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**EXPLAINING THE DESIRE FOR
LOCAL BARGAINING:
EVIDENCE FROM A FINNISH SURVEY OF
EMPLOYERS AND EMPLOYEES****

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ABSTRACT: This paper describes divergences in employers' and employees' opinions on the proper share of local bargaining in contract wage gains in Finland. Employers want the locally bargained wage share to be approximately half of the total wage rise, while the majority of employees would prefer this share to be in the region of 1-24%. Employers in firms that are large, foreign-owned or operate in the financial services industry desire the largest locally bargained share of contract wages. Employees in large firms, on the other hand, resist local bargaining. When the firm uses performance-related pay, employees would prefer a large role for local bargaining in contract wage gains.

JEL: J31, J59, C24

Keywords: Firm-Level Wage Setting, Labour Market Unions

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TIIVISTELMÄ: Tässä tutkimuksessa selitetään eroja työnantajien ja työntekijöiden mielipiteissä koskien palkankorotusten yritysکوhtaisen järjestelyvaran suuruutta. Suomalaiset työnantajat toivovat yritysکوhtaisen järjestelyvaran kattavan noin puolet palkkojen sopimuskorotuksesta, kun taas työntekijöiden mielestä riittävä järjestelyvaran osuus olisi 1-24% sopimuskorotuksesta. Suurta yritysکوhtaista järjestelyvaraa kannattavat erityisesti suuryritysten ja rahoitussektorilla toimivien yritysten, sekä ulkomaisesti omistettujen yritysten työnantajat. Sen sijaan suuryritysten työntekijät vastustavat laajamittaisia paikallisia palkkaneuvotteluja. Jos yrityksessä on käytössä tulospalkkausjärjestelmä, työntekijät suhtautuvat myös yritysکوhtaiseen järjestelyvaraan ennakkoluulottomasti.

1. *Introduction*

The centralised bargaining and tripartite system in Finnish labour market policies has been seen as a way to contain nominal wage increases and inflation. However, economic integration and globalisation have dramatically changed the business environment, creating pressure for industry and firm-specific concerns to play a more prominent role in the centralised wage bargaining process. The need for local flexibility in wage setting has increased due to the heightened competitive environment faced by Finnish firms. There is strong demand, especially among Finnish employers, for boosting the role of locally flexible elements in the Finnish wage bargaining system. Lilja (1998) argues that mergers of employers' associations, wide-ranging experiments with flexible company agreements on working time and strong influence by the Swedish model with the advice of the Swedish Confederation of Employers (SAF) have turned Finnish employers more positive towards the use of new human resource management. On the other hand, representatives of Finnish employees regard large scale local bargaining with suspicion as they are not willing to give up the minimum income security included in the current centralised bargaining system (Pekkarinen and Alho 2005).

The aim of the present paper is to study and explain Finnish employers' and employees' different opinions on the proper locally bargained share of contract wage increases. There has already been a movement towards locally flexible wage setting in the Finnish labour market. The best example of this is the current popularity of performance-related pay (PRP) schemes: in 2003 already 65% of upper white-collar workers, 52% of white-collar workers and 29% of blue-collar workers in industry were in PRP schemes (Confederation of Finnish Industry and Employers 2003). New work relations have started to emerge, particularly in the individual wage settlements of white-collar workers. Despite these developments towards locally flexible wage setting, local bargaining in contract wage determination is still a relatively new and unused feature of the Finnish wage bargaining system. The present paper takes a wider perspective on local bargaining opinions than the previous study of Heikkilä and Piekkola (2005), which concentrated on analysing employer opinions.

This paper is organised as follows. Section 2 explains the main characteristics of the Finnish labour market and the institutional framework for local bargaining. Section 3 presents

and discusses possible motives for the use of local bargaining. Section 4 explains the empirical data, variables and methods used. Section 5 provides the empirical analysis of Finnish employers' and employees' desire for local bargaining under the current system of centralised wage negotiations. Section 6 concludes.

2. *The Finnish Labour Market*

Finland has a centralised wage bargaining system (for a description, see Vartiainen 1998, Pekkarinen and Alho 2005 and Uusitalo 2005). Union density is high, with approximately 80% of employees belonging to unions and, similarly, most employers are organised under federations and confederations. Wage bargaining is co-ordinated at the national level, and the wages of most employees are regulated by collective agreements. Wage bargaining usually starts with a negotiation between the central organisations of the employees' unions and the employers' confederations. If a central nationwide agreement is reached between them, the employees' unions and employers' federations decide whether this agreement is acceptable in their industry and for the employee group concerned. If they accept the central framework agreement, the process stops here. On the other hand, if the parties reject it, they negotiate their own collective agreement separately from the central agreement. This has been the case in seven years since 1969 (years 1973, 1980, 1983, 1988, 1994, 1995 and 2000). The Finnish government has often played an intermediating role in the negotiations, especially at the central level, even though there is no formal basis for this. Table 1 uses data on wage formation collected from employer federations in manufacturing and services. These data cover most of the private sector with a greater emphasis on larger firms.

Table 1. Wage Formation in Private Sector, 1992-2000

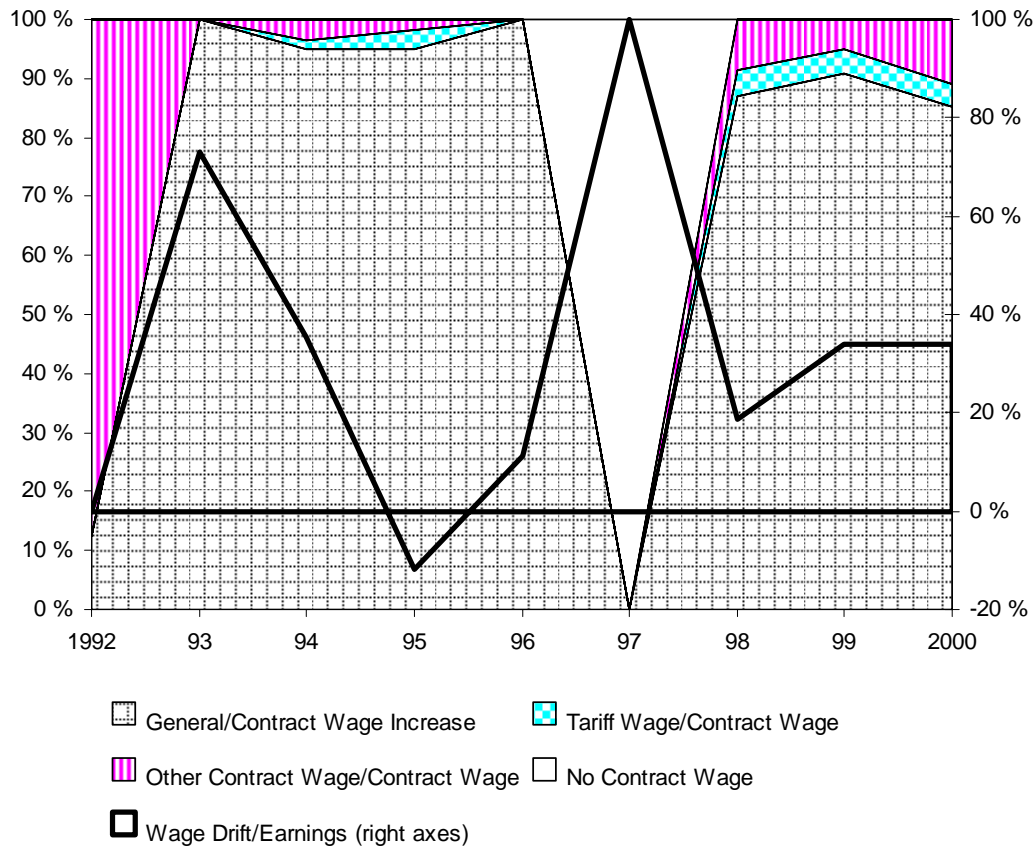
Variables	All Industries		Manufacturing		Blue-Collar		White-Collar	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Annual Change, Earnings, %	3.3	2.1	3.1	2.3	3.6	1.9	3.6	2.0
Annual Change, Contract Wages, %	2.1	1.9	2.0	1.7	2.2	1.8	2.1	2.2
Wage Drift	1.3	0.9	1.1	1.2	1.4	0.3	1.4	0.5
Employment Rate, %	63.0	2.4						
Unemployment Rate, %	13.2	2.5						
Inflation	1.7	2.5						

Note. Weighted by employment in respective industries.

Source: Piekkola and Marjanen (2003)

Table 1 indicates that the average annual increase in earnings in 1992-2000 has been reasonably moderate, around 3.3%, in the private sector. One explanation for this is the deep recession in 1991-1993 and the consequent high unemployment rate (averaging 14.8% in 1992-1994). Earnings have increased at the same rate both for blue-collar and white-collar workers. Wage drift has accounted for around 40% of the total increase in earnings in 1992-2000. Figure 1 shows the different components of contract wages (set at zero in 1997) and wage drift as a share of the total wage increase in manufacturing in 1992-2000.

Figure 1. Share of Various Contract Wage Elements and Wage Drift as Share of Earnings in Manufacturing, 1992-2000



Source: Piekola and Marjanen (2003)

Collective agreements usually stipulate the minimum tariff wages at different job-complexity levels and educational levels in a given industry. Figure 1 shows that tariff wage increases in excess of general wage increases have been very moderate, around 2% of the overall contract wage increase in recent agreements. Other contract wage increases are usually associated with a reorganisation of the wage settlement at the industry level and

have been around 10% of the overall wage increase. This includes the wage share which is bargained either at the industry level or the local level. In the Centralised Income Policy Agreement for 2003-2004 this wage share accounted for 31 percent (in 2003) and 23 percent (in 2004) of the total centrally bargained wage increase. Industry unions decide whether they want to use this share of contract wage increases themselves or whether they want to transfer it to the local level. Nearly half of all manufacturing workers were covered by the opportunity for local bargaining in 2004. For example firms in the IT industry have already used the locally bargained wage share for one third of their blue-collar workers and for half of their white-collar workers (i.e., in a way other than including it to be merely a part of the same general wage increase to everyone). However, generally speaking the locally or at industry level bargained share of contract wage increases has been applied rather mechanically and the firm level share has been very moderate.

3. *Motives for Local Bargaining*

We assume employers have three possible motives for demanding local bargaining: 1) it enables bargaining for lower wages to prevent lay-offs during difficult economic times, 2) it motivates workers and lowers supervision costs because locally flexible wages can be used as efficiency wages and 3) it can lead to stable job relations. Employee attitudes towards local bargaining depend more on their relative bargaining power in centralised, industry-level and local wage negotiations. The reasoning behind these three motives is clarified in what follows.

The desire for local bargaining in order to ensure labour cost flexibility can result from weak profitability in a firm, the volatility of the industry or severe product market competition. If the employer believes there is only little competition in the product market, this may be an indication of market inefficiency or even that the firm has monopoly power. We assume that employers whose firms are likely to make abnormal profits will not demand large locally bargained wage shares. The export activities of the firm may also be related to the need for local wage bargaining. Bernard and Jensen (1999) find that exporters have significantly lower failure rates than non-exporting firms with similar characteristics, which may indicate a lesser need for local bargaining for labour cost flexibility reasons. We also assume that the same flexibility-seeking motives that explain the use of perform-

ance-related pay (see Kruse 1996 and Piekkola 2005) may explain employer demand for local bargaining.

Locally bargained wages can be used to *motivate employees*. Employers are able to differentiate local wage increases in order to motivate specific employee groups. Significant employee supervision costs stem from incomplete information of on-the-job performance, which is typical especially with regard to white-collar workers. Kruse (1996) considers PRP as a way to align the incentives of employers and employees when output is difficult to measure or ascribe to an individual. The need to allocate wage increases in a motivating way may explain employers' desire for large-scale local wage setting.

Azfar and Danninger (2001) show that PRP decreases worker mobility. Similarly, *local bargaining can create stable job relations* between employee and employer which enable the accumulation of firm-specific human capital. Also, the more stable and established the workforce, the easier it may be for the employer to implement extensive local wage bargaining processes. Our employer estimation results give some support to the first and second motive for using local bargaining, while the third motive, namely job stability, remains unconfirmed.¹

4. Data and Methods

Data

The data are from a unique questionnaire study, 'The Performance of the Finnish Wage Bargaining System 2002-2003,' carried out by The Research Institute of the Finnish Economy (ETLA) and The Labour Institute for Economic Research (PT).² The firm-level questionnaire was sent to a sample of 1256 members of the Confederation of Finnish Industry and Employers and 818 members of the Employers' Confederation of Service Industries. The sample was drawn from the membership registers of these two employers' associations and it was stratified according to plant size. Sample weights and sizes are shown in Table 2.

¹ However, stable job relations are shown to increase employees' interest in local wage bargaining. This may be explained by employees' better bargaining position when they have permanent jobs.

² A complete presentation of the results (written in Finnish) can be found in Alho et al. (2003). Pekkarinen and Alho (2005) present an outline of the results of this survey.

Table 2. Sample Weights and Sizes in the Questionnaire

Firm size	TT Employers' Federation Manufacturing		PT Employers' Federation Service	
	Sample weight %	Obs	Sample weight %	Obs
over 300	100	356	100	184
100–299	40	300	50	163
30–99	20	300	20	221
less than 30	10	300	5	250
Total		1256		818

Source: Alho et al. (2003)

More specifically, the questionnaire was sent to the representatives of the following four groups in each firm: employer, blue-collar workers, white-collar workers and upper white-collar workers. In small firms the employer respondent was usually the manager and in large firms the personnel manager. (We used the same respondents as the employer federations in their regular surveys.) The employer was asked to deliver the questionnaire in a closed envelope to the three representatives of the employee groups. The employee respondents were usually elected officials that represent the respective labour union. Almost identical questionnaires were used for both the three employee groups and the employers, except that background information about the firm was also collected from employers (see the list in the Appendix).

The total response rate was 22.9% (higher among the employers), which can be regarded as satisfactory. The quality of the data is also good. This can be explained by the fact that the employer and employee organisations traditionally have close contacts with ETLA and PT (which are partly funded by them). The response rate was higher in firms belonging to the Confederation of Finnish Industry and Employers (27%) than in firms belonging to the Employers' Confederation of Service Industries (16%). A representative employee answer from the firm is formed based on which personnel group forms the majority. Blue-collar workers form the majority in 53%, white-collar workers in 39% and upper white-collar workers in 8% of the firms in our estimation sample. Our data are unique because they contain opinions both from the side of employers and employees in the estimation sample of 573 employer and 418 employee answers in these firms.

The dependent variable used in our study is the respondent's answer to the question, "One part of the collectively bargained wage increase is determined at the local level. In your

opinion, how large should the locally bargained share of contract wage increases be?” The respondents were given five alternative answers: 0, 1-24, 25-49, 50-74 or 75-100%. Summary statistics on employers’ and employees’ desired share of locally determined wages are presented in Section 5 of this paper.

The independent variables of our empirical estimations are based on the background information of the firms inquired in the employers’ questionnaire forms. The variable ‘challenges of low product market competition’ is an exception as it is generated from answers to the questionnaire question on how challenging low competition in the product market is considered for labour market relations. We interpret the challenge created by low competition to be an indication of inefficiency or even monopoly power in the product market, which may generate frictions in labour market relations (e.g., employees insisting on receiving their share of the abnormal profits). Because of the relatively small number of observations, we have used a rougher classification of independent variables than in the original questionnaire. The independent variables used are described in greater detail in the Appendix. Table 3 indicates the main characteristics of the firms taken into the final estimation sample.

Table 3. Characteristics of Estimation Sample Firms

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of Personnel	624	441	1544.08	5	28395
Net Profits per Sales	624	0.08	1.67	-0.28	41.34
Share of Observations per Category					
		1	2	3	
Export Share 0-39%, 40-59%, 60-100%	624	73.2 %	7.1 %	19.7 %	
Share of Employees Abroad 1-59%, 60-100%	624	93.4 %	6.6 %		
Foreign Ownership None, Partial or Whole	624	70.8 %	29.2 %		
Profit Sharing Used No, Yes	624	39.7 %	60.3 %		
Share of White-Collar Workers 0-39%, 40-100%	609	67.6 %	32.4 %		
Share of Upper White-Collar Workers 0-39%, 40-100%	624	92.9 %	7.1 %		
Share of Female Employees 0-59%, 60-100%	614	72.1 %	27.9 %		
Average Age of Employees less than 40, 40 or more	621	29.9 %	70.1 %		
Share of Permanent Employees 0-79%, 80-100%	616	17.1 %	82.9 %		

Methods

We use an interval regression model to describe the probability of favouring a certain locally bargained share of contract wage increases (0, 1-24, 25-49, 50-74 or 75-100%) as a function of the independent variables. The interval regression technique is applied since

the quantitative outcome we are explaining is grouped into intervals. Thus, the cut-off points do not need to be estimated as is the case when using an ordered probit model (Wooldridge 2002, 508-509). Interval regression allows us to interpret the magnitude (marginal effect) of the positive or negative effects that the estimated coefficients have on the dependent variable. For example, when considering the ‘size of the firm’ variable, a coefficient value of 0.066 for the size category of 30-99 employees implies that when the firm size increases from 5-29 to 30-99 employees, the desired locally bargained wage share increases by 6.6%. When it comes to estimating the distance of employer and employee local bargaining opinions, we apply the ordered probit model. This dependent variable has four categories which are ordered but not interval coded. Due to the nonlinearity of the ordered probit model, the estimated parameters cannot be interpreted as marginal effects. Thus, with respect to our ordered probit estimation results, we are only able to interpret the sign of the effects, not the magnitude.

The questionnaire data of this study were collected using a weighted sampling method so that in different firm size groups the sample proportion of the population varies (see Table 2 above). The conventional way to do sample weighting for the estimations would be to use the inverses of sample proportions as estimation weights. In the present study, however, conventional sample weighting would overemphasise smaller firms’ opinions since the opinions of respondents in larger firms represent a significantly larger number of employees and their wage negotiation systems. Thus, we multiplied the inverses of the sample proportions by the average number of personnel in each firm size group. This measure restored the importance of large firms’ opinions compared to those of small firms and thus made the sample weights reasonable in the context of our empirical research problem.

5. *Results Concerning the Desire for Local Bargaining*

5.1 *Employers’ and Employees’ Opinions*

In this section, we present and analyse our estimation results concerning Finnish employers’ and employees’ opinions on the proper locally bargained share of contract wages. We begin by presenting the distribution of the dependent variable in Table 4.

Table 4. Distribution of the Desired Share of Locally Bargained Wages

Locally determined %	Employers		Employees	
	Obs	Share %	Obs	Share %
0% (1)	13	2.0 %	38	8.4 %
1-24 % (2)	242	37.8 %	296	65.3 %
25-49 % (3)	213	33.2 %	84	18.5 %
50-74 % (4)	128	20.0 %	31	6.8 %
75-100 % (5)	45	7.0 %	4	0.9 %
Total	641	100.0 %	453	100.0 %
Average		2.9		2.2

The distributions shown in Table 4 indicate a clear difference between employers' and employees' opinions on the proper locally bargained share of contract wages. Employers want the locally bargained wage share to be approximately half of the total wage rise, while the majority of employees would prefer this share to be in the region of 1-24%. In what follows, we analyse employer and employee opinions in detail. We begin with employer opinions, which are shown in Table 5.

Table 5. Employers' Desired Locally Bargained Share of Contract Wages

		Employers Tobit Interval Regression	
Variable		Coefficient	S.E.
Firm Variables			
Firm Size	30-99	0.066	(0.035)*
	100-299	0.101	(0.035)***
	300-	0.114	(0.034)***
Export Share	40-59%	0.070	(0.046)
	60%-	0.019	(0.033)
Challenges of Low Competition	Moderate	-0.104	(0.04)***
	High	-0.087	(0.037)**
Net Profits per Sales/100		0.002	(0.002)
Share of Employees Abroad	60%-	0.045	(0.044)
Foreign Owned Partly or Wholly		0.053	(0.029)*
Food, Forest and Other Industries		0.066	(0.035)*
Electronics Industry and IT-Sector		-0.017	(0.048)
Construction and Transportation		0.037	(0.048)
Trade		0.062	(0.045)
Financial Services		0.270	(0.079)***
Other Private Sector Services		0.061	(0.045)
Education and Welfare Services		0.042	(0.048)
Personnel Variables			
Profit Sharing Used		0.007	(0.025)
Share of White-Collar Workers	40%-	-0.026	(0.024)
Share of Upper White-Collar Workers	40%-	0.047	(0.037)
Share of Female Employees	60%-	-0.079	(0.029)***
Average Age of Employees	40 years-	-0.024	(0.026)
Share of Permanent Employees	80%-	0.039	(0.031)
Constant		0.284	(0.065)***
No. Observations		573	
Log Likelihood		-445814	

Note. The dependent variable is the desired locally bargained share of contract wages (0–100%). Table reports coefficients and standard errors using robust estimates. The base for the firm-size dummy is firms with 5–29 employees. The base for industry dummies is the metal industry. * Significant at the 90% confidence level. ** Significant at the 95% confidence level. *** Significant at the 99% confidence level.

Firm Variables

Our results in Table 5 indicate that employers in large firms prefer a higher share of local bargaining than employers in small firms. An increase in firm size from 5-29 employees to 30-99 employees increases the desired locally bargained wage share by approximately 7%. Employers of firms employing 100-299 people demand a 10% larger locally bargained

wage share than employers in the smallest firms. When it comes to the largest firms employing at least 300 people, the desired share is 11% larger than in the smallest firms. Large firms are likely to have significant employee supervision costs stemming from incomplete information of on-the-job performance. Hence, the need to allocate local wage increases in a motivating way may explain large firms' desire for large-scale local bargaining. Another explanation for the positive firm-size effect may be that employers in small firms want to avoid complex and time-consuming local wage negotiations, and as a result are relatively more satisfied with common, centrally negotiated wage increases.

Weak firm profitability, industry volatility or severe product market competition can be factors explaining the desire for local bargaining in order to ensure labour cost flexibility. The low competition variable ('challenges of low product market competition') has statistically significant, negative coefficients in Table 5. Challenges related to low product market competition can be interpreted as an indication of inefficiency or even monopoly power in the market. Thus, the existence of possible abnormal profits in these circumstances can explain employers' weak demand for large locally bargained wage shares.

Local wage setting enables employers in low-profitability firms to negotiate for lower wages instead of laying off workers. However, our results in Table 5 show that firm profitability has a surprisingly small effect on the desire for local bargaining among Finnish employers. The coefficient of our profitability variable is positive but very small and insignificant. One explanation for this finding may be that, as expected, employers of profitable firms have a lesser need to cut wages. Another explanation can be that employers of profitable firms are reluctant to increase the scope of local bargaining because doing so may encourage employees to demand a higher share of the firm's profits.

In Section 3 we also discussed that employers of exporting firms may have a lesser need for local bargaining for labour cost flexibility reasons because their firms have significantly lower failure rates than non-exporting firms with similar characteristics. The coefficients on the export share dummies in Table 5 are positive but insignificant. Thus, employers of export-intensive firms are not significantly more interested in local bargaining than employers of firms producing mainly for the domestic market.

Industry dummies are expected to have positive coefficients when industries are more volatile than the reference industry (metal industry) and negative coefficients in the opposite case. Especially the forest and construction industries as well as the financial services sector can be regarded as cyclically volatile and are expected to have positive coefficients in our estimations. Most of our industry coefficients in Table 5 have the expected signs, except for the negative (but insignificant) coefficient on the electronics and IT sector dummy.³ Only the positive coefficients on the financial services and food, forest and other industry dummies are statistically significant. Compared to all other coefficients in Table 5, financial services have an exceptionally large coefficient indicating that employers in this sector would like to have 27% larger locally bargained wage shares than employers in the reference metal industry. The Finnish financial services sector suffered more than most other Finnish industries from the economic downturn in the beginning of the 21st century and wage cuts became an everyday event for these firms.

In many countries, the USA probably being the best example, firm-level wage setting is substantially more flexible than in Finland. Thus, we assume that employers of Finnish companies with a majority of their workforce working abroad would like to adopt this flexibility also in Finland. In Table 5 the share of employees working abroad has a positive but insignificant coefficient. On the other hand, it is seen that employers of partially or wholly foreign-owned firms demand significantly larger locally bargained wage shares than employers of domestically owned firms. To be precise, when the firm is at least partially foreign owned, employers demand approximately 5% larger locally bargained wage shares than employers of domestically owned firms. This result may be explained by Finnish employers' desire to meet the profitability demands of foreign (institutional) investors by increasing the scope of wage flexibility of their firms.

Personnel Variables

As discussed in Section 3, we assume that the same flexibility-seeking motives that explain the use of profit sharing may also explain employers' demand for local bargaining. In Table 5 the profit sharing coefficient is positive, but small, and remains statistically insignificant. Hence, Finnish employers already using PRP schemes seem to think that they do not need large locally bargained wage shares to ensure flexibility in their labour costs.

³ One explanation is that the IT sector relies mainly on the efficient use of PRP schemes and seniority wages (entry-level workers are paid less).

White-collar workers' effort is likely to be more difficult to monitor than that of blue-collar workers in all firms. When the proportion of white-collar workers increases, the employer may become more interested in large locally bargained wage shares for motivation reasons. Our estimation results in Table 5 indicate a finding which is opposite to what we expected: a high share of white-collar workers has a negative but insignificant effect on the employer's demand for local bargaining. A high share of upper white-collar workers has a positive, though still insignificant, effect.

The share of female employees in a firm is the only significant personnel variable in Table 5. In firms where more than 60% of the workforce comprises women, employers demand an approximately 8% smaller locally bargained wage share than their counterparts who employ a smaller proportion of women. One explanation for this result might be differences in firm- and individual-level wage negotiating cultures in female and male employee dominated firms. However, one has to bear in mind that the effect of female dominance is highly dependent on the industry of the firm, and our roughly classified industry dummies may not control all of this effect. The coefficient on the average age of personnel variable is negative but insignificant, so we are unable to draw any conclusions about whether employers with a young workforce would be more interested in local bargaining than other employers. Also the positive relationship between the share of permanent employees and the employer's desire for a large locally bargained share of contract wages remains unconfirmed.

Table 6 shows Finnish employees' local bargaining opinions.

Table 6. Employees' Desired Locally Bargained Share of Contract Wages

Variable	Employees Tobit Interval Regression	
	Coefficient	S.E.
Firm Variables		
Firm Size 30-99	-0.035	(0.047)
100-299	-0.087	(0.046)*
300-	-0.092	(0.046)**
Export Share 40-59%	-0.061	(0.029)**
60%-	-0.041	(0.026)
Challenges of Low Competition Moderate	0.035	(0.027)
High	0.017	(0.024)
Net Profits per Sales/100	-0.007	(0.002)***
Share of Employees Abroad 60%-	0.005	(0.031)
Foreign Owned Partly or Wholly	0.008	(0.024)
Personnel Variables		
Profit Sharing Used	0.052	(0.016)***
Share of White-Collar Workers 40%-	0.032	(0.021)
Share of Upper White-Collar Workers 40%-	-0.042	(0.033)
Share of Female Employees 60%-	-0.020	(0.023)
Average Age of Employees 40- years	-0.023	(0.022)
Share of Permanent Employees 80%-	0.072	(0.028)***
Constant	0.155	(0.061)**
No. Observations	418	
Log Likelihood	-227515.58	

See note for Table 5, includes equivalent industry dummies.

Firm Variables

Our estimation results in Table 6 show that employees in larger firms with at least 100 employees have less desire for large locally bargained wage shares than employees in smaller firms. An increase in firm size from 5-29 to 100-299 employees or at least 300 employees reduces the desired locally bargained wage share by approximately 9%. This result is opposite to the positive relationship found between these variables in the employer estimations presented before. One explanation for this result is that trade unions may be perceived as having greater negotiating power in industry-level talks. Hence, increasing the scope of local bargaining may be considered a threat to employees' bargaining power and wage stability especially in large firms.

When the extent of the firm's export activities increases, employees seem to be happy with a smaller locally bargained share of contract wages compared to employees in firms producing predominantly for domestic markets. This result is statistically significant and the size of the negative effect is approximately 6% when we compare employee opinions in firms exporting 40-59% of their turnover to those in firms exporting less than 40% of their turnover. One explanation for employees' preference for small locally bargained wage shares in exporting firms and large firms may be that both kinds of firms operate predominantly in the manufacturing sector, where industry unions have relatively strong bargaining power. The bargaining power of unions seems to be related to employees' preference for wage setting at the industry level.

When it comes to low product market competition we assume that employees of firms operating in an uncompetitive product market may believe in getting their share of possible abnormal profits through local bargaining. Both coefficients on the uncompetitive product market dummies are positive, in accordance with our assumption, but remain insignificant. Hence, employees seem to be less concerned about uncompetitive product markets than employers.

Blanchflower et al. (1996) show that when firms become more prosperous, workers eventually receive some of the gains in the form of higher wages. Thus, employees of profitable firms are expected to demand large locally bargained wage shares to help them in their attempt to receive their share of the profits. In Table 6 the profitability of the firm variable has a negative and statistically significant coefficient. Thus, opposite to our expectations, higher firm profitability leads to employees demanding less local bargaining. This indicates that employees do not seem to believe in rent sharing by means of local bargaining. However, we will show later that the interaction of firm profitability with product market competition modifies this result.

Industry dummies are not reported in Table 6 because education and welfare services is the only industry that is statistically significant in our estimations; employees in this industry would like 10% larger locally bargained wage shares than employees in the reference industry (metal industry). This result reflects employee concerns about the inflexibility of wage setting in the public sector. Finally, neither the share of employees abroad nor foreign ownership appears to be a significant factor behind employee opinions.

Personnel Variables

Our employer estimation results in Table 5 showed that employers already using PRP schemes may not be interested in large-scale local bargaining. On the contrary, it is seen from Table 6 that employees in firms with PRP schemes are significantly more positive about locally bargained wage shares than employees in firms with no profit sharing. This may be explained by good experiences from profit sharing amongst employees (e.g. in the form of higher wages), which may increase their willingness to extend the scope of local wage setting in general. In contrast to employers' responses, a high share of white-collar workers also raises employees' demand for local bargaining, while a high share of upper white-collar workers lowers the demand for it, but both coefficients remain statistically insignificant. The dummy variable denoting a share of female employees exceeding 60% receives a negative but statistically insignificant coefficient. This negative relationship, although not significant, is similar to our previous finding that there is resistance to large scale local bargaining in firms with a large share of female workers. The 'average age of employees' variable also remains insignificant in the employee estimations.

We assume that employees in firms with mostly permanent jobs would favour large locally bargained wage shares because they have a more established bargaining position than employees in firms with a substantial share of temporary workers. The positive and significant coefficient of the dummy representing a share of permanent employees exceeding 80% in Table 6 gives support to this hypothesis. Specifically, when the share of permanent employees is at least 80% of the workforce, employees desire an approximately 7% larger locally bargained wage share than employees in firms with a lower share of permanent jobs.

5.2 Divergence of Opinions and Interactions

In what follows, we present estimations with various interaction terms including the difference between employer and employee opinions on local bargaining. In the interaction estimations, we use the interval regression technique and in difference of opinions estimations the ordered probit technique for reasons explained in Section 4 of this paper. Firm size, profitability, export share and low product market competition all turned out to be important determinants of the desire for local bargaining. It is thus interesting to consider the interactions of these and other factors as shown in Table 7.

Table 7. Employers' and Employees' Desired Locally Bargained Share of Contract Wages, Interactions and Distance of Opinions

Variable	Employer's opinion Tobit Interval Regression		Employee's opinion Tobit Interval Regression		Employer's opinion - Employee's opinion Ordered Probit	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Firm Variables						
Firm-size > 30	0.104	(0.038)***	-0.104	(0.047)**	0.858	(0,302)***
Export Share 40-59%	0.112	(0.215)	-0.077	(0.027)***	0.556	(0,245)**
Export Share 60%-	-0.145	(0.043)***	-0.181	(0.056)***	0.507	(0,369)
Firm Size 30-, Export Share 40-59%	-0.036	(0.219)				
Firm Size 30-, Export Share 60%-	0.172	(0.047)***	0.124	(0.052)**	-0.212	(0,353)
Challenges of Low Competition Moderate	-0.108	(0.039)***	0.043	(0.026)	-0.810	(0,207)***
High	-0.093	(0.035)***	0.031		-0.762	(0,187)***
Net Profits per Sales/100	-0.287	(0.775)	0.764	(0.385)**	-4.496	(3,236)
Net Profits per Sales/100, Challenges of Low Competition Moderate	0.798	(0.829)	-1.121	(0.493)**	7.025	(3,611)*
Net Profits per Sales/100, Challenges of Low Competition High	0.290	(0.775)	-0.772	(0.385)**	4.553	(3,237)
Share of Employees Abroad 60%-	-0.140	(0.051)***	0.226	(0.032)***	-0.799	(0,241)***
Foreign Owned Partly or Wholly	0.049	(0.03)*	0.009	(0.024)	0.233	(0,178)
Share of Employees Abroad 60%-, Foreign Owned Partly or Wholly	0.206	(0.067)***	-0.221	(0.044)***	1.190	(0,335)***
Food, Forest and Other Industries	0.073	(0.035)**	0.021	(0.022)	0.258	(0,197)
Electronics Industry and IT-Sector	-0.023	(0.049)	0.008	(0.038)	0.137	(0,288)
Construction and Transportation	0.045	(0.047)	-0.014	(0.026)	0.042	(0,22)
Trade	0.072	(0.045)	0.036	(0.041)	0.338	(0,272)
Financial Services	0.274	(0.08)***	0.101	(0.078)	0.381	(0,612)
Other Private Sector Services	0.065	(0.047)	0.037	(0.036)	0.005	(0,274)
Education and Welfare Services	0.042	(0.048)	0.093	(0.044)**	-0.276	(0,29)
Personnel Variables						
Profit Sharing Used	0.011	(0.025)	0.042		-0.095	(0,138)
Share of White-Collar Workers 40%-	0.018	(0.06)	-0.043	(0.108)	0.657	(0,703)
Firm Size 30-, Share of White-Collar Workers 40%-	-0.043	(0.065)	0.077	(0.11)	-1.052	(0,717)
Share of Upper White-Collar Workers 40%-	0.042	(0.037)	-0.042	(0.034)	0.389	(0,248)
Share of Female Employees 60%-	-0.080	(0.029)***	-0.019	(0.023)	-0.102	(0,173)
Average Age of Employees 40- years	-0.020	(0.026)	-0.030	(0.022)	0.225	(0,156)
Share of Permanent Employees 80%-	0.038	(0.031)	0.070	(0.028)**	-0.118	(0,208)
Constant	0.279	(0.066)***	0.184	(0.064)***		
No. Observations	573		418		418	
Log Likelihood	-444657.63		-223808.17		-371.17	
Pseudo R ²					0.086	

See note for Table 5, includes equivalent industry dummies.

The interaction term of firm size of at least 30 employees and export share of 60% or more has a positive and statistically significant coefficient not only for employers but also for employees. The positive employer interaction coefficient clarifies the previous positive but insignificant export share coefficient (in Table 5) indicating that sufficiently large export-intensive firms need local flexibility when setting wages. Earlier (in Table 6) we found that employees in firms with a 40-59% export share object to local bargaining. According to our estimation results in Table 7, this employee resistance appears to be true especially in small (5-29 employees) export-intensive firms.

The variable for the share of employees working abroad received earlier a positive but insignificant coefficient in both employer and employee estimations. The interaction of this variable with foreign ownership in Table 7 creates a divisional line between employer and employee opinions. When the share of workers abroad is substantial in a foreign-owned firm, local bargaining is favoured by employers and opposed by employees. Hence, foreign ownership (even partial) and the majority of the firm's workforce working abroad are factors that push employers for local bargaining but at the same time create a divergence of opinions between employers and employees.

We saw from Table 5 that employers oppose large locally bargained wage shares when their firms face low product market competition. The employees' opinion in Table 6, on the other hand, was not statistically significant. The interaction term of uncompetitive product market with firm profitability in Table 7 has a significant negative coefficient, revealing that employees resist local bargaining especially when the firm is profitable and the product market is uncompetitive (probably due to the presence of monopoly power) or when firm profitability is low and the product market is competitive.

The last column in Table 7 indicates the factors that unite and separate employers' and employees' local bargaining opinions. The difference in opinion variable is constructed simply by subtracting the employee's local bargaining preference from that of his employer. Hence, a negative coefficient for the distance variable indicates that the representative of employees favours larger locally bargained wage share than his employer. The divergence of opinions variable has four categories in the data after combining the most negative category, -3 (two observations where the employer prefers a 1-24% share and the employee a 75-100% share), with the second most negative, -2, and the most positive value, 3 (one observation where the employer prefers a 50-75% share and the employee a 0% share), with the second most positive value, 2. It is noteworthy that in none of the 7% of firms where the employer prefers a 75-100% role for local bargaining did employees demand a locally bargained wage share smaller than 25-49% of contract wage increases.

When an employer favours more local bargaining than the representative of employees in his company and the coefficient in the last column of Table 7 is positive, we assume that the employer and employees of such firms are likely to have difficulties in reaching agreement on local bargaining. On the contrary, a negative coefficient indicates a high probabilit-

ity of reaching agreement on local bargaining. Our results show that large firm size and a 40-59% export share of turnover are factors that significantly increase the probability of experiencing difficulties in the local bargaining process. Divergences across employer and employee opinions and the consequent problems in large firms were anticipated already based on the estimation results in Tables 5 and 6. The difficulty of reaching agreement in the export sector seems to be due more to employees resisting local bargaining than employers demanding it.

Low product market competition and a domestic-owned firm with the majority of employees working abroad are significant factors increasing the likelihood that employers and employees reach an agreement on local bargaining. We discussed earlier that employers of firms operating in an uncompetitive product market do not demand large locally bargained wage shares because they don't necessarily need labour cost flexibility. Employees of these firms are probably more willing to negotiate locally because they know that the employer doesn't need to cut their wages by means of local bargaining. When the majority of employees of a company works abroad and probably has more locally flexible wages than Finnish employees, it seems that also Finnish personnel would be willing to enjoy the advantages of locally flexible wage setting.

6. *Concluding Remarks*

In this paper we studied Finnish employers' and employees' desire for local wage bargaining and the divergence of opinions under the current, predominantly centralised wage bargaining system. Our results indicate that there exists a substantial difference between employer and employee opinions on the proper locally bargained share of contract wages. Employers prefer, on average, half of the rise in wages to be negotiated at the local level, whereas the majority of employees would prefer a 1-24% share. Generally speaking, employers may want greater scope for local wage bargaining in order to increase the flexibility of their labour costs or to reduce supervision costs by allocating local wage increases in a motivating way. Employees have relatively little variation in their local bargaining opinions across different firms. One apparent explanation for this is that employee respondents in our

survey often represent industry unions at the firm level, which may give rise to an overall attitude in favour of maintaining any wage setting flexibility at the industry level rather than transferring it to firms.

Employers of large firms clearly prefer a larger share of local bargaining than employers of smaller firms. When the firm employs at least 100 people, the employer wants an approximately 10% larger locally bargained wage share than the employer of a firm with 5-29 workers. Firm size has the opposite effect on employee opinions than on employer opinions. An increase in firm size from 5-29 employees to at least 100 employees reduces employees' desired locally bargained wage share by approximately 9%. Thus, in large firms the divergence of employer and employee opinions is remarkably large, making it difficult to implement local bargaining. Foreign ownership (even partial) also encourages employers to push for local bargaining but at the same time creates a divergence of opinions between employers and employees in firms where the majority of the workforce is working abroad.

Surprisingly, firm profitability has an insignificant effect on the desire for local bargaining among Finnish employers. Also somewhat surprising is the result showing that higher profitability leads employees to demand less local bargaining. Employees of profitable firms do not seem to believe in rent sharing by means of locally bargained wage shares, especially when the employer exhibits some monopoly power (low challenges of competition in product market). Employees in firms with mostly permanent jobs have a better bargaining position and they favour larger locally bargained wage shares. In firms using PRP schemes, employees also favour large locally bargained wage shares. Employees may have had good experiences from profit sharing, which in turn may increase their willingness to extend the scope of local wage setting in general. In contrast, employers using profit sharing do not press for large locally bargained wage shares. If they use profit sharing for flexibility-seeking reasons it may be that they don't need large locally bargained wage shares anymore to ensure the flexibility of their labour costs.

There exists a set of firms where local bargaining is more easily implemented than elsewhere. Our distance-of-opinions estimations indicate that employers and employees may reach an agreement on local bargaining more easily in firms that face low product market competition or in firms that are domestically owned and have the majority of their employees working abroad.

References

- Alho, K.; Heikkilä, A.; Lassila, J.; Pekkarinen, J.; Piekkola, H. and Sund, R. (2003): Suomalainen sopimusjärjestelmä – työmarkkinaosapuolten näkemykset. (The Finnish Wage Bargaining System – Actors' Perceptions.) *Research Institute of the Finnish Economy*, Series B 203. Taloustieto Oy, Helsinki.
- Azfar, O. and Danninger, S. (2001): Profit-Sharing, Employment Stability, and Wage Growth. *Industrial and Labour Relations Review*, 54, 619-630.
- Bernard, A. B. and Jensen, J. B. (1999): Exceptional Exporter Performance: Cause, Effect or Both? *Journal of International Economics*, 47, 1-25.
- Blanchflower, D. G.; Oswald, A. J. and Sanfey, P. (1996): Wages, Profits and Rent-Sharing. *Quarterly Journal of Economics*, 111, 227-251.
- Centralised Income Policy Agreement for Years 2003-2004.
- Confederation of Finnish Industry and Employers (2003): Wage Survey.
- Heikkilä, A. and Piekkola, H. (2005): Local Bargaining and Employers' Co-operation Options in Piekkola, H. and Snellman, K. (eds.): *Collective Bargaining and Wage Formation – Performance and Challenges*. Physica-Verlag.
- Kruse, D. L. (1996): Why Do Firms Adopt Profit-Sharing and Employee Ownership Plans? *British Journal of Industrial Relations*, 34, 515-538.
- Lilja, K. (1998). Finland: Continuity and Modest Moves Towards Company-level Corporatism. In Ferner, A. and Hyman, R. (eds): *Changing Industrial Relations in Europe*. Oxford, Blackwell: 171-189.
- Pekkarinen, J. and Alho, K. (2005): Finnish Bargaining System: Actors' Perceptions in Piekkola H. and Snellman K. (eds.): *Collective Bargaining and Wage Formation – Performance and Challenges*. Physica-Verlag.
- Piekkola, H. (2005): Profit Sharing in Finland: Earnings and Productivity Effects. Forthcoming in *International Journal of Manpower*.
- Piekkola, H. and Marjanen, R. (2003): Palkoista sopiminen ja palkkaliukuma: Tulopolitiikan uudet kulissit. (Wage Settlements and Wage Drift: New Scene of Income Policy) *Research Institute of the Finnish Economy*, Series B 202. Taloustieto Oy, Helsinki.
- Vartiainen, J. (1998): The Labour Market in Finland: Institutions and Outcomes. Prime Minister's Office Publications Series 1998/2.
- Wooldridge, J. M. (2002): *Econometric Analysis of Cross Section and Panel Data*. MIT Press, Cambridge, MA.
- Uusitalo, R. (2005): Do Centralized Bargains Lead to Wage Moderation? Time-Series Evidence from Finland in Piekkola H. and Snellman K. (eds.): *Collective Bargaining and Wage Formation – Performance and Challenges*. Physica-Verlag.

Appendix

The independent variables used in the estimations are generated as follows:

Firm size: 5-29 employees, 30-99 employees, 100-299 employees, at least 300 employees.

Export share of the firm's turnover: 0-39%, 40-59%, 60-100%.

Respondent's estimation of the challenge of low product market competition: Based on questionnaire question E1_14: "How great a challenge do you consider low product market competition to be for the Finnish wage bargaining system?" 1=No challenge at all,..., 5=Very big challenge. We create a new variable for the estimations: Challenges of low competition: minor (category 1), moderate (category 2), high (categories 3, 4 and 5).

Profitability of the firm: Net profits per sales (net profit percentage). We divide net profits per sales by one hundred to obtain a reasonable coefficient for this independent variable.

Share of employees working abroad: 1-59%, 60-100%.

Foreign ownership: No foreign ownership, partial or whole foreign ownership.

Industry: Metal industry, food, forest and other industries, electronics industry and IT-sector, construction and transportation, trade, financial services, other private services, education and welfare services.

Use of profit sharing:

1 if profit sharing is used for at least one of the following personnel groups: blue-collar workers, white-collar workers, upper white-collar workers,

0 if profit sharing is not used for any of the groups mentioned above.

Share of white-collar workers: 0-39%, 40-100%.

Share of upper white-collar workers: 0-39%, 40-100%.

Share of female employees: 0-59%, 60-100%.

Average age of employees: less than 40 years, 40 years or more.

Share of permanent employees: 0-79%, 80-100%.