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Comparative Human Resource Management in the
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The Effect of Bargaining Power on Working Conditions

Ines Blohm, Sebastien Briel. Claudia Brülin,
Uta Heumann and Martina Pauly

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COMPARATIVE HUMAN RESOURCE MANAGEMENT IN THE EUROPEAN BANKING SECTOR

Group 2

The Effect of Collective Bargaining Power on Working Conditions

Instructors:

Bice, Ph.D. Doug/ **Paunescu**, Mihai/ **Sadowski**, Prof.Dr.Dr.h.c. Dieter/
Warning, Dr. Susanne

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Ines Blohm	**Sebastian Briel**	**Claudia Brülin**
745200	751376	745339
8. Fachsemester BWL	8. Fachsemester BWL	8. Fachsemester BWL
Moselstr. 11, 54290 Trier	Langflur 37, 54296 Trier	Kaiserstr. 36a, 54290 Trier
Tel.: 0651-1456667	Tel.: 0651-9978086	Tel.: 0651-4636530
inesblohm@yahoo.de	s.briel@web.de	brue4106@uni-trier.de

Uta Heumann	**Martina Pauly**
754638	742922
8. Fachsemester BWL	8. Fachsemester BWL
Brotstr. 14, 54290 Trier	Moselstr. 11, 54290 Trier
Tel.: 0651-1705929	Tel.: 0651-1456667
heum4101@uni-trier.de	paul4402@uni-trier.de

Table of Contents

Tables

Figures

Abbreviations

barg. cov.	bargaining coverage
cf.	confer
cum.	cumulatives
ed.	edition
educ.	education
e.g.	exempli gratia
Eurostat	Statistical Office of the European Communities
freq.	frequencies
GDP	Gross Domestic Product
GVA	Gross Value Added
HICP	Harmonised Indices of Consumer Prices
i.e.	id est
LIS	Luxembourg Income Study
max	maximum
min	minimum
mio.	million
no.	number
obs.	number of observations
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
p.	page
pp.	pages
std. dev.	standard deviation
unemploym.	unemployment rate
union dens.	union density
vol.	volume
WoS	workers on strike

Abstract

The purpose of this paper is to examine the influence of trade unions' bargaining power on the outcome of bargaining negotiations. It is expected that higher bargaining power leads to better bargaining outcomes such as higher wages and fewer working hours. As bargaining power is a construct that is difficult to measure it will be operationalised by three indicators: union density, bargaining coverage and workers on strike.

After having conducted a regression analysis it can be said that the hypothesis does not hold without restrictions. A detailed interpretation of the results will be given in this paper and a conclusion with suggestions for further research will be drawn.

1 Introduction

The field of collective bargaining and the negotiations for better working conditions are a very up-to-date topic throughout Europe. Especially in Germany this has caught a great deal of attention during the recent months. For example the breaking off of negotiations between the trade union of university hospital doctors and the respective employers' association led to extensive and long-lasting strike activities among the hospitals' personnel. This caused massive problems with medical care, which means that not only the directly involved employees were affected but also those people who were dependent on the respective services. Within that context the question of bargaining power in a collective bargaining relationship arises. What influences bargaining power? Which party has more bargaining power? How does bargaining power impact the negotiation outcomes?

In the research project at hand the interrelation between trade unions' bargaining power and the respective negotiation outcomes will be examined. It is hypothesised that this interrelation is positive, meaning that high bargaining power of the union will result in a more profitable negotiation outcome for the represented employees. Bargaining power is operationalised by union density, bargaining coverage and the amount of strike activity. High union density, high bargaining coverage and a high amount of strike activity mean high bargaining power of a union. The negotiation outcome is measured by the wage level and the working hours.

With high bargaining power the wages are expected to be high, whereas the working hours are expected to be low. From this it can be concluded that high union density, high bargaining coverage and a high amount of strike activity lead to higher wages and fewer working hours.

A regression analysis was conducted in order to test the hypothesis for the banking sector and four other sectors. It can be said that the derived positive relations between union density, bargaining coverage or workers on strike - as operationalisation of bargaining power - and the outcome of the bargaining negotiation does not hold without restrictions. The results show that union density has a positive influence on wages. That means that higher union density leads to higher wages, which is in line with the hypothesis. The influence of bargaining coverage and workers on strike shows the contrary direction. Regarding the regressions of this analysis, higher bargaining coverage and more workers on strike result in lower wages.

For the other dependent variable, hours worked per week, not all regression outcomes underline these findings. The results for workers on strike as the independent variable differ between the different models. When examining all sectors more workers on strike cause higher working hours whereas an analysis only for the banking sector does not yield consistent results and thus does not contribute to further explanation. For the independent variable bargaining coverage no conclusion can be drawn either because the results are

different for all models. In contrast, the independent variable union density supports the hypothesis regarding all models.

The structure of the paper and the steps of argumentation are as follows: In the beginning the relevant literature on the topic of how unions affect employees' wages will be discussed in detail. Afterwards the theoretical background using Bacharach and Lawler's dependence model will be explained. This is followed by the analytical part, where first the reasons for the case selection and observation period, the variables and their operationalisation as well as the data sources will be stated. Subsequently the descriptive statistics, for example on wages and working hours, will be specified and explained and the chosen method of Ordinary-Least-Squares will be accounted for. Finally the results of the multiple regression will be described and interpreted. Based on these results a critical statement on the above mentioned hypothesis will be made in the conclusion.

2 Literature Review

This literature discussion consists of two parts. First, the discussion of existing theories concerning bargaining, and second, the results of empirical research regarding the effect of union bargaining power on working conditions will be illustrated.

2.1 Theoretical Findings

The theoretical focus of this paper lies in the concept of bargaining theory and intends to contribute some clarification to the concept of bargaining, specifically its sources of power and its outcomes.

In the theory of bargaining and bargaining power there exist two main directions: the economists and game theorists, for example Harsanyi (1977) and Young (1975) as well as the supporters of the social psychological approach represented by Chamberlain (1955) and Pen (1959).

The main intention of game theory is to provide rules for actors how to choose the best strategy within a bargaining situation. In this approach the theory of bargaining is considered as one of individual choice, of which the aim is to determine how one rational party can maximise its outcome, contingent on the decisions of the other party. The focus lies on the prediction of outcomes, for which the basis is the assumption of the actors' utility functions. With regard to the strategy and the outcome of bargaining games these theorists have contributed great cognitions to economic science, but they tend to neglect the bargaining process. Game theory assumes complete information and identifies and removes all obstacles that bargainers are confronted with. Therefore the bargaining process itself is not referred to in common game theory.[1]

On the other side there is the bargaining theory of social psychology. Here it is argued that bargaining is based on the fact that one actor in the bargaining relationship possesses resources that are essential for the opponent, i.e. one actor needs resources that are controlled by the other. This assumption is grounded on two conditions. First, there is a scarcity of resources that produces competition among those who are dependent on them. Second, an uneven allocation of these resources exists that might make it profitable for actors to bargain. Thus, the basis of bargaining is mutual dependence of the actors on resources controlled by the opponent. For these theorists dependence is a defining characteristic of a bargaining relationship. But there is more about dependence; it is the absolute foundation of bargaining power. When dependence changes across bargaining relationships the power of the parties varies as well.[2]

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[1] Cf. Lawler, E./ Bacharach, S. (1986), p. 196.
[2] Cf. Bacharach, S./ Lawler, E. (1981), pp. 39.

These theories are very important for the field of bargaining power. Game theory is the most thorough search for a determinate solution to the problem in a two-party bargaining situation. The social psychological theories serve as a great step towards the conceptualisation of bargaining as exchange which is based on mutual dependence. Therefore the theories are doubtless of great value.

But both approaches do not serve as the perfect models for the issue to be examined in this paper, since, beside their high value for economic science, they show some deficits referring to the concept of bargaining power and its sources and outcomes. Game theory neglects the bargaining process, which is necessarily to be regarded in the context at hand. Chamberlain and Pen both begin by conceptualising bargaining as exchange, but they ignore it when constructing their specific theories. If bargaining is ultimately grounded in dependence of the parties on one another, then such a theory must explicitly address the dependence relationship.

2.2 Empirical Findings

The impact of unions on wages is a field, where a lot of research has already been conducted. But still there is not the one and only conclusion about how wide unions' influence reaches.

This section will first discuss the literature of union bargaining power and wages. In the following there will be an overview of the results on the research question if union membership matters. Afterwards the relation between union density and bargaining coverage on the one hand and wages on the other hand will be addressed.

Fuess (2001) examined the importance of union bargaining power on wage settlements in Japan. His study identifies how close contract settlements came to organised labour's original demands, which is his mode of measuring bargaining power of a union. On the one hand he finds that unions usually have been able to secure their pay demands by more than 50 percent and to increase their bargaining leverage. On the other hand in times of economic difficulties, for example during the oil shocks, his results show that unions lost power and were not able to obtain their requirements. This demonstrates that there is a lot of variation within bargaining power with respective impact on workers' compensation. Other researchers examined the impact of unionism by comparing wages of union members with wages of those who are not organised in a union or by comparing unionised establishments with not-unionised ones. For example, Budd (1999) analyses whether there is a union membership wage premium among full-time private sector employees. There was found to be a wage premium of twelve to fourteen percent for union members compared to those who are just covered by an agreement without being union members. Freeman's study (1981) researches the effect of unionism on wages and fringe benefits paid to production workers in the United States and finds that unionism raises fringe expenditures and total compensation.

Another way of analysing the influence of unions on wages was conducted by Hirsch and Schumacher (2000). They examined private sector union density and the wage premium with the following result: Unions have the ability to enhance the compensation of workers

significantly. The effect of union density was as well investigated by Reilly (1996), who found that there is a correlation between union density and the wage differential. With higher union density the wages rise and the wage differentials within the establishments decrease.

Furthermore Mishel (1986) used another indicator to measure the effect of unions on wages: bargaining coverage. His conclusion was that union wage gains are greatest where unions achieve high bargaining coverage, i.e. where many employees fall under the negotiated agreement. Kahn (2000) combined these two methods and researched the wage inequality in relation with union density and bargaining coverage throughout ten years in 15 European countries and found a significant positive effect for both, meaning that rising union density and bargaining coverage bring about higher relative pay. Furthermore he discovered a stronger effect for union density than for bargaining coverage.

All these studies confirm a positive effect of trade unions on workers' compensation. The indicators bargaining coverage and union density are very reasonable variables to measure the union effect. But also a deficit is to be mentioned. There is one more indicator that should be noticed when examining the effect of a union, because it can be regarded as a weapon of unions and collective bargaining: the strike. Godard (1992) describes strike as an expression of workers discontent and internal solidarity which can enhance their bargaining power. Also Bohle and Greskovits (2004) argue that the most important aspect of workers' strength is their capacity to organise for collective action. The effect of strikes on wages should also be examined and therewith be kept in view for future research.

Another deficit of the studies on the effect of unions and collective bargaining is that most of them refer to blue collar workers. White collar workers are also represented by unions; here their influence should also be examined, for example in the service sector, which becomes more and more important and grows continuously.

Finally the attention of research should not only lie on workers' compensation. This is without a doubt a very important aspect of collective bargaining, which has to be examined. But besides this, there are other aspects of working conditions that are negotiated in the bargaining rounds between the parties, for example working hours, sick pay or vacation days. Those should be focused as well.

Thus, in the paper at hand those items, namely strikes, white collar workers and working conditions other than wage, will also be regarded.

In order to facilitate a better understanding of the relationship between bargaining power and working conditions the following section explains the theoretical approach that finally leads to the object of research.

3 Theoretical Approach

The bargaining power of a trade union has a great influence on the outcome of a collective bargaining round. A trade union that has high power is able to put pressure on its opponent and is thus capable of realising its aims. As a result, it is able to achieve better working conditions for the employees, meaning higher wages and fewer working hours, for example.

This argumentation leads to the conclusion that the collective bargaining power of a trade union influences the wage level and the hours worked per week in favour of the workers.

In a collective bargaining relationship bargaining power is a crucial aspect. According to Bacharach and Lawler, bargaining power is based on the actors' dependence on the relationship. This means that the power of one actor is determined by his[3] *opponent's* dependence on the relationship. Dependence influences power in so far as an increase in dependence of actor A means an increase in actor B's power and a decrease in dependence of actor A means a decrease in actor B's power and vice versa.[4]

Following this theoretical approach another relation can be identified. The power of one actor is influenced by his *own* dependence on the collective bargaining relationship as shown in figure 1. An actor who is highly dependent on the relationship has little bargaining power while an actor who has only little dependence on the relationship has high power. The reason behind this argument is simple. On the one hand, someone who is very dependent on the current relationship is not able to act in a way that does not please the opponent because he cannot risk annoying the opponent and thereby risk losing him as a partner. However, if he does not risk a relationship, he will not have the power in negotiating with his partner but has to accept his conditions more or less. On the other hand, someone who is not dependent on a relationship is less in need of his partner, therefore he does not care when he displeases him and can use any means to put through his aims. So he has a greater amount of power.

Figure 1: Dependence Model

| Dependence of actor A | High dependence → low power | Dependence of actor B |
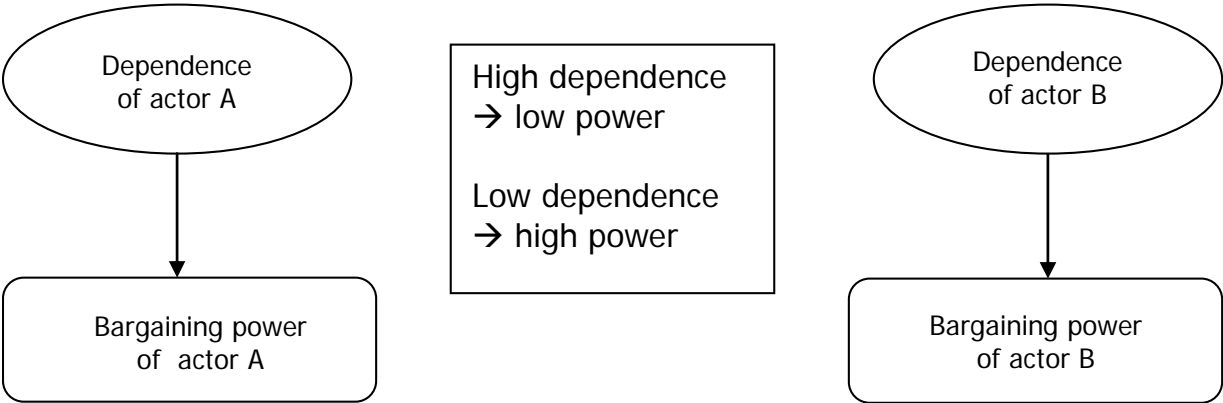
Source: Own illustration

The dependence of an actor is determined by two factors: the alternatives that an actor has in addition to the current relationship and the commitment that he has for the relationship.[5] Having alternatives means that someone can choose between several options and does not have only one choice (the current relationship). Commitment can be defined as "the extent to which an individual identifies and is involved with his organisation and/ or is

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[3] When using *his* or *he* in the following text this always refers to both, men and women.
[4] Cf. Bacharach S./ Lawler E. (1981), pp. 60.
[5] Cf. Lawler E./ Bacharach S. (1986), p. 198.

unwilling to leave it."[6] It can also be understood as the loyalty that someone has for the relationship.

Following from this, dependence can be described as a function of alternatives and commitment. The degree of dependence is determined by the number of alternatives and the degree of commitment. Having many alternatives and a low degree of commitment results in low dependence, while few alternatives and a high degree of commitment lead to high dependence.

As can be seen in figure 2, dependence influences the bargaining power of the actors. In a collective bargaining relationship the actors are trade unions (representing the employees) and employers' associations (representing the employers). The above introduced framework can be applied to the relationship between trade unions and employers' associations. The power of both the trade union and the employers' association is based on their respective dependence on the relationship. If the trade union is highly dependent on the bargaining relationship with the employers' association, the trade union's power will be low. If the trade union's dependence is low, its power will be high. The same is valid for the employers' association.

As the theoretical framework explains, dependence is a function of alternatives and commitment. Having many alternatives means for an employer, for example, the ability of introducing new and more efficient technologies in order to replace employees or choosing between a great number of potential employees which might be caused by a high unemployment rate. An employee has many alternatives if he is able to choose between different jobs and could start working in another company. A highly committed employee is willing to accept a salary that is lower in times when the company is not well-off because he has a high degree of loyalty and wants to stay with his current employer in any case. An employer who has a high degree of commitment is willing to pay a higher salary to make sure that the employee does not leave the company.

The following figure 2 represents the relation between dependence and bargaining power as well as the connection between alternatives/ commitment and dependence.

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[6] Greenberg J./ Baron R. (2003), p.160.

Figure 2: Advanced Dependence Model
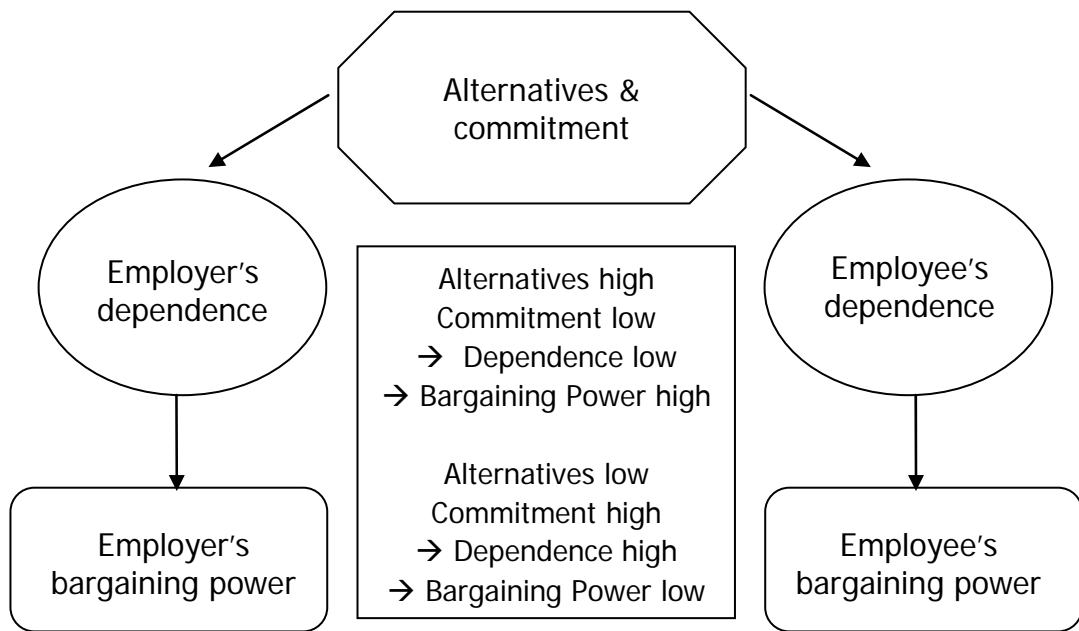
In this paper the bargaining power of trade unions will be examined in detail. Two reasons are at hand that justify the consideration of the employees' part in the relationship.

Firstly, according to Say's theorem, supply creates demand. As manpower is the supply in a bargaining relation, it is the main determinant of the relationship between trade unions and employers' associations and thus deserves a detailed examination. The second reason follows from this explanation. In a collective bargaining round, the trade unions are the active party. They first state their demands to which the employers' associations react. Thus the trade unions initiate the negotiations.[7]

The foregoing argumentation leads to the following hypothesis:

High power of a trade union leads to better working conditions for the employees.

If a trade union has high bargaining power, it is able to realise its targets as it has a strong position in the negotiation process. The main claims of trade unions usually are higher wages, fewer working hours or, in general, better working conditions.

The relationship between bargaining power and the outcome of the negotiations (wages and working hours in the case at hand) can also be derived from another approach. In a game theoretic framework two parties bargain for their greatest utility. In collective bargaining these actors are the trade union and the employers' association. Each actor wants to reach the best outcome from the negotiations, which is z. The utility functions are $u_1(z) = z^{\gamma 1}$ for the trade union and $u_2(z) = z^{\gamma 2}$ for the employers' association. γ with $0 \leq \gamma \leq 1$ can be interpreted, for example, as the strike behaviour of the employees or as the lockouts of the employers. As only pareto-efficient results are feasible, for each bargaining result the condition $z = (z_1, z_2)$ is valid. This means that the utility function can be described as

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[7] Cf. Sesselmeier W./ Blauermel G. (1998), p. 97.

$$u_1(z) = z_1^{\gamma 1} \text{ and } u_2(z) = (1-z_1)^{\gamma 2}.$$

In order to find the optimal solution for both actors, the Nash product has to be maximised.

$$\max NP = (x_1-c_1)^{\alpha}(x_2-c_2)^{\beta} \text{ with } \beta=1-\alpha.$$

The Nash product is defined as the product of the incomes of both parties from a successful negotiation weighted with the respective bargaining power.[8]

α and β illustrate the bargaining power of the trade union and the employers' association, respectively. x_1 and x_2 describe the utility of the negotiation result. c_1 and c_2 represent the point where no agreement can be achieved and the utility for both actors is zero. This leads to the following reading of the formula:

$$\max NP = (z_1^{\gamma 1}-0)^{\alpha}((1-z_1)^{\gamma 2})-0)^{\beta}$$
$$= z_1^{\alpha \gamma 1} z_2^{\beta \gamma 2}$$

The results of the maximisation are represented by the following terms for the trade union and the employers' association, respectively:

$$z_1 = \frac{\alpha \gamma_1}{\alpha \gamma_1 + \beta \gamma_2}$$

$$z_2 = \frac{\beta \gamma_2}{\alpha \gamma_1 + \beta \gamma_2}$$

As already mentioned only one party of the negotiation process, the trade union, will be examined for this study. Consequently only the term z_1 is of interest here. In order to judge the influence of bargaining power on the bargaining outcome, the influence of α on z_1 has to be studied. To prove a positive correlation the derivation has to be positive.

$$z_1'(\alpha) = \frac{\beta \gamma_1 \gamma_2}{(\alpha \gamma_1 + \beta \gamma_2)^2}$$

Remembering that α, β and γ are always positive, the derivation is also always positive, which proves the above mentioned relation: Higher bargaining power has a positive influence on the bargaining outcome. This means that higher power leads to better working conditions which are for example higher wages and fewer hours worked per week.[9]

This theoretical approach leads to the following hypothesis:

> *Higher bargaining power of a trade union leads to better outcomes of the bargaining negotiations as it provides a better negotiation position and thus enables the trade unions to achieve their aims.*

As bargaining power of a trade union is a construct which is difficult to measure certain variables have to be used that represent this power. In this study bargaining power is operationalised by three variables: union density, bargaining coverage, and workers on strike.

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[8] Cf. Uni Zürich (2005), p. 3.
[9] Cf. Riechmann (2002), pp. 137.

The higher the values of these variables are the higher is the bargaining power. Union density symbolises the support that a trade union gets from its members, while collective bargaining coverage represents the number of employees that are bound to the collective agreement. By carrying out a strike a union can put pressure on the employers and thereby show its strength.

Following from this operationalisation three sub-hypotheses have to be examined: The influence of union density on the outcome of negotiations, the influence of bargaining coverage on the outcome of negotiations and the influence of workers on strike on the outcome of negotiations. High union density, high bargaining coverage and a high amount of strike activity lead to higher wages and fewer working hours; low union density, low bargaining coverage and a low amount of strike activity result in lower wages and more working hours.

With these three variables as independent variables the analysis, which will be described in the following sections, will be conducted.

4 Prerequisites and Preparations for the Analysis

The target of the analytical part is the examination whether the bargaining power of trade unions influences the outcomes of negotiations with the employers' associations positively, in this paper represented by the wage level and the hours worked per week. The independent variable bargaining power, which is operationalised by the three indicators union density, bargaining coverage and workers on strike, influences the dependent variables, the wage level and the hours worked per week. This section delivers the reader several definitions and prerequisites, which are important for the further understanding of the paper, respectively the analysis.

4.1 Case Selection and Period of Observation

In order to gain representative results, three dimensions were chosen. These dimensions are firstly different European countries, secondly three periods of time and thirdly five economic sectors in the particular countries. The level of this secondary analysis is the individual. Because of the restricted availability of suitable data some countries of interest had to be dropped. Eight different countries were finally selected. Those are Belgium, Finland, Germany, Ireland, Italy, the Netherlands, Spain and Sweden, thus most of the different existing regions in Europe are represented: The Scandinavian/ northern countries are covered by Finland and Sweden, the Anglican-states by Ireland, Central Europe is represented by Belgium, Germany and the Netherlands, and the southern part of Europe by Italy and Spain. Only Eastern Europe is not included because of the insufficiency of data. The target of this work is, however, to receive a general conclusion for the included European regions and not to get country-specific results.

To enhance the number of different countries in each time period, those periods contain more than only one year. As shown in figure three the first period includes the years 1999 and 2000, the second 1994 to 1996 and the third period goes from 1989 to 1991. For these periods the most congruent data were available and they guarantee an acceptable regularity of intervals. The intention was to include contemporary data from the last years which was not possible as the dataset of the Luxembourg Income Study ends in 2000.[10]

As a comparison to the reference, the banking sector, four other sectors will be regarded: the industry, the building, the commerce and the service sector. Specific data for all these sectors could be found for every country and every chosen period. For the allocation of these five sectors it was necessary to consolidate the data from the different sources. As one of the data sources, namely Eurostat, has composed the sectors and itemised the composition of the included branches, it was possible to assign this classification to the Luxembourg Income Study. One sector consists of up to 100 different branches, for example the industry sector. The precise differentiation is inserted as appendices 1 to 3. Since Eurostat defined the finance sector as banking and insurance, it was necessary to include the insurance sector in the variables from the LIS-dataset as well.[11] In this paper this sector will be mentioned as only banking or finance sector to simplify matters.

On the basis of classifications of the described periods three different models were built. Model one consists of the second period, model two includes the first and the second period and model three the first, second and third period. Their structure is illustrated in figure 3.

Figure 3: Overview of the periods and models

	Period 1 (1999/ 00)	Period 2 (1994/ 95/ 96)	Period 3 (1989/ 90/ 91)
Model 1		Belgium, Germany, Italy, Sweden	
Model 2	Belgium, Germany, Ireland, Italy, Spain		
Model 3	Belgium, Finland, Germany, Ireland, Italy, the Netherlands, Spain, Sweden		

Source: Own illustration

It has to be noticed that not every country is included in every period. In model two, all five countries listed in figure 3, are included in both periods. The eight countries in model three, however, do not necessarily crop up in each of the three periods.

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[10] Cf. Luxembourg Income Study (2006).
[11] Cf. Statistisches Bundesamt (2003).

4.2 Definition of Variables

In the following paragraph the variables which are used for the analysis in this study are introduced. First, the dependent variables will be explained, followed by the independent ones. The control variables are grouped into individual data and national accounts, respectively sectoral data.

The first dependent variable *wage* represents the annually earned net or gross income in euros. As the data source provided wages in national currencies those had to be converted into euros by using the exchange rate of January 2001.[12] The second dependent variable *hours worked per week* shows the average working time per employee.

The independent variables are *union density*, *bargaining coverage* and *workers on strike*. Union density measures the "percentage of […] wage and salary employees […] who are union members."[13] For some of the eight countries gross and net union density have been available. As gross union density includes also non-active union members[14], net union density has been chosen for this project. The term union density in this paper always refers to net union density. Bargaining coverage determines the proportion of workers for whom a collective bargaining agreement is valid in relation to all employees in the sector.[15] The third independent variable, workers on strike, is measured in two ways: in *affected employees* and in *lost working days*. The specification affected employees shows the maximum number of strikers between the beginning and the end of a strike whereas the specification lost working days includes the whole number of lost working days between the beginning and the end of a strike.[16] For both variables an absolute value (affected employees/ lost working days in 1,000) and a relative value (affected employees/ lost working days per 1,000) are available, so that totally four different variables for workers on strike arise.[17]

Multiple control variables have been defined and adopted to test the intensity of the influence on the derived relationship between the independent and the dependent variables. The difficulty was again to obtain the same control variables for each country in the particular period. The control variables on the basis of individual data are the persons' *sex*, *age* and their level of *education*. It is expected that men in general earn more than women and older people more than younger people, due to the principle of seniority.[18] The education variable has been grouped into three levels – the primary, the secondary and the tertiary level. The first level refers to the lowest and the third level to the highest degree of education. The detailed classifications for each country are attached in appendix 4. It seems logical that people with a higher level of education earn higher wages. As the impact of education on wage probably differs between the step from the first to the second level and the step from the second to the third level, dummies have been specified.

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[12] Cf. Europäische Gemeinschaft (2001).
[13] Hirsch, B./ MacPherson, D./ Vroman, W. (2001), p. 51.
[14] Cf. Visser, J./ Ebbinghaus, B. (2000), p. 806.
[15] Cf. Hirsch, B./ MacPherson, D. (2002), p. 351.
[16] Cf. International Labour Organisation (2006).
[17] Cf. Eurostat (2006a).
[18] Cf. Institut für Arbeitsmarkt- und Berufsforschung (2003).

The second part of the control variables are the national accounts, respectively the sectoral data. The *gross value added* (GVA) is calculated by the deduction of inputs from the production value and serves as a basis for the *gross domestic product* (GDP).[19] The GDP itself is a measure of the economic performance of a national economy in a period of one year. It is an indicator for the production because it reflects the production of all homemade goods and services after the deduction of inputs and imports.[20] It is expected that both GVA and GDP have a positive influence on wage. The *harmonised indices of consumer prices* (HICP) are a compared and determined bundle of consumer goods and demonstrate the proportion between the compensation and the cost of living in a country.[21] If the prices for goods and services, which are used and purchased by the private households, rise, the wage should also increase. The *unemployment rate* is the share of the unemployed persons of the total number of all gainful employees.[22] When the unemployment rate increases, the wages are expected to decrease because of the smaller labour demand that strengthens the position of the employers.

An *interaction variable* shows the influence of the independent variable on the dependent variable in the banking sector in comparison to the other sectors.[23] By the definition of a *wage dummy* it can be distinguished between net and gross wages in order to compensate for the connected effect. As some data are only available in net values and others in gross values the deviation is measurable. With a *period dummy* the analysis can be controlled for time effects. In model three two dummies are involved, whereas one period dummy is sufficient in model two.

To gain only one value for the workers on strike, the unemployment rate, the gross domestic product, the gross value added and the harmonised indices of consumer prices per period the existing values of the two or three years included in one period were transformed into an average.

4.3 Data Sources

The first source is the Luxembourg Income Study (LIS) which provides individual and household data of 30 different countries over three decades. The data have been collected for domestic purposes in each country and harmonized by LIS to be comparable across countries. This source provides the variables wage, hours worked per week, age, sex, and education.[24]

The second source is Eurostat, the Statistical Office of the European Community, which obtains its data from the statistical departments of the relative countries every year. Eurostat transforms the data into a common unit and provides the European Union with a high-quality statistical information service. The variables workers on strike, the gross

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[19] Cf. Gabler (2000), p. 554.
[20] Cf. ibidem, p. 550.
[21] Cf. European Communities (2004).
[22] Cf. Gabler (2000), p. 172.
[23] Cf. Kohler, U./ Kreuter, F. (2006), p. 36.
[24] Cf. Luxembourg Income Study (2005).

domestic product, the gross value added, the harmonised indices of consumer prices and the unemployment rate are derived from this source. As Eurostat actualises some data from time to time, it should be mentioned, that the enquiry date for the variables of this project has been the 6th of July 2006.[25]

The values for the variable union density of the observed countries were taken from "Trade unions in Western Europe since 1945" by Ebbinghaus/ Visser (2000) which was published in the series "Society of Europe". This series has the aim to provide an empirical basis for the analysis of European societies, especially with respect to their unity and diversity. In this book on European trade unions the collective bargaining systems of 15 western European countries are described with respect to political and economical developments, labour relations, union movements and trade union structures. In addition, data on, for example, union density, number of confederations, and membership in trade unions are available.[26]

The "OECD Employment Outlook", which is an annual assessment of labour market development for the 30 countries of the Organisation for Economic Co-operation and Development (OECD), set up in 1960, serves as the source for the data on bargaining coverage. The Employment Outlook of the years 1997 and 2004 have been used.[27]

The difficulty of the availability and consequently the limited amount of comparable data required some compromises which should be noticed with regard to the descriptions and interpretations of the analysis in section 7.

The German LIS-output for the variable wage is the only gross value.[28] All other values are specified in net values. To apply a method that transforms the gross data into net data or vice versa would exceed the framework of this thesis. The wage dummy, however, will avoid greater biases in the results.

A general problem of the LIS-data arose during the classification of the different sectors. In most of the countries uniform categories of branches can be built, but minimal biases are possible, because a few countries already combined certain branches, which are not exactly in line with the other countries.

Furthermore it was not possible to assign the position of the employees, which definitely has an influence on wage, although a comparable variable is available at LIS. But the grouping of the single subordinations of the eight countries is not feasible without studying the country-specific hierarchies precisely.

Unfortunately there are no union density values for the first period and only the value for one country in the third period. Furthermore no union density data for Ireland and Finland are available.[29]

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[25] Cf. Eurostat (2006b).
[26] Cf. Ebbinghaus B./ Visser J. (2000), p. 13.
[27] Cf. OECD (2004), p. 2.
[28] Cf. Luxembourg Income Study (2003).
[29] Cf. Ebbinghaus B./ Visser J. (2000), p. 65.

As the hypothesis of this project refers to employees in a current employment relationship, the retirees, the pensioners, the students and the unemployed persons were excluded from the analysis.

5 Descriptive Statistics

In order to prepare the reader for a deep understanding of the following analysis part, this section will describe the data used and point out some conspicuous values. The table below shows the three created models with the independent variables that could be used.

Table 1: The three models

Model	Period	Countries	Independent Variables
1	2	Belgium, Germany, Italy, Sweden	union density bargaining coverage workers on strike
2	1 + 2	Belgium, Germany, Ireland, Italy, Spain	bargaining coverage workers on strike
3	1 + 2 + 3	Belgium, Finland, Germany, Ireland, Italy, the Netherlands, Spain, Sweden	bargaining coverage workers on strike

Source: Own illustration

As the models one and two will be regarded in more detail later on, this section shows the descriptive statistics of those two models. With reference to the order of the analysis, model two will be focused on first and all values are given for the banking sector and for the five sectors of interest combined. But only the values of the banking sector will be part of the more detailed descriptions below as the purpose of this paper is to find results for this industry.

5.1 Descriptive Statistics for Model Two

Table 2 shows the wage data for model two, broken down by each of the five countries that have been considered. All wages are in euros.

Table 2: Wage for model two

Country	Sector	Obs.	Mean	Std. Dev.	Min	Max
Belgium	All 5 sectors	4810	17144.86	10089.98	4833.92	393124.00
	Banking	294	21144.33	11758.49	4957.87	139764.90
Germany	All 5 sectors	15722	26123.33	15793.32	4801.03	345019.80
	Banking	587	34358.63	21146.40	4908.40	261482.80
Italy	All 5 sectors	11429	13373.01	6293.84	4803.05	180759.90
	Banking	456	19126.80	8642.87	4957.99	77468.53
Spain	All 5 sectors	7073	14262.65	8612.45	4808.07	206844.60
	Banking	128	25003.66	11947.61	5048.50	60341.59
Ireland	All 5 sectors	4575	16601.62	10277.50	4802.15	291928.00
	Banking	202	19347.99	12449.89	4997.67	84640.74

Source: Own illustration

The mean of the annual wages in the banking sector of the five countries varies between approximately 19,000 and 34,000 euros. These values are rather low, especially when keeping in mind that all German wage data are gross values and therefore the highest mean, which is that of Germany, loses expressiveness. The standard deviation, which fluctuates between circa 8,000 and 21,000 euros, shows low values in Italy and Spain and again a high one in Germany.

With values between 4,800 and 5,050 euros the minimum wages are all in the same range. This is because of a limitation that has been included in all data requests and which dropped individuals that earned less than 4,800 euros a year. The threshold value of 4,800 euros a year comes from the German minimum income of 400 euros per month. The limitation was needed as even after having dropped the unemployed, pensioners and others not in an employment relationship, the minimum wages showed unrealistically low values. With this limitation the bias shall be restricted. But still 14 percent of all the respondents in model two declared that they earned between 4,800 and 6,000 euros a year. A detailed overview of a classified wage distribution is attached in appendix 5.

The maximum wages vary between 60,000 euros in Spain and 261,000 euros in Germany. Minimising the German value by 50 percent, as a simplified method to get rough net wages according to the German top rate of tax, still leads to a high result at least compared with the other countries. This shows that although Germany's comparability is limited it can be assumed that the country's banking sector offers wages in the upper third, compared to the other four countries of interest in this study.

In table 3 the descriptive statistics of the alternative dependent variable hours worked per week are given.

Table 3: Hours worked per week for model two

Country	Sector	Obs.	Mean	Std. Dev.	Min	Max
Belgium	All 5 sectors	5653	40.47	12.16	4.00	99.00
	Banking	335	41.45	9.77	6.00	96.00
Germany	All 5 sectors	18991	38.95	12.55	0.40	80.00
	Banking	700	40.53	10.95	1.00	80.00
Italy	All 5 sectors	16063	40.62	12.48	1.00	97.00
	Banking	561	40.35	8.86	5.00	97.00
Spain	All 5 sectors	10855	42.59	12.12	1.00	104.00
	Banking	159	40.44	8.39	4.00	66.00
Ireland	All 5 sectors	6997	40.90	15.85	1.00	159.00
	Banking	240	38.81	9.95	10.00	80.00

Source: Own illustration

The mean values show that all in all 40 hours per week seem to be a standard working time. Only Ireland remains under this standard in the banking sector, whereas the other four countries are slightly above the 40 hours. The standard deviation varies between approximately nine and eleven hours. It should be pointed out that a separation of part-time and full-time employees has not been possible because of missing variables in the dataset in some countries.

But even the possible existence of part-time employees in the sample does not explain the extremely low minimum values, which range from one to ten hours. Classifying the working time into several groups shows that there are still 66 people out of 1,995 in the five countries, which corresponds to circa 3.3 percent, that worked less than 20 hours per week. But likewise 99 individuals, or almost five percent, of the respondents worked more than 60 hours per week. The detailed numbers of observations for the different classes of hours worked can be found in appendix 6. Recoding the zeros of the variable hours worked per week into missings has also been necessary in order to avoid taking people that have not been working when answering the surveys into account. Individuals that have filled in working time per week smaller than zero have been dropped.

Also the maximum values got an extra restriction. All individuals that stated a weekly working time over 168 hours have been dropped, as one week only has 168 hours. The maximums in the table are, however, still relatively high. With 97 hours per week Italy is front runner; closely followed by Belgium with 96 hours. The 66 hours of the Spanish banking sector are the lowest value of all the maximums considered.

All following tables imply aggregated values for the five countries of the model. Table 4 gives an overview of the exogenous variables of model two.

Table 4: Independent variables for model two

Sector	Variable	Obs.	Mean	Std. Dev.	Min	Max
All 5 sectors	WoS in 1000	45550	157.11	291.04	0.00	1326.00
Banking	WoS in 1000	2009	7.81	10.10	0.01	29.40
All 5 sectors	Barg. Cov. %	43426	80.48	8.33	68.00	92.00

Source: Own illustration

The independent variable workers on strike oscillates around 7,810 strikers per year. Compared to the other sectors this number is noticeably low, whereby it has to be mentioned that Italy increases the average in all five sectors clearly, as the country presents generally high numbers regarding their annual strikers. One of the other two independent variables, which could be used for model two, is bargaining coverage. As no bargaining coverage data for Ireland have been available, the regressions and therefore the descriptive statistics are based on only four countries. Furthermore the data have not been available for different sectors and are therefore at national level. With 92 percent the bargaining coverage has been the highest in Germany. And the lowest value, 68 percent, belongs to Germany, too. The coverage rate decreased from period two to period one by 24 percent. This can be explained by the current trend of decentralisation of collective bargaining systems in Germany.[30]

Tables 5 and 6 point out the descriptive statistics of the used individual data.

Table 5: Person's individual data I for model two

Sector	Variable	Obs.	Mean	Std. Dev.	Min	Max
All 5 sectors	Age	49954	39.04	11.61	15	86
Banking	Age	2009	38.76	10.50	17	85

Source: Own illustration

The age of the individuals in the sample working in the banking sector varies between 17 and 85 years. On average the people asked stated an age of almost 40 years. Individuals younger than 14 years have been dropped.

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[30] Ochel, W. (2005), pp. 98.

Table 6: Person's individual data II for model two

Sector	Variable	Freq.	Percent	Cum.
All 5 sectors	Sex: Male	29193	58.44	58.44
All 5 sectors	Sex: Female	20761	41.56	100.00
All 5 sectors	Sex: Total	49954	100.00	-
Banking	Sex: Male	1104	54.95	54.95
Banking	Sex: Female	905	45.05	100.00
Banking	Sex: Total	2009	100.00	-
All 5 sectors	Educ. 1	6385	31017	31017
All 5 sectors	Educ. 2	33680	67.75	80.59
All 5 sectors	Educ. 3	9650	19.41	100.00
All 5 sectors	Educ.: Total	49715	100.00	-
Banking	Educ. 1	60	46447	46447
Banking	Educ. 2	1290	70.26	73.53
Banking	Educ. 3	486	26.47	100.00
Banking	Educ.: Total	1836	100.00	-

Source: Own illustration

A bit more than half of the respondents working in the banking sector were male and most of the people in the sample have achieved the level of secondary education. Whereas less than four percent answered to have a primary education, at least 26 percent in the banking sector have a higher education, i.e. achieved the tertiary level of education.

Table 7 shows the national accounts data. As there have not been sectoral data for the GDP, the HICP and the unemployment rate available, only the variables GVA and workers on strike (affected employees in 1000) are given for the five sectors in comparison to the banking sector. All other variables had to be based on national data for the five sectors.

In the following lines the countries behind the extreme values will be emphasised. A table with the detailed values for each country can be found in appendices 7 to 10.

Table 7: National accounts for model two

Sector	Variable	Obs.	Mean	Std. Dev.	Min	Max
All 5 sectors	GDP in mio.	49954	1089700.00	724548.50	51947.63	2037250.00
All 5 sectors	GVA in mio.	48281	272213.70	251235.40	2677.15	839490.00
Banking	GVA in mio.	2009	50567.24	31101.61	3910.85	86785.00
All 5 sectors	HICP in %	49954	152.76	26.21	124.84	197.00
All 5 sectors	Unemploym. In %	49954	9.67	2.57	5.00	18.57

Source: Own illustration

The GDP, which is measured in million euros, shows big differences between the maximum of 2,037,250 million euros and the minimum of 51,948 million euros. These numbers belong to Germany and Ireland. Also regarding the GVA, which is also measured in million euros, in the banking sector, Germany has the highest value and Ireland the lowest in this model. The HICP point out that Spain had the highest cost of living, with 197 euros for the basket of goods and services. In Germany the same products have been available for the lowest price during the two periods of interest, namely for 125 euros. With a mean of almost ten percent the unemployment rate varies on a rather high level. Hereby Ireland, with only five percent, and Spain, with over 18 percent, attract attention.

As well as for the individual data, the number of observations for the national accounts is based on a limitation of the original dataset. The restrictions for the values of wage and hours worked per week have been explained before. For the remaining variables all individuals that earned less than 4,800 euros and stated either working time below zero hours or more than 168 hours have been dropped. Therefore, all the individuals that have been accessed regarding wage or hours worked per week are included in the descriptive statistics on individual data and national accounts.

5.2 Descriptive Statistics for Model One

As the descriptive statistics of model one look rather similar to those of model two, this section will just deal with some differences. The exact data are inserted in appendices 11 to 16. All general restrictions and limitations that have been described for model two are valid for this model as well.

The used data for model one are part of the data in model two. Therefore some extreme values are the same. The most important distinction is the fact that model one covers only four countries, namely Belgium, Germany, Italy and Sweden. This is because model one has been built to deal with union density as independent variable and the available data restricted the choice of countries.

The means and maximums of the dependent variable wage show on average lower values than in model two. This indicates an increase of wage from period two to period one, respectively from the mid-nineties to 2000. The hours worked per week are also slightly lower which states that working time has risen over time. All individual variables are distributed very similarly to those in model two and also the national accounts data are somewhere in the same order.

As data on union density have not been part of the section above, the following table 8 shows the descriptive statistics for model one. The table includes aggregated data on the four countries.

Table 8: Union density for model one

Sector	Variable	Obs.	Mean	Std. Dev.	Min	Max
All 5 sectors	union dens. in %	16991	34.98	18.88	11.60	100.00
Banking	union dens. in %	819	22.26	15.35	12.90	62.50

<div align="right">**Source: Own illustration**</div>

The union density in the banking sector takes values below those for all five sectors most of the time. With 12.90 percent the lowest union density in the banking sector has been in Germany, the highest in Sweden (62.50 percent). The 100.00 percent maximum in the five sectors of interest is very noticeable. Also this maximum comes from Sweden. The fact that the unemployment insurance in Sweden is organised by the trade unions and thus the employees have an incentive to join the trade union can be an explanation for this extremely high value.[31]

6 Reasons for Using Multiple Linear Regression

The chosen method for this study is Ordinary-Least-Squares (OLS), respectively multiple linear regression. The relationship between the independent variable bargaining power, which is indicated by union density, bargaining coverage, and workers on strike, and the dependent variable, on the one hand wage and on the other hand hours worked per week, shall be described and explained. All the variables fulfil the condition of a metric scale level and the dependent variables are normal distributed. By way of illustration two graphs are attached exemplarily in appendix 17.

A linear connection between independent and dependent variables is predicted. But as wage and hours worked cannot be zero in an employment relationship, the regression model delivers an appropriate structure with its y-axis intercept (b_0), which becomes obvious in its standard notation.

$$y = b_0 + b_1 x_1 + \ldots + b_n x_n$$

The advantage of taking more than one independent variable into account lies in the improvement of the coefficient of determination and this procedure minimises the bias of the regression coefficients.[32]

Furthermore, a regression analysis is a method to describe and explain quantitative links in causal connections and to estimate the values of the dependent variable. The method is also specific for the prediction of effects, as it gives information on how the dependent variable changes when the independent one varies.[33]

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[31] Cf. Lesch, H. (2004), p. 3.
[32] Cf. Kohler, U./ Kreuter, F. (2006), pp. 194.
[33] Cf. Backhaus, K. et al. (2006), pp. 46.

Using the method of multiple linear regression, the following section will test the influence of the three indicators of bargaining power, namely union density, bargaining coverage and workers on strike, on the dependent variables wage and hours worked per week.

7 Description and Interpretation of the Results

In the following section the results of the regression models will be described and interpreted. The section will concentrate on model two which includes five countries (Belgium, Germany, Ireland, Italy and Spain) and period one (1999/ 2000) and period two (1994/ 1995/ 1996). It is separated into two parts. First the results for the dependent variable wage will be depicted, followed by an illustration of the dependent variable hours worked per week. As data for only two of the exogenous variables are available for that model, namely for workers on strike and bargaining coverage, model one is included to show the regression results for union density. It includes four countries (Belgium, Germany, Italy and Sweden) and period two (1994/ 1995/ 1996).

Model three was mainly used to replicate the results. As it is composed of different countries for each period, the comparability is not as ensured. Furthermore only regressions for the banking sector were realisable because the command for all five sectors contained too long expressions, which could not be solved within the restricted time horizon of this project. As all four specifications of workers on strike correlate highly (cf. appendix 18) 7.1 will focus on one of them only, affected employees in 1000.

7.1 Dependent Variable Wage

As mentioned above, the dependent variable wage will be explained using two models to be able to include all three exogenous variables. First, model two with workers on strike (affected employees in 1,000) and bargaining coverage will be looked at and afterwards model one with union density.

7.1.1 Workers on Strike – Model Two

The regression results are specified in the following table.

Table 9: Model two (wage): Workers on strike and bargaining coverage

Variable	Model Two		Model Two	
	Banking	All Sectors	Banking	All Sectors
affected employees (in 1000)	-259.540	-0.494		
	(1.86) *	(1.91) *		
bargaining coverage			-136.704	-77.794
			(2.04) **	(6.49) ***
unemployment rate	184.221	-75.179	-14.466	-293.472
	(0.85)	(1.82) *	(0.04)	(3.77) ***
GDP	dropped	dropped	dropped	-0.003
				(6.77) ***
HICP	dropped	-67.480	dropped	-31.920
		(14.01) ***		(3.98) ***
GVA	0.057	0.001	-0.090	0.000
	(0.86)	(1.05)	(3.36) ***	(0.54)
age	378.744	234.048	393.966	238.639
	(11.33) ***	(43.94) ***	(10.70) ***	(42.25) ***
sex	-9690.017	-6576.054	-9817.330	-6564.007
	(14.43) ***	(55.09) ***	(13.34) ***	(52.51) ***
education dummy 1	-6751.346	-9766.252	-6241.900	-9372.411
	(4.30) ***	(43.26) ***	(3.55) ***	(40.44) ***
education dummy 2	-6272.728	-7515.656	-6414.422	-7579.065
	(8.35) ***	(52.61) ***	(7.67) ***	(49.82) ***
period 1 dummy	5741.279	3904.021	3248.548	2637.846
	(6.22) ***	(22.66) ***	(2.99) ***	(10.05) ***
wage dummy (gross)	10268.900	8363.987	18533.150	12337.510
	(2.27) **	(29.20) ***	(10.43) ***	(19.62) ***
industry dummy		-5050.146		116.262
		(14.21) ***		(0.24)
building dummy		-8589.979		-3513.127
		(23.07) ***		(6.39) ***
commerce dummy		-8047.142		-2773.098
		(22.86) ***		(5.38) ***
service dummy		-6224.731		-1178.858
		(16.35) ***		(2.38) **
interaction variable		-44.572		65.677
		(1.73) *		(9.58) ***
constant	19832.640	37329.760	36579.910	37300.940
	(6.27) ***	(51.17) ***	(4.41) ***	(27.24) ***
Adjusted R²	0.3776	0.4021	0.3714	0.3974
No. of Observations	1667	34322	1465	32448

Source: Own illustration

Considering the regressions with all five sectors, the control variables at the individual level show a highly significant influence on wage. In detail, if a person's age increases by one year, his wage is expected to increase by 234 euros. Accordingly, a rise of one unit in the variable sex is connected to a drop in wage of 6,576 euros. As rising means changing from male to female, it can be concluded that women generally earn less than men. The third control variable, education, also supports the expectations. In comparison with people having

completed tertiary education, those with secondary earn 7,516 and those with only primary earn 9,766 euros less.

As opposed to the control variables at the individual level, those at the sectoral and national level do not always show the expected results as illustrated in section 4.2. The GDP had to be dropped due to a correlation coefficient of 0.727 with the GVA. The GVA was not significant, so both variables that were used to control for the amount of economic activities within the countries and sectors did not lead to any useful results. The unemployment rate seems to have a slightly significant influence on the ten percent-level. If it increases by one percent, wage drops by 75 euros. This can be explained by the theory described in section 3. If the market's demand for workers is less than the supply, wages can be expected to drop due to the stronger position of the employers in negotiations. The employees then suffer from fewer alternatives, the employers profit from a high number of possibilities. In contrast, the HICP have a negative sign, meaning that a rise of one euro for the basket of goods and services is followed by a reduction of wage of 67 euros. This is hardly comprehensible as it suggests that the more expensive basic goods and services become, the less people earn. As this result is constant throughout almost all models and regressions and is highly significant on the one percent-level, it might be an indicator that wage does not adapt to the cost of living equally across countries. Although both HICP and wage increase over time, countries with an expensive basket of goods and services do not necessarily have the highest wages and vice versa. Spain, for example, has the highest HICP but a relatively low wage level in model two as described in section 5.1.

All other control variables show rather expected results. The period dummy suggests that wages are generally higher by 3,904 euros in period one than in period two. The wage dummy supports that gross wages are higher than net wages, in this case by 8,364 euros on average. Finally, the various sector dummies reveal that people working in the banking sector earn more than those working in one of the other four sectors, ranging from 5,050 euros less in the industry sector to 8,590 euros less in the building sector.

The exogenous variable workers on strike proved not to have a very significant influence on wage (only significant on the ten percent-level), but surprisingly this influence is negative, meaning that 1000 more affected employees result in a decrease in wage of 0.49 euros. Comparing this result to the regression with only the banking sector (table 9, column two), one can observe that in that regression the influence is similarly significant, but is connected to a much higher decrease in wage of 260 euros. This finding is supported by the regressions in model one and three, considering all four specifications of workers on strike (cf. appendices 22 to 27). Only in model two the affected employees per 1,000 and the lost working days do not yield significant results. A possible explanation could be that the connection between workers on strike and bargaining power does not follow a linear function, but rather a concave one. A concave function would imply that little power leads to hardly any strikes due to a lack of prospects of success, whereas with a lot of power it is not necessary to strike as the claims can be put through by only threatening. Therefore low and high levels of power result in fewer strikes than moderate power as shown in figure 4.

Figure 4: Alternative function
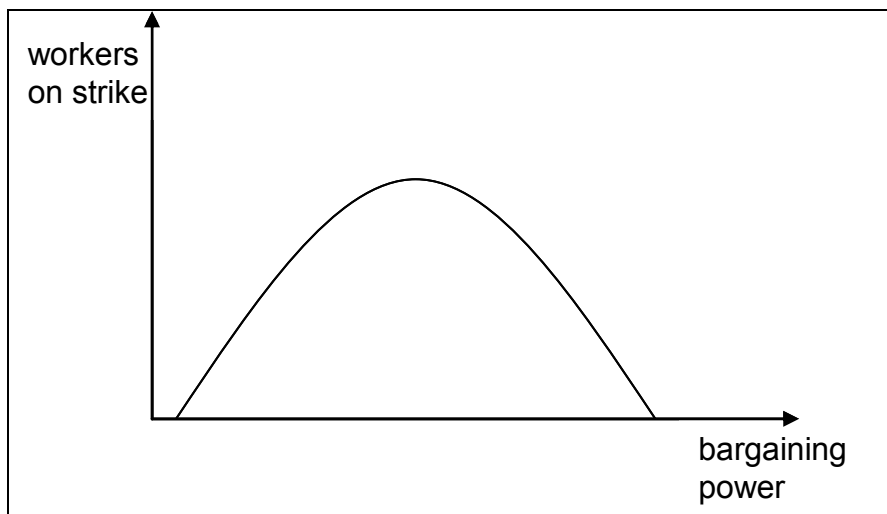
Source: Own illustration

Since bargaining power, according to the theory, influences the wage level positively the same assumption can be made for the connection between wage and workers on strike.

7.1.2 Bargaining Coverage – Model Two

The same regression model was used to determine the influence of bargaining coverage on wage. As no bargaining coverage data for Ireland are available it is not included in the regression, which reduces the number of countries from five to four. Most of the results are similar to those of section 7.1.1, especially the control variables at the individual level can be said to have an almost identical influence. The dummies have the same signs as with workers on strike as the independent variable, but the magnitude of their coefficients differs clearly. The period and the wage dummy result in higher positive changes of wage, whereas the non-banking sectors still have negative signs, but the difference to the banking sector is not as big anymore. The dummy for the industry sector is not significant.

The GVA again is not significant, but the GDP did not have to be dropped and yields a coefficient of -0.003, meaning that a rise of 1,000,000 euros causes the wage level to decrease by 0.003 euros. As the GDP had to be dropped in many regressions due to correlation and the regressions produce different signs for the coefficient, it can be concluded that no obvious relationship between the GDP and wage can be found. The latter aspect can be explained as follows: Since there are only five countries in the model and two periods per country, the variance for the GDP is mainly captured by differences between countries. A positive coefficient would therefore suggest that the higher the GDP in a certain country, the higher the wages. This does not have to be the case because the GDP also depends on the size of the country. The results for the unemployment rate and the HICP are comparable to the results from the previous section with the difference, that the first one is followed by a higher decrease and the latter by a lower decrease in wage.

The exogenous variable bargaining coverage does not produce the predicted results. As it is the case with workers on strike, the regression suggests that a rise of one percent in bargaining coverage decreases the wage by 78 euros. Again, this finding is supported by the regression considering only the banking sector. Looking at all models, however, one regression yields no significant results, three regressions show (highly) significant negative connections and one a highly positive one (cf. appendices 22 to 27). As bargaining coverage was available only at the national level, these results lead to the conclusion that sectoral data should be used to differentiate more effectively. The model includes four countries and two periods, therefore only eight values for the variable could be used for the regression. Obviously this was not sufficient.

7.1.3 Union Density – Model One

As the data for union density were very restricted and not available for period one, only model one was appropriate to test the influence of this third independent variable on the dependent variables wage and hours worked. The results for wage can be found in table 10.

      The control variables at the individual level are closely related to the results from previous regressions, only that they cause a somewhat smaller change in wage than before. The wage dummy signals a lower difference between net and gross wages, especially compared to the regression with bargaining coverage (12,338 versus 5,685 euros), whereas the sector dummies are about the same as or a bit lower than in the regression with workers on strike. The signs of the dummies fulfil the expectations described in section 4.2.

      The problematic variables again are to be found among the sectoral and national data. The GVA's influence on wage in this regression is not significant, although it becomes highly significant in the regression with only the banking sector. There it yields a positive coefficient of 0.22 which is congruent with the expectations from before. The unemployment rate had to be dropped because of correlations with the HICP. The HICP have the same negative sign as before and result in a decrease in wage comparable to the one in the regression with workers on strike. The GDP, finally, has a positive coefficient of 0.002, meaning that a GDP of 1,000,000 euros more leads to an increase in wage of 0.002 euros. As has been mentioned before, this can be ascribed to the limited amount of data, especially since this model considers only one period.

      The results for the exogenous variable union density support the derived expectations about a positive connection. One more percent of union density causes wage to increase by 30 euros. This highly significant finding is confirmed by the regression considering only the banking sector. There it has to be pointed out that a rise of union density even results in a higher increase of 294 euros. Therefore it seems to have a higher absolute impact on wage in the banking sector than in all five sectors combined.

Table 10: Model one (wage): union density

Variable	Model One	
	Banking	All Sectors
union density	294.287	30.006
	(4.85) ***	(3.42) ***
unemployment rate	dropped	dropped
GDP	dropped	0.002
		(3.76) ***
HICP	-203.391	-65.370
	(8.73) ***	(9.45) ***
GVA	0.220	0.001
	(10.30) ***	(0.96)
age	378.115	211.391
	(8.32) ***	(27.58) ***
sex	-8292.865	-5638.352
	(8.81) ***	(33.40) ***
education dummy 1	-7490.383	-9157.255
	(1.72) *	(27.17) ***
education dummy 2	-4129.310	-5908.977
	(3.96) ***	(28.94) ***
wage dummy (gross)	dropped	5684.699
		(8.95) ***
industry dummy		-5191.514
		(4.80) ***
building dummy		-6952.809
		(6.21) ***
commerce dummy		-6756.629
		(6.30) ***
service dummy		-5983.805
		(5.60) ***
interaction variable		-50.616
		(1.17)
constant	35401.730	31022.070
	(8.51) ***	(23.39) ***
Adjusted R^2	0.3519	0.3746
No. of Observations	626	12949

Source: Own illustration

7.1.4 General Results

The previous three sections examined the three indicators for bargaining power namely workers on strike, bargaining coverage and union density. Although the derived expectations suggested a positive relationship between each one of them and the dependent variable wage, the findings for workers on strike and bargaining coverage were contrary to the illustrated theory. Only union density produced the expected result.

One explanation for workers on strike not following the expectations has been mentioned before. Its connection with bargaining power might not be linear, as assumed, but instead concave with an increasing slope at the beginning and a decreasing slope at the end.

This function would suggest that both a high and a low level of bargaining power lead to a low number of strikes. Employees with a weak position in negotiations would therefore refrain from striking due to their concern of not being successful, whereas powerful employees only need the possibility to threaten without actually having to strike to reach their targets. Another explanation could be found in the prerequisites of a strike. Negotiations usually had to be unsuccessful which means somebody or something failed. Regarding strikes as a consequence of failure, this would naturally not be connected to a high level of bargaining power.

The results for bargaining coverage lead to the conclusion, that an increase causes wage to drop. As the data used were not specified at the sectoral level as it was for the other two independent variables, idiosyncratic aspects of the various countries might have had an influence on the findings. Wages in countries with high bargaining coverage could possibly tend to be lower than in countries with lower coverage because relatively more employees are affected and would profit from high wages. Therefore the employers' associations could argue that the wages should depend on the number of workers included in the agreement, and more workers would mean relatively more expenses if the wages increased. This assumption should be tested by redoing a regression with more detailed data, preferably on the sectoral level.

While workers on strike and bargaining coverage do not seem to be adequate indicators for bargaining power, the regression results for union density lead to the conclusion that union density might be a measure for it as it influences wage positively. This means that the percentage of employees being union members determines their strength and ability to assert their objectives. If the union's position is supported by more workers, their bargaining power increases. However, one major problem is the lack of retest possibilities. The restricted data, especially for union density, but also for the dependent and the control variables, did not allow further testing. More recent data have to be collected and additional regressions have to be run before the finding can be said to contribute to the theoretical framework. This was not feasible within the range of this research project.

Apart from the three independent variables, another important finding should be mentioned which is illustrated in table 11. The individual control variables age, sex and education seem to have the highest explanation power with an adjusted R^2 of 0.3727 for workers on strike and 0.3805 for bargaining coverage, including all dummy variables in the regressions. Considering only the variables at the sectoral and national level, those amount to an adjusted R^2 of merely 0.2363 (0.2443). Combining both categories, the adjusted R^2 amounts to 0.3914 (0.3951) and increases a bit further to 0.4021 (0.3974) after adding the exogenous variable. The development for union density is similar, only that the adjusted R^2 slightly drops after including union density in the regression. Detailed regression results can be extracted from appendix 19.

Table 11: Adjusted R² for individual versus sectoral/ national data (all 5 sectors)

	I) Individual data	II) Sectoral/ National data	III) Combination of I) and II)	IV) Including exogenous variable
workers on strike	0.3727	0.2363	0.3914	0.4021
bargaining coverage	0.3805	0.2443	0.3951	0.3974
union density	0.3687	0.2303	0.3806	0.3746

Source: Own illustration

Considering the standardised coefficients respectively beta for workers on strike in the regression with the individual, sectoral and national data, age also supports the conclusion from above with a comparatively high beta of 0.192 with regard to the betas for the unemployment rate (0.019), the HICP (0.132) and the GVA (0.014) (cf. appendix 20). Other betas cannot be considered due to the variables being dummies or dichotomous.

The results for the banking sector generally support the results for the regressions with all five sectors. One noticeable difference is that with every additional unit in the independent variable, wage jumps to a comparably much higher or lower level. Considering workers on strike, for example, 1,000 more affected employees results in a decrease in wage of only 0.494 euros when all five sectors are included, but leads to a loss of wage of almost 260 euros when the regression is reduced to only banking sector. As this phenomenon is constant across all regressions and all models, the banking sector can be assumed to be much more sensitive to the amount of workers on strike and the percentage of bargaining coverage and union density. This observation is supported by the interaction variable for workers on strike. The interaction variable in the regression with union density does not show a significant result and the one for bargaining coverage cannot be interpreted meaningful because of the missing subdivision into sectoral data.

Comparing the wage levels in the various sectors, it can be observed that all sector dummies have negative signs, meaning that the overall wages in the banking sector are higher than in all other sectors considered. The created interaction variable which should specify the difference between the influence of the independent variable in the banking sector and the other four sectors does not deliver significant results in the regression with the variable wage.

The previous conclusion about individual versus sectoral and national data are further supported by the results for stepwise regressions in the banking sector listed in table 12. It seems that individual data have an even higher explanation power in comparison with sectoral and national data than before. It should be noticed that adding union density to the model (see last row) does not cause the adjusted R^2 to drop, but rather stay the same. The regression results can also be found in appendix 21.

Table 12: Adjusted R² for individual versus sectoral/ national data (banking sector)

	I) Individual data	II) Sectoral/ National data	III) Combination of I) and II)	IV) Including exogenous variable
workers on strike	0.3738	0.1848	0.3767	0.3776
bargaining coverage	0.3673	0.1812	0.3700	0.3714
union density	0.3348	0.1374	0.3519	0.3519

<div align="right">

Source: Own illustration

</div>

7.2 Dependent Variable Hours Worked per Week

This section is mainly composed according to the previous one, using the same steps to illustrate the regression results. In contrast, hours worked per week is used as the independent variable. As the regression models were specified for the independent variable wage not all control variables can be adequately explained.

7.2.1 Workers on Strike

The results for the corresponding regressions to section 5.1 are exemplarily illustrated in the table 13.

Across all models and regressions, the control variables at the individual level have negative signs, in case they are significant. Referring to table 13, column two, adding one year to a person's age, his working time is expected to decrease by 0.05 hours worked per week. This result is hardly significant for regressions combining all five sectors, but rather explains working time in the banking sector. Sex, however, is highly significant for all regressions. The negative coefficients suggest that women work less than men. As the separation between part-time and full-time workers was not feasible with the available data, many people who work part-time due to household or family responsibilities are expected to be female. The influence of education depicted in table 13 can be interpreted as people with tertiary education working between one and two hours more per week than those with only primary or secondary education. As high positions are usually related to a certain amount of responsibility, people with a certain level of ambition and knowledge are preferred to occupy them. Those positions are usually connected to a comparably high work load.

The control variables at the sectoral and national level partly show inconsistencies. The GDP and the HICP change signs, but stay the same within one model. In addition each model produces the same sign for both of them. Those conflicting results for the HICP might find their explanation in the income and substitution effect. The more expensive the basket of goods and services becomes while keeping everything else constant, the more people will be induced to increase their working time to stay on an equal financial level (income effect).

However, rising importance of spare time leads to a reduction in working time (substitution effect).

Table 13: Model two (hours worked): workers on strike and bargaining coverage

Variable	Model Two		Model Two	
	Banking	All Sectors	Banking	All Sectors
affected employees (in 1000)	-0.050	0.001		
	(1.78) *	(3.92) ***		
bargaining coverage			-0.003	0.018
			(0.07)	(1.72) *
unemployment rate	0.080	0.078	-0.254	-0.127
	(0.60)	(2.22) **	(1.76) *	(2.52) **
GDP	dropped	0.000	dropped	-0.000
		(7.49) ***		(13.65) ***
HICP	dropped	0.015	dropped	0.009
		(3.94) ***		(2.43) **
GVA	0.000	0.000	0.000	0.000
	(2.45) **	(10.01) ***	(0.24)	(11.90) ***
age	-0.054	-0.002	-0.040	-0.009
	(2.69) ***	(0.35)	(1.85) *	(1.87) *
sex	-6.934	-7.974	-6.570	-7.689
	(16.26) ***	(69.15) ***	(14.42) ***	(65.92) ***
education dummy 1	-0.214	-1.897	-0.227	-2.017
	(0.22)	(8.92) ***	(0.21)	(9.52) ***
education dummy 2	-2.404	-1.642	-2.671	-1.976
	(4.99) ***	(11.63) ***	(5.13) ***	(13.73) ***
period 1 dummy	0.259	-0.359	-0.199	-0.061
	(0.49)	(2.22) **	(0.31)	(0.31)
industry dummy		-1.934		0.918
		(6.12) ***		(1.87) *
building dummy		0.663		3.338
		(2.01) **		(6.32) ***
commerce dummy		1.068		4.326
		(3.54) ***		(8.64) ***
service dummy		-5.137		-3.018
		(15.78) ***		(6.12) ***
interaction variable		-0.051		0.030
		(2.09) **		(4.49) ***
constant	52.744	51.616	56.090	52.325
	(28.60) ***	(94.47) ***	(11.52) ***	(40.92) ***
Adjusted R²	0.1304	0.1481	0.1213	0.1483
No. of Observations	1995	45103	1755	42177

Source: Own illustration

The unemployment rate is positively connected to hours worked across all regressions, meaning that the higher the unemployment rate, the higher the working time. An increased level of unemployment could cause employees to show their commitment in order to stay with the company by working harder and also longer. The GVA similarly influences the hours worked. As the GVA depends on the amount of work used for the production, a higher GVA

should be connected to more working time, at least in the period under consideration. This, however, ignores the possibilities of new technologies making the production process more efficient.

The period dummy suggests that in period two people had to work between 0.35 and 0.60 hours more per week compared to period one. The coefficients of the sector dummies fluctuate a lot, but most of the time the industry and the service sector seem to have fewer working hours than the banking sector, whereas people in the building and the commerce sector had to work more on average.

The exogenous variable workers on strike shows very conflicting results. In regressions with all five sectors it mostly has a positive influence on hours worked. In regressions with only the banking sector, however, an increase in workers on strike increases the hours worked in model one, but reduces them in model two and has a changing impact in model three. Therefore no conclusion can be drawn. Ignoring the results for the banking sector and considering only those for the five sectors means following the reasoning of section 7.1.1 and 7.1.4 about high numbers of workers on strike being an indicator for moderate power or failure.

7.2.2 Bargaining Coverage

The regressions produce similar results for the individual and the dummy variables as they do with workers on strike as the independent variable. Only this time they do not fluctuate, and the service sector is the only one with fewer hours worked than the banking sector.

Among the variables at the sectoral and national level, the GDP and the HICP are the only ones being consistent across most regressions (negative coefficients), whereas the unemployment rate and the GVA change their direction of influence on the working time. As this finding is the direct opposite from the finding in section 7.2.1, this signalises that the models are not ideally specified concerning the variable hours worked per week.

The results for bargaining coverage are extremely controversial. They completely differ between the models (cf. appendices 22 to 27). Therefore no conclusion can be drawn as almost all results are highly significant. The lack of sectoral data and the specification of the model might be an explanation.

7.2.3 Union Density

Due to the lack of data for union density, only model one is available for this third independent variable. The results are listed in table 14.

The coefficients for the individual data and the dummies show the same signs as they do in section 7.2.2. Age, sex and education have a negative influence on hours worked per week, and the service sector is the only one with less working time, namely five hours per week, than the banking sector.

Table 14: Model one (hours worked): union density

Variable	Model One	
	Banking	All 5 Sectors
union density	-0.135	-0.073
	(3.97) ***	(7.32) ***
unemployment rate	dropped	1.808
		(4.82) ***
GDP	dropped	-0.000
		(7.91) ***
HICP	-0.020	-0.093
	(1.18)	(5.58) ***
GVA	-0.000	0.000
	(0.67)	(12.70) ***
age	-0.016	-0.010
	(0.52)	(1.31)
sex	-5.941	-7.156
	(8.84) ***	(39.02) ***
education dummy 1	3.367	-1.842
	(1.56)	(5.23) ***
education dummy 2	-1.657	-1.775
	(2.22) **	(7.78) ***
industry dummy		2.266
		(2.17) **
building dummy		5.716
		(5.31) ***
commerce dummy		4.872
		(4.82) ***
service dummy		-4.945
		(4.84) ***
interaction variable		0.000
		(0.01)
constant	56.513	50.822
	(18.81) ***	(20.30) ***
Adjusted R²	0.1386	0.1475
No. of Observations	785	16623

Source: Own illustration

The sectoral and national variables do not explain any of the variation of hours worked in the regression with only the banking sector. Either they had to be dropped due to correlations or they are insignificant. The regression with all five sectors supports the findings of 7.2.1 and 7.2.2 that are consistent across regressions. The consistent findings from 7.2.1 are that the unemployment rate and the GVA are positively connected to hours worked, which is the case with union density as well. The consistent – or not "fluctuating" – findings from 7.2.2, negative signs for the GDP and the HICP, are also confirmed.

The exogenous variable, union density, yields the expected results. Both regressions show a highly significant negative connection between this indicator of bargaining power and the number of hours worked per week. As predicted in section 3, union density strengthens

the position of unions in negotiations and thus facilitates their preferred outcomes. In contrast to wage which is supposed to increase, the working time should rather decline.

7.2.4 General Results

The results from the preceding sections using hours worked per week as the dependent variable partly support the findings from 7.1. However, this is not always the case.

Workers on strike produced a rather ambivalent outcome. In regressions with all five sectors it tends to cause a higher number of hours worked. This is consistent with the results from 7.1.1 in so far as both times the suggested relationship between workers on strike and bargaining power is positive. The results for the banking sector, in contrast, allow no solid interpretation, but as the model was specified for wage as the dependent variable, a modification to adapt the control variables to hours worked might produce different results. Therefore the results are not taken as the basis for an interpretation.

As bargaining coverage was completely inconsistent across all regressions, it will not be considered or used for explanations about working time any more. Possible reasons for these fluctuating results could be the fact that the model was primarily specified for wage as the dependent variable and that no sectoral data for bargaining coverage are available.

Union density, however, confirmed the results from section 7.1.3 and thereby supports the theoretical derivations about the importance of the number of union members with regard to their bargaining power. Again, the positive relationship between union density and the bargaining outcome hours worked indicates that more unionised employees achieve their objectives better. In this case they manage to reduce the working time (negative coefficient for union density).

The stepwise regressions considering individual versus sectoral and national data were not conducted because they would be of little meaning. Working time is certainly influenced by more important parameters than the HICP. For instance, the size of the company, the position within the company, the type of payment (fixed versus variable), the form of employment (e.g. self-employed) or the goal-setting process (distributing tasks with deadlines and no regular working hours versus regular working hours) can all be expected to have a certain impact on the number of hours worked per week.

Concerning the banking sector, the only noticeable differences are to be found in model two. There the coefficients of workers on strike and bargaining coverage fluctuate between positive and negative across the regressions as has been noted in section 7.2.1 and 7.2.2. Similar to the conclusion from above, the regressions with hours worked per week have a much higher coefficient for the union density when only the banking sector is considered than in regressions with all sectors of interest. The created interaction variable which should specify the difference between the influence of the independent variable in the banking sector and the other four sectors does not deliver significant results in the regression with the variable hours worked per week.

7.3 Limitations

One main problem that appeared during this study was the restricted availability of data and also the lack of possibilities to thoroughly inspect it because the LIS database could only be used by sending commands, while certain commands were not allowed (e.g. "list"). Therefore various limitations ought to be listed to give an explanation for the sometimes inconsistent and surprising results.

As has been mentioned to explain the findings for workers on strike, the relationship between the dependent and the independent variables might not be linear. This was difficult to control since both dependent variables were not directly accessible. As the sample size is rather large, this might have lead to increasingly biased estimates for the coefficients.[34]

Furthermore not all potential factors that influence the dependent variables were considered. This was again partly due to the restricted data access and also the intransparent categorisations in the LIS database that resulted from differences in the country-specific surveys, partly to the large amount of parameters influencing wage and working time.

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[34] Cf. Backhaus et al. (2006), p. 80.

8 Conclusion

Now that the results of the conducted regression analysis have been examined and interpreted, the following conclusion can be drawn. The theoretically derived hypothesis that bargaining power of trade unions, operationalised by union density, bargaining coverage and the degree of strike activity, influences the working conditions of employees positively cannot be asserted without constraints. The expected positive effect of union density on wages and working hours, meaning that with higher union density the wages rise and the working hours decrease, was confirmed by the results of the respective regressions. In contrast, the results for workers on strike and bargaining coverage do not follow the positive interrelationship inferred from the theory. For both variables an inverse influence on wages has been observed, which means that with higher bargaining coverage and more striking workers the wages fall. Considering the variable bargaining coverage and its influence on hours worked, the results are highly inconsistent across all regressions, so that no solid conclusion can be drawn. Workers on strike also did not have a definite effect on hours worked. On the one hand, when regarding workers on strike in all five sectors, the influence on the variable hours worked per week was positive, which is not in line with the hypothesis. On the other hand, in regressions that considered only the banking sector no clear effect could be determined.

All in all only the results for one of the three variables that were used to operationalise bargaining power support the hypothesis. Although these results are not satisfying, the general hypothesis that high bargaining power of unions has a positive effect on wages and working hours should not be questioned. The chosen operationalisation of bargaining power and the specification for the models, however, should be reconsidered.

In further research projects the analysis of bargaining coverage as an indicator for bargaining power should be intensified. Here it is necessary to test the models again with data on sectoral level as it has been the case with union density and workers on strike. Although union density as the independent variable supported the derived connection, the results cannot be generalised without additional testing. For this new data have to be collected.

Moreover the regressions, especially those with the independent variable hours worked, should be run again with other control variables to test if more suitable ones exist. In the project at hand the control variables were chosen for the independent variable wage and simply transferred on the models that considered hours worked. If the results then stay as inconsistent, bargaining coverage and workers on strike might not be appropriate variables to measure the bargaining power of a trade union, as it has been explained in detail in section 7.

In addition the statistical method has to be reassessed with regard to the possibly not linear connection between workers on strike and bargaining power. Squaring the values for this independent variable with regard to a maybe non-linear relationship led to rather similar results. All signs showed in the same direction and the adjusted R^2 varied by maximal one percent in comparison to the basic models.

The fact that the variance between the single countries was higher than between the different periods, according to the limited number of years that could be included, might explain why especially the control variables at the national level did not show the expected results. Up-to-date data should improve the comparability of those variables. In further analyses a country dummy could be used instead of the period dummy.

Although this study contributed to the topic of bargaining power of trade unions and its influence on working conditions, some questions are still unanswered. The suggestions for further research are expected to shed light on these issues and might eventually lead to a general conclusion about how wide unions' influence reaches.

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Appendix

Appendix 1: LIS - Eurostat codes for period 1

Country	Year	Sector	LIS	Eurostat
Belgium	2000	Industry	100, 110, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 400, 410	C, D, E
		Bulding	450	F
		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J
Germany	2000	Industry	100, 110, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 400, 410	C, D, E
		Bulding	450	F
		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J
Italy	2000	Industry	2	C, D, E
		Bulding	3	F
		Commerce	4	G
		Service	7, 8, 9, 10	H, K, L, M, N, O, P
		Finance	6	J
Netherland	1999	Industry	111 142 150 151 152 153 155 156 157 158 159 160 170 173 174 176 180 182 193 200 201 203 204 210 211 212 220 221 222 240 241 242 243 244 245 246 247 250 251 252 261 266 267 270 271 273 274 275 280 281 282 287 290 291 292 293 295 297 300 310 311 312 313 315 321 323 331 332 340 341 342 351 352 353 361 362 363 364 366 370 400 410	C, D, E
		Bulding	450 451 452 453 454 455	F
		Commerce	501 502 503 504 505 510 511 512 513 514 515 516 517 520 521 522 523 524 525 526 527 550 551 552 553 554 555	G
		Service	700 701 702 703 711 712 714 720 721 722 730 731 732 740 741 742 743 744 745 746 747 748 750 751 752 753 800 801 802 803 804 850 851 852 853 900 910 911 912 913 920 921 922 923 924 925 926 927 930 950	H, K, L, M, N, O, P
		Finance	650 651 652 660 670 672	J
Finland	2000	Industry	100 130 140 150 160 170 180 190 201 202 203 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 361 362 370 400 410	C, D, E

		Bulding	451 453 455	F
		Commerce	501 505 510 520 551 553	G
		Service	700 710 720 730 741 742 744 745 746 747 748 751 752 753 800 851 852 853 900 911 913 914 921 922 923 924 925 926 927 930 950 990	H, K, L, M, N, O, P
		Finance	650 660 670	J
Sweden	2000	Industry	103, 131, 132, 141, 142, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 172, 173, 174, 175, 176, 177, 182, 183, 191, 192, 193, 201, 202, 203, 204, 205, 211, 212, 221, 222, 232, 233, 241, 243, 244, 245, 246, 247, 251, 252, 261, 262, 265, 266, 267, 268, 271, 272, 273, 274, 275, 281, 282, 284, 285, 286, 287, 291, 292, 293, 294, 295, 296, 297, 300, 311, 312, 313, 314, 315, 316, 321, 322, 323, 331, 332, 333, 334, 341, 342, 343, 351, 352, 353, 354, 361, 362, 364, 365, 366, 371, 372, 401, 403, 410	C, D, E
		Bulding	451, 452, 453, 454, 455	F
		Commerce	501, 502, 503, 504, 505, 511, 512, 513, 514, 515, 516, 517, 521, 522, 523, 524, 525, 526, 527, 551, 552, 553, 554, 555	G
		Service	702, 703, 711, 712, 713, 714, 721, 722, 723, 724, 725, 726, 731, 732, 741, 742, 743, 744, 745, 746, 747, 748, 751, 752, 753, 801, 802, 803, 804, 851, 852, 853, 900, 911, 912, 913, 921, 922, 923, 924, 925, 926, 927, 930	H, K, L, M, N, O, P
		Finance	651, 652, 660, 671, 672	J
Ireland	2000	Industry	100, 110, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 400, 410	C, D, E
		Bulding	450	F
		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J
Spain	2000	Industry	100, 110, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 400, 410	C, D, E
		Bulding	450	F
		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J

Appendix 2: LIS - Eurostat codes for period 2

Country	Year	Sector	LIS	Eurostat
Belgium	1995	Industry	110, 120, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 400, 410	C, D, E
		Bulding	450	F
		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J
Germany	1994	Industry	100, 110, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 400, 410	C, D, E
		Bulding	450	F
		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J
Italy	1995	Industry	2	C, D, E
		Bulding	3	F
		Commerce	4	G
		Service	7, 8, 9, 10	H, K, L, M, N, O, P
		Finance	6	J
Finland	1995	Industry	100, 130, 140, 150, 160, 170, 180, 190, 201, 202, 203, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 361, 362, 370, 400, 410	C, D, E
		Bulding	451, 453, 455	F
		Commerce	501, 505, 510, 520, 551, 553	G
		Service	700, 710, 720, 730, 741, 742, 744, 745, 746, 747, 748, 751, 752, 753, 800, 851, 852, 853, 900, 911, 913, 914, 921, 922, 923, 924, 925, 926, 927, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J
Ireland	1994	Industry	100, 110, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 400, 410	C, D, E
		Bulding	450	F
		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950, 990	H, K, L, M, N, O, P
		Finance	650, 660, 670	J
Spain	1995	Industry	100, 110, 120, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 400, 410	C, D, E
		Bulding	450	F

		Commerce	500, 510, 520, 550	G
		Service	700, 710, 720, 730, 740, 750, 800, 850, 900, 910, 920, 930, 950	H, K, L, M, N, O, P
		Finance	650, 660	J
Sweden	1995	Industry	2, 3, 4	C, D, E
		Bulding	5	F
		Commerce	6	G
		Service	-	H, K, L, M, N, O, P
		Finance	8, 9	J

Appendix 3: LIS - Eurostat codes for period 3

Country	Year	Sector	LIS	Eurostat
Italy	1989	Industry	2	C, D, E
		Bulding	3	F
		Commerce	4	G
		Service	7, 8, 9	H, K, L, M, N, O, P
		Finance	6	J
Niederlande	1991	Industry	12 13 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	C, D, E
		Bulding	51 52	F
		Commerce	61 62 65 66 67 68 69	G
		Service	83 84 85 89 90 91 92 93 94 95 96 97 98 99	H, K, L, M, N, O, P
		Finance	81 82	J
Finland	1991	Industry	60 70 90 111 116 117 118 120 130 141 142 143 150 160 170 180 190 210 221 223 230 240 250 260 271 272 273 274 275 279 290 310 320 330 340	C, D, E
		Bulding	350 360 370 380	F
		Commerce	410 420 430 451 453 470 480	G
		Service	650 660 670 710 720 750 760 770 811 812 813 814 819 821 822 823 824 829 830 850 860 871 872 873 874 881 882 883 911 912 913 914 915 919 920 930 941 942 949 950 980	H, K, L, M, N, O, P
		Finance	610 620	J
Spain	1990	Industry	10 20 30 40	C, D, E
		Bulding	50	F
		Commerce	60	G
		Service	90	H, K, L, M, N, O, P
		Finance	80	J

Appendix 4: Classification of the education levels

Country	Year	Primary Level	Secondary Level	Tertiary Level
Belgium	2000	Less than first stage of secondary level	First stage of secondary level (general)	Second stage of secondary level (general)
			First stage of secondary level (arts)	Second stage of secondary level (arts)
			First stage of secondary level (technical)	Second stage of secondary level (technical)
			First stage of secondary level vocational)	Second stage of secondary level (vocational)
	1995	Less than first stage of secondary level	First stage of secondary level (general)	Second stage of secondary level (general)
			First stage of secondary level (arts)	Second stage of secondary level (arts)
			First stage of secondary level (technical)	Second stage of secondary level (technical)
			First stage of secondary level vocational)	Second stage of secondary level (vocational)
Germany	2000	Left school without diplom	Secondary gereral education (Hauptschule)	Technical college (Fachhochschule)
			Secondary gereral education (Hauptschule)	University (Universität)
			Secondary gereral education (Hauptschule)	Foreign university (Hochschule im Ausland)
			Academy (Fachoberschule)	Technical school (Ingeneurfachschule Ost)
				University GDR (Hochschule Ost)
				Other diploma
	1994	Left school without diplom	Secondary gereral education (Hauptschule)	Technical college (Fachhochschule)
			Secondary gereral education (Hauptschule)	University (Universität)
			Secondary gereral education (Hauptschule)	Foreign university (Hochschule im Ausland)
			Academy (Fachoberschule)	Technical school (Ingeneurfachschule Ost)
				University GDR (Hochschule Ost)
				Other diploma
Finland	2000	Pre-primary education	Upper secondary	First stage of teritary education 5B Programmes
			Post-secondary non-teritary education	First stage of teritary education 5A Programmes
	1995	Primary/ lower secondary/ no education	Upper Secondary	Lowest stage of teritary education
				Lower teritary education
				Higher teritary education
				Post-graduate education
	1991	-	10-11 Years	13-14 Years
			12 Years	15 Years
				16 Years
				Post-graduate education

Country	Year			
Ireland	2000	Less than first stage of secondary level	First stage of secondary level	Third level other than university degree
			Second stage of secondary level	Initila university degree, or equivalent
				Higher university degree, or post-doctorate
Ireland	1995	Less than first stage of secondary level	First stage of secondary level	Third level other than university degree
			Second stage of secondary level	Initila university degree, or equivalent
				Higher university degree, or post-doctorate
	1995	None	Middle school	Bachelor degree
		Elementary school	High school	Post graduate qualification
	1991	None	Middle school	Bachelor degree
		Elementary school	High school	Post graduate qualification
	1989	None	Middle school	Bachelor degree
		Elementary school	High school	Post graduate qualification
Netherlands	1999	Primary	Secondary lower	Tertiary lower
			Secondary Higher	Postgraduate or old master
				Postdoctorate
	1994	Primary	Secondary lower	Tertiary lower
			Secondary Higher	Postgraduate or old master
				Postdoctorate
	1991	Primary	Secondary lower	Tertiary lower
			Secondary Higher	Postgraduate or old master
Spain	2000	No education, or pre-primary (ISCED0)	First stage of secondary level (ISCED2)	Initila university degree, or equivalent (ISCED5)
		Primary education (ISCED1)	Vocation training, intermediate level (ISCED3or 4)	Higher university degree, or post-doctorate (ISCED6)
			Vocation training, advance level (ISCED4or5)	
			Second stage of secondary level (ISCED3)	

Spain	1995	No education, or pre-primary (ISCED0)	First stage of secondary level (ISCED2)	Initila university degree, or equivalent (ISCED5)
		Primary education (ISCED1)	Vocation training, intermediate level (ISCED3or 4)	Higher university degree, or post-doctorate (ISCED6)
			Vocation training, advance level (ISCED4or5)	
			Second stage of secondary level (ISCED3)	
Sweden	2000	Primary	Lower secondary level of education	Post-secondary non tertiary
			Upper secondary level of education	First stage of tertiary
				Second stage of tertiary
	1995	Primary school #1	Secondary school #1	University #1
		Primary school #2	Secondary school #2	University #2
				Research

Appendix 5: Classified wage data for model two

WAGE in €	Italy	Germany	Belgium	Spain	Ireland
>=4800 & <12000	68	54	44	18	50
>=12000 & <24000	293	110	172	50	109
>=24000 & <48000	91	322	70	54	35
>=48000 & <72000	3	78	7	6	6
>=72000 & <96000	1	14	0	0	2
>=96000 & <120000	0	5	0	0	0
>=120000	0	4	1	0	0
Total	456	587	294	128	202

Appendix 6: Classified hours worked per week data for model two

HOURS	Italy	Germany	Belgium	Spain	Ireland
>0 & <10	4	15	1	2	0
>=10 & <20	2	21	5	2	14
>=20 & <30	32	39	14	2	14
>=30 & <40	165	171	126	53	102
>=40 & <50	281	342	134	74	78
>=50 & <60	57	66	36	21	23
>=60 & <70	15	37	12	5	6
>=70 & <80	1	8	4	0	2
>=80	4	1	3	0	1
Total	561	700	335	159	240

Appendix 7: Net union density per country and sector

Country	Period	Net union density				
		Finance	Industry	Building	Commerce	Services
Belgium	1	-	-	-	-	-
	2	21.60	98.70	61.20	36.90	27.20
Finland	1	-	-	-	-	-
	2	-	-	-	-	-
	3	-	-	-	-	-
Germany	1	-	-	-	-	-
	2	12.90	49.10	14.80	11.60	27.60
Ireland	1	-	-	-	-	-
	2	-	-	-	-	-
Italy	1	-	-	-	-	-
	2	17.40	40.10	41.90	22.60	30.00
	3	21.50	45.80	33.90	18.80	30.10
Netherlands	1	-	-	-	-	-
	3	7.80	21.40	32.50	9.10	24.60
Spain	1	-	-	-	-	-
	2	-	9.30	6.10	29.90	14.80
	3	-	6.30	4.50	26.00	11.40
Sweden	1	-	-	-	-	-
	2	62.50	100.00	100.00	62.30	100.00

Appendix 8: Workers on strike per country and sector

Country	Period	Workers on strike (affected employees in 1000)				
		Finance	Industry	Building	Commerce	Services
Belgium	1	0.31	8.43	0.06	2.95	-
	2	0.38	10.90	0.00	1.49	0.08
Finland	1	1.01	35.04	0.13	12.66	0.12
	2	20.21	31.97	0.41	6.78	31.29
	3	55.00	81.07	10.67	65.72	-
Germany	1	4.37	87.90	0.00	4.69	0.64
	2	0.05	163.46	0.33	9.83	0.88
Ireland	1	0.01	-	1.15	3.80	26.19
	2	0.09	-	0.30	9.24	11.34
Italy	1	29.40	451.45	4.85	161.20	136.45
	2	14.10	1325.50	68.60	160.20	50.70
	3	155.90	1456.05	141.75	478.95	-
Netherlands	1	0.00	1.50	1.35	2.90	28.80
	3	-	-	-	-	-
Spain	1	6.83	109.38	444.77	448.02	266.95
	2	10.07	271.87	71.77	77.37	320.60
	3	35.70	714.60	102.93	162.93	-
Sweden	1	0.02	0.37	0.13	4.28	0.02
	2	0.38	4.62	0.00	32.79	29.54

Appendix 9: Gross values added per country and sector

Country	Period	GVA (in million)				
		Finance	Industry	Building	Commerce	Services
Belgium	1	13070.55	33029.20	10872.40	29017.15	96473.35
	2	12129.47	44071.07	9665.33	26458.73	82781.60
Finland	1	4232.00	30967.00	6173.00	12456.50	41426.50
	2	3341.30	22867.37	3819.93	9318.33	31879.97
	3	3685.23	22677.87	7436.20	11607.63	32433.43
Germany	1	86785.00	456985.00	97720.00	229540.00	839490.00
	2	80943.80	432730.87	113948.00	208916.23	751174.00
Ireland	1	6653.70	30628.45	6295.35	10236.75	24920.50
	2	3910.85	15678.25	2677.15	6166.95	14572.20
Italy	1	62357.85	244608.05	50647.40	175249.10	412602.30
	2	50855.77	205501.97	43876.33	143522.47	307550.20
	3	50546.10	215923.00	50098.63	140700.10	283273.47
Netherlands	1	22005.50	68796.50	20002.50	57258.50	155583.50
	3	10630.77	52021.53	12928.30	33418.90	84427.27
Spain	1	26404.00	115411.00	44620.00	105081.00	193710.50
	2	23637.15	98159.95	32942.10	83471.25	146883.55
	3	-	-	-	-	-
Sweden	1	9902.40	53880.10	8822.85	26887.25	96915.15
	2	8398.73	42371.90	7589.00	21086.80	72257.77

Appendix 10: National data

Country	Period	GDP in mio.	HICP in %	Unemploym. in %	Barg. Cov. in %
Belgium	1	244987.00	134.30	7.70	90.00
	2	210940.40	125.51	9.67	90.00
Finland	1	125912.00	151.51	10.00	90.00
	2	95373.93	142.45	15.53	95.00
	3	106167.80	126.74	4.30	95.00
Germany	1	2037250.00	132.35	7.55	68.00
	2	1886943.17	124.84	8.27	92.00
Ireland	1	97495.70	147.05	5.00	-
	2	51947.63	132.79	12.77	-
Italy	1	1159074.20	187.35	10.50	80.00
	2	913566.40	167.68	11.00	82.00
	3	890707.67	131.86	9.03	83.00
Netherlands	1	402076.50	132.35	3.00	80.00
	3	230947.40	104.75	5.97	71.00
Spain	1	605123.00	197.00	11.80	80.00
	2	457343.67	173.49	18.57	78.00
	3	401094.37	136.67	13.30	76.00
Sweden	1	250285.25	168.75	6.15	90.00
	2	195926.23	164.62	9.27	89.00

Appendix 11: Wage for model one

Country	Sector	Obs.	Mean	Std. Dev.	Min	Max
Belgium	All 5 sectors	2127	15846.14	8119.38	4833.92	139764.90
	Banking	151	19122.26	12872.33	5651.97	139764.90
Germany	All 5 sectors	5636	23611.91	13592.24	4801.03	301664.30
	Banking	225	29519.62	14799.25	4908.40	90498.66
Italy	All 5 sectors	5346	12489.78	5472.12	4803.05	77468.53
	Banking	222	18262.56	8573.97	5164.57	77468.53
Sweden	All 5 sectors	164	19723.36	12059.83	4918.46	118486.40
	Banking	28	21750.76	20812.29	6143.43	118486.40

Appendix 12: Hours worked per week for model one

Country	Sector	Obs.	Mean	Std. Dev.	Min	Max
Belgium	All 5 sectors	2559	40.50	12.07	6.00	99.00
	Banking	172	41.01	9.17	6.00	80.00
Germany	All 5 sectors	6659	39.33	11.79	0.40	80.00
	Banking	275	40.16	10.48	1.00	80.00
Italy	All 5 sectors	7492	40.22	12.03	1.00	97.00
	Banking	263	40.56	8.16	8.00	90.00
Sweden	All 5 sectors	353	37.85	10.69	2.00	88.00
	Banking	75	33.64	9.56	2.00	58.00

Appendix 13: Independent variables for model one

Sector	Variable	Obs.	Mean	Std. Dev.	Min	Max
All 5 sectors	WoS in 1000	17271	212.02	424.90	0.00	1326.00
Banking	WoS in 1000	813	4.74	6.51	0.05	14.10
All 5 sectors	Barg. Cov. in %	17401	87.28	4.69	82.00	92.00
All 5 sectors	union dens. in %	16991	34.98	18.88	11.60	100.00
Banking	union dens. in %	819	22.26	15.35	12.90	62.50

Appendix 14: Person's individual data I for model one

Sector	Variable	Obs.	Mean	Std. Dev.	Min	Max
All 5 sectors	Age	17401	38.98	11.25	15	86
Banking	Age	819	38.58	10.55	17	85

Appendix 15: Person's individual data II for model one

Sector	Variable	Freq.	Percent	Cum.
All 5 sectors	Sex: Male	10298	59.18	59.18
All 5 sectors	Sex: Female	7103	40.48	100.00
All 5 sectors	Sex: Total	17401	100.00	-
Banking	Sex: Male	427	52.14	52.14
Banking	Sex: Female	392	47.86	100.00
Banking	Sex: Total	819	100.00	-
All 5 sectors	Educ. 1	1770	10.24	10.24
All 5 sectors	Educ. 2	12031	69.58	79.81
All 5 sectors	Educ. 3	3491	20.19	100.00
All 5 sectors	Educ.: Total	17292	100.00	-
Banking	Educ. 1	27	3.31	3.31
Banking	Educ. 2	555	68.01	71.32
Banking	Educ. 3	234	28.68	100.00
Banking	Educ.: Total	816	100.00	-

Appendix 16: National accounts and sectoral data for model one

Sector	Variable	Obs.	Mean	Std. Dev.	Min	Max
All 5 sectors	GDP in mio.	17401	1168947.00	625992.00	195926.20	1886943.00
All 5 sectors	GVA in mio.	17225	280752.60	222435.90	7589.00	751174.00
Banking	GVA in mio.	819	47730.70	28973.79	8398.73	80943.80
All 5 sectors	HICP in %	17401	144.62	21.18	124.84	167.68
All 5 sectors	Unemploym. in %	17401	9.69	1.24	8.27	11.00

Appendix 17: Distribution of the dependent variable wage

Germany
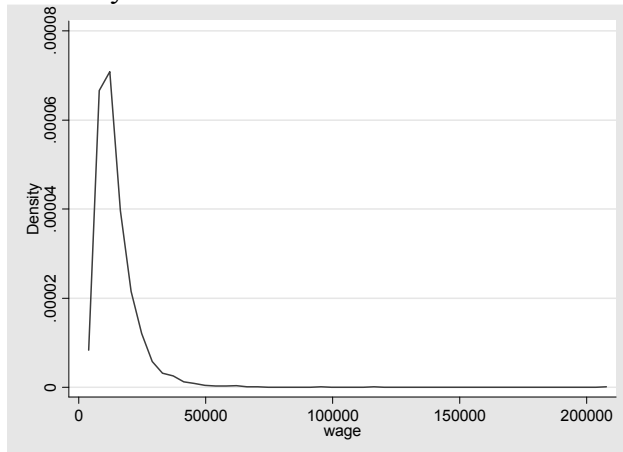
Spain
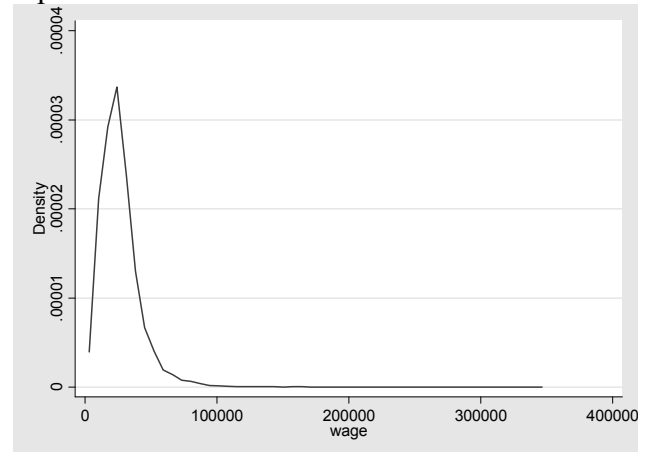
Appendix 18: Correlations of the four specifications of workers on strike

	affected employees in 1000	affected employees per 1000	lost working days in 1000	lost working days per 1000
affected employees in 1000	1			
affected employees per 1000	0.9415	1		
lost working days in 1000	0.9760	0.9616	1	
lost working days per 1000	0.6864	0.8467	0.7741	1

Appendix 19: Workers on strike - individual vs. sectoral/ national data

	Banking	All sectors	Banking	All Sectors	Banking	All sectors	*Betas*
Age	375.874	229.935			381.799	234.519	.1924643
	(11.25) ***	(44.21) ***			(11.42) ***	(45.33) ***	
Sex	-9602.503	-6276.545			-9775.351	-6523.758	-.244284
	(14.34) ***	(53.72) ***			(14.58) ***	(56.28) ***	
Education dummy 1	-5783.283	-9408.557			-6579.496	-9399.444	-.2214345
	(3.75) ***	(44.76) ***			(4.19) ***	(44.77) ***	
Education dummy 2	-6705.270	-7814.943			-6288.941	-7423.797	-.2633346
	(9.05) ***	(55.99) ***			(8.37) ***	(53.46) ***	
Unemployment Rate			219.650	-73.488	64.229	-108.263	-.018829
			(0.93)	(1.73) *	(0.31)	(2.84) **	
GDP			dropped	dropped	dropped	dropped	
HICP			dropped	-60.082	dropped	-66.266	-.1318488
				(12.93) ***		(15.83) ***	
GVA			-0.044	-0.002	-0.605	-0.001	-.0139799
			(1.98) **	(4.23) ***	(3.00) **	(1.54)	

Appendix 20: Bargaining coverage - individual vs. sectoral/ national data

	Banking	All sectors	Banking	All sectors	Banking	All sectors
Age	391.867	233.313			393.309	238.621
	(10.61) ***	(41.33) ***			(10.67) ***	(42.17) ***
Sex	-9844.444	-6393.347			-9934.504	-6526.184
	(13.39) ***	(50.84) ***			(13.53) ***	(52.16) ***
Education dummy 1	-5135.760	-9106.275			-6298.304	-9378.847
	(3.11) **	(39.64) ***			(3.58) ***	(40.40) ***
Education dummy 2	-6877.718	-7909.385			-6394.728	-7606.765
	(8.37) ***	(52.02) ***			(-7.64) ***	(49.92) ***
Unemployment Rate			485.195	-23.815	205.561	-56.289
			(1.40)	(0.32)	(0.66)	(0.84)
GDP			dropped	-0.001	dropped	-0.001
				(3.23) ***		(3.15) **
HICP			dropped	-35.944	dropped	-44.850
				(4.40) ***		(6.13) ***
GVA			-0.079	-0.002	-0.073	-0.001
			(2.90) **	(2.49) **	(2.88) **	(1.65) *

Appendix 21: Union density - individual vs. sectoral/ national data

	Banking	All sectors	Banking	All sectors	Banking	All sectors
Age	356.007	210.261			378.115	216.287
	(7.79) ***	(27.52) ***			(8.32) ***	(28.28) ***
Sex	-8393.621	-5656.934			-8292.865	-5749.79
	(8.85) ***	(33.43) ***			(8.81) ***	(34.07) ***
Education dummy 1	-10673.720	-9628.794			-7490.383	-9060.617
	(2.45) **	(28.91) ***			(1.72) *	(26.74) ***
Education dummy 2	-3807.453	-6193.383			-4129.310	-5819.466
	(3.85) ***	(31.43) ***			(3.96) ***	(28.53) ***
Unemployment Rate			-3864.431	dropped	-4836.851	dropped
			(3.49) ***		(4.85) ***	
GDP			dropped	0.001	dropped	0.001
				(2.25) **		(3.87) ***
HICP			34.630	-83.946	42.188	-65.385
			(0.62)	(11.58) ***	(0.85)	(9.90) ***
GVA			0.073	-0.002	0.087	0.001
			2.97 **	(1.71) *	(3.84) ***	(1.12)

Appendix 22: Model 1 with wage

Variable	Regression 1: Period 2, wage		Regression 2: Period 2, wage		Regression 3: Period 2, wage	
	Banking	All 5 Sectors	Banking	All 5 Sectors	Banking	All 5 Sectors
affected employees (in 1000)	-915.628	-1.947				
	(4.85) ***	(6.30) ***				
affected employees (per 1000)			-6068.693	-9.093		
			(3.13) ***	(6.77) ***		
lost working days (in 1000)					-490.397	-1.826
					(3.72) ***	(6.78) ***
lost working days (per 1000)						
bargaining coverage						
union density						
unemployment rate	dropped	dropped	dropped	dropped	dropped	dropped
GDP	dropped	0.002	dropped	0.002	dropped	0.002
		(4.53) ***		(4.27) ***		(4.30) ***
HICP	100.680	-52.067	-105.312	-51.010	dropped	-51.375
	(1.66) *	(7.52) ***	(3.84) ***	(7.37) ***		(7.45) ***
GVA	0.182	0.002	dropped	0.003	0.106	0.002
	(10.19) ***	(2.13) **		(2.72) ***	(3.82) ***	(2.56) **
age	378.115	213.238	378.115	212.977	378.115	213.397
	(8.32) ***	(27.85) ***	(8.32) ***	(27.82) ***	(8.32) ***	(27.88) ***
sex	-8292.865	-5700.542	-8292.865	-5698.694	-8292.865	-5704.346
	(8.81) ***	(33.77) ***	(8.81) ***	(33.76) ***	(8.81) ***	(33.80) ***
education dummy 1	-7490.383	-9078.310	-7490.383	-9073.731	-7490.383	-9102.478
	(1.72) *	(26.82) ***	(1.72) *	(26.81) ***	(1.72) *	(26.89) ***
education dummy 2	-4129.310	-5845.938	-4129.310	-5850.432	-4129.310	-5848.979
	(3.96) ***	(28.69) ***	(3.96) ***	(28.72) ***	(3.96) ***	(28.72) ***
period 1 dummy						
period 2 dummy						
wage dummy (gross)	dropped	5573.243	6347.249	5365.055	3498.177	5428.469
		(10.08) ***	(3.52) ***	(9.62) ***	(1.52)	(9.80) ***
industry dummy		-3793.819		-4146.534		-4412.369
		(7.11) ***		(7.52) ***		(7.45) ***
building dummy		-7047.054		-7116.609		-7624.874
		(13.10) ***		(12.84) ***		(13.06) ***
commerce dummy		-7240.604		-7467.630		-7886.189
		(13.91) ***		(13.81) ***		(13.71) ***
service dummy		-6642.112		-7152.93		-7423.027
		(10.94) ***		(11.17) ***		(10.94) ***
interaction variable		-110.780		-235.396		-185.566
		(1.96) **		(2.54) **		(3.17) ***
constant	4411.008	30771.530	38734.230	31072.870	19589.160	31437.330
	(0.55)	(27.19) ***	(7.34) ***	(27.35) ***	(7.36) ***	(27.16) ***
Adjusted R^2	0.3519	0.3824	0.3519	0.3828	0.3519	0.3829
No. of Observations	626	13174	626	13174	626	13174

Variable	Regression 4: Period 2, wage		Regression 5: Period 2, wage		Regression 6: Period 2, wage	
	Banking	All 5 Sectors	Banking	All 5 Sectors	Banking	All 5 Sectors
affected employees (in 1000)						
affected employees (per 1000)						
lost working days (in 1000)						
lost working days (per 1000)	−1970.902 (4.85) ***	−10.328 (8.35) ***				
bargaining coverage			1563.552 (4.85) ***	−720.941 (3.79) ***		
union density					294.287 (4.85) ***	30.006 (3.42) ***
unemployment rate	dropped	dropped	dropped	dropped	dropped	dropped
GDP	dropped	0.001 (1.80) *	dropped	dropped	dropped	0.002 (3.76) ***
HICP	16.399 (0.37)	−54.113 (8.03) ***	136.776 (2.03) **	−178.318 (5.37) ***	−203.391 (8.73) ***	−65.370 (9.45) ***
GVA	−0.105 (1.84) *	0.005 (5.19) ***	0.141 (8.02) ***	0.001 (1.38)	0.220 (10.30) ***	0.001 (0.96)
age	378.115 (8.32) ***	213.785 (27.98) ***	378.115 (8.32) ***	216.663 (28.32) ***	378.115 (8.32) ***	211.391 (27.58) ***
sex	−8292.865 (8.81) ***	−5709.551 (33.89) ***	−8292.865 (8.81) ***	−5760.454 (34.11) ***	−8292.865 (8.81) ***	−5638.352 (33.40) ***
education dummy 1	−7490.383 (1.72) *	−9173.985 (27.12) ***	−7490.383 (1.72) *	−9085.444 (26.79) ***	−7490.383 (1.72) *	−9157.255 (27.17) ***
education dummy 2	−4129.310 (3.96) ***	−5876.889 (28.89) ***	−4129.310 (3.96) ***	−5822.308 (28.54) ***	−4129.310 (3.96) ***	−5908.977 (28.94) ***
period 1 dummy						
period 2 dummy						
wage dummy (gross)	dropped	4866.816 (8.70) ***	dropped	10046.990 (13.51) ***	dropped	5684.699 (8.95) ***
industry dummy		−6919.919 (9.49) ***		8023.678 (1.09)		−5191.514 (4.80) ***
building dummy		−9608.678 (14.10) ***		5629.096 (0.76)		−6952.809 (6.21) ***
commerce dummy		−10297.210 (14.78) ***		5537.741 (0.75)		−6756.629 (6.30) ***
service dummy		−10965.470 (12.67) ***		6506.289 (0.88)		−5983.805 (5.60) ***
interaction variable		−583.366 (6.68) ***		139.800 (1.66) *		−50.616 (1.17)
constant	38180.730 (9.24) ***	35380.320 (27.93) ***	−140693.300 (3.80) ***	99100.590 (4.37) ***	35401.730 (8.51) ***	31022.070 (23.39) ***
Adjusted R²	0.3519	0.3849	0.3519	0.3807	0.3519	0.3746
No. of Observations	626	13174	626	13174	626	12949

Appendix 23: Model 1 with hours worked per week

Variable	Regression 1: Period 2, hours worked per week		Regression 2: Period 2, hours worked per week		Regression 3: Period 2, hours worked per week	
	Banking	All 5 sectors	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)	0.421	0.002				
	(3.97) ***	(5.14) ***				
affected employees (per 1000)			18.782	0.008		
			(3.97) ***	(5.19) ***		
lost working days (in 1000)					0.424	0.001
					(3.97) ***	(4.65) ***
lost working days (per 1000)						
bargaining coverage						
union density						
unemployment rate	dropped	2.775	dropped	2.718	dropped	2.849
		(9.05) ***		(8.76) ***		(9.31) ***
GDP	dropped	-0.000	dropped	-0.000	dropped	-0.000
		(2.45) **		(2.26) **		(2.58) ***
HICP	-0.160	-0.139	-0.051	-0.138	-0.154	-0.140
	(4.76) ***	(10.00) ***	(3.14) ***	(9.89) ***	(4.76) ***	(10.05) ***
GVA	0.000	0.000	0.000	0.000	0.000	0.000
	(0.58)	(8.56) ***	(4.30) ***	(8.19) ***	(2.47) **	(8.88) ***
age	-0.016	-0.013	-0.016	-0.013	-0.016	-0.013
	(0.52)	(1.65) *	(0.52)	(1.63)	(0.52)	(1.66) *
sex	-5.941	-7.167	-5.941	-7.170	-5.941	-7.171
	(8.84) ***	(39.42) ***	(8.84) ***	(39.44) ***	(8.84) ***	(39.44) ***
education dummy 1	3.367	-1.756	3.367	-1.774	3.367	-1.779
	(1.56)	(5.01) ***	(1.56)	(5.06) ***	(1.56)	(5.07) ***
education dummy 2	-1.657	-1.814	-1.657	-1.812	-1.657	-1.822
	(2.22) **	(8.04) ***	(2.22) **	(8.03) ***	(2.22) **	(8.08) ***
period 1 dummy						
period 2 dummy						
wage dummy (gross)						
industry dummy		-3.317		-3.399		-3.950
		(5.71) ***		(5.67) ***		(6.12) ***
building dummy		1.158		0.828		0.516
		(2.01) **		(1.39)		(0.82)
commerce dummy		1.850		1.646		1.177
		(3.34) ***		(2.85) ***		(1.90) *
service dummy		-6.590		-6.641		-7.413
		(10.16) ***		(9.73) ***		(10.24) ***
interaction variable		-0.107		-0.208		-0.188
		(1.72) *		(2.03) **		(2.93) ***
constant	70.746	46.470	33.368	46.917	68.221	46.551
	(15.09) ***	(28.41) ***	(5.10) ***	(28.30) ***	(16.17) ***	(28.57) ***
Adjusted R^2	0.1386	0.1444	0.1386	0.1446	0.1386	0.1446
No. of Observations	785	16898	785	16898	785	16898

Variable	Regression 4: Period 2, hours worked per week		Regression 5: Period 2, hours worked per week		Regression 6: Period 2, hours worked per week	
	Banking	All 5 sectors	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)						
affected employees (per 1000)						
lost working days (in 1000)						
lost working days (per 1000)	0.905	0.005				
	(3.97) ***	(3.72) ***				
bargaining coverage			−0.718	−0.966		
			(3.97) ***	(10.77) ***		
union density					−0.135	−0.073
					(3.97) ***	(7.32) ***
unemployment rate	dropped	2.805	dropped	dropped	dropped	1.808
		(9.08) ***				(4.82) ***
GDP	dropped	−0.000	dropped	−0.000	dropped	−0.000
		(3.59) ***		(7.69) ***		(7.91) ***
HICP	−0.121	−0.136	−0.176	−0.197	−0.020	−0.093
	(4.75) ***	(9.74) ***	(4.73) ***	(10.36) ***	(1.18)	(5.58) ***
GVA	0.000	0.000	0.000	0.000	−0.000	0.000
	(4.51) ***	(9.43) ***	(2.16) **	(9.39) ***	(0.67)	(12.70) ***
age	−0.016	−0.013	−0.016	−0.016	−0.016	−0.010
	(0.52)	(1.67) *	(0.52)	(1.98) **	(0.52)	(1.31)
sex	−5.941	−7.163	−5.941	−7.119	−5.941	−7.156
	(8.84) ***	(39.44) ***	(8.84) ***	(39.20) ***	(8.84) ***	(39.02) ***
education dummy 1	3.367	−1.855	3.367	−1.773	3.367	−1.842
	(1.56)	(5.29) ***	(1.56)	(5.05) ***	(1.56)	(5.23) ***
education dummy 2	−1.657	−1.857	−1.657	−1.828	−1.657	−1.775
	(2.22) **	(8.23) ***	(2.22) **	(8.10) ***	(2.22) **	(7.78) ***
period 1 dummy						
period 2 dummy						
wage dummy (gross)						
industry dummy		−6.049		27.316		2.266
		(7.59) ***		(3.32) ***		(2.17) **
building dummy		−1.544		30.980		5.716
		(2.06) **		(3.75) ***		(5.31) ***
commerce dummy		−0.939		31.536		4.872
		(1.23)		(3.83) ***		(4.82) ***
service dummy		−9.843		22.784		−4.945
		(10.72) ***		(2.78) ***		(4.84) ***
interaction variable		−0.513		0.332		0.000
		(5.43) ***		(3.55) ***		(0.01)
constant	55.236	48.793	137.389	138.100	56.513	50.822
	(18.29) ***	(28.64) ***	(6.67) ***	(10.81) ***	(18.81) ***	(20.30) ***
Adjusted R^2	0.1386	0.1454	0.1386	0.1434	0.1386	0.1475
No. of Observations	785	16898	785	16898	785	16623

Appendix 24: Model 2 with wage

Variable	Regression 1: Period 1 and 2, wage		Regression 2: Period 1 and 2, wage		Regression 3: Period 1 and 2, wage	
	Banking	All 5 sectors	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)	−259.540	−0.494				
	(1.86) *	(1.91) *				
affected employees (per 1000)			−353.622	0.088		
			(1.08)	(0.09)		
lost working days (in 1000)					−16.036	−0.230
					(0.18)	(1.05)
lost working days (per 1000)						
bargaining coverage						
union density						
unemployment rate	184.221	−75.179	253.635	−105.583	107.596	−109.600
	(0.85)	(1.82) *	(0.94)	(2.78) ***	(0.34)	(2.89) ***
GDP	dropped	dropped	dropped	dropped	dropped	dropped
HICP	dropped	−67.480	dropped	−66.639	dropped	−64.765
		(14.01) ***		(14.58) ***		(13.79) ***
GVA	0.057	0.001	0.023	−0.001	−0.055	−0.001
	(0.86)	(1.05)	(0.29)	(1.44)	(1.43)	(1.32)
age	378.744	234.048	379.692	235.895	381.740	235.617
	(11.33) ***	(43.94) ***	(11.34) ***	(45.29) ***	(11.42) ***	(45.25) ***
sex	−9690.017	−6576.054	−9745.442	−6542.070	−9771.017	−6537.531
	(14.43) ***	(55.09) ***	(14.52) ***	(55.92) ***	(14.56) ***	(55.88) ***
education dummy 1	−6751.346	−9766.252	−6702.440	−9799.370	−6604.924	−9791.391
	(4.30) ***	(43.26) ***	(4.26) ***	(44.61) ***	(4.19) ***	(44.56) ***
education dummy 2	−6272.728	−7515.656	−6289.557	−7490.686	−6299.391	−7493.574
	(8.35) ***	(52.61) ***	(8.37) ***	(53.45) ***	(8.35) ***	(53.47) ***
period 1 dummy	5741.279	3904.021	5711.292	3942.260	4936.450	3880.229
	(6.22) ***	(22.66) ***	(4.95) ***	(23.83) ***	(4.20) ***	(22.94) ***
period 2 dummy						
wage dummy (gross)	10268.900	8363.987	12737.930	8516.567	17857.450	8497.227
	(2.27) **	(29.20) ***	(2.40) **	(30.46) ***	(6.68) ***	(30.42) ***
industry dummy		−5050.146		−5158.704		−4966.835
		(14.21) ***		(13.87) ***		(13.67) ***
building dummy		−8589.979		−8503.440		−8362.256
		(23.07) ***		(21.62) ***		(21.79) ***
commerce dummy		−8047.142		−7971.414		−7838.493
		(22.86) ***		(21.33) ***		(21.48) ***
service dummy		− 6224.731		−6073.161		−5975.442
		(16.35) ***		(15.21) ***		(15.16) ***
interaction variable		−44.572		−45.216		−11.202
		(1.73) *		(0.97)		(0.52)
constant	19832.640	37329.760	19858.600	37168.260	22122.210	36863.120
	(6.27) ***	(51.17) ***	(5.27) ***	(51.80) ***	(5.74) ***	(50.99) ***
Adjusted R^2	0.3776	0.4021	0.3768	0.4015	0.3763	0.4016
No. of Observations	1667	34322	1667	35400	1667	35400

XXX

Variable	Regression 4: Period 1 and 2, wage		Regression 5: Period 1 and 2, wage	
	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)				
affected employees (per 1000)				
lost working days (in 1000)				
lost working days (per 1000)	82.804	0.973		
	(0.94)	(1.54)		
bargaining coverage			-136.704	-77.794
			(2.04) **	(6.49) ***
union density				
unemployment rate	-135.088	-101.608	-14.466	-293.472
	(0.46)	(2.68) ***	(0.04)	(3.77) ***
GDP	dropped	dropped	dropped	-0.003
				(6.77) ***
HICP	dropped	-68.075	dropped	-31.920
		(15.65) ***		(3.98) ***
GVA	-0.070	-0.001	-0.090	0.000
	(3.11) ***	(1.38)	(3.36) ***	(0.54)
age	381.772	236.203	393.966	238.639
	(11.42) ***	(45.33) ***	(10.70) ***	(42.25) ***
sex	-9770.495	-6542.757	-9817.330	-6564.007
	(14.57) ***	(55.94) ***	(13.34) ***	(52.51) ***
education dummy 1	-6575.322	-9800.241	-6241.900	-9372.411
	(4.19) ***	(44.60) ***	(3.55) ***	(40.44) ***
education dummy 2	-6224.248	-7485.125	-6414.422	-7579.065
	(8.25) ***	(53.37) ***	(7.67) ***	(49.82) ***
period 1 dummy	4221.558	3970.813	3248.548	2637.846
	(4.37) ***	(24.76) ***	(2.99) ***	(10.05) ***
period 2 dummy				
wage dummy (gross)	18996.340	8567.363	18533.150	12337.510
	(11.55) ***	(30.45) ***	(10.43) ***	(19.62) ***
industry dummy		-5012.269		116.262
		(12.72) ***		(0.24)
building dummy		-8341.61		-3513.127
		(20.29) ***		(6.39) ***
commerce dummy		-7776.462		-2773.098
		(19.80) ***		(5.38) ***
service dummy		-5865.575		-1178.858
		(13.92) ***		(2.38) **
interaction variable		1.941		65.677
		(0.06)		(9.58) ***
constant	24272.290	37046.080	36579.910	37300.940
	(7.33) ***	(51.58) ***	(4.41) ***	(27.24) ***
Adjusted R^2	0.3767	0.4016	0.3714	0.3974
No. of Observations	1667	35400	1465	32448

Appendix 25: Model 2 with hours worked per week

Variable	Regression 1: Period 1 and 2, hours worked per week		Regression 2: Period 1 and 2, hours worked per week		Regression 3: Period 1 and 2, hours worked per week	
	Banking	All 5 sectors	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)	-0.050	0.001				
	(1.78) *	(3.92) ***				
affected employees (per 1000)			-0.103	0.002		
			(1.83) *	(1.69) *		
lost working days (in 1000)					-0.054	0.001
					(1.74) *	(2.66) ***
lost working days (per 1000)						
bargaining coverage						
union density						
unemployment rate	0.080	0.078	0.120	0.069	0.190	0.074
	(0.60)	(2.22) **	(0.82)	(2.09) **	(1.05)	(2.24) **
GDP	dropped	0.000	dropped	0.000	dropped	0.000
		(7.49) ***		(8.37) ***		(8.42) ***
HICP	dropped	0.015	dropped	0.017	dropped	0.016
		(3.94) ***		(4.89) ***		(4.20) ***
GVA	0.000	0.000	0.000	0.000	0.000	0.000
	(2.45) **	(10.01) ***	(2.52) **	(10.41) ***	(2.39) **	(10.27) ***
age	-0.054	-0.002	-0.054	-0.002	-0.054	-0.002
	(2.69) ***	(0.35)	(2.69) ***	(0.36)	(2.69) ***	(0.32)
sex	-6.934	-7.974	-6.943	-7.929	-6.916	-7.932
	(16.26) ***	(69.15) ***	(16.26) ***	(69.86) ***	(16.24) ***	(69.88) ***
education dummy 1	-0.214	-1.897	-0.217	-1.956	-0.252	-1.971
	(0.22)	(8.92) ***	(0.22)	(9.39) ***	(0.25)	(9.46) ***
education dummy 2	-2.404	-1.642	-2.404	-1.652	-2.458	-1.659
	(4.99) ***	(11.63) ***	(4.99) ***	(11.88) ***	(5.11) ***	(11.93) ***
period 1 dummy	0.259	-0.359	0.361	-0.485	0.571	-0.415
	(0.49)	(2.22) **	(0.65)	(3.09) ***	(0.88)	(2.61) ***
period 2 dummy						
wage dummy (gross)						
industry dummy		-1.934		-1.622		-1.773
		(6.12) ***		(5.12) ***		(5.67) ***
building dummy		0.663		0.666		0.622
		(2.01) **		(1.95) *		(1.86) *
commerce dummy		1.068		1.092		1.024
		(3.54) ***		(3.47) ***		(3.31) ***
service dummy		-5.137		-5.194		-5.230
		(15.78) ***		(15.48) ***		(15.57) ***
interaction variable		-0.051		-0.085		-0.049
		(2.09) **		(1.95) *		(2.44) **
constant	52.744	51.616	52.416	51.414	51.768	51.672
	(28.60) ***	(94.47) ***	(27.30) ***	(96.56) ***	(23.90) ***	(95.67) ***
Adjusted R^2	0.1304	0.1481	0.1305	0.1470	0.1304	0.1471
No. of Observations	1995	45103	1995	46440	1995	46440

(Appendix 25 cont.)

Variable	Regression 4: Period 1 and 2, hours worked per week		Regression 5: Period 1 and 2, hours worked per week	
	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)				
affected employees (per 1000)				
lost working days (in 1000)				
lost working days (per 1000)	−0.040	−0.002		
	(0.80)	(2.69) ***		
bargaining coverage			−0.003	0.018
			(0.07)	(1.72) *
union density				
unemployment rate	0.059	0.061	−0.254	−0.127
	(0.31)	(1.86) *	(1.76) *	(2.52) **
GDP	dropped	0.000	dropped	−0.000
		(9.17) ***		(13.65) ***
HICP	dropped	0.022	dropped	0.009
		(6.78) ***		(2.43) **
GVA	0.000	0.000	0.000	0.000
	(2.01) **	(10.93) ***	(0.24)	(11.90) ***
age	−0.054	−0.002	−0.040	−0.009
	(2.69) ***	(0.49)	(1.85) *	(1.87) *
sex	−6.876	−7.913	−6.570	−7.689
	(16.17) ***	(69.73) ***	(14.42) ***	(65.92) ***
education dummy 1	−0.159	−1.950	−0.227	−2.017
	(0.16)	(9.35) ***	(0.21)	(9.52) ***
education dummy 2	−2.487	−1.663	−2.671	−1.976
	(5.16) ***	(11.96) ***	(5.13) ***	(13.73) ***
period 1 dummy	0.110	−0.596	−0.199	−0.061
	(0.18)	(3.93) ***	(0.31)	(0.31)
period 2 dummy				
wage dummy (gross)				
industry dummy		−1.581		0.918
		(4.90) ***		(1.87) *
building dummy		0.661		3.338
		(1.91) *		(6.32) ***
commerce dummy		0.964		4.326
		(3.00) ***		(8.64) ***
service dummy		−5.435		−3.018
		(15.62) ***		(6.12) ***
interaction variable		−0.083		0.030
		(2.79) ***		(4.49) ***
constant	53.147	51.228	56.090	52.325
	(25.16) ***	(99.35) ***	(11.52) ***	(40.92) ***
Adjusted R^2	0.1293	0.1471	0.1213	0.1483
No. of Observations	1995	46440	1755	42177

Appendix 26: Model 3 with wage

Variable	Regression 1: Period 1+2+3, wage		Regression 2: Period 1+2+3, wage		Regression 3: Period 1+2+3, wage	
	Banking	All 5 sectors	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)	−92.495					
	(4.35) ***					
affected employees (per 1000)						
lost working days (in 1000)			−58.455			
			(3.60) ***			
lost working days (per 1000)						
bargaining coverage					21.772	
					(0.46)	
union density						
unemployment rate	383.299		513.732		898.224	
	(1.82) *		(2.46) **		(3.20) ***	
GDP	dropped		dropped		dropped	
HICP	−64.899		−61.385		−55.321	
	(3.61) ***		(3.42) ***		(2.85) ***	
GVA	0.060		0.040		−0.002	
	(3.30) ***		(2.48) **		(0.17)	
age	365.840		366.758		397.245	
	(13.61) ***		(13.62) ***		(14.59) ***	
sex	−11076.760		−11036.540		−11107.950	
	(20.14) ***		(20.04) ***		(19.83) ***	
education dummy 1	−12732.560		−12970.490		−14052.580	
	(4.35) ***		(4.43) ***		(4.47) ***	
education dummy 2	−5318.889		−5383.327		−5483.787	
	(9.22) ***		(9.33) ***		(9.27) ***	
period 1 dummy	−419.242		−16547.420		8737.932	
	(0.18)		(2.32) **		(9.45) ***	
period 2 dummy	−6754.605		−23029.120		2544.060	
	(2.74) ***		(3.13) ***		(2.71) ***	
wage dummy (gross)	9895.314		11283.090		16164.310	
	(6.98) ***		(8.68) ***		(14.60) ***	
industry dummy						
building dummy						
commerce dummy						
service dummy						
interaction variable						
constant	34357.820		49057.290		15784.970	
	(8.39) ***		(5.94) ***		(3.13) ***	
Adjusted R^2	0.3719		0.3705		0.3716	
No. of Observations	2678		2678		2624	

Appendix 27: Model 3 with hours worked per week

Variable	Regression 1: Period 1+2+3, hours worked per week		Regression 2: Period 1+2+3, hours worked per week		Regression 3: Period 1+2+3, hours worked per week	
	Banking	All 5 sectors	Banking	All 5 sectors	Banking	All 5 sectors
affected employees (in 1000)	-0.027					
	(3.14) ***					
affected employees (per 1000)						
lost working days (in 1000)			-0.023			
			(3.24) ***			
lost working days (per 1000)						
bargaining coverage					0.121	
					(4.67) ***	
union density						
unemployment rate	0.647		0.678		0.708	
	(6.47) ***		(6.51) ***		(6.79) ***	
GDP	dropped		dropped		dropped	
HICP	-0.041		-0.041		-0.055	
	(4.08) ***		(4.12) ***		(5.01) ***	
GVA	0.000		0.000		0.000	
	(4.37) ***		(4.31) ***		(4.44) ***	
age	-0.049		-0.049		-0.032	
	(3.24) ***		(3.26) ***		(2.17) **	
sex	-5.999		-5.999		-5.657	
	(18.74) ***		(18.76) ***		(17.95) ***	
education dummy 1	-2.366		-2.326		-1.442	
	(1.91) *		(1.88) *		(1.12)	
education dummy 2	-1.684		-1.692		-1.601	
	(4.94) ***		(4.97) ***		(4.67) ***	
period 1 dummy	-2.545		-9.836		1.331	
	(2.67) ***		(3.18) ***		(2.53) **	
period 2 dummy	-4.186		-11.575		-1.342	
	(3.76) ***		(3.53) ***		(2.65) ***	
wage dummy (gross)						
industry dummy						
building dummy						
commerce dummy						
service dummy						
interaction variable						
constant	54.033		61.255		40.720	
	(36.30) ***		(19.55) ***		(16.93) ***	
Adjusted R²	0.1397		0.1399		0.1400	
No. of Observations	3110		3110		3027	