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Active owners and the failure of newly adopted works councils

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Active Owners and the Failure of Newly Adopted Works Councils

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Abstract: Using representative data from the IAB Establishment Panel, we show that employees in establishments with active owners are less likely to introduce a works council. Moreover, we show that, in case of an introduction, the new works council is less likely to survive if active owners are present. Our findings conform to the hypothesis that active owners oppose codetermination because it reduces the utility they gain from being the ultimate bosses within the establishment.

JEL Classification: J50, J53, J54, M54.

Keywords: Active Owner, Works Council Introduction, Works Council Dissolution, Liability of Newness, Employer Resistance to Change.

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1. Introduction

German works councils provide a highly developed mechanism for establishment-level codetermination. Recent econometric studies suggest that they have the potential to increase both worker utility and economic performance. These studies typically obtain neutral to positive effects on job satisfaction, employee retention, family friendly practices, training, flexible working time arrangements, capital utilization, performance pay, innovation, investment, and productivity.¹ Works councils even appear to be associated with increased profitability.² Yet, despite these favorable outcomes, the overwhelming majority of eligible establishments do not have a works council. Ellguth and Kohaut (2009) estimate that councils are present in only 10 percent of eligible establishments in the German private sector.³ This gives rise to the question as to what factors contribute to the low incidence of works councils.

Using representative data from the IAB Establishment Panel, our study examines the role of active owners. We find that the presence of active owners in an establishment is associated with a lower probability that employees introduce a works council. Moreover, we find that, in case of an introduction, the new works council is less likely to survive if active owners are present. Considering the potentially performance enhancing effects of works councils, it does not seem likely that active owners oppose codetermination for economic reasons. The results are rather consistent with the hypothesis that active owners oppose codetermination because it reduces the utility they gain from being the ultimate bosses within the establishment.

Our key findings hold true even when we perform separate estimations for different types of establishments: establishments with and without collective bargaining coverage, establishments in the manufacturing sector and in the service sector, and establishments in East and in West Germany. The pattern of key results

also remains when restricting the estimation sample to medium sized establishments. Moreover, it persists in exploratory instrumental variable estimates accounting for the possible endogeneity of the presence of active owners.

Previous econometric studies have examined the determinants of works council incidence and the determinants of changes in works council status (e.g., Addison et al. 1997, Addison et al. 2013, Jirjahn 2003, Jirjahn 2009, Mohrenweiser et al. 2012; Oberfichtner 2013). This study is the first to investigate the survival or failure of newly adopted works councils. An average failure rate of more than 30 percent indicates that newly adopted works councils suffer severely from liability of newness. Our estimates suggest that active owners substantially contribute to this liability of newness. Studies by Jirjahn (2010) and Schloemer-Laufen (2012) have found a negative link between the presence of active owners and the incidence of a works council. Our analysis provides in-depth insights into the dynamics behind that link.

On a broader scale, this study also contributes to the literature on employee involvement and organizational change in two ways. First, some studies have examined the failure of employer-initiated employee involvement programs (Chi et al. 2011, Drago 1988, Eaton 1994). By contrast, as the introduction of a works council depends on the initiative of the workforce, our study investigates the failure of employee-initiated codetermination. Second, the literature on organizational change typically focuses on employee resistance to change (Ichniowski and Shaw 1995, Zwick 2002). Our study considers employer resistance to change.

The rest of the paper is organized as follows. The institutional framework is described in Section 2. Section 3 provides the background discussion. Section 4 describes the data and the variables. Section 5 presents the empirical results, while

Section 6 concludes.

2. Institutional Framework

Industrial relations in Germany are characterized by a dual structure of employee representation with both unions and works councils. Unions negotiate over wages and general aspects of employment contracts. Works councils provide a highly developed mechanism for establishment-level participation (Keller 2004, Mueller-Jentsch 1995). Their rights are defined in the Works Constitution Act (WCA), which was introduced in 1952 and amended in 1972, 1989, and 2001. Works councils negotiate over a bundle of interrelated company policies. On some issues, they have the right to information and consultation, in others a veto power over management initiatives, in still others the right to coequal participation in the design and implementation of policy. Their rights are strongest in social and personnel matters such as the introduction of new payment methods, the allocation of working hours and the introduction of technical devices designed to monitor employee performance.

Works councils are institutionalized bodies of worker representation that have functions that are distinct from those of unions. They are designed to increase joint establishment surplus rather than to redistribute the surplus. Works council and employer are obliged by law to cooperate “in a spirit of mutual trust . . . for the good of the employees and of the establishment.” They shall collaborate with the serious attempt to reach an agreement and to set aside differences. Works council and employer are not allowed to engage in activities which interfere with the peace within the establishment. Specifically, the employer must not obstruct the activities of the works council. The WCA explicitly states that members of the works council must not be discriminated against or favored because of their activities.

Works councils are mandatory but not automatic. They shall be elected by the

whole workforce of establishments with five or more employees. However, their creation depends on the initiative of the establishment's workforce. To introduce the works council, a meeting of the workforce has to be initiated by at least three employees or by a union that has at least one member in the establishment. At this works meeting, the electoral board is determined by a majority vote of those who are present. If the works meeting fails to elect the electoral board or the meeting has been called for but not held, the labor court appoints a board upon petition. After being established, the electoral board calls the election, implements it and announces the results. Importantly, the WCA states that the employer must not obstruct the election of a works council. Any attempt of the employer to influence the election by threats or promises is unlawful. The cost of the election as well as the cost of operating a works council is borne by the employer.

The members of the works council have a regular term of office of four years. If workers forego the opportunity of reelecting incumbent council members or electing new members after that period, the works council is dissolved within the establishment. Moreover, and most importantly in our context, a works council can be dissolved at any time if the members of the council decide to resign from office and there are no new members replacing them.

3. Background Discussion

A reading of the WCA might suggest that the employer has no or little influence on the introduction or dissolution of a works council. However, case studies (Frege 2002) and a handful of recent econometric examinations (Backes-Gellner et al. 2011, Dilger 2002, Jirjahn 2003, Jirjahn and Smith 2006, Jirjahn et al. 2011, Pfeifer 2011, 2013) show that the functioning of codetermination crucially depends on the managerial environment. In some establishments, works council and management are indeed able

to build cooperative and trustful employer-employee relationships. Managers with a positive attitude toward employee involvement encourage the works council to participate in a wide range of decisions. Yet, in other establishments, works council and management have extremely adversarial relationships. Management rather tries to weaken, isolate or ignore the works council.

Industrial relations in establishments without works councils are also heterogeneous and appear to be influenced by managers' attitudes and strategies (Jirjahn and Smith 2006). In some establishments, management builds cooperative and trustful employer-employee relations even without a works council. Management implements direct modes of communication and participation so that workers do not consider a works council as necessary to speak for them. Yet, in other establishments, managers with a negative attitude toward employee involvement suppress works councils by exerting informal pressure on any worker who shows interest in a council.⁴ This is documented by a series of lawsuits and case studies (Bormann 2007, Koehnen 2006, Polzer and Helm 2000, Rheinisches Journalistenbuero 1987, Rudolph and Wassermann 1996). Royle (1998) provides a typology of suppression strategies. These strategies include, among others, wrongful dismissals, harassment and threatening behavior, loading off additional work to potential works councilors, and the delay and disruption of the election procedure. Survey evidence conducted by Wilkesmann et al. (2009) suggests that fear of employer reprisal is one reason as to why workers forego the election of a works council.

All in all, the functioning of establishment level codetermination is not entirely constrained by legislation so that management has opportunities to influence the introduction, the operation, and the dissolution of a works council. This brings us to the role of active owners. From a theoretical point of view, active owners can exert

an influence for two different motives.

First, owners are the residual claimants of the firm and, thus, have a specific interest in its profitability. Since Berle and Means (1932), it has been widely recognized that the extent to which the profitability of the firm is taken into account depends on agency problems between owners and managers. If there are no active owners in the firm, it is more difficult to monitor the managers' actions. As a consequence, managers have greater scope to pursue their own goals rather than the owners' interests. They may simply enjoy a quiet life and forego opportunities to increase profit. Yet, if there are active owners in the firm, agency problems should be less severe. Active owners have better access to the information flow within the establishment and have greater control over decision making. This enables active owners to bring the establishment's policy into line with the profit motive. Hence, it depends on the potential profitability effect of codetermination whether or not active owners support the implementation of a works council. From a theoretical viewpoint, this effect is ambiguous (Freeman and Lazear 1995). On the one hand, works councils can contribute to increased firm performance by helping build cooperation and trust between employer and employees (Smith 1991). On the other hand, works councils may use their codetermination rights for redistribution activities in favor of the workers. Recent econometric studies suggest that the first aspect dominates. These studies find that the presence of a works council is positively associated with profitability (Mohrenweiser and Zwick 2009, Mueller 2011, Zwick 2007).⁵ Hence, active owners should support codetermination if the profit motive is their dominating motive. We should find that the presence of active owners has a positive influence on both the adoption of a works council and the survival of a newly adopted works council.

Second, as suggested by theoretical analyses (Feinberg 1980, Olson 1977, Singell and Thornton 1997) and empirical findings (Benz and Frey 2004, Fuchs-Schuendeln 2009), active owners gain utility from being the ultimate bosses within the establishment. Active ownership can be seen as a nonpecuniary good that can only be obtained from within the establishment. Active owners not only receive utility from being independent at the workplace but also from “consuming” dominance over their managers and employees (Demsetz 1983). Thus, to the extent codetermination limits their discretionary power, active owners have a high interest in avoiding a works council even if establishment-level codetermination may have the potential to increase economic performance. This suggests that works councils should be less likely to be adopted in establishments with active owners. Moreover, even if the workforce manages to overcome employer resistance and elects a works council, the new council should be less likely to survive in establishments with active owners. Newly adopted works councils appear to be rather weak and inexperienced (Jirjahn et al. 2011) so that active owners who continue to oppose codetermination can succeed in making workers dissolve the council. In this sense, active ownership may contribute to the liability of newness of works councils within establishments.

4. Data and Variables

3.1 Data Set

We draw data from the IAB Establishment Panel of the Institute for Employment Research (Fischer et al. 2009). The IAB Establishment Panel is a representative sample of establishments (with at least one employee covered by social insurance) from all sectors in the German economy. The IAB is the research institute of the German Federal Employment Agency. The institute contracts with Infratest Sozialforschung, a professional survey and opinion research institute, to conduct the

interviews. The data are collected on the basis of a questionnaire and follow-up personal interviews with the owner or top manager of the establishment. Each year since 1993 (1996), the IAB Establishment Panel has surveyed several thousand establishments in Western (Eastern) Germany. Basic information on the establishment and a core set of questions are asked annually. Additional topics are introduced in specific waves.

As information on the presence of a works council is available on a yearly basis since 1998, we use waves 1998 to 2009. The sample used for our examination is constructed as follows. First, agricultural, non-profit and public-sector establishments are excluded from the analysis. Second, as the WCA only applies to establishments with at least five employees, the analysis is restricted to establishments that meet this minimum size. Third, we drop establishments which continuously had a works council throughout the period considered. This restriction reflects our focus on the introduction of works councils. Fourth, establishments with more than two changes in works council status are excluded from the analysis. If too frequent changes in works council status are reported, it is not clear whether this reflects true changes or measurement error. Our restriction helps reduce the issue of measurement error. Fifth, to further reduce the influence of measurement errors, we also exclude establishments that report the presence of a newly adopted works council for only one single year. While an establishment may falsely report the presence of a newly adopted works council in one year, it is not likely that it falsely reports the presence of a newly adopted council in two or more subsequent years.⁶ Finally, only establishments with at least four consecutive, valid observations are considered. As explained below, this restriction is required to obtain a comparable group of establishments.

3.2 Dependent Variables

The definitions of the variables and their descriptive statistics are provided in Table 1. Our first dependent variable is a dummy variable for the introduction of a works council. This variable is equal to 1 if a works council is introduced in the establishment for at least two years. The variable is equal to zero if no works council is introduced.⁷ There are roughly 1 percent of establishments with the introduction of a works council.

Our second dependent variable is restricted to those establishments in which a works council is introduced. It is a dummy variable for the dissolution of a newly adopted works council. This variable is equal to 1 if a newly adopted works council is dissolved. It is equal to zero if the newly adopted works council is not dissolved. Given the definition of our first dependent variable, we consider works council dissolutions that occur after two or more years. The share of establishments with a failure of a newly adopted works council is quite substantial. It amounts to 34 percent.

Note that our definition of the dependent variables requires that we observe establishments with newly adopted works council for at least four years: at least one year in which the establishment initially has no council, two years with the presence of a newly adopted works council, and at least a fourth year in order to observe whether or not the newly adopted works council is dissolved. We obtain a comparable reference group of establishments without works councils by generally focusing on establishments with at least four consecutive, valid observations.

In the initial year 1998, we consider only establishments without a works council. Hence, our definition of dependent variables implies that we observe the introduction of works councils in each year from 1999 to 2007. The dissolution of newly adopted works councils is observed for each year from 2001 to 2009. For the

empirical analysis, we pool the data from the respective years.

3.3 Key Explanatory Variable

The key explanatory variable is a dummy for the presence of active owners in the establishment. As discussed, there are two different reasons as to why active owners may influence both the introduction and the dissolution of a works council. On the one hand, active owners may have a stronger focus on profitability than hired managers. To the extent establishment-level codetermination has the potential to increase profitability, active owners should not only support the introduction but also the functioning of a works council so that a newly adopted council should have a lower probability to fail.

On the other hand, active owners may gain utility from being the ultimate bosses within the establishment. This suggests that they should oppose a works council as codetermination limits their discretionary power. Active owners may not only take action to avoid the introduction of a works council. They may also take action to oppose a newly adopted council in case the workforce manages to overcome their resistance. This implies that active owners contribute to an increased failure of newly adopted works councils.

3.4 Control Variables

We control for a series of other factors which may influence a change in works council status. The role of unions is captured by a dummy variable for the coverage by a collective bargaining agreement. Works councils often help unions recruit union members (Behrens 2009). Hence, unions should support the implementation of works councils. A union can provide expertise so that it is easier for workers to introduce a works council. Moreover, the WCA provides that a union which has at least one

member in the establishment can initiate the introduction of a works council.

We also take into account that workers fearing dismissal or a downgrading of jobs have a specific interest in a works council in order to protect the firm-specific rents they have created by their efforts and human capital investments (Jirjahn 2009). The employment situation is captured by the previous growth rate of employment. Furthermore, we include dummy variables for a previous employment reduction and a poor employment outlook as particularly adverse conditions should increase workers' desire for representation. Moreover, we control for a reorganization of the establishment. The reorganization of the establishment may entail a threat to jobs leading workers to introduce a council (Mohrenweiser et al. 2012).

Personnel turnover may play a different role. A high personnel turnover rate indicates stronger worker preferences for exit than for voice and a less stable workforce which is difficult to organize. We use the churning rate as a measure of personnel turnover. The churning rate captures the share of worker flows that is not part of growth or decline in the size of the establishment workforce.⁸ Furthermore, the share of female employees, the share of part-time employees and the share of skilled employees are controlled for. This takes into account that the desire for representation may depend on the structure of the workforce.

The legal form of the establishment is accounted for by a dummy variable equal to 1 if the establishment is a limited company or a stock corporation. The owners of limited companies and stock corporations are only liable up to their individual shares. If owners are protected by limited liability, they are more likely to support risky projects (Harhoff et al. 1998). Risky projects, in turn, should increase the propensity of risk-averse workers to adopt a works council.

Furthermore, branch plant status may play a role in workers' desire for

representation. In a branch plant, the interests of the employees are not only affected by decisions of local managers but also by decisions made by managers of the headquarter (Jirjahn 2012). This entails increased uncertainty from the workers' perspective and, hence, leads to an increased desire for representation. We also control for single establishments. Hence, the reference group consists of establishments that are parent companies with additional subsidiaries.

We consider a series of variables for general establishment characteristics. Establishment size should have a positive influence on the propensity to adopt a works council. A works council may mitigate transaction costs in larger establishments where the need for communication is likely to be higher. Moreover, the legal rights of works councils are stronger in larger establishments. A variable for establishments located in East Germany is also included in the regressions to take into account that there has been a lower incidence of worker representation in East Germany (Hyman 1996). Finally, we control for establishment age, industry affiliation and year of observation.

5. Empirical Results

5.1 Basic Results

Table 2 provides the initial regression results. Column (1) shows the estimates of the determinants of a works council introduction. Column (2) presents the results on the determinants of the dissolution of a newly adopted works council. As the dependent variables are dichotomous, the probit procedure is used. Standard errors are clustered at the establishment level.

Several of the control variables emerge as significant covariates of works council introduction. Works councils are less likely to be introduced in East German establishments. The finding indicates that workers in West and East Germany may

differ in their taste for representation. Establishment size increases the probability of an introduction, but at a decreasing rate. Furthermore, collective bargaining coverage is positively associated with the introduction of a works council. This conforms to the notion that unions provide expertise and support to the workers in implementing works councils. Branch plant status of the establishment, limited liability of the owners and shrinking employment are also positive covariates of works council introduction.⁹ These findings fit the hypothesis that non-transparency of management decisions, owners' willingness to support risky projects, and threats to jobs increase workers' desire for representation.

In the regression on works council dissolution, only a few control variables take significant coefficients. A newly adopted works council is less likely to be dissolved if the owners of the establishment are protected by limited liability. Hence, the risk-taking behavior of owners appears to have a positive influence not only on the employees' propensity to introduce a works council but also on the propensity to continue the operation of the council. Furthermore, personnel turnover emerges as a significant determinant. A newly adopted works council is more likely to be dissolved if personnel turnover is high. This suggests that a less stable workforce may provide insufficient support for the works council.

Most importantly in our context, active owners play a significant role in both the introduction of works councils and the dissolution of newly adopted works councils. The presence of an active owner is a negative determinant of works council introduction. It decreases the probability that a works council is introduced by roughly half a percentage point. For an establishment that would otherwise have the mean probability of 1 percent, this would be a 50 percent decrease in the probability of works council introduction. In case that a works council is nonetheless introduced, the

presence of an active owner is a negative determinant of its survival. The presence of an active owner is associated with a roughly 33 percentage point higher probability that a newly adopted works council is dissolved. Compared to the mean probability of 34 percent, this is an increase in the probability of dissolution by nearly 100 percent.

All in all, our key findings conform to the hypothesis that active owners oppose codetermination because it limits their discretionary power and hence reduces their utility from being the ultimate bosses within the establishment. Active owners do not only take steps to avoid the introduction of a works council. In case that the workers nonetheless manage to introduce a council, active owners also take steps which contribute to the failure of the newly adopted works council. While the WCA states that the employer must not obstruct the election and the activities of a works council, our results suggest that active owners have a substantial influence on the functioning of establishment-level codetermination.

5.2 Does the Influence of Active Owners Depend on the Type of Establishment?

In a further step, we examine if the influence of active owners on the introduction and survival of works councils depends on specific establishment characteristics. Previous research has shown that there is a series of potentially moderating establishment characteristics that can influence the functioning of works councils. We examine whether or not these establishment characteristics also moderate the influence of active owners on works council introduction and works council survival. Table 3 provides the results on our key explanatory variable. Results on the control variables are suppressed to save space.

Several studies have examined the moderating role of collective bargaining coverage in the functioning of works councils (e.g. Frick and Moeller 2003, Heywood and Jirjahn 2002, 2009, Huebler 2003, Huebler and Jirjahn 2003, Mueller 2011,

Renaud 2008, Wagner et al. 2006, Wagner 2008, Zwick 2012). Hence, we run separate regressions for establishments with and without collective bargaining coverage. The results provide little evidence that collective bargaining coverage plays a moderating role in our context. For both covered and uncovered establishments, we obtain that the presence of active owners is a negative determinant of the introduction of a works council and a positive determinant of the dissolution of a new works council. However, the influence of active owners on works council dissolution appears to be particularly strong in uncovered establishments.

Furthermore, we provide separate estimates for establishments in East and West Germany. The estimates suggest that active owners play a similar role in East and West German establishments. For both types of establishments, they confirm a significantly negative influence on the introduction of works councils and a significantly positive influence on the failure of newly adopted works councils.

There is an ongoing debate as to whether or not the functioning of establishment-level codetermination differs by industry (Frick and Moeller 2003, Wagner et al. 2006). Against this background, we run separate regressions for establishments in the manufacturing and the service sector. The regressions suggest a similar role of active owners in both sectors. The presence of an active owner is a negative determinant of the introduction of a works council and a positive determinant of the dissolution of a newly adopted works council.

Finally, we follow previous studies on works councils (e.g., Addison et al. 1997, 2001, Gartner et al. 2013, Huebler 2003, Jirjahn 2003, Jirjahn and Mueller 2013, Wagner 2008) and exclude very small and very large establishments from the analysis in order to focus on medium sized establishments. We experiment with different definitions of medium sized establishments and provide estimates for

establishments with 21 to 100, 21 to 200, and 21 to 500 employees. These estimates confirm a significant influence of active owners on both works council introduction and the failure of newly adopted works councils.

In summary, the estimates shown in Table 3 provide little evidence that the role of active owners depends on specific establishment characteristics. The estimates rather show the same pattern of results for different types of establishments. The presence of active owners is associated with a lower probability of works council introduction and with a higher probability of dissolution of a newly adopted council.

5.3 The Issue of Endogeneity

We recognize the possibility that our previous results may suffer from potential endogeneity of our variable for the presence of active owners. In order to account for possible endogeneity of that variable, we use an instrumental variable (IV) probit model (Amemiya 1978, Rivers and Vuong 1988). Let y_{li} denote the decision to introduce (dissolve) a works council in establishment i . The decision is defined by

$$y_{li} = \begin{cases} 1, & \text{if } y_{li}^* > 0, \\ 0, & \text{otherwise} \end{cases} \quad (1)$$

with the latent model

$$y_{li}^* = \delta y_{2i} + \beta' \mathbf{x}_i + u_i, \quad (2)$$

where y_{2i} is the variable for the presence of an active owner, δ its coefficient, \mathbf{x}_i the vector of other establishment characteristics, β the vector of coefficients and u_i the error term. So far we have used the standard probit procedure to estimate the coefficients including δ . However, unobserved establishment characteristics, influencing both the presence of an active owner and the introduction (dissolution) of a works council, can generate a correlation between y_{2i} and u_i . This implies a bias in

estimating δ . Consistent estimates can be obtained by using the IV probit model. The instrument equation is

$$y_{2i} = \alpha' \mathbf{x}_i + \gamma' \mathbf{z}_i + v_i, \quad (3)$$

where α and γ are vectors of coefficients, \mathbf{z}_i is the vector of identifiers and v_i the error term. In the IV probit model, we treat the dummy for the presence of an active owner as a continuous variable. Hence, the instrument equation can be interpreted as a linear probability model.

The coefficients in (2) and (3) can be estimated using a two-step approach (Newey 1987). Alternatively, the parameters of the probit and the instrument equation can be jointly estimated by maximum likelihood. We follow this second approach. Writing the joint density $f(y_{1i}, y_{2i} | \mathbf{x}_i, \mathbf{z}_i)$ as $f(y_{1i} | y_{2i}, \mathbf{x}_i, \mathbf{z}_i) f(y_{2i} | \mathbf{x}_i, \mathbf{z}_i)$ the likelihood for observation i is

$$\ln L_i = y_{1i} \ln \Phi(m_i) + (1 - y_{1i}) \ln[1 - \Phi(m_i)] + \ln \phi\left(\frac{y_{2i} - \alpha' \mathbf{x}_i - \gamma' \mathbf{z}_i}{\sigma}\right) - \ln \sigma, \quad (4)$$

where

$$m_i = \frac{\delta y_{2i} + \beta' \mathbf{x}_i + \rho(y_{2i} - \alpha' \mathbf{x}_i - \gamma' \mathbf{z}_i) / \sigma}{(1 - \rho^2)^{1/2}}, \quad (5)$$

$\Phi(\cdot)$ and $\phi(\cdot)$ are the standard normal distribution and density functions, respectively, σ is the standard deviation of v_i and ρ the correlation coefficient between u_i and v_i .

As shown in equation (3), identification of the model requires one or more variables influencing the presence of an active owner, but not being correlated with the error term of the regression on works council introduction (dissolution). Here we use the share of establishments with active owners calculated for 608 groups that comprise 38 detailed industrial sectors in 16 federal states. The share of establishment

with active owners reflects the general propensity for active ownership within a region and narrowly defined industry.¹⁰ Hence, it should have a positive influence on the individual establishment's probability of having an active owner. Researchers have applied similar aggregation identification strategies in other contexts. Machin and Wadhwani (1991) use the unionization rate within industries to instrument unionization at the establishment level. Lee (2004) uses the share of government jobs in a locality to instrument public sector employment by workers. Woessmann and West (2006) use average class size within schools as an instrument for actual class size. Cornelissen et al. (2011) use the share of workers receiving performance pay within industries to instrument the individual worker's chance of receiving performance pay. Nonetheless, we note that finding a convincing instrument is always a matter of debate so that our IV regressions can be viewed as largely exploratory.

Table 4 provides the results on the key variables.¹¹ Results on the control variables are suppressed to save space. In columns (1a) and (1b), the determinants of works council introduction are jointly estimated with the determinants of the presence of an active owner. The share of establishments with active owners in the industry is a significant determinant of the individual establishment's probability of having an active owner. A Wald test rejects the hypothesis that the presence of an active owner is exogenous. However, most importantly, the IV probit confirms that a works council is less likely to be introduced if an active owner is present.

In columns (2a) and (2b) the determinants of works council dissolution are jointly estimated with the determinants of the presence of an active owner. Again, the identifying variable is a significantly positive determinant in the instrument regression and the Wald test rejects the exogeneity of the presence of an active owner. Most importantly, the estimation shows that newly adopted works councils are more likely

to be dissolved in establishments with active owners.

Altogether, even when taking the potential endogeneity of the presence of active owners into account, the estimates confirm the basic pattern of results. The presence of an active owner is a negative determinant of the introduction of a works council and a positive determinant of the dissolution of the newly introduced works council.

5.4 Expanding the Sample

As discussed in Section 4, we have imposed restrictions on our estimation sample in order to ensure that the dependent variables capture real changes in works council status. We now provide estimates without these restrictions to check the robustness of our results. In other words, we additionally include establishments that reported more than two changes in works council status as well as establishments that reported the presence of newly adopted works council for only one single year.

Table 5 provides the results based on the expanded sample of establishments. These results can be compared with the findings shown in Table 2. Even though the magnitudes appear to be somewhat smaller, the estimates with the expanded sample confirm the basic pattern of results on our key explanatory variable. The presence of an active owner is a negative determinant of the introduction of a works council and a positive determinant of the dissolution of the new works council. However, the expansion of the estimation sample influences the results on some of our control variables. Specifically, the coefficient on establishment size reverses its sign from positive to negative in the regression on works council introduction. This would imply that works councils are less likely to be introduced in larger establishments. The negative influence of establishment size does not conform to theoretical expectations and is at odds with previous studies (e.g., Addison et al. 1997, Addison et al. 2013,

Jirjahn 2009). This implausible result suggests that it is important to impose the restrictions on the estimation sample in order to reduce the issue of measurement error in the dependent variables.

6. Conclusions

The WCA provides that employees alone should decide whether or not they want a works council. The employer must not obstruct the election or the activities of a council. Yet, our findings suggest that the employer *de facto* has a strong influence on the employees' decision. The presence of active owners in the establishment is associated with a lower probability of introducing a works council and a higher probability of dissolving a newly introduced council. Considering the neutral to positive effects of works councils on establishment performance, the negative influence of active owners is difficult to explain by economic motives. The negative influence rather conforms to the hypothesis that active owners oppose codetermination as it limits their discretionary power and hence reduces their utility from being the ultimate bosses within the establishment.

Several general conclusions can be drawn from our analysis. First, previous studies suggest that the works council status of an establishment is relatively stable in the long run. Our analysis shows that not only a low rate of works council introduction but also a high failure rate of newly introduced works councils contributes to that stability. The presence of active owners plays a role in both rates. It reduces the rate of introduction and increases the rate of failure.

Second, some jurists have noted that workers' rights provided by the WCA are only incompletely enforceable (e.g., Daeubler 2001). The finding that active owners reduce the chance of successfully introducing a works council is in line with this notion. One reason for the incomplete enforceability may be that hidden actions of

employers are difficult to verify in court.

Third, previous econometric studies have tried to understand the functioning of establishment-level codetermination by examining its economic consequences. Our findings suggest that non-economic factors may also play an important role. The maintenance of power for its own sake appears to be one motive as to why active owners oppose codetermination. This calls for a more detailed consideration of non-economic factors in econometric analyses. Such an extension would allow combining a systematic quantitative analysis with a more comprehensive perspective on the functioning of establishment-level codetermination.

Finally, we note that future research could fruitfully examine the specific steps active owners take in order to discourage workers from electing and operating a works council. The IAB data do not contain information on these steps. So we must leave this topic until representative data with detailed information are available.

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Table 1: Variable Definitions and Descriptive Statistics

Variable	Description (Mean, Standard Deviation)
Introduction of a works council	Dummy variable equals 1 if a works council is introduced in the establishment (.008, .088).
Dissolution of a newly adopted works council	Dummy variable equals 1 if a newly adopted works council is dissolved (.342, .475).
Active owner	Dummy variable equals 1 if at least one active owner is present in the establishment (.718, .450).
Organizational change	Dummy variable equals 1 if the establishment reports a spin-off, outsourcing, merger, acquisition or partial plant closure (.045, .206).
Employment growth	Employment growth between the current year and the previous year in percent (.046, .479).
Workforce reduction	Dummy variable equals 1 if the establishment reports a reduction in the number of employees (.310, .462).
Size	Number of employees (35.32, 100.41).
Size squared	Number of employees squared.
Poor employment outlook	Dummy variable equals 1 if the establishment has poor or very poor employment expectations (.129, .335).
Collective agreement	Dummy variable equals 1 if the establishment is covered by a collective bargaining agreement (.381, .486).
Limited liability	Dummy variable equals 1 if the establishment is a private limited company or a stock corporation (.577, .494).
Single establishment	Dummy variable equals 1 if the establishment has no subsidiaries and is not itself a subsidiary (.865, .341).
Subsidiary	Dummy variable equals 1 if the establishment is a subsidiary (.073, .260).
Skilled employees	The share of the establishment's workforce with a completed apprenticeship training or an university degree (.659, .265).
Part-time employees	The share of the establishment's workforce that is part time (.189, .230).
Female employees	The share of the establishment's workforce that is female (.392, .297).
Churning	A churning rate based on the first half of a year. H = number of hires and S = number of separations. The rate is equal to $1 - (H-S)^2/(H+S)^2$ if $H + S > 0$ and equal to 0 if $H+S = 0$ (.258, .414).
Founded in the last 10 years	Dummy variable equals 1 if the establishment has been founded in the last 10 years (.164, .370).
East Germany	Dummy variable equals 1 if the establishment is located in the former East Germany (.421, .494).
Share of establishments with active owners	Share of establishments with active owners calculated for 38 industrial groups in 16 federal states.
Industry dummies	Dummy variables for 8 broadly defined industrial sectors.
Year dummies	Dummy variables for the respective years.

N = 29,539. For the variable for the dissolution of a newly adopted works council the number of observations is equal to 231.

Table 2: Basic Estimates

	(1) Introduction of a works council	(2) Dissolution of a newly adopted works council
Active owner	-0.389 [-0.0041] (6.13)***	0.916 [0.331] (3.10)***
Organizational change	0.134 [0.0013] (1.35)	-0.273 [-0.087] (0.73)
Employment growth	0.016 [0.0001] (0.97)	0.368 [0.125] (0.78)
Workforce reduction	0.133 [0.0011] (2.33)**	0.121 [0.041] (0.49)
Size	0.001 [0.00001] (4.67)***	-0.002 [-0.0005] (1.50)
Size squared	-0.0002 [-0.0000002] (3.11)***	0.00008 [0.00007] (1.33)
Poor employment outlook	-0.076 [-0.0005] (0.87)	-0.384 [-0.119] (1.28)
Collective agreement	0.319 [0.0029] (5.56)***	0.346 [0.116] (1.43)
Limited liability	0.327 [0.0025] (4.32)***	-0.720 [-0.271] (2.19)**
Single establishment	-0.056 [-0.0004] (0.57)	0.552 [0.184] (1.40)
Subsidiary	0.427 [0.0058] (4.00)***	0.337 [0.117] (0.77)
Skilled employees	0.181 [0.0014] (1.54)	0.388 [0.132] (0.98)
Part-time employees	-0.153 [-0.0012] (0.97)	0.080 [0.027] (0.13)
Female employees	0.174 [0.0014] (1.47)	0.831 [0.283] (1.73)*
Churning	-0.019 [-0.0001] (0.30)	0.518 [0.177] (1.99)**
Founded in the last 10 years	0.033 [0.0003] (0.45)	0.012 [0.004] (0.05)
East Germany	-0.115 [-0.0009] (1.83)*	0.284 [0.098] (1.27)
Constant	-2.902 (14.97)***	-1.678 (2.17)**
Industry dummies	Yes	Yes
Year dummies	Yes	Yes
Number of observations	29,539	231
Pseudo R ²	0.194	0.292

Method: Probit. The table shows the estimated coefficients. Marginal effects are in square brackets and z-statistics are in parentheses. Standard errors are clustered at the establishment level by using the Huber-White sandwich variance estimator. *** Statistically significant at the 1% level; ** at the 5% level; * at the 10% level.

Table 3: Separate Estimates

	Introduction of a works council	Dissolution of a newly adopted works council
Separate estimations by collective bargaining status		
Only establishments without collective bargaining coverage	-0.345 [-.0026] (3.99)***	3.074 [.6448] (3.63)***
	N = 18,267; Pseudo R ² = 0.18	N = 98, Pseudo R ² = 0.65
Only establishments with collective bargaining coverage	-0.409 [-.0058] (4.43)***	0.696 [0.2601] (1.74)*
	N = 11,272; Pseudo R ² = 0.22	N = 133, Pseudo R ² = 0.24
Separate estimations by location		
Only establishments located in East Germany	-0.381 [-.0032] (3.53)***	1.082 [.4097] (1.83)*
	N = 12,437; Pseudo R ² = 0.22	N = 93, Pseudo R ² = 0.46
Only establishments located in West Germany	-0.377 [-.0041] (4.74)***	1.135 [.3458] (2.44)**
	N = 17,102; Pseudo R ² = 0.19	N = 137, Pseudo R ² = 0.41
Separate estimations by industry		
Only establishments in the manufacturing sector	-0.260 [-.0034] (2.51)***	1.936 [.5142] (3.37)***
	N = 8,827; Pseudo R ² = 0.18	N = 81, Pseudo R ² = 0.43
Only establishments in the service sector	-0.423 [-.0039] (4.63)***	1.077 [.3836] (2.05)**
	N = 15,863; Pseudo R ² = 0.22	N = 129, Pseudo R ² = 0.42
Separate estimations by establishment size		
Only establishments with 21-100 employees	-0.338 [-.0062] (3.78)***	0.702 [.245] (1.98)**
	N = 9,591; Pseudo R ² = 0.15	N = 116, Pseudo R ² = 0.24
Only establishments with 21-200 employees	-0.329 [-.0065] (3.97)***	0.778 [.2593] (2.31)**
	N = 10,773; Pseudo R ² = 0.15	N = 138, Pseudo R ² = 0.26
Only establishments with 21-500 employees	-0.324 [-.0072] (4.18)***	0.989 [.3272] (3.17)***
	N = 11,331; Pseudo R ² = 0.15	N = 170, Pseudo R ² = 0.24

Method: Probit. The table shows the estimated coefficients on the dummy variable for the presence of an active owner. Results on the control variables are suppressed to save space. Marginal effects are in square brackets and z-statistics are in parentheses. Standard errors are clustered at the establishment level by using the Huber-White sandwich variance estimator. *** Statistically significant at the 1% level; ** at the 5% level; * at the 10% level.

Table 4: The Issue of Endogeneity

	(1a) Introduction of a works council	(1b) Active owner	(2a) Dissolution of a newly adopted works council	(2b) Active owner
Share of establishments with active owners	-----	0.440 (30.76)***	-----	0.321 (2.14)**
Active owner	-1.124 (3.51)***	-----	2.801 (7.01)***	-----
Number of observations	29,539		231	
Rho	0.297		-0.799	
χ^2 (Wald test of exogeneity)	4.61**		3.58*	

Method: IV Probit. The table shows the estimated coefficients. Z-statistics based on clustered standard errors are in parentheses. Results on the control variables are suppressed to save space. Rho is the correlation between the error terms in equations (2) and (3). *** Statistically significant at the 1% level; ** at the 5% level; * at the 10% level.

Table 5: Estimates Based on the Expanded Sample

	(1) Introduction of a works council	(2) Dissolution of a newly adopted works council
Active owner	-0.127 [-0.002] (3.13)***	0.538 [0.208] (3.63)***
Organizational change	0.016 [0.0002] (0.28)	-0.033 [-0.013] (0.16)
Employment growth	0.015 [0.0002] (1.29)	-0.221 [-0.084] (0.87)
Workforce reduction	-0.024 [-0.0004] (0.71)	-0.149 [-0.056] (1.04)
Size	-0.0003 [-6.83x10 ⁻⁶] (2.70)***	-0.002 [-0.001] (2.42)**
Size squared / 1000	7.8x10 ⁻⁶ [1.34x10 ⁻⁸] (2.77)***	0.0002 [0.0001] (1.79)*
Poor employment outlook	-0.071 [-0.0011] (1.53)	-0.560 [-0.197] (3.12)***
Collective agreement	0.049 [0.0008] (1.34)	0.073 [0.028] (0.58)
Limited liability	0.255 [0.0039] (5.43)***	-0.372 [-0.146] (2.08)**
Single establishment	-0.103 [-0.0019] (1.93)*	-0.066 [-0.026] (0.32)
Subsidiary	0.159 [0.0031] (2.89)***	-0.267 [-0.101] (1.15)
Skilled employees	0.002 [0.0004] (0.04)	0.168 [0.064] (0.77)
Part-time employees	-0.039 [-0.0007] (0.42)	0.183 [0.070] (0.58)
Female employees	0.127 [0.0022] (1.68)*	0.147 [0.056] (0.54)
Churning	-0.017 [-0.0002] (0.45)	0.141 [0.054] (0.98)
Founded in the last 10 years	0.004 [0.0001] (0.11)	-0.222 [-0.083] (1.42)
East Germany	-0.020 [-0.0003] (0.57)	0.187 [0.072] (1.42)
Constant	-2.593 (23.42)***	-0.268 (0.57)
Industry dummies	Yes	Yes
Year dummies	Yes	Yes
Number of observations	73,686	530
Pseudo R ²	0.050	0.122

Method: Probit. The table shows the estimated coefficients. Marginal effects are in square brackets and z-statistics are in parentheses. Standard errors are clustered at the establishment level by using the Huber-White sandwich variance estimator. *** Statistically significant at the 1% level; ** at the 5% level; * at the 10% level.

Endnotes

¹ See, for example, Addison et al. (2001), Askildsen et al. (2006), Backes-Gellner and Tuor (2010), Ellguth and Promberger (2004), Frick and Moeller (2003), Grund and Schmitt (2013), Heywood and Jirjahn (2002, 2009), Huebler (2003), Huebler and Jirjahn (2003), Jirjahn (2008), Jirjahn and Kraft (2011), Mueller (2011, 2012), Smith (2006), Stegmaier (2012), Wagner (2008), and Zwick (2005).

² See Mohrenweiser and Zwick (2009), Mueller (2011), and Zwick (2007).

³ However, these establishments include about 40 percent of all workers.

⁴ The case of council suppression is analogous to that of union suppression documented for Anglo-Saxon countries (Cullinane and Dundon 2013, Gall 2004, Logan 2006, Schmitt and Zipperer 2009).

⁵ Earlier studies on works councils and profitability used subjective profitability evaluations of managers as dependent variable (e.g., Addison et al. 2001, Dilger 2002). Those studies usually found a negative link between works councils and profitability. Mueller (2011) shows that regressions based on subjective profitability variables yield several implausible results.

⁶ Nonetheless as a check of robustness, we will also provide estimates with an estimation sample which additionally includes establishments that reported the presence of a council for only one single year or had more than two changes in works council status.

⁷ Note that establishments reporting the presence of a council for only one year are excluded from the analysis to reduce the issue of measurement error.

⁸ The index is a modest variant on that in Burgess et al. (2000) and equals $1 - (H - S)^2 / (H + S)^2$. H and S are the non-negative hires and separations. It reaches a maximum of 1.0 when the number of hires and separations are equal. The index reaches a minimum of zero when there are only hires or only separations as these reflect either growth or decline with no churning. The only exception is when both hires and separations are zero and the index is undefined and set to zero by definition.

⁹ Mohrenweiser et al. (2012) have found a significantly positive influence of a reorganization of the establishment on the *successful* introduction of a works council. The coefficient on organizational change is insignificant in our estimation as we consider the introduction of a council in general (i.e., the council may survive or not).

¹⁰ Note that we can still include the 8 broadly defined industry dummies.

¹¹ The table does not provide marginal effects. As the IV probit model treats the dummy for the presence of active owners as a continuous variable, we do not interpret the magnitude of the coefficient on that variable. Our primary interest is to check whether the basic pattern of results still holds true when the potential issue of endogeneity is taken into account.