

# **TO STRIKE OR NOT TO STRIKE? STRIKE PROPENSITY AMONG NON- STRIKERS IN 14 OECD COUNTRIES.**

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## **Introduction**

In more recent decades strikes have lost their traditional role of providing employees with a powerful option to counter management actions (Gall 1999; Hyman 1989). To answer the question of what has happened to strikes, four propositions have been offered (Godard 2011). Two propositions suppose that strikes have undergone a fundamental transformation; either being redirected to other forms of action (e.g. boycotting, signing petitions, joining rallies) or becoming embedded in forms of self-repression. The other two propositions, strictly interwoven, do not suppose a change in the nature of strikes. Our focus will be on these latter two propositions.

According to the first proposition, capitalism triumphed. Managerial ideologies and globalization dynamics have not only progressively reduced strikes activities but also have eroded workers' propensity to engage in conflict (Hyman 1989). Hence, labour conflict has been finally conquered. Whereas, in the second proposition, although strikes are rare there is still a dormant strike potential. Thus, in this latter case, strikes have not been eradicated from employer-employee relations.

Our aim is to explore these two propositions through the analysis of employee strike propensity in 14 OECD countries. Strike propensity is defined as a motivational concept that captures the extent to which employees are willing to strike (Martin and Sinclair 2001: 388). Although strike propensity does not always imply actual strike action, it is a strong antecedent of it (Barling *et al.* 1992). We specifically focus on OECD countries because they share two fundamental commonalities for our study: they have surpassed similar thresholds of economic and industrial development; and have seen strike occurrences dwindle in recent years. These countries thus provide a rich sample to study strike propensity.

Since it has been demonstrated that employees who already experienced a strike have a higher strike likelihood (Campolieti *et al.* 2005; Martin and Sinclair 2001), the existence of strike potential can be affected by more senior employees who have been socialized to work in periods of higher strikes. In order to exclude this effect, strike potential is more objectively assessed by including only those employees who never went on strike. Moreover, in contrast to the scant research on the propensity to strike, we do not restrict strikes to a specific company or bargaining unit and/or issue nor do we observe just union members (Akkerman *et al.* 2013; Barling *et al.* 1992; Martin, 1986; Martin and Sinclair 2001). We take a wider perspective by examining an employees' perception of strikes *per se* as a possible future action. This will allow us to capture individual beliefs about strikes that are not only less subject to such specific factors as company loyalty and occupational satisfaction, but also findings that are more generalizable - a main concern of previous research (Martin and Sinclair 2001: 403). While we consider union membership, a most relevant institutional aspect of industrial relations, our focus is primarily on the individual beliefs and not on collective bargaining or legal settings. We thus do not control for other institutional differences in industrial relations at the country level.<sup>1</sup>

Synergizing the two dominant approaches in labour conflict; socio-psychological (Campolieti *et al.* 2005; Cohn and Eaton 1989; Godard 1992; Kelly and Nicholson 1980); and economic (*see* Kaufman 1992), we explain employee's propensity to strike as a

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<sup>1</sup>The non relevance of other institutional country characteristics of industrial relations for our study, such as the degree of bargaining coordination, union authority, and legislation about strikes (as reported in ICTWSS database), is also confirmed by the several tests conducted using our model. All of these variables were not significant in the regression analysis.

function of employee characteristics and attitudes together with the country economic conditions in which the employee is located. Our unit of analysis is therefore the employee who never went on strike nested in country.

We contribute to the debate about strikes in three ways. First, existing strike research is mainly limited to a backward looking perspective. A forward looking perspective which considers individual perceptions about possible future strikes remains understudied (Akkerman *et al.* 2013). By observing strike propensity we thus capture a future-oriented perspective. Second, previous studies explained strikes especially with reference to country, industry, and firm characteristics (Barlow and Buckley 1998). The employee's individual motivation has received less attention. We thus give greater relevance to individuals. Third, largely due to data constraints, the debate about strikes has been limited to Western countries. We expand the discussion of strike potential beyond Western countries to include other seven OECD countries (Chile, Estonia, Mexico, Poland, Slovenia, South Korea , and Turkey).

In the first section we highlight our theoretical framework. Drawing on the labour conflict debate, we identify three mechanisms at the individual level (instrumentality, values, and union support) and two at the country level (country economic conditions and economic globalization) to explain employee's strike propensity. The second section introduces the data and our probit regression model based on the latest wave (2010-14) of the World Values Survey (WVS). Results are presented in section three and subsequently discussed. Finally we demonstrate how our findings can enrich the three streams of employment relations debate: varieties of employment relations, union renewal, and the future of employment relations.

## **1. Theory - A framework to analyse the propensity to strike**

Labour conflict arises from discontent. It can be expressed in such diverse individual expressions as absenteeism, low levels of production, quitting the job, to such

disruptive collective actions as strikes and job actions (Brandl and Traxler 2010; Gall and Hebdon 2008).

Strikes reached their highest level in most Western countries in the late '60s and in the beginning of the '70s (Crouch and Pizzorno 1978). Once this turbulent period passed, the '80s and '90s have been characterized by strike quiescence and decline (Brandl and Traxler 2010; Piazza 2005). This fall in strike incidence reinforced the overall employment relations decline perspective (Avdagic and Baccaro 2014; Scheuer 2006: 155).

While this strike trend has been traced through a backward perspective, few studies adopted a forward approach to the analysis of strike propensity (Akkerman *et al.* 2013; Barling *et al.* 1992; Martin 1986; Martin and Sinclair 2001). Socio-psychological approaches and economic theories about labour conflict are typically taken into account in the analysis. With reference to the first approach, it has been argued that the decision to strike ultimately rests with employees and unions (Dixon and Roscigno 2003). Thus employee characteristics and attitudes, on the one side, and their relationship with the union, on the other, have been central elements in the explanation of employee strike propensity.

With respect to employees' characteristics and attitudes, strikes are motivated by a rational calculation based on the expected benefits of striking whether material or symbolic (Brandl and Traxler 2010; Scheurer 2006: 159). Thus, the employee decision to strike is primarily explained by *instrumentality* and individual *values*.

*Instrumentality*. The decision to strike is based on the individual's utility-maximizing decision (Olson 1965). Based on the expected outcomes and costs engendered by a strike, individuals evaluate if their utility is higher than not joining (Hyman 1989). Based on the instrumental perception of strikes, individuals with lower salary, organizational positions, and education are more inclined to strike (Martin 1986; Martin and Sinclair 2001). In line with this argument, we propose our first hypothesis.

*Hypothesis 1*. We expect to find higher propensity to strike among employees with a lower socio-economic profile, especially the ones who perceive higher feeling of relative deprivation.

*Values.* Employees' ideas and beliefs are directly related to their willingness to engage in strikes (Hyman 1989: 73). Employees' beliefs about the actual and especially desired characteristics of the relation between employer and employees are fundamental. Strikes may be conceived as a 'sword of justice' with the power to reduce, eliminate, or subvert this asymmetrical relationship (Flanders 1975). It follows that strike perception may be affected by political ideology. Moreover, unions have developed links with political parties and have enacted strikes against governments in more recent years, especially when conservative coalitions were in charge (Gumbrell-McCormick and Hyman 2013; Hamman *et al.* 2012). This leads to our second hypothesis.

*Hypothesis 2.* We expect that employees that lean towards left ideological orientations and those more engaged in politics in general have higher propensities to strike.

*Union support.* While employee characteristics and attitudes demonstrated their importance in explaining employees' positioning towards strikes, even more important are the features of the relation between employee and union, generally expressed as the degree of support for unions. Unions are the most important enabling element for discontent to be organized and developed into strikes (Hyman 1989). However, union support can assume different forms and intensity. Confidence in unions, for example, has been shown to be a basic expression of support for unions (Frangi and Memoli 2014; Frangi *et al.* 2014). Nonetheless, the most common expression of employee support for unions remains affiliation itself (see, for example, Kirmanoğlu and Başlevent, 2012; Snape and Redman, 2004). Our third hypothesis follows from this discussion.

*Hypothesis 3.* We expect that expressing confidence in unions, being a union member, especially an active one, will increase an employee's propensity to strike.

*Country economic conditions.* While individual characteristics and attitudes are relevant, labour conflict has been also patterned, influenced, and disciplined by contextual economic conditions (Brandl and Traxler 2010: 525; Godard 2011; Hyman 1989).

There is substantial evidence in favour of a procyclical effect (i.e. better economic conditions and higher conflict). Unemployment has been confirmed as a major restraint on conflict by eroding worker solidarity (Brandl and Traxler 2010: 525). On the other hand, economic prosperity increases labour's leverage and encourages employee propensity to engage in conflict.

*Hypothesis 4.* Strike propensity will be positively associated with better country economic conditions.

*Country economic globalization.* Recent studies highlight that country economic globalization is a fundamental explanation of the overall decline of employment relations, including labour conflict (Piazza 2005; Scheurer 2006: 159). Globalization erodes conflict in two opposite ways: "coercive", and "virtuous" pacification (Godard 2011). The diminished relevance of national borders for trade and production puts firms under constant pressure from international competition. Therefore, firms try to reduce labour costs as much as possible through the introduction of precariousness and insecurity in the employer-employee relationship. This increased employee insecurity has the effect of reducing conflict. A coercive pacification force is thus at work.

On the other hand, globalization may reduce conflict by deflating the employer-employee relationship with collaborative human resource management practices. Participative managerial practices have increased autonomy, team collaboration, employee' firm identification and, where present, union participation into firm decision-making (Gall 2013; Godard 1992).

*Hypothesis 5.* It is expected that economic globalization will have a negative impact on strike propensity.

## **2. Model description**

We test our hypotheses by combining World Values Survey (WVS) data at the individual level with country-level datasets. Although WVS was not designed to study strikes, it is the only database that allows us to study the propensity to strike in several OECD countries and to measure the impact of the explicative mechanisms discussed above. The specific question about "joining strikes" has not been asked across all six waves and, more importantly, has been inconsistently worded.<sup>2</sup> We thus focus only on Wave 6, without having the opportunity to develop a longitudinal analysis. Moreover, due to our research goal, we exclude people who are not employees (e.g. employers, self-employed, students, housewives, retirees, unemployed), and employees who declared to have already joined a strike.

Our sample is thus composed of individual employees who never went on strike nested in countries. Among the countries included in the WVS, our attention is driven to the 14 that are current OECD members.<sup>3</sup> In order to assess the impact of country's economic conditions we are adding data from the Penn World Tables, and about country economic globalization from the KOF Globalization index. Our final dataset is a cross-section which includes 5633 individual employees, who never joined a strike, belonging to the following OECD countries: Australia, Chile, Estonia, Germany, Japan, South Korea, Mexico, Netherlands, Poland, Spain, Sweden, Slovenia, Turkey, and the United States.

### *2.1 Dependent variable: propensity to strike*

As in previous waves, in Wave 6 individuals have been asked about various forms of political action that they "have done" (1), they "might do" (2) or they "would never do" (3). One such action is "joining strikes". We drop employees who have already gone on strike. We then recode our dependent variable as a dichotomous measure: would never join strikes (0) versus might join strikes (1). The nature of the dependent variable unfortunately does not allow us to distinguish by more fine grained characteristics of strikes (e.g.

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<sup>2</sup> From wave 1 to wave 4 people were asked about their propensity to "joining unofficial strikes", whereas in wave 6 (2010-2014) were asked about propensity to "join strikes". "Unofficial strikes" and "strikes" are not the same phenomena.

<sup>3</sup> New Zealand is also an OECD country included in the 6th wave of the WVS. Unfortunately, due to substantial missing information, we have to drop this country.

differentiation between industrial and political strikes, or/and offensive and defensive strikes). Strikes remain defined in general terms.

## 2.2 Independent Variables

### 2.2.1 Individual level:

*Instrumentality.* Consistent with previous research about willingness to strike, we rely on the socio-economic profile of the respondent employee in order to measure perception of strike instrumentality. The respondent's economic conditions are measured by income level (ten-step linear scale) together with level of savings during past year (four categories: from "save money" to "spent savings and borrowed money"). Since theoretical attention was driven not just toward deprivation *per se* but also to relative deprivation, we also insert the best available proxy in the WVS to measure it: the satisfaction with financial situation of household (ten-step linear scale that ranges from 1=completely dissatisfied to 10=completely satisfied). To capture the employee's organizational position we rely on the nature of his job task. We create an additive index that is comprehensive of three proposed ten-step scales about the nature of the employee task: the first scale ranks tasks from "mostly manual tasks" to "mostly intellectual tasks"; the second ranks from "mostly routine tasks" to "mostly creative tasks"; and the third ranks from "no independence at all" to "complete independence" (Cronbach alpha = 0.60). The highest level of education attained further define the socio-economic profile of the respondent (nine-step scale, from "no formal education" to "university-level education with degree").

*Values.* We insert into the model the usual individual's self-positioning on a ten-step ideological scale (1=left to 10=right) and interest in politics. The latter is a categorical variable with four categories that range from "not at all interested" to "very interested".

*Union Support.* Union support is measured by two variables: confidence in unions and union membership. Confidence in unions is measured through four categories, from "not at all" to "a great deal". Union membership is a categorical variable with three modalities of answer: non-member, inactive member, and active member.



*Control variables.* Since strikes have been higher in the public sector more recently, we control by the sector of employment (private versus public) (Bordogna and Cella 2002). In addition, we control by the type of employment considering "part-time" versus "full time". Lastly, gender and age are inserted.

### 2.2.2 Country level

*Country economic conditions.* We include in our data the usual country-level variables to measure the country economic conditions in terms of output (real GDP per capita; we use its logarithmic transformation to smooth the data and allow for easier interpretation), output trend (GDP growth), and labour market employment characteristics (unemployment rate). In order to explore how economic conditions prior to the survey year affect strike propensity, we ran several specification tests with different time lags, finally settling on 3-year averages prior to the survey year as measures for country-wide macroeconomic variables.<sup>4</sup> Average measures are therefore inserted into the model (e.g. the WVS was carried out in 2012 in Australia and, as such, the 3-year macroeconomic variable averages are calculated from 2009 to 2011).

*Country economic globalization.* Country economic globalization is measured through the KOF economic globalization index. It takes into account flows of trade, investments, income payment to foreign nationals, and restrictions on international trade and capital account. It assumes values scaled from 1 (minimum globalization) to 100 (maximum globalization). The KOF index is largely relied on by both economic as well political economy studies (e.g. Meinhard and Potrafke 2012; Potrafke and Ursprung, 2012; Villaverde and Maza 2011). As for previous country variables, we calculate the 3-year prior-to-survey average.

## 2.3 Multivariate analyses

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<sup>4</sup> Various other specifications were tested and the results were similar.

In order to test our hypotheses about how individual employee and country characteristics explain variations in strike propensity, we adopted a multilevel model, which allows for proper clustering of standard errors in its regressions estimates between levels of analysis.<sup>5</sup> Generally, hierarchical linear modelling requires a relatively large sample size at both individual and country levels, usually 30-50 (see, for example, Maas and Hox 2005). Since we only have 14 countries, we use the alternative method proposed by Wooldridge (2003). Wooldridge (2003) offered a two-step method to overcome these constraints in probability models. The model maintains individual characteristics linked to country and provides the proper standard errors when the number of groups at the macro level is small. In the first step propensity to strike variation is explained through a probit regression that considers the set of individual independent variables described above together with country fixed effects (i.e. "country" is inserted as a dummy control variable). The first step is formalized as follows:

$$P(SP_{ic} = 1|z_{ic}, g_c) = \Phi(z_{ic}\beta + g_c)$$

where  $SP_{ic}$  denotes our dependent variable, strike propensity,  $z_{ic}$  denotes individual variables,  $g_c$  are country dummies, and  $\Phi$  is the standard cumulative distribution function for a normal distribution. Country-specific intercepts from this first-step regression ( $g_c$ ) become the dependent variable in the second step, which is given below:

$$g_c = \alpha + \beta^k x_c + \varepsilon_c$$

where  $x_c$  denotes country-level variables and  $\varepsilon_c$  is the error term. Wooldridge (2003) notes that since  $g_c$  is a regression estimate, a more robust method in the second step would be to use a weighted least squares, where the weights are given by the standard errors of the  $g_c$  estimates from the first step. We apply this two-step method to our data in a similar manner to that of previous studies (*see* Baker and Fortin 2001; Campolieti 2004).

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<sup>5</sup> We rejected an approach to reduce the data to country-level means of strike propensity, individual variables, and country variables. This would have produced only 14 observations with each row of the data denoting a country and each column denoting the mean of a certain individual or country variable. Such a means regression, given the low number of observations, would suffer from at least two drawbacks: 1) the model would have to be extremely parsimonious; 2) individual-level variation would be lost making it difficult to test our instrumentality, values, and union support hypotheses within country.

### 3 Results

#### 3.1 Descriptive analyses

Table 1 provides descriptive statistics for the propensity to strike as well as for the set of independent variables at both individual and country levels.

**Table 1: Descriptive statistics for dependent and independent variables**

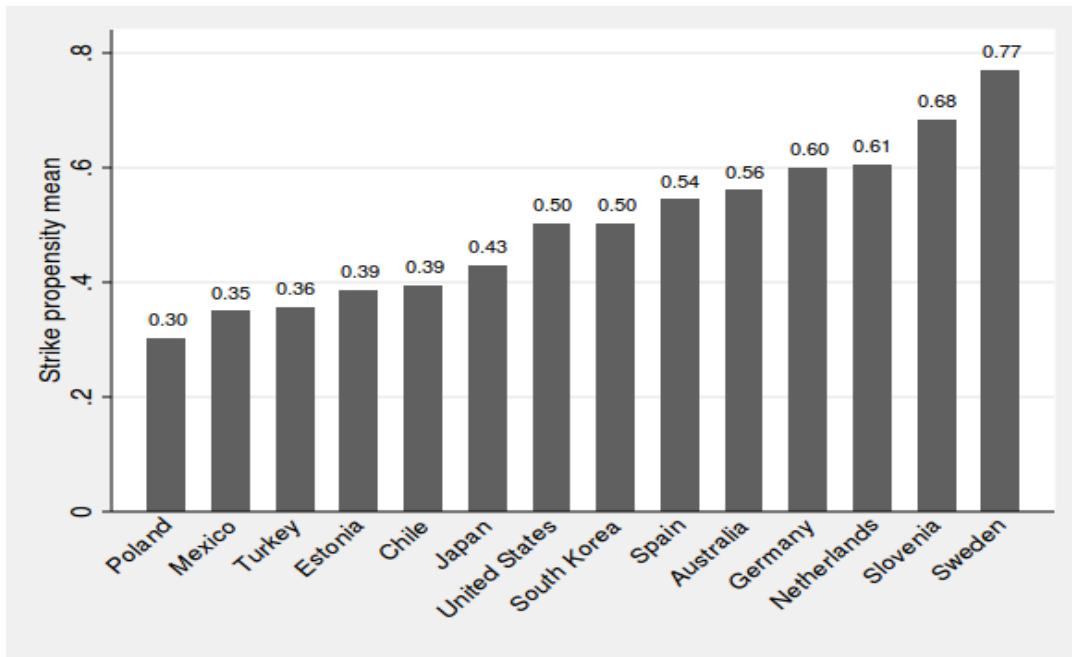
	Mean	Standard Deviation	Minimum	Maximum
Propensity to strike	0.504	0.500	0	1
Scale of incomes (linear index)	5.158	2.003	1	10
Spent savings and borrowed money	0.0870	0.282	0	1
Spent some savings and borrowed money	0.121	0.326	0	1
Just get by	0.359	0.480	0	1
Save Money	0.433	0.495	0	1
Satisfaction with financial situation of household (linear index)	6.568	2.130	1	10
Nature of tasks	18.03	6.214	3	30
Highest educational level attained (linear index)	6.785	2.062	1	9
Self-positioning in political scale (index)	5.511	2.111	1	10
Not at all interested in politics	0.144	0.351	0	1
Not very interested in politics	0.322	0.467	0	1
Somewhat interested in politics	0.410	0.492	0	1
Very interested in politics	0.124	0.330	0	1
No confidence at all in labour unions	0.178	0.382	0	1
Not much confidence in labour unions	0.439	0.496	0	1
Quite a lot of confidence in labour unions	0.345	0.475	0	1
A great deal of confidence in labour unions	0.0383	0.192	0	1
Not a union member	0.810	0.393	0	1
Inactive union member	0.122	0.327	0	1
Active union member	0.0682	0.252	0	1
Private Sector	0.728	0.445	0	1
Public Sector	0.272	0.445	0	1
Full-time	0.815	0.388	0	1
Part-time	0.185	0.388	0	1

Male	0.555	0.497	0	1
Female	0.445	0.497	0	1
Age	41.68	12.72	18	89
Real GDP per capita (log)	10.16	0.443	9.407	10.69
GDP Growth (%)	0.486	2.298	-5.228	3.341
Unemployment Rate (%)	7.335	3.090	3.345	16.54
Index of Economic Globalization	71.64	12.97	49.19	91.40
Observations	5633			

Despite generally low strike rates, Table 1 reveals a surprisingly high mean strike propensity of 0.5 which indicates that one out of two employees declared that he/she might join strikes in the future. The high variance in strike propensity is accompanied by high variance in our independent variables, both at individual and country levels.

When compared with the rest of the world, OECD countries tend to more homogeneous, nonetheless there are important contextual differences. These differences appear to have a significant impact on the national mean of strike propensity as shown in Figure 1. Strike propensity among employees who never went on strike varies from 30% in Poland to 77% in Sweden. While Slovenia has the second highest score, Western countries in general show a higher propensity to strike. Despite low unionization and an unfettered capitalistic model the U.S. had an unexpectedly high level of 0.5 (Hall and Soskice 2001; Jackson and Kirsch 2014).

**Figure 1: Average propensity to strike, ranked by country**



### *3.2. Results from the two-step estimation model*

#### First step: individual level

Table 2 shows the estimates of the probit regression of the propensity to strike as a function of individual variables and country dummies. To obtain probability effects and to make interpretation easier, we present the marginal effects of each (categorical) variable of interest. We first note that among the three explicative mechanisms considered, individual values and support for unions have higher explicative power of strike propensity variation than instrumentality.

Generally our instrumentality variables show mixed results. In line with our expectations we find that employees who report higher incomes have lower probabilities of joining a strike. On average, as an employee moves from one range of income to the next, the probability of joining strikes falls by 0.00776. Further, in comparison to individuals who “spent savings and borrowed money”, employees who “saved money” or unexpectedly

those that "just got by" have respectively 0.0593 and 0.0658 lower probabilities to joining strikes. Naturally, people who are more satisfied with the financial situation of their household have a lower probability of joining a strike. However, the nature of the task (job status) is not significant in explaining variation in strike propensity.<sup>6</sup> Ambiguity in the relevance of the instrumentality mechanism in explaining strike propensity is further introduced by the positive impact of education level on propensity to strike. Results are counterintuitive because for each higher level of education attained employees have 0.0112 higher probability of striking.

The results in Table 2, show clearly that instrumentality is not very highly significant in explaining strike propensity. Overall results do not allow us to fully accept the first hypothesis.

On the contrary, individual values are highly important in determine the employee's choice between "would never join strikes" or "might join strikes". Indeed for each step further towards the right of the political scale, employees have 0.0227 lower probability to show strike propensity. Moreover, in comparison to employees who are not at all interested in politics, other employees show higher probabilities to joining strikes, and in increasing magnitude as we move from employees who are "not very interested" to "somewhat interested" to "very interested" in politics. Strike propensity is therefore a matter of left-wing political values and interest in politics. Results support hypothesis 2.

Also union support is highly explicative of strike propensity. With reference to employees who declared to have no confidence at all in unions, all the other categories show a higher probability of joining strikes, especially stronger among employees who have quite a lot or a great deal of confidence in unions. Moreover, in comparison to employees who are not union members, union members have highly significant higher probability to declare that they "might join strikes", and increasingly so for active members. Hypothesis 3 is thus supported.

Finally, the insertion of control variables further reinforce the relevance of the debated three mechanisms. Moreover, we confirm that males have a slightly significant higher propensity than females toward strike propensity (Martin 2006). More importantly,

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<sup>6</sup> In other specification tests, we separated the additive index of tasks into its various (original) components, and the results did not change. Nature of job tasks is still insignificant.

age is highly significant and oppositely related to strike propensity. In other words, strike propensity is especially higher among younger employees who never went on strike.

**Table 2: Probit regression of the propensity to strike as a function of individual-level variables and country variables**

	<u>Propensity to strike</u>	
	<u>(0: would never strike; 1: might strike)</u>	
	dy/dx	Std. Error
<u>Instrumental correlates:</u>		
Scale of incomes	-0.00776*	(0.00382)
<i>Spent savings and borrowed money</i>	-	-
Spent some savings and borrowed money	-0.0485	(0.0276)
Just get by	-0.0658**	(0.0235)
Save money	-0.0593*	(0.0247)
Satisfaction with financial situation of household	-0.00913**	(0.00346)
Nature of tasks	-0.0000943	(0.00121)
Highest educational level attained	0.0112**	(0.00385)
<u>Values correlates:</u>		
Self-positioning in political scale (left to right)	-0.0227***	(0.00305)
<i>Not at all interested in politics</i>	-	-
Not very interested in politics	0.107***	(0.0199)
Somewhat interested in politics	0.141***	(0.0198)
Very interested in politics	0.181***	(0.0257)
<u>Union Support correlates:</u>		
<i>No confidence in labour unions</i>	-	-
Not very much confidence in labour unions	0.149***	(0.0180)
Quite a lot of confidence in labour unions	0.213***	(0.0196)
A great deal of confidence in labour unions	0.222***	(0.0362)
<i>Not a labour union member</i>	-	-
Inactive labour union member	0.137***	(0.0212)
Active labour union member	0.174***	(0.0256)

<u>Controls:</u>		
Public sector (vs. private sector)	0.0177	(0.0148)
Employment status: part-time (vs. full-time)	0.0217	(0.0167)
Male (vs. female)	0.0345**	(0.0133)
Age	-0.00341***	(0.000525)
Country dummies	Yes	
Observations	5633	
Wald chi2 (34)	757.22	
Log pseudolikelihood	-3478.2763	

Marginal effects denoted by dy/dx; Standard errors in parentheses  
\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

We present in table 3 beta (weighted least squared) estimates from the second step of our model in which strike propensity is explained as a function of country-level variables. Regression coefficients are presented both without and with the use of Wooldridge's weights that are obtained from the standard errors of the country dummies from the first step probit regression.<sup>7</sup> As can be seen, the standard errors of the independent variables are smaller when the weights are applied, which is why Wooldridge's method is more efficient and precise than the alternative.<sup>8</sup> Among the set of variables that measure the country macroeconomic conditions only real GDP per capita is significant and positively related to strike propensity. Therefore, if a country has a higher level of GDP per capita (average of 3 years previous to the survey), employees are more prone to choose "might join strikes" rather than "would never join strikes". Our results show that a 100% increase in real GDP per capita increases the probability to strike by 0.174 in the weighted case. However, GDP growth and unemployment rate are not significant. Results do not allow us to fully accept hypothesis 4.

Finally, unexpectedly the level of the economic globalization of a country had a significant positive effect on strike propensity of employees who live in that country and who never went on strike. A one unit increase in the index of economic globalization increases the probability to join a strike by 0.00352. Therefore, hypothesis 5 is rejected.

<sup>7</sup> The STATA code to carry out the step 2 regression was provided by Michele Campolieti, who used it in Campolieti (2004).

<sup>8</sup> Note that Wooldridge's (2003) method is based on asymptotic normal distributions. As such, the significance levels are based on critical values of a normal distribution, which provide less stringent requirement than a t-distribution with low levels of freedom.



**Table 3: Strike propensity as a function of country-level variables**

	Strike Propensity Unweighted regression	Strike Propensity Weighted regression
Real GDP per capita (log)	0.181*** (0.0533)	0.174*** (0.0498)
GDP Growth	0.00348 (0.0147)	0.00448 (0.0139)
Unemployment	-0.000832 (0.00790)	-0.00129 (0.00789)
Index of economic globalization	0.00369** (0.00164)	0.00352** (0.00160)
Constant	-2.052*** (0.559)	-1.971*** (0.523)
Observations	14	14
$R^2$	0.586	0.592

Standard errors in parentheses

\*\* significant at 5% level, \*\*\* significant at 1% level

## Discussion

Our cross-sectional analysis of employee's propensity to strike does not support our first proposition that capitalism triumphed. On the contrary, we have stronger evidence that a dormant potential for striking is quite widespread in our sample. While it may be true that strikes have been few in numbers and less effective in more recent years, many employees do not consider strikes as "outdated, unnecessary, or irrational actions" (Hyman 1989: 145). Employees' strike propensity has sustained for several possible reasons.

An employee's socio-economic profile is not the most relevant determinant. Even if joining a strike might produce possible economic benefits, employees who perform less demanding organizational tasks and have lower educational levels do not seem convinced of the economic returns. A reduction of the number of strikes, the progressive shift from offensive to defensive strikes, and the pressure of the "gun at the head" climate contribute to understanding this employee hesitation towards strikes.

In contrast, an employee's political and ideological values and union support are fundamental. Politically interested left-wing employees view the disruption of the

relationship between employer and employees as a possible and legitimate action. The relationship between employee and union is also confirmed as fundamental in driving employee attitude toward strikes. When this relationship is embedded with trust and also cemented by membership, employees seem to internalize strikes as central weapons in labour's arsenal (Martin and Dixon 2010: .95). Moreover, the fact that younger employees, who have been socialized to work in a period of lower strike activity, show higher strike propensity adds more evidence that sustain the existence, and possible persistence through time, of strike potential.

Our results are still more compelling when the individual employee decision is aggregated by country. Even in the countries with a lower proportion of strike propensity more than one out of three employees who never went on strike show propensity towards strikes. Moreover, in all Western countries (Japan being the exception) more than half of the employees still express that they could go on strike. And this also persists in more liberal economies, such as Australia and especially the United States. The natural empirical tendency of capitalist economies no longer seems to give rise to actual strikes, but appears to give rise to an undercurrent of discontent that can be potentially expressed in strikes (Godard 1992). Employer-employee relations is thus charged with the potential, at least, of disruptive tension.

Globalization is not a source of peace as previewed, and neither is a country's economic condition. While there is enough convergence about the fact that globalization reduced labour union influence, this does not imply that feelings of discontent, on which strikes and strike propensity are rooted, diminished. On the contrary, globalization is confirmed as a source of tension. Economic globalization boosts competition and employer's "coercive" efforts to discipline labour through market forces. This tendency towards labour commodification raises employees' discontent that may become expressed through a strike. Also "virtuous" efforts to pacify labour, through human resource management collaborative practices, may appear fragile to employees. They can be aware that the achieved cooperation is constantly under threat in a highly competitive environment since employers are able to quickly gain back the shared control (Hyman 1989). Also a country's wealth does not seem to pacify employees. Instead the tension in

the employer-employee relations tends to increase. Strikes seem to be perceived as a possible action to benefit when economic conditions are favourable.

Our analysis of strike propensity appears to be an important phenomenon for future research. It has the potential to make significant contributions to relevant employment relations debates. Finally, our research findings allow us to state that capitalism has not triumphed. Or at least, not yet.

## References

Akkerman, A., Born, M.J., and Torenvlied, R. (2013). 'Solidarity, Strikes, and Scabs How Participation Norms Affect Union Members' Willingness to Strike'. *Work and occupations*, 40 (3): 250-280.

Baker, M., and Fortin, N. (2001). 'Occupational gender composition and wages in Canada, 1987-1988'. *Canadian Journal of Economics*, 34(2): 345-376.

Barling, J., Fullagar, C., Kelloway, E.K., and McElvie, L. (1992). 'Union loyalty and strike propensity'. *The Journal of Social Psychology*, 132 (5): 581-590.

Barlow, A., Buckley, A. (1998). 'A firm-level study of strike propensity in Ireland'. *Economic & Social Review*, 29 (1): 17-31.

Bordogna, L., and Cella, G.P. (2002). 'Decline or transformation? Change in industrial conflict and its challenges'. *Transfer: European Review of Labour and Research*, 8(4): 585-607.

Brandl, B., and Traxler, F. (2010). 'Labor conflicts: A cross-national analysis of economic and institutional determinants, 1970–2002'. *European Sociological Review*, 26(5): 519-540.

Brenner, A., Day, B., and Ness, I. (2009). *The Encyclopedia of Strikes in American History*. Armonk, N.Y. M. E. Sharpe.

Campolieti, M. (2004). 'Disability insurance benefits and labor supply: Some additional evidence'. *Journal of Labor Economics*, 22(4): 863-889.

Campolieti, M., Hebdon, R., and Hyatt, D. (2005). 'Strike incidence and strike duration: Some new evidence from Ontario'. *Industrial & Labor Relations Review*, 58(4): 610-630.

Crouch, C., and Pizzorno, A. (1978). *The Resurgence of Class Conflict in Western Europe since 1968*. London: The Macmillan Press.

Dixon, M., and Roscigno, V. J. (2003). 'Status, networks, and social movement participation: The case of striking workers'. *American Journal of Sociology*, 108 (6): 1292-1327.

Flanders, A. (1975). *Management and Unions: The Theory and Reform of Industrial Relations*. London: Faber Paperbacks.

Frangi, L., Hennebert, M.-A., and Memoli, V. (2014). 'Social Confidence in Unions: A US-Canada Comparison'. *Canadian Review of Sociology/Revue canadienne de sociologie*, 51 (2): 170-188.

Frangi, L., and Memoli, V. (2014). "Confidence in Brazilian Unions A Longitudinal Analysis." *Latin American Perspectives*, 41(5): 42-58.

Gall, G. (1999). 'A review of strike activity in Western Europe at the end of the second millennium'. *Employee Relations*, 21(4): 357-377.

Gall, G., and Hebdon, R. (2008). 'Industrial conflict'. In N. Bacon, P. Blyton, J. Fiorito and E. Heery (eds). *The Handbook of Employment Relations*. London: Sage, pp 588-606.

Gall, G. (2013). 'Quiescence continued? Recent strike activity in nine Western European economies'. *Economic and Industrial Democracy*, 34(4): 667-691.

Godard, J. (1992). 'Strikes as collective voice: A behavioral analysis of strike activity'. *Industrial & Labor Relations Review*, 46(1): 161-175.

Godard, J. (2011). 'What has happened to strikes?'. *British Journal of Industrial Relations*, 49(2): 282-305.

Gumbrell-McCormick, R., and Hyman, R. (2013). *Trade unions in western Europe: Hard times, hard choices*. Oxford: Oxford University Press.

Hall, P. A.. and Soskice, D. (2001). *Varieties of Capitalism*. Oxford: Oxford University Press.

Hamann, K., Johnston, A. and Kelly, J. (2012). 'Unions against governments explaining general strikes in Western Europe, 1980–2006'. *Comparative Political Studies*, 20(10): 1-28.

Hyman, R. (1989). *Strikes*, London: Fontana.

Ingram, P., Metcalf, D. and Wadsworth, J. (1993). 'Strike incidence in British manufacturing in the 1980s'. *Industrial and Labor Relations Review*, 46(4): 704–17.

Jackson, G., and Kirsch, A. (2014). 'Employment Relations in Liberal Market Economies'. In A. Wilkinson, G. Woods, and R. Deeg (eds.), *The Oxford Handbook of Employment Relations*. Oxford: Oxford University Press, pp. 263-291.

Kaufman, B. E. (1992). 'Research on strike models and outcomes in the 1980s: Accomplishments and shortcomings'. In D. Lewin, O. S. Mitchell, and P. D. Sherer, *Research frontiers in industrial relations and human resources*. Cornell: Cornell University Press, pp. 77-129.

Kelly, J. (1998). *Rethinking Industrial Relations: Mobilization, Collectivism and Long Waves*. London: Routledge.

Kelly, J.E., and Nicholson, N. (1980). 'The causation of strikes: a review of theoretical approaches and the potential contribution of social psychology'. *Human Relations*, 33(12): 853-883.

Kirmanoglu, H., and Baslevant, C. (2012). Using basic personal values to test theories of union membership. *Socio-Economic Review*, 10(4): 683–703.

Maas, C. J. M. and Hox, J. J. (2005). 'Sufficient Sample Sizes for Multilevel Modeling'. *Methodology*, 1(3): 86-92.

Martin, J. E. (1986). 'Predictors of individual propensity to strike'. *Industrial & Labor Relations Review*, 39(2): 214-227.

Martin, J. E., and Sinclair, R. R. (2001). 'A multiple motive perspective on strike propensities'. *Journal of Organizational Behavior*, 22(4): 387-407.

Martin, A. W., and Dixon, M. (2010). 'Changing to Win? Threat, Resistance, and the Role of Unions in Strikes, 1984–2002'. *American Journal of Sociology*, 116(1): 93-129.

Meinhard, S., and Potrafke, N. (2012). 'The globalization–welfare state nexus reconsidered'. *Review of International Economics*, 20(2): 271-287.

Olson, M. (1965). *The logic of collective action: Public goods and the theory of group*. Cambridge: Harvard University Press.

Piazza, J. A. (2005). 'Globalizing quiescence: globalization, union density and strikes in 15 industrialized countries'. *Economic and Industrial Democracy*, 26(2): 289-314.

Potrafke, N., and Ursprung, H. W. (2012). 'Globalization and gender equality in the course of development'. *European Journal of Political Economy*, 28(4): 399-413.

Scheuer, S. (2006). 'A novel calculus? Institutional change, globalization and industrial conflict in Europe'. *European Journal of Industrial Relations*, 12(2): 143-164.

Snape, E., and Redman, T. (2004). 'Exchange or Covenant? The Nature of the Member-Union Relationship'. *Industrial Relations: A Journal of Economy and Society*, 43(4): 855-873.

Villaverde, J., and Maza, A. (2011). 'Globalisation, growth and convergence'. *The World Economy*, 34(6): 952-971.

Wooldridge, J. M. (2003). 'Cluster-sample methods in applied econometrics'. *American Economic Review*, 93(2):133–38.