THE EFFECT OF LABOUR UNION CONTRACT NEGOCIATIONS ON EARNINGS MANAGEMENT: A EUROPEAN CONTEXT

Abstract

This paper analyses the effect of Labour Unions on the accounting policy of Spanish companies. Previous literature is based almost exclusively on U.S and Canadian companies and two theories have been considered to make hypothesis. On one side, the ability-to-pay theory predicts that labour bargains create incentives to reduce accounting earnings in order to avoid salary demands. On the other hand, the attract-and-retain theory predicts there are incentives to increase accounting earnings in order to attract and retain employees. The ability-to-pay theory has obtained mixed results in US while there is some evidence of the attract-and-retain theory in US samples. This paper predicts that due to the specific characteristics of the Spanish context (similar to other continental countries in Europe) the ability-to-pay-theory is applicable. Managers have incentives to reduce accounting earnings before a labour union contract negotiation. Using several models we analyse abnormal accruals around the time of labour negotiations. The evidence we obtain is consistent with the hypothesis that managers depress earnings prior to negotiations and there is a relation between earnings depressing policies and lower increases in wages. This paper adds evidence to the scarce literature on contractual motivations for earnings management in Europe. All in all, the conclusions highlight the importance of the context in managerial behaviour and the role of institutional factors in accounting earnings properties.

1. INTRODUCTION

Earnings management has become one of the main issues documented by academics, regulators and the financial press in the last decade. The initial empirical approaches on this field focused on contractual motivations. The Positive Accounting Theory stated by Watts and Zimmeraman (1986) considers that contractual process with a potential wealth transfer between several parties (stakeholders, managers, creditors, and other parties), managers use accounting strategies to manage those transfers. Empirical evidence shows that managers´ accounting choices are affected by firm contracts based explicitly or implicitly on accounting numbers. Earnings management can be defined as a purposeful alteration of the financial reports to either mislead some stakeholders about the underlying performance of the company or to influence contractual outcomes (Healy and Wahlen, 1999). The objective and direction of these earnings management practices vary depending on the incentives that manager's face.

In summary it could be said that "earnings management studies" examine "whether managers act as if they relieve users of financial reporting data can be misled into interpreting reported accounting earnings as equivalent to economic profitability" (Fields et al., 2001, p 279)

It is important to take into account that most of the research in accounting choice and earnings management is focused on U.S. data. Although in the last few years some studies have been developed in Europe, the comparative studies in earnings management are almost inexistent. Leuz et al., (2003) show in their study that there are international differences in earnings management around the world depending on the characteristics of institutional factors. Thus, different institutional environments lead to differences in managers´ incentives to manipulate earnings.

Under The Positive Accounting Theory, it can be said that the more a firm is subject to potential wealth transfers in a process between firms and other parties, the more its management is likely to adopt accounting policies that reduce such a transfer. This is normally called the "political cost hypothesis". Early empirical researchused firm size as a proxy for political cost, but in the last decade many studies consider firms

involved in a particular political action avoiding firm size a proxy for political costs. Antitrust investigations, government subsidies, taxes or price regulation[1] are, among others, examples of political actions that imply potential wealth transfers between firms and the rest of society.

One aspect that can be analysed under similar assumptions to the "political cost hypothesis" is the effect of Labour Union Contract negotiations on managers accounting choices. This has been analyzed in the USA and Canadian context.. However the empirical evidence in Europe is practically inexistent. The institutional characteristics of European countries make think about the potential differences with U.S. and Canadian firms in managers incentives to manipulate accounting earnings, in general, and in this aspect in particular.

The aim of this paper is to analyze a corporate contract hypothesized to affect managers accounting choices: labour contracts. One of the main theories about the role of labour contracts in earnings management is that there are incentives for management to choose income decreasing methods in order to influence labour union's perceptions, but the previous evidence with USA and Canadian firms obtained mixed results. This research extends the testing hypothesis to a Continental European country, Spain. We argue that due the characteristics of the unions and labour contracts in Spain, similar to most of the European Continental countries, and completely different to the U.S., managers choose income-minimizing accounting polices before firm level collective bargaining. We use Jones model and some of its extensions to estimate discretionary accruals and we analyse abnormal accruals around labour negotiations. Ours results are consistent with the predictions.

The remainder of the paper is organized as follows. The next section reviews the previous literature on the effect of labour contracts on earnings management

2. PREVIOUS LITERATURE

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[1] There is Spanish evidence of earnings management under price regulation in the electricity industry in Gill and Illueca (2005)

The effects of labour considerations on managers accounting choices have been examined in the accounting literature from two different theoretical perspectives

a) The ability-to-pay theory

One perspective, which seems to be the more intuitive and that was tested first, is that labour bargaining may create incentives for managers to make income-minimizing accounting choices to lower a firm´s perceived ability to pay a wage demand.

Under this theory the hypothesized effect of reported accounting numbers on labour negotiations is similar to the hypothesized effect of earnings on the political process. In both cases manager's reports of lower earnings are assumed to affect the process implicitly. As Liberty and Zimmerman (1986) point out, union members presumably do not adjust completely the reported earnings for managers expected manipulations because such adjustments are costly. The existence of information costs is assumed to create incentives for managers to report lower earnings. The argument of this theory is that if accounting earnings are high and the business outlook is good the union leader can afford to make larger demands.

Several papers develop and test the hypothesis that managers reduce earnings released during contract talks relative to earnings released before and after the negotiations using U.S. or Canadian firms. Research in U.S. using ability to pay perspective (Liberty and Zimmerman, 1986, De Angelo, 1991, Cullinan and Knoblett 1994) obtain mixed results.

Liberty and Zimmerman (1986) use the presence of periodic labour bargaining to proxy for ability-to-pay incentives. They examine unexpected annual accounting accruals during periods surrounding labour. Their results do not support the hypothesis that expense accruals would be higher for periods immediately preceding union wage bargaining.

DeAngelo and DeAngelo (1991) investigate overall accrual levels in steel firms negotiating for concessions during the 1980s in the U.S. They examine firm income and find that when the seven major steel firms were about to request concessions from union workers, their income tend to be lower than otherwise, even when controlling for cash

flow. In addition, managerial pay cuts and dividend reductions are associated with concession bargaining.

Mautz and Richardson (1992) investigate the level of accruals, using a similar methodology that Liberty and Zimmerman (1986), and other discretionary items in periods surrounding wage negotiations of 156 U.S. firms. They find little evidence that these expenses differ significantly across periods in relation to the timing of negotiations.

In the Canadian context, Scott (1994) examines the effects of union activity on Canadian firms´ disclosure of pension benefit plan information. His results suggest that Canadian managers´ accounting decisions may be influenced by a desire to limit pay raises in a union negotiation environment.

Cullinan and Knobett (1994) use a measure of the percentage of employees who are unionized to proxy for ability to pay incentives. While their results with a Canadian sample generally do not support the idea that unionization levels may affect depreciation and inventory accounting choices, they find a relationship between unionization and inventory accounting choice among manufacturing firms.

Bowen et al., (1995) use two measures of ability-to-pay incentives: the presence or absence of a union, and a measure of the percentage of the industry´s employees who were unionized with a U.S. sample. Results for both of these variables indicate support for the notion that unionized firms may choose income-minimizing accounting policies.

Cullinan and Bline (2003) examine the effects of labour considerations on accounting choice in Canada analysing depreciation policy. Their results suggest that ability-to-pay incentives, measured by unionization, are no associated with depreciation polices. These authors consider that the lack of significance of prior studies in finding no support for the notion that ability to pay considerations influence accounting choices may result from the practice of negotiating with unions once every three years. The infrequency of negotiations may indicate that other relationships which occur more frequently tend to mute whatever effects ability to pay considerations may have on accounting choices.

b) The attract-and-retain theory

The attract-and-retain perspective is premised on employers competing for limited labour resources. Bowen et al., (1995) suggest that employees may consider the financial strength of their current or prospective employer when making employment decision. In this case, the performance of the firm would be important to the employees in the formation of expectations regarding future employment, wage increases and other benefits. As a proxy for the importance of attracting and retaining employees these authors develop an empirical measure of an organization's labour intensity. They hypothesized that labour-intensive firms are more likely to choose income-maximizing accounting policies to reassure their employees of the firm's financial strength. Bowen et al., (1995) find support for this hypothesis among U.S. companies. On the other hand Cullinan and Bline (2003) focus on examining whether the attract- and -retain hypothesis affect managers´ depreciation policy choices. These authors provide mixed support for the attract-and-retain perspective with a sample of Canadian firms.

The evidence about the effect of Lobour Unions contracts in Europe is practically inexistent. Harris et al., (1994) support the hypothesis that German firms are hesitant to report high earnings for fear of strengthening the position of labour unions in their negotiations with the firm, but these authors does not give any empirical evidence. On the other hand García Lara et al., (2005) argue in their study that in code-law based countries managers engage in persistent income decreasing strategies, pointing as one of the reasons the existence of strong labour unions, which have substantial representation in the boards of directors, although, as McLeay (2005) points out, these authors do not provide any empirical evidence for this argument.

3. THE DEVELOPMENT OF THE HIPOTHESIS

The literature presents the hypothesis that managers manipulate earnings surrounding labour contracts. As Liberty and Zimmerman (1986) point out this argument assumes unions want information regarding the firm's economic rents, and accounting earnings provide that information.

Under the ability-to-pay theory the "bargaining model" is assumed, which considers the unions can use their power to strike to appropriate some of the firm´s rents. It is asserted than the benefits to managers of depressing earnings during contract talks exceed the costs. This benefits consist on lower wages, that is, wages would be higher if earnings are not reduce before labour contracts.

As we mention in previous section the results when testing that hypothesis in USA and Canada have been mixed. We argue that the institutional caharacteristics in Spain (similar to other Continental countries) are more consistent with this hypothesis. Collective bargaining in U.S. follows the Close Shop System, which means that the results of a Labour Union agreement are only applicable to unionized workers. On the other side Spain follows the Open Shop System, which is applied across most continental European countries. Under this system the results of a collective agreement is applied to all workers, unionized or not. This circumstance potentially increases the incentives inherent in the ability-to-pay theory. That is, in practice the contract works as if a 100% of workers were unionized (while in 2003 it was 14,1% in U.S. and 34,5% in Canada). In addition, in Spain there are two types of contracts: industry level and firm level. There is evidence that firm level contracts always result in higher wages for workers. As these higher wages are extensive to all the workers, this is a perfect context to test the ability-to-pay theory. Thus, the ability-to-pay theory therefore seems to be more suitable in the Spanish context.

In summary, this paper develops and tests the hypothesis that "*Spanish firms chose income-minimizing accounting polices before labour contracts*" and "*these income minimizing accounting policies are related with the level of change in wages*"

The literature essentially distinguishes two accounting mechanisms used to manage accounting earnings:

a) Accounting changes

b) The time allocation of revenues and expenses

The first mechanism is more visible. As Liberty and Zimmerman (1986) say *it is unlikely that managers will change accounting procedures during contract talks since these manipulations are easily observed, and the repeated game nature of labor contracts necessitates switching back to the previous procedure after the talks (pag 695).* So earnings manipulation tends to be based on the second mechanism. Thi paper focuses on the second mechanism and considers accruals as the instrument used to manipulate earnings.

4. RESEARCH METHOD

In order to test weather earnings are reduced during labour contract negotiations we need to model managers manipulation. We want to examine if there is a manipulation of accounting accruals surrounding labour contracts. Several theoretical models try to obtain this decomposition estimating the pattern of accruals in absence of accounting discretion. Concretely, these models try to explain the part of accruals due to objective reasons as accounting rules and firm's economic conditions. Normally, the patterns of the accruals can be obtained with time-series data or cross-sectional data Thus, the part of accruals not explained by the model is considered earnings management.

As a first step, to estimate the discretionary accrual we use we use several models[2]: total accruals version of Jones (1991), Kasznik (1999), Kothari et al (2005) models and the working capital accruals version of Jones (1991), Dechow et al., (1995) and Peasnell et al., (2000) models[3]. We do a cross-sectional analysis estimating the coefficients of the models using a sample of companies without labour contrat agreement (non-event companies) in the same industries. Once the coefficients of the models are obtained, we calculate the abnormal accruals as the difference between the

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[2] Trying to avoid the potential effect of the limitations of the models on our results we use all of them to obtain more rebustness

[3] Additionally, while prior research typically does not include a constant in the models, we include a constant in the estimation because it provides an additional control for heteroskedasticity not alleviated by using assets as the deflator and it mitigates problems stemming from an omitted size (scale) variable (see Brown et al., 1999).

expected accruals applying the models and the observed accruals in the companies with labour contract agreements (event-firms) in order to test the hypothesis that the abnormal accruals are different from zero around the agreements in the event companies. In order to test the significativeness of the obtained results we use, besides the parametric test'''', two non-parametric test, Corrado ( ) and bootstrapping test[4].

As and second step, we employ a cross-sectional approach using a matching procedure. In this particular case we do not want to know if managers manipulate earnings, but we are interested in showing that earnings management in "event companies" differs from companies without these agreements. In fact, we are interested in testing whether "an event" (in this case the labour agreement) influences reported earnings performance in the pre- and post-event years. If the treatment firms´ earnings performance in the pre-event period is distinguishable from that of the matched firms, then the conclusion would be that the firms experiencing the event manage earnings any more or less than the matched firms that do not experience the event. Kothari et al., (2005) say, "…it is possible that both event and control firms manage earnings, but this is not what researchers are interested in testing. More precisely, central to the researcher's study is the hypothesis that the event itself contributes to earnings management for reasons beyond other known or observable factors…" (p. 171). Other authors as Perry and Williams (1994), Holthausen and Larcker (1996) and Pastor and Poveda (2005) do this kind of matching to analyse earnings management around different events.

With this purpose we consider two matched control samples.[5]

1. On the one hand, we match each firm-year observation with another one from the same industry and size, without labour agreement[6]

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[4] It is considered a suitable non-parametric test when testing differences in means
[5] See Perry and Williams, 1994, Holthausen and Larcker (1996).
[6] For this selection the firm size is measured as the mean total asset from year t-1 to year t.

2. On the other hand, we compare the result of each observation from the "event-sample" with the median in companies from the same industry but without labour agreement.

We call "adjusted accrual" to the difference between accruals in the event sample and accruals in the matched non-event sample.

As an additional analysis, we test the relationship between the event companies´s accounting strategy in the year t=-1 and the change in wages as a result of the agreement as a proxy for political cost. In a similar way other previous studies do for other political costs process[7] in previous studies we consider the change in wages as an additional independent variable. As the result of the agreement affects all the workers we consider the change in labour costs per employee (LABOR DRIFT) as the labour cost per employee in the year of the agreement minus the labour cost per employee the previous year (the variable is a percentage). For example, we add LABOR DRIFT like independent variable in Jones (1991) model:

$$\frac{TA_{it}}{Assets_{it-1}} = \beta_0 + \beta_1 \left[\frac{1}{Assets_{it-1}} \right] + \beta_2 \left[\frac{\Delta REV_{it}}{Assets_{it-1}} \right] + \beta_3 \left[\frac{PPE_{it}}{Assets_{it-1}} \right]$$
$$+ \beta_4 \text{ LABOR DRIFT } it + \mu_{it} \quad (9)$$

We do the same with the rest of the models considered in the study

Our first hypothesis is that just companies which have big changes in wages under negotiation have incentives to manipulate earnings. We should expect a negative relation between discretionary accruals and this variable

Our second hypothesis is that the manipulation of earnings, so negative discretionary accruals before the agreement, is related with a lower increase in wages than it could be expected. We repeat the last regression but we use like independent variable the unexpected change in wages, that is, shock or unexpected change in labour

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[7] See for example Gill and Illueca (2005) who consider tariff change to proxy for political costs in the electricity industry adding it as an independent variable

costs (Ct -E (Ct)), E(Ct) = C_{t-1} *(1+gt) being the expected share of wage increase per employee, where C_{t-1} is the labour cost per employee the previous year, and g_t is the average rate of wage increases over the previous five years in each company with its own collective agreement. We should expect the relationship between accruals and this variable to be positive.

5. THE SAMPLE

Our sample consists on companies quoted on Madrid Stock Market, which negotiate a firm level collective agreement (which normally is negociated every two years) between 1995 and 2002. The information regarding contract negotiations was drawn from Record of Collective Agreements Register. We identify 281 listed firms that negotiate a "firm-level" labour agreement during the period 1995-2002. To be included in the sample labour contracts identified in the register must meet the following criteria:

1. The company has its annual earnings data in CNMV for the year before the negotiation takes place (t=-1) , negotiation year (t=0) and the following year (t=+1)
2. The company has not any equity rights offers, merger process, splits or any other relevant issue.
3. The company does not belong to the financial sector

The final sample consists on 76 firms which we call "event firms" belonging to eight different industries[8] Table 1 shows the distribution of the sample among the different industries and years.

TABLE 1

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[8] More than 50% of the firm level collective agreement have been negotiated in three industries: utilities, Transport and communications , and other manufacturing industries .

SAMPLE DISTRIBUTION AMONG YEARS AND SECTORS

The table shows the distribution of event sample and estimation sample, among years and sectors. We eliminate observations where there are fewer than ten observations in two-digit industry code for a given year. The industries are: OMI=Other Manufacturing Industries, MM= Metal Manufacture, CI=Chemistry Industry, EW=Utilities, TC=Transport and Communication, BM=Basic Metal, NT=New Technologies, CGC=Cement, Glass and Construction Materials, TOS=Trade and Other Services.

	1995	1996	1997	1998	1999	2000	2001	2002	TOTAL
				PANEL A					
			EVENT SAMPLE						
OMI	3	2	2	1	0	2	1	2	13
MM	3	0	2	1	0	1	0	0	7
CI	2	1	0	0	0	0	0	0	3
EW	2	6	3	2	3	3	1	2	22
TC	1	2	3	4	3	0	1	2	16
BM	0	0	0	0	0	1	0	0	1
NT	0	1	0	0	2	1	0	0	4
CGC	1	0	0	0	1	0	1	0	3
TOS	1	0	0	1	2	1	2	0	7
TOTAL	**13**	**12**	**10**	**9**	**11**	**9**	**6**	**6**	**76**
				PANEL B					
			ESTIMATION SAMPLE						
OMI	47	47	46	44	0	41	40	36	301
MM	14	0	10	10	0	10	0	0	44
CI	10	10	0	0	0	0	0	0	20
EW	25	25	24	23	18	16	14	15	160
TC	18	18	18	17	16	0	15	12	114
BM	0	0	0	0	0	10	0	0	10
NT	0	10	0	0	10	10	0	0	30
CGC	10	0	0	0	10	0	10	0	30
TOS	19	0	0	16	18	18	16	0	87
TOTAL	**143**	**110**	**98**	**110**	**72**	**105**	**95**	**63**	**796**

6. RESULTS

Tables 2, 3 present some descriptive statistics for the event sample and the control sample respectively

YEAR -1 VARIABLE	Mean	Median	Std. Dev.	Skewness	Kurtosis	Observations
TA	-0,078***	-0,067***	0,067	-0,634	3,378	76
WCA	-0,029***	-0,011***	0,062	-1,248	1,778	76
PPE	0,527***	0,521***	0,271	-0,117	2,129	76
REV	0,779***	0,550***	0,643	0,466	2,914	76
ΔREV	0,079***	0,042***	0,187	0,473	1,408	76
ΔDEB	0,015***	0,009***	0,049	0,419	1,509	76
ΔCFO	0,058***	0,034***	0,104	0,531	1,622	76
ROA	0,041***	0,039***	0,062	-0,728	6,370	76
YEAR 0 VARIABLE	Mean	Median	Std. Dev.	Skewness	Kurtosis	Observations

TABLE 2

DESCRIPTIVE STATISTICS OF THE ANALYSIS VARIABLES FOR EVENT SAMPLE

Table 2 reports the mean, median, standard deviation, skewness and Kurtosis of analysis variables for the entire event sample. We exclude observations if they do not have sufficient data to construct the accrual measures. All the statistics were computed using the variables divided by lagged total assets, as they are used to estimate the models. The t-test and the sign and rank Wilcoxon test were used.

TA	-0,036***	-0,035***	0,054	-0,247	1,251	76
WCA	0,012**	0,004**	0,048	0,282	1,513	76
PPE	0,523***	0,528***	0,271	-0,068	2,059	76
REV	0,825***	0,558***	0,730	0,856	1,890	76
ΔREV	0,105***	0,051***	0,179	0,847	1,437	76
ΔDEB	0,021**	0,014**	0,058	0,174	1,071	76
ΔCFO	0,003	0,008	0,102	0,284	2,011	76
ROA	0,050***	0,043***	0,048	0,806	5,757	76
YEAR +1 VARIABLE	Mean	Median	Std. Dev.	Skewness	Kurtosis	Observations
TA	-0,039***	-0,042***	0,065	0,062	2,833	76
WCA	0,009	0,006	0,060	-0,162	1,171	76
PPE	0,510***	0,536***	0,272	0,054	0,211	76
REV	0,850***	0,591***	0,725	0,595	1,844	76
ΔREV	0,089***	0,042***	0,182	1,854	1,635	76
ΔDEB	0,016***	0,008***	0,041	0,673	1,630	76
ΔCFO	0,007	0,011	0,107	-0,728	1,595	76
ROA	0,043***	0,040***	0,053	-0,926	6,864	76

TA=observed total accruals; WCA=working capital accruals; PPE=gross property, plant and equipment; REV=revenues; ΔREC=change in revenues; ΔDEB=change in trade debtors; ΔCFO=change in cash-flow and ROA= return of assets. *Significantly different from zero at 10%; ** significantly different from zero at 5%; ***significantly different from zero at 1%.

TABLE 3

DESCRIPTIVE STATISTICS OF THE ANALYSIS VARIABLES FOR CONTROL SAMPLE

Table 3 reports the mean, median, standard deviation, Skewness and Kurtosis of analysis variables for the entire control sample, that is, firms without firm level agreement. We exclude observations if they do not have sufficient data to construct the accrual measures. All the statistics were computed using the variables divided by lagged total assets, as they are used to estimate the models. The t-test and the sign and rank Wilcoxon test were used.

YEAR -1 VARIABLE	Mean	Median	Std. Dev.	Skewness	Kurtosis	Obervations
TA	-0,034***	-0,032***	0,085	1,480	1,132	119
WCA	0,015**	0,011**	0,078	1,884	1,345	119
PPE	0,422**	0,385**	0,261	0,696	3,021	119
REV	0,941***	0,886***	0,626	0,092	1,533	119
ΔREV	0,088***	0,062***	0,262	-2,500	2,152	119
ΔDEB	0,020**	0,010**	0,068	1,831	1,219	119
ΔCFO	0,010	0,012	0,119	-1,237	1,024	119
ROA	0,043***	0,042***	0,059	-0,538	7,974	119
YEAR 0 VARIABLE	Mean	Median	Std. Dev.	Skewness	Kurtosis	Obervations
TA	-0,028***	-0,037***	0,113	2,531	1,480	115
WCA	0,014**	0,011**	0,108	2,352	1,440	115
PPE	0,396**	0,352**	0,240	0,591	2,685	115
REV	0,960**	0,897**	0,692	1,463	2,285	115
ΔREV	0,083**	0,049**	0,275	3,063	1,664	115
ΔDEB	0,018**	0,010**	0,082	1,655	2,900	115
ΔCFO	0,013	0,029	0,195	-2,301	1,452	115
ROA	0,046***	0,047***	0,087	-0,957	2,825	115
YEAR +1 VARIABLE	Mean	Median	Std. Dev.	Skewness	Kurtosis	Obervations
TA	-0,024***	-0,026***	0,071	0,213	1,651	112
WCA	0,021**	0,019**	0,067	0,018	1,037	112
PPE	0,417**	0,400**	0,248	0,773	1,451	112
REV	0,881***	0,792***	0,594	1,628	1,790	112
ΔREV	0,072***	0,049***	0,167	1,436	2,136	112
ΔDEB	0,032**	0,025**	0,062	1,089	1,032	112
ΔCFO	0,014	0,008	0,132	1,160	2,264	112
ROA	0,039***	0,036***	0,048	-0,188	5,306	112

TA=observed total accruals; WCA=working capital accruals; PPE=gross property, plant and equipment; REV=revenues; ΔREV=change in revenues; ΔDEB=change in trade debtors; ΔCFO=change in cash-flow and ROA= return of assets.
*Significantly different from zero at 10%; ** significantly different from zero at 5%; ***significantly different from zero at 1%.

Table 2 shows that the mean and the median of total accruals (TA) in the event companies are significantly negative at 1% statistical level in the year prior to the firm level collective agreement (t= -1) , due to the working capital component. However these working capital components are positive and statistically different from zero in the event year and the year after the agreement (t=0 and t=+1). On the contrary, table 3 shows the working capital accruals in non-event companies are statistically significant

positive every year. Total observed accruals are negative in both cases but more negative in the event sample. The values of rest of variables are very similar in both samples and consistent with the values obtained in previous studies

Table 4 shows the values of observed accruals obtained as a consequence of comparing the event firms with the matched sample considering the two matched procedures: a) the non event companies with the same size and belonging to the same industry, and b) the industry median. We call "adjusted accruals" to the difference between the accruals in event companies and their matching observations.

TABLE 4

ADJUSTED OBSERVED ACCRUALS AROUND THE FIRM- LEVEL AGREEMENT

N: number of observations; TA: observed total accrual event sample; ATA1: difference in total accruals of event and size and industry-matched firm; ATA2: difference in total accruals of event firms and industry median; WCA: working capital accruals event sample; AWA1; difference in working capital accruals of event and size and industry-matched firm AWA2: difference in total accruals of event firms and industry median We test the null hypothesis the mean of observed accruals is equal to zero and we test the null hypothesis the values between event and matched firm is equal to zero using bootstrap non-parametric test for significance

YEAR	N	TA	ATA1	ATA2	WCA	AWA1	AWA2
-1	**76**	-0,078***	**-0,036***	**-0,044***	-0,029***	**-0,021***	**-0,043***
0	76	-0,036***	-0,005	-0,008	0,012**	-0,003	-0,002
1	76	-0,039***	-0,008	-0,009	0,009	-0,001	-0,006

*Significantly different from zero at 10%; ** significantly different from zero at 5%; ***significantly different from zero at 1%;

When we also analyse the performance of the variables ATA1: difference in total accruals of event and size and industry-matched firm; ATA2: difference in total accruals of event firms and industry median; AWA1; difference in working capital accruals of event and size and industry-matched firm AWA2: difference in total accruals of event

firms and industry median. Results in table 4 show negative values for the four variables in t=-1 statistically significant at 1%. Although these differences are still negative in years t=0 and t=+1, these are lower and not statistically significant. These results are consistent with the hypothesis that managers depress earnings the previous year to the firm level collective agreement.

Table 5 shows the results when we separate accruals in the discretionary and non-discretionary components in order to see if the results shown in the previous sections are due to manager's discretion. Table 5 show the discretionary accruals using the models described in section three on long and short-term accruals versions. The models are Jones (1991), Dechow et al., (1995), Kasznik (1999), Peasnell et al., (2000) and Kothari et al., (2005).

TABLE 5

If we focus on Jones (1991), Kasznik (1999), and Kothari et al., (2005) models discretionary accruals in long-term version, we notice that the lowest level of this variable is obtained in year -1, reaching a value of -0,031 for Jones model, -0,032 for Kasznik model and -0,037 for Kothari model, with a statistical p-value for all them around 0%. If we observe the years after the agreement, we can see that the discretionary accruals, although still negative, they are not statistically significant.

If we focus on Jones and Deachow et al., (2005) models in short-term version and Peasnell et al., (2000) model, we can observe the same results, that is, the presence of discretionary current accruals, statistically significant, in year -1. The lowest level of this variable is obtained applying Marginal model, with a value of -0,046 significantly different from zero at 1%. Regarding the rest of the years, we can see the same pattern

that in the long-term models versions, that is, the presence of negative discretionary current accruals the years after the agreement, but they are not statistically significant.

These results allow us to reject the absence of depressing earnings management in the year previous to the event.

Table 6 shows the results considering the matching samples under the two procedures: a) the non event companies with the same size and belonging to the same industry, and b) the industry median.

We also examine properties of other discretionary accrual measures, in this case, discretionary accrual of event sample minus size and industry -matched firms´ discretionary accruals (ADA1) and discretionary accrual minus the industry median discretionary accrual (ADA2).

INSERT TABLE 6

For all models these differences (ADA1 and ADA2) are greater and negative and statistically significant in year t=-1, while the differences in the years t=0 and t=+1 are not statistically significant. The most important difference appears, using Peasnell et al., (2000) model, with a value of -0,061 for ADA1 and -0,047 for ADA2 in year -1, statistically significant at 1% level.

These results[9] allow us to reject the equality between event sample and its matched samples and they are consistent again with the hypothesis of managers depressing earnings before the agreement.

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[9] Some authors exclude utilities industries because as they are commonly regulated and that creates different incentives and opportunities for earnings management. We repeat the analysys excluding those companies and the results do not change.

Concluding, we can say that our results show the existence of manipulation accounting practices to understate reported earnings before the firm level collective agreement.

As we mentioned above, as an additional analysis, we test the relationship between the event companies´ s accounting strategy in the year t=-1 and the change in wages as a result of the agreement as a proxy for political cost

In particular, the table 7 shows the estimated coefficients of the models and the t-statistic. We also used White's test to verify homocedasticity, allowing us to accept the zero hypothesis of equality of residue variances, and Jarque-Bera's test confirms normality of residues, evidencing the presence of homocedasticity. However, Durbin-Watson's test accepts the presence of residue self-correlation of order 1. Consequently, the estimate is done by LS, considering that the significance levels of the quotients have been determined from the variance-covariance matrix robust to Newey-West's general self-correlation forms.

R^2 is around 23-27%, i.e. the model's independent variables explain a relatively acceptable percentage of the variability of the endogenous variable. With regard to the model's explanatory variables the tests conclude in all models that significant information is obtained with all the variables considered..

Table 7 summarises the results of the cross-sectional regressions for all the models.

INSERT TABLE 7

We can observe that the sign of the coefficient associated to the variable "change in wages" is always negative and significantly different from zero at 1% (this variable only is significantly different from zero at 10% in Kothari model). This can be interpreted as the earnings management to depress earnings is related with big changes in salaries. This must not be misinterpreted. It can be said that just companies which face big wage demands in their talks are motivated to depress earnings. The rest of the variables have the predictable signs consistent with the previous studies.

The fact which allow us to show this accounting practices have the desirable effect for managers is the result of the relation between earnings depressing practices and lower increases as the result of the agreement than it could be expected.

INSERT TABLE 8

We can see that the sign of the coefficient associated to the variable "Shock in wages" is always positive and significantly different from zero at 5%, for Jones (1991) in his long-term version and Kasznik (1999) model. The sign of this variable in the rest of models is also positive , but significantly different from zero at 10%. This result indicates that when firms employ earnings depressing accounting practises they obtain lower increases of wages for the workers than it could be expected. The sign and statistical significance of the rest of variables remain like above.

7. CONCLUSIONS AND IMPLICATIONS

This paper adds evidence about a contractual motivation for earnings management: the effect of Labour Unions contracts. Previous evidence is based primary on US or Canadian companies. The institutional framework about Labour contracts on one side, an about earnings management on the other, are completely different in Europe. We consider a sample of Spanish companies to test the ability-to-pay theory that considers managers tend to decrease accounting earnings before labour contract agreements to avoid wage and other demands from workers. Previous literature obtains mixed results with North American samples. In general most of the studies obtain results non-consistent with the hypothesis. At the same time most of the literature about earnings management around Labour contracts do not use discretionary accruals models as a methodology to measure earning s management. In this paper we obtain evidence consistent with the view that managers in Spain depress earnings before negotiations. At

the same time this practice is related with lower changes in wages as a result of the agreement.

We consider the study have two main implications:

On one hand evidence about motivation for earnings management helps standard setting bodies and users of information to better understand the accounting practices of companies. This is important to increase quality of accounting earnings and so its relevance to make decisions.

On the other hand we show the importance of institutional factors in manager's motivation, and that these factors can be different through countries. The international differences in earnings management affect to differences in earnings properties and quality, and this affect comparability of information. Under these circumstances the use of a common set of standards can not guarantee the comparability of accounting data, which seem to be one of the main goals of capital markets. Studies about earnings management and accounting choices in Europe are an important and necessary research matter.

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TABLE 5

DISCRETIONARY ACCRUALS AROUND THE FIRM- LEVEL AGREEMENT

The table 5 shows the discretionary accruals calculated using Jones (1991), Kasznik (1999), Kothari et al., (2005) models on long- term version and Jones (1991), Dechow et al., (1995) and Peasnell et al., (2000) models on short-term version. We test the null hypothesis the mean of abnormal accruals is equal to zero using bootstrap methodology. The number of observation in each model is 76.

MODEL	YEAR -1		YEAR 0		YEAR +1	
	ABNORMAL ACCRUAL	Boot-statistic	ABNORMAL ACCRUAL	Boot-statistic	ABNORMAL ACCRUAL	Boot-statistic
JONES long-term version	-0,031	-1,98	-0,014	-1,47	-0,001	-0,14
KASZNIK long-term version	-0,032	-3,25	-0,015	-1,06	-0,007	-0,92
KOTHARI long-term version	-0,037	-2,88	-0,012	-1,26	-0,009	-0,80
JONES short-term version	-0,035	-3,98	-0,001	-0,56	-0,002	-0,14
JONES MODIFIED short-term version	-0,053	-2,45	-0,008	-0,23	-0,003	-0,57
PEASNELL short-term version	-0,046	-2,17	-0,009	-0,58	-0,001	-0,14

TABLE 6

ALTERNATIVE DISCRETIONARY ACCRUALS MEASURES AROUND THE FIRM LEVEL AGREEMENT

The table shows the results of the alternative abnormal accruals measures using Jones (1991), Kasznik (1999), Kothari et al., (2005) models on long- term version and Jones (1991), Dechow et al., (1995) and Peasnell et al., (2000) models on short-term version. We test the null hypothesis the mean of alternative abnormal accruals is equal to zero using bootstrap methodology.

YEAR/VARIABLE	ADA1	p-value	ADA2	p-value
JONES long-term version				
-1	**-0,045**	**0,000**	**-0,032**	**0,000**
0	-0,020	0,342	-0,020	0,356
1	0,001	0,986	-0,001	0,297
KASZNIK long-term version				
-1	**-0,048**	**0,000**	**-0,034**	**0,000**
0	-0,019	0,289	-0,019	0,386
1	-0,003	0,927	-0,006	0,395
KOTHARI long-term version				
-1	**-0,049**	**0,000**	**-0,036**	**0,002**
0	-0,016	0,157	-0,018	0,161
1	0,001	0,930	-0,008	0,388
JONES short-term version				
-1	**-0,048**	**0,000**	**-0,035**	**0,000**
0	-0,013	0,164	-0,013	0,175
1	0,015	0,198	0,012	0,348
JONES MODIFIED short-term version				
-1	**-0,036**	**0,000**	**-0,021**	**0,000**
0	-0,011	0,239	-0,012	0,219
1	0,003	0,449	0,001	0,319
PEASNELL short-term version				
-1	**-0,061**	**0,009**	**-0,047**	**0,028**
0	-0,015	0,371	-0,015	0,342
1	0,005	0,615	-0,001	0,915

ADA1: mean excess in discretionary accruals of event firms in relation to size-matched firm; ADA2: mean excess in discretionary accruals of event firms in relation to industry median. Number of observations in each model is 76.

TABLE 7

RESULTS OF THE ABNORMAL ACCRUALS MODELS ESTIMATION USING LABOR DRIFT

The table 7 shows the results of the cross-section estimation of Jones (1991), Kasznik (1999), Kothari et al., (2005) models on long- term version and Jones (1991), Dechow et al., (1995) and Peasnell et al., (2000) models on short-term version, we only use "event sample". We add Labor drift in each model like independent variable, this variable is a %. Number of observations in each model is 76.

VARIABLE	JONES (1991)MODEL TOTAL ACCRUAL		KASZNIK (1999) MODEL TOTAL ACCRUAL		KOTHARI ET AL., (2005) MODEL TOTAL ACCRUAL	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
PPE	-0,073	-4,37	-0,073	-4,48	-0,092	-4,84
ΔREV	-0,094	-1,5	-0,063	-0,93	-0,119	-1,85
ΔCFO			-0,135	-1,37		
ROA					0,343	1,74
LABOR DRIFT	-0,074	-4,15	-0,077	-4,52	-0,101	-4,31

VARIABLE	JONES (1991) MODEL WORKING CAPITAL ACCRUAL		DECHOW ET AL.,(1995) MODEL WORKING CAPITAL ACCRUAL		PEASNELL ET AL.,(2000) MODEL WORKING CAPITAL ACCRUAL	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
REV					0,101	0,71
REV-ΔDEB					-0,128	-0,89
ΔREV	-0,055	-1,18				
ΔREV-VARDEU			-0,063	-1,38		
LABOR DRIFT	-0,047	-1,76	-0,057	-2,14	-0,045	-1,67

TABLE 8

RESULTS OF THE ABNORMAL ACCRUALS MODELS ESTIMATION USING SHOCK IN WAGES.

The table 8 shows the results of the cross-section estimation of Jones (1991), Kasznik (1999), Kothari et al., (2005) models on long- term version and Jones (1991), Dechow et al., (1995) and Peasnell et al., (2000) models on short-term version, we only use "event sample". We add Shock in each model like independent variable. Number of observations in each model is 76.

VARIABLE	JONES (1991)MODEL TOTAL ACCRUAL		KASZNIK (1999) MODEL TOTAL ACCRUAL		KOTHARI ET AL., (2005) MODEL TOTAL ACCRUAL	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
PPE	-0,106	-4.058	-0,106	-4,156	-0,115	-3,631
ΔREV	-0,176	-1,871	-0,160	-1,547	-0,171	-1,741
ΔCFO			-0,069	-0,272		
ROA					-0,010	-0,038
SHOCK	0,001	2,045	0,001	1,962	0,001	1,858

VARIABLE	JONES (1991) MODEL WORKING CAPITAL ACCRUAL		DECHOW ET AL.,(1995) MODEL WORKING CAPITAL ACCRUAL		PEASNELL ET AL.,(2000) MODEL WORKING CAPITAL ACCRUAL	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
REV	-0,156	-2,480			-0,365	-2,512
REV-ΔDEB					0,339	2,313
ΔREV						
ΔREV-VARDEU			-0,098	-1,424		
SHOCK	0,001	1,771	0,0008	1,685	0,001	1,870