IS DECLINING UNION DENSITY INCREASING REGIONAL INEQUALITIES? Trade Unions, Regional Economic Performance and Regional Disparities in the UK

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I. Introduction

Trade union membership in the UK and virtually all the OECD countries has followed a declining path over the last two decades. Welcomed and often supported by neo-classical economic analysis and the general political environment, this trend has been interpreted as a positive factor, enhancing labour market flexibility and ameliorating economic performance. For the "text-book analysis", trade unions reduce labour effort and productivity while they increase labour costs and cause wage-inflation and higher unemployment, with negative effects on profitability and output.

Nevertheless, the picture from the 1990s shows that countries with fast declining union densities have not done better than others, where union density has been more stable. Neither is there any strong empirical evidence to suggest that highly unionised economies perform worse than less unionised ones. We have shown elsewhere (Monastiriotis, 1999) for a sample of 20 OECD countries that trade union density did not significantly affect any index of economic performance for the period

1980-1994, with the possible exception of a positive effect on the employment-population ratio. The same result has been earlier obtained by the OECD (1997).

The empirical literature on the economic and labour market effects of trade unions reaches inconclusive results. This is nevertheless somehow less surprising if one takes a second look on the main methodologies employed in relevant research. Most of the empirical work uses micro-data (firm-level or survey data), a methodology with the apparent drawback of not taking into account wider interactions at the economy-wide level. Other studies undertake cross-country analyses, trying to identify a relational pattern between cross-country differences in union densities and different economic outcomes. This methodology assumes a high degree of homogeneity among countries in their social and economic structures and fails to take into account the substantial historical differences in union densities that exist among countries.[1] Moreover, the cross-sectional nature of the above methodologies does not allow any causality inferences to be made, despite the fact that research in the 1960s has shown union density to be an endogenous variable (e.g.: Hines, 1964; Ashenfelter and Pencavel, 1969), determined by both political and economic factors.

This paper undertakes a regional analysis of the effects of trade unions, in an attempt both to capture wider economic effects that skip the focus of micro-studies and to analyse a more or less homogenous sample of economic entities (the UK Standard Statistical Regions). As the 1990s saw a rise in regional inequalities while union density was declining, this paper implicitly tries to investigate the possible existence of a causal relation between these two trends. Nevertheless, the analysis refers to the relation between levels of union density and levels of measures of

economic performance. In the next section we describe some of the work conducted so far on the topic. In section III, some further considerations for the analysis are made and the main data sources are presented -together with problems related to data availability. Section IV presents the empirical findings and discusses their meaningfulness and implications. The last section concludes.

II. Previous research

Numerous studies in the 1980s and early 1990s have provided evidence suggesting that unions seem to reduce wage inequalities and increase the lower bound of the distribution of wages (Blanchflower, 1986; Blanchflower and Oswald, 1988; Freeman, 1980, 1991; Card, 1991; Blackaby and Murphy, 1991; Gosling and Manning, 1993). Some studies have found unionism to have a positive impact on investment (Machin and Wadhwani, 1989) and productivity (Nickell et al., 1989, 1991). Other studies, though, have found a significant negative impact on output (DeFina, 1983), growth (Nickell and Layard, 1998) productivity, profitability and employment growth (Blanchflower and Oswald, 1988). The results obtained for the employment effects of unionism are equally inconclusive (Minford, 1982; Sinclair, 1987; Nickell and Wadhwani, 1988; Blanchflower and Millard, 1988; Nickell and Layard, 1998).

The controversial book by Freeman and Medoff (1984) which summarised the empirical findings available by that time on the impact of unionism on the economy concluded that "unionisation appears to improve rather than harm the social and economic system" (p.19). The authors were the first to explicitly discuss the "two faces of unionism", namely, the undesirable face of increasing wages (and, thus, production

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[1] In 1994, trade union density ranged from 9% in France and 16% in the USA to 81% in Finland and 91% in Sweden (OECD, 1997). Mayhew (1983) discusses that union density in the USA has been

costs) and the desirable face of a collective voice. Their summary showed a negative impact of unions on profitability and a decreasing overall effect on wage inequality, implying some redistributive power for trade unions. The effects on productivity and by implication on output were, according to the authors, more likely to be positive. This was because, the productivity-enhancing effects of lower turnover, higher efficiency in the organisation of production and higher physical capital investment, were expected to dominate over the negative effect of the imposed rigidities in the adjustment of the labour input.

These conclusions are in apparent contrast with the standard textbook analysis of trade unions. Nevertheless, this inconsistency originates by lot from the differences between the assumptions employed in the standard analysis and the facts of the "real world". The main predictions of the neo-classical model with the presence of a union are based on the assumption that workers receive their marginal product. Once monopsony power or the existence of internal labour markets is incorporated in the analysis, then it can be shown that unions might well act to improve economic performance (Mayhew, 1983). In other words, unionisation might not be a first-best situation but, given the existence of externalities or deviations from the perfect competition framework, it can well be a second-best response. This idea has been analysed in more detail by the neo-institutionalist literature on the economics of labour standards (see for example, Sengenberger and Campbell, 1994). Based on the ideas developed earlier by Piore and Sabel (1984), this strand of literature stresses the importance of job security and job satisfaction for the good operation of the firm. Moreover, it emphasises the role of unions and high labour standards in forcing firms

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virtually half of that in the UK throughout the century.

shift from defensive strategies (cost-minimising production techniques and price based competition) to dynamic ones (market expansion and quality-based competition).

More recent work, mostly theoretical but also empirical, within the context of the neo-classical analysis, has also shown that trade unions can well have a positive effect on the economy (e.g.: Booth and Chatterji, 1998). First, they tend to reduce turnover (Miller and Mulvey, 1993) and are related to higher levels of on-the-job training provision (human capital accumulation) (Booth, 1991; Green et al., 1996). Second, they tend to increase physical capital investment. By implication, they tend to increase both labour productivity and total factor productivity. Although their employment effects would be expected to be negative due to their effect of increasing labour costs and reducing labour demand, their positive impact on productivity and output makes the direction of the employment effect somewhat more ambiguous.

A recent paper by Ricardo Faini (1999) has developed a theoretical model of the effects of trade unionism on regional development and convergence. Under realistic assumptions about backward regions being abundant in unskilled labour and unskilled workers being more unionised than their more skilled colleagues, it is shown that unions increase the relative pay of the unskilled, thus creating out-migration of skilled labour and lowering levels of economic activity. Hence, the presence of a trade union acts as an economic divergence mechanism that re-enforces and perpetuates the under-development of backward regions. The only empirical study which explicitly focuses on the regional dimension of the issue has been published over a decade ago (Freeman, 1988). Nevertheless, the empirical findings obtained there do not seem to offer any support to the predictions made by Faini (1999). In his analysis for the US states over the period 1953-1984, Freeman found the effect of trade union density to be indeterminate. What may be of more importance, he showed that a simple cross-

sectional analysis was leading to mistaken conclusions. The latter revealed a positive impact of unions on wages and unemployment, as suggested by theory. On the contrary, his pooled regression analysis, controlling for individual state variables (fixed-effects) revealed that "none of the estimated parameters are significant, implying that variation in union density around its mean within a state has no noticeable effect on economic performance" (Freeman, 1984, p.715).

III. Considerations for the analysis

The review of the studies, above, has emphasised the inconclusiveness of the theoretical and empirical findings. As mentioned already, it could be claimed that these studies suffer from a methodological bias, as they fail to focus on what could be the most appropriate level of analysis. Studies that employ a microeconomic analysis, despite their advantages in terms of data quality and sample size, do not allow for spill-over and other economy-wide effects. For example, it could be the case that employment is suppressed in a unionised firm but that, because of firms being unionised, the economy as a whole is more competitive and, hence, more firms do business -and more jobs are available. Or, it could be that protected (unionised) workers are not as productive as non-unionised ones, not because the former shirk, but because the latter feel their jobs to be less secured. Put differently, studies based on survey (firm-specific) data often start with the question of how is an economy affected by its working population organising and intervening in the operation of the "free market", but commonly end up simply measuring differences in the performance of unionised vis-à-vis non-unionised firms.

On the other hand, cross-country studies are incapable of taking into consideration the historical cross-country differences in unionisation rates, which are determined by economic and -more importantly- by social, cultural and historical factors. Moreover, simple cross-sections are unable to control for even less abstract country-specific effects which, as has been demonstrated by pooled regression analyses, are highly significant. Hence, these studies as well, end up investigating correlations between different social and economic structures and different economic performances, rather than the effect of unionism on economic performance. That is not to refute the usefulness and validity of these studies, but to stress the need to be cautious with their empirical findings and their policy implications.

As a means to overcome the identified problems, this paper investigates the impact of union density on a number of economic variables, for the twelve (including Greater London) UK Standard Regions over a nine-year period (1989-1997).[2] The indicators used as dependent variables in the analysis proxy four elements that are expected to be affected by unionism: wages and incomes, productivity, employment and output. Such an approach has a number of advantages. First, with a panel of data, it is possible to control for region-specific effects and test the significance of time-effects, while having a relatively homogeneous set of observations. Differences in union densities among UK regions are much smaller than cross-country differences. It can be plausibly argued that these differences represent differences in economic conditions rather than differences in social factors, not to mention differences in legal

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[2] Data availability was the factor determining the time-span of the study. Data on regional union densities are only available for these years, with the exception of the regional union density estimates for 1980 and 1984 based on the Workplace Industrial Relations Survey. Nevertheless, it was impossible for the author to obtain this data in an aggregate form. The TUC, the Certification Office and the DTI, three other potential sources of information were also unable to help, despite efforts from some of their staff.

systems and political traditions.[3] Second, the panel allows research to focus on one specific country (as opposed to cross country analyses) within a specific political and economic era, in this case, the 1990s (as opposed to -surprisingly missing- time-series studies). Third, apart from controlling for regional peculiarities (region-specific effects), one can also investigate the nature of these peculiarities and see if they are changing over time, or whether they are systemic ("fixed effects") or random ("random effects"). This is very helpful in identifying what these peculiarities may be, as well as understanding their nature and causes. Finally, investigating the impact of unionism on a set of economic variables enables some inferences about the direction of causality. If, say, wages rise with union density and so does employment but not productivity or output, then it is very likely that density ameliorates labour market performance but, rather than determining, it is determined by economic performance. For the "textbook analysis" to hold, both in terms of the predicted signs and in terms of the assumed direction of causality, wages have to increase with density, while all the other indicators (output, productivity and employment) should fall.

The present study deals with another issue which has never been explicitly discussed in the literature, but which constitutes a rather major problem of all relevant research. This is the issue of differences in price levels (either across regions and countries or in time). If unionism affects the economy, as the mainstream economic models predict, this would be true for the real variables of the economy rather than for the nominal ones, since the same models are based on the assumptions of rationality and absence of money illusion. This is more so for the reason that the main and most direct effect of unionism (if any) is on wages and labour costs. Not taking into account

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[3] We do not neglect the fact that there exist noticeable differences in the socio-economic environments within the UK (especially among UK countries), nevertheless, we are pretty sure that these differences

differences in the cost of living (and of production) distorts the true pictures of the conditions that economic agents face and on which they base their decisions and practices. For example, wages or per capita GDP in London might be higher than in the English countryside but this, apart from any "unionism effect", is first and foremost related to the substantially higher cost of living in the Capital. To encounter this problem, we collected data on regional price indexes (CPI-equivalent) from the Reward Group, the only source of regional price indexes in the UK.[4] We then constructed a two-dimensional (across regions and over time) CPI with the use of which we deflated all nominal variables (wages, GDP and household income). Hence, the real variables in our study express the nominal values in 1990 UK-prices.

As it is possible theoretically for trade unionism to affect any economic variable, we tried to be relatively exhaustive and collect data on unemployment rates, gross regional product, employment, population, wages and household income. Then, series for per capita income and regional product, employment growth, employment-population ratios and productivity where constructed. Data collection proved a demanding and complicated task, as there are differences (sometimes striking) in data published by different sources for the same variables. Moreover, some sources publish data for the Standard Statistical Regions (SSR), while data from other sources refer to the Government Office Regions (GOR). In the most illustrative example, the Office for National Statistics' data[5] on household income refer to SSR prior to 1995 but to GOR after that year. For this reason, it was impossible to obtain all the data we used from the same source. Data on regional union densities were collected from Employment Gazette and the Quarterly Labour Force Survey and are estimates rather than actual

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are immaterial compared to the ones existing among, say, OECD countries.

figures, as the Trade Union Congress and the individual unions do not report their membership figures at a regional level.

In the next section we present the empirical analysis and its results. We do not comment on the regional picture as described by the data collected, as this would alter the focus of this study. Nevertheless, we need to note two interesting findings. First, there are substantial differences in unemployment rates, while there is little variation in the population shares over time. This verifies the conclusion reached in other studies (e.g.: Jackman and Savouri, 1992), that regional migration in Britain is relatively small. Second, the use of the regional deflators reveals some interesting results. The real variables exhibit less variability (as expected) than the nominal ones, but they explain around 10-20% of cross-regional inequalities (in output, incomes and wages). Moreover, cross-regional differences in labour productivity are relatively high. Hence, real inequalities among the UK regions exist and persist. Finally, the pattern of decline in union density shows some -unexpected- randomness. Union retreat is not faster in high- (nor low-) union density regions, is not related to the regional level of economic development and is not specific to declining (or growing) regions.

IV. The empirical analysis

As mentioned already, the methodology used in the empirical investigation is a panel data analysis, utilising pooled regression techniques. Nevertheless, before presenting the formal econometric analysis, in Table 1 we present some correlations between the regional differences in economic indicators over the 9-year period of our study and regional union densities. The first column presents correlations over the

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[4] The same source has been used by Borooah et al. (1996), the only study to my knowledge using regional price deflators.

cross-regional sample, between union density and economic indicators, averaged over time. The second column presents the same correlations for the full sample. In the third column the correlation between union density and cross-regional dispersion in economic outcomes is shown, while the last column presents the correlation coefficients between cross-regional dispersion in unionism and cross-regional dispersion in economic outcomes.

As the first column in Table 1 shows, there is an almost one-to-one negative relationship between union density and productivity, with the implication that more unionised regions have less productive labour.[6] Additionally, all measures of income (nominal and real) are strongly and negatively correlated with union density: higher degrees of unionism seem to lead to worse economic outcomes. Nevertheless, changing levels of union density have not affected unemployment rates, employment growth or the employment-population ratio.

Table 1: Correlation coefficients between union density and economic indicators

Correlation with union density	Levels, avg. over time	Levels, full sample	Density with reg. disparities	Disparities
Unemployment	-0.06	0.54	0.80	0.89
GDP	-0.99	-0.62	-0.99	-0.67
GDP per capita	-0.99	-0.75	-0.98	-0.68
Household income	-0.98	-0.61	-0.97	-0.67
Personal income	-0.98	-0.76	-0.83	-0.42
Wages	-0.98	-0.60	-0.98	-0.71
Real GDP	-0.95	-0.58	-0.95	-0.77
Real GDP p.c.	-0.95	-0.59	-0.84	-0.72
Real hhold income	-0.95	-0.57	-0.96	-0.80
Real income p.c.	-0.94	-0.49	-0.25	0.30
Real wages	-0.89	-0.26	0.65	0.77
Employment growth	-0.34	-0.17	-0.02	0.16

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[5] Regional Trends, various years.
[6] As we discuss later, this might on the other hand mean that low-productivity regions have more unskilled workers who also tend to unionise more.

Employment-Population ratio	0.44	-0.39	0.39	0.37
Labour productivity	-0.99	-0.68	-0.01	0.05

The second column reveals a somewhat different picture. For the 108 observations of the pooled sample, there is hardly any evidence of a relationship between unionism and real economic variables (correlation coefficients vary between 0.17 and 0.59), with the exception of labour productivity. The third column shows that while unionism was declining, regional differences in real wages and unemployment rates were also declining, whereas virtually all measures of incomes followed a divergent path. To what extend this reveals a causal relationship (and of what direction), is really debatable and needs empirical investigation. The same is true for the correlations in the last column, which seem to suggest that the same relationships hold between disparities in union densities and regional inequalities.

The incoclusiveness concerning the correlations between unionism and economic outcomes (comparing the first two columns in Table 1) necessitates a more formal econometric analysis. In what follows we focus on seven variables, trying to investigate the effect of unionism on four economic indicators, namely wages, productivity, employment and incomes. Although the pooled regression analysis shows that the error component model is a better specification for all the relationships investigated, we also report the findings from simple OLS regressions in levels, to discuss the differences in the signs and the magnitudes of the estimated coefficients. We also present two error component models, one univariate and one bivariate which, following Freeman (1988), includes real wages as a second explanatory variable. With

real wages, we try to control for general economic conditions.[7] In order to specify which error component specification was the best for each relation investigated (and whether such a specification was needed), a big number of specification tests were undertaken. Consistently with standard panel data analysis techniques, we performed the Breush-Pagan and Hausman specification tests to test for the existence of random region-specific effects (versus no effects at all and versus fixed regional effects, respectively). To test for the existence of time-specific effects as well as for the simultaneous existence of regional and time-specific effects, we conducted a number of F-tests for omitted variables. We do not report the process of model specification here, as this would make the presentation of the results much more complicated. The best performing specifications for both the univariate and bivariate models are presented in Tables 2 and 3, together with the estimators obtained from the univariate OLS regressions in levels.[8]

Table 2: Impact of unionism on employment

Model	OLS in levels	Univariate EC model	Specifica-tion used	Bivariate error component (EC) model		Specifica-tion used
Variables	Unionism	Unionism		Unionism	Real wages	
Unemplo-yment	0.173 (6.58)***	0.176 (2.97)***	Two-way fixed	0.16 (7.21)***	0.055 (11.23)***	Two-way random
Empl-pop ratio	-0.002 (-4.35)***	-0.001 (-1.80)*	Two-way fixed	-0.002 (-5.24)***	-0.0003 (-9.82)***	Fixed
Employme nt growth	-0.0005 (-1.66)	-0.0002 (0.81)	Between	-0.0004 (-1.48)	0.00001 (0.22)	OLS in levels

Notes: t-statistics (z-values in random effects models) in parentheses. *, ** and *** symbolise significance at the 10%, 5% and 1% levels, respectively. For estimation method see text and footnote 8.

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[7] Real wages explain 36% to 81% of the variation in the other dependent variables (but employment growth) when regressed in univariate specifications. Freeman (1988) notices that the inclusion of real wages can additionally give information about "possible causal relations, as unions can be expected to affect unemployment, per capita income and employment largely through earnings" (p.710).

[8] All regressions have been estimated with OLS. For the error component specifications, the LSDV-equivalent (least squares dummy variables) transformation has been conducted, to save some degrees of freedom (Baltagi, 1994). Despite the fact that this transformation saved us 19 degrees of freedom, it does not provide estimates for the constant terms (or the controlled regional and time effects) while it also invalidates the significance of the coefficient of determination.

As shown in Table 2, the employment effects of unionism are very robust across different specifications. Unemployment seems to increase with union density, in consistence with the predictions of theory and the findings from previous research. Nevertheless, it seems that wages (at least, real wages) are not the vehicle via which unionism affects unemployment or labour force participation: the magnitude of the estimated coefficients does not change when real wages are included in the equations. On the other hand, unions do not seem to affect employment growth (despite the negative signs of the estimated coefficients). The approved error component specifications show that (with the exception of the employment-population ratio, where real wages seem to capture much of the time-effects) both time and regional effects are significant in the relationships between union density and employment, although controlling for such effects doesn't alter the results.

Table 3 presents a completely different picture! The simple regressions in levels, which do not control for any time or regional effects, give a bleak picture of unionism affecting negatively all real income variables and productivity. The income and productivity effects are consistent with theory, but the estimated effect on real wages is pretty much controversial. If unionism reduces wages, then it must be its negative effect on productivity that generates the whole process. In such a case, it seems plausible that low-productivity (and, according to Table 2, high-unemployment) regions have lower wages and incomes and, thus, higher unionisation rates (or, are abundant in unskilled labour which is more likely to be unionised, according to Faini 's (1999) model). Apparently, in such a case the causal relationship would run from the economic conditions to unionism and not vice versa. Unionism could be argued to cause a spiral effect and sustain or re-enforce the plight of backward regions (or countries), but the real causes of the bad economic performance should be sought

elsewhere. That is, unless one can convincingly argue that unionism has a more significant impact on productivity than -among others- education, job-related training (human capital investment) or investment in physical capital.

Table 3: Impact of unionism on wages, output, incomes and productivity

Model	OLS in levels	Univariate EC model	Specification used	Bivariate error component (EC) model		Specification used
Variables	Unionism	Unionism		Unionism	Real wages	
Real wages	-1.26 (-2.72)***	3.07 (3.76)***	Two-way fixed	-	-	-
Real GRP per capita	-89.15 (-7.50)***	98.59 (4.00)***	Two-way fixed	16.32 (1.22)	26.75 (17.88)***	Two-way fixed
Real hhold income p.c	-70.16 (-5.72)***	58.22 (2.28)**	Two-way fixed	-18.67 (-1.02)	25.01 (12.32)***	Two-way fixed
Producti-vity	-0.33 (-9.48)***	0.11 (3.27)***	Two-way fixed	0.042 (1.27)	0.004 (5.77)***	Two-way fixed

Notes: t-statistics in parentheses. *, ** and *** symbolise significance at the 10%, 5% and 1% levels, respectively. For estimation method see text and footnote 8.

The error component specifications show that it is not unlikely for this assumption, about an inverse causal relationship between union density and economic outcomes, to be in fact the case. The values of the estimated coefficients change dramatically when controls for time and regional effects (which both prove to be highly significant) enter the analysis. The impact of unionism becomes positive and of high statistical significance. Moreover, when we also control for real wages, unionism fails to be significant in any of the relationships. To sum up, unionism is negatively related to productivity, wages and output, but when the effects of time, fixed regional characteristics and real wages are taken into account, its net effect seems to be positive. One plausible, though controversial and debatable explanation for this finding could be the following. By controlling for (fixed) time and regional effects, in fact we control for differences in the economic conditions of each region.[9] Keeping such

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[9] This is of course an assumption that has to be empirically verified (or rejected). A detailed analysis of the nature of the fixed regional effects that were found here to be significant is outside the purposes of this study and is left for the future.

conditions constant reveals the positive impact that unionism has on the economy, as contended by the advocates of the "economics of labour standards" (e.g.: Sengenberger and Campbell, 1994). This impact is hidden in the simple regressions in levels, as the general economic conditions simultaneously affect economic outcomes and unionisation rates. Then, when real wages are allowed to enter into the picture, the importance of unionism evaporates with the implication that -with the exception of the case of unemployment- the economic effects of unionism are largely activated through wages.

V. Conclusions

Declining union density is an international phenomenon of the last two decades. Led by the predictions of neo-classical economic theory, most economists and policy-makers welcome this development. The de-organisation of labour enhances labour market flexibility and removes the institutional distortions that are believed to prevent the efficient operation of market forces. Despite that, empirical analysis has failed to lead to conclusive results verifying or rejecting this -almost-conventional wisdom. Some studies have found union density to have a positive impact on the economy (e.g.: productivity, capital investment) and the society (reduction of inequalities), while others have come to the opposite conclusions. A common feature of virtually all of these studies is their failure to ask the precisely correct questions and employ the precisely appropriate level of analysis. Cross-country studies fail to take into account

cross-country differences in legal systems, habits, preferences and other cultural and socio-economic characteristics. Studies based on survey-data fail to take into account the wider economic effects and interconnections.

This paper attempted to put the issue in a different level of analysis and, utilising a panel of data and relevant techniques, to analyse wider economic relations while remaining at the small scale. Based on a sample of 108 observations, covering a 9-year period for the Standard Statistical Regions of the UK, it was shown that trade unionism has a positive impact on the economy. The presence of trade unions enhances the productivity of the labour force, increases real wages and raises real per capita GDP and incomes. This is not costless, though, as trade unions have a strong unemployment effect. Fixed regional and time effects are found to be significant in the relationship between unionism and economic outcomes. We did not attempt to analyse or measure these effects, but further research on this direction would undoubtedly be helpful. Gaining deeper knowledge about the nature and character of these effects would enhance our understanding of the role and the importance of trade unions in regional economies and their development.

The empirical investigation undertaken here seems quite inconsistent with the title of the paper, but the conclusions reached should not. The decline in union density has coincided with a rise in regional inequalities in the UK. Although this divergence is caused by developed regions doing a lot better, rather than by backward regions deteriorating, this path of regional divergences should be alerting, as divergence can continue even during periods of recession. Based on the causality inferences made earlier, we can reasonably argue that union density neither increases nor decrease regional inequalities. Unionism can produce better economic outcomes, but it is neither a sufficient nor a necessary condition for development.

On the other hand, it is true that unionism is high where economic conditions are not so pleasant. Two of the poorest regions in the UK (N. Ireland and Wales) had the higher densities in union members and the slowest rates of union decline. But, rather than signifying a negative causal relationship between union density and economic outcomes, the empirical evidence presented here suggests that should these regions have not been the poorest, their trade unions would have helped more in achieving better economic outcomes. Of course, this assumption really depends on the goals and policies set by the specific trade unions. As the evidence shows, unionism harms employment and a careless union leadership can well deteriorate economic outcomes. A collective-voice union (Freeman and Medoff, 1984), supporting its unemployed members, providing in- and out-of-job training and increasing managerial efficiency (Booth and Chatterji, 1998) is needed in order for this or other negative effects to be reversed.

Acknowledgements

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