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How Can Competitiveness be Achieved in post-Crisis Europe: Deregulating Employment Relations or Enhancing High Performance Work Practices?

Abstract: The recent Eurozone crisis has reinvigorated neoliberal policies and brought to the fore an academic and policy debate over the deregulation of employment relations' institutions 'in the name of competitiveness'. In the context of this debate, we ask the following question: have firms with employment relations institutions been less able to improve productivity during the crisis? We consider this question by examining data from the European Company Survey. We also look into different models of capitalism to gauge whether there are context-specific institutional effects that may mediate firm-level outcomes. Contrary to the dominant neoliberal discourse, we do not find any strong evidence that employment relations institutions are negatively associated with productivity increases. Instead, we find that certain high performance work practices are positively and significantly associated with productivity increases across EU-15 and in particular institutional contexts. Taken together these results challenge the neoliberal 'low road' policies that are focused on dismantling employment relations institutions and suggest shifting the attention towards context-sensitive 'high road' policies and practices.

Introduction

There is surprising consensus among scholars and commentators that the recent crisis has been 'the greatest crisis of capitalism most of us have seen in our lifetime' (Morgan et al., 2011: 150). Scholars are puzzled by how quickly the US Wall Street collapse mutated into a Eurozone state debt crisis, thus, shifting the discourse of blame from irresponsible financialization, onto state's excessive borrowing and reckless spending. With the exception of a short period that the debate was focused on containing unfettered markets, neoliberalism has come back with vengeance (Crouch, 2011; Heyes et al., 2012).

Despite the subtle differences among variants of neoliberalism (Crouch, 2011), neoliberal ideas typically blame employment relations (henceforth: ER) institutions, such as representative unions and collective bargaining, for worsening competitiveness. Therefore, flexibility and deregulation are promulgated as the best recipe for competitiveness in many European countries and at the European Union (EU) level (Hyman, 2001: 289; Monastiriotis, 2005). However, the evidence-base for these claims is rather weak and inconclusive (ITUC, 2013). To contribute to this debate, we set out to ask the following question: have firms with ER institutions been less able to improve productivity during the crisis?

To address this question we develop and examine hypotheses that hold ER institutions as responsible for deteriorating productivity. Additionally, we develop alternative hypotheses that look at the relationship between high

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performance work practices and productivity. Methodologically, the paper analyses data from the European Company Survey (ECS) 2009, a pan-European establishment-level survey. The ECS dataset is most suitable for our analysis for several reasons: (1) the dataset was collected in 2009, which was the year with the deepest slump for most European economies, and this gives us valuable insights for the relationships in the context of the economic crisis; (2) it is a very rich dataset with information on a wide range of relevant ER institutions and work practices, i.e. suitable for the questions we ask and also offers further information that allows to control for other effects; (3) it is suitable for comparative research because it uses a questionnaire developed by expert methodologists, which is standardized across European countries; (4) it contains several thousand observations from different industry and country contexts, thus, allowing for more generalizable conclusions.

We focus on the EU-15 countries[1] and we examine research hypotheses using ordered-probit regression analysis. The aim is twofold. First, we aim to consider the relationship between ER institutions and work practices with productivity using the EU-15 as a relatively homogeneous sample. Second, we aim to explore the same hypotheses across clusters of capitalism, so as to gauge whether there are any context-specific institutional effects that may mediate firm-level outcomes.

The rest of the paper is structured as follows. The second section sets the scene by discussing the link between deregulation and the aim of improving firm

competitiveness at the EU level and the manifestation of neoliberal policies across models of European capitalism. The third section develops hypotheses on the basis of neoliberal arguments about the relationship between ER institutions and productivity. Additionally, it develops alternative hypotheses on the relation between work practices and productivity drawing on the High Performance Work Systems (HPWS) literature. The fourth section presents the dataset and outlines the methodology of the study. The fifth section presents and discusses the findings of our statistical analysis. The final section summarises the key findings of this article, acknowledges the limitations of this analysis and considers implications for policy and practice.

Competitiveness in Europe: Intensifying deregulation across European models of capitalism

Ever since the Lisbon Agenda, the pursuit of competitiveness has been a central part of the EU priorities and policies. This aim was reiterated in the Commission's Europe 2020 strategy, where competitiveness 'through higher productivity' formed one of the pillars for the achievement of smart, sustainable and inclusive growth (European Commission, 2010: 12). The main employment-related policies to achieve this target concern the increase in flexibility in the labour market. Despite the lack of any conclusive empirical evidence on the positive effects of deregulation or the negative effects of ER institutions on productivity (Marginson, 2015; Vergeer and Kleinknecht, 2014), the EU promoted a programme of labour

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market deregulation in which 'the central aim was reworking the precise mix of labour market policies and institutions to best reconcile economic competitiveness and social solidarity' (Clasen et al., 2012: 5). It was assumed that a more flexible ER framework would allow the adjustment of labour supply to the needs of the employers by reducing their auxiliary costs (e.g. redundancy costs) and improving response to market changes. The EU aimed to facilitate the increase in flexibility by issuing Country Specific Recommendations (CSRs) to each member-state, and required the reform of national collective bargaining systems in order to improve competitiveness (Clauwaert, 2014).

Interestingly, the advent of the 2009 economic crisis significantly accelerated the implementation of neoliberal policies in Europe. This makes this exploration even more relevant and timely, since some Southern European countries –such as Greece and Portugal– were obliged to abruptly deregulate their ER systems to improve competitiveness (Kornelakis and Voskeritsian, 2014; Molina, 2014). The main aims of the bailout packages were to 'expose workers to the full force of global labour market competition, requiring [countries] to compete in low prices alone…' (Crouch, 2014: 13). Other Southern countries, which were not subject to strict conditionality programmes –such as Italy, Spain and very recently France– deregulated their ER institutions for the same reason (Clauwaert, 2014; Molina, 2014). In sum, the Eurozone crisis intensified the deregulation of ER institutions across models of capitalism 'in the name of competitiveness'.

Although the process of deregulation and marketization (Crouch, 2014) is being more explicitly promoted by the EU in recent years, it is by no means new. The trend towards deregulation of ER institutions is observed in a number of European countries; however, the pace of deregulation has been variable across different models of capitalism. While there is no universal agreement on the clustering of countries, several scholars tend to agree that there exist four distinct models of capitalism in Europe: the *Liberal Market Economies/Anglo-Saxon capitalism*, the *Coordinated/Continental European capitalism*, the *Nordic Model of capitalism* and the *Southern European Model of capitalism* (Amable, 2003; Becker, 2009; Hyman, 2004). This clustering is theoretically strong and empirically robust. Theoretically it is grounded in the different historical constellations of power relations between capital, state and labour (Becker, 2009), as well as based on variable degrees of decommodification of labour (Hyman, 2004). Empirically, it has been verified by the work of Bruno Amable (2003), who used cluster analysis to come up with this classification drawing on a very rich dataset of indicators that comprise the different institutional arrangements in the labour market, welfare regime, product market and corporate governance.

The clustering of countries has important implications for the analysis. To begin with, it provides the opportunity to gauge whether there are any context-specific effects that may alter the relationship between ER institutions and competitiveness. One of the key insights of the models of capitalism literature is that ER institutions may provide 'institutional complementarities' (Hall and

Soskice, 2001: 21) and together with other institutions may reinforce positive feedback effects, which would increase firm competitiveness. Hence, the relationship between ER institutions and firm competitiveness may vary across clusters, as countries find themselves at different stages of labour market (de)regulation. Indeed, since the late 1970s, the revival of neo-liberal policies in Britain paved the way for the deregulation of its ER framework (Crouch, 2011; Heyes et al., 2012). In the British case, the deregulation of the labour market was part of a government programme forcing marketization and financialization in every part of the economy. Overall, the Liberal Market economies, notably the UK and Ireland, have already made important steps towards greater flexibility in their labour markets. The implication of this trajectory for our analysis may be that since ER institutions have become very weak, their hypothesised negative effects on productivity may have diminished.

For this reason the analysis shall also proceed to examine the relationship between ER institutions and productivity change in other clusters of countries. In Continental European capitalist countries, such as Germany, it was the employers who contributed to the incremental erosion of the coordinated industrial relations regime (Gumbrell-McGormick and Hyman, 2013; Hassel, 2014). Despite the fact that Continental European governments adopted policies facilitating labour market deregulation 'in the name of competitiveness' (Marginson, 2015), their ER institutions remain much stronger than Liberal market capitalist countries. The same rationale applies to Nordic capitalist countries, in which trade unions remain

important with very high membership rates, while their competitiveness is considered as world leading. Finally, Southern European capitalist countries provide us with a cluster that exhibits high levels of collective bargaining centralization, but its competitiveness has been historically low.

Firm competitiveness: Between institutions and practices

Central to the neoliberal arguments is the premise that ER institutions hinder national 'competitiveness'. Admittedly, competitiveness is a fuzzy concept. The World Economic Forum defines competitiveness very broadly as 'the set of institutions, policies and factors that determine the level of productivity of a country' (Schwab and Sala i Martin, 2013: 4). More helpfully, Porter (1990) suggests that competitiveness should reflect high productivity measured either at the national, sectoral or establishment-level. Indeed, establishment-level productivity has been one of the standard measures of firm competitiveness in the Human Resource Management (HRM) literature (Huselid, 1995). On the basis of the above, we examine firm competitiveness through the proxy of improved productivity at the establishment level.

We unpack the relations between institutions, practices and productivity in more detail below. On the one hand, we draw on economic and employment relations literature to examine the relationship between ER institutions and productivity. On the other hand, we draw on the HPWS literature to deduce the relationship

between selected work practices (performance pay, training, and teamwork) and productivity. Schematically, the first group of testable hypotheses we set out below corresponds to the 'low road' to firm competitiveness, which is focused on increasing flexibility by deregulating employment relations institutions. The second group of hypotheses corresponds to the 'high road' to firm competitiveness, which is focused on investing in the abilities and motivation of the workforce.

Employment relations institutions and productivity

The neoliberal arguments are broadly premised on the model of the 'monopoly face' of unions (Hayek, 1990). One version of the neoliberal argument distinguishes between centralised and decentralised bargaining. The argument goes that centralised bargaining may inhibit the flexibility of individual firms by placing a straightjacket on them and ignoring company-specific needs (Zagelmeyer, 2005). More specifically, it may hinder productivity-enhancing improvements in work organization through the universal standards that are imposed (Marginson, 2015: 111). Instead, decentralised bargaining is thought to be more responsive to companies' needs. This monolithic conception misses the point that the institution of collective bargaining resembles a process, and its outcome is not pre-determined as it may take the form of either integrative (positive-sum) or distributive (zero-sum) bargaining.

A stronger version of this line of reasoning distinguishes between unionised and non-unionised workplaces, and suggests that the presence of unions in firms (i.e. irrespective of bargaining level) may hinder productivity. This reflects the typical neoclassical economics treatment of trade unions as vested interests, which exploit their bargaining power (e.g. due to skills/labour shortages) to extract 'rents' from employers (Borjas, 2005). Trade unions might therefore use their power to impose restrictive practices on output, and thus reduce productivity. One example might be the so-called 'featherbedding' practices, whereby the same number of tasks is shared across more union members. This thesis ignores the potential for alternative views in favour of 'institutional voice' effects (Freeman and Medoff, 1984).

Finally, the same line of reasoning of 'monopoly effects' has been applied to works councils (Hirsch et al., 2010). Works councils and their consultation powers may be used in order to convince employers not to lay-off employees (Hirsch et al., 2010: 570–571). If works councils insist on the seniority principle (Last-In-First-Out), then less productive employees might retain their jobs and thus, works councils might be seen as detrimental to productivity. Again, there are alternative arguments and evidence in favour of 'institutional voice' effects (Freeman and Medoff, 1984) for works councils as well. In sum, the above relationships lead to the formulation of the following hypotheses:

H1: *Higher levels of bargaining in European workplaces are negatively associated with productivity increases.*

H2: *The presence of trade unions in European workplaces is negatively associated with productivity increases.*

H3: *The presence of works councils (or similar bodies) in European workplaces is negatively associated with productivity increases.*

Workplace practices and productivity

A large body of literature looks into the work practices that contribute to high performance in organisations (Appelbaum et al., 2000; Huselid, 1995). Although the links between progressive human resources (HR) practices and firm performance resemble more of a 'black box', due to the various factors that mediate the relationship (Chowhan, 2016; Hefferman and Dundon, 2016; Jiang et al., 2013), it is largely acknowledged that 'high road' HR practices may be correlated with positive organisational outcomes. Hence, the HPWS literature suggests that certain work practices have positive effects on individual and group productivity, because they improve, among others, the organisational climate, motivation, employee empowerment, loyalty and commitment, and lower turnover rates, (Camps and Luna-Arocas, 2009; Shin and Konrad, 2014; Tregaskis et al., 2013). Although the ECS does not allow us to examine an extensive set of HR bundles, it does include information on three work practices that are usually linked to high-road HR bundles: PRP, teamwork and training.

To begin with, performance-related pay (PRP) is usually associated with increased productivity (Huselid, 1995). Although there is some debate in the literature, we follow those approaches that include performance-related pay as a core part of high performance work systems (Chowhan, 2016: 116; Hefferman and Dundon, 2016: 212; Posthuma et al., 2013: 1192). The effect of PRP on productivity may be direct or indirect. On the one hand, PRP is expected to increase employees' productivity by altering their incentive structures and elicit more effort (Chowhan, 2016: 116). On the other hand, it may act indirectly by attracting a more capable workforce (Lazear, 2000). Either way the expected outcome is increased productivity.

Second, we consider teamwork as being broadly a part of HPWS practices (Posthuma et al., 2013: 1192). There are several reasons why teamwork may enhance productivity; employees may work smarter because they combine different problem-solving skills or self-directed teams may be more efficient as some layers of supervision and middle-management are eliminated (Delarue et al., 2008: 130). Another reason might be that employees may voluntarily work harder, because of peer-pressure norms (Tregaskis et al., 2013: 228). Overall, a meta-analysis on the effect of teamwork on organisational performance has concluded that teamwork is generally associated with enhanced organisational and individual outcomes, although their effects may be contingent on bundling with other practices (Delarue et al., 2008).

Finally, training is typically included as a part of the core HPWS practices (Appelbaum et al., 2000; Camps and Luna-Arocas, 2009: 1061; Huselid, 1995; Posthuma et al., 2013: 1192; Shin and Konrad, 2014: 11). Training may fill skills gaps or update skills through formal processes of training needs analyses. Thus, it may have a positive impact on the development of employee knowledge, skills and ability to perform in their jobs (Jiang et al., 2013: 1469). Another way to enhance productivity is through the development of problem-solving skills (Tregaskis et al., 2013: 227). Overall, this upgrading in human capital (or upskilling) is expected to have a positive impact on productivity. In sum, the above relationships lead to the formulation of the following hypotheses:

H4: *Performance-Related Pay (PRP) in European workplaces is positively associated with productivity increases.*

H5: *Teamwork in European workplaces is positively associated with productivity increases.*

H6: *Training in European workplaces is positively associated with productivity increases.*

Data, variables and methods

To test the hypotheses specified above, we use data from the 2009 European Company Survey (ECS), a survey of approximately 27,000 establishments that took place between January and May 2009 across the whole EU-28 (plus FYROM

and Turkey). TNS *Infratest Sozialforschung* administered the survey, on behalf of the European Foundation for the Improvement of Living and Working Conditions (Eurofound and TNS Infratest Sozialforschung, 2010) and the overview report was published on 30 May 2011 (Eurofound et al., 2011).

By design, the universe for the survey only includes establishments with 10 or more employees, while it excludes workplaces in Agriculture, Forestry and Fishing (NACE Rev. 1.1 A and B), Private Households (P) and Extraterritorial Organizations (Q). In our analysis, we focus our attention only to *private* sector workplaces in the EU-15 countries. Since the sampling method used leads to an over-representation of larger workplaces and those in smaller industries and countries in the final sample (Bryson et al., 2012), establishment weights that are provided with the dataset are used throughout our analysis. More technical details about the survey can be found in its Technical Report (Riedmann et al., 2009).

In all establishments, an interview was conducted with a management representative responsible for personnel. This interview provides a wealth of information concerning workplace and workforce characteristics, collective bargaining and employee representation, HRM/work organization practices and subjective measures of workplace performance.

Following the classification in the models of capitalism literature (Amable, 2003; Becker, 2009) and the industrial relations regimes literature (Gumbrell-McGormick and Hyman, 2013; Hyman, 2004), we categorize the EU-15 countries in four clusters: the *Southern* countries (Greece, Portugal, Italy and France)[2], the

Continental countries (Austria, Belgium, Germany, Luxembourg, and the Netherlands), the *Nordic* countries (Denmark, Finland and Sweden); and the *Liberal* countries (Ireland and the UK).

Dependent variable

The dependent variable comes from the 'Performance and Productivity Indicators' section of the management questionnaire and the following question:

'*And if you compare your establishment's current labour productivity to the situation 3 years ago: Has it increased considerably, has it slightly increased, has it remained about the same or has it decreased since then?*'

Using these answers, we create an ordinal variable for *labour productivity changes* that ranges from 0 (decreased) to 3 (increased considerably). Consequently, an ordered probit model is used for the examination of the productivity change variable. An alternative measure available in the survey asks the management representative to subjectively assess the *relative* labour productivity of the establishment compared with other establishments in the same sector. We judge that the survey respondents are more likely to be aware of *changes* in labour productivity that took place in the recent past in the establishment than about the establishment's ranking in the sectoral productivity distribution. In other words, productivity change in the past three years is a better indicator of an informed managerial assessment of establishment performance. Moreover, the independent variables of interest to us (ER institutions and

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practices) are variables that can be considered as relatively constant for long periods of time in the same establishment. Hence, any biases that arise due to the fact that the chosen productivity change measure is regressed on variables measured in the current period should be relatively small.

We are also aware of the limitations of the use of *subjective* measures of workplace performance but, as Forth and McNabb (2008) and Bryson et al. (2006) argue, so is the case with *objective* performance indicators; for this reason, an analysis of both would be the most appropriate approach. Yet since objective, accounts-based, indicators are not available in the ECS, we proceed with this subjective measure of productivity change. Note that a preliminary examination showed that this measure is strongly correlated (and in the expected direction) with workplace outcomes also available in ECS that can be thought as intermediary ones (Forth and McNabb, 2008: 106), such as employee absenteeism and low motivation. This provides a further reassurance that we are indeed examining a meaningful measure of establishment productivity.

Independent variables

The bargaining level is measured using information from two questions. The management representative is first asked about the percentage of employees at the establishment that are covered by a collective wage agreement. If this is zero, the establishment is coded as having 'no collective bargaining'. If it is greater than zero, a second question asks about the level at which the negotiations take place.

We distinguish between three kinds of establishments: those where bargaining takes place at the establishment or company level (decentralised), those with higher level bargaining (centralised), i.e. regional, sectoral or national, and those where both types of negotiations apply (two-tier).[3]

Following Bryson et al. (2012) for the coding of the variables concerning employee representation, we focus on institutional or statutory forms of representation. Hence, we distinguish between trade union (TU) representation and works councils' (WC) representation, based on the management responses about specific bodies that are available in each workplace and country (for the specific bodies in each country, see Bryson et al., 2012: 65–66). Dummy variables are then constructed for TU-only representation, WC-type-only representation and both types of representation available at the workplace (the reference category is the absence of any form of representation).

To test our hypotheses concerning workplace practices, we code a dummy variable for the existence of performance related pay schemes in the workplace, while teamwork is measured by a dummy variable that takes the value of 1 in the workplaces where the management representative reported that work in teams is an important characteristic of the work organization in the establishment. Finally, for training incidence we code a dummy variable that indicates a positive answer to the question whether any of the employees have been given time off in the past 12 months in order to undergo training.

However, the above independent variables of interest may be correlated with other observable workplace characteristics that determine establishment productivity changes. For this reason, we further control for a range of such characteristics, namely: establishment size (four dummies), industry (ten dummies based on the NACE Rev. 1.1 one-digit codes) whether the establishment is a branch of a company (and not a single independent organization), whether it is foreign owned, the proportion of female, of part-time, of highly skilled, and of fixed-term employees, the existence of a profit sharing scheme, a share ownership scheme, whether there is shift working patterns in the establishment, whether there are any employees regularly working at non-standard times/days (nights, Saturdays or Sundays), whether there was any work reorganization in the last three years (such as changes in the remuneration system, in the organization of the work process, in working time arrangements, or restructuring measures), and whether the organization was involved in any acquisition, takeover, merger, relocation or demerger in the last three years. These latter two variables can additionally deal to some extent with any biases that may arise because of the reference of the dependent variable to what happened in the past three years. Finally, country dummies that account for common unobserved country or institutional effects are also included in all our estimated models.[4]

After dropping observations with missing values in any of the variables inserted in our model, we end up with a final sample of 10,048 observations across the EU-15. These are allocated across the different country groupings as follows:

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3,216 in the Southern cluster, 3,462 in the Continental countries, 1,992 in the Nordic ones, and 1,378 in the Liberal countries.

Results and discussion

Descriptive statistics

Table 1 reports the distribution of our dependent variable across EU-15, as well as separately for each country cluster. Most establishments, irrespective of country cluster, either report that productivity did not change during the past three years or that it increased slightly. However, significant numbers are also observed in the two extremes, and especially in the highest category of the dependent variable. On average, the best performing establishments are found in the Nordic countries (with 64% of establishments reporting an increase in productivity), whereas the worst performing ones are found either in the Southern or the Liberal cluster (with only around 50% of establishments in each group reporting a productivity increase in the past 3 years).

[Table 1]

To begin with, we look at the distribution of the independent variables of interest.[5] Table 2 presents the relevant data. Some form of collective bargaining is quite widespread across the EU-15 private sector workplaces, the exception being the workplaces in the Liberal countries. On the other hand, most private sector workplaces (73%) in the EU-15 have no institutional or statutory recognized

employee representation, either in the form of a TU and/or a WC-type one. The exception to this pattern is the Nordic cluster, where TU-only representation is relatively very widespread. Finally, training and, especially, teamwork are quite prevalent across the EU-15 (with Liberal countries scoring the highest incidence rates), something that is not the case for performance related pay schemes. As a whole, the Southern countries record the (relatively) lowest prevalence of workplace practices.

[Table 2]

Regression results and discussion

We now turn to the regression estimates. Table 3 reports the ordered probit coefficients (and associated standard errors) of the productivity change model.[6] Two specifications are reported, both for EU-15 as a whole and for each country cluster: the first includes only the independent variables of interest (along with country dummies), while the second adds the further controls previously mentioned. While there are some slight differences between the results from the two specifications, most of them are quite robust to the inclusion of further control variables. In the discussion that follows, we refer to the second specification, which deals to a greater extent with the substantial heterogeneity observed across EU establishments. Moreover, since the ordered probit coefficients and its standard errors can only indicate the direction and significance of the effect of

independent variables, we will also refer in the text to some marginal effects of the variables of interest. The marginal effects show the (*ceteris paribus*) change in a probability relevant to the estimated model that results from changing an independent variable from the reference category to the category of interest and can, thus, provide some perspective on the size of the estimated associations. Throughout the paper, we focus on the probability of reporting the highest category in the productivity change variable (i.e. 'increased considerably') to estimate the marginal effects.[7]

[Table 3]

Across the whole EU-15 we find little support for Hypotheses 1-3. Starting from collective bargaining, Hypothesis 1 finds little support in the data. For EU-15 as a whole, none of the bargaining level variables is estimated with a statistically significant coefficient, meaning that there is no difference between any of them and the reference category of no collective bargaining. However, the coefficient for decentralised (establishment or company) bargaining is significantly higher than the one for centralised (higher level) bargaining ($p<0.01$). The associated marginal effects though, do not show a very substantial difference: there is an approximately two percentage points (p.p.) increase in the probability of reporting the highest category of productivity change for the managers in establishments with decentralised bargaining relative to an establishment with no bargaining, while the marginal effect for the centralised bargaining variable shows a two p.p. decrease. Considering a 21% probability of belonging in the highest

category in EU-15 (see Table 1), these effects can be thought of as of limited substantive importance.

When the models are estimated separately for each country cluster, we can observe some further interesting results. In the Southern cluster, we do not find any difference in productivity performance across establishments with different bargaining regimes. In the Nordic countries, establishments with decentralised bargaining seem to perform (very slightly) better than those with centralised bargaining, but none of them differs relative to the 'no bargaining' reference. A significantly negative ($p<0.10$; marginal effect -4.2 p.p.) association with centralised bargaining and productivity is observed only in the Continental countries. This finding appears puzzling given the trends towards derogation in collective agreements in Germany (Hassel, 2014) and elsewhere. Finally in the Liberal countries, establishments with decentralised bargaining seem to outperform both those with no collective bargaining and those where bargaining is conducted at higher levels.

There is also a variation of results across different country clusters regarding employee representation, i.e. Hypotheses 2 and 3. First, establishments with TU-only representation are significantly related with lower productivity change than comparable establishments with no representation in the EU-15. However, this result is only (marginally) significant, and also large in size, for the Continental countries. Considering that Austria, Germany and Luxembourg can only record WC-type representation in the data because of their particular industrial relations

systems, this result is probably driven by the rest of the countries in the group (Belgium and the Netherlands).

Second, establishments with WC-type only representation seem to perform slightly better than other categories. This is particularly the case in the Nordic countries, where the associated marginal effect is 9.4 p.p., a particularly strong result. An exception to the overall pattern is the Southern cluster, where all representation variables coefficients obtain a negative sign. However, these coefficients are not statistically different from zero, meaning that in fact there is no difference between different types of employee representation and no representation in the European South. Finally, it should also be noted that no significant relationship could be found between the different types of representation in the Liberal countries. The apparent difference between the WC-type only (or both types) coefficient and the TU-only one is not statistically significant at any conventional level of significance.

Overall, there is little support for our Hypotheses 1-3 and, therefore, for conjectures suggesting union 'monopoly effects' (Freeman and Medoff, 1984; Hayek, 1990). The results on the whole suggest that there is no negative association between ER institutions and productivity change. Even in the Southern and Liberal institutional contexts, where unions are expected to be more conflict-prone and adversarial, there is no negative relationship between unions and productivity. In Continental Europe unions appear to have some negative association with productivity, but this outcome appears also puzzling considering

the unprecedented levels of wage moderation in the previous decade in countries like Germany (Hassel, 2014); so, we suggest this might be driven by developments in Belgium and the Netherlands.

Across the whole EU-15 Hypotheses 4-6 gain support. The marginal effects in Specification (2) in Table 3 for the whole EU-15 sample are 3.5 p.p. for PRP, 3.9 p.p. for training incidence and 4.1 p.p. for teamwork ($p<0.01$ for all). This confirms by and large the expectation that work organization matters for productivity and competitiveness. As we discuss further below, this result suggests that policies that focus on decentralizing bargaining or limiting the power of unions at the workplace appear misplaced, whereas policies should focus on work practices that drive productivity improvements.

When we shift our attention to country clusters, the picture suggests a more diversified effectiveness of those practices. PRP seems to matter for workplace productivity differences in the Southern countries and in the Liberal countries. The latter makes sense in light of the literature that suggests that variable pay is more aligned to shareholder value corporate governance (Hall and Soskice, 2001) and has been rather slow to penetrate market economies in Continental Europe. This finding for Southern Europe might be explained by the lack of any particular institutional complementarities in this model of capitalism (Amable, 2003).

Training, on the other hand, is not a significant predictor of productivity anywhere outside the Southern cluster. This might appear puzzling, but if one looks carefully at the phrasing of the question, it focuses on time-off that

employees might get for training purposes. Thus, we could assume that training might be a built-in characteristic in the Continental and Nordic workplaces, e.g. on-the-job training through occupational labour markets (Streeck, 2005). Thus, time-off for training might matter in workplaces where embedded training is limited, as in Southern Europe.

Finally, teamwork is positively and strongly related to productivity advantages only in the Nordic and the Southern countries. In Nordic countries, this seems to confirm conventional wisdom on the importance of teamwork in Swedish work organisation, despite critiques that it might have been exaggerated in the literature (Lorenz and Valeyre, 2005: 429). On the other hand, the importance of teamwork in Southern countries may be explained by the fact that any HPWS practice is likely to boost productivity in a context where institutional complementarities are absent.

All in all, our results provide mixed evidence concerning the hypotheses posed in the previous section. First, the hypotheses proposing a negative association between ER institutions and firm competitiveness are not supported. It would be fair to claim that ER institutions (collective bargaining and employee representation) do not seem to have been behind productivity differences across EU-15 establishments in 2009. In other words, higher levels of regulation neither enhanced nor compromised establishment performance, the latter being proxied by subjectively assessed productivity changes. It seems, however, that in the Continental and the Liberal countries, establishments with lower levels of

bargaining fared somewhat better than similar ones with higher level bargaining. This finding raises some interesting questions regarding both the universality of the neo-liberal argument and the importance of the institutional setting in the potential success or failure of such policies.

Our conclusion about the lack of evidence regarding the validity of the neo-liberal argument can be strengthened even more if we note that unobserved differences in the dynamism of establishments might play a role in the results we obtain for the institutional variables. This is because more rapidly-growing industries, firms and establishments (that also experience higher productivity growth) may be associated with less 'restrictive' workplace practices, such as decentralized bargaining or no bargaining at all. In further checks we tried to account to some extent for this source of heterogeneity by additionally including in our models dummy variables indicating employment change (i.e. increase, decrease or stability) in the past three years. One can expect that rapidly growing firms will record both high levels of productivity growth *and* employment growth – although this is not a certainty, due to the complex relationships between the two variables. We do indeed find evidence that productivity change is strongly and positively related to employment change. However, these additional controls did not substantially affect the estimates of our independent variables of interest, hence our conclusions remain the same.

Second, the hypotheses proposing a positive association between workplace practices and firm productivity are broadly supported for the EU-15 as a

homogenous sample. However, when we examine the same variables for different institutional contexts, it seems that some practices appear more related with productivity in particular models. Teamwork is particularly important for the Nordic cluster and PRP for the Liberal cluster, whereas any of the three work practices are important for the Southern cluster and none for the Continental.

Conclusion

It is a commonplace for neoliberal policies to blame ER institutions for having detrimental effects on competitiveness. However, the evidence-base for these claims is rather weak and inconclusive (ITUC, 2013). To shed further light on this debate, we set out to examine whether European workplaces with ER institutions were less able to improve productivity during the crisis.

We relied on establishment-level evidence drawn from the European Company Survey 2009. The data were collected at a time that most European economies were in their deepest slump and shed light on the above relationships during the crisis. We built hypotheses drawing on relevant theories from political economy, industrial relations and HRM literatures. Empirically, our findings contribute to this debate by examining evidence from a pan-European establishment level survey. Conceptually, our article contributes to this debate by combining insights from the literature on micro-level work practices and the literature on macro-level institutional contexts.

Contrary to the dominant neoliberal discourse, our results suggested that ER institutions do not appear to have any significant negative effect on productivity increases across EU-15. Although there was no conclusive evidence showing a positive or negative relationship, these results cast additional doubt to the credence of neoliberal arguments, which are focused on dismantling ER institutions to improve competitiveness. We also considered the alternative hypotheses that 'high road' workplace practices (such as training, teamwork and PRP) are positively associated with productivity increases. These hypotheses were confirmed suggesting a strong and positive effect of selected work practices on productivity improvements.

One of the limitations of this article is that we have hypothesized and tested only for a direct effect of institutions and practices on productivity change. Hence, we did not consider any 'complementarities' between practices and/or institutions, or the potential mediating role of ER institutions on the nature, adoption and effect of workplace practices. Such an exploration would require a different theoretical framework and empirical modelling strategy and, hence, was out of the scope of the present paper. Nonetheless, these should open up avenues for further research that is worth pursuing using comparative pan-European large-n survey data.

Finally, our results have implications for both policy and practice. They suggest that the policies towards deregulating ER institutions appear misplaced, as there is no clear evidence to support a negative relationship between ER

institutions and productivity. The focus on institutions tends to downplay the role of other factors that matter for competitiveness, such as work organisation practices. Taken together, our results suggest that the continuation of the neoliberal 'low road' policies in the advanced industrialised countries of Europe is likely to have little effect in improving competitiveness. Instead, European countries and firms need to shift attention and resources towards the 'high road' to competitiveness, and improve productivity by enhancing work practices that overall motivate, enhance skills, and improve the effectiveness of the European workforce.

Notes

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[1] EU-15 consists of the fifteen EU member states (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom) prior to the accession of the ten candidate countries in May 2004.

[2] A coding mistake in the survey did not offer the option to managers in Spain to record trade union presence in their workplaces (Bryson et al., 2012: 31, fn. 21). Thus, to avoid the misclassification of Spanish establishments in the different employee representation categories we decided to exclude Spain from the analysis.

[3] The choice of bargaining level indicators is dictated by the way the relevant question is asked in the ECS: the respondents cannot distinguish among different types of higher level bargaining. Moreover, other, more qualitative, aspects of the practice of bargaining that may be thought to be

of relative importance, such as the degree of bargaining coordination within and between sectors and firms in different countries, is not available in the ECS.

[4] Modelling country-level heterogeneity with the inclusion of country dummies is the most appropriate choice when the interest lies in *within-country* variation, the number of countries is small, and there is no interest in and explicit modelling of country-level variables as predictors of the outcome of interest (see Bryan and Jenkins (2016) for a detailed discussion). As a robustness check though, we also estimated model specifications without country dummies. The results were very similar to the ones reported.

[5] Sample means for the rest of control variables are available from the authors on request.

[6] For ease of exposition only the results for the variables of interest are presented. Full results are available from the authors on request.

[7] For each marginal effect calculated, the rest of the variables are set at their sample means.

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Table 1: Distribution of productivity change across EU-15 establishments

	EU-15	Southern	Continental	Nordic	Liberal
Productivity in last 3 years					
Decreased	0.14	0.17	0.11	0.08	0.16
About the same	0.33	0.32	0.34	0.27	0.34
Increased slightly	0.33	0.26	0.38	0.44	0.31
Increased considerably	0.21	0.25	0.18	0.20	0.19
Observations (unweighted)	10,048	3,216	3,462	1,992	1,378

Source: ECS 2009 and authors' calculations.
Notes: Numbers show the proportion of establishments giving each response for each country grouping; column proportions may not add to one due to rounding; weighted data.

Table 2: Distribution of bargaining level, employee representation and workplace practices across EU-15 establishments

	EU-15	Southern	Continental	Nordic	Liberal
Employment relations institutions					
Collective Bargaining					
No collective bargaining	0.31	0.18	0.27	0.16	0.65
Decentralised bargaining	0.28	0.24	0.32	0.28	0.25
Centralised bargaining	0.38	0.53	0.38	0.51	0.10
Two-tier bargaining	0.03	0.06	0.03	0.05	0.01
Employee Representation					
No employee representation	0.73	0.68	0.78	0.45	0.81
WC-type representation only	0.15	0.14	0.19	0.03	0.12
TU representation only	0.04	0.02	0.01	0.40	0.04
Both types of representation	0.08	0.17	0.02	0.12	0.03
Workplace Practices					
Performance related pay	0.36	0.30	0.41	0.42	0.37
Training	0.64	0.50	0.70	0.57	0.75
Teamwork	0.81	0.71	0.85	0.83	0.87
Observations (unweighted)	10,048	3,216	3,462	1,992	1,378

Source: ECS 2009 and authors' calculations.
Notes: Numbers show proportion of establishments for the relevant characteristic and country grouping; weighted data.

Table 3: Ordered probit estimates of productivity change models

	(1)					(2)				
	EU-15	Southern	Continental	Nordic	Liberal	EU-15	Southern	Continental	Nordic	Liberal
Bargaining Level (Ref: No bargaining)										
Decentralised	0.0802	0.0853	-0.0266	0.0479	0.2113**	0.0685	0.0207	-0.0171	0.0302	0.2230**
	[0.0548]	[0.1053]	[0.0911]	[0.1266]	[0.1069]	[0.0553]	[0.1029]	[0.0936]	[0.1319]	[0.1099]
Centralised	-0.0655	0.0043	-0.1994**	-0.0805	-0.0584	-0.0838	-0.0331	-0.1712*	-0.1054	-0.0377
	[0.0522]	[0.0890]	[0.0882]	[0.1150]	[0.1267]	[0.0536]	[0.0903]	[0.0928]	[0.1227]	[0.1364]
Two-tier	-0.0336	-0.0134	-0.0755	0.0941	-0.1512	-0.0560	-0.0639	-0.0005	0.0302	-0.0710
	[0.0884]	[0.1228]	[0.1915]	[0.1806]	[0.2197]	[0.0867]	[0.1268]	[0.1921]	[0.1795]	[0.2161]
Employee Representation (Ref: No institutional employee representation)										
WC-type only	0.0783	-0.0518	0.1721**	0.3554**	0.1233	0.0115	-0.0607	0.1260	0.3075**	0.0701
	[0.0539]	[0.0922]	[0.0802]	[0.1504]	[0.1339]	[0.0574]	[0.0945]	[0.0961]	[0.1460]	[0.1357]
TU only	-0.1384*	-0.1433	-0.3539*	-0.0385	-0.1862	-0.1745**	-0.2098	-0.3895*	-0.0877	-0.2644
	[0.0732]	[0.2001]	[0.2102]	[0.0810]	[0.1732]	[0.0765]	[0.2184]	[0.2106]	[0.0825]	[0.1841]
Both	-0.0340	-0.1023	-0.0744	0.1731*	0.1617	-0.0899	-0.1188	-0.0778	0.0714	0.1017
	[0.0651]	[0.0773]	[0.1355]	[0.0884]	[0.2716]	[0.0723]	[0.0893]	[0.1506]	[0.0985]	[0.3129]
Workplace Practices										
Performance related pay	0.1386***	0.1478**	0.0930	0.0953	0.1902**	0.1253***	0.1273*	0.0535	0.0335	0.2740***
	[0.0391]	[0.0636]	[0.0694]	[0.0697]	[0.0855]	[0.0404]	[0.0659]	[0.0715]	[0.0723]	[0.0877]
Training	0.1829***	0.2201***	0.1451*	0.1155*	0.1872*	0.1430***	0.1742***	0.1192	0.0841	0.1071
	[0.0417]	[0.0639]	[0.0758]	[0.0661]	[0.1049]	[0.0424]	[0.0642]	[0.0766]	[0.0667]	[0.1084]
Teamwork	0.2036***	0.2284***	0.1723*	0.3271***	0.1419	0.1523***	0.1759**	0.1380	0.2543***	0.0631
	[0.0523]	[0.0698]	[0.1001]	[0.0925]	[0.1454]	[0.0527]	[0.0695]	[0.1019]	[0.0946]	[0.1493]
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other controls	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Observations	10,048	3,216	3,462	1,992	1,378	10,048	3,216	3,462	1,992	1,378

Source: ECS 2009 and authors' calculations.
Notes: Weighted data; other controls described in text; robust standard errors in brackets; *** $p<0.01$; ** $p<0.05$; * $p<0.1$.