08)	0.032 (0.05)	0.071 (0.06)
Demand	-0.046*** (0.01)	-0.000*** (0.00)	-0.051** (0.02)	-0.039 (0.03)	-0.022* (0.01)	0.007 (0.01)
Productivity	-0.012 (0.01)	-0.000 (0.00)	-0.043* (0.02)	-0.020 (0.03)	-0.019 (0.01)	0.005 (0.02)
No access to credit, D	0.023 (0.02)	0.000* (0.00)	0.065 (0.04)	0.137* (0.07)	0.042* (0.02)	0.056* (0.03)
Observations	482		487		503	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 1 – Other, 2 – Frozen wage, 3 – Reduced wage. Explanatory variables are described in Table A2.

Table A59

**Factors explaining probability of adjusting labour costs by reducing or freezing the base wage during the corresponding year (marginal effect of generalised ordered logit)**

	2011		2012		2013	
	wb	wl	wb	wl	wb	wl
<b>Other</b>						
Employment, ln	-0.047* (0.02)	-0.079 (0.05)	-0.012 (0.02)	-0.044 (0.03)	-0.010 (0.02)	-0.048 (0.03)
Manufacturing, D	0.099* (0.04)	0.132 (0.09)	0.082* (0.04)	0.100 (0.07)	0.046 (0.04)	0.098 (0.06)
Construction, D	-0.038 (0.06)	0.028 (0.07)	-0.009 (0.04)	-0.020 (0.06)	-0.064 (0.05)	-0.062 (0.07)
Financial intermediation, D	0.157*** (0.03)	0.259*** (0.06)	0.099** (0.04)	0.099 (0.07)	0.084 (0.05)	0.047 (0.09)
Export share	0.047 (0.07)	0.067 (0.14)	0.043 (0.06)	-0.029 (0.12)	0.053 (0.06)	-0.054 (0.12)
Mainly foreign, D	0.041 (0.06)	0.154* (0.08)	0.054 (0.05)	0.093 (0.07)	0.061 (0.05)	0.109* (0.05)
Parents, D	-0.086 (0.08)	-0.115 (0.14)	-0.086 (0.08)	0.087 (0.08)	-0.073 (0.09)	0.109 (0.07)
Subsidiary, D	-0.028 (0.08)	-0.184 (0.13)	-0.044 (0.08)	-0.259 (0.16)	-0.067 (0.08)	-0.265 (0.16)
Demand	0.010 (0.02)	-0.040 (0.03)	0.025 (0.02)	0.023 (0.03)	0.037* (0.01)	0.038 (0.02)
Productivity	0.065** (0.02)	0.088 (0.05)	0.071*** (0.02)	0.086** (0.03)	0.050** (0.02)	0.040 (0.03)
No access to credit, D	-0.052 (0.04)	0.005 (0.08)	-0.057 (0.03)	-0.118 (0.07)	-0.053 (0.03)	-0.097 (0.07)
<b>Frozen</b>						
Employment, ln	0.039* (0.02)	0.076 (0.05)	0.012 (0.02)	0.044 (0.03)	0.010 (0.02)	0.048 (0.03)
Manufacturing, D	-0.083* (0.04)	-0.127 (0.08)	-0.082* (0.04)	-0.100 (0.07)	-0.046 (0.04)	-0.098 (0.06)
Construction, D	0.031 (0.05)	-0.027 (0.07)	0.009 (0.04)	0.020 (0.06)	0.064 (0.05)	0.062 (0.07)
Financial intermediation, D	-0.117*** (0.03)	-0.216** (0.07)	-0.098* (0.04)	-0.099 (0.07)	-1.084 (.)	-0.047 (0.09)
Export share	-0.038 (0.06)	-0.064 (0.14)	-0.043 (0.06)	0.029 (0.12)	-0.053 (0.06)	0.054 (0.12)
Mainly foreign, D	-0.034 (0.05)	-0.149* (0.07)	-0.050 (0.05)	-0.093 (0.07)	-0.061 (0.05)	-0.109* (0.05)
Parents, D	0.110 (0.08)	0.110 (0.14)	0.088 (0.08)	-0.087 (0.08)	0.073 (0.09)	-0.109 (0.07)
Subsidiary, D	0.023 (0.07)	0.175 (0.12)	0.044 (0.07)	0.259 (0.16)	0.068 (0.08)	0.265 (0.16)
Demand	0.003 (0.01)	0.044 (0.03)	-0.025 (0.02)	-0.023 (0.03)	-0.037* (0.01)	-0.038 (0.02)
Productivity	-0.053** (0.02)	-0.085 (0.05)	-0.070*** (0.02)	-0.086** (0.03)	-0.050** (0.02)	-0.040 (0.03)
No access to credit, D	0.043 (0.03)	-0.004 (0.08)	0.056 (0.03)	0.118 (0.07)	0.053 (0.03)	0.097 (0.07)
<b>Reduced (next page)</b>						
Observations	499		501		494	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 1 – Other, 2 – Frozen wage, 3 – Reduced wage. Explanatory variables are described in Table A2.

Table A59 (cont.)

	2011		2012		2013	
	wb	wl	wb	wl	wb	wl
<b>Reduced</b>						
Employment, ln	0.008* (0.00)	0.003 (0.00)	0.000 (0.00)	0.000 (.)	0.000 (0.00)	0.000 (.)
Manufacturing, D	-0.017 (0.01)	-0.005 (0.00)	-0.000* (0.00)	-0.000 (.)	-0.000 (0.00)	-0.000 (.)
Construction, D	0.007 (0.01)	-0.001 (0.00)	0.000 (0.00)	0.000 (.)	0.000 (0.00)	0.000 (.)
Financial intermediation, D	-0.041*** (0.01)	-0.043* (0.02)	-0.001** (0.00)	-0.000 (.)	1.000 (.)	0.000 (.)
Export share	-0.008 (0.01)	-0.003 (0.01)	-0.000 (0.00)	0.000 (.)	-0.000 (0.00)	0.000 (.)
Mainly foreign, D	-0.007 (0.01)	-0.005 (0.00)	-0.004** (0.00)	-0.000 (.)	-0.000** (0.00)	-0.000 (.)
Parents, D	-0.024* (0.01)	0.005 (0.01)	-0.002** (0.00)	-0.000* (0.00)	-0.000** (0.00)	-0.000 (0.00)
Subsidiary, D	0.005 (0.02)	0.009 (0.01)	0.000 (0.00)	0.000 (.)	-0.002** (0.00)	-0.000 (.)
Demand	-0.013*** (0.00)	-0.003* (0.00)	-0.000 (0.00)	0.000 (.)	-0.000 (0.00)	0.000 (.)
Productivity	-0.011* (0.00)	-0.003 (0.00)	-0.001*** (0.00)	0.000 (.)	-0.000*** (0.00)	0.000 (.)
No access to credit, D	0.009 (0.01)	-0.000 (0.00)	0.000 (0.00)	0.000 (.)	0.000 (0.00)	0.000 (.)
Observations	499		501		494	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Explained variable: 1 – Other, 2 – Frozen wage, 3 – Reduced wage. Explanatory variables are described in Table A2.

Table A60

**How did the labour cost of a newly hired worker compared with that of similar (in terms of experience and task assignment) workers before 2008 and during 2008–2009 and 2010–2013 (%)?**

	Before 2008		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl
Much lower	2.6	3.2	2.2	2.4	1.8	2.2
Lower	18.7	24.3	21.2	26.2	20.2	18.3
Similar	74.8	70.4	73.0	68.6	67.6	64.3
Higher	3.2	1.6	2.8	2.1	9.8	12.0
Much higher	0.7	0.5	0.7	0.7	0.6	3.2
Total	100	100	100	100	100	100
Observations	474		497		503	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A61

**How did the labour cost of a newly hired worker compare with that of similar (in terms of experience and task assignment) workers by employee skill level (%)?**

	Non-manual higher skilled				Non-manual lower skilled			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Much lower	1.6	1.6	0.8	0.6	2.0	2.3	1.1	1.6
Lower	19.1	21.4	14.1	9.8	19.2	21.1	14.9	9.9
Similar	75.5	70.1	75.7	78.1	75.6	69.7	75.8	74.3
Higher	2.9	6.2	8.5	8.2	2.5	6.2	7.6	10.9
Much higher	0.9	0.7	0.9	3.4	0.8	0.7	0.6	3.3
Total	100	100	100	100	100	100	100	100
Observations	451		458		448		453	

	Manual higher skilled				Manual lower skilled			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Much lower	2.1	2.2	1.1	1.6	2.3	2.4	0.9	1.1
Lower	17.1	17.8	16.3	9.7	14.9	20.5	15.0	14.3
Similar	77.6	77.8	76.7	81.1	80.1	75.1	79.0	80.5
Higher	2.6	1.5	5.8	7.6	1.5	0.5	4.4	3.1
Much higher	0.6	0.6	0.05	0.1	1.1	1.5	0.7	1.0
Total	100	100	100	100	100	100	100	100
Observations	414		420		388		393	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A62

**Change in the base wage gap between the wages of a newly hired worker and similar workers (in terms of experience and task assignment) during 2008–2009 and 2010–2013 compared to the situation before 2008 and 2010 correspondingly, by employee skill level (%)**

	Non-manual higher skilled				Non-manual lower skilled			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	2.9	2.7	1.6	1.3	2.4	2.6	0.9	0.8
Moderate decrease	8.3	12.4	4.7	2.5	7.0	12.2	5.3	3.8
Unchanged	82.1	79.8	73.5	76.1	84.5	79.8	73.7	75.0
Moderate increase	6.5	5.0	20.1	20.0	5.6	5.1	19.7	20.2
Strong increase	0.2	0.1	0.1	0.1	0.1	0.3	0.3	0.2
Total	100	100	100	100	100	100	100	100
Observations	450		458		440		446	
	Manual higher skilled				Manual lower skilled			
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	1.9	2.4	1.1	1.0	2.0	2.7	1.0	1.0
Moderate decrease	8.2	12.1	5.4	3.1	6.5	9.6	4.4	2.6
Unchanged	82.8	79.6	73.6	73.6	85.6	82.5	80.0	81.1
Moderate increase	6.5	5.3	19.7	22.2	4.8	3.6	14.0	14.5
Strong increase	0.6	0.6	0.2	0.1	1.0	1.5	0.7	0.9
Total	100	100	100	100	100	100	100	100
Observations	412		419		383		387	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A63

**Average percentage of minimum wage receivers in the company before and after the increase in the minimum wage on 1 January 2014 (%)**

	wb – firm number weights		wl – employment weights	
	Before 01.01.2014	After 01.01.2014	Before 01.01.2014	After 01.01.2014
Size				
10–19	24.6	24.1	24.7	24.4
20–49	21.7	20.1	23.1	21.5
50–199	12.3	12.6	13.2	13.9
200–..	10.8	10.3	9.7	9.6
Total	21.3	20.6	15.5	15.3
Sector				
Manufacturing	26.6	26.1	16.0	16.3
Construction	15.7	13.4	10.6	8.6
Trade	17.2	17.5	14.6	14.5
Business services	25.3	24.3	18.8	18.8
Financial intermediation	9.2	9.0	5.8	5.7
Total	21.3	20.6	15.5	15.3

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A64

**Did the increase in the minimum wage on 1 January 2014 bring about a need to raise wages or other type of compensation for those employees in the company who earned more than the minimum wage (NC410) (%)?**

	wb – firm number weights				wl – employment weights			
	Yes	No	Don't know	Total	Yes	No	Don't know	Total
Size								
10–19	21.5	59.9	18.6	100.0	21.0	59.4	19.6	100.0
20–49	31.0	55.4	13.6	100.0	31.7	55.5	12.8	100.0
50–199	23.5	64.7	11.7	100.0	24.8	62.0	13.2	100.0
200–..	18.4	69.9	11.7	100.0	19.1	64.0	16.8	100.0
Total	24.5	59.7	15.8	100.0	23.0	61.3	15.7	100.0
Sector								
Manufacturing	33.4	53.0	13.7	100.0	27.4	45.5	27.1	100.0
Construction	26.3	48.4	25.3	100.0	22.3	54.3	23.3	100.0
Trade	22.9	63.3	13.8	100.0	16.9	75.8	7.4	100.0
Business services	19.3	65.3	15.3	100.0	25.1	65.3	9.6	100.0
Financial intermediation	48.8	43.6	7.6	100.0	16.5	56.6	26.9	100.0
Total	24.5	59.7	15.8	100.0	23.0	61.3	15.7	100.0

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A65

**Percentage of employees whose wages or other type of compensation increased in response to the rise in the minimum wage (including those who earned minimum wages and who earned higher wages before 1 January 2014) (%) (if the firm answered "Yes" in NC410)**

	wl – weighted to represent employees in the population						Total
	0%–20%	20%–40%	40%–60%	60%–80%	80%–100%	Don't know	
Size							
10–19	26.2	6.0	6.7	10.1	49.5	1.4	100.0
20–49	18.8	19.3	0.0	5.4	45.8	10.7	100.0
50–199	33.7	14.4	18.8	11.9	16.2	4.9	100.0
200–..	45.9	0.0	49.2	0.0	4.9	0.0	100.0
Total	33.3	9.5	22.5	6.7	24.1	3.9	100.0
Sector							
Manufacturing	30.9	13.6	6.8	8.7	31.2	8.7	100.0
Construction	49.1	3.2	19.5	10.6	17.6	0.0	100.0
Trade	29.6	8.7	1.5	20.9	37.7	1.6	100.0
Business services	36.7	9.9	33.6	0.6	15.9	3.3	100.0
Financial intermediation	0.0	0.0	70.0	0.0	30.0	0.0	100.0
Total	33.3	9.5	22.5	6.7	24.1	3.9	100.0

Table A66

**Increase in total labour costs (wages and other compensation) in response to the rise in the minimum wage (%) (if the firm answered "Yes" in NC410)**

	wl – weighted to represent employees in the population					Total
	smaller than 3%	3%–5%	5%–11%	more than 11%	Don't know	
Size						
10–19	17.0	17.1	30.1	19.6	16.1	100.0
20–49	18.2	30.6	13.3	18.4	19.5	100.0
50–199	28.0	18.6	37.8	13.2	2.4	100.0
200–..	30.8	4.9	12.7	5.8	45.9	100.0
Total	25.1	16.4	24.1	13.0	21.4	100.0
Sector						
Manufacturing	24.1	26.8	14.3	24.2	10.6	100.0
Construction	22.1	20.3	41.7	5.4	10.6	100.0
Trade	15.5	27.6	32.7	14.6	9.7	100.0
Business services	32.9	5.3	17.1	9.2	35.5	100.0
Financial intermediation	0.0	18.5	70.0	0.0	11.5	100.0
Total	25.1	16.4	24.1	13.0	21.4	100.0

Table A67

**Relevance of labour cost adjustment measures taken after the minimum wage rise on 1 January 2014 (%)**

	We had to lay off people (LV4 13a)		We could hire less people (LV4 13b)		We had to increase product prices (LV4 13c)	
	wb	wl	wb	wl	wb	wl
Not relevant	77.8	83.7	72.4	78.7	57.6	65.8
Of little relevance	8.2	6.7	11.0	10.5	14.7	12.7
Relevant	3.2	3.4	6.1	4.5	15.6	12.7
Very relevant	2.3	1.0	2.5	1.4	4.3	4.3
Don't know	8.4	5.2	8.0	4.9	7.7	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Observations	557		557		557	
	We had to reduce non-labour costs (LV4 13c)		We had to increase the wages of employees earning above the minimum wage level (LV4 13d)		We increased productivity (LV4 13f)	
	wb	wl	wb	wl	wb	wl
Not relevant	55.4	63.6	56.9	65.4	55.2	60.7
Of little relevance	14.2	14.2	15.4	13.0	13.9	15.2
Relevant	19.0	13.2	16.6	13.4	13.8	12.7
Very relevant	5.2	5.0	4.0	3.4	4.0	4.4
Don't know	6.3	4.0	7.2	4.7	13.2	7.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Observations	557		557		557	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A68

**Share of employees the firm could hire if the minimum wage had remained at the level of January 2014 (EUR 285 instead of EUR 320) (%) (The question was asked if the answer to LV413 a & b was Relevant or Very relevant.)**

Size	10–19	20–49	50–199	200–..	Total
wb	4.8	9.8	2.9		4.9
wl	5.0	9.9	3.2		4.3
Sector	Manufacturing	Construction	Trade	Business	
wb	5.6	5.4	7.7	1.8	4.9
wl	4.3	5.0	7.7	1.1	4.3
Percentage of minimum wage receivers		0	1%–49%	50%–100%	
wb		1.3	4.5	7.1	4.9
wl		1.5	3.8	5.7	4.3
Number of observations	28				

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.



Table A69

**Factors explaining probability of a firm applying a corresponding measure to deal with the minimum wage increase (marginal effects of logit model)**

	We had to lay off people (LV4 13a)		We could hire less people (LV4 13b)		We had to increase product prices (LV4 13c)	
	wb	wl	wb	wl	wb	wl
Employment, ln	0.038*	-0.009	0.012	-0.002	0.033	-0.020
	(0.02)	(0.01)	(0.02)	(0.01)	(0.03)	(0.03)
Share of min wage employees	0.002***	0.001**	0.002***	0.002***	0.006***	0.008***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Manufacturing, D	-0.045	0.104	0.047	0.148*	0.131	0.273**
	(0.04)	(0.06)	(0.06)	(0.06)	(0.08)	(0.09)
Construction, D	0.022	0.023	-0.001	0.008	0.092	0.066
	(0.05)	(0.05)	(0.06)	(0.04)	(0.08)	(0.08)
Export share	-0.005	0.000	-0.091	-0.065	-0.142	-0.188
	(0.06)	(0.05)	(0.07)	(0.05)	(0.09)	(0.10)
Mainly foreign, D	-0.018	-0.025	-0.032	-0.035	-0.054	-0.151
	(0.06)	(0.04)	(0.07)	(0.04)	(0.10)	(0.08)
Parents, D	-0.022	-0.089**	-0.061	-0.125***	-0.112	-0.179*
	(0.07)	(0.03)	(0.07)	(0.03)	(0.10)	(0.08)
Subsidiary, D	-0.032	0.047	-0.054	0.144	-0.105	0.326*
	(0.05)	(0.07)	(0.06)	(0.10)	(0.09)	(0.16)
Demand	-0.034**	-0.037***	-0.033*	-0.031*	-0.037	-0.060*
	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)	(0.03)
No access to credit, D	0.033	-0.017	0.111**	0.064*	0.200***	0.060
	(0.03)	(0.03)	(0.04)	(0.03)	(0.05)	(0.06)
Financial intermediation, D			0.199	-0.071	-0.068	-0.037
			(0.29)	(0.05)	(0.22)	(0.20)
Observations	501		516		520	
	We had to reduce non-labour costs (LV4 13d)		We had to increase the wages of employees earning above the minimum wage level (LV4 13e)		We increased productivity (LV4 13f)	
Employment, ln	0.005	-0.049	-0.010	-0.001	0.044	0.017
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)
Share of min wage employees	0.005***	0.009***	0.003**	0.005***	0.003***	0.004***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Manufacturing, D	0.098	0.274**	0.166*	0.265**	0.252***	0.394***
	(0.08)	(0.10)	(0.07)	(0.08)	(0.07)	(0.08)
Construction, D	-0.054	0.009	0.107	0.166	0.020	0.091
	(0.07)	(0.08)	(0.08)	(0.10)	(0.08)	(0.10)
Financial intermediation, D	0.394**	0.466**	0.317*	0.382*	-0.114	0.273
	(0.13)	(0.17)	(0.16)	(0.18)	(0.15)	(0.22)
Export share	-0.053	-0.161	-0.188*	-0.322**	-0.127	-0.322**
	(0.09)	(0.11)	(0.08)	(0.11)	(0.09)	(0.12)
Mainly foreign, D	-0.122	-0.162*	-0.075	-0.008	-0.093	-0.061
	(0.09)	(0.07)	(0.09)	(0.09)	(0.08)	(0.11)
Parents, D	-0.128	-0.221**	-0.038	-0.141	-0.044	-0.173
	(0.11)	(0.07)	(0.10)	(0.08)	(0.10)	(0.09)

Table A69 (cont.)

	We had to lay off people (LV4 13a)		We could hire less people (LV4 13b)		We had to increase product prices (LV4 13c)	
	wb	wl	wb	wl	wb	wl
Subsidiary, D	-0.085 (0.10)	0.121 (0.13)	-0.163* (0.08)	-0.037 (0.11)	-0.084 (0.08)	0.214 (0.16)
Demand	-0.050* (0.02)	-0.042 (0.03)	-0.028 (0.02)	-0.059* (0.03)	-0.012 (0.02)	-0.046 (0.03)
No access to credit, D	0.212*** (0.05)	0.183** (0.06)	0.155** (0.05)	0.105 (0.06)	0.118* (0.05)	0.094 (0.07)
Observations	521		519		489	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Relevant and Not relevant due to a small number of observations in some groups. 0 – Not relevant, 1 – Relevant. Explanatory variables are described in Table A2.

Table A70

**Price setting mechanism for the main product, activity or service domestically (if applicable) in 2013 (%)**

	There is no autonomous price setting policy because the price is			The price is set		Negotiated	Other	Don't know	Total
	regulated	set by a parent company/ group	set by the main customer(s)	following the main com- petitors	fully according to costs and a completely self- determined profit margin	with individual customers			
	wb – weighted to represent firm population								
Manufacturing	6.1	1.9	5.4	29.0	21.5	35.5	0.0	0.6	100.0
Construction	12.0	0.0	4.8	28.9	13.4	39.3	1.6	0.0	100.0
Trade	17.5	4.3	5.5	33.6	28.5	8.7	1.8	0.0	100.0
Business services	21.5	2.7	6.2	29.8	11.1	24.8	2.7	1.2	100.0
Financial intermediation	42.6	0.0	7.1	20.8	21.5	0.0	0.0	8.0	100.0
Total	17.1	2.6	5.7	30.4	18.5	23.1	1.7	0.8	100.0
Observations	94	16	29	164	108	120	9	4	544
	wl – weighted to represent employees in the population								
Manufacturing	25.1	4.0	3.6	18.8	19.1	28.6	0.0	0.8	100.0
Construction	14.6	0.0	12.4	30.4	11.1	28.9	2.6	0.0	100.0
Trade	23.8	4.1	5.2	42.9	17.0	6.2	0.9	0.0	100.0
Business services	32.7	2.9	2.7	24.4	12.2	14.8	8.3	2.0	100.0
Financial intermediation	5.1	0.0	11.6	17.4	57.8	0.0	0.0	8.2	100.0
Total	25.2	2.9	5.1	27.1	18.1	16.2	3.8	1.6	100.0
Observations	94	16	29	164	108	120	9	4	544

Table A71

**Price setting mechanism for the main product, activity or service abroad (if applicable) in 2013 (%)**

	There is no autonomous price setting policy because the price is			The price is set		Negotiated	Other	Don't know	Total
	regulated	set by a parent company/group	set by the main customer (s)	following the main competitors	fully according to costs and a completely self-determined profit margin	with individual customers			
	wb – weighted to represent firm population								
Manufacturing	7.9	7.1	6.3	26.8	11.0	35.6	5.2	0.0	100.0
Construction	7.9	18.4	0.0	21.4	8.2	41.9	2.3	0.0	100.0
Trade	21.1	10.2	6.1	22.4	18.3	17.9	2.8	1.2	100.0
Business services	16.0	4.6	6.3	31.4	10.3	28.3	0.8	2.3	100.0
Financial intermediation	21.0	18.6	0.0	42.7	0.0	0.0	0.0	17.7	100.0
Total	14.9	8.2	5.6	27.0	12.5	27.4	2.7	1.5	100.0
Observations	38	26	16	77	41	84	6	4	292
	wl – weighted to represent employees in the population								
Manufacturing	27.9	6.4	4.4	19.2	12.6	27.5	2.0	0.0	100.0
Construction	4.5	16.1	0.0	16.7	4.6	51.1	7.0	0.0	100.0
Trade	42.8	10.9	4.0	17.5	9.9	9.9	4.5	0.5	100.0
Business services	23.2	6.2	4.0	19.9	16.2	29.6	0.3	0.7	100.0
Financial intermediation	2.3	14.1	0.0	51.1	0.0	0.0	0.0	32.5	100.0
Total	25.5	8.4	3.5	22.3	11.7	23.0	1.9	3.7	100.0
Observations	38	26	16	77	41	84	6	4	292

Table A72

**Change in price setting frequency during 2010–2013 compared to the period before 2008 (%)**

	Yes, prices have changed		No	Don't know	Total
	more frequently	less frequently			
	Share of revenue from foreign market is 0				
wb	29.2	7.0	41.6	22.2	100.0
wl	28.4	6.6	41.0	23.9	100.0
Observations	167	37	228	112	544
	Share of revenue from foreign markets is greater than 0				
wb	25.4	8.2	45.1	21.3	100.0
wl	24.5	5.5	45.9	24.1	100.0
Observations	79	22	135	56	292

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A73

**Median ranking of factors behind MORE frequent price setting during 2010–2013 compared to the period before 2008 (%)**

	More volatile demand	More frequent changes in labour costs	More frequent changes in other input costs	Stronger competition in the main product market	More frequent price changes by main competitors
	wb – weighted to represent firm population				
Manufacturing	3	4	4	2	3
Construction	2	3	4	3	3
Trade	3	4	3	2	3
Business services	2	4	3	2	2
Financial intermediation	3	2	3	1	4
Total	2	4	3	2	3
	wl – weighted to represent employees in the population				
Manufacturing	3	5	3	2	3
Construction	3	4	4	1	2
Trade	2	5	4	1	3
Business services	1	4	4	3	3
Financial intermediation	5	2	3	1	4
Total	2	4	4	2	3

Note: ranking from 1 (less important) to 5 (most important), 0 – not marked.

Table A74

**NC53b – Median ranking of factors behind LESS frequent price setting during 2010–2013 compared to the period before 2008 (%)**

	Less volatile demand	Less frequent changes in labour costs	Less frequent changes in other input costs	Weaker competition in the main product market	Less frequent price changes by main competitors
	wb – weighted to represent firm population				
Manufacturing	3	3	3	3	2
Construction	2	2	5	3	4
Trade	3	2	3	5	4
Business services	3	2	4	4	2
Financial intermediation					
Total	3	3	3	4	2
	wl – weighted to represent employees in the population				
Manufacturing	2	4	4	3	1
Construction	2	3	5	1	4
Trade	3	2	3	5	4
Business services	2	1	3	4	5
Financial intermediation					
Total	2	3	3	4	2

Note: ranking from 1 (less important) to 5 (most important), 0 – not marked.

Table A75

**NC54a – Degree of competition in domestic market for your main product in 2013 (if applicable; %)**

	Weak	Moderate	Severe	Very severe	Not applicable	Total
	wb – weighted to represent firm population					
Manufacturing	2.2	40.1	34.0	18.1	5.5	100.0
Construction	7.1	22.4	33.5	35.5	1.5	100.0
Trade	3.7	22.8	30.0	43.5	0.0	100.0
Business services	5.5	18.5	36.7	33.4	5.8	100.0
Financial intermediation	0.0	18.2	22.0	59.8	0.0	100.0
Total	4.5	23.9	33.4	34.9	3.2	100.0
	wl – weighted to represent employees in the population					
Manufacturing	2.4	48.6	26.4	16.5	6.1	100.0
Construction	9.2	13.9	25.7	47.7	3.4	100.0
Trade	1.7	17.1	25.7	55.5	0.0	100.0
Business services	7.0	21.9	29.3	29.2	12.6	100.0
Financial intermediation	0.0	35.9	43.1	21.0	0.0	100.0
Total	4.6	26.8	28.7	33.3	6.6	100.0
Observations	26	120	167	185	17	515

Table A76

**Degree of competition in foreign market for the firm's main product in 2013 (if applicable; %)**

	Weak	Moderate	Severe	Very severe	Not applicable	Total
	wb – weighted to represent firm population					
Manufacturing	0.9	29.6	47.5	21.2	0.8	100.0
Construction	0.0	27.0	45.6	27.4	0.0	100.0
Trade	5.2	26.1	27.9	35.8	5.0	100.0
Business services	1.3	24.0	35.9	38.5	0.2	100.0
Financial intermediation	17.7	0.0	54.8	27.5	0.0	100.0
Total	2.7	25.7	37.8	32.0	1.8	100.0
	wl – weighted to represent employees in the population					
Manufacturing	1.1	16.7	55.9	25.4	0.9	100.0
Construction	0.0	29.5	35.6	34.9	0.0	100.0
Trade	2.2	21.7	19.0	55.0	2.1	100.0
Business services	0.5	11.8	41.2	40.0	6.5	100.0
Financial intermediation	32.5	0.0	56.5	11.0	0.0	100.0
Total	4.9	14.5	43.5	34.3	2.8	100.0
Observations	8	57	97	80	6	248

Table A77

**Change in the competitive pressure on the main product in domestic and foreign markets during 2008–2009 and 2010–2013 compared to the situation before 2008 (if applicable; %)**

	Domestic market				Foreign market			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
Strong decrease	2.9	2.4	2.2	2.2	0.9	1.0	1.0	1.0
Moderate decrease	11.8	11.0	3.8	2.4	7.6	5.9	2.8	1.3
Unchanged	33.8	39.3	24.7	24.2	45.7	51.5	32.5	35.8
Moderate increase	30.0	20.1	28.1	26.4	25.2	19.7	27.4	23.1
Strong increase	18.7	18.4	38.5	36.3	11.2	8.8	27.3	26.4
Does not apply	2.8	8.7	2.8	8.5	9.4	13.1	9.1	12.5
Total	100	100	100	100	100	100	100	100
Observations	493		504		306		316	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

Table A78

**Factors explaining probability of a firm to experience a decrease, increase or no change in the competitive pressure on the main product in domestic and foreign markets during 2008–2009 and 2010–2013 compared to the situation before 2008 (if applicable; marginal effect of generalised ordered logit)**

	Domestic market				Foreign market			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Decrease</b>								
Employment, ln	–0.003 (0.01)	0.012 (0.01)	–0.001 (0.00)	–0.000 (0.00)	–0.000 (0.01)	0.003* (0.00)	–0.001 (0.01)	0.000 (0.00)
Manufacturing, D	0.014 (0.04)	–0.049 (0.03)	–0.004 (0.01)	0.000 (0.00)	–0.021 (0.01)	–0.009* (0.00)	–0.008 (0.01)	–0.003 (0.00)
Financial intermediation, D	–0.009 (0.08)	0.122 (0.16)	–0.053*** (0.01)	–0.050*** (0.01)	–0.065*** (0.02)	–0.047* (0.02)	–0.031** (0.01)	–0.020 (0.01)
Construction, D	0.063 (0.06)	–0.023 (0.04)	0.039 (0.03)	0.000 (0.00)	0.019 (0.05)	0.032 (0.04)	–0.006 (0.01)	–0.002 (0.00)
Export share	0.035 (0.04)	0.097 (0.06)	–0.009 (0.01)	–0.000 (0.00)	0.114** (0.04)	0.023** (0.01)	–0.011 (0.01)	–0.002 (0.00)
Mainly foreign, D	0.048 (0.03)	–0.023 (0.04)	0.010 (0.01)	–0.000** (0.00)	0.040 (0.02)	0.004 (0.00)	0.018 (0.01)	0.002 (0.00)
Demand	–0.048*** (0.01)	–0.043* (0.02)	0.007 (0.00)	0.000 (0.00)	–0.012 (0.01)	–0.002 (0.00)	0.003 (0.00)	0.000 (0.00)
No access to credit, D	0.000 (0.02)	0.041 (0.04)	0.015 (0.01)	0.000 (0.00)	0.014 (0.01)	0.005 (0.00)	0.006 (0.01)	0.006* (0.00)
Domestic competition	–0.034 (0.02)	–0.019 (0.03)	–0.000 (0.01)	0.000 (0.00)				
Foreign competition					–0.037*** (0.01)	–0.007* (0.00)	–0.020** (0.01)	–0.001 (0.00)
<b>Unchanged</b>								
Employment, ln	–0.003 (0.01)	0.015 (0.01)	–0.003 (0.02)	–0.007 (0.03)	–0.000 (0.03)	0.115*** (0.03)	–0.013 (0.05)	0.010 (0.04)
Manufacturing, D	0.016 (0.04)	–0.078 (0.06)	–0.021 (0.05)	0.065 (0.08)	–0.115 (0.07)	–0.446*** (0.09)	–0.075 (0.07)	–0.174 (0.11)
Financial intermediation, D	–0.011 (0.10)	0.068** (0.03)	–0.091 (0.12)	–0.138 (0.15)	–0.003 (0.23)	–0.094 (0.23)	–0.051 (0.23)	–0.014 (0.28)
Construction, D	–0.124* (0.06)	–0.032 (0.07)	–0.078 (0.05)	0.016 (0.09)	0.070 (0.13)	–0.175 (0.19)	–0.059 (0.15)	–0.146 (0.13)
Export share	0.041 (0.05)	0.121 (0.08)	–0.042 (0.06)	–0.074 (0.12)	–0.041 (0.11)	0.042 (0.14)	–0.102 (0.10)	–0.147 (0.16)
Mainly foreign, D	0.045 (0.03)	–0.033 (0.06)	0.043 (0.06)	0.055 (0.09)	0.127* (0.05)	0.110 (0.08)	0.131 (0.08)	0.111 (0.10)
Demand	0.039* (0.02)	0.076** (0.03)	0.033 (0.02)	0.055 (0.05)	–0.056* (0.02)	–0.062 (0.04)	0.030 (0.03)	0.005 (0.05)
No access to credit, D	0.000 (0.03)	0.053 (0.05)	0.072 (0.04)	0.014 (0.08)	0.066 (0.06)	0.195* (0.08)	0.058 (0.06)	0.330** (0.10)
Domestic competition	–0.152*** (0.03)	–0.204*** (0.06)	–0.175*** (0.03)	–0.177*** (0.04)				
Foreign competition					–0.169*** (0.04)	–0.260*** (0.06)	–0.177*** (0.04)	–0.088 (0.05)
<b>Increase (next page)</b>								
Observations	462		473		235		245	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations in some groups. Explanatory variables are described in Table A2.

Table A78 (cont.)

	Domestic market				Foreign market			
	2008–2009		2010–2013		2008–2009		2010–2013	
	wb	wl	wb	wl	wb	wl	wb	wl
<b>Increase</b>								
Employment, ln	0.006 (0.03)	-0.028 (0.02)	0.004 (0.03)	0.007 (0.03)	0.000 (0.04)	-0.118*** (0.03)	0.015 (0.05)	-0.010 (0.04)
Manufacturing, D	-0.030 (0.08)	0.127 (0.09)	0.025 (0.06)	-0.065 (0.08)	0.137 (0.08)	0.454*** (0.09)	0.083 (0.08)	0.176 (0.11)
Financial intermediation, D	0.020 (0.19)	-0.190 (0.17)	0.145 (0.12)	0.188 (0.15)	0.068 (0.23)	0.141 (0.22)	0.082 (0.23)	0.034 (0.28)
Construction, D	0.061 (0.09)	0.055 (0.10)	0.039 (0.07)	-0.016 (0.09)	-0.089 (0.18)	0.143 (0.20)	0.065 (0.16)	0.148 (0.13)
Export share	-0.076 (0.08)	-0.218 (0.13)	0.051 (0.08)	0.074 (0.12)	-0.073 (0.12)	-0.064 (0.14)	0.114 (0.11)	0.150 (0.16)
Mainly foreign, D	-0.093 (0.06)	0.056 (0.09)	-0.052 (0.07)	-0.054 (0.09)	-0.168* (0.07)	-0.113 (0.08)	-0.149 (0.09)	-0.113 (0.11)
Demand	0.009 (0.02)	-0.033 (0.03)	-0.040 (0.02)	-0.055 (0.05)	0.069* (0.03)	0.063 (0.04)	-0.034 (0.03)	-0.005 (0.05)
No access to credit, D	-0.001 (0.05)	-0.094 (0.08)	-0.087 (0.05)	-0.014 (0.08)	-0.080 (0.07)	-0.200* (0.08)	-0.065 (0.07)	-0.336** (0.10)
Domestic competition	0.185*** (0.03)	0.223*** (0.05)	0.175*** (0.03)	0.177*** (0.04)				
Foreign competition					0.205*** (0.04)	0.267*** (0.06)	0.197*** (0.05)	0.089 (0.05)
Observations	462		473		235		245	

Note: ln – logarithm, D – dummy variable, wb – weighted to represent firm population, wl – weighted to represent employees in the population. Standard errors in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Comment: Groups are combined into Decrease, Unchanged and Increase due to a small number of observations in some groups. Explanatory variables are described in Table A2.



Table A79

**Price setting mechanism in 2013 (%)**

	On a regular time pattern	Whenever costs and/or demand conditions changed	Don't know	Total
	wb – weighted to represent firm population			
Manufacturing	7.5	92.5	0.0	100.0
Construction	7.3	90.6	2.2	100.0
Trade	20.2	78.6	1.1	100.0
Business services	15.5	81.6	2.8	100.0
Financial intermediation	8.0	92.0	0.0	100.0
Total	14.2	84.1	1.7	100.0
	wl – weighted to represent employees in the population			
Manufacturing	5.1	94.9	0.0	100.0
Construction	4.2	94.6	1.2	100.0
Trade	28.5	70.9	0.6	100.0
Business services	21.7	75.9	2.4	100.0
Financial intermediation	8.2	91.8	0.0	100.0
Total	16.7	82.1	1.2	100.0
Observations	82	469	6	557

Table A80

**Frequency of price change in 2013 (%)**

	On a regular time pattern		Whenever costs and/or demand conditions changed	
	wb	wl	wb	wl
More often than once a year (unspecified)	11.5	6.2	11.2	10.6
Daily	2.5	0.7	1.7	2.6
Weekly	3.6	1.0	2.9	6.1
Monthly	9.1	4.9	6.6	4.7
Quarterly	10.2	22.6	6.9	7.6
Half-yearly	8.1	4.3	8.0	5.5
Once a year	22.2	25.6	23.0	17.9
Once in two years	9.0	5.7	14.6	14.7
Less frequently than once every two years	4.6	3.3	12.4	11.7
Never	7.2	20.0	2.1	2.8
Don't know	11.9	5.5	10.6	15.7
Total	100	100	100	100
Observations	82		469	

Note: wb – weighted to represent firm population, wl – weighted to represent employees in the population.

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Figure A1

Change in firms' activity during 2008–2009 and 2010–2013; wl – employment weights (C21)

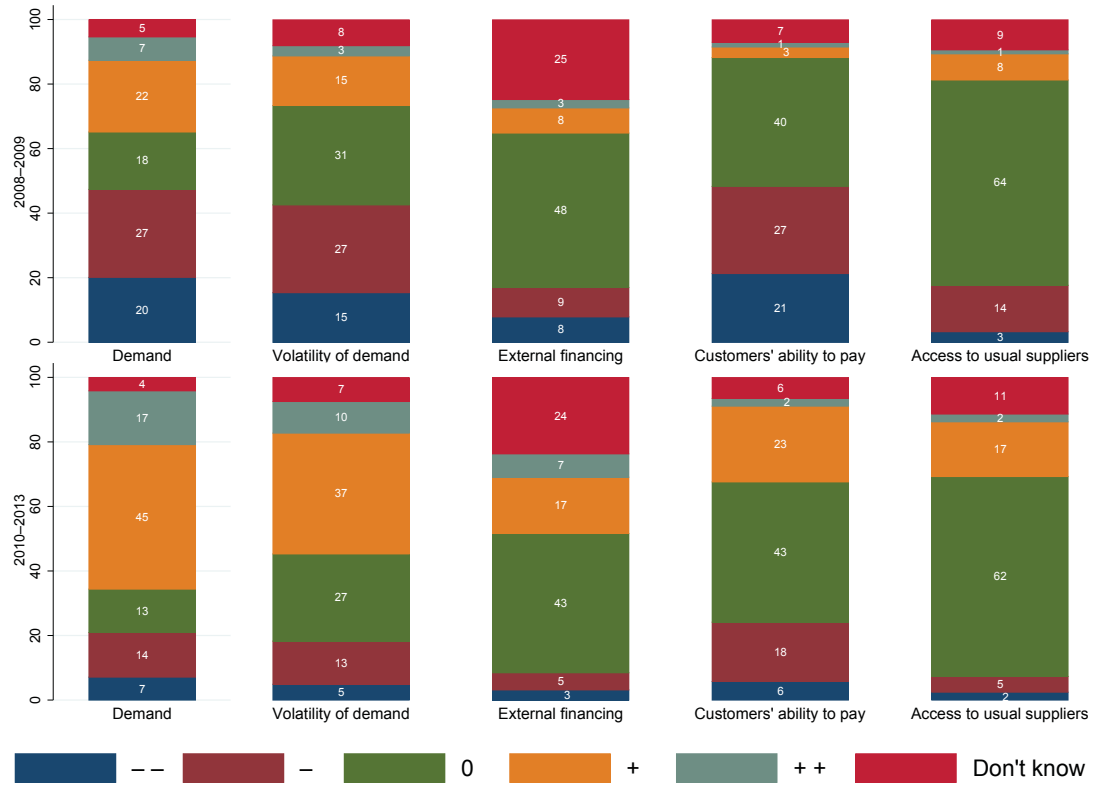
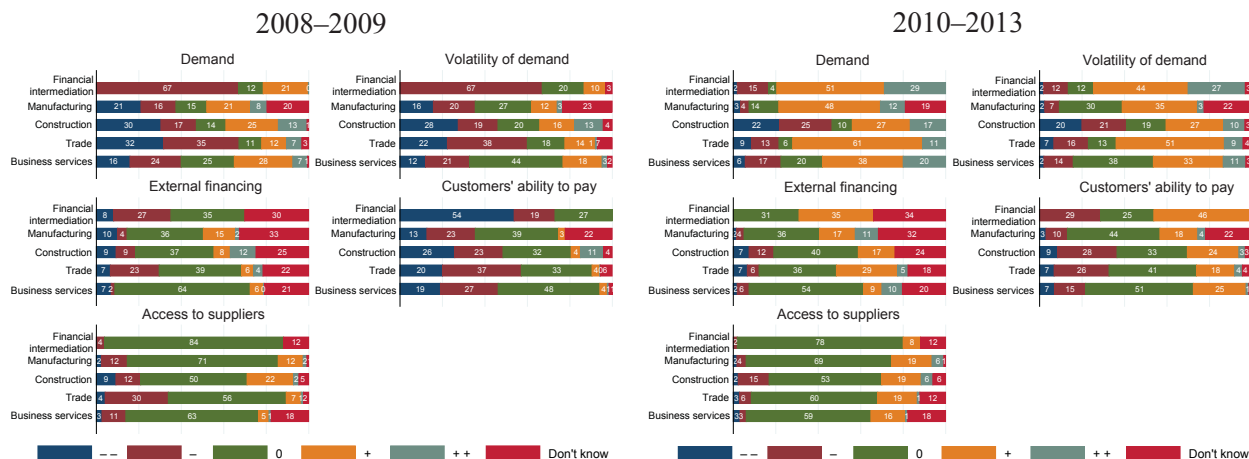


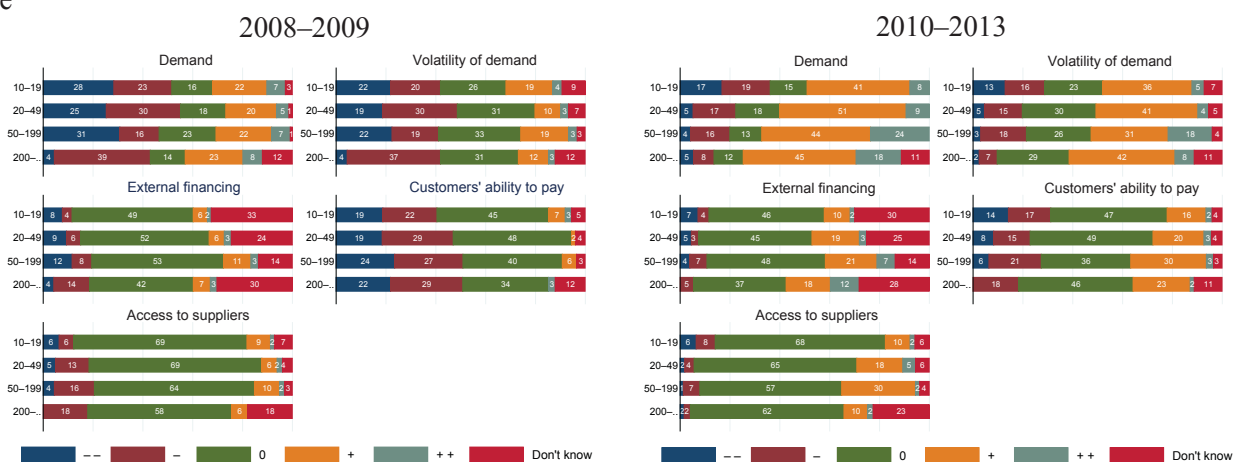
Figure A2

Change in firms' activity; w1 – employment weights (C21)

(a) Sector



(b) Size



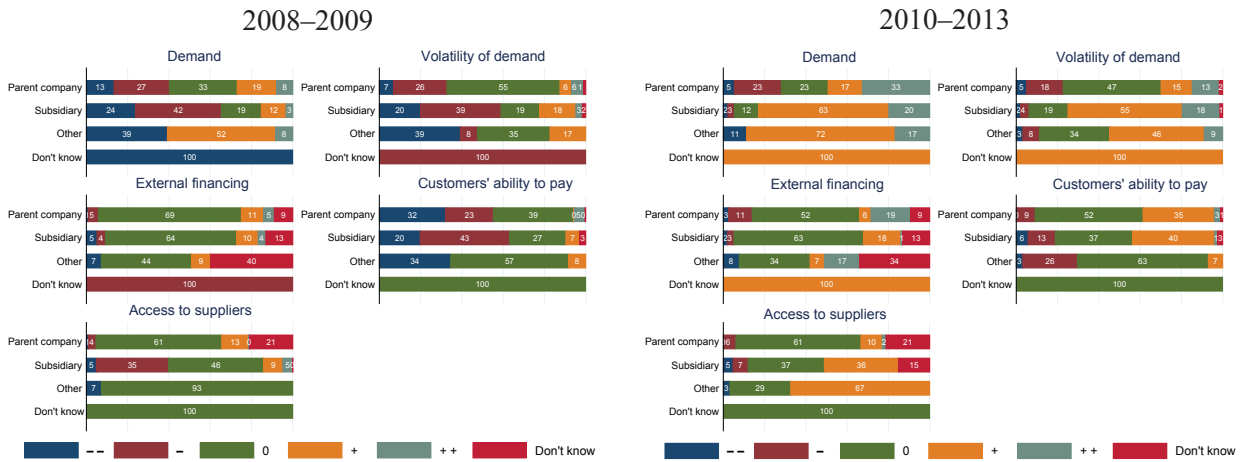
(c) Exports



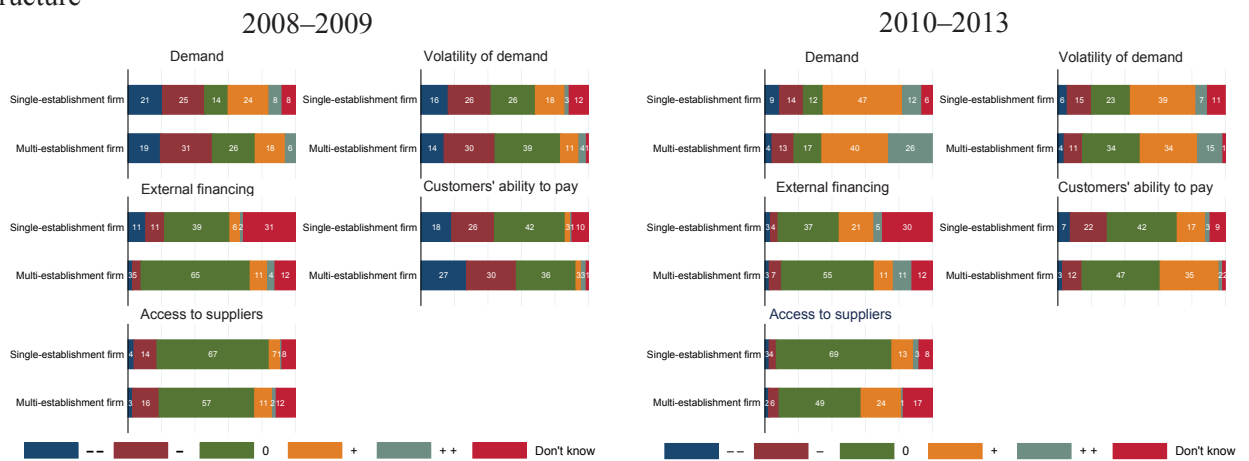
Figure A3

Change in firms' activity; wl – employment weights (C21)

(d) Autonomy



(e) Structure



(f) Ownership

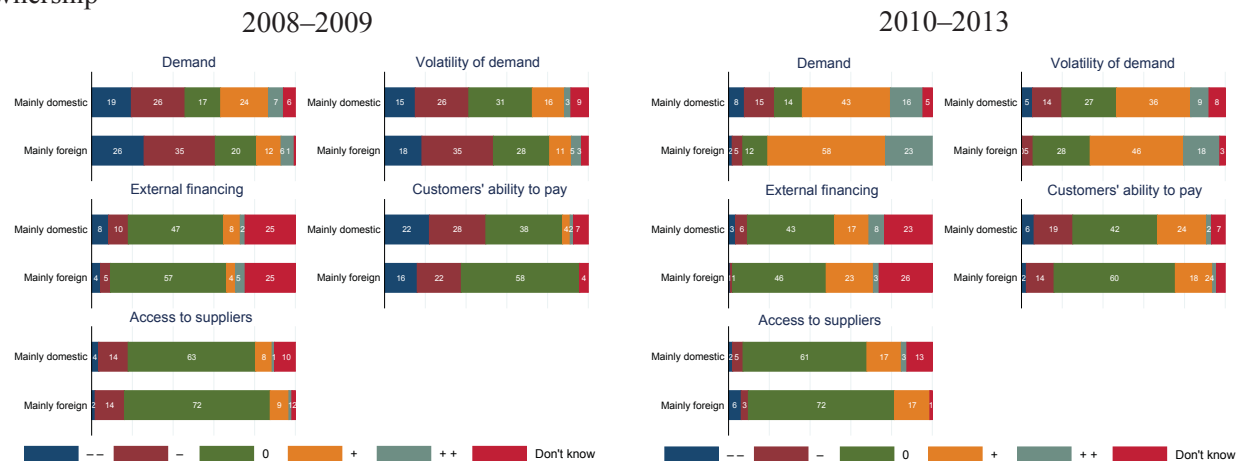
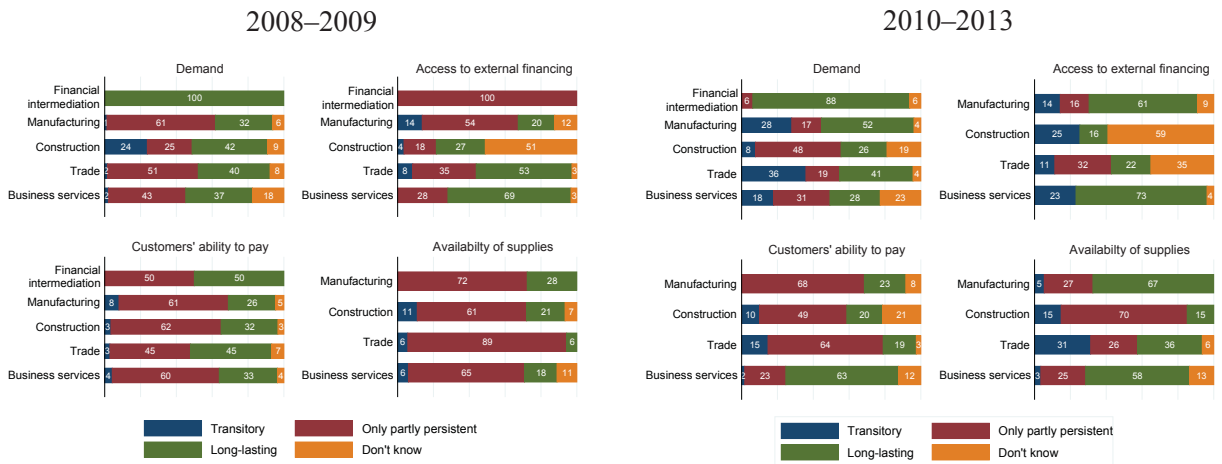


Figure A4

**Duration of shocks to demand, access to external financing, customers' ability to pay and availability of supplies; w1 – employment weights (C22)**

(a) Sector



(b) Size

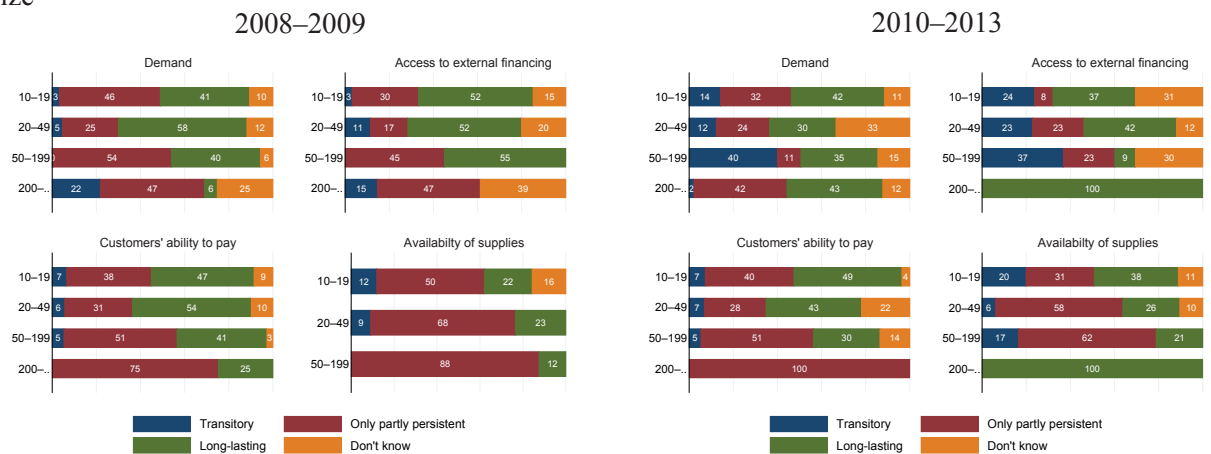


Figure A5

Financial condition of firms during 2008–2009 and 2010–2013; w1 – employment weights (C23)

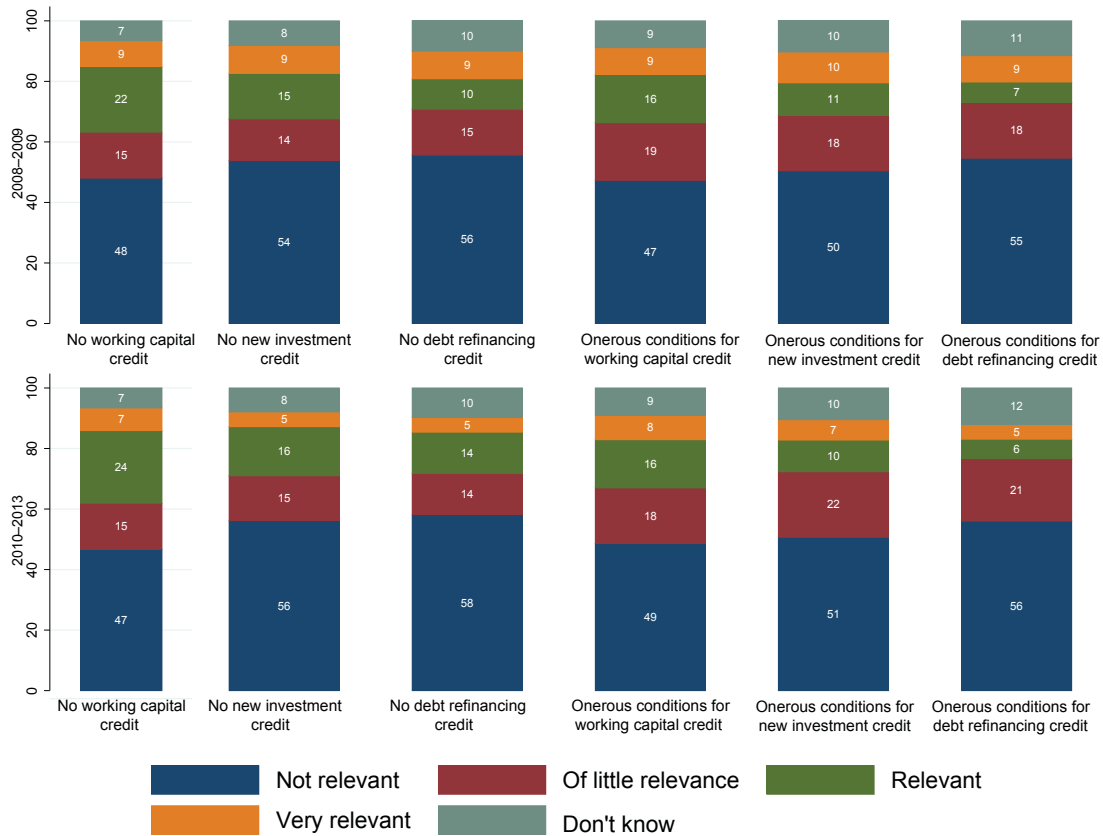
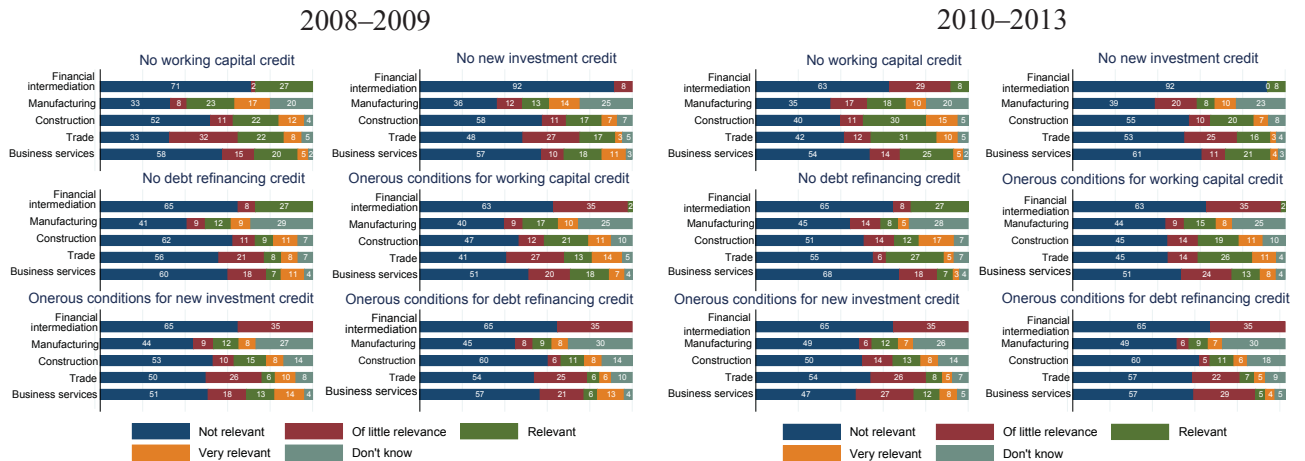


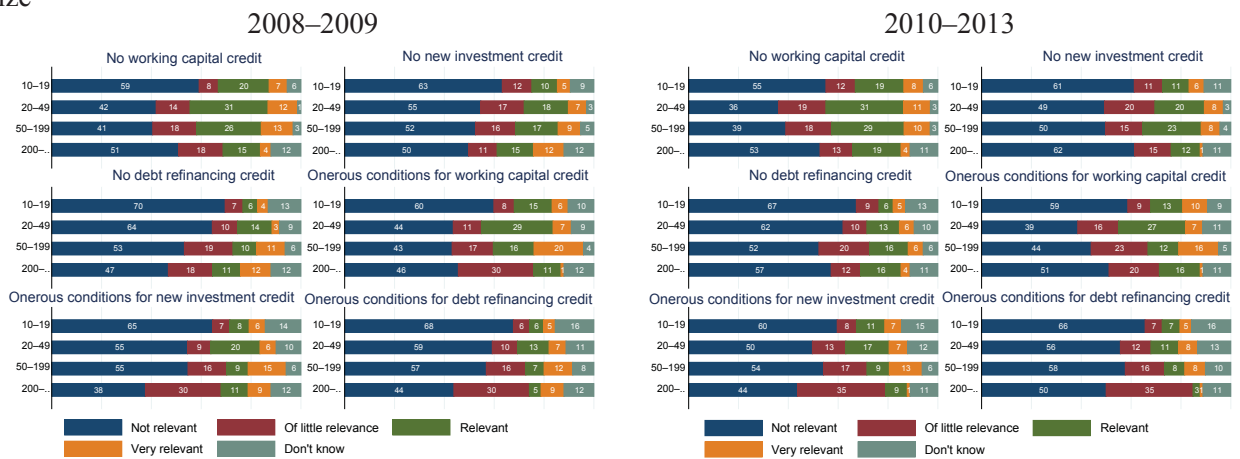


Figure A6  
Financial condition of firms; wl – employment weights (C23)

(a) Sector



(b) Size



(c) Exports

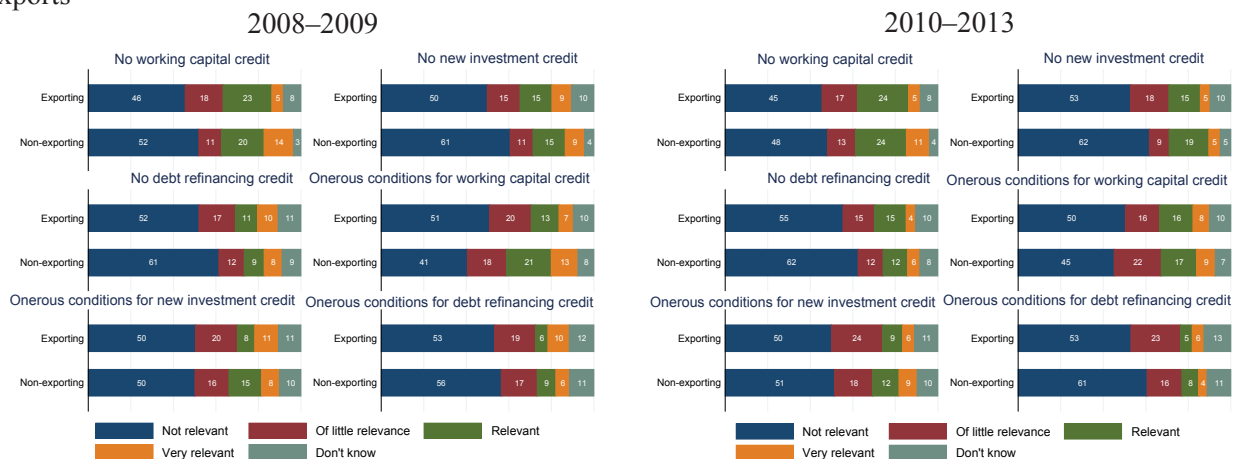
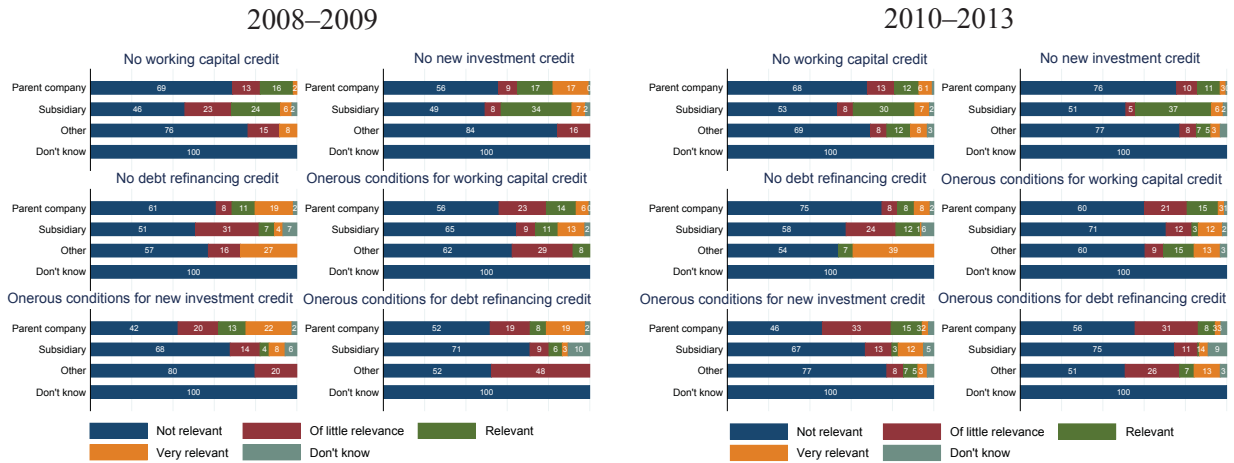


Figure A7

Financial condition of firms; wl – employment weights (C23)

(d) Autonomy



(e) Structure



(f) Ownership

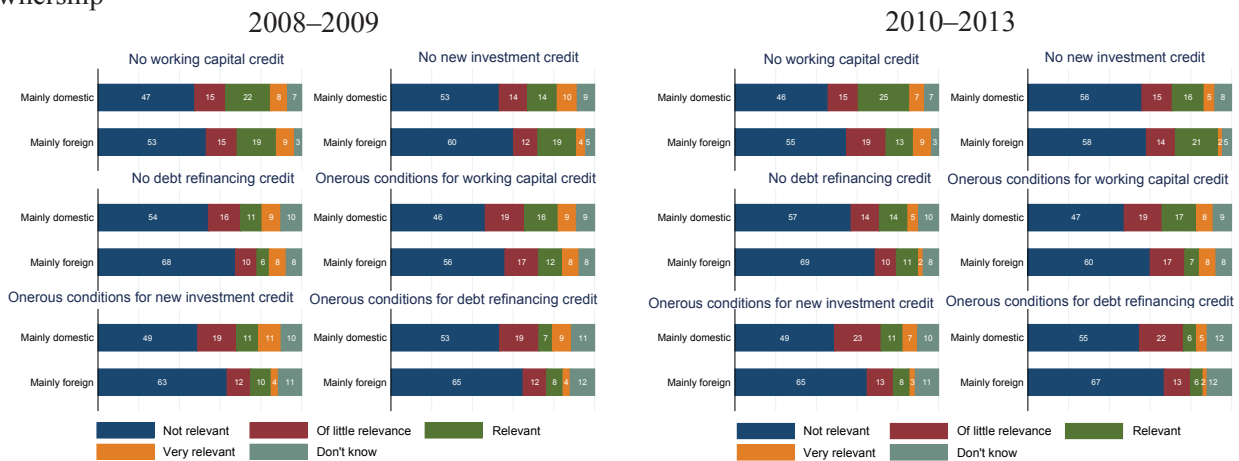
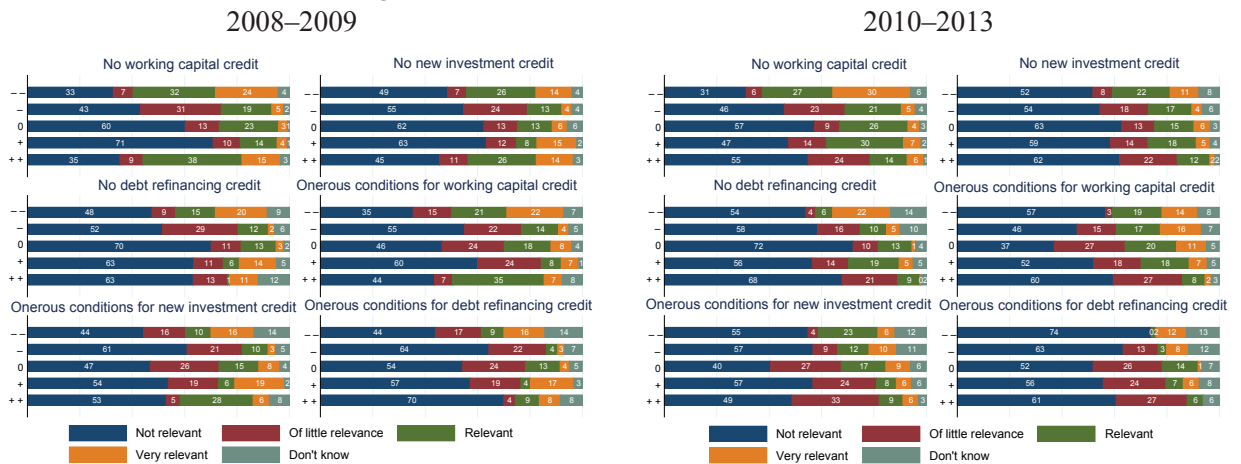


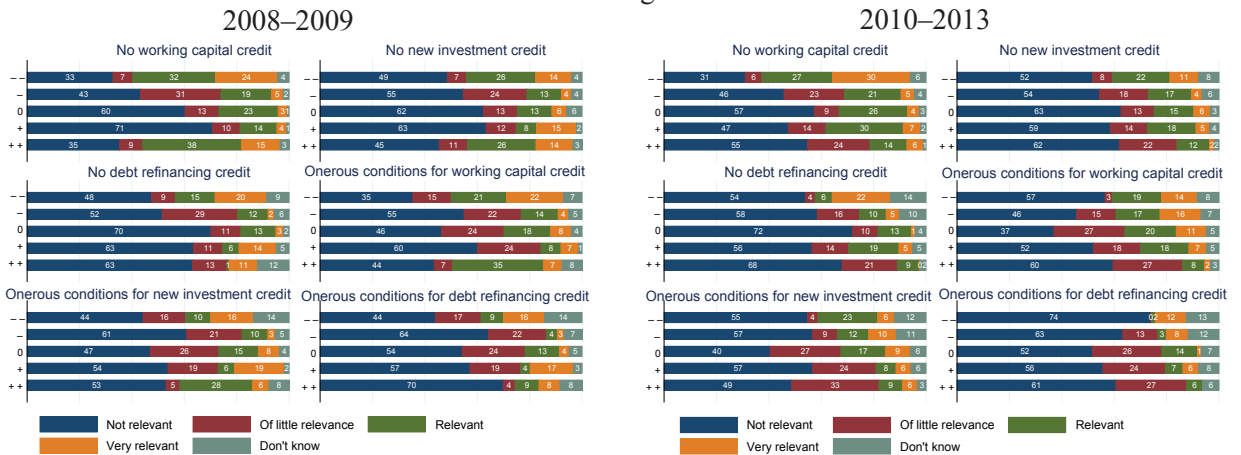
Figure A8

Financial condition of firms vs change in firms' activity (C23 vs C21); wl – employment weights

(a) Financial condition of firms vs change in demand



(b) Financial condition of firms vs access to external financing



(c) Financial condition of firms vs customers' ability to pay

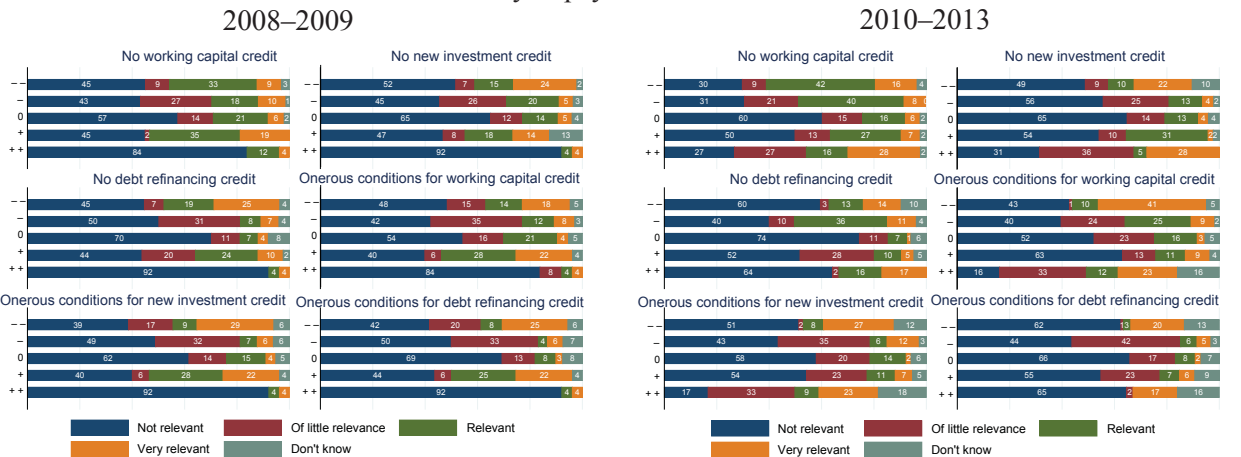


Figure A9

Change in total cost components during 2008–2009 and 2010–2013; wl – employment weights (C24)

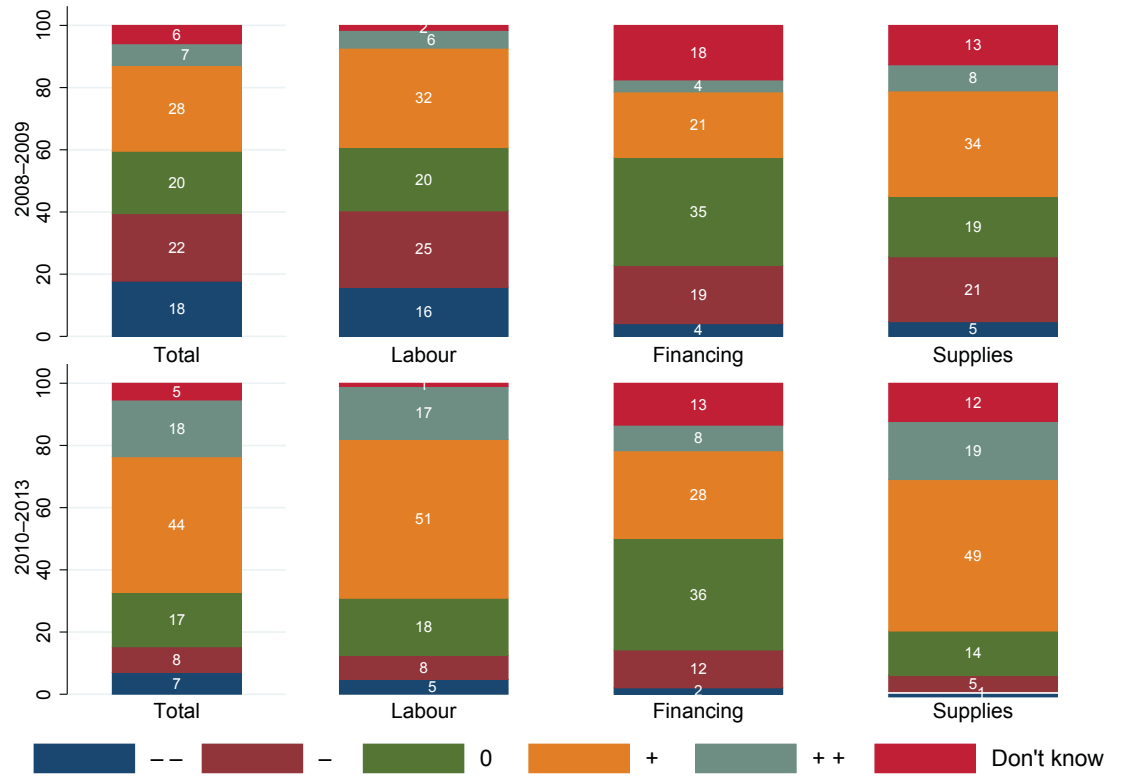
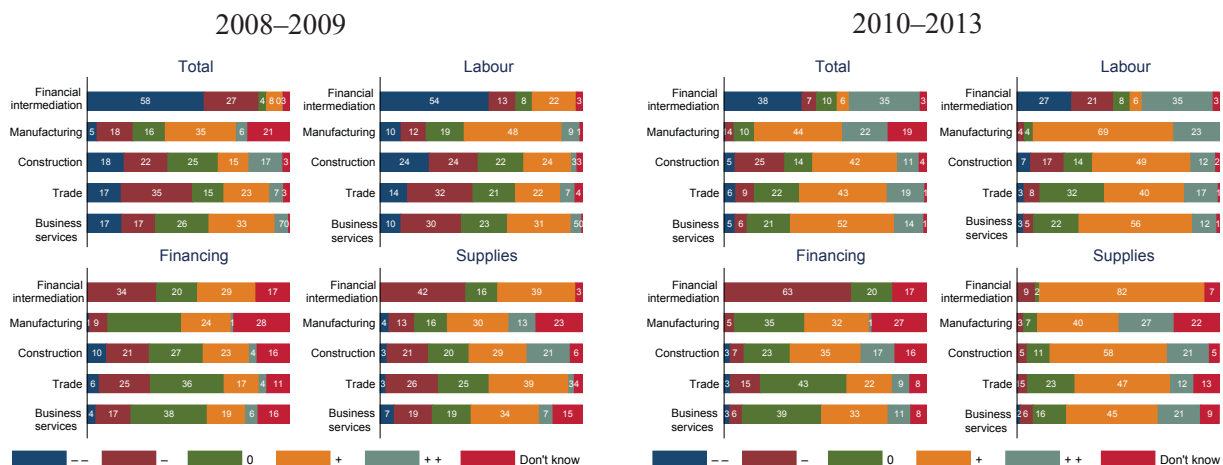


Figure A10

Change in total cost components; wl – employment weights (C24)

(a) Sector



(b) Size



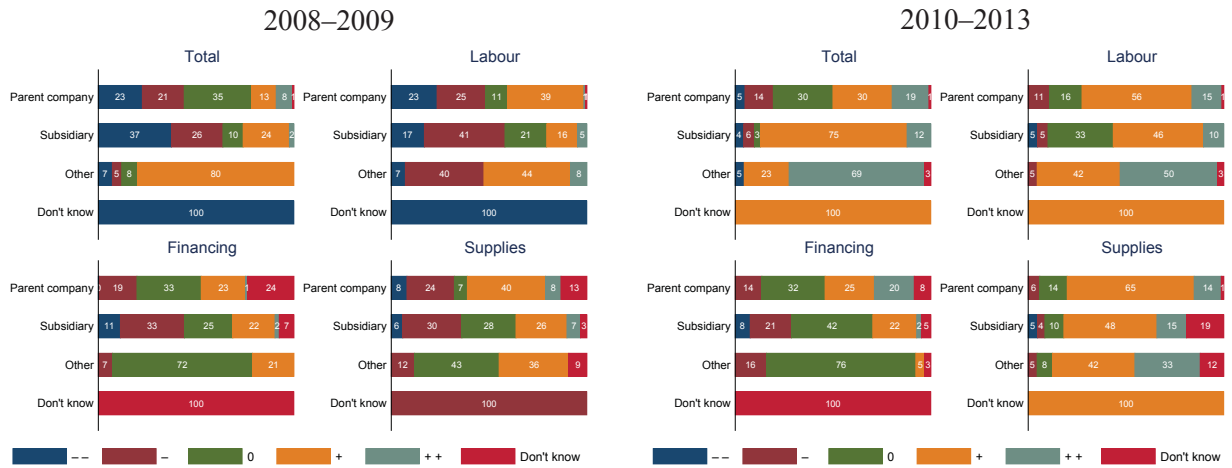
(c) Exports



Figure A11

Change in total cost components; wl – employment weights (C24)

(d) Autonomy



(e) Structure



(f) Ownership



Figure A12

Change in total cost components vs change in firms' activity (C24 vs C21); wl – employment weights

(a) Change in total cost components vs change in demand



(b) Change in total cost components vs access to external financing



(c) Change in total cost components vs customers' ability to pay



Figure A13

Change in labour cost components during 2008–2009 and 2010–2013; wl – employment weights (C25)

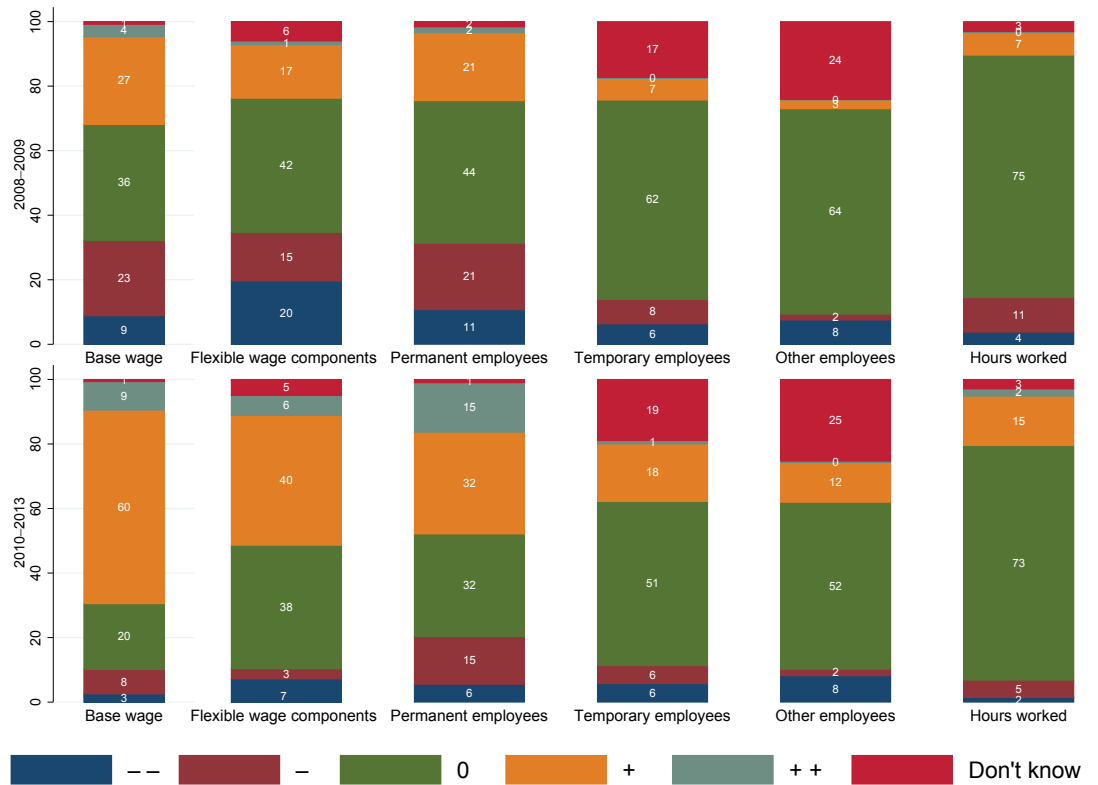
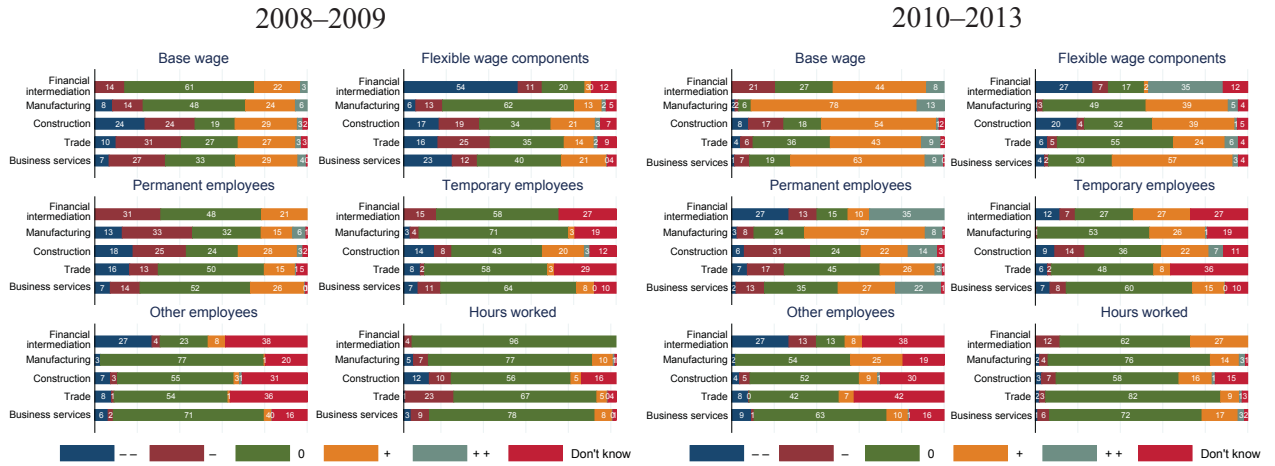




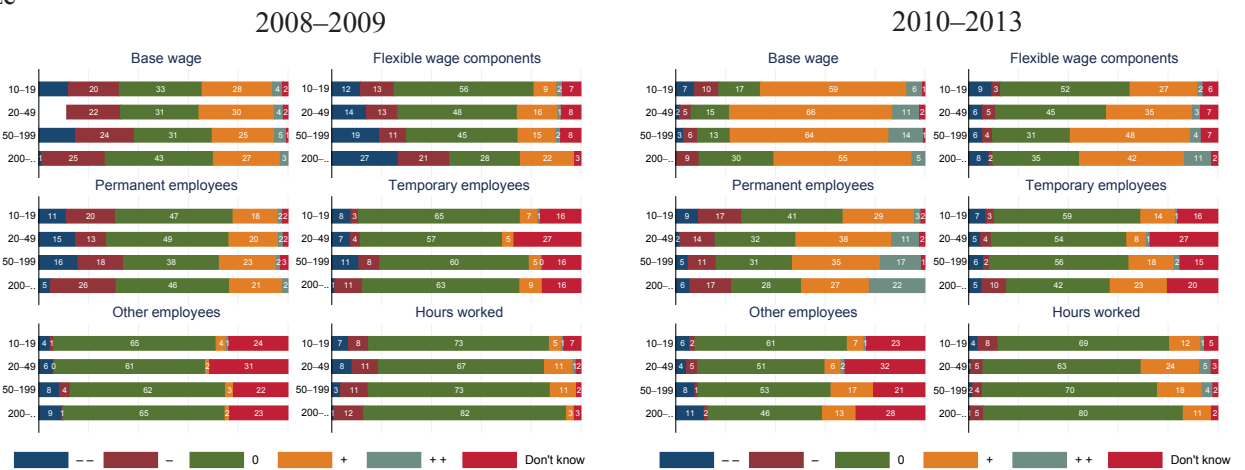
Figure A14

Change in labour cost components; wl – employment weights (C25)

(a) Sector



(b) Size



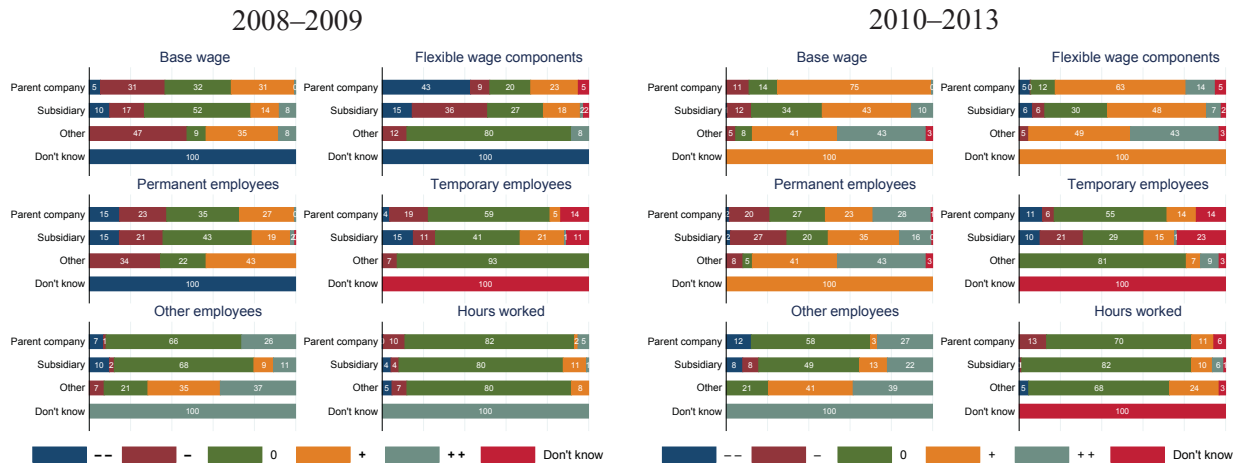
(c) Exports



Figure A15

Change in labour cost components; wl – employment weights (C25)

(d) Autonomy



(e) Structure



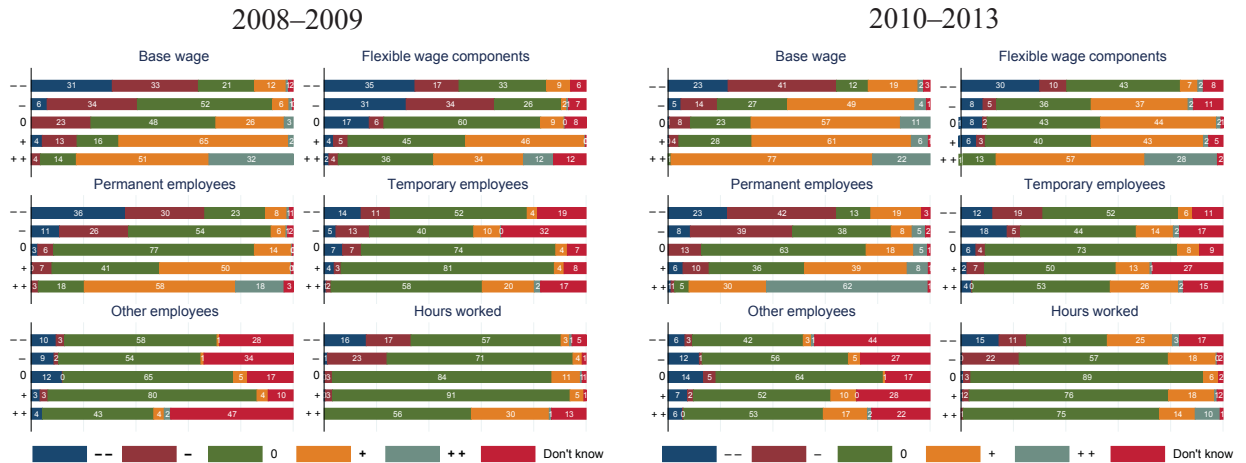
(f) Ownership



Figure A16

Change in labour cost components vs change in firms' activity; w1 – employment weights (C25 vs C21)

(a) Demand



(b) Change in labour cost components vs access to external financing

2008–2009

2010–2013



(c) Change in labour cost components vs customers' ability to pay

2008–2009

2010–2013



Figure A17

Change in demand and price of the firm's main product during 2008–2009 and 2010–2013;  
 wl – employment weights (C26)

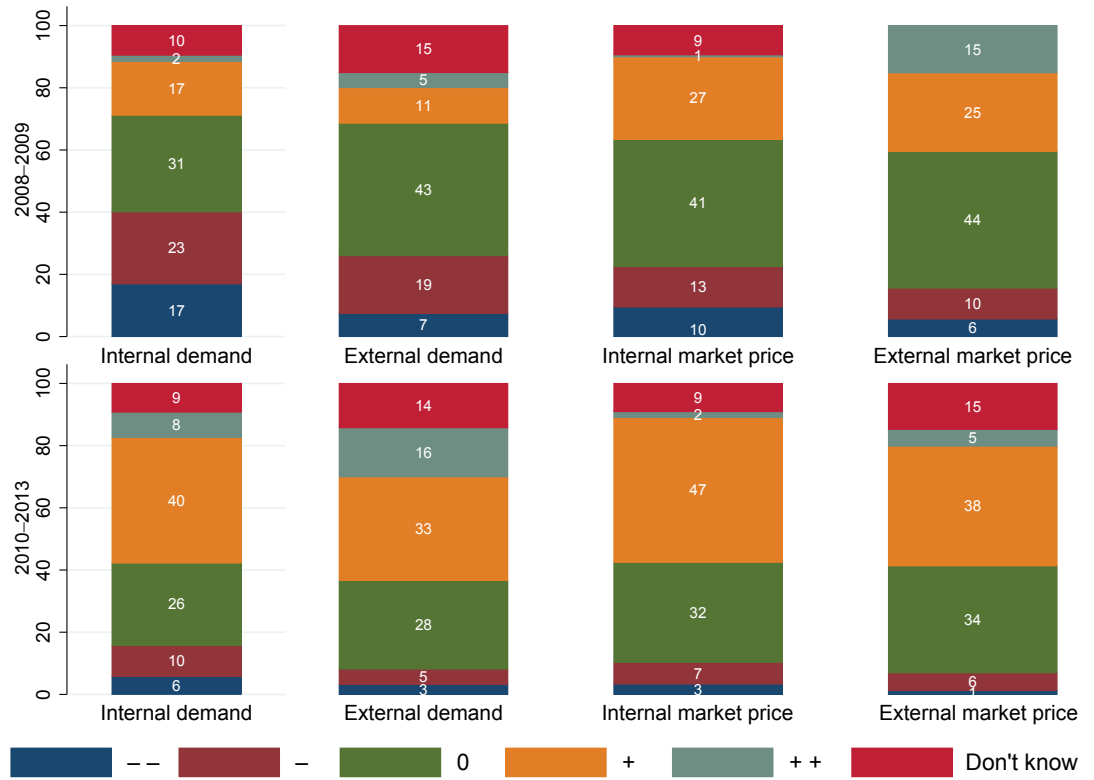


Figure A18

Change in demand and price of the firm's main product; wl – employment weights (C26)

(a) Sector



(b) Size



(c) Exports

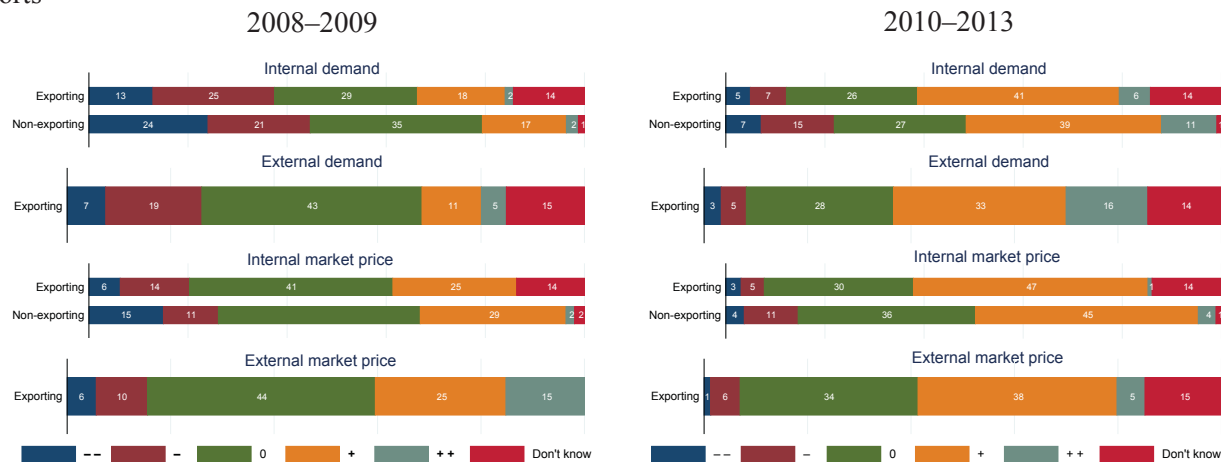


Figure A19

Change in demand and price of the firm's main product; wl – employment weights (C26)

(d) Autonomy



(e) Structure



(f) Ownership

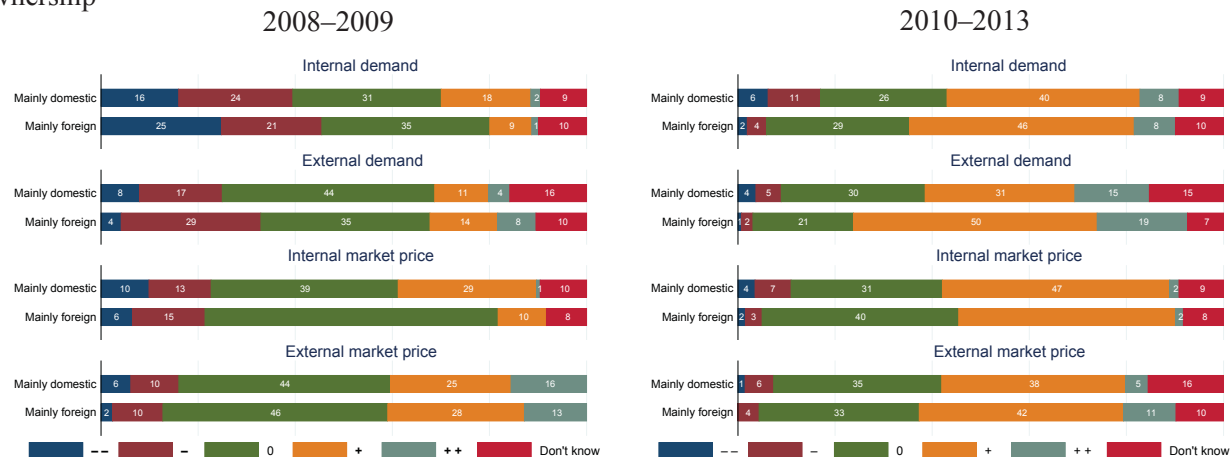


Figure A20

Change in labour productivity, prices and non-labour costs during 2008–2009 and 2010–2013;  
 wl – employment weights (C27)

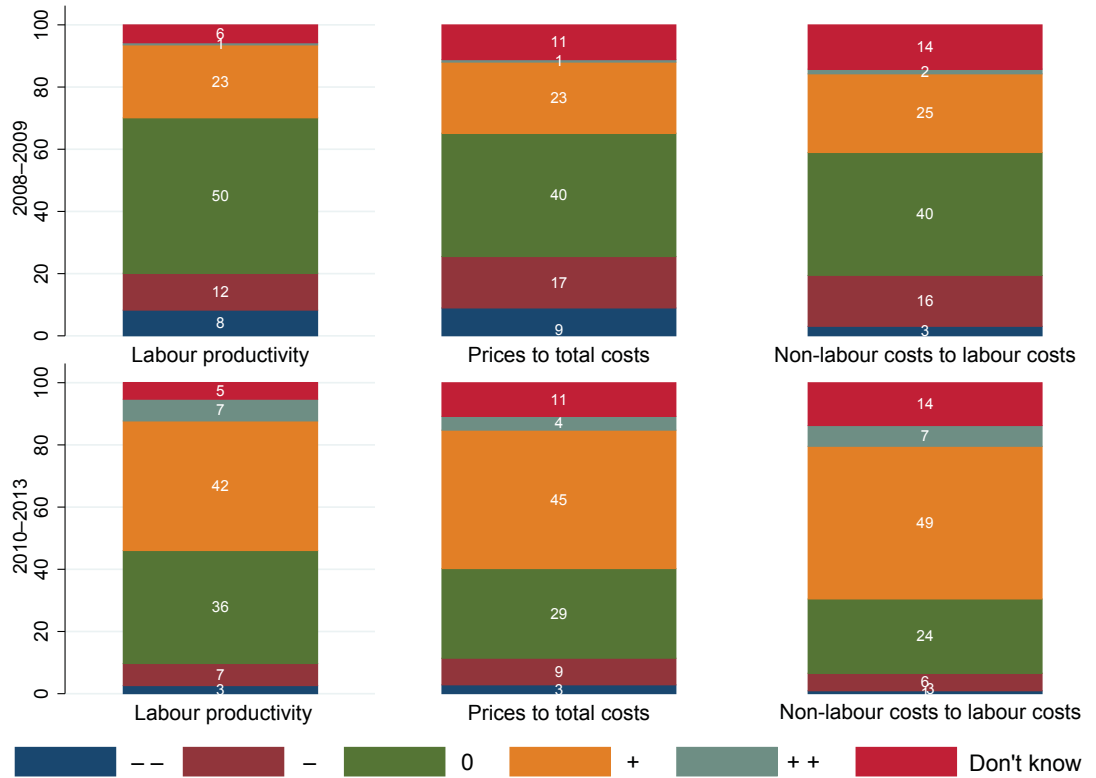
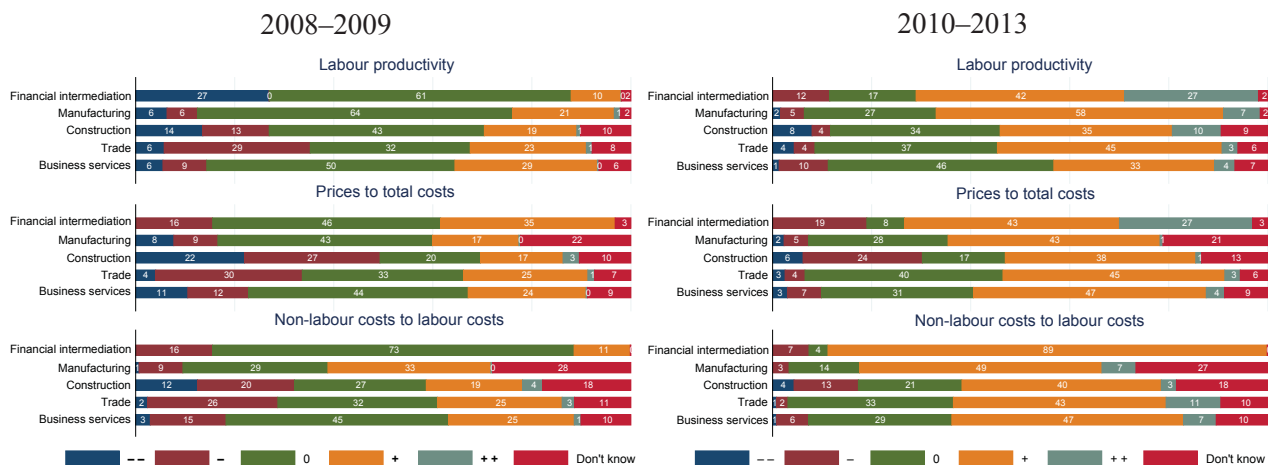


Figure A21

Change in labour productivity, prices and non-labour costs; wl – employment weights (C27)

(a) Sector



(b) Size



(c) Exports

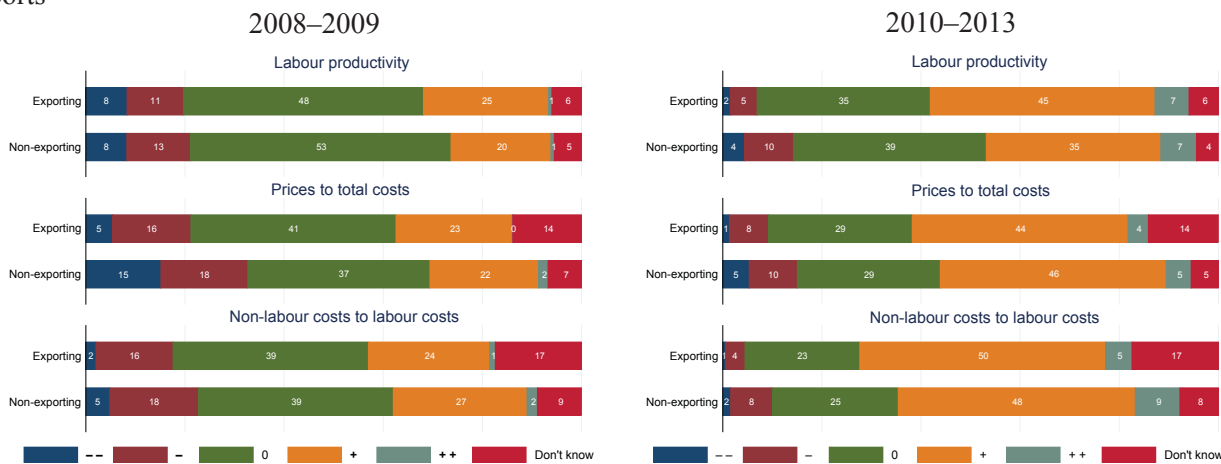




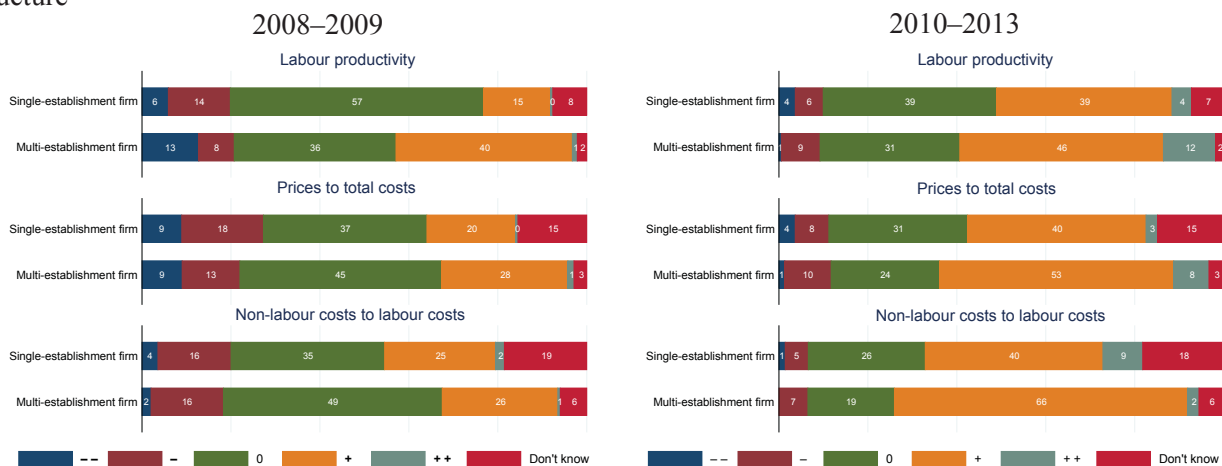
Figure A22

Change in labour productivity, prices and non-labour costs; wl – employment weights (C27)

(d) Autonomy



(e) Structure



(f) Ownership

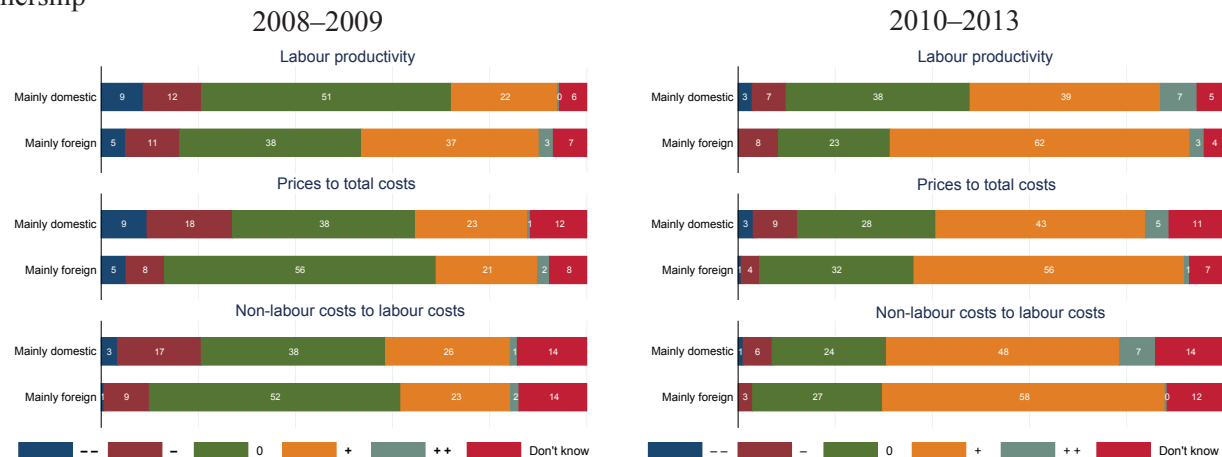
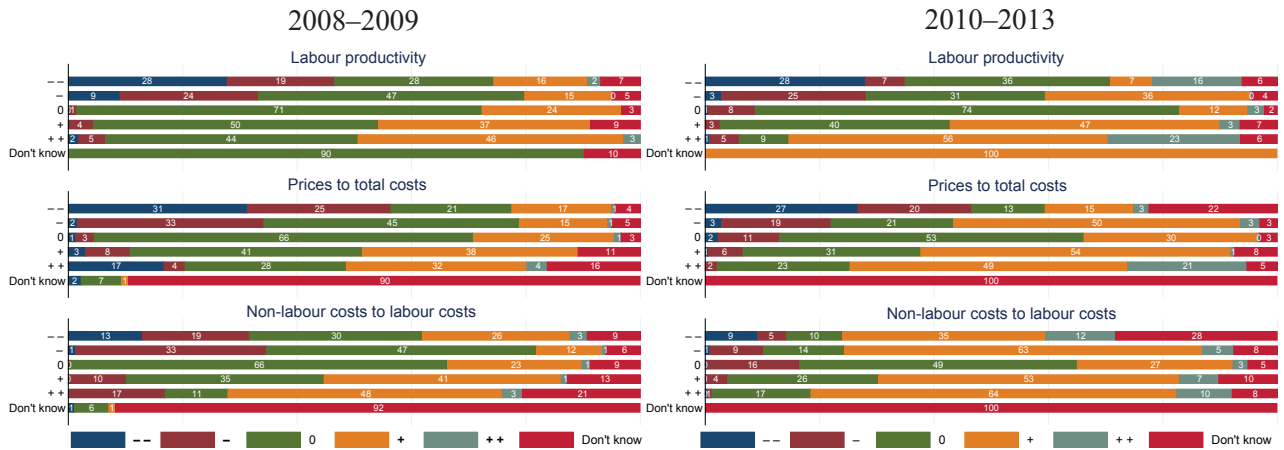


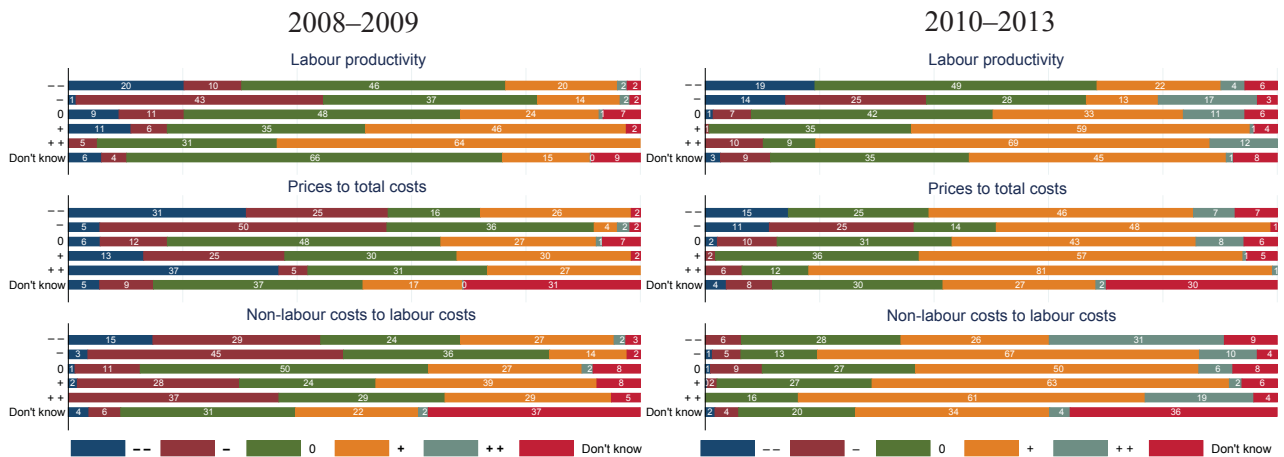
Figure A23

Change in labour productivity, prices and non-labour costs vs change in firms' activity; wl – employment weights (C27 vs C21)

(a) Change in labour productivity, prices and non-labour costs vs demand



(b) Change in labour productivity, prices and non-labour costs vs access to external financing



(c) Change in labour productivity, prices and non-labour costs vs customers' ability to pay

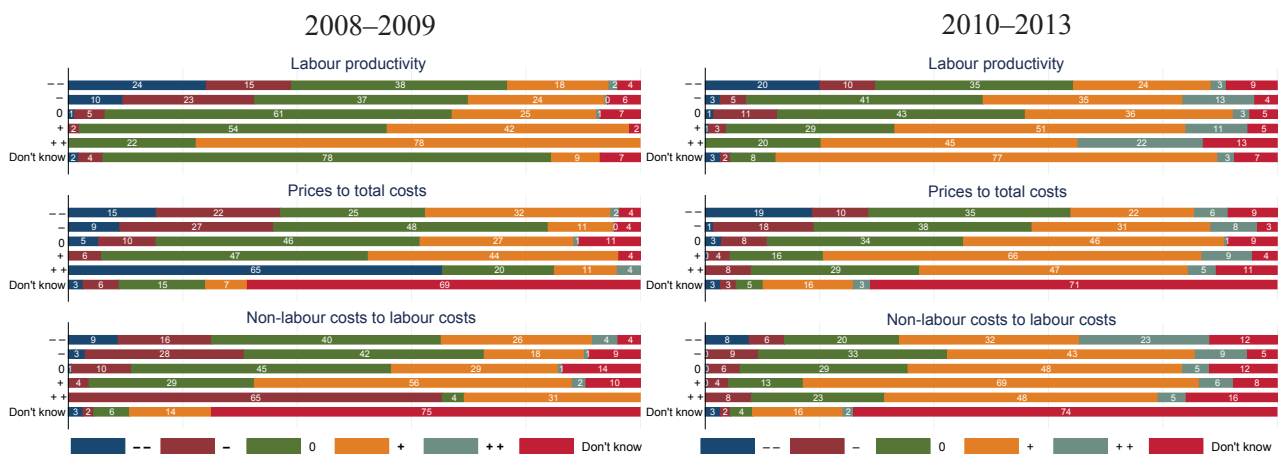
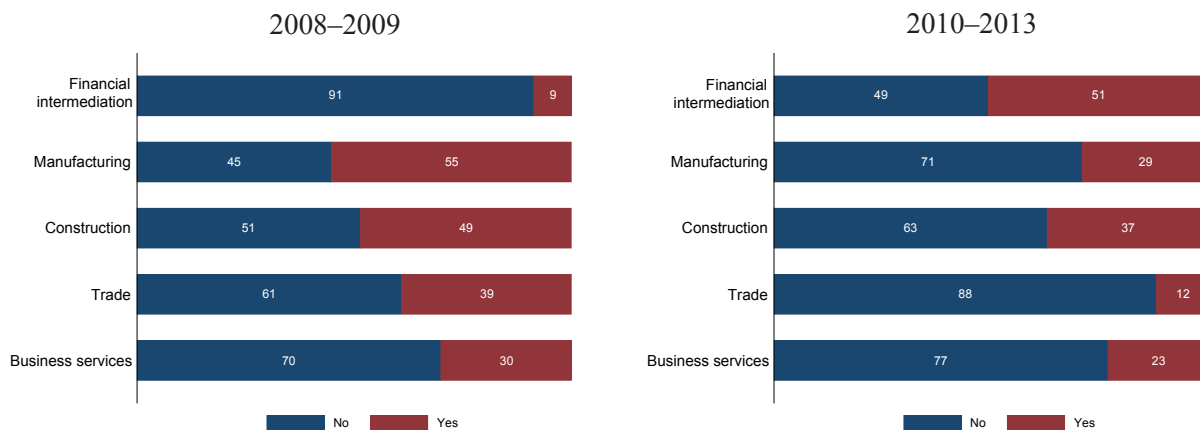


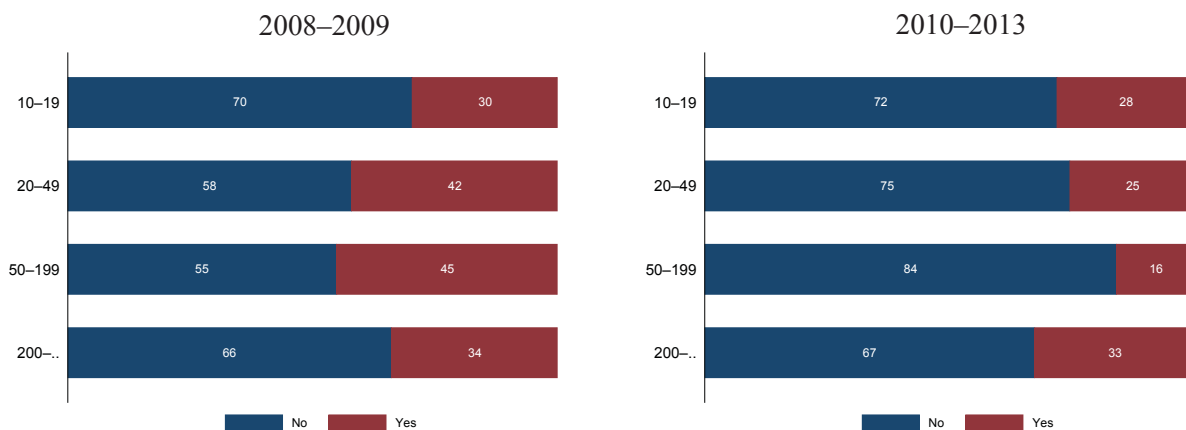
Figure A24

Need to reduce labour input; wl – employment weights (C33a)

(a) Sector



(b) Size



(c) Exports

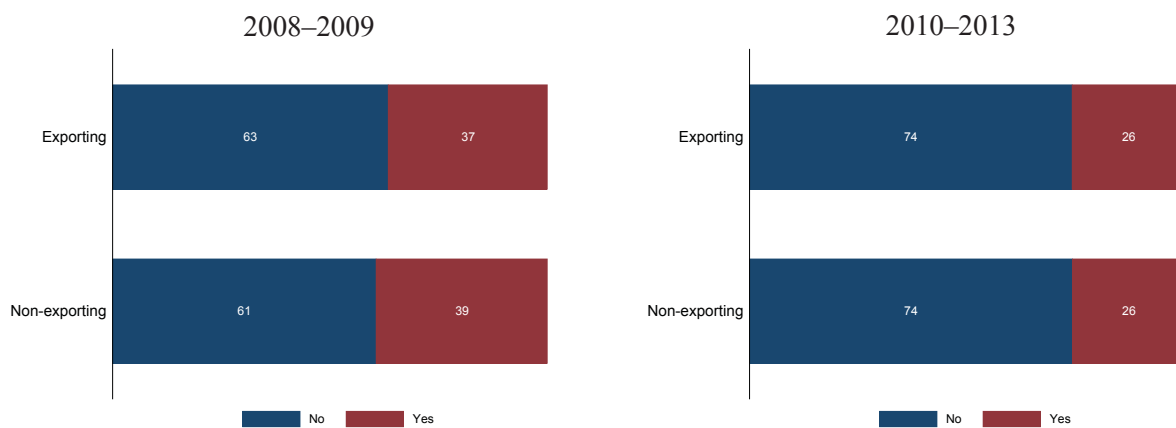
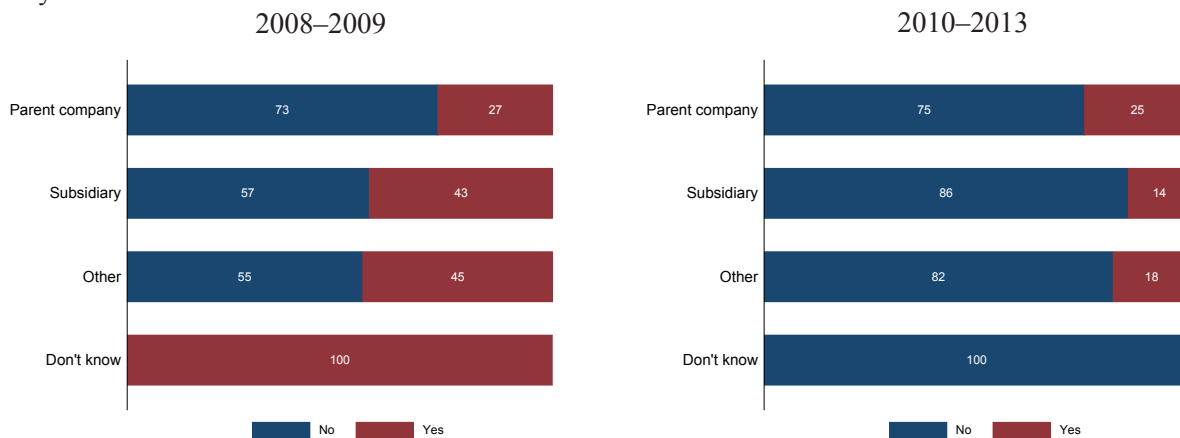


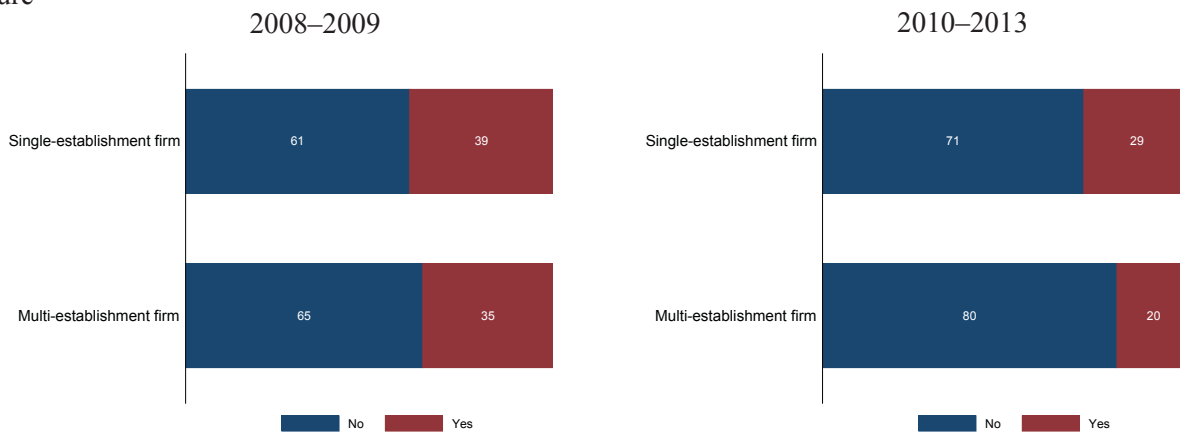
Figure A25

Need to reduce labour input; wl – employment weights (C33a)

(d) Autonomy



(e) Structure



(f) Ownership

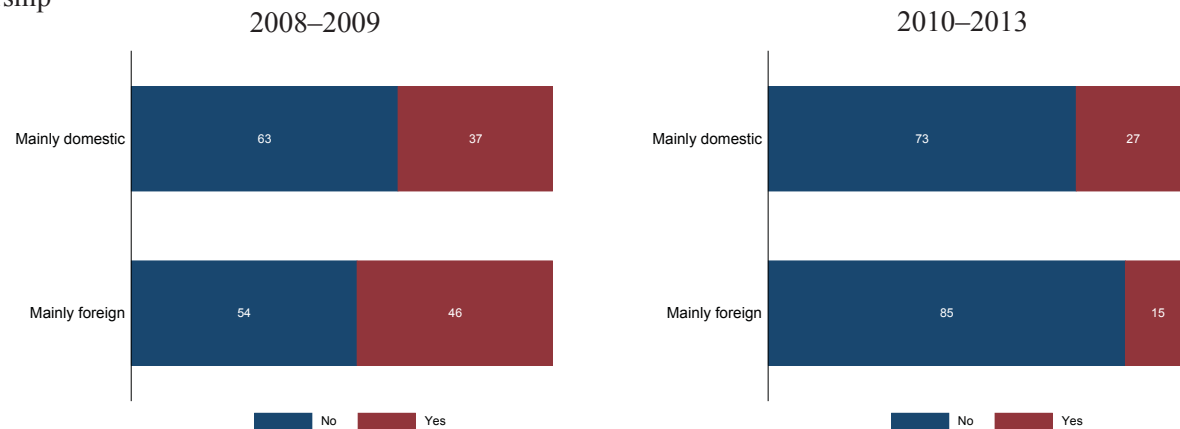
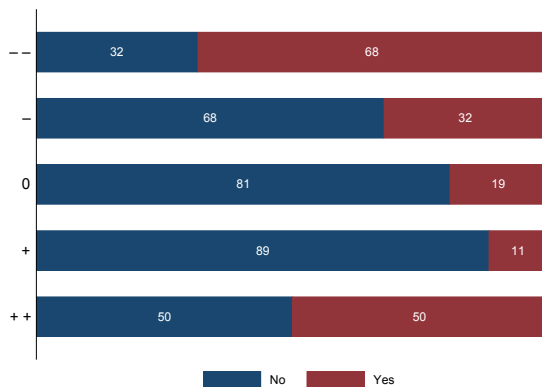


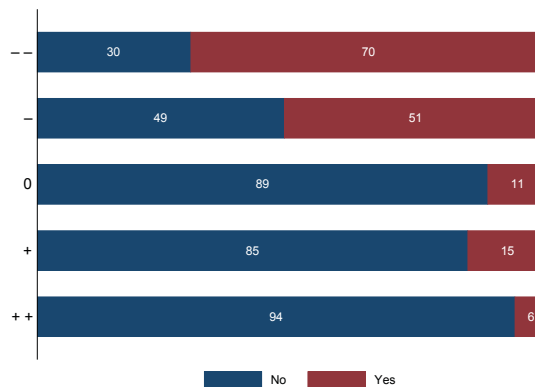
Figure A26

**Need to reduce labour input vs change in firms' activity; wl – employment weights (C33a vs C21)**

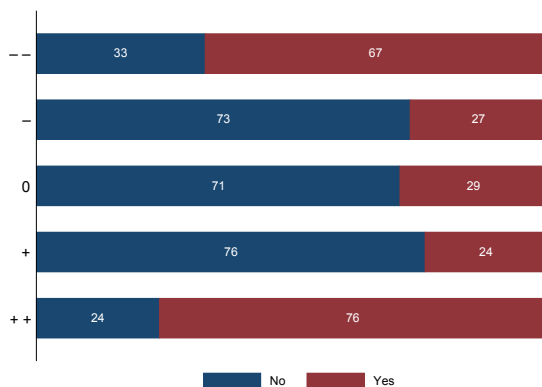
(a) Need to reduce labour input vs demand  
2008–2009



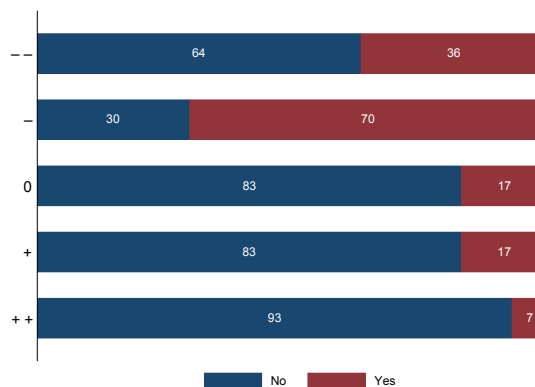
2010–2013



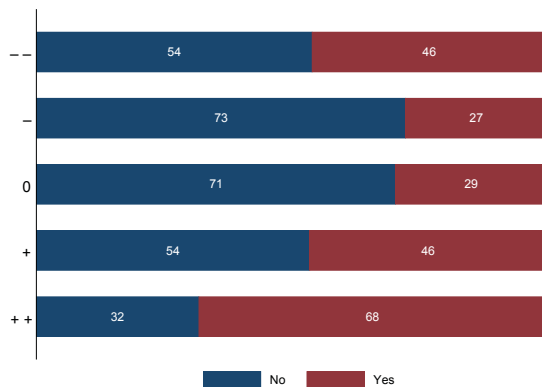
(b) Need to reduce labour input vs access to external financing  
2008–2009



2010–2013



(c) Need to reduce labour input vs customers' ability to pay  
2008–2009



2010–2013

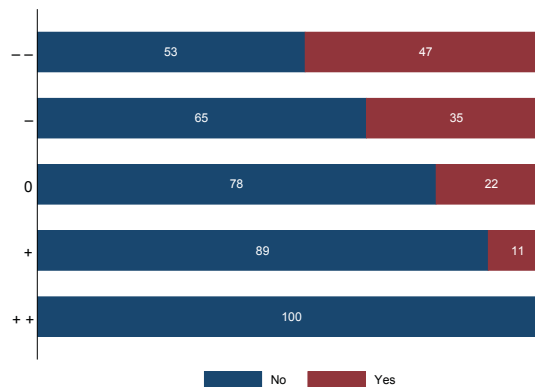


Figure A27  
Measures to reduce labour; wl – employment weights (C33b)

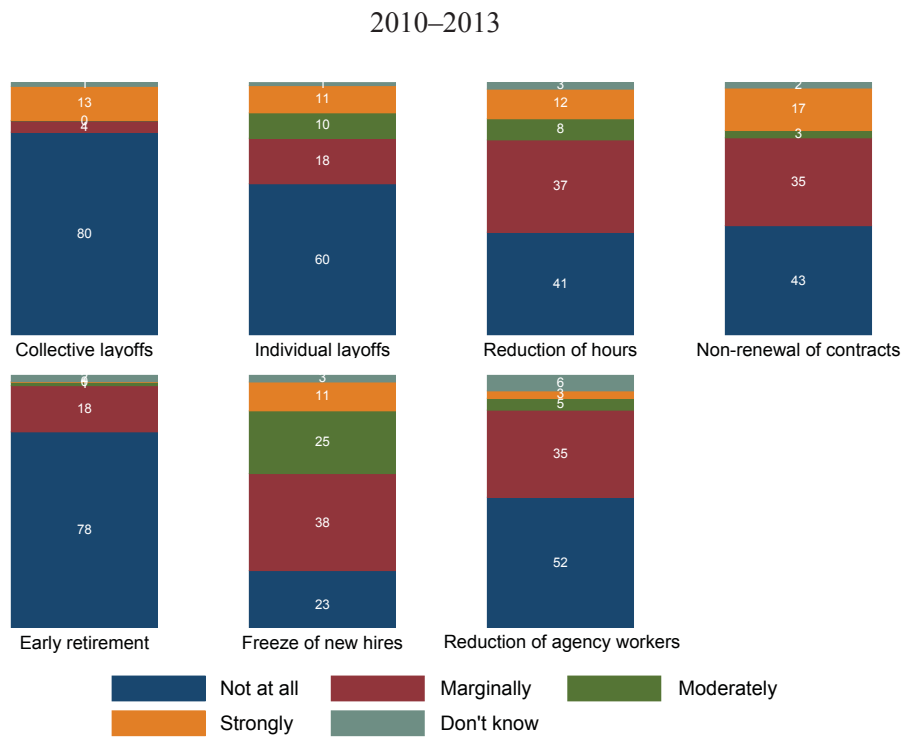
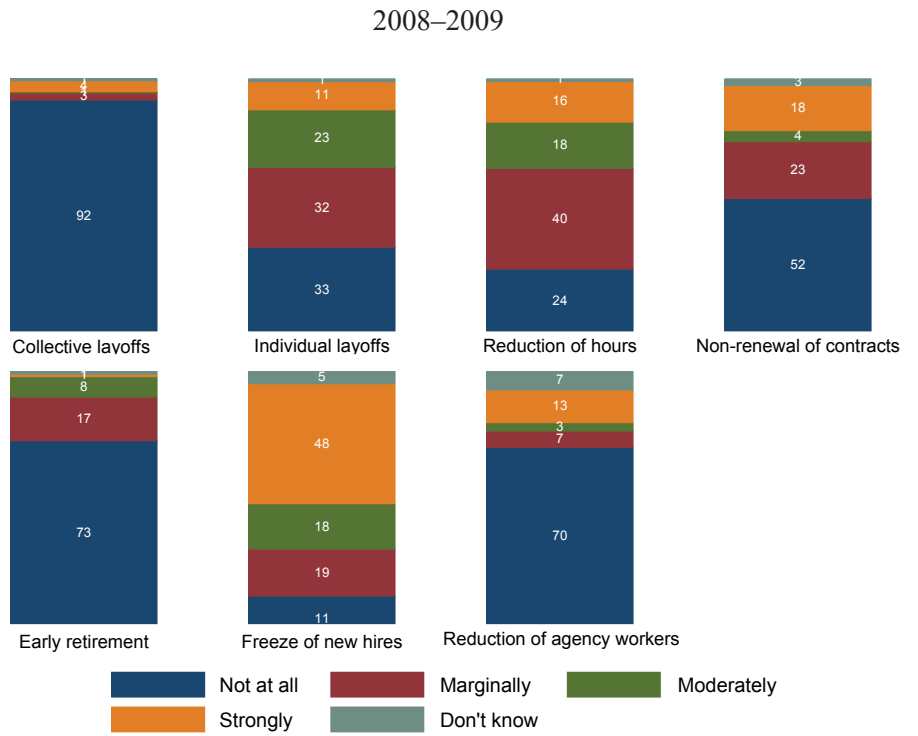
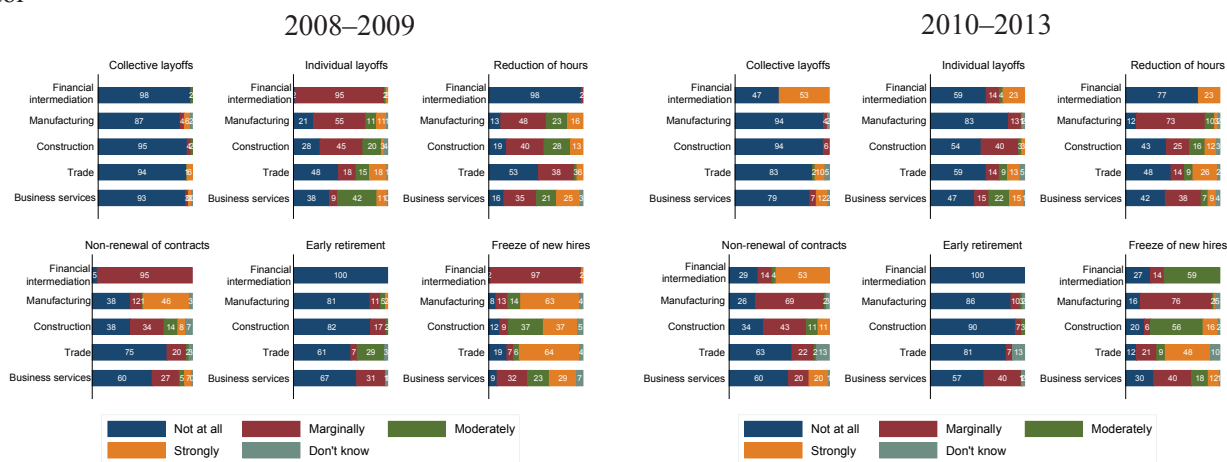


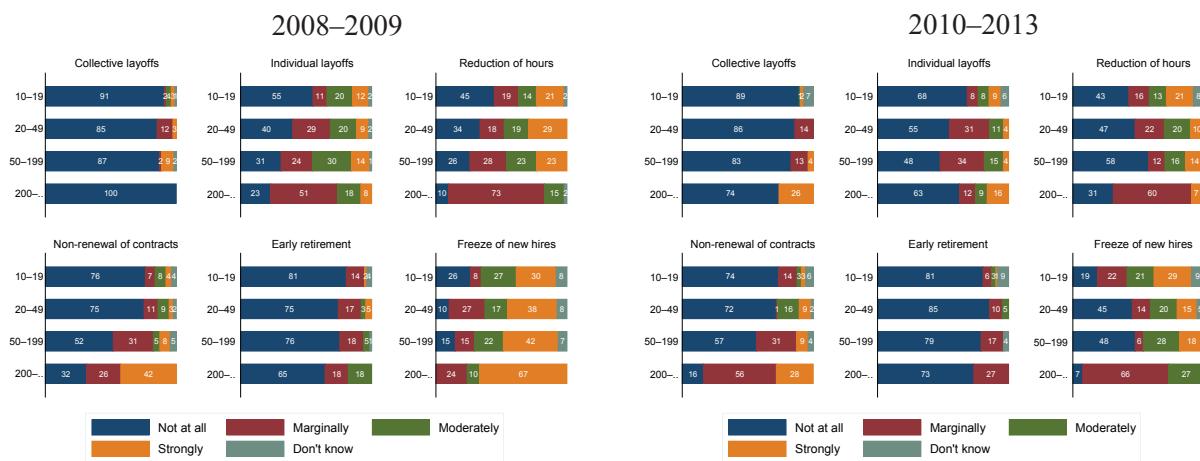
Figure A28

Measures to reduce labour; wl – employment weights (C33b)

(a) Sector



(b) Size



(c) Exports

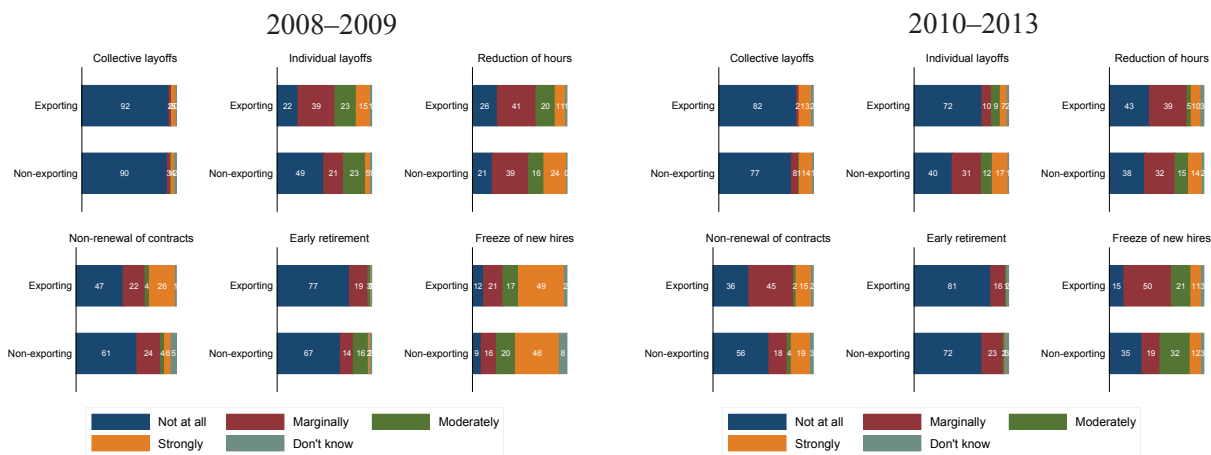
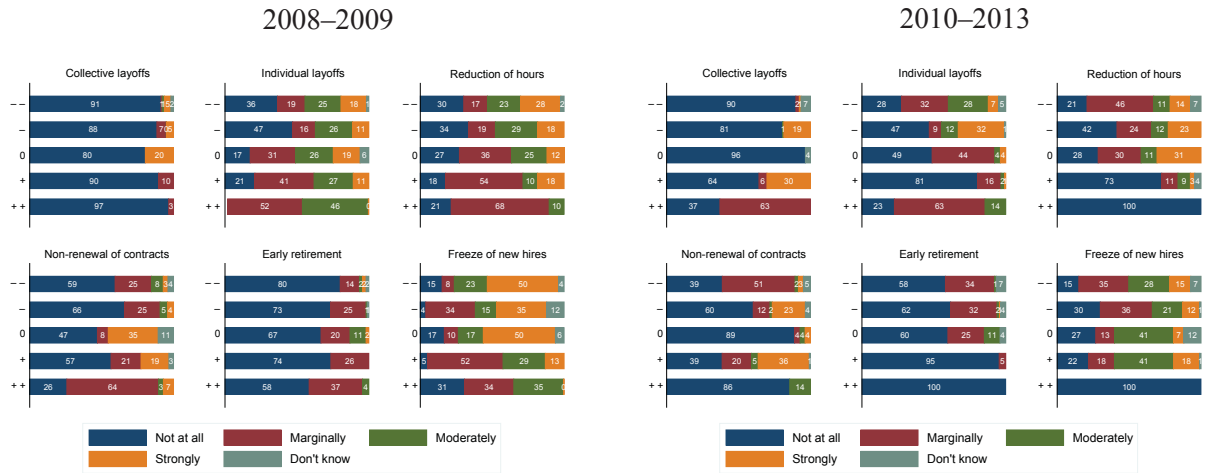


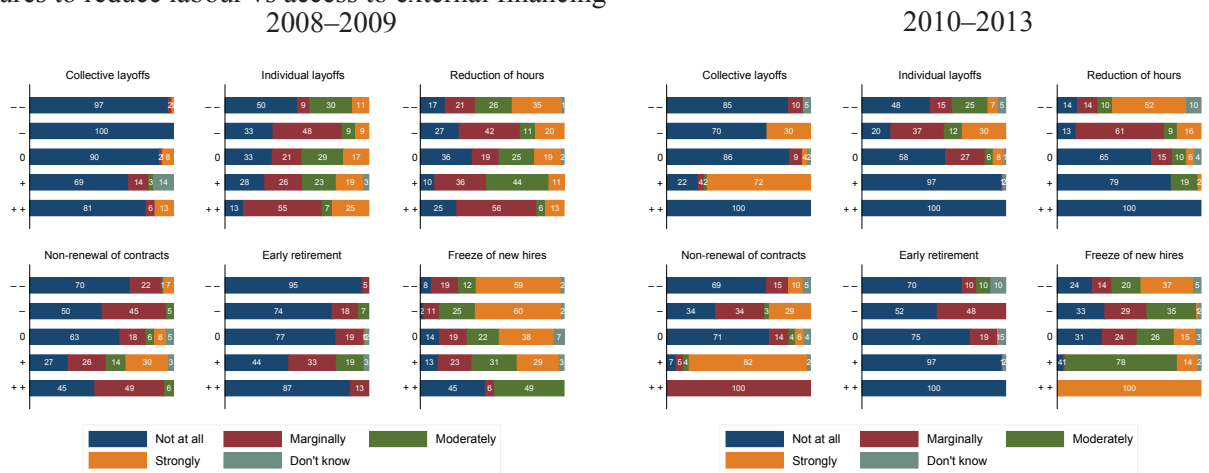
Figure A29

Measures to reduce labour vs change in firms' activity; w1 – employment weights (C33b)

(a) Measures to reduce labour vs demand



(b) Measures to reduce labour vs access to external financing



(c) Measures to reduce labour vs customers' ability to pay

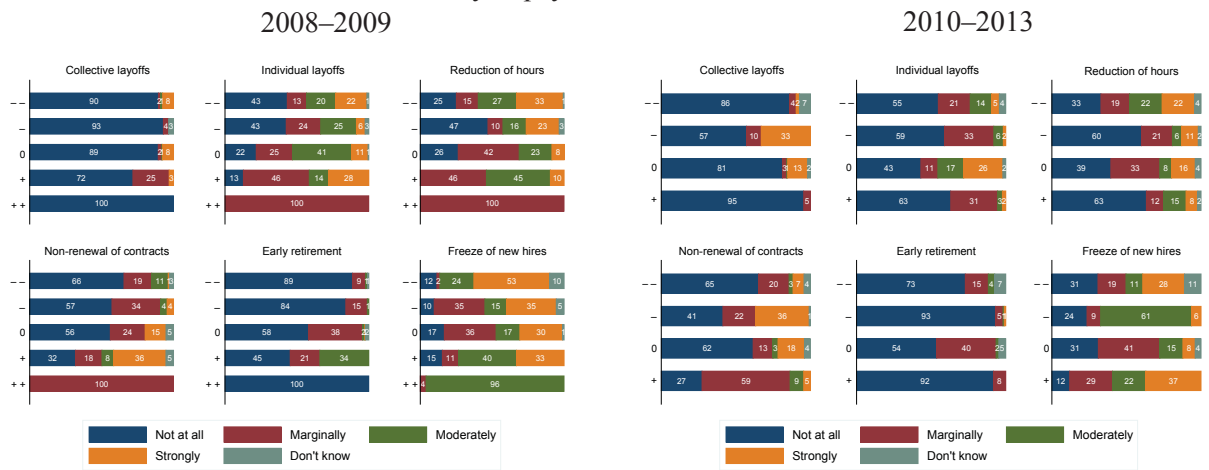




Figure A30

Whether it is easier to reduce labour compared to the previous period; wl – employment weights (C34)

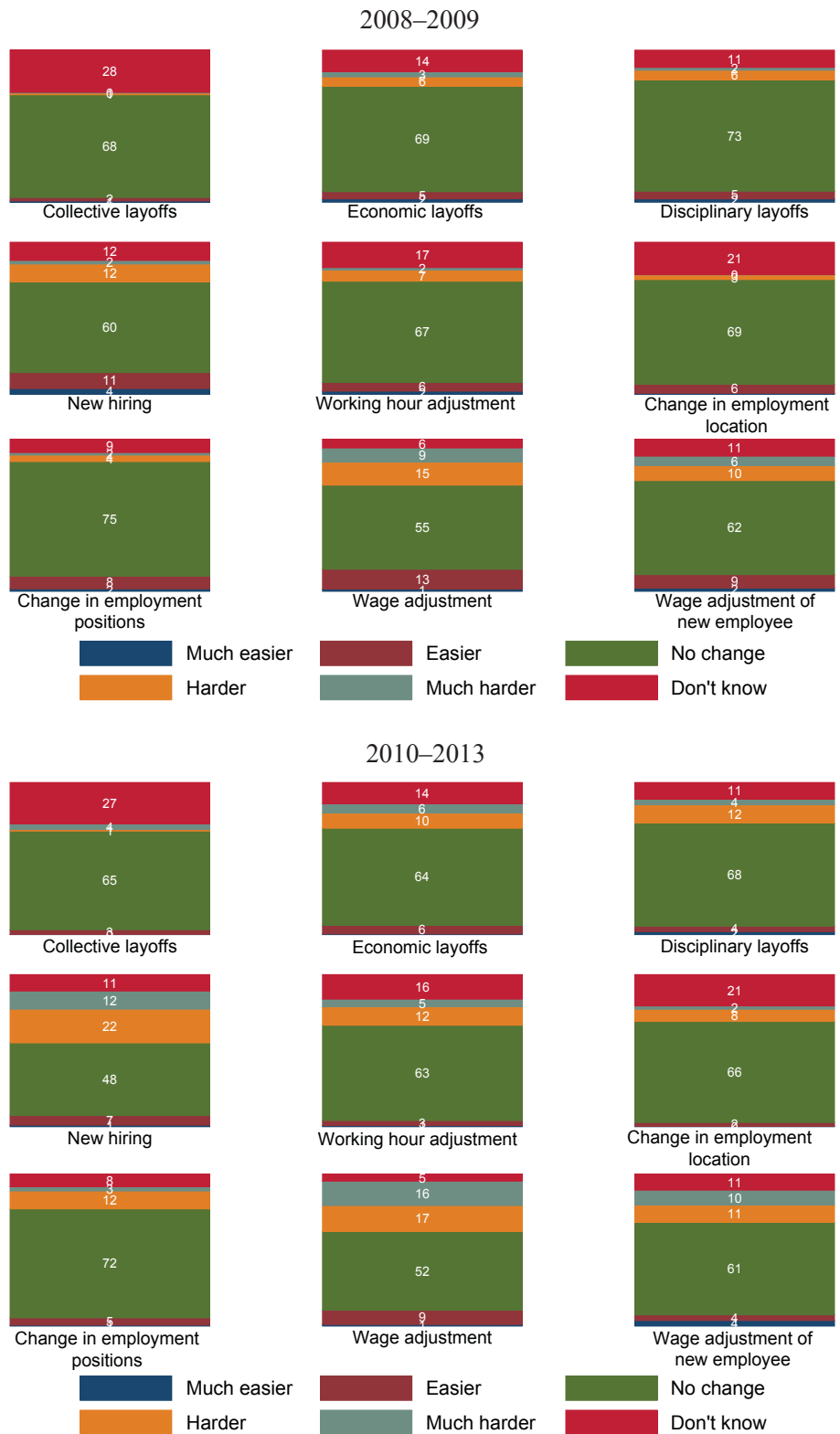


Figure A31

Obstacles to hire new employees in 2013; wl – employment weights (C35)



Figure A.32

Obstacles to hire new employees in 2013; wl – employment weights (C35)

Sector

Size

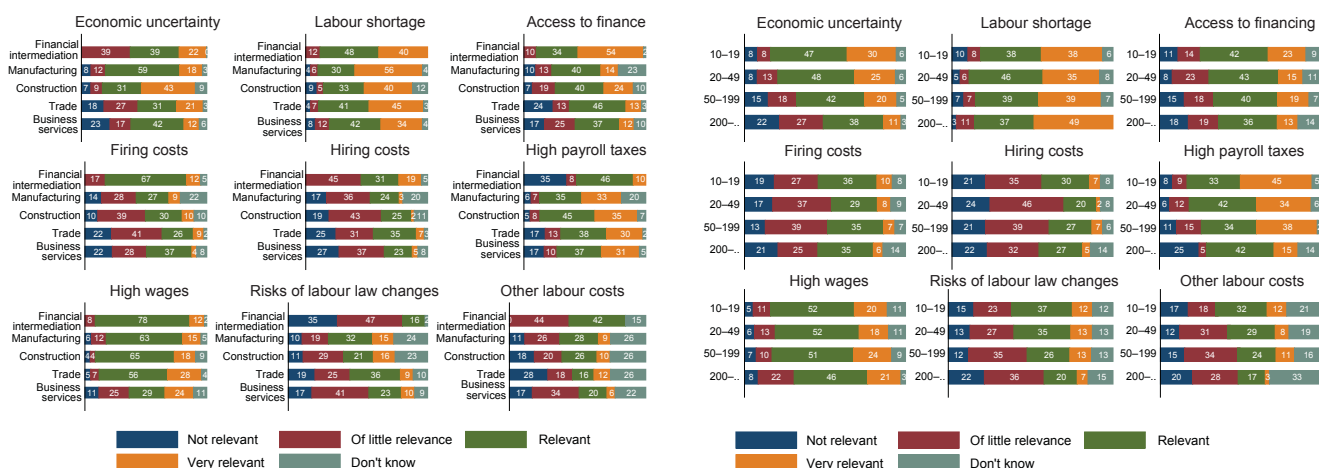
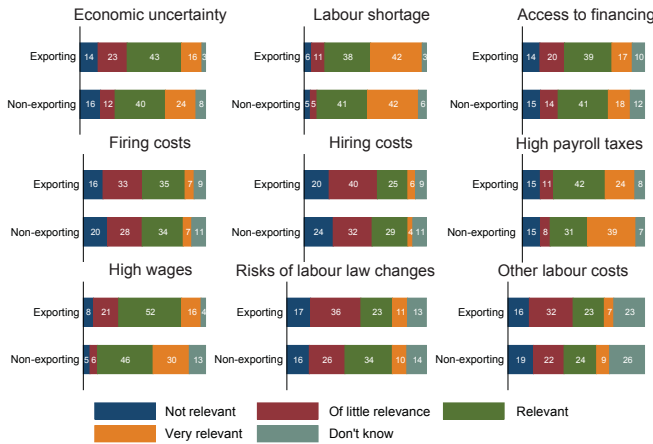
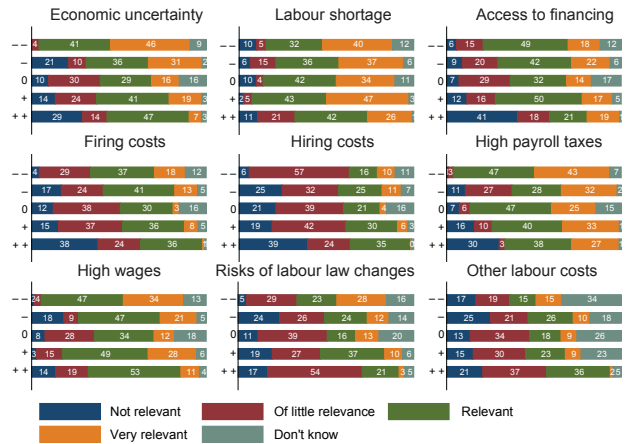


Figure A33  
Obstacles to hire new employees in 2013; w1 – employment weights (C35)

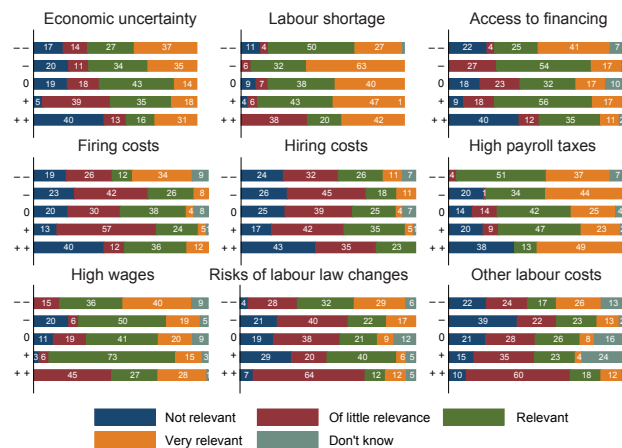
Exports



Demand



Access to external financing



Customers' ability to pay

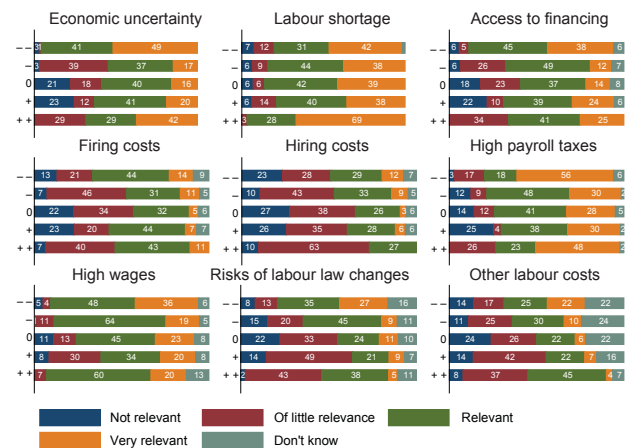
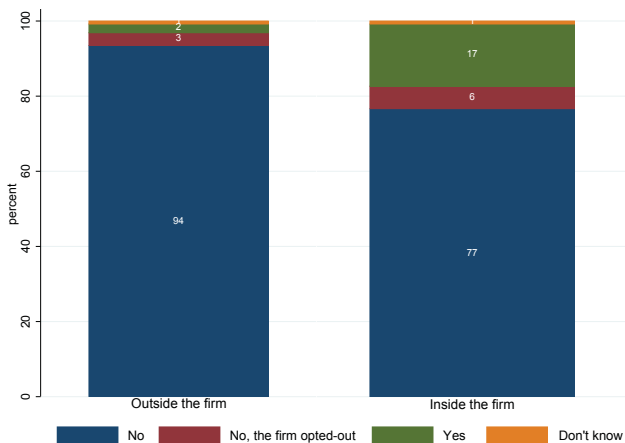


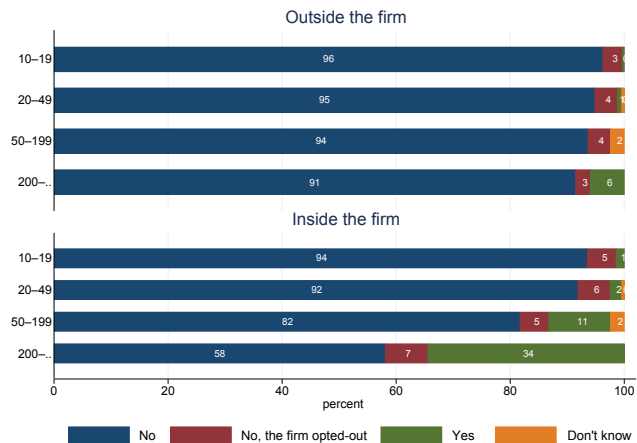
Figure A34

Collective bargaining coverage in 2013; w1 – employment weights (C43)

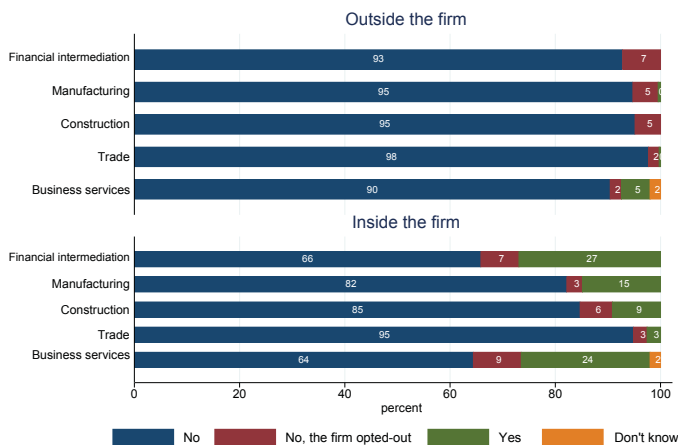
Overall



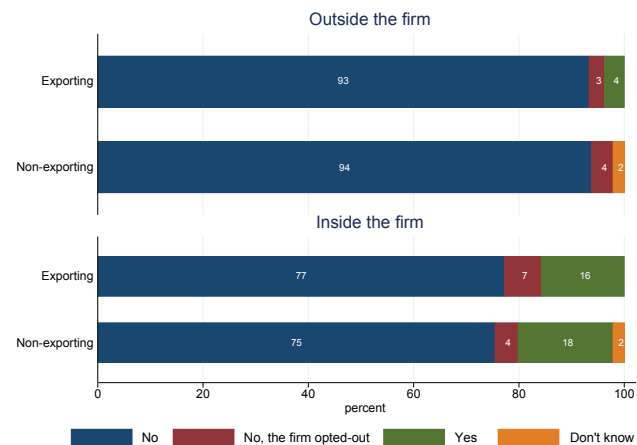
Size



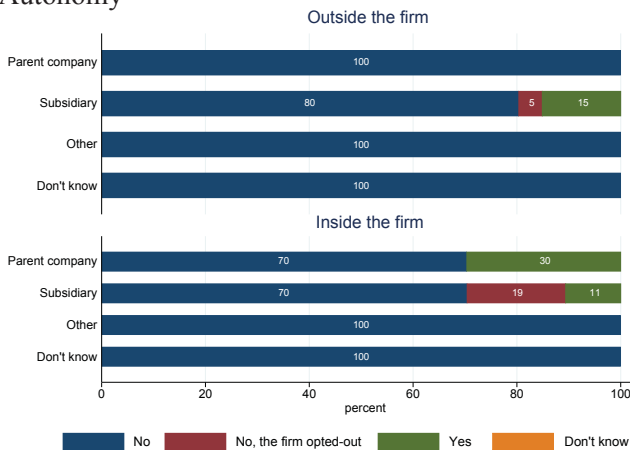
Sector



Exports



Autonomy



Ownership

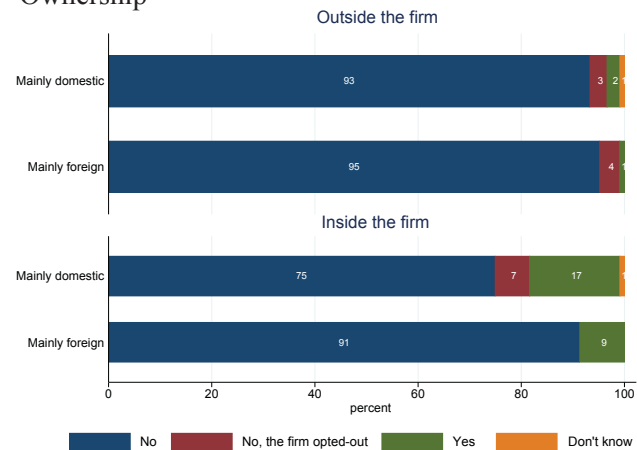
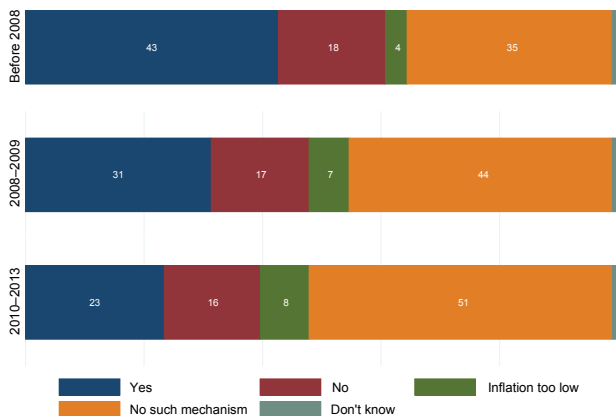
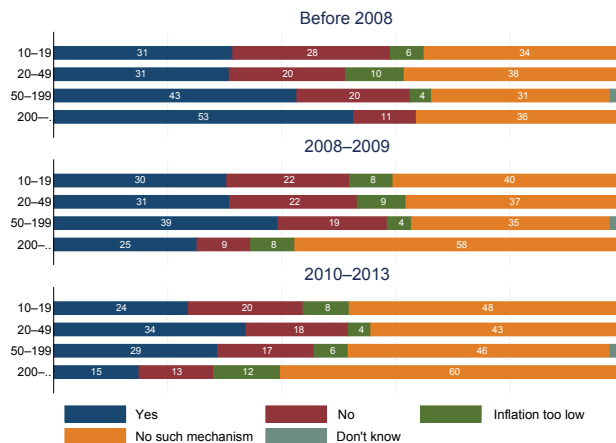


Figure A35  
Wage inflation indexation; w1 – employment weights (C45)

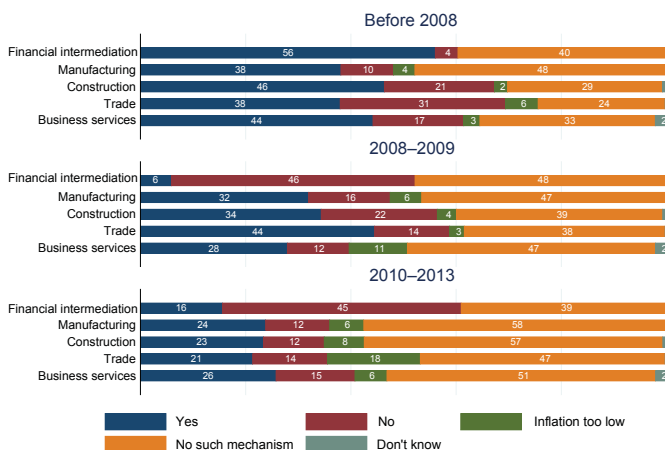
Overall



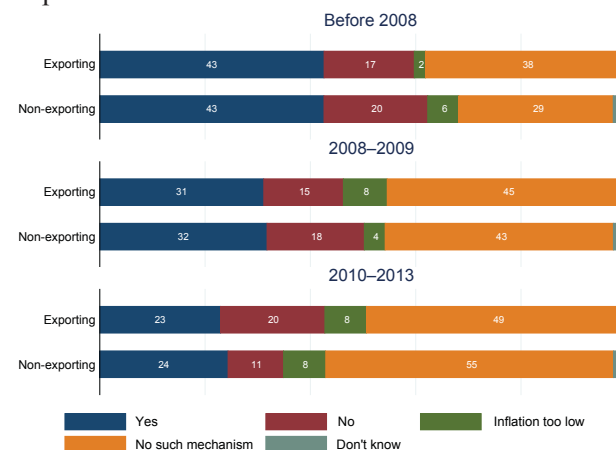
Size



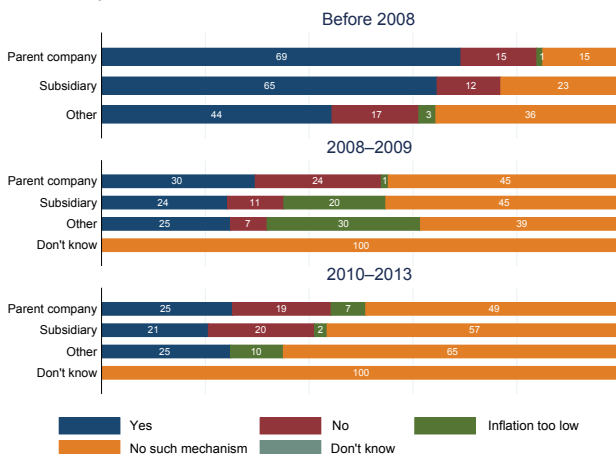
Sector



Exports



Autonomy



Ownership

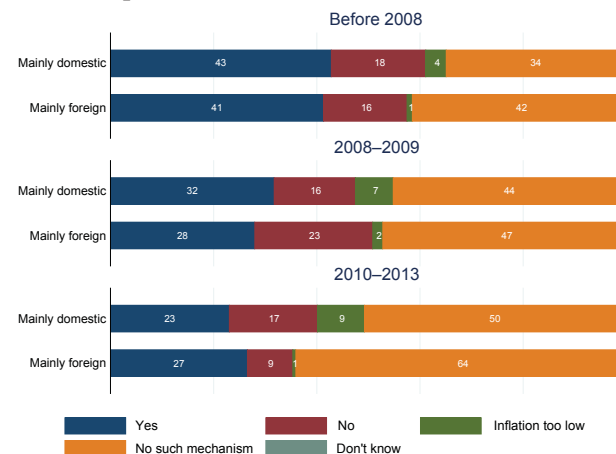
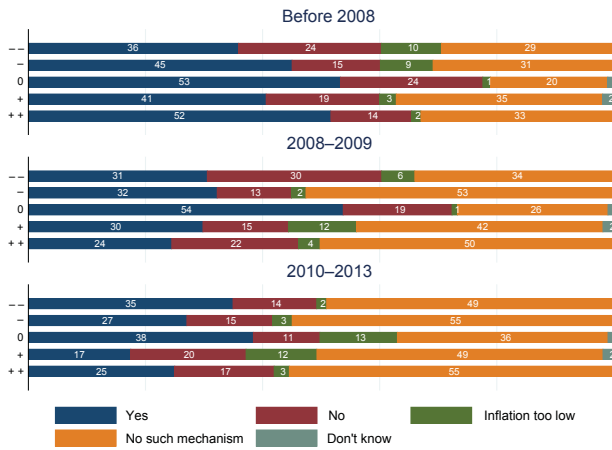


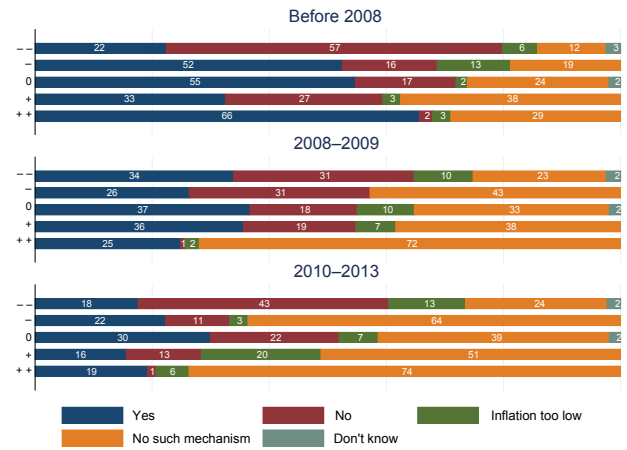
Figure A36

Wage inflation indexation; wl – employment weights (C45)

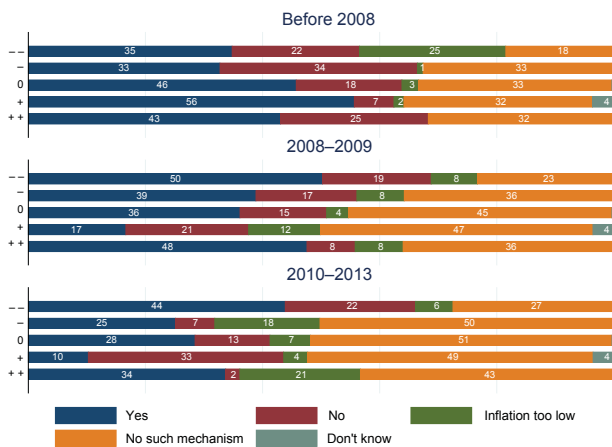
Demand



Access to external financing



Customers' ability to pay



Structure

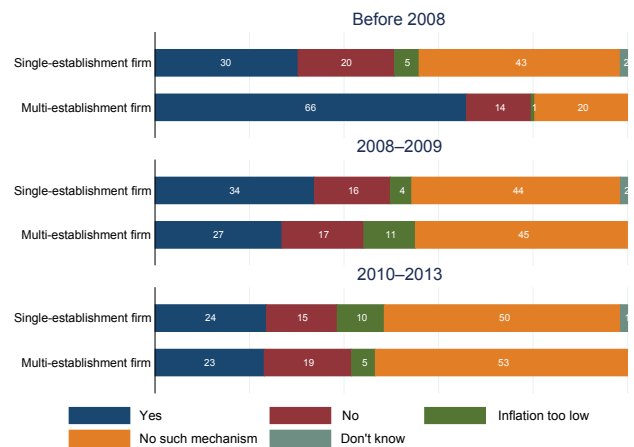
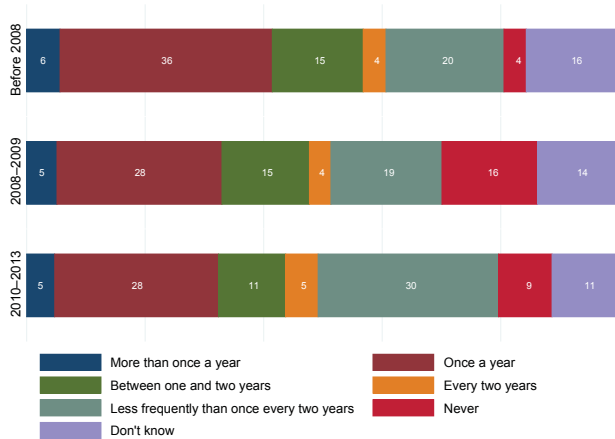


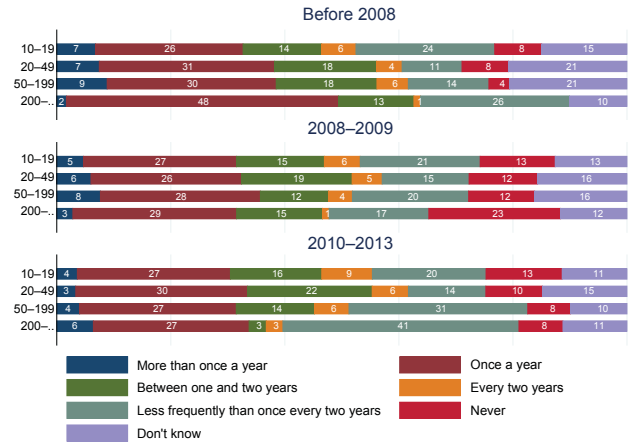
Figure A37

Frequency of wage change; wl – employment weights (C46)

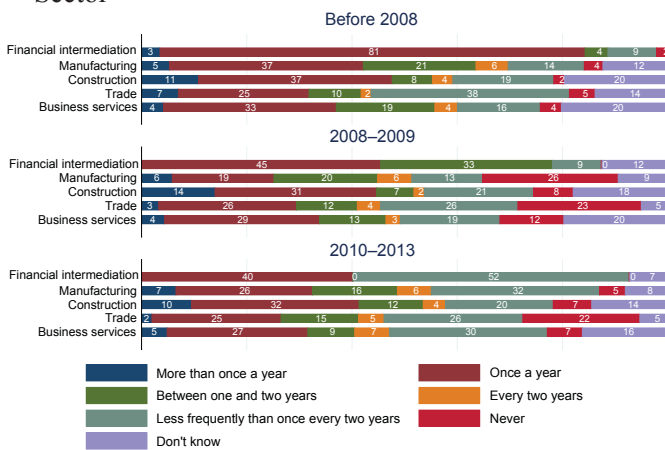
Overall



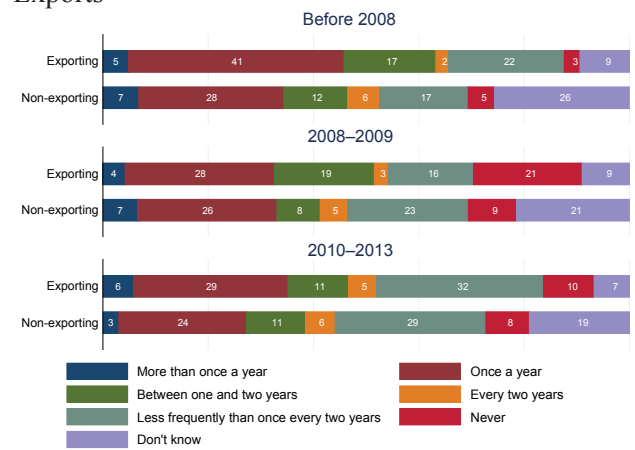
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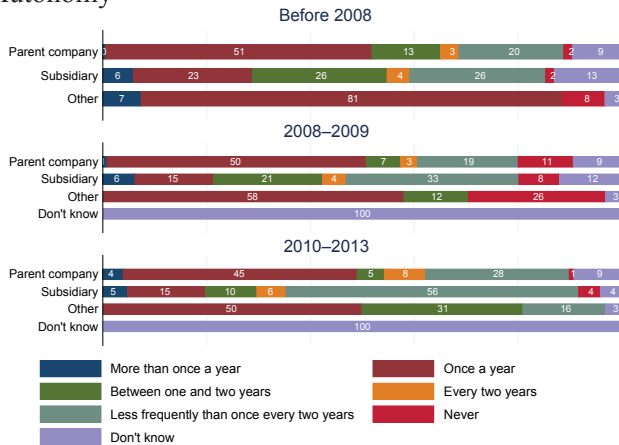
Sector



Exports



Autonomy



Ownership

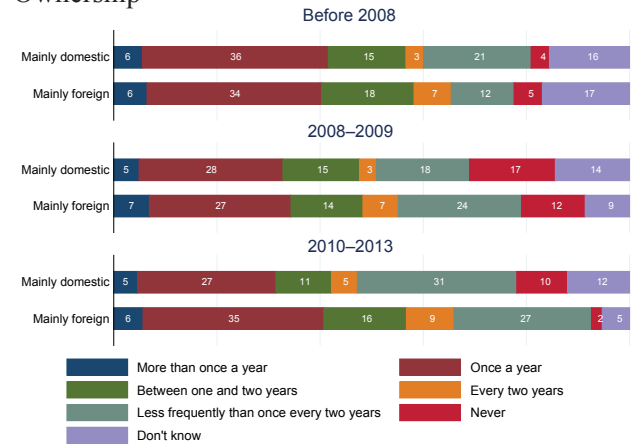
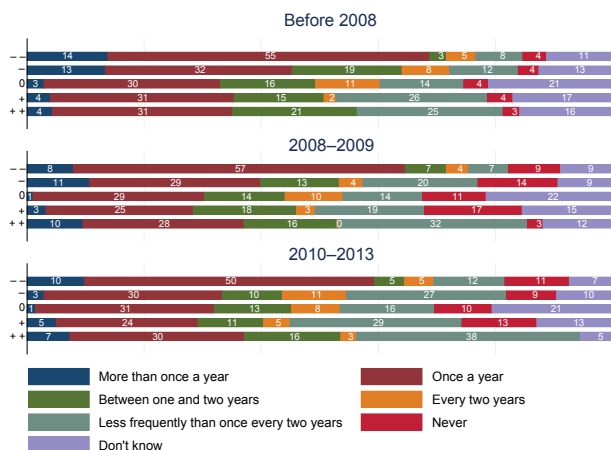


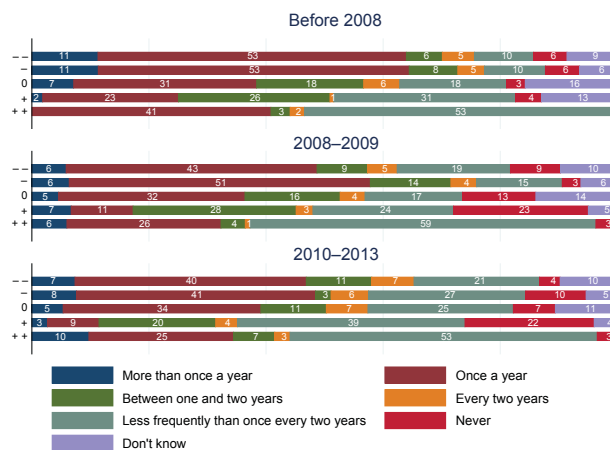
Figure A38

Frequency of wage change; w1 – employment weights (C46)

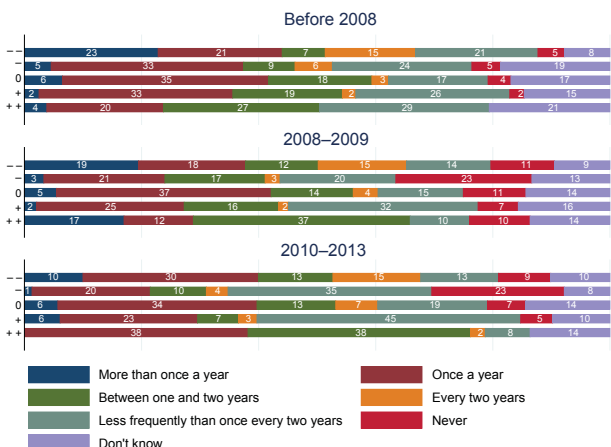
Demand



Access to external financing



Customers' ability to pay



Structure

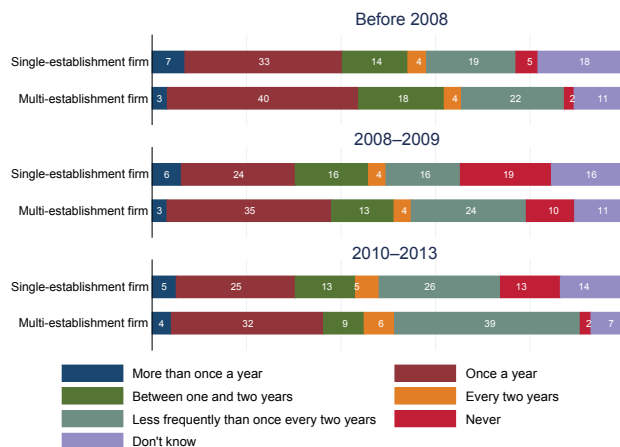




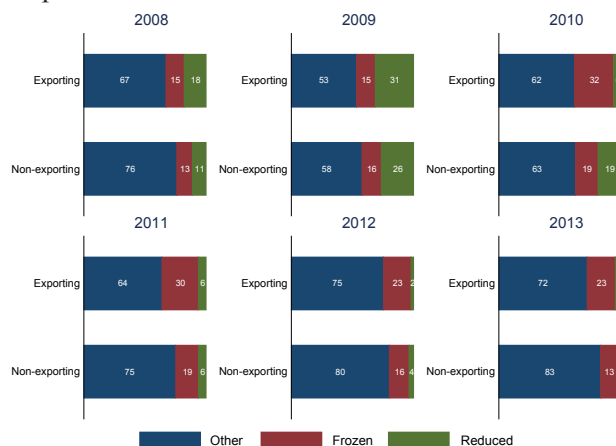
Figure A39

Wage freeze and cut strategies; w1 – employment weights (C47)

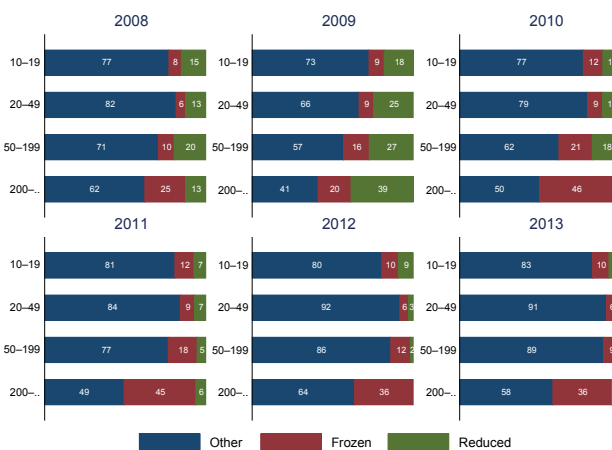
Overall



Exports



Size



Sector



Autonomy



Ownership

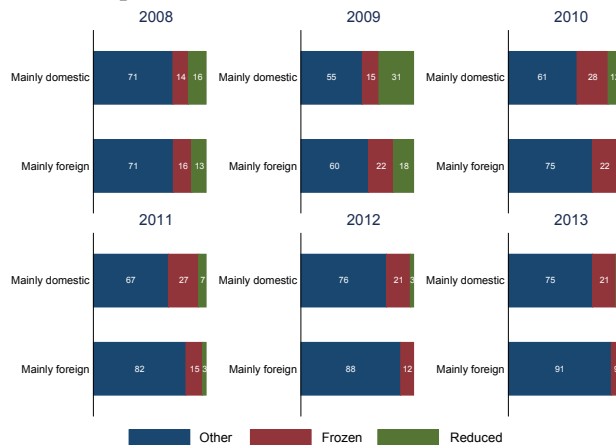


Figure A40

Wage freeze and cut strategies; wl – employment weights (C47)

Demand



Access to external financing



Customers' ability to pay



Structure

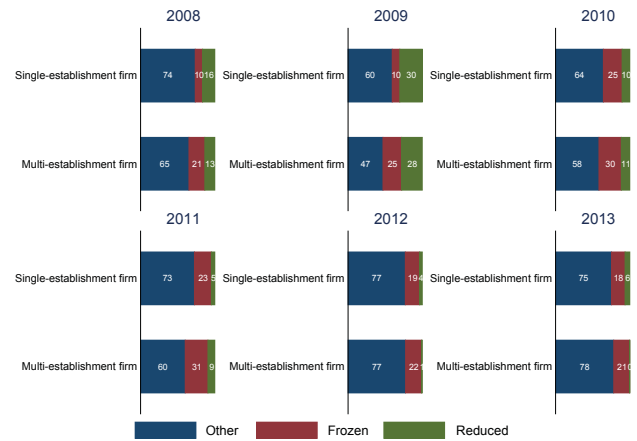
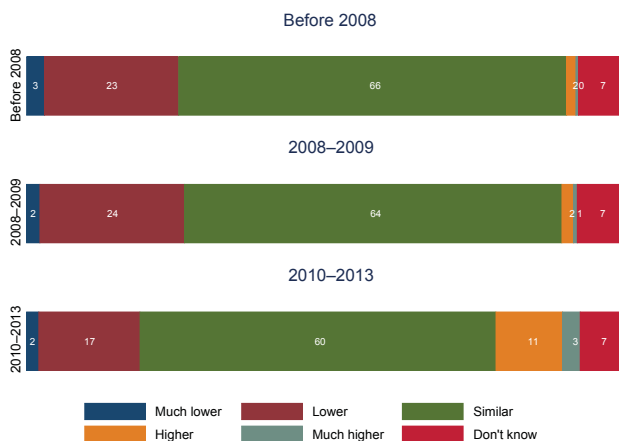


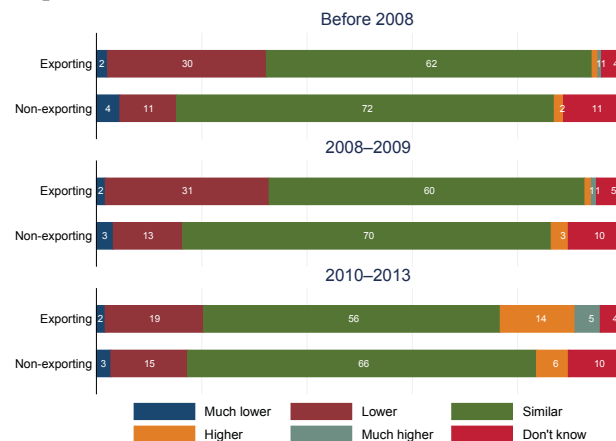
Figure A41

Wages of newly hired employees; w1 – employment weights (C48)

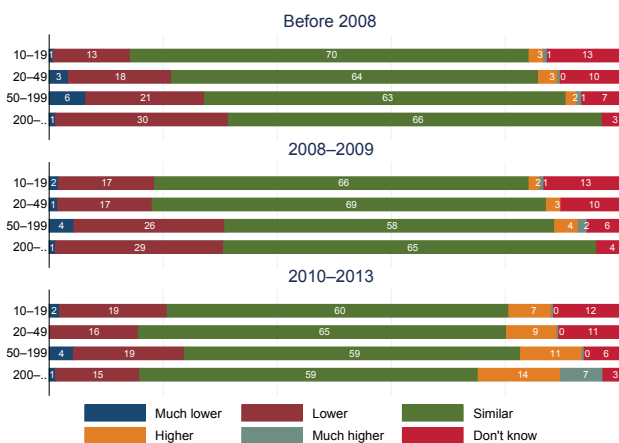
Overall



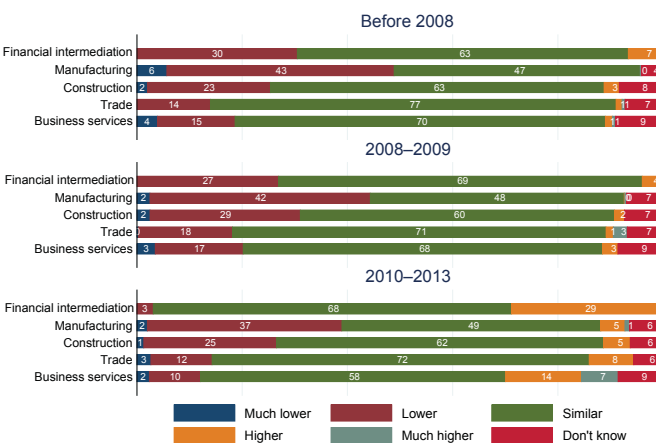
Exports



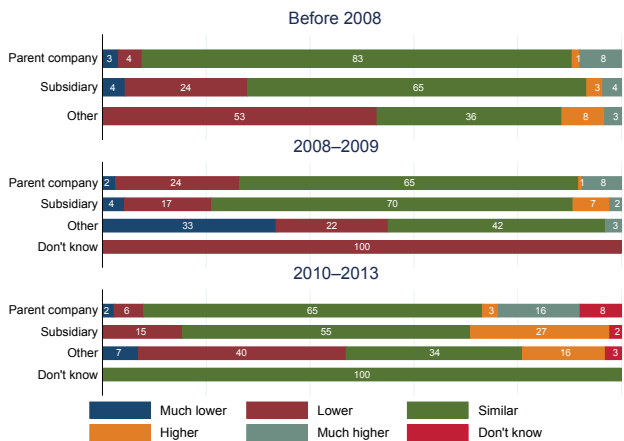
Size



Sector



Autonomy



Ownership

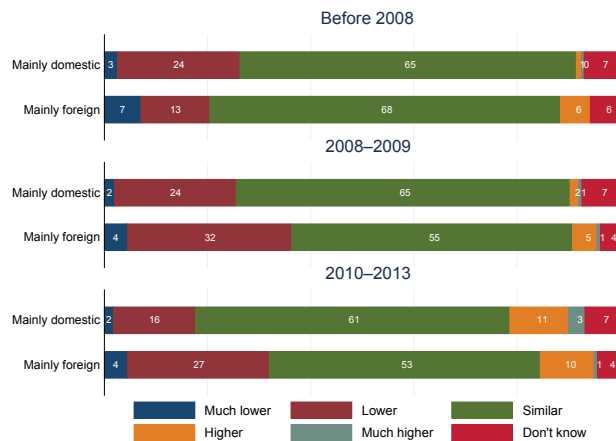
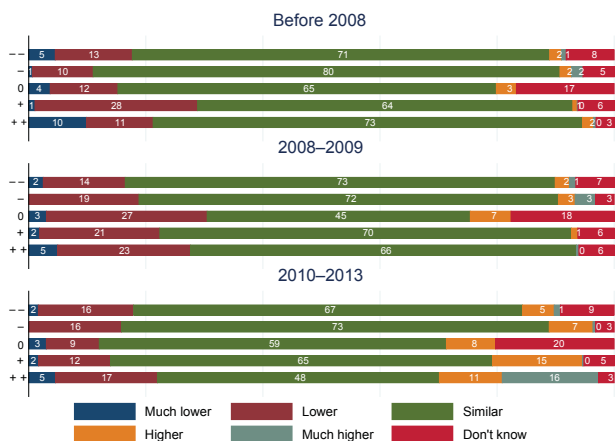


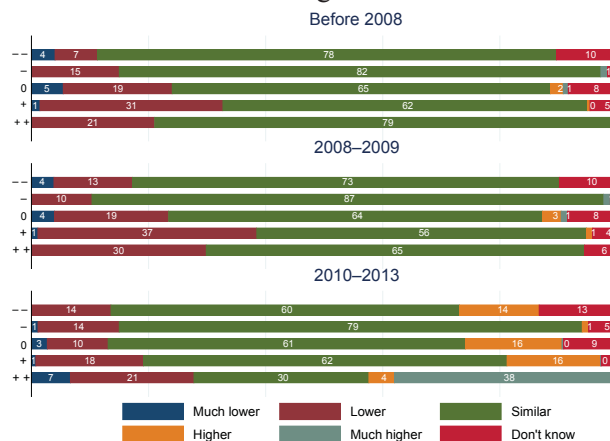
Figure A42

Wages of newly hired employees; w1 – employment weights (C48)

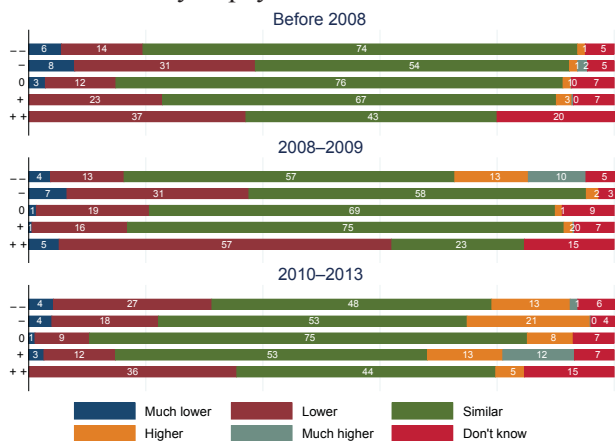
Demand



Access to external financing



Customers' ability to pay



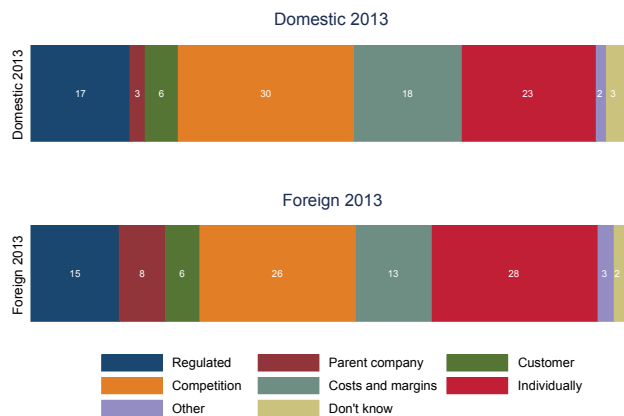
Structure



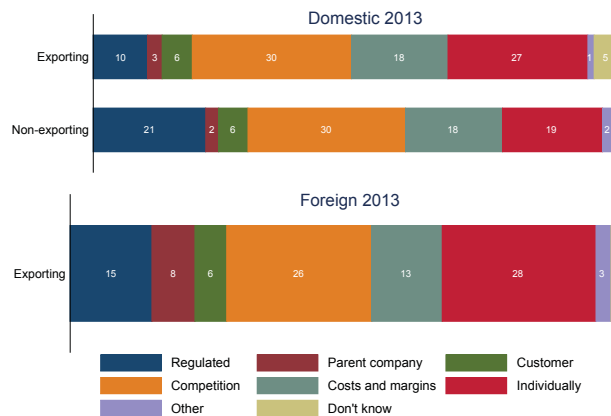
Figure A43

Autonomy level of the price setting policy of firms in 2013; wb – firm number weights (C51)

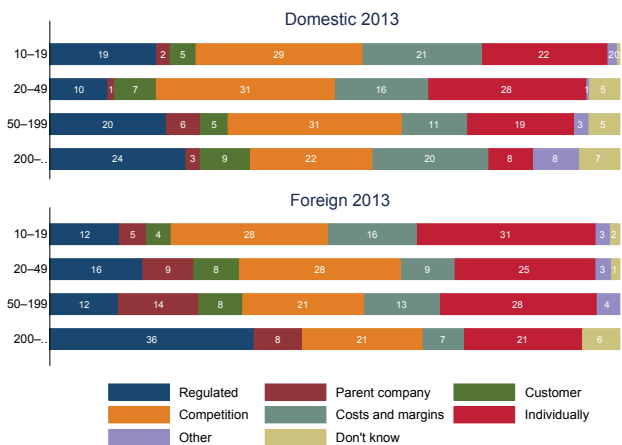
Overall



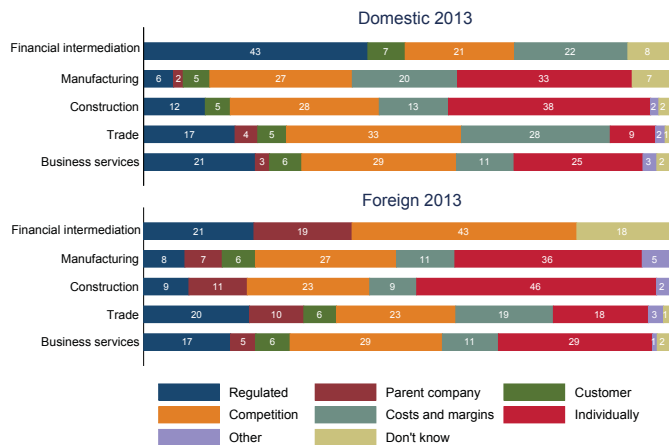
Exports



Size



Sector



Structure



Ownership

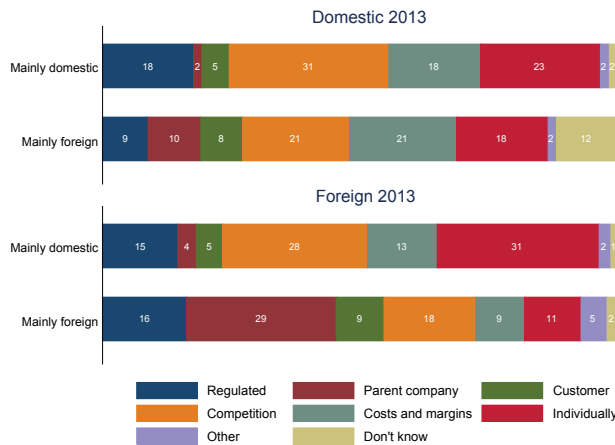
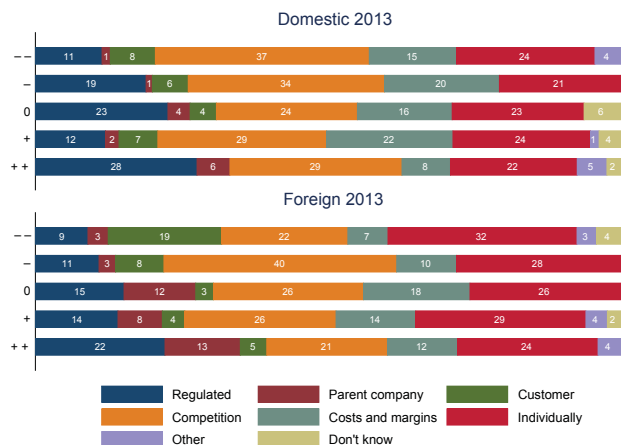


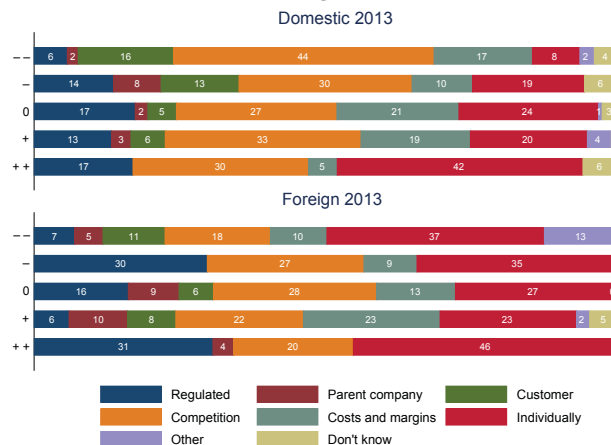
Figure A44

Autonomy level of the price setting policy of firms in 2013; wb – firm number weights (C51)

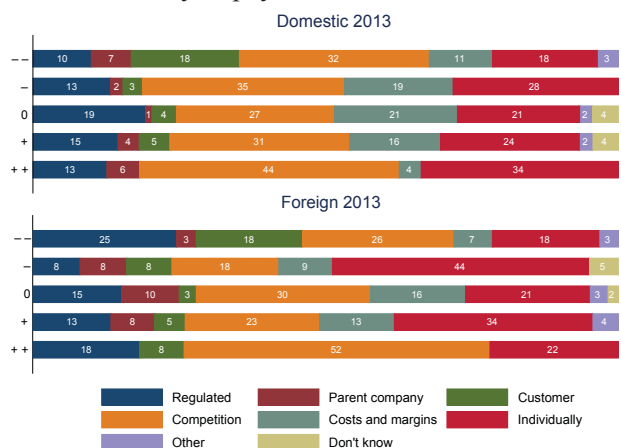
Demand



Access to external financing



Customers' ability to pay



Autonomy

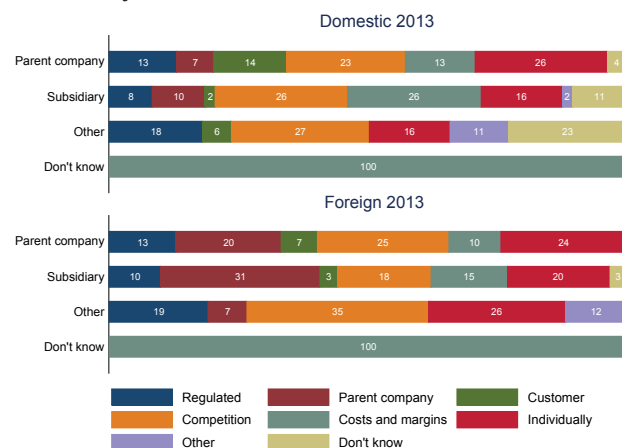
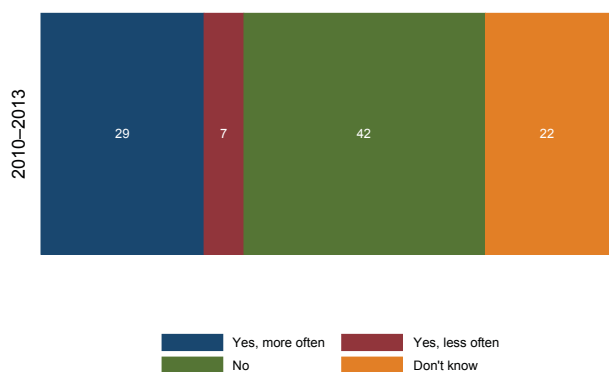


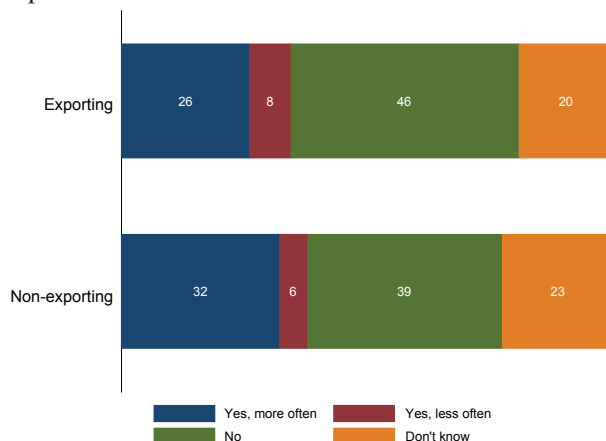
Figure A45

**Change in the price adjustment frequency in 2010–2013 compared to the period before 2008; wb – firm number weights (C53)**

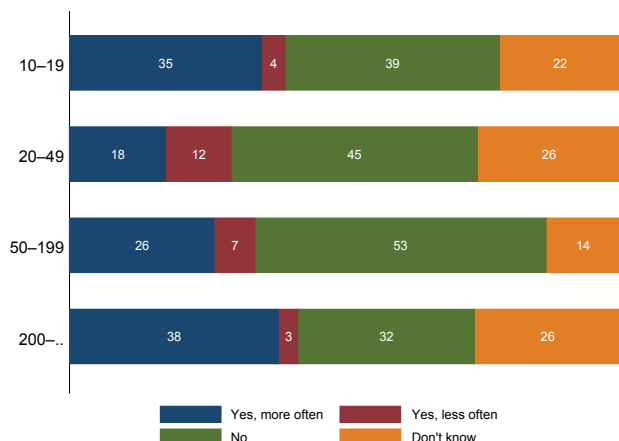
Overall



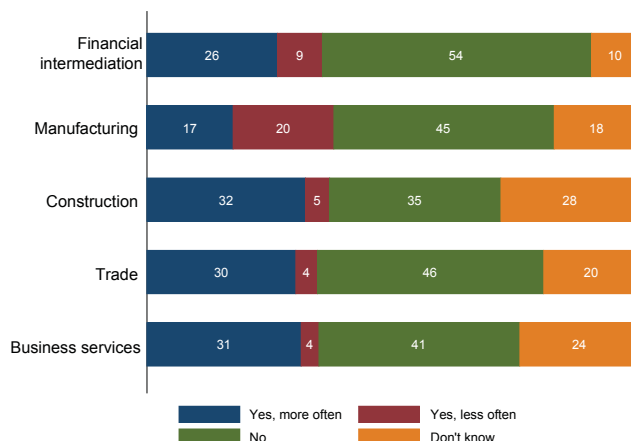
Exports



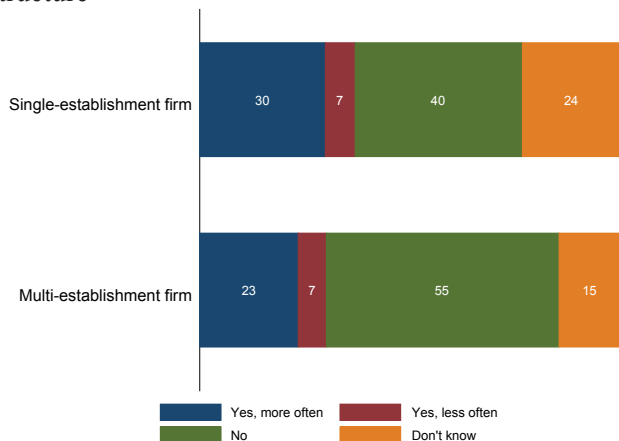
Size



Sector



Structure



Ownership

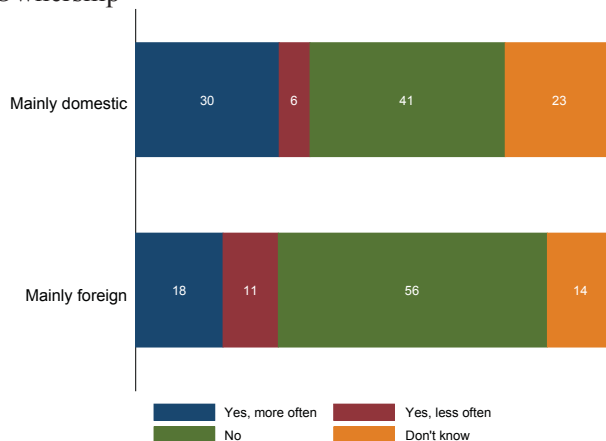
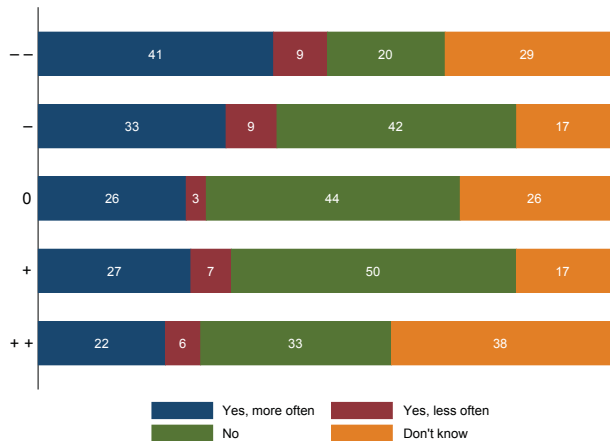


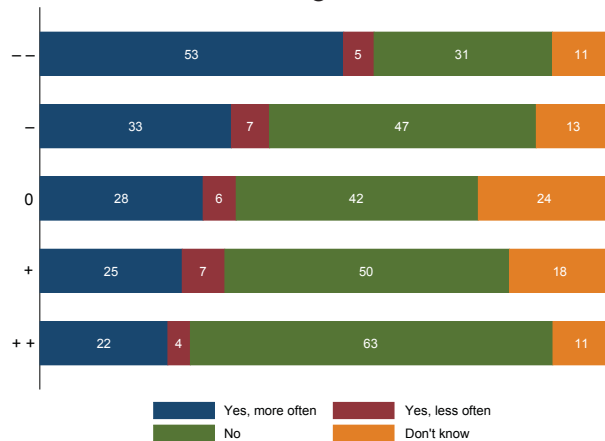
Figure A46

Change in the price adjustment frequency in 2010–2013 compared to the period before 2008;  
wb – firm number weights (C53)

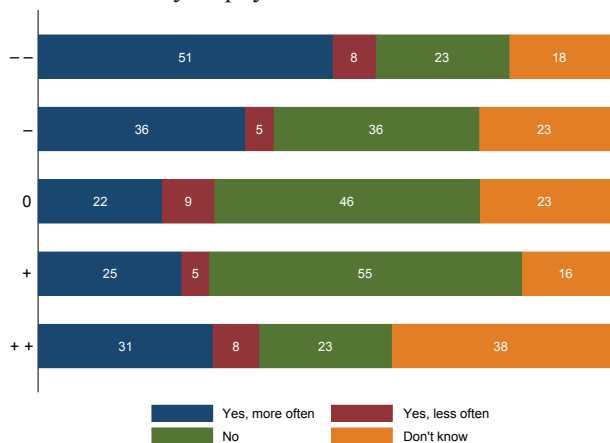
Demand



Access to external financing



Customers' ability to pay



Autonomy

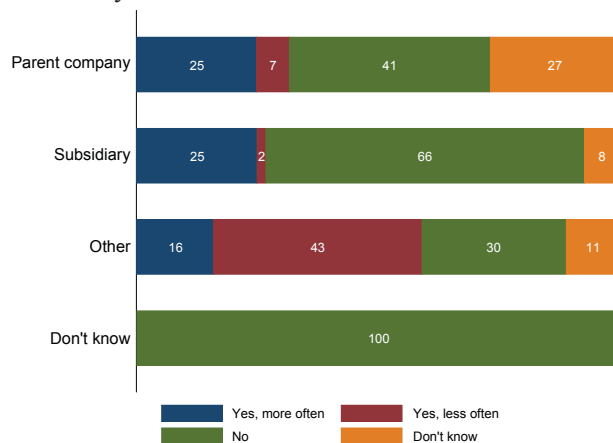
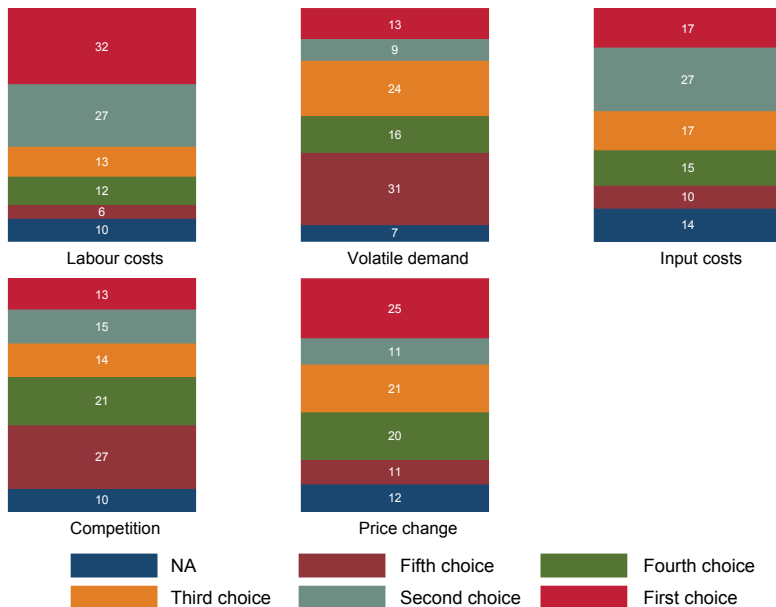




Figure A47

If the price changed more/less frequently in 2010–2013 compared to the period before 2008, what were the reasons (first choice – the most relevant); wb – firm number weights (C53a)

More often



Less often

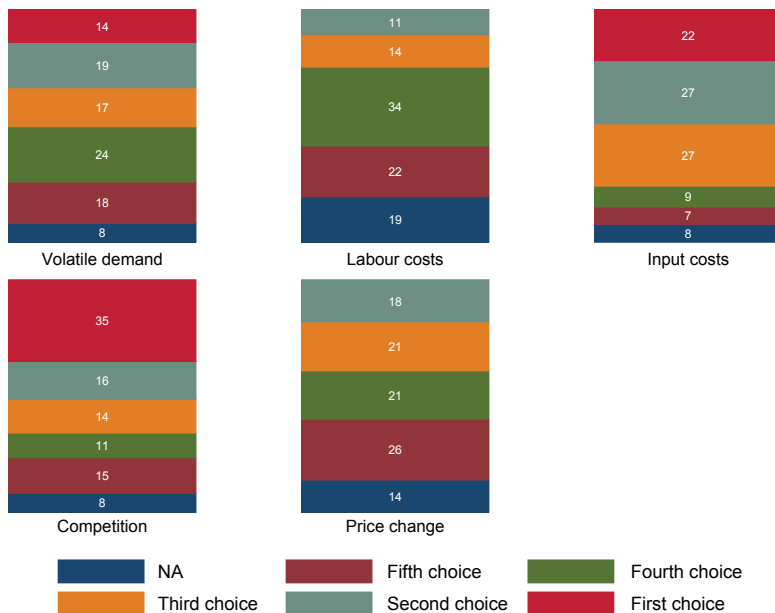
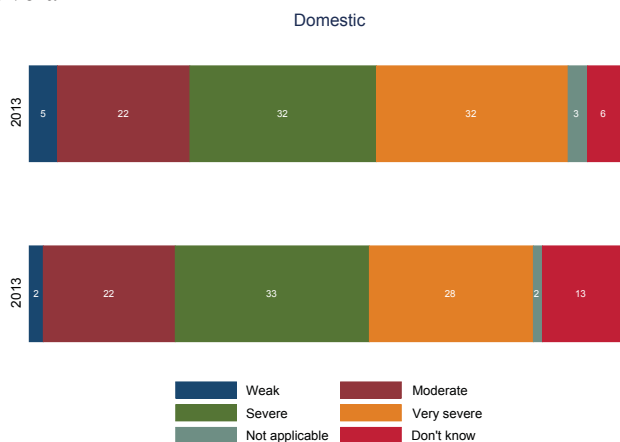


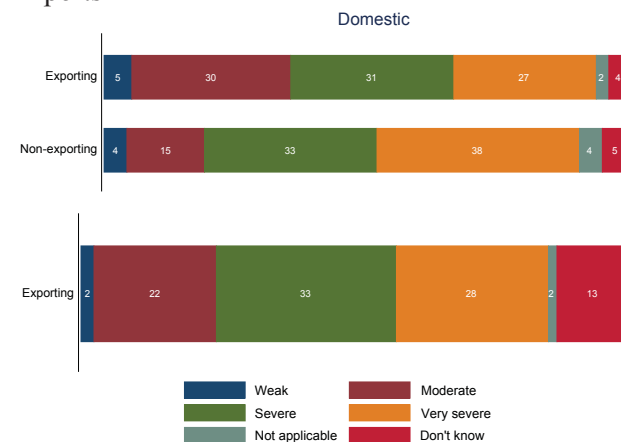
Figure A48

Degree of competition at the end of 2013; wb – firm number weights (C54)

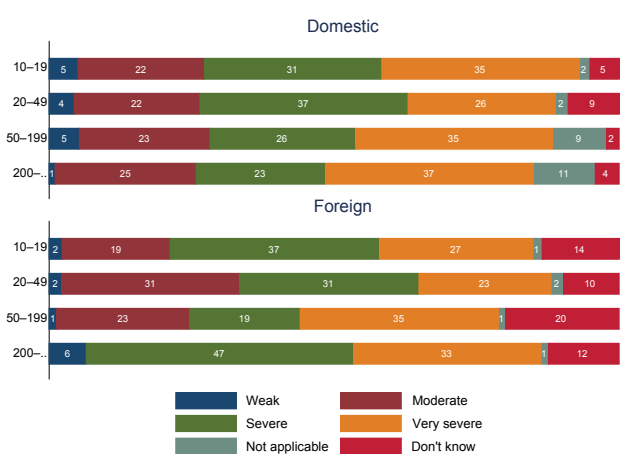
Overall



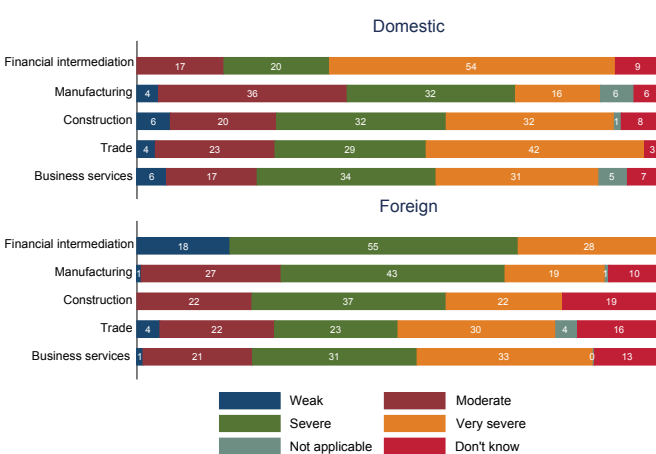
Exports



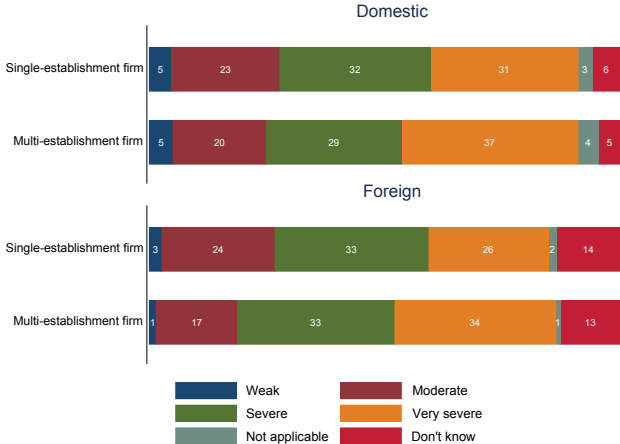
Size



Sector



Structure



Ownership

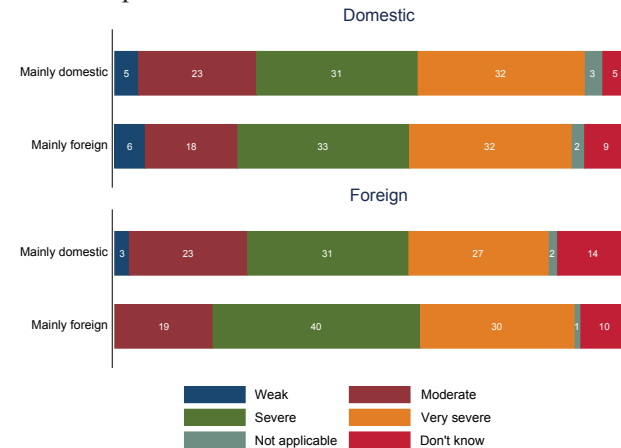
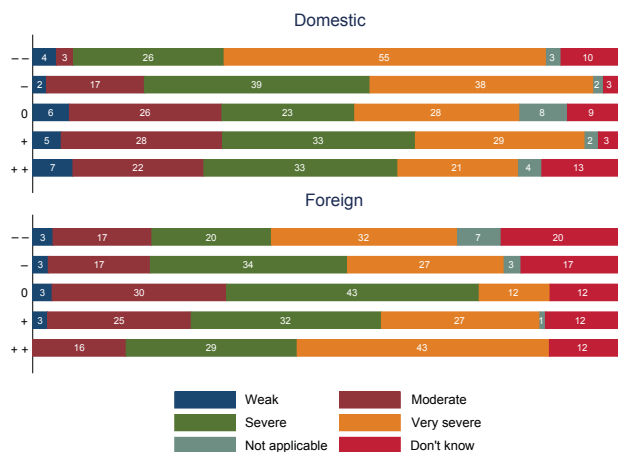


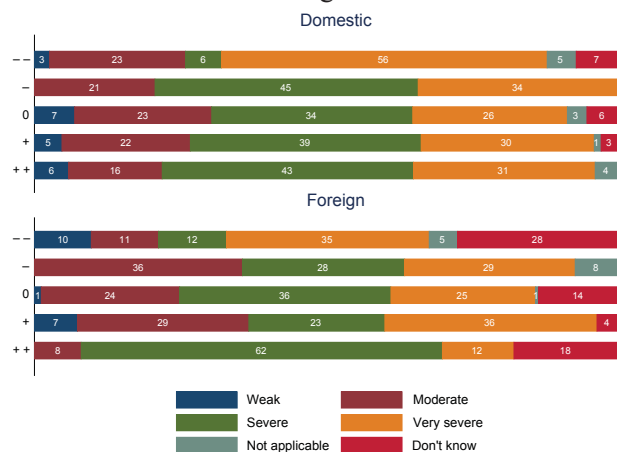
Figure A49

Degree of competition at the end of 2013; wb – firm number weights (C54)

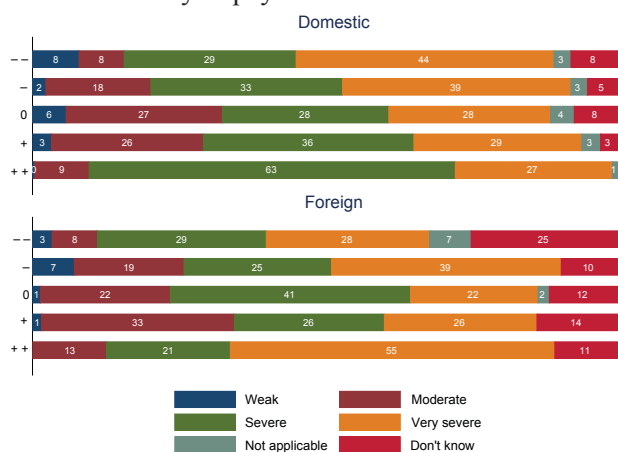
Demand



Access to external financing



Customers' ability to pay



Autonomy

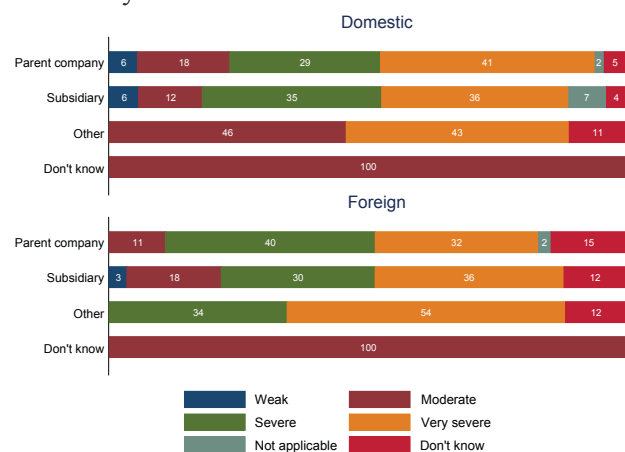
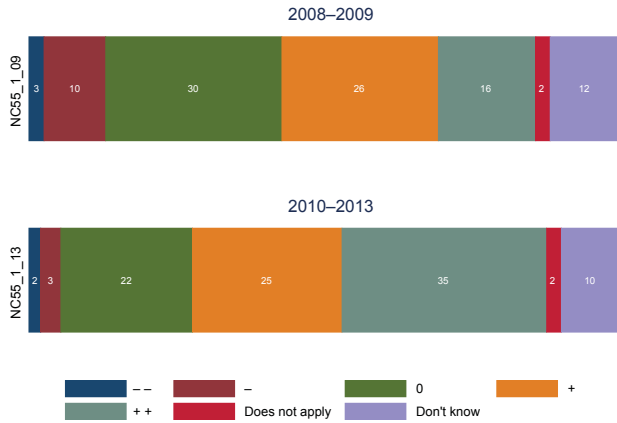


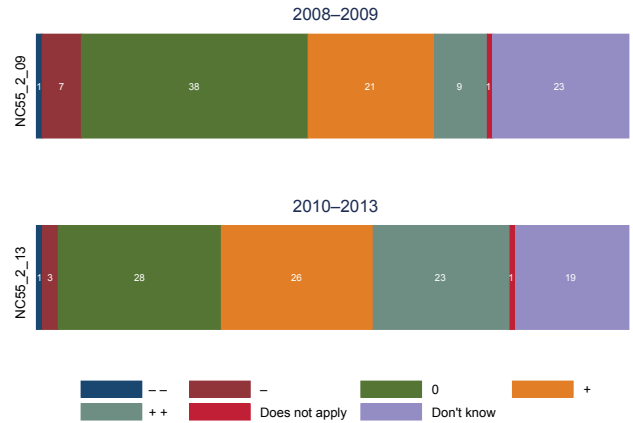
Figure A50

Change in the degree of competition compared to the situation before the corresponding period;  
wb – firm number weights (C55)

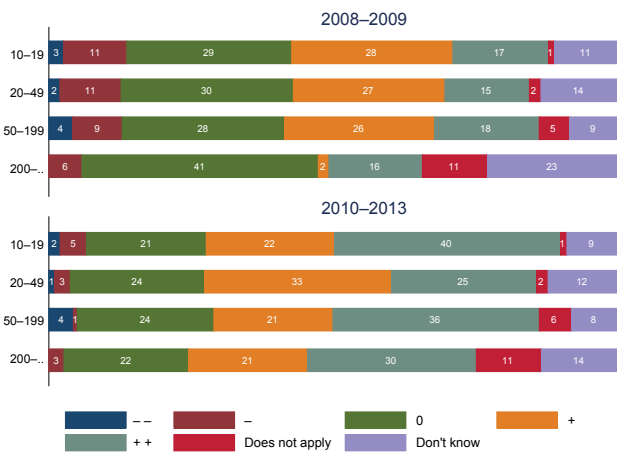
Domestic market (overall)



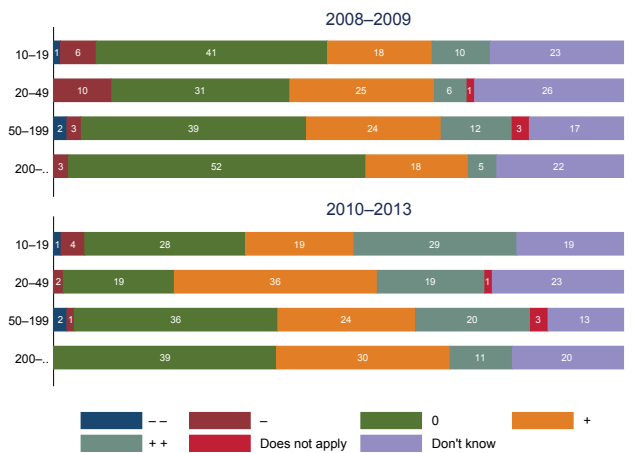
Foreign market (overall)



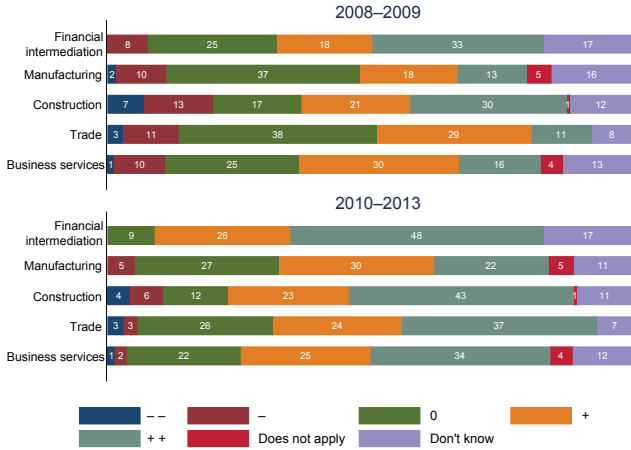
Size (domestic market)



Size (foreign market)



Sector (domestic market)



Sector (foreign market)

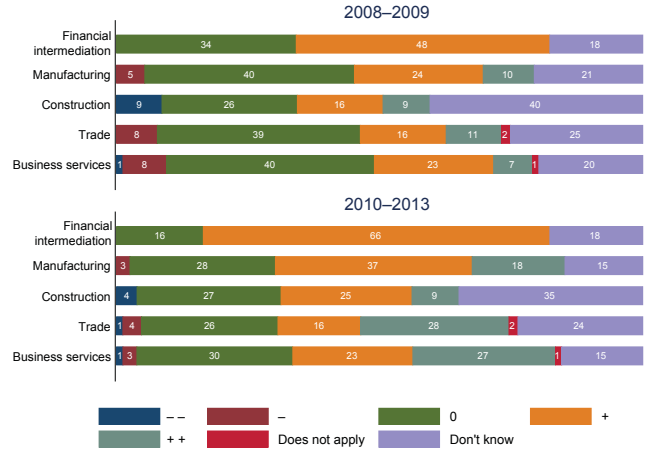
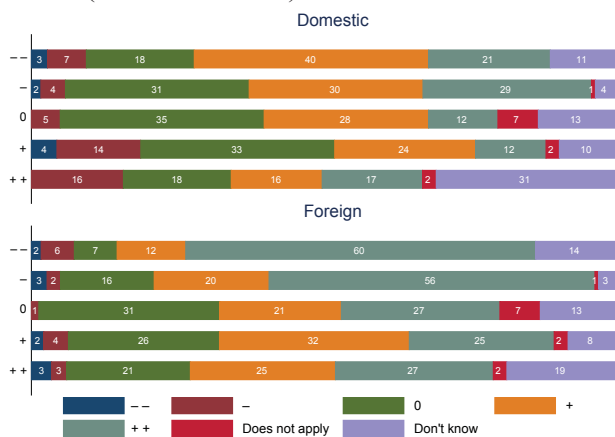


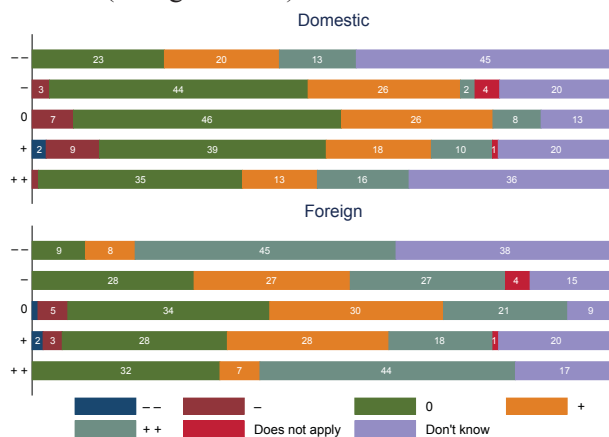
Figure A51

Change in the degree of competition compared to the situation before the corresponding period;  
wb – firm number weights (C55)

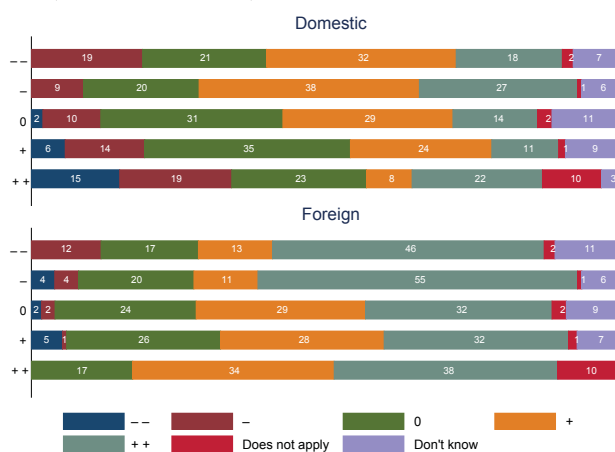
Demand (domestic market)



Demand (foreign market)



Price (domestic market)



Price (foreign market)

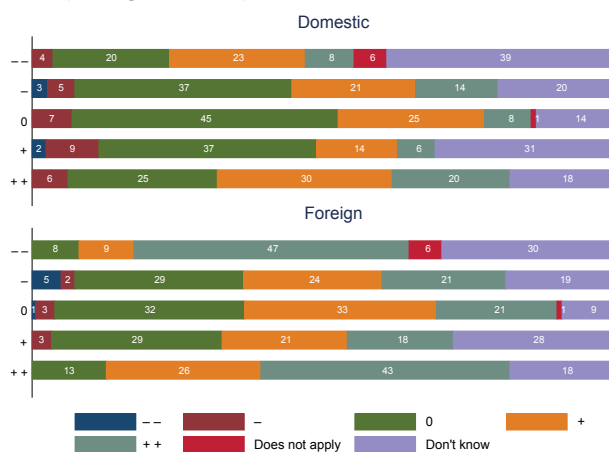
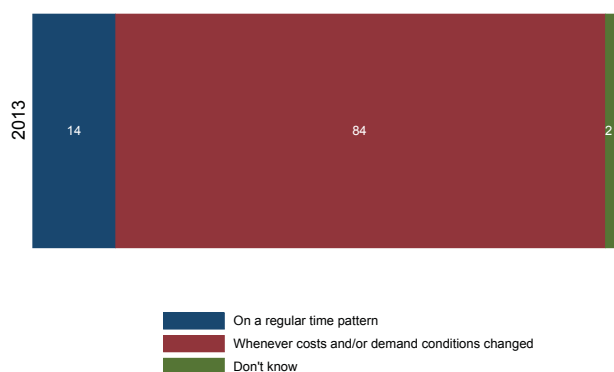


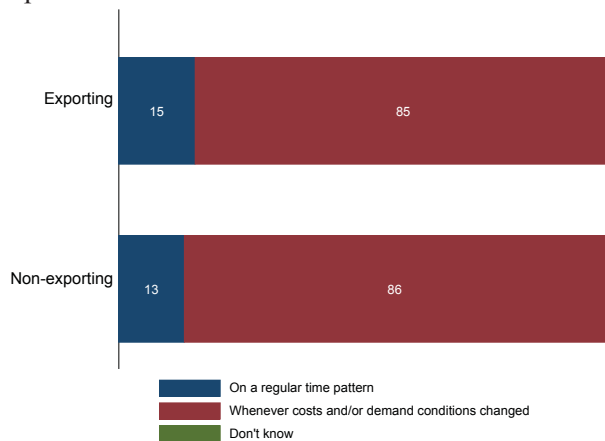
Figure A52

Price change pattern in 2013; wb – firm number weights (C56)

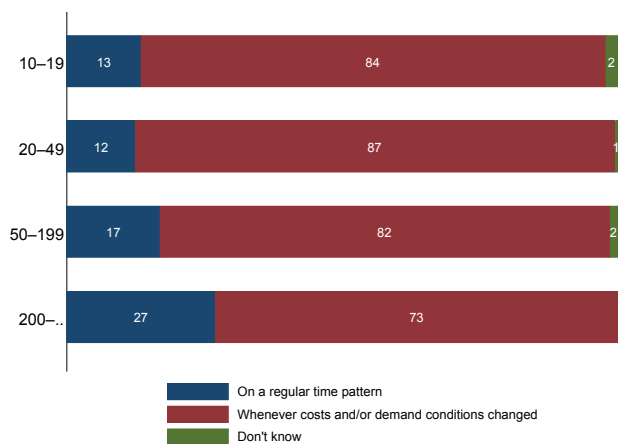
Overall



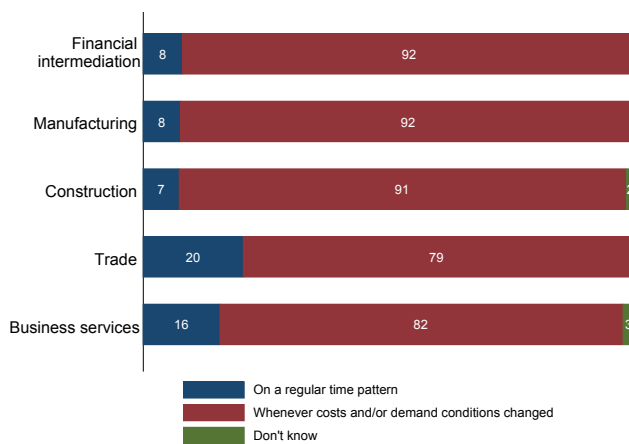
Exports



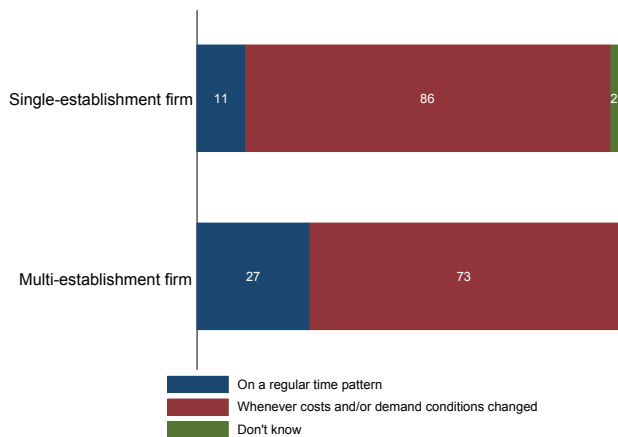
Size



Sector



Structure



Ownership

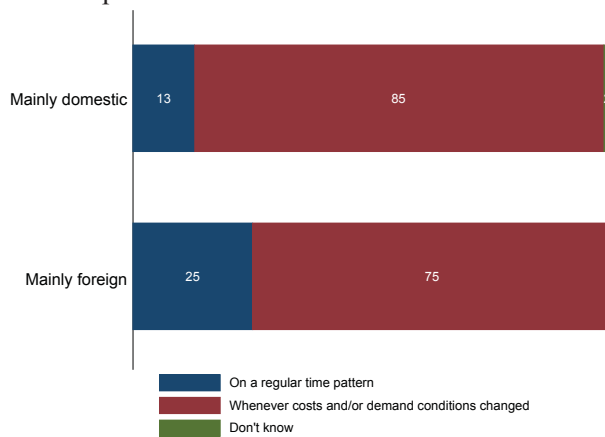
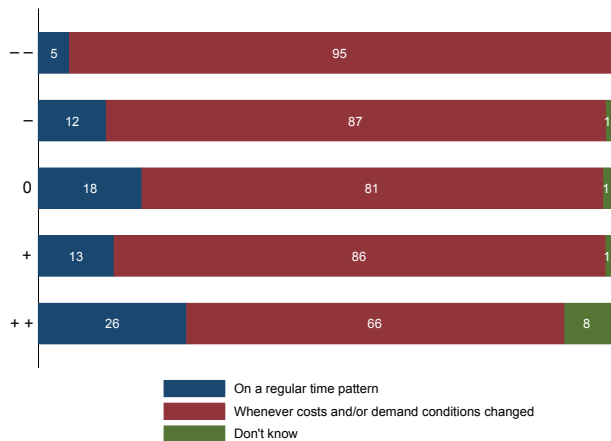


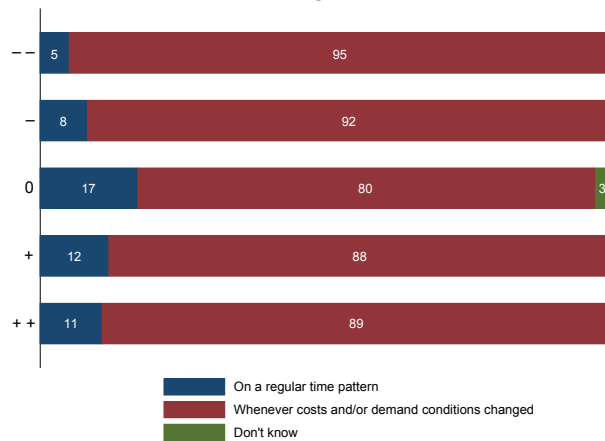
Figure A53

Price change pattern in 2013; wb – firm number weights (C56)

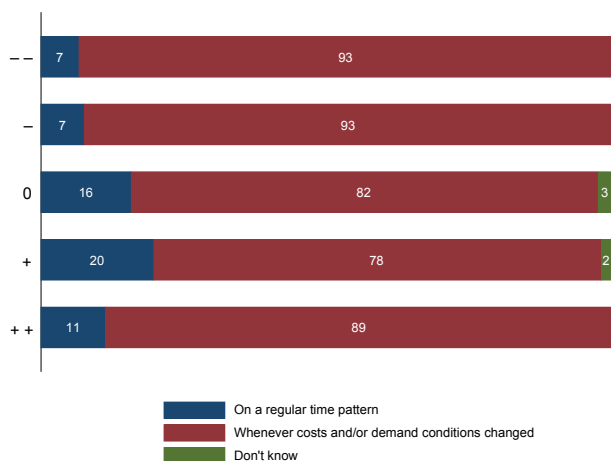
Demand



Access to external financing



Customers' ability to pay



Autonomy

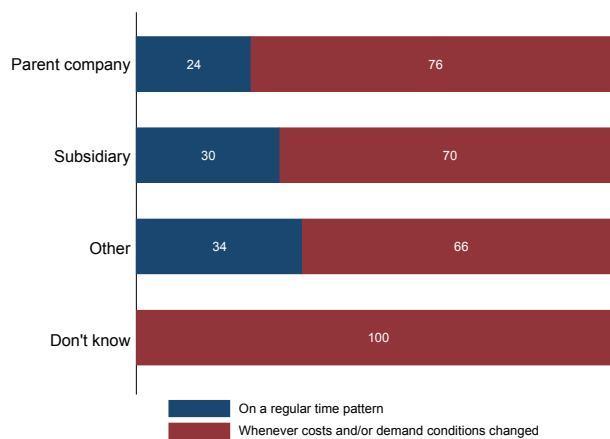
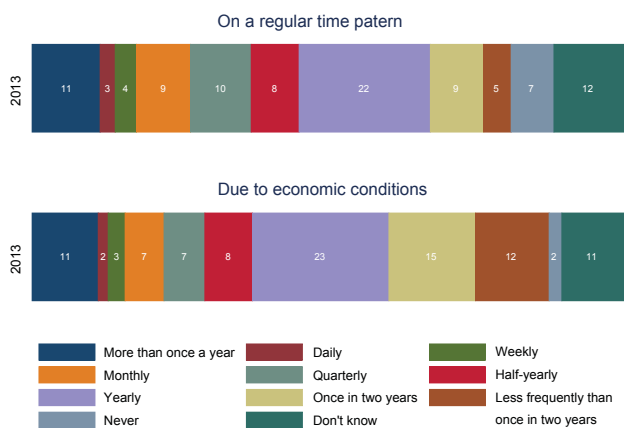


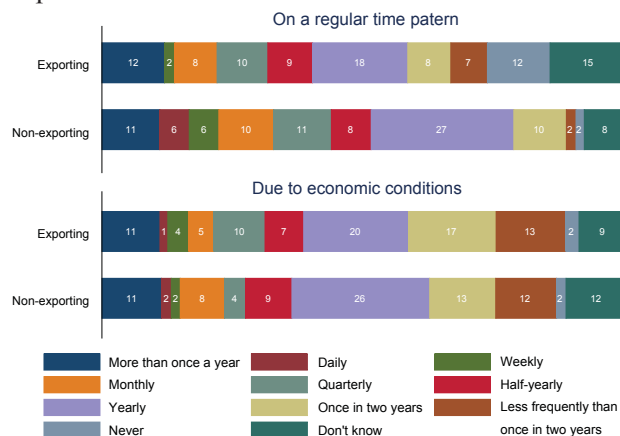
Figure A54

Price change frequency in 2013; wb – firm number weights (C56)

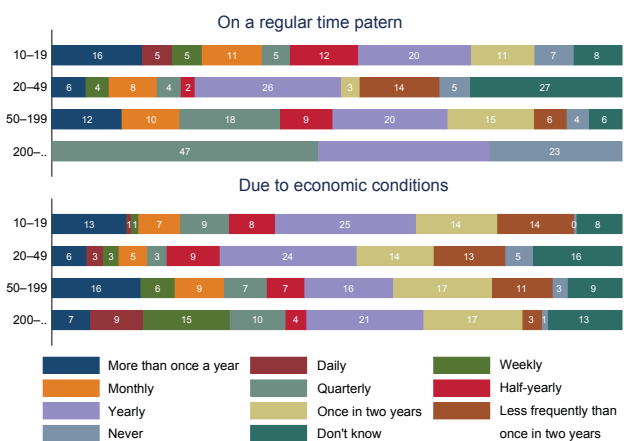
Overall



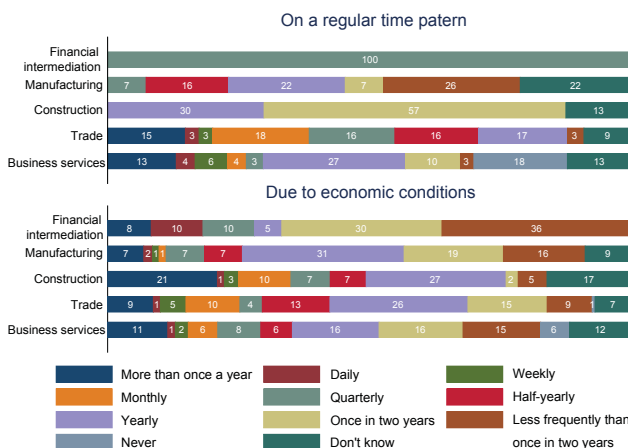
Exports



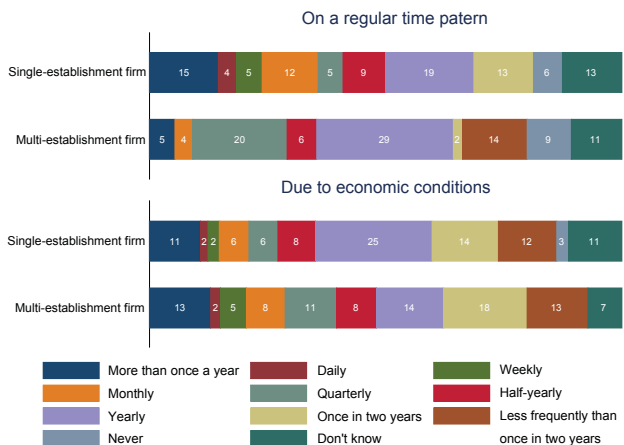
Size



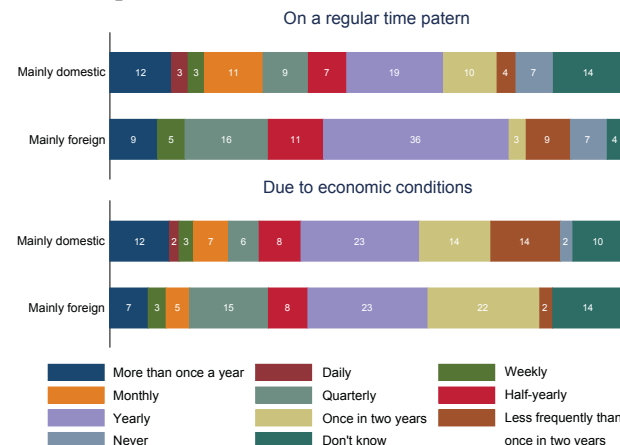
Sector



Structure



Ownership





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