

Economic Stress and the Great Recession in Ireland: The Erosion of Social Class Advantage

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Abstract: In this paper we address the issue of whether the Great Recession in Ireland led to increased social class polarisation in the experience of economic stress. Rather than observing polarisation, we find evidence for ‘middle class squeeze’ involving the self-employed and a significant erosion of the advantages associated with the higher social classes. These outcomes derived primarily from a weakening of the degree of association between social class and income class and a reduction of the buffering effect of social class within the lower income classes. By 2012 social class had no impact on economic stress net of income class.

I INTRODUCTION

In the countries most severely affected by the Great Recession, considerable debate has continued as to where the heaviest burden has fallen. In this paper our focus is on Ireland and the changing distribution of economic stress by social class.

Ireland provides an interesting case because of the severity of the recession. It is also of particular interest because of an ongoing and heated debate spanning

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academic, policy and political spheres regarding the distributional consequences of the economic crisis. Despite modest changes in conventional measures of income inequality and poverty, and evidence that the welfare system and a highly progressive tax system had substantial success in buffering the effects of the economic recession (Callan *et al.*, 2014; 2017), claims relating to increased polarisation have been made by a variety of analysts and commentators who have argued that ‘austerity’ policies have involved the imposition of additional sacrifices on the most vulnerable (Lynch *et al.*, 2017; O’Connor and Staunton, 2016; Social Justice Ireland, 2016).

At the same time as polarisation arguments have figured prominently in Irish debates, notions of ‘middle class squeeze’ have also come to have considerable resonance in popular and political debate (Whelan and Maître, 2014; Whelan *et al.*, 2016). This development must be viewed in the context of increased taxation and a broadening of the tax base with the introduction of new income and household charges, increasing household debt levels, the emergence of negative equity in housing, public sector redundancies and pay cuts, and particular difficulties experienced by the self-employed (Whelan and Nolan, 2017).

Arguments relating to the need to distribute the burden of the recession more fairly figured prominently in the 2015 Irish general election campaign across a broad political spectrum. However, detailed empirical analysis supporting any of the competing interpretations has been in relatively short supply. Arguments relating to polarisation in Ireland have tended to assume that the impact of the Great Recession in Ireland can be understood by drawing on the evidence from authors such as Piketty (2014) relating to long-term trends in income inequality, and Wilkinson and Pickett (2009) regarding the negative social impacts of such inequality. However, comparative analysis relating to the impact of the Great Recession by Jenkins *et al.* (2013) and Nolan *et al.* (2014) showed that its initial distributional effects varied widely across countries, reflecting not only differences in the nature of the macroeconomic downturn but also the effectiveness of cash transfers and direct taxes in buffering its impact on households. In a broader context, Atkinson and Morelli’s (2011) comprehensive analysis of the historical relationship between economic crisis and income inequality concludes that there is no hard and fast pattern; crises differ greatly from each other in their causes and outcomes in terms of inequality. In what follows we will seek to assess the extent to which the available evidence relating to peak to trough changes in Ireland supports competing interpretations.

Earlier analyses of changing patterns of economic stress in Ireland employing the European Union Statistics of Income and Living Conditions survey (EU-SILC) have focused predominantly on the changing impact of income class (Whelan *et al.*, 2017). The analysis by Watson *et al.* (2016a) of changing social class effects was based on the *Growing Up in Ireland* survey (GUI) and was restricted to households with children born in 1998. The analysis conducted by Whelan *et al.*

(2016) employing the Irish Central Statistics Office (CSO) Survey of Income and Living Conditions (SILC) examined the impact of both income class and social class. However, our analysis differs in important respects from this study. Since its particular focus was on the manner in which such factors interacted with life course stage, its analysis covered the population as a whole. The central argument developed here is that understanding the impact of recession on the distribution of economic stress across social classes requires that we focus on the changing patterns of association and interaction between income class and social class. In this context we have restricted our analysis to households where the household reference person (HRP) is aged less than 65 and they or their partner has a history of being active in the labour market. We do so because explaining the changing circumstances of the elderly and those who have never worked requires consideration of a range of factors distinct from those we seek to capture in the manner in which social class is conceptualised in this paper. Finally, in order to be able to situate our findings in relation to the Irish case in a comparative context, our analysis is based on the common Eurostat EU–SILC dataset rather than the Irish CSO database.

While our focus in this paper is on the Irish case, in order to highlight distinctive aspects of the Irish experience we will locate our discussion in the context of earlier work by Whelan *et al.* (2017) on 16 economically advanced European countries, which showed that Ireland, Iceland and Greece (three countries severely affected by the recession) exhibited distinctive change profiles relating to household income, material deprivation and economic stress.

Whelan *et al.* (2017), focusing on the changing impact of income classes, concluded that in Ireland a restricted form of class polarisation did not exclude an element of middle class squeeze, while the latter was most evident in Iceland and the former in Greece. Here, we seek to show that taking into account the changing role of social class in addition to income group offers distinctive insights into the Irish case. Our analysis will focus on three key elements of the changing role of social class; the changing distribution of social class, changes in the association between social class and income class, and changing patterns of interaction between the former and the latter.

The theoretical conception of social class employed in this paper is that developed by Goldthorpe (2006) and is based on two main principles of differentiation. The first is that of employment status. The second relates to the regulation of employment as a viable response to weaker or stronger presence of monitoring and asset specificity problems in different work situations. It seeks to capture relational as well as distributive aspects of inequality. By virtue of the combination of employment status and relationships that characterises their labour market involvement, individuals are understood to possess certain economic and social resources and experience varying degrees of security, prospects for advancement and constraints. Atkinson and Brandolini (2013) have shown that while social stratification by the class categories of the Goldthorpe schema and

clustering by income are clearly correlated the match is very far from perfect. Goldthorpe and Jackson (2007: 528) stress that while there is no inherent reason why income and social class positions should produce similar results, where economists' notion of 'permanent income' can be measured only in a 'one-shot' fashion, social class may provide important information relating to longer-term command over resources.

The impact of the economic crisis, particularly on households made vulnerable by increased debt levels and affected by declining asset values (notably property) that accompanied it, is not likely to be fully captured by focusing purely on incomes. In the analysis reported here we focus on economic stress as our key outcome which we expect to be influenced not only by current income but also by wider command over resources, financial obligations, coping capacities and reference groups.

II DATA AND MEASURES

Our analysis draws on data from the waves of the EU-SILC survey. Given our interest in the impact of the Great Recession in Ireland on levels of economic stress, it is important to be clear at the outset why we have chosen not to make use of the longitudinal character of this survey. This element of the survey is designed so that 75 per cent of households in a given year are sought for interview in the following year. In the absence of attrition 25 per cent of the households interviewed in year t would be available in year $t+3$. None would be included in the sample in year $t+4$. However, Watson *et al.* (2017) considering all possible four-year segments for the data ranging from 2004-2015 while taking into account the level of total attrition, which includes 'attrition by design' and 'field attrition', found that the average retention rate in year $t+3$ was actually 8 per cent. Consequently they concur with Savage *et al.* (forthcoming) that the panel analysis is necessarily limited to calculations involving Waves t and $t+1$ where retention averages just over 50 per cent.

Clearly this is of no assistance in evaluating the impact of the recession. The relevant data available to us thus comprise a set of repeated cross sections. It is not possible therefore to deal with the dynamics of household or individual change. We can however, address the changing impact of the distribution of key independent variables such as social class or changes in the relationship between such factors and economic stress or indeed the manner in which the latter effects vary across the categories of other variables such as income class. The available data can be employed to describe outcomes relating to different points or phases of the economic boom, recession and recovery (See Watson *et al.*, 2016b). However, from the perspective of the issues addressed in this paper relating to the role played by changing relationships between social class, economic class and economic stress in mediating the impact of the recession, the key choice to be made relates to which

of the available years of data should be employed in evaluating the impact of the recession. Since panel analysis is not possible, the options available in relation to this objective relate to the choice of 'boom' or 'bust' periods or 'peak' or 'trough' years.²

Earlier we noted that Whelan *et al.* (2016) compared stress outcomes for 'boom' (2004-2008) and 'bust' (2009-2012) periods. This choice takes into account the fact that in Ireland a significant boom preceded the crash with medium-term losses being significantly less than their short-term counterparts. However, to the extent that individuals discount previous gains when experiencing subsequent losses, an approach which compared outcomes at peak and trough points in time and thus captures the cumulative impact of the recession over time will be more effective in capturing the psychological costs of the recession in terms of economic stress.

Thus the critical decision to be made relates to the choice of the peak and trough years. We make this decision primarily on the basis of key macroeconomic indicators capturing the scale and trajectory of the recession rather than survey data. However, we take steps to confirm that the trend in relation to economic stress between peak and trough years is in line with the macroeconomic indicators for the same period.

We have made clear that it is an open question as to how social class and income class effects will behave during the recovery.

Watson *et al.* (2016b) employing a range of such indicators distinguish between the following phases in relation to the periods covered by EU-SILC data.

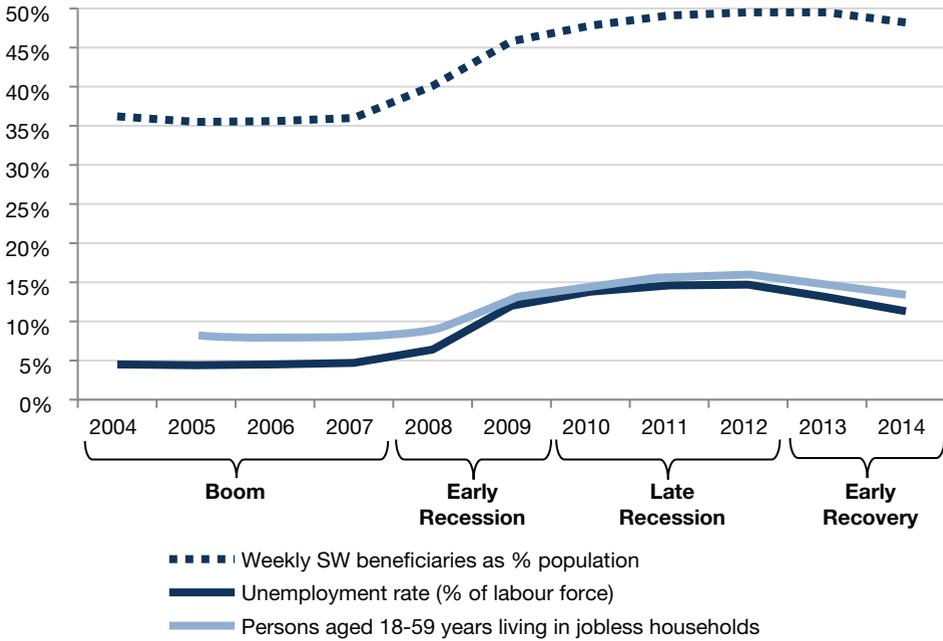
- Boom 2004-2007
- Early recession 2008-2009
- Late recession 2010-2012
- Early recovery 2013-2014

The trends in relation to key macro indicators are set out in Figure 1.

The standardised, seasonally-adjusted unemployment rate had been at a historically low rate between 2004 and 2007 (between 4.5 per cent and 4.7 per cent), before beginning a steep rise in *late* 2008. By 2009 it had risen to 12.1 per cent before reaching a high of 14.7 per cent by 2012 and falling to 11.3 per cent by 2014. The EU-SILC work intensity measure captures the proportion of potential working time in the previous year that the working age household members spent in work. Working age is defined as being between the ages of 18 and 59, excluding students aged less than 25. The relevant percentage rose steadily from 9 per cent in 2008 to

² It is important to note that the analysis reported here is conducted at the individual level and allows us to establish the reliability of the outcome variable on which we focus. This contrasts with analysis which has sought to reach conclusions in relation to the economic impact of the recession employing aggregate national indicators which are combined in what we consider to be an essentially arbitrary manner (Schraad-Tischler, 2016).

Figure 1: Economic Indicators, 2004 to 2014



Source: Social Inclusion Monitor 2015 Table 2.1 and Beneficiaries from Statistical Information on Social Welfare 2013 Table A8.

15.9 per cent in 2012 before beginning to decline. In response to falling employment levels in the recession, the percentage of the population who were beneficiaries of weekly social welfare payments increased sharply. This figure was about 36 per cent between 2004 and 2007 but had risen to 50 per cent by 2012.

These findings provide support for our choice of 2008 as our peak year and 2012 as the trough year. Consequently in what follows the bulk of our analysis focuses on EU-SILC data for 2008 and 2012.³ However, we complement our analysis relating to macro-economic data by demonstrating that, consistent with such evidence, over the period 2008-2012 a steady increase was observed in the overall level of economic stress. We also make clear that we do not assume that the conclusions based on our current analysis can necessarily be generalised to the period of economic recovery.

The EU-SILC survey employs the Eurostat individual weights for each year. Consistent with our focus on the changing impact of social class on economic stress, we exclude individuals in households where the HRP has never worked, is 65 or

³ Our choice of 2008 rather than 2007 as the peak year was also influenced by the fact that incomes in the Irish component of EU-SILC refer to the previous 12 months rather than the calendar year.

older and where annual equivalent household income is zero or below.

2.1 Social Class

Golthorpe's theoretical approach is operationalised by means of the European Union Socio-Economic Classification (ESeC) (Rose and Harrison, 2007). Since EU-SILC coding of occupations is restricted to one-digit International Standard of Classification of Occupation (ISCO), our analysis operates with an aggregated five-class schema. The main loss of information deriving from the restricted ISCO coding relates to our ability to distinguish between ESeC Classes 1 & 2 (higher & lower professional & managerial) and between ESeC Classes 3 & 6 (intermediate non-manual and higher grade technicians) and ESeC Classes 4 & 5 (farmers & other self-employed). Our focus is on the social class of the HRP which was allocated to all individuals located in the relevant households.⁴ However, where both partners are in employment, the 'dominance' approach is employed with higher class positions taking precedence (Erikson and Goldthorpe, 1992). Where current occupational information is not available, information on last occupation is employed. Thus our analysis incorporates the currently unemployed or inactive, but excludes the households where the HRP and partner were never employed.

The social classes distinguished are set out below:

- ESeC 1 & 2 Higher & Lower Professional & Managerial
- ESeC 3 & 6 Intermediate/Technician
- ESeC 4 & 5 Self-employed
- ESeC 7 & 8 Lower Services/Technical
- ESeC 9 Routine

In terms of the hierarchical dimension of social class, Classes 3 & 6 are considered to be at an equal point to Classes 4 and 5, while otherwise the classes can be thought of as forming a hierarchy.

2.2 Income Class

In distinguishing income groups or what we will refer to from now on as 'income classes', we start with a relative income poverty threshold set at the conventional 60 per cent of median equivalised disposable household income. We then follow Atkinson and Brandolini (2013) in setting the lower endpoint of the 'middle income class' at an income significantly above that poverty level, with a precarious class occupying the interval between 60-75 per cent. As Atkinson and Brandolini (2013) suggest, we then distinguish a 'lower middle class', comprised of people whose income is in the range of 75-125 per cent of the median and who are neither poor

⁴ This approach allows for the fact that economic stress may be influenced by factors other than social class. These include income class, the occupations of other household members and household work intensity.

nor precarious. We analogously postulate that there is an ‘upper middle class’ between the ‘lower middle class’ and the rich or affluent by taking 125 per cent of the median as lower cut-off, a quarter less than a ‘richness line’ of 167 per cent of the median identifying a top income class. Thus we are partitioning the population into five groups or ‘income classes’, facilitating our examination of the relationships between both income and social classes and economic stress.

We employ the conventional measure of household disposable income adjusted for household size, employing the ‘OECD-modified equivalence scale’ which gives a value of 1 for the first adult, 0.5 for each additional adult and 0.3 for each child. We also adjust for inflation over the period. The income class variable we employ distinguishes five income categories as set out below.

- Less than 60 per cent of median equivalised income—income poor
- 60–74 per cent – precarious income class
- 75–124 per cent– lower middle income class
- 125–166 per cent – upper middle income class
- 167 per cent + – affluent class

We have chosen to label those between 60 and 75 per cent of equivalised income as the ‘precarious income class’ because of the evidence that this group are highly likely to experience frequent transitions into and out of poverty (Jenkins, 2011).

It should be clear that what our income class measure captures is relative income position rather than absolute income which we consider the appropriate measure of the changing impact of position in the income class and social class hierarchies during a period of sharply declining incomes and living standards. Thus our focus is on changing distribution of stress levels across income classes and social classes rather than increases in stress levels as such.

2.3 Economic Stress

Our key dependent variable is a measure of economic stress, which encompasses over-indebtedness while going beyond it. It is widely recognised that the concept of over-indebtedness is multidimensional. The models employed for measuring consumer over-indebtedness include objective and subjective versions (Ferreira, 2000; Finlay, 2006; Betti *et al.*, 2007). The former is based on the notion of unsustainable spending behaviour (consumption/income ratio) or unsustainable level of debt (debt/asset ratio) or inability to service debt (debt payment/income ratio). However, there is no established methodology for determining the critical level of these ratios. The subjective approach classifies as over-indebted all those who judge themselves to be unable to repay their debts without reducing their remaining expenditure below their normal minimal levels. The implication is that the debt has become unsustainable. One difficulty with this measure is that tolerance for debt may vary across countries, time, socio-economic groups and individuals

and therefore may be an unstable indicator if used in isolation.

A consortium of researchers appointed by the European Commission to develop a common operational definition of over-indebtedness proposed a mix of objective and subjective indicators (Davydoff *et al.*, 2008). They included payment commitments that push the household below the poverty threshold, structural arrears on at least one financial commitment, a burden of monthly commitment payments considered to be heavy for the household, limited payment capacity, and illiquidity.

Drawing on the items available in EU-SILC, our proposed indicator of economic stress includes items relating to structural arrears, burden of housing costs and illiquidity in terms of inability to meet with unexpected expenses. It also incorporates items relating to debt experiences in the past 12 months and experiencing difficulty in making ends meet.

The full set of items we employ is as follows:

1. Households were defined as having a structural problem with arrears where they were unable to avoid arrears relating to mortgage or rent, or utility bills or hire purchase instalments (in the past 12 months). Those households experiencing such problems were given values of 1 while the remainder were scored as 0.
2. Focusing on illiquidity, individuals in households indicating that they were unable to cope with unexpected expenses were scored 1 while all others were scored 0.
3. Respondents indicating that housing costs were a 'heavy burden' or 'somewhat of a burden' were scored as 1 while the remaining category was assigned a value of 0.
4. A further indicator of debt was captured by the question 'Has the household had to go into debt within the last 12 months to meet ordinary living expenses such as mortgage repayments, rent, food and Christmas or back-to-school expenses?' A positive answer was scored as 1 while a negative one was assigned a value of 0.
5. Respondents indicating that the household had 'great difficulty' or 'difficulty' in making ends meet have been given a value of 1 while the remaining categories have been scored as zero.⁵

For the Irish sample, on which the subsequent analysis is based, highly satisfactory levels of Cronbach's alpha 0.75 in 2008 and 0.77 in 2012 were achieved for the additive scale.

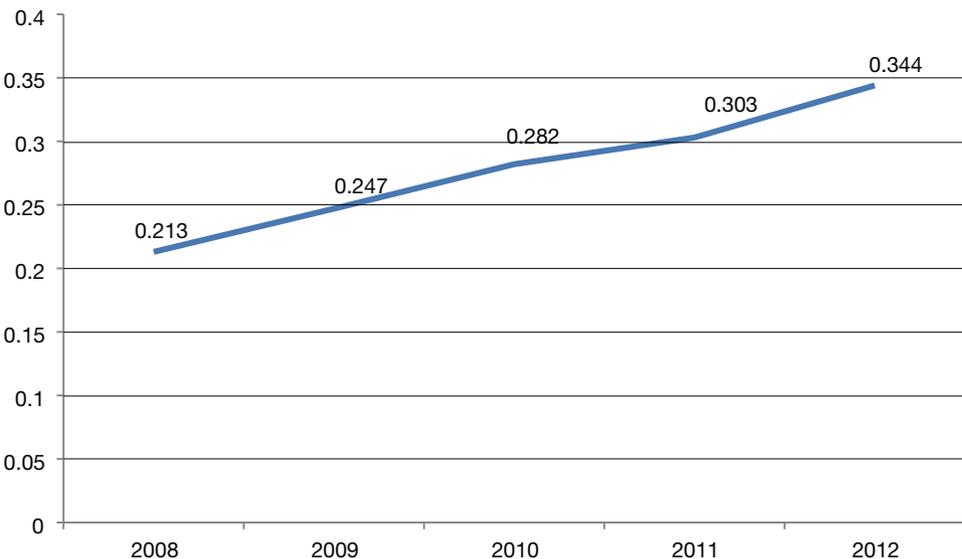
⁵ Note that this measure differs slightly from that employed in Whelan *et al.* (2016) because it is derived from the common EU-SILC database rather than the CSO Irish dataset.

In the analysis that follows, each item is weighted by the inverse of its prevalence in the population at the time the survey was undertaken. Thus economic stresses which are least frequently experienced are given the greatest weight. The weighted items are summed to produce a continuous variable which has then been ‘normalised’ to produce scores ranging from 0 to 1. A score of zero means that the individual is not stressed on any of the items while a score of 1 means that the individual is stressed on all items.

IV CHANGING LEVELS OF ECONOMIC STRESS IN IRELAND

In Figure 2 we set out the trend in overall levels of economic stress between our peak and trough years. The level rose steadily between 2008 and 2012 by between 0.021 and 0.041 per annum. The trend is entirely in line with those relating to macro indicators discussed earlier. An increase in the overall stress level between 2008 and 2012 was observed from 0.213 to 0.344. This absolute increase of 0.131 was similar in scale to those seen in Iceland and Greece, the other countries most severely affected by the economic crisis (see Whelan *et al.*, 2017). An analysis of variance shows that between-year variation for 2008 and 2012 accounts for 4.5 per cent of the variance which is highly significant.

Figure 2: Mean Level of Economic Stress by Year of Survey for Ireland



Source: EU-SILC.

V THE CHANGING DISTRIBUTION OF INCOME CLASS AND SOCIAL CLASS

As we noted earlier, the data available to us do not allow us to undertake panel analysis. However they do enable us to assess the impact of the changing distributions of income class and social class, and the changing relationships between such variables and economic stress. Before considering the changing impact of income class and social class on economic stress, we first examine how the distribution of both variables changed between peak and trough. From Table 1 we can see that the distribution of income class remained generally stable over time. A slight increase was observed in the numbers in the poor category from 13.1 per cent to 14.7 per cent, and a slight reduction in combined numbers in the upper middle and affluent class categories from 37.4 per cent to 35.3 per cent was observed. The index of dissimilarity which captures the number of cases in either of the years which would need to shift categories in order to reproduce the distribution of individual in the other year was 2.2 per cent.

Table 1: Income Class Distribution by Year of Survey

	<i>Ireland</i>	
	<i>2008</i> %	<i>2012</i> %
Poor	13.1	14.7
Precarious class	11.6	11.3
Lower middle	38.0	38.6
Upper middle	19.3	18.5
Affluent	18.1	16.8
Total	100	100
N	10,153	8,788
Index of dissimilarity	2.2	

Source: EU-SILC.

In Table 2 we focus on the changing distribution of social classes. In 2008 in Ireland just over one-third of individuals were found in the professional and managerial classes and one-sixth in the intermediate/technician classes. Just over one half were located in one of the above classes. Just over one in ten were found in the self-employed class. Just less than four out of ten of the Irish respondents were found in the lower services/technical and routine classes. Changes in the distribution of social class in Ireland from peak to trough primarily involved reductions in the numbers in the professional/managerial and self-employed classes. The figure for the former declined from 35 per cent to 32 per cent and for the latter from 10.9 per cent to 7.4 per cent. The latter is undoubtedly related to the decline in the

construction industry where many of the self-employed were located. Corresponding increases from 17 per cent to 19.3 per cent and from 15.1 per cent to 19.8 per cent were observed respectively for the intermediate/technician and routine classes. The index of dissimilarity was higher than in the case of income classes at 6 per cent.⁶

Table 2: ESeC Class Distribution by Year of Survey

	<i>Ireland</i>	
	<i>2008</i>	<i>2012</i>
	<i>%</i>	<i>%</i>
Professional & Managerial	35.0	32.0
Intermediate/Technician	17.0	19.3
Self-employed	10.9	7.4
Lower Services/Technical	22.0	21.5
Routine	15.1	19.8
Total	100	100
N	10,152	8,788
Index of dissimilarity		6.0

Source: EU-SILC.

In the case of both income class and social class we observe shifts in the distributions over time from more favoured to less favoured categories. However, the scale of the changes was modest and, given the magnitude of the increases in level of economic stress between peak and trough, it seems clear that, to the extent that income class and social class contribute to explaining changed stress levels in Ireland, our focus must be on the changing impact of such factors rather than the shifts in their distributions.

VI THE CHANGING IMPACT OF INCOME CLASS AND SOCIAL CLASS ON ECONOMIC STRESS

Overall the level of economic stress rose by 61 per cent from 0.213 in 2008 to 0.344 in 2012. In absolute terms the largest increases were observed for the three lowest income classes as shown in Table 3. Among these classes a curvilinear pattern was observed. The sharpest relative increase was for the lower middle class with a value of 0.161 while the least pronounced change was for the precarious class with a value of 0.128. The average level of increases for these three classes was 0.147

⁶ The corresponding figures for Iceland and Greece were 6.1 per cent and 2.8 per cent (authors' calculation from EU-SILC).

which was almost double that of 0.077 for the upper middle and affluent classes who exhibited almost identical increases. In absolute terms we observe a polarisation in stress levels but one that extends into the lower middle class rather than one involving a clear pattern of hierarchical differentiation. A modest increase in the proportion of variance accounted for by this set of income categories was observed over time as reflected in an increase in the value of η^2 , which captures linear and non-linear variation, from 0.151 to 0.180.

Given the pre-existing stress levels in 2008, the pattern of proportionate change provides a contrasting picture with the lowest relative increase of 35 per cent being associated with the precarious class followed by the poor with a figure of 42 per cent. This figure rises sharply for the middle classes with the respective figures for the lower and upper classes being 69 per cent and 61 per cent. Finally the level of relative change climbs sharply to 133 per cent for the affluent class. Thus the lower middle class occupies a less favourable position in relation to both absolute and relative change in comparison with the poor and precarious classes. In contrast, the middle class and affluent class occupy highly favourable positions in relation to absolute change but substantially less favourable positions in relation to relative change. It is an open question as to respective roles that absolute and relative changes in economic stress play in relation to consequent outcomes. However, given our interest in the extent of polarisation, our focus in what follows is on absolute change.⁷

Table 3: Mean Economic Stress by Income Class by Year

	<i>Ireland</i>			
	<i>2008</i>	<i>2012</i>	<i>Increase</i>	<i>% Increase</i>
Poor	0.364	0.517	0.153	42
Precarious class	0.364	0.492	0.128	35
Lower middle	0.233	0.394	0.161	69
Upper middle	0.126	0.203	0.077	61
Affluent	0.057	0.133	0.076	133
Total	0.213	0.344	0.132	61
η^2	0.151	0.180		
F	448.4	482.1		
N	10,152	8,775		

Source: EU-SILC.

In Table 4 we look at variation in stress levels by social class in Ireland over time. In 2008 social class differences in Ireland accounted for 12.1 per cent of the

⁷ Mazeikate (2018) focusing on relative change finds that increases were greater for the period 2008-2013 for the higher income and better educated groups. Economic stress was the major factor accounting for relative changes in self-assessed health and, consistent with the foregoing, a decrease in socio-economic inequality was observed in relation to relative health outcomes.

variance in stress levels as measured by η^2 which takes into account linear and non-linear variation. This was somewhat higher than in Greece where the figure was 9.0 per cent and substantially higher than in Iceland where social class played a very modest role with the proportion of variance explained reaching only 1.4 per cent. In contrast to the outcome for income class, over time the explanatory power of social class in Ireland, in terms of variance, declined substantially to 4.9 per cent. In Greece little change was observed with the 2012 figure declining very slightly to 8.7 per cent while for Iceland it increased slightly.⁸ Among the countries most severely affected by the Great Recession, Ireland thus constitutes a distinctive case in that, while social class played an important role in accounting for economic stress at the beginning of the recession, a substantial reduction in its impact was observed by 2012. Accounting for the erosion of the role of social class in relation to stress levels over the course of the economic crisis is the central challenge we address in the remainder of the paper.

The changing pattern of social class effects is set out in Table 4. In 2008, with the exception of the self-employed, there was a clear pattern of hierarchical variation, with stress levels ranging from 0.121 for the professional/managerial class to 0.331 for the routine class with a clear contrast between the white collar and manual classes. For the self-employed the stress level of 0.155 was lower than for all social classes other than the professional and managerial class. By 2012 by far the largest increase of 0.209 was observed for the self-employed. For the white collar classes and the lower services/technical class the average increase was 0.125. For the routine class the increase fell to 0.074. Thus we observe a combination of middle class squeeze and a reduction in social class polarisation relating to those at the bottom of the social class hierarchy in relation to both the professional managerial and middle classes.

Viewed in relative terms, the results provide an even more striking picture of middle class squeeze and reduction in hierarchical differentiation. The level of economic stress increased by 61 per cent between 2008 and 2012. The largest relative increase of 135 per cent was observed for the self-employed, followed by one of 104 per cent for the professional and managerial class. For the intermediate/technician and lower/services technical classes the figures fell respectively to 54 per cent and 43 per cent. Finally the lowest percentage increase of 22 per cent was observed for the routine class. Both absolute and relative changes reflect the significant decline in the explanatory power of social class in relation to economic stress. In what follows we focus on absolute changes in the impact of income class and social class and the manner in which they combine.

Given the modest nature of changes in the distribution of social classes, to the extent that social class contributes to explaining changed stress levels in Ireland, this must stem primarily from changes in the impact of social class rather than in

⁸ Authors' calculations based on EU-SILC.

Table 4: Mean Economic Stress by Social Class by Year

	<i>Ireland</i>			
	<i>2008</i>	<i>2012</i>	<i>Increase</i>	<i>% Increase</i>
Professional & Managerial	0.121	0.247	0.126	104
Intermediate/Technician	0.224	0.346	0.122	54
Self-employed	0.155	0.364	0.209	135
Lower Services/Technical	0.297	0.424	0.127	43
Routine	0.331	0.405	0.074	22
Total	0.213	0.343	0.130	61
Eta ²	0.121	0.049		
F	252.7	112.4		
N	10,152	9,263		

Source: EU-SILC.

its distribution. In Table 5 we focus on such change.⁹ Our analysis involves a set of nested regressions for both 2008 and 2012 that allow us to estimate gross and net effects for both income class and social class for each year and to calculate unique and shared variance for each factor. In Column 1 the results for Model (i) confirm a hierarchical pattern of social class effects in 2008. Relative to the benchmark of the routine class, economic stress was 0.210 lower for the professional and managerial class, 0.176 lower for the self-employed, 0.107 lower for the intermediate/technical group and 0.034 lower for the services/technical group. Social class accounts for 9.1 per cent of the variance in economic stress. Shifting our attention in Column 2 to income class, in Model (ii) we again observe a distinct pattern of hierarchical differentiation with the only deviation being that the coefficient for the income poor category is slightly lower than for the precarious class. The additional level of stress relative to the affluent class increases gradually from 0.070 for the upper middle class to 0.180 for the lower middle to 0.323 for the precarious class before declining slightly for the income poor. Income class accounted for 15.1 per cent of the variance in economic stress.

When we enter income class and social class simultaneously in Column 3, in Model (iii), the coefficients for the former are reduced by an average of 0.043. For social class the impact of self-employment is reduced by 0.041. For the remaining social classes the coefficients are approximately halved resulting in reductions ranging from 0.103 for the professional and managerial class to 0.017 for the lower services technical class. The combined impact of income class and social class accounts for 17.7 per cent of the variance. The respective unique contributions for the former and the latter are 8.6 per cent and 2.7 per cent while the shared portion is 6.4 per cent. Thus in 2008 social class had a significant impact on economic

⁹ Significance levels are corrected for clustering of individuals within households.

stress that was independent of income class and a significant influence that was shared with the latter.

By 2012 substantial changes were observed in the relative impact of social class and income class. Focusing on social class changes between 2008 and 2012, in Column 7 of Table 5 we find that in Model (i), relative to the routine class, the stress level for the self-employed increased by an additional 0.135 providing clear evidence of middle class squeeze. However, it is also true that the gap between the routine class and all other classes was reduced by an average of approximately 0.051. Rather than finding evidence for increased polarisation we observe a significant reduction in the level of disadvantage experienced by the routine class. As set out in Column 4, the proportion of variance accounted for by social class fell to 4.9 per cent.

Shifting our attention to changes in income class effects, in Column 8 of Table 5 we find that for Model (ii) stress levels increased substantially for all income classes. For the affluent class and the upper middle class, as reflected in the constant, the increase was 0.076. The gap between these classes and the remaining classes widened over time but the pattern of change did not involve a clear hierarchical outcome. Instead the largest increases in the gap of 0.080 was observed for the lower middle class followed by one of 0.077 for the income poor and a lesser increase of 0.036 for the precarious class. This produced a reversal of the positions of the poor and precarious classes. As set out in Column 5, at this point in time the percentage of variance in economic stress accounted for by income class increased to 18.0 per cent.

In Column 8 from Model (iii), we observe that, unlike the situation in 2008, entering income class and social class simultaneously has a negligible impact on the coefficients relating to the former. While in 2008 the average reduction was 0.043, in 2012 it fell to 0.016. However, controlling for income class led to substantial reductions in all of the gross social class coefficients other than the lower/services/technical. For the self-employed and the intermediate/technical classes the net effect became statistically insignificant. For the lower services/technical class the coefficient went from being modestly positive to being modestly negative. So by 2012 net social class differences in economic stress, after controlling for income class, were significantly less than in 2008 with the gap between the routine class and the self-employed declining by 0.120, that for the professional and managerial class by 0.079, for the intermediate/technician class by 0.053 and for the lower services/technical class by 0.039.¹⁰

With the exception of the upper middle class, we observe a significant increase in the net effect that being in income class below the affluent class has on economic stress ranging from 0.078 for the precarious class to 0.108 for the poor. In contrast, for social class we see a significant reduction in all cases in the net advantage of

¹⁰ For a discussion of the calculation of significance levels for differences between 2008 and 2012 see the Appendix.

being in a class higher than the routine manual class ranging from 0.039 for the lower services/technical class to 0.120 for the self-employed.

Overall we observe a clear reduction in the net impact of social class. The combined impact of income class and social class in 2012 accounted for 18.3 per cent of the variance. The unique contributions of the former and the latter were respectively 13.4 per cent and 0.3 per cent respectively while the shared variance was 4.6 per cent. Thus by 2012 social class added nothing to our ability to predict economic stress once we take income class into account.

In 2008 both income class and social class contributed significantly to explaining economic stress with the pattern of effects being interpretable in a relatively straightforward hierarchical fashion. The former played a somewhat stronger role in mediating the effects of the latter but the net effects of both were highly significant. Over time stress levels increased significantly for all income and social classes. For income classes the pattern of change involved an increase in the gap between the affluent and upper middle classes and the remaining classes producing a form of polarisation but one that extended into the lower middle class. This was true in relation to both net and gross effects.

In relation to social class these findings provide somewhat more support for notions of middle class squeeze relating to the self-employed accompanied by a reduction in hierarchical differentiation rather than an accentuation of class polarisation. The self-employed experienced a significant deterioration in their circumstances relative to all other classes and, when controlling for income class effects, the routine classes experienced a significant improvement relative to all other classes. Thus while the deteriorating situation of the self-employed is the most striking example of middle class squeeze, the improvement of the routine class relative to all others also conforms closer to such a description rather than to any straightforward notion of polarisation. The combined effect of these changes was such that by 2012 social class contributes almost nothing in the way of additional explanatory power once income class differentiation is taken into account.¹¹

The somewhat different pictures presented by income class and social class analysis is consistent with the evidence from Savage *et al.* (forthcoming) that in comparisons of adjacent years at each point in time during the recession those experiencing the sharpest falls in income constituted transient individuals rather than a permanent group and are likely to have comprised a significant number of the self-employed.¹² Consistent with this, in 2008, 16 per cent of the self-employed were found in the income poor category and 41 per cent in the lower middle class while by 2012 the respective figures were identical at 27 per cent. Changes in the

¹¹ This pattern is consistent with the corresponding set of changes relating to percentage reduction in household equivalent income. The largest reduction of 30 per cent was for the self-employed, the smallest of 14 per cent for the routine class with the average for the remaining classes being 18 per cent.

¹² Serious issues relating to levels of attrition in the panel element of EU-SILC make it unreliable to go beyond such comparisons.

Table 5: Multiple Regression of Economic Stress with Income Class and Social Class for Ireland¹³

	2008			2012			2012-2008		
	(i)	(ii)	(iii)	(i)	(ii)	(iii)	(i)	(ii)	(iii)
Constant	.331	.057	.150	.405	.133	.152	.074***	.076***	.002***
<i>Income Class</i>									
Poor		.307***	.257***		.384***	.365***		.077**	.108***
Precarious class		.323***	.260***		.359***	.338***		.036 ns	.078***
Lower middle		.180***	.144***		.260***	.244***		.080**	.100***
Upper middle		.070***	.054***		.070***	.061***		.000 ns	.007 ns
Reference category: Affluent class									
<i>Social Class</i>									
Professional & Managerial	-.210***		-.107**	-.158***		-.028**	.052***		.079***
Intermediate/Tech	-.107***		-.057***	-.059***		-.004 ns	.048***		.053***
Self-employed	-.176***		-.137***	-.041**		-.017ns	.135***		.120***
Lower Services/Technical	-.034***		-.017***	.019 ns		.022*	.053		.039***
Reference category: Routine Class									
Adjusted R ²	.091	0.151	0.177	.049	0.180	.183			
N	10,064	10,064	10,064	8,775	8,775	8,775			

Source: EU-SILC.

Note: * p < .1, ** p < .01, *** p < .001.

¹³ The significance levels for changes over time are derived from the appropriate equation including interactions of time of survey with income class and social class as in the analysis in Table A.1.

numbers in the remaining income classes, including the precarious class, were extremely modest. So the shift over time was almost entirely from the lower middle class to the income poor. What from an income class perspective can appear as deterioration in the position of the income poor and serve as evidence of polarisation, from a social class perspective can reappear as middle class squeeze.

VII UNDERSTANDING THE CHANGING IMPACT OF SOCIAL CLASS ON ECONOMIC STRESS: EXPLORING THE CHANGING PATTERN OF INTERACTION BETWEEN SOCIAL CLASS AND INCOME CLASS

The foregoing analysis assumes that the changing pattern of association between social class and economic stress was uniform across income classes. However, in what follows we will show that such changes varied within income class and that understanding such variation is crucial to understanding the processes underlying the declining impact of social class on economic stress.

In order to further develop our understanding of these changes, in Figures 3A and 3B we set out the impact of social class within income categories for 2008 and 2012. Focusing first on mean levels of stress by social class within income class, from Figure 3A we can see that within the income poor class a clear social class hierarchy ranging from the professional/managerial to the routine class emerges, with the only deviation being the distinctive advantage enjoyed by the self-employed. Among the precarious class, the self-employed enjoyed the most favourable position while all other classes were advantaged relative to the routine class. For the lower middle class, stress levels were least for the self-employed followed by the professional and managerial class. Among the upper middle and affluent income classes, social class variation was a good deal more modest and the distinctive advantages conferred by membership of the professional/managerial and self-employed classes were much less in evidence.

In 2008 social class contributed significantly to accounting for variation in economic stress within income classes, particularly towards the bottom of the income hierarchy. For the three lowest income classes the average percentage of linear and non-linear variance captured by η^2 was 5.6 per cent. For the upper middle and affluent classes this fell to 2.1 per cent.

By 2012, as can be seen from Figure 3B, a substantially different picture emerged with social class offering little in the way of explanatory power within income classes, with the average percentage of variance explained across income classes barely exceeding 1 per cent. Thus by 2012 the role of social class in buffering the impact of location in the lower income classes, and in particular the benefits enjoyed by the professional and managerial and self-employed classes in this respect had been largely eroded.

Figure 3A: Mean Economic Stress by Income Class by Social Class in 2008

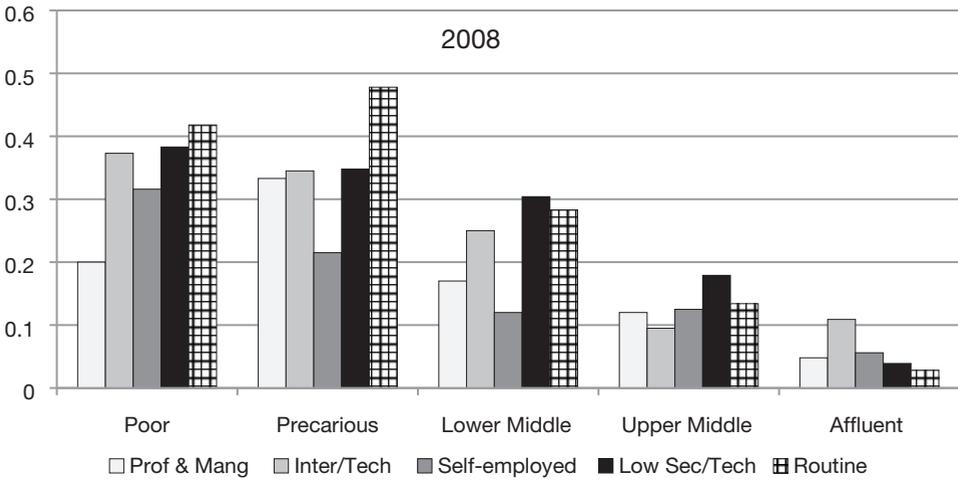
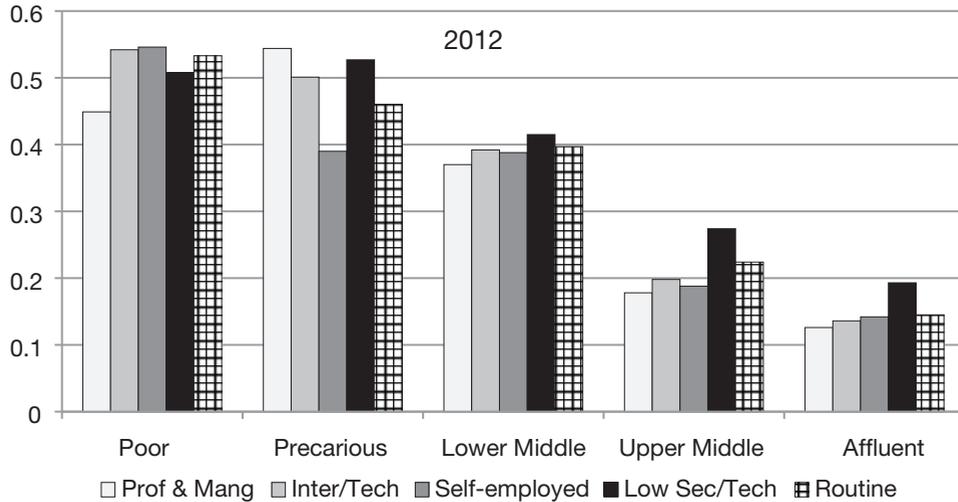


Figure 3B: Mean Economic Stress by Income Class by Social Class in 2012



Source: EU-SILC.

The command over longer term resources enjoyed by those social classes had acted to partially insulate them against the consequences of lower income class positions at the earlier date. However, the impact of the recession, which clearly went substantially beyond its consequences for income in its implications for debt, asset erosion and security, produced a situation where they were no longer distinguishable from their low income counterparts in terms of levels of economic stress.

Viewed from an income class perspective, we observe an increasing impact over time within the three highest social classes. Income class comes to matter more for economic stress. For the professional and managerial class the proportion of variance captured by η^2 more than doubled from 9.4 per cent to 19 per cent. For the self-employed it went from 11.9 per cent to 17.1 per cent. For the intermediate/technical class the increase is more modest from 13.9 per cent to 16.4 per cent. For the lower service/technical the increase is marginal going from 7.5 per cent to 8.5 per cent. Finally for the routine class the percentage of variance declined from 15.4 per cent to 11.4 per cent as income class differentiation came to matter less.¹⁴

VIII CONCLUSIONS

In this paper we have sought to address claims that the impact of the Great Recession in Ireland has led to increased social class polarisation with the burden of the adjustment being disproportionately borne by the vulnerable.

Our focus has been on the changing role of social class in relation to economic stress as one moves from peak to trough. Given our focus on social class and an understanding of class position as arising from employment status and workplace relationships, unlike earlier contributions to this debate, we have restricted our analysis to households where the HRP is aged less than 65 and has been active in the labour market at some point.

Rather than observing social class polarisation, we found clear evidence of ‘middle class squeeze’ involving the self-employed. We also found a significant erosion of the advantage enjoyed by the three higher social classes, including the intermediate/technical relative to, in particular, the routine class. For income classes the pattern of change involved an increase in the gap between the affluent and upper middle classes and all others, with elements of both lower middle class squeeze and polarisation being involved.

The changing impact of social class was related to a change in the distribution of persons across the social classes. Of more importance, however, was a weakening in the degree of association between social class and income class and a changing pattern of interaction between both factors. The distributional element was related to a reduction in the numbers in the professional/managerial and self-employed classes. The associational element involved a shift in the numbers of the self-employed found in the income poor class. The final interactional element involved an increasing degree of homogeneity in stress levels across social classes within the lower income classes, particularly in relation to the professional/managerial and

¹⁴ As noted earlier, a formal analysis of three-way interactions between social class, income class and year is provided in Table A.1 in the Appendix.

self-employed classes. Viewed from an income class perspective, this involved increased heterogeneity across these classes, particularly within the professional and managerial and self-employed classes. The cumulative impact of these changes meant that by 2012 social class had no additional impact on economic stress net of the effects of income class.

Our findings are consistent with an erosion of the buffering role of social class associated with the pervasive effects of the economic crisis relating to debt, erosion of assets, collapse of businesses redundancy and increasing levels of insecurity. In other words, between 2008 and 2012 it appears that the ability of the social class schema to capture aspects of permanent income over and above those associated with income class appears to have been significantly reduced. Further exploration of these issues would require additional information relating to factors such as trends in financial obligations and household work intensity. It would also be relevant to explore the role of housing costs in more depth, using for example the measure of income after housing costs employed in Savage *et al.* (forthcoming).

The somewhat different picture presented by income class and social class analyses is consistent with the evidence that during the recession those experiencing the sharpest falls in income constituted a transient rather than a permanent group, and are likely to have comprised a significant number of the self-employed. The shift in the distribution of the self-employed across income classes was primarily from the lower middle class to the income poor. The findings we have presented are consistent with the interpretation that what can present itself as deterioration in the position of the income poor can from a social class perspective reappear as middle class squeeze.

Who will benefit most from recovery remains an open question: will the higher social classes reassert their traditional advantages? As far as the recession is concerned, though, our findings are not reflected in much of the commentary about the distributional impact of austerity in Ireland, with its frequent reference to an inequitable distribution of the burden of fiscal adjustment and failure to protect the vulnerable (though the counterfactual is not always well-articulated). A crucial factor in responses to fiscal adjustment is likely to be the extent to which the austerity programme is considered part of an essential economic adjustment or a consequence of neo-liberal ideology (McHale, 2017). Themes of increased inequality, failure to protect the vulnerable and lack of 'fairness' clearly had considerable public resonance.

The role played by the welfare and taxation systems in buffering the effects of the crisis does not appear to have been generally appreciated, while budgetary choices about tax and social welfare spending figured prominently in political and popular debates despite the evidence that these were progressive in the immediate response to the crisis and broadly proportional overall (Savage *et al.*, forthcoming). The recent general election resulted in a fragmentation of electoral support and the emergence of a significant legitimacy gap between a large proportion of the

electorate and the established parties (Hardiman *et al.*, 2017; Gallagher and Marsh, 2016). In addition recent efforts to deal with public sector pay issues while favouring the lower paid and sustaining social welfare arrangement have faced their sternest opposition from groups such as teachers, nurses and members of the police force. It is difficult to account for such political and electoral consequences of the economic crisis purely in terms of increased inequality and direct redistribution.¹⁵ Instead, we would argue that it is necessary to focus on how reductions in real living standards, unemployment, business failures, increased debt levels and cuts in public services led to pervasive and unprecedented increases in levels of economic stress, substantially changing the profiles of those exposed to such outcomes.

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¹⁵ For development of the argument that the Irish government displayed a capacity to navigate between the domestic and the external and to implement a successful recovery programme but at cost of a legacy of 'fractured and fractious politics' see Laffan (2016).

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APPENDIX

Multivariate Analysis of the Patterns of Interaction between Economic Stress, Social Class and Income Class

In Table A.1, in order to provide formal testing of significance levels relating to changes between 2008 and 2012, we present a set of nested regression models which capture successively the effects relating to the changing distribution of social class, the changing association of social class and income class and the changing patterns of interaction between the former and the latter. Model (i) shows the gross impact of change over time involving an increase of 0.131 which accounts for 4.5 per cent of the variance in economic stress. In Model (ii) we control for the changing distribution of social class which produced a reduction of 6 per cent in the estimate of change over time and leads to an increase in the R^2 to 10.7 per cent. In Model (iii) we enter the interaction of social class with year of survey. This confirms the reduction in the negative gradients between the routine class and all other social classes and, in particular, the self-employed and leads to an increase in the R^2 to 11.0 per cent. In Model (iv) we add the dummy variables for income class and their interaction with year of survey. This model confirms the substantial reductions in impact of social class in 2008 when controlling for income class and the further reductions observed in 2012. Entering the eight additional terms increases the R^2 to 21.7 per cent. In Model (v) we enter 12 additional dummies which are intended to capture the changing patterns of interaction between the professional and managerial and self-employed classes and the three lowest income classes. The first six terms (in the lighter shading) relating to the set of interactions for 2008 are negative in all cases and statistically significant in all cases but one. The average coefficient is -0.103 . They capture the role of membership of the professional and managerial and self-employed classes in buffering the impact on economic stress of being in the bottom three income classes in 2008. The following set of six coefficients (in the darker shading) relating to the changing patterns of interaction are all positive and statistically significant in all cases with an average coefficient of $+0.115$ and capture the erosion of the buffering role of membership of these social classes within the lower income classes over time. The R^2 for this final model is 22.0 per cent. At each point the inclusion of additional terms lead to a statistically significant increase in the F statistic. For the final model we observe an increase in the F value of 185.9 for an additional 12 degrees of freedom.

The significance levels relating to differences between 2012 and 2008 when income class and social class are entered simultaneously set out in the final column of Table 5 are derived from Model (iv) in Table A.1 which allows for interaction between time of survey and income class and social class effects.

Table A.1: Multiple Regression of Economic Stress by Social, Income Class and Year of Survey

	(i)	(ii)	(iii)	(iv)	(v)
<i>Year</i>					
2012	0.131***	0.123***	0.073**	0.003 ns	0.055
Reference category: 2008					
<i>Social Class</i>					
Professional/Managerial		-0.183***	-0.210***	-0.107***	-0.052***
Inter/Tech		-0.082***	-0.107***	-0.057*	-0.049***
Self-employed		-0.118***	-0.176***	-0.137***	-0.045**
Low Sec/Tech		-0.006 ns	-0.034***	-0.017 ns	-0.018*
Reference category: Routine Class					
<i>Social Class*Year Interactions</i>					
Professional/Managerial*2012			0.052***	0.079**	0.016 ns
Inter/Tech*2012			0.048***	0.053*	0.044***
Self-employed*2012			0.136***	0.120***	0.018 ns
Low Sec/Tech*2012			0.053***	0.040**	0.040***
<i>Income Class</i>					
Poor				0.257***	0.308***
Precarious class				0.260***	0.309***
Lower middle				0.144***	0.202***
Upper middle				0.054***	0.063***
Reference category: Affluent class					
<i>Income Class*Year Interactions</i>					
Poor*2012				0.108***	0.051**
Precarious class*2012				0.078***	0.021 ns
Lower middle*2012				0.100***	0.034*
Upper middle*2012				0.007 ns	-0.003 ns

Table A.1: Multiple Regression of Economic Stress by Social, Income Class and Year of Survey (contd.)

	(i)	(ii)	(iii)	(iv)	(v)
<i>Social Class*Income Class*Year Interactions</i>					
Professional/Managerial*poor					-0.159***
Professional/Managerial*precarious					-0.028 ns
Professional/Managerial*lower middle					-0.084***
Self-employed*poor					-0.051 *
Self-employed*precarious					-0.153***
Self-employed*lower middle					-0.142***
<hr/>					
Professional/Managerial*poor*2012					0.127***
Professional/Managerial*precarious*2012					0.119***
Professional/Managerial*lower middle*2012					0.095***
Self-employed*poor*2012					0.107**
Self-employed*precarious*2012					0.081 *
Self-employed*lower middle*2012					0.161***
<hr/>					
Constant	0.213	0.305	0.331	0.150	0.104
R ²	0.045	0.107	0.110	0.217	0.220
N	18,839	18,839	18,839	18,839	18,839
Incremental F	890.639	453.3	259.3	307.9	185.9
Additional degrees of freedom	1	4	4	8	12

Source: EU-SILC.

Note: * P < .1, ** P < .01, *** P < .001