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Welfare Regime and Social Class Variation in Poverty and Economic Vulnerability in Europe: An Analysis of EU-SILC

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Abstract: In this paper we address a set of interrelated issues. These comprise the relative merits of unidimensional versus multidimensional approaches to poverty and social exclusion, increasing concerns about reliance on nationally based income poverty measures in the context of EU-enlargement and the continuing relevance of class based explanations of variation in life chances. Employing the EU-SILC data set, we identify for each of a set of welfare regimes a group of economically vulnerable individuals. Contrary to the situation with national income poverty measures, levels of economic vulnerability vary systematically across welfare regimes. The multidimensional profile of the economically vulnerable sharply differentiates them from the remainder of the population. Unlike the national relative income approach, the focus on economic vulnerability produces a pattern of class differentiation that is not dominated by the contrast between the property owning classes and all others. In contrast to a European-wide relative income approach, it also simultaneously captures the fact that absolute levels of vulnerability are distinctively high among the lower social classes in the less affluent regimes while class relativities are significantly sharper in the more affluent regimes. No single indicator is likely to prove adequate in capturing the diversity of experience of poverty and social exclusion in an enlarged European Union. The most effective strategy may be to take more seriously the need to translate the conceptually compelling case for a multidimensional approach to social exclusion into an appropriate set of operational alternatives.

Key words: economic vulnerability, poverty, social exclusion, welfare regimes, social class

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Introduction

In this paper we seek to address a number of interrelated issues that have provoked considerable debate in the literature on poverty and social exclusion. The first relates to the relative merits of unidimensional approaches and focuses on comparison of income poverty approaches versus those that attempt to capture the multidimensional nature of social exclusion (Nolan and Whelan, 2007). The second relates to the increasing concern that the enlargement of the European Union has exacerbated the limitations of focusing on income poverty measures, defined in purely national terms. This approach is seen to produce results that are counterintuitive and at odds with our knowledge of variation across the EU in terms of objective living conditions and subjective feelings of deprivation (Fahey, 2007). The final issue relates to whether social class differentials in poverty and social exclusion continue to play an important role or alternatively the degree to which such outcomes have become detached from their old moorings in class categories (Beck, 2007, Goldthorpe, 2007a, Whelan and Maître, 2008b). In what follows we will seek to show that conclusions concerning both absolute levels and relativities in relation to poverty and social exclusion, across welfare regimes and social classes, are crucially influenced by the manner in which we resolve choices relating to unidimensional versus multidimensional approaches.

Such considerations have led authors such as Fahey (2007), to argue for the development of an EU-wide poverty line alongside national measures. However, recent efforts in this direction suggest that, while the latter may fail to capture cross-national or welfare regimes differences, conversely the former have difficulty in appropriately capturing socio-economic differences.[1] If we are to seek alternatives or complements to conventional income poverty measures, it would seem desirable to develop indicators that can capture adequately both between country/welfare regime variation in social exclusion and within country/regime socio-economic variation. In this paper we make use of the availability of data from the European Union Statistics on Income and Living Conditions (EU-SILC) to conduct the following analysis

focused on addressing the set of interrelated issues raised above. Our analysis proceeds as set below

- Making use of latent class analysis procedures we develop a multidimensional approach to the measurement of social exclusion. In particular, we focus on identifying individuals that we characterise as 'economically vulnerable'.[2]
- We proceed to provide a detailed account of levels and patterns of economic vulnerability across welfare regimes.
- Our analysis will be extended to a comparison of the distribution of levels of poverty and economic vulnerability across social classes within and between welfare regimes.[3]
- Further analysis will focus on a consideration of patterns of class relativities within welfare regimes for both income poverty and economic vulnerability.
- Finally we will consider the implications of our findings for the issues raised earlier.

Since our focus is on the impact of welfare regimes, we do not employ population weighting in estimating such effects because countries with large populations would dominate the outcome, obscuring the extent to which countries allocated to the same regime share important features. Similarly, we do not wish our estimates to be influenced by variation in sample sizes across countries. Where we estimate descriptive statistics, such as national poverty rates, at welfare regime level we report *average* rates across countries within regimes. When focusing on *relationships* at the welfare regime level, we assume that the underlying processes are uniform across country. Such an assumption is unlikely to hold in strict statistical terms but the hope is that compensating gains in terms in parsimony will enable us to reveal important patterns of differentiation in relation to poverty and social exclusion. The alternative is not to resort to population weighting or to allow national sample sizes to influence the outcomes but rather to conduct the analysis at a more micro level.

Multidimensional Perspectives on Social Exclusion

As knowledge of the limitations of relying solely on income to measure poverty and social exclusion has become more widespread, attention has been increasingly

focused on multi-dimensional approaches. Non-monetary indicators are increasingly used, either separately or in combination with income, in individual European countries as well as at European Union level in measuring poverty and exclusion (Nolan and Whelan, 2007, Förster, 2005). Kakwani and Silber (2007: p. xv) identify the most important recent development in poverty research as the shift from a unidimensional to a multidimensional approach.

At the level of conceptualisation, the case for a multi-dimensional approach to understanding what it means to be socially excluded is compelling. However, as Nolan and Whelan (2007) argue, the value of a multidimensional approach needs to be empirically established rather than being something that can be read off the multidimensional nature of the concept. At this point, it seems to be generally agreed that many unresolved conceptual and measurement issues remain in the path of seriously implementing multidimensional measures in any truly operational sense (Thorbecke, 2007).

In this paper we seek to contribute to this enterprise specifically in relation to a form of social exclusion that encompasses income poverty, consumption deprivation and economic stress. This involves a more restricted focus than for many of the variants of social exclusion that appear in the literature. This is to some extent influenced by the range of data relating to material deprivation available in EU-SILC and our assessment of the quality of various aspects of that information. However, as Sen (2000:9) observes, one of the difficulties of extending the notion of social exclusion to encompass multiple deprivation is that there may be "a temptation to dress up every type of deprivation as social exclusion". From this perspective, a policy focus on social exclusion may benefit from an initially restricted operationalisation that allows us to explore the relationship between factors that capture command over economic resources and restricted but multiple outcomes that we anticipate should be related to such resources.

Data and Measures

Sample

The Eurostat User Database EU-SILC 2006 covers 26 countries, 24 EU member states as well as Norway and Iceland. The household survey is made of 202,978 households which is a total of 536,993 individuals. The sample sizes across countries range from 8,598 individuals in Iceland to 54,512 in Italy. The unit of analysis is the individual.

Income Measure

The income measure we employ is the annual total household disposable income adjusted for household size using the OECD modified equivalence scale. The reference period is the 12 months prior to date of interview. Throughout the rest of the paper we make reference to 'poverty', except where explicitly specified, the indicator involved is what Eurostat labels the national 'at-risk-of-poverty' measure calculated at 60% of median equivalent income.

Measure of Consumption Deprivation

Our analysis focuses on a 7-item index of 'consumption deprivation' that comprises items ranging from enforced absence relating to current requirement such as food and heat to more general consumption items such as being able to afford a holiday, a car or a PC, as well as avoiding arrears on regular bills such as rent or utilities. Full details of the items are provided in Table 1. Confirmatory factor analysis reveals that this dimension emerges as a distinct factor with loadings ranging from 0.889 for 'a weeks holiday away from home' to 0.565 for arrears. [4] For the 24 EU countries the Cronbach alpha is 0.72. Relatively little variation is observed across welfare regimes with alpha ranging from 0.67 to 0.73.

'TABLE 1 ABOUT HERE'

Economic Stress

The subjective measure of economic strain we employ is based on the following question asked to all household reference persons:

"Thinking now of your household's total income, from all sources and from all household members, would you say that your household is able to make ends meet?"

Respondents were offered six response categories ranging from 'with great difficulty' to 'very easily'.

Latent Class Analysis

In applying latent class analysis, each of our indicators is taken as an imperfect measure of economic vulnerability. Our income poverty variable has four categories distinguishing between those below 50 per cent of the median income, between 50-60 per cent and 60- 70 per cent and above 70 per cent. Our results will be reported in terms of the conditional probabilities of being below each of the three median income lines. Our deprivation outcome reports the conditional probability of experiencing an enforced lack of 3+ items on the consumption deprivation index. [5] Finally the economic stress variable involves a dichotomy between those in households that have difficulty or great difficulty in coping with unanticipated expenses and all others.

Our objective is to identify groups who are vulnerable to economic exclusion in being distinctive in their risk of falling below a critical resource levels, being exposed to consumption deprivation and experiencing subjective economic stress. Following Chambers (1989), we can define vulnerability as not necessarily involving current deprivation but rather insecurity and exposure to risk and shock. It can be seen as implicitly involving a multidimensional and dynamic perspective that is consistent with the notion of social exclusion as a process rather than simply an outcome.

The basic idea underlying latent class analysis is long established and very simple (Lazarsfeld and Henry 1980).[6] The associations between a set of categorical variables, regarded as indicators of an unobserved typology, are presumed to be accounted for by membership of a small number of latent classes. Latent class analysis assumes that each individual is a member of only one of N latent classes and that, conditional on latent class membership, the manifest variables are mutually independent of each

others. Conditional independence is a version of the familiar idea that the correlation between two variables may be a result of their common dependence on a third variable. The logic is identical but explanatory variable is unobserved and must be identified statistically.

The European Socio-economic Classification

Our analysis makes use of a slightly aggregated version of the European Socio-economic Classification (ESeC).[7] The schema, following Goldthorpe (2007), is based on an understanding of forms of employment relationship as viable responses to the weaker or stronger presence of monitoring and asset specificity problems in different work situations. Each is seen as a response by employers to certain problems or moral hazards they face in ensuring employees perform as required.[8] As Rose and Harrison (20007 & forthcoming) note, it focuses on the relational as well as the distributive aspects of inequality. Individuals are understood to posses certain resources by virtue of the positions they occupy and consequently face a range of possibilities and constraints. As Goldthorpe (2002: 213), observes, one of the primary objectives of schemas such as ESeC is to bring out the constraints and opportunities typical of different class positions particularly as they bear 'on individuals *security, stability and prospects* as a precondition of constructing explanations of empirical regularities'. The latent profile of economic vulnerability provides a particularly appropriate outcome indicator in examining the impact of social class defined in this manner. A failure to observe systematic variation by social class in exposure to economic vulnerability would seriously undermine claims that social class remains fundamental to the distribution of life chances in industrial and post-industrial societies. Our analysis employs a seven-category aggregated version of the ESeC. We have used information relating to current and previous employment and a 'dominance' procedure for partners in assigning a social class to all household members. [9]

The seven classes with which we operate are as follows:

- Large employers, higher grade professional, administrative & managerial occupations: "the higher salariat" (ESeC Class 1).

- Lower grade professional, administrative & managerial occupations: "the lower salariat" (ESeC Class 2).
- Intermediate occupations and lower supervisory & technician occupations 'higher grade white & blue collar" (ESeC Classes 3 & 6).
- Small employer and self employed non-professional occupations: 'petit bourgeoise' (ESeC Class 4).
- Farmers (ESeC Class 5).
- Lower services, sales & clerical occupations & lower technical occupations – 'lower white collar & skilled manual' (ESeC Classes 7 & 8).
- Routine occupations – 'semi-unskilled manual' (ESeC Class 9).

Welfare Regimes

Our analysis is based on data from EU-SILC 2006 covering 26 countries. However, since our purpose is to facilitate evaluation of the relative merits of the conventional income poverty measure and our indicator of economic vulnerability, rather than to provide a descriptive account of European poverty and deprivation patterns[10], our focus will be at the level of welfare regime.

As Esping-Andersen and Myles (2009) note, the welfare state influences life-course risks, intergenerational risks and class risks each of which has its own redistributive logic. While some studies such as Smeeding (1999) show an association between levels of welfare spending and redistribution, both Palme (2006) Esping-Andersen and Myles (2009) conclude that the available evidence provides little support for any straightforward link between GDP or higher levels of social spending and reduced inequality and rather suggests that the most important effects derive from the institutional design of welfare states. Such design effects can take complex forms. Thus while targeted welfare states are more biased in favour of redistribution, Korpi and Palme's (1998) 'paradox of redistribution' directs attention to the fact that universal benefits are both more generous and reach the needy with greater certainty. It is also necessary to take into account policies that affect earning potential and shape the opportunity structure. Similarly, as Esping-Andersen and Myles (2009: 655) stress, since the redistributive role of services varies so much across societies that an

exclusive focus on money incomes inevitably provides an incomplete and potentially distorted picture.

Gallie and Paugam's (2000) 'employment regime' typology focuses on the degree of benefit coverage and level of financial compensation for the unemployed and the scale of active employment policies. Bukodi and Róbert (2007) add a related concern with the strictness of employment protection legislation (EPL) comprising a set of rules governing the hiring and firing process. Combining these criteria with those reflected in the standard Esping-Andersen categorisation they distinguish six welfare regimes, which we employ in our subsequent analysis, as follows:

- The *social democratic regime* is characterised by its emphasis on universalism. A high level of employment flexibility is combined with high security in the form of generous social welfare and unemployment benefits to guarantee adequate economic resources independently of market or familial reliance. We have included Sweden, Denmark, Iceland, Finland, Norway and Netherlands in this cluster. [11]
- The *corporatist regime* involves less emphasis on redistribution, the dominance of insurance implies an accent on horizontal redistribution. Entitlements depend primarily on life long employment and such regimes are generally transfer heavy and service-lean. This cluster includes Germany, Austria, Belgium, France and Luxembourg.
- The *liberal regime* assumes that the role of government is to nurture rather than replace the market. Social benefits are typically subject to a means test but there has been a shift in recent years towards work-conditional, negative income tax policies. These countries exhibit levels of flexibility coupled with limited measures to actively sustain employment.[12] The UK and Ireland constitute this group. As Gosta-Esping Anderem and Myles (2009:646) observe, this combination of policies should in principle lead to contradictory outcome but in practice the redistributional effort is likely to be undermined by the 'paradox of redistribution'
- The *southern European regime* is distinguished by the crucial role of family support systems. Labour market policies are poorly developed and selective.

The benefit system is uneven and minimalist in nature and lacks a guaranteed minimum income provision. This group comprises Cyprus, Greece, Italy, Portugal, and Spain.

- Low levels of spending on social protection and weakness of social rights are common on post-socialist societies. Bukodi and Róbert (2007) observe that there has been a general increase in employment flexibility with most transition countries displaying a level of labour market flexibility significantly less than the UK but significantly greater than in southern European. They distinguish two clusters. The corporatist post-socialist regime comprises the central European countries, with mostly transfer oriented labour market measures and a moderate degree of employment protection.The Czech Republic, Hungary, Poland, Slovenia and Slovakia are included in this cluster.
- The *post-socialist liberal cluster* comprises the Baltic countries which are characterised by a more flexible labour market, with employers unwilling to abide by legal regulation of the market, and an absence of policies aimed at sustaining employment. Estonia, Latvia, Lithuania are included in this group.

Variation between welfare regimes overlaps with other differences relating to factors such as level of economic development and experience of economic and significant variation exists within welfare regimes. However, for our present purposes, the crucial issue is whether we can develop a model of economic vulnerability that is statistically satisfactory and provides an account of levels and patterns of such variability across welfare regimes that is consistent with our understanding of the manner in which regime effects combine with other influences. If that can be achieved, then we can proceed to compare the behaviour of the economic vulnerability indicator with outcomes involving the income poverty measure.

Levels and Patterns of Economic Vulnerability by Welfare Regime

In Table 2 we display the results for model fit, size of the vulnerable class and conditional probabilities. Given large sample sizes, ranging from 33,665 in the post-socialist liberal regime to 132,111, any parsimonious model is unlikely to fit the data. Nevertheless, the latent class model does remarkably well across all six welfare

regimes in accounting for the patterns of association between the income, deprivation and economic stress indicators. The size of the G^2 for the independence model provides one benchmark against which to assess the fit of the latent class model. The latent class model reduces this by a level of from 99.6 to 99.9 for the six welfare regimes. Focusing on the criterion of proportion of cases misclassified, this runs from 0.003 for the social democratic to 0.018 for the post-socialist conservative. Thus in each case the latent class model comes close to reproducing the observed data.

A systematic pattern of variation in the size of the vulnerable class is observed across welfare regimes. The lowest level of 12.6 per cent is observed for the social democratic regime. It rises to 15 per cent and 20.3 per cent respectively for the corporatist and liberal regimes. It increases to 28.2 per cent for the southern European regime. Finally it rises to 34.6 per cent and to 40.1 per cent respectively for the post-socialist corporatist and liberal clusters. This sharp pattern of differentiation can be contrasted with restricted differentiation found in relation to national income poverty at 60% of median income averaged across the countries making up the regimes where the mean level ranges between 10.3 per cent and 19.4 per cent and very similar outcomes are observed for the social democratic and post-socialist corporatist clusters on one hand and the liberal regimes on the other.

'TABLE 2 ABOUT HERE'

A graphic illustration of the factors differentiating between the non-vulnerable and vulnerable classes is provided in Figure 1. For the income poverty the contrast takes a rather similar form across regimes. For the social democratic regime the figures below 50% of equivalent median income are respectively 0.037 and 0.168. For the 60% line they rise to 0.071 and 0.341. Finally for the 70% line they increase to 0.129 and 0.551. The profile for the corporatist group the figures are very similar with the main difference being that the figures for the vulnerable are higher and the contrast is therefore sharper. For the liberal and southern European regimes poverty rates are higher for both the vulnerable and non-vulnerable. For the 60% line the rates for vulnerable and non-vulnerable rises to 0.483 and 0.119 respectively for the former and to 0.414 and 0.102 for the latter. For the post-socialist regimes the extent to which poverty rates are higher than for the southern European regime depends on the line on

which one focuses but the differences in each case are rather modest. Overall for every regime we observe sharp differentiation between the vulnerable and non-vulnerable clusters but variation across regimes in such differentiation is highly restricted.

Differentiation between vulnerable and non-vulnerable clusters is least on income poverty. When we focus on subjective economic stress, as captured by the indicator relating to difficulty in making ends meet, we find that for the vulnerable cluster the number reporting such difficulties ranges from 57.8 per cent in the social democratic regime to 94.6 per cent for the post-socialist liberal cluster. With both liberal regimes being closer to the former and the Southern European cluster being close to the latter. For the non-vulnerable clusters on the other hand the level of economic stress ranges in the Southern European and corporatist regimes is less than 4 per cent. It then rises to just less than 6 per cent in the two liberal regimes. It then rises substantially to 13.4 per cent for the post-socialist conservative cluster before peaking at 15.7 per for the Southern European regime. Thus differentiation in terms of economic stress is least for the latter pair of regimes because of relatively high rates among the non-vulnerable class.

However, economic stress is not the main factor differentiating the economically vulnerable from the non-vulnerable. Instead the variable playing this role is consumption deprivation. For the social democratic regime such deprivation is close to zero for the non-vulnerable cluster but rises to 64.4 per cent for the vulnerable class. For the corporatist group the respective figures are 1.4 and 73.8 per cent and for the liberal regime 1.4 and 60.9 per cent. For the Southern European cluster the figure for the non-vulnerable rises to 2.4 per cent compared to one of 63.4 per cent for the vulnerable class. These four regimes can be contrasted with the post-socialist clusters where deprivation levels are substantially higher for both vulnerable and non-vulnerable groups. For the conservative group the respective figure for vulnerable and non-vulnerable clusters are 90.0 and 14.4 per cent and for the liberal group the corresponding figures are 16.7 an 94.6 per cent

Outside the post-socialist clusters, the consumption deprivation variable is by far the powerful factor discriminating between the vulnerable and non vulnerable followed by the subjective economic stress variable. While absolute levels of deprivation are highest for the foregoing clusters, relativities between vulnerable and non-vulnerable clusters are sharpest in the more affluent regimes. For the post socialist cluster all three factors play amore equal role. While the scale of vulnerability and deprivation and economic stress levels are highest in the post socialist and Southern European clusters regimes the scale of differentiation between vulnerable and non-vulnerable classes is greatest in the social democratic, corporatist and to a slightly lesser extent in the liberal regime.

'FIGURE 1 ABOUT HERE'

In the following section we consider variation relating to both poverty and economic vulnerability across welfare regimes.

Variations in Levels of Poverty and Economic Vulnerability Levels by Social Class and Welfare Regime

In Table 3 we show the breakdown of average national poverty levels within welfare regime by social class. It is apparent that across regimes the major aspect of class differentiation arises not from a hierarchical ordering of classes but from the contrast between the property owning classes and all others. In almost every case the highest level of poverty is observed for the farming class. The figure is lowest at 21.4 per cent for the social democratic regime. It then rises to 25.4 and 29.8 per cent respectively for the corporatist and liberal cluster. For the post-socialist groups the figure rises to 34/5 per cent and it peaks at 39 per cent for the southern European cluster. The petit bourgeoisie also display uniformly high poverty rates although, with the exception of the post-socialist group, the figure is in each case somewhat lower than for farmers. Variation across regimes is restricted ranging from 20 per cent in the social democratic cluster to 37 per cent for the post-socialist liberal group. For the property owning groups we are struck more by the contrast between them and the remaining classes than by variation across welfare regimes.

Between regimes variation in poverty levels for the higher and lower salariat is also extremely limited. For the former the main contrast is between the post-socialist liberal group where the level is 12 per cent and the remaining regimes where it does not rise above 5 per cent. For the lower salariat the main contrast is between the liberal and post-socialist liberal regimes with poverty rates of 8 and 11 per cent and the remaining groups where the figure again does not exceed 5 per cent. On this occasion it is the relatively uniform low levels of poverty that is most striking rather than variation across regimes.

'TABLE 3 HERE'

For the remaining classes, we observe a recurring pattern in which the highest poverty rates are observed for the liberal clusters and the lowest for the social-democratic while the remaining groups occupying an intermediate position. For the higher grade white & blue collar the poverty rates for the post-socialist liberal and liberal regimes are 18 and 14 per cent respectively. The social democratic regime has a distinctively low rate of 6 per cent while for the remaining clusters the figure is 8/9 per cent. For lower white collar & skilled manual classes a similar pattern is observed with the rates for the two liberal regime being 29 and 26 per cent while at the opposite end of the spectrum the social democratic rate is 11 per cent. For the other clusters the figure lies between 17 to 24 per cent. Finally, for the semi-unskilled manual class the poverty rate for the post-socialist liberal group reaches 36 per cent and is followed the liberal group with a rate of 28 per cent. In contrast, the rate for the social democratic group is 12 per cent. For the remaining clusters the figure lies between 23 and 26 per cent.

The major contrast in terms of levels of poverty involves the property classes and most particularly the farmers. For the remaining classes, we observe variation that takes a hierarchical form. The combined impact of the property and hierarchical effects results in relatively restricted to welfare regime variation within social classes. It is most systematic for the non-propertied class outside the salariat. The pattern is

one that involves fairly sharp contrasts between the social democratic regime and the two liberal regimes with the remaining clusters occupying the middle ground.

In Table 4 we set out the comparable results in relation to economic vulnerability. The distinctive uniformly high levels observed for propertied classes with regard to poverty are not replicated in the case of vulnerability. Furthermore, variation across welfare regimes is substantially sharper and involves a somewhat different pattern. The major contrast is now between the post-socialist liberal and social democratic regimes. The post-socialist corporatist cluster is located closest to the latter. The remaining clusters occupy an intermediate position but the southern-European cluster is fairly sharply differentiated from the corporatist and liberal clusters in relation to the property owning classes and, in particular, farmers.

In every case the highest level of economic vulnerability is found for the semi-skilled class but with considerable variation across regimes. The lowest level of vulnerability of 17.9 per cent is found for the social democratic regime. It increases to 31-32 per cent for the corporatist and liberal regimes. It then rises sharply to 40.6 per cent for the Southern European regime and to 52.3 per cent for the post-socialist corporatist cluster before peaking at 59.1 per cent for the post-socialist liberal cluster. A similar pattern is observed for the lower white collar and skilled manual class. The lowest level of economic vulnerability of 14.1 per cent is associated with the social democratic cluster. It increases to 24.2 and 28.9 per cent for the corporatist and liberal regimes. It then rises to 38.1 and 45.9 per cent for the Southern European liberal and post-socialist corporatist clusters before reaching its highest values of 49.7 per cent for the post-socialist liberal group. This patterning is sustained for higher white & blue collar group. For the social democratic group the vulnerability level is 8.1 per cent. It increases to 14 per cent for the corporatist and liberal regimes it then rises successively to 19, 29 and 39.0 for the remaining clusters. The distribution for the lower salariat conforms to this recurring pattern with a level of vulnerability for social democratic regime of less than 5 per cent that rises to between 7 to 9 per cent for the intermediate regimes before increasing sharply to 19 and 28 per cent respectively for the corporatist and liberal post-socialist regimes. For the higher salariat the major contrast is between the post-socialist clusters and the others. For the latter the level of

vulnerability averages 4.2 per cent. Within the former, it reaches 11.7 and 17.3 per cent respectively for the corporatist and liberal groups.

For the propertied classes, outside the southern-European and post-socialist regimes, vulnerability levels are significantly lower than corresponding poverty rates. For these clusters farmers' levels go from 6.6 per cent in the social democratic group to 12.4 per cent in the liberal cluster. For the petit bourgeoisie the levels goes from 8.9 per cent for the social democratic regime to 15.4 per cent for the corporatist cluster. For the southern-European regime the vulnerability level reaches 25.4 per cent for the petit bourgeosie and 39.8 per cent for farmers. For the post-socialist regime the figures for the petit bourgeoisie are respectively 26.8 and 29.7 per cent for the post-socialist liberal and corporatist regimes. For the farmers the corresponding figures are 42.2 and 50.8 per cent. From table four we see that the relative outcomes for the later two regimes are reversed as one moves from the propertied to the non-propertied classes.

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'TABLE 4 HERE'

The more substantial differences between social classes within regimes, combined with substantially greater variation across regimes within classes, produces an overall pattern of differentiation that is considerably different from that relating to poverty. Taking the difference between the higher salariat in the social democratic cluster and the semi-unskilled manual class in the post-socialist liberal regime as a crude indicator of the cumulative impact of hierarchical class effects and welfare regime we find that for poverty the respective levels are 3.6 and 35.9 per cent while for economic vulnerability the corresponding figures are 3.0 and 59.1.

Relative Risk of Poverty and Economic Vulnerability by Social Class and Welfare Regime

In Table 5 we set out the results from a set of logistic regressions relating to social class to poverty for each of the welfare regimes.[13] With the higher salariat as the benchmark, for every regime the odds on being poor rather than non-poor is most strongly influenced by membership of the farming class. For the social democratic regime it increases the odds by a factor of 7.5. This rises to 10.5 for the corporatist cluster and 11.5 for the two liberal regimes. It increases further to 13.2 for the post-

socialist corporatist cluster and finally to 14.4 for the southern-European. The next strongest average effect is observed for the petit-bourgeoisie. The weakest effect is observed for the post-socialist liberal and liberal cluster with odds ratios of 3.5 and 5.4 respectively. For the remaining clusters, the figure ranges between 7.3 and 8.8.

The differential between the higher and lower salariat is positive in every case, positive but modest. It ranges from a low of 1.1 in the socials democratic and southern- European Regimes to 1.7 in the liberal regime. The impact increases for the higher white & blue collar and runs from 1.7 for the social democratic cluster to 3.2 for the liberal regimes. A significant strengthening of the class effect is found for the lower white collar & skilled manual. Once again the lowest value of 3.5 is found for the social democratic regime. The highest value of 8.1 is associated with the corporatist regime. The remaining values range between 4.7 for the post-socialist liberal regime to 6.5 for the liberal. For the semi-unskilled class a further increase in the odds ratio is observed in each case. Once again the lowest and the highest odds ratios are observed in the social democratic and corporatist regimes with respective values of 3.8 and 9.6. The remaining values run from 6.5 in the post-socialist corporatist cluster to 8.2 for the southern-European regime.

In general, we observe strong class effects relating to property with weaker but systematic class hierarchy effects. However, the impact of social class across welfare regimes is generally modest.

'TABLE 5 HERE'

In Table 6 we report the results from the corresponding set of logistic regressions relating to economic vulnerability. [14] In contrast to the situation for poverty, by far the strongest differential is associated with the semi-skilled manual class. Two of the three lowest odds ratios are observed for the post-socialist regimes with the respective values for the liberal and corporatist variants being 6.9 and 8.3 These values are lower than in a number of other regimes despite the high absolute levels of economic vulnerability in such classes. They occur because the disparities in vulnerability levels

within the higher salariat between the post-socialist regimes and the social democratic cluster are sharper than those occurring within the semi-unskilled class. The next lowest value of 7.0 is observed for the social democratic regime. It arises for a quite different reason relating to the distinctively low level of vulnerability among those in the semi-unskilled manual class in this regime. The odds ratio rises gradually as one moves from the liberal to the corporatist and finally to the southern-European regimes from 9.6 to 11.0 and 12.7.

A similar pattern, although involving slightly weaker effects, is observed for the lower white collar and skilled manual class. For the post socialist cluster the weakest effect of 4.7 is again observed for the liberal variant while that for the corporatist form reaches 6.4. A similarly relatively low value of 5.3 is associated with the social democratic regime. We again observe a gradual increase from 7.9 to 8.3 to 11.5 as we move from the liberal to the corporatist and the southern-European regime. For the higher white & blue collar class an odds ratio of varies between 2.9 and 3.1 for the post-socialist clusters and the social democratic regime. This rises to 3.9 and 3.3 respectively for the corporatist and liberal regimes and to 4.5 for the southern-European cluster. Differentiation relating to the impact of membership of the lower and higher salariat across regimes is relatively slight.

The impact of being member of either the petit bourgeoisie or the farming class is substantially weaker in the case of economic vulnerability but variation across regimes is considerably greater. For the petit bourgeoisie we see that the weakest effects are observed for the liberal regimes and the highest for the corporatist and southern European clusters. For farming the post-socialist and Southern European regime have distinctively high odds ratios of 7.8 and 12.3 while in no other case does the value rise above 3.6. The scale of the observed effects for the propertied classes is not only generally substantially weaker than for poverty.

‘TABLE 6 HERE’

Conclusions

In this paper we have addressed a set of interrelated issues. These comprise the relative merits of unidimensional versus multidimensional approaches to poverty and social exclusion, increasing concerns about reliance on a nationally based income poverty measures in the context of EU-enlargement and the continuing relevance of class based explanations of variation in life chances.

While entirely persuaded by the theoretical arguments relating to the virtues of a multidimensional approach, we have stressed the need for methodological progress that allows us to fruitfully explore key issues relating to poverty and social exclusion. We have sought to do so by applying latent class analysis to distinguish groups of individual that are distinguished in terms of restricted form of social exclusion that we have labelled social exclusion. This approach is informed by a concern with both multidimensional and dynamic aspects of the social exclusion process.

Contrary to the situation with national income poverty measures, levels of economic vulnerability vary systematically across welfare regimes in a manner consistent with our knowledge of both living standards in those societies and the manner in which such welfare regimes operate. Levels increase as we move from the social democratic to the corporatist to the liberal to the corporatist to the southern European and finally corporatist and liberal post-socialist regimes. Within each regime the economic vulnerability approach distinguishes a group of individuals that exhibit a multidimensional profile in terms of social exclusion that sharply differentiates them from the reminder of the population.

The latent class approach to economic vulnerability enables us to provide a coherent account of patterns of social exclusion within and across welfare regimes. Despite the scale of variation across welfare regimes, the numbers above the vulnerability threshold in the post-socialist regimes are considerably lower than the corresponding figures employing a European level relative income approach. It shares with an EU

level ‘at risk of poverty’ approach the capacity to reveal the expected differentiation between welfare regimes in terms of levels of prosperity without resulting in a situation where the contrast between the post-socialist regimes and all others comes to entirely dominate the results.

In addition to the advantages that it enjoys in identifying a segment of the population that is characterised by a distinctive social exclusion profile, the latent class approach also reveals striking patterns of differentiation by social class within welfare regimes. [15] Unlike the national relative income approach the latent class approach produces a pattern of class differentiation that is not dominated by the contrast between the property owning. At the same time, it uncovers important variations in such effects across regimes. In contrast to a European-wide relative income approach it also simultaneously captures the fact that *absolute* levels of vulnerability are distinctively high among the lower social classes in the less affluent regimes while class *relativities* are sharper in a number of the more affluent regimes.[16]

No single indicator is likely to prove adequate in capturing the diversity of experience of poverty and social exclusion in an enlarged European Union. In light of this we have considerable sympathy with those who argue for the need to supplement nationally based indicators with EU-wide indicators. However, in this paper we have sought to demonstrate that a more effective strategy may be to take more seriously the need to invest greater effort to translating the conceptually compelling case for a multidimensional approach to social exclusion into an appropriate set of operational alternatives. It also shows that where this is done patterns of differentiation by social class appear a great deal more striking than when the focus is restricted solely to income measures.

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Table 1: Deprivation Items for Index of Consumption Deprivation

Incapacity to afford paying for one week annual holiday away from home
Incapacity to face unexpected financial expenses
Incapacity to afford a meal with meat, chicken, fish (or vegetarian) every second day
Respondent for household can't afford to have a car
Inability to keep home adequately warm
Incapacity to afford to have a PC
Arrears relating to mortgage payments, rent, utility bills, hire purchase

Table 2: Economic Vulnerability by Welfare Regime (V=vulnerable, NV=non-vulnerable)												
	Social Democratic		Corporatist		Liberal		Southern European		Post-Socialist Conservative		Post-Socialist Liberal	
Class Type	NV	V	NV	V	NV	V	NV	V	NV	V	NV	V
Class Size	0.874	0.126	0.850	0.150	0.797	0.203	0.718	0.282	0.654	0.346	0.599	0.401
Mean National 'At Risk of Poverty' Rate	0.103		0.130		0.194		0.187		0.139		0.194	
G^2	22.961		50.112		44.576		165.419		185.898		27.407	
Df.	4		4		4		4		4		4	
Reduction in independence model G^2	99.89		99.80		99.55		99.57		99.60		99.79	
Delta	0.0034		0.0064		0.0104		0.0166		0.0176		0.0135	
< 70%	0.129	0.551	0.138	0.608	0.183	0.636	0.158	0.540	0.115	0.445	0.117	0.495
< 60%	0.071	0.341	0.075	0.430	0.119	0.483	0.102	0.414	0.070	0.324	0.074	0.373
< 50%	0.037	0.168	0.035	0.243	0.065	0.312	0.059	0.278	0.039	0.220	0.041	0.256
Deprivation	0.006	0.644	0.014	0.738	0.014	0.609	0.024	0.634	0.144	0.900	0.167	0.946
Economic Stress	0.035	0.578	0.037	0.634	0.058	0.642	0.157	0.846	0.134	0.878	0.058	0.666
N	103,930		90,298		40,643		132,111		119,471		33,665	

Figure 1: Vulnerability to Economic Exclusion

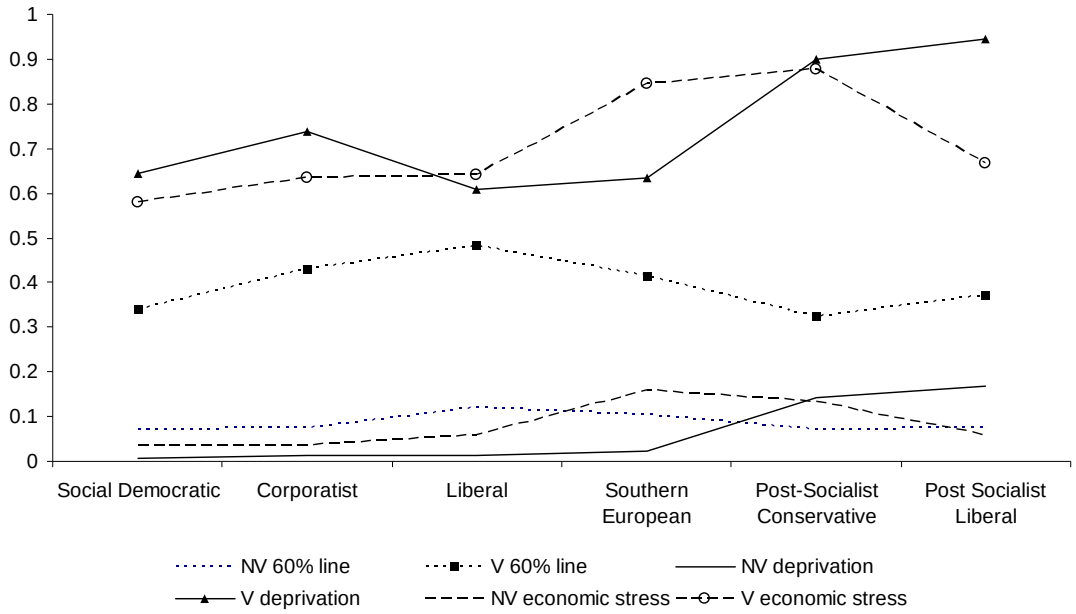

Table 3: Mean Level of national Poverty by ESeC Class Schema by Welfare Regime						
	Welfare Regimes					
	Social Democratic	Corporatist	Liberal	Southern European	Post-Socialist Corporatist	Post-Socialist Liberal
	%	%	%	%	%	%
Higher Salariat (1)	3.6	3.4	4.9	4.1	4.0	11.7
Lower Salariat (2)	4.0	4.3	8.4	4.3	5.2	11.1
Higher Grade White Collar & Lower Supervisory (3 & 6)	5.6	8.7	14.4	9.4	7.9	17.5
Petit Bourgeoise (4)	19.6	22.0	23.5	26.4	24.4	36.7
Farmers (5)	21.4	25.4	29.8	39.3	33.5	34.9
Lower services, sales, clerical & technical (7,8)	10.9	24.1	25.8	21.1	17.0	28.7
Semi-Unskilled Manual (9)	11.5	25.7	27.8	26.3	22.9	35.9

Table 4: Level of Economic Vulnerability by ESeC Class Schema by Welfare Regime						
	Welfare Regimes					
	Social Democratic	Corporatist	Liberal	Southern European	Post-Socialist Corporatist	Post-Socialist Liberal
	%	%	%	%	%	%
Higher Salariat (1)	3.0	3.9	4.7	5.1	11.7	17.3
Lower Salariat (2)	4.5	7.0	8.2	9.1	18.9	29.0
Higher White & Blue Collar (3 & 6)	8.1	13.5	13.9	19.3	28.8	39.0
Petit Bourgeoise (4)	8.9	15.4	11.6	25.4	29.7	26.8
Farmers (5)	6.6	12.4	9.4	39.8	50.8	42.2
Lower White Collar & Skilled Manual (7,8)	14.1	24.2	28.9	38.1	45.9	49.7
Semi-Unskilled Manual (9)	17.9	30.6	32.0	40.6	52.3	59.1

Table 5: Logistic Regression of Poverty by ESeC Class Schema by Welfare Regime												
Welfare Regimes												
	Social Democratic		Corporatist		Liberal		Southern European		Post-Socialist Corporatist		Post-Socialist Liberal	
	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.
Higher Salariat (1)	Ref.		Ref.		Ref.		Ref.		Ref.		Ref.	
Lower Salariat (2)	1.147	n.s	1.323	***	1.703	***	1.087	n.s	1.265	***	1.281	n.s
Higher White & Blue Collar (3 & 6)	1.671	***	2.731	***	3.209	***	2.502	***	2.158	***	2.312	***
Petit Bourgeoise (4)	7.772	***	8.068	***	5.385	***	8.787	***	7.294	***	3.530	***
Farmers (5)	7.511	***	10.457	***	11.478	***	14.365	***	13.221	***	11.559	***
Lower White Collar & Skilled Manual (7,8)	3.452	***	8.067	***	6.500	***	6.205	***	5.408	***	4.743	***
Semi-Unskilled Manual (9)	3.788	***	9.639	***	7.202	***	8.222	***	6.477	***	7.466	***
Nagelkerke R	0.078		0.130		0.112		0.131		0.119		0.121	
Reduction in Log likelihood ratio	2,955.1		5,939		2,490.0		103,62.5		7,706.5		1.823.8	
Degrees of freedom	6		6		6		6		6		6	
N	91,420		85,127		36.195		125.498		109,426		22,058	

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Logistic Regression of Level of Economic Vulnerability by ESeC Class Schema by Welfare Regime												
Welfare Regimes												
	Social Democratic		Corporatist		Liberal		Southern European		Post-Socialist Corporatist		Post-Socialist Liberal	
	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.	Odds ratios	Sig.
Higher Salariat (1)	Ref.		Ref.		Ref.		Ref.		Ref.		Ref.	
Lower Salariat (2)	1.536	***	1.864	***	1.816	***	1.865	***	1.764	***	1.952	***
Higher White & Blue Collar (3 & 6)	2.868	***	3.900	***	3.302	***	4.453	***	3.057	***	3.048	***
Petit Bourgeoise (4)	3.187	***	4.527	***	2.678	***	6.365	***	3.192	***	1.741	***
Farmers (5)	2.268	***	3.546	***	2.146	**	12.346	***	7.794	***	3.492	***
Lower White Collar & Skilled Manual (7,8)	5.330	***	7.988	***	8.304	***	11.478	***	6.411	***	4.716	***
Semi-Unskilled Manual (9)	7.045	***	11.005	***	9.632	***	12.733	***	8.287	***	6.901	***
Nagelkerke R	0.073		0.109		0.135		0.137		0.137		0.125	
Reduction in Log likelihood ratio	2,751.0		5,226.6		2,881.8		12,166.4		11,330.6		2.213.1	
Degrees of freedom	6		6		6		6		6		6	
N	89,149		84,511		35,835		125,105		108.655		22.026	

*** p<0.01, ** p<0.05, * p<0.

[1] See Whelan and Maître (2008a).
[2] Earlier implementations of this approach include Whelan and Maître (2005a & b). The current approach adds these early efforts in terms of the choice of indicators and in taking advantage of the opportunities offered by EU-SILC to develop a European wide analysis based on adequate national samples.
[3] For convenience we will refer to national 'at risk of poverty' measures simply as indicators of 'poverty'
[4] See Whelan *et al* (2008) for further details.
[5] This threshold comes very close to that which would identify the same number of people as located with an EU-wide 'at risk of poverty' measure set at 60% of median income. In that sense it can be setting an EU deprivation threshold. This approach differs from some earlier attempts to measure economic vulnerability that have employed an entirely relative measure of deprivation
[6] For a more detailed discussion of the procedure see Mc Cutcheon and Mills (1998)
[7] See Rose and Harrison (2007 & forthcoming).
[8] See Goldthorpe (2007b) and McGovern (2007) for further discussion.
[9] Employing this procedure, the number of individuals classified as having 'never worked' is extremely modest and we have excluded them from our analysis.
[10] For such accounts see Guio (2005 a & b).
[11] The proper allocation of the Netherlands is a matter for debate. We follow Muffels and Luijkx (2006) in locating it in the social democratic cluster.
[12] Although the latter is less true of Ireland.
[13] Standard errors in Tables 5 and 6 have been calculated to take into account the clustering of individuals within households
[14] The estimates in Table 6 are based on employing the LEM modal class procedure for the identification of the dependent variable. Each observation is assigned to that latent class for which, given the manifest scores, the estimated classification probability is largest. Allocation to clusters is on the basis of modal assignment.
[15] It is clear, however, that efforts at targeting within post-socialist regimes would require supplementary measures.
[16] As Whelan and Maître (2008b) demonstrate the economic vulnerability approach has significant advantages over income and deprivation measures in relation to problems of measurement error that arise in analysis of dynamics. As a consequence it proves considerably more effective in revealing the impact of social class on patterns of persistent disadvantage over time.

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	226	'New' and 'Old' Social Risks: Life Cycle and Social Class Perspectives on Social Exclusion in Ireland *Christopher T. Whelan* and *Bertrand Maître*
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	220	Exports and Productivity – Comparable Evidence for 14 Countries

The International Study Group on Exports and Productivity

219 Energy-Using Appliances and Energy-Saving Features: Determinants of Ownership in Ireland
Joe O'Doherty, *Seán Lyons* and *Richard S.J. Tol*

218 The Public/Private Mix in Irish Acute Public Hospitals: Trends and Implications
Jacqueline O'Reilly and *Miriam M. Wiley*

217 Regret About the Timing of First Sexual Intercourse: The Role of Age and Context
Richard Layte, Hannah McGee

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Joe O'Doherty, *Seán Lyons* and *Richard S.J. Tol*

215 Unemployment – Stage or Stigma?
Being Unemployed During an Economic Boom
Emer Smyth

214 The Value of Lost Load
Richard S.J. Tol

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Merike Darmody, Selina McCoy, Emer Smyth

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Merike Darmody, Emer Smyth and *Selina McCoy*

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Frances P. Ruane, Xiaoheng Zhang

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Seán Lyons, Karen Mayor and *Richard S.J. Tol*

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Tim Callan, Tim Smeeding and Panos Tsakloglou