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Middle Class Squeeze? Social Class and Perceived Financial Hardship in Ireland, 2002-2012

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Abstract: Ireland has been particularly hit by the economic downturn of 2008. For many families in Ireland the economic downturn put strong pressures on their household budgets. This study examines how the recession has changed class differences with regard to experiences of economic strain. It contrasts the "middle class squeeze" view that sees the "middle" or the "middling classes" as particularly hard hit by the economic downturn with the class theoretical point of view that the recession is expected to widen the gaps between classes with regard to their ability to maintain living standards and that working, not middle classes bear the largest strain on economic well-being. The study derives competing hypotheses from these views and tests them using data from the Irish leg of the *European Social Survey*. Key findings are that financial hardship increased most for the working classes and the class of own account workers and self-employed employees and that class differences with regard to unemployment and benefit dependency risks are the main explanatory mechanism.

I INTRODUCTION

Compared with other countries, the 2008 recession hit Ireland particularly hard and was largely homemade, with a property bubble, financed by aggressive lending by Irish banks, bursting in 2007/8. Depreciation of assets, credit rationing by banks and a fiscal crisis induced by the re-capitalisation of the banking system added to a drying up of the domestic demand (see Lane,

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2011). As a consequence, the employment volume in Ireland sank dramatically, from 2,139,000 jobs in the last quarter of 2007 to 1,786,100 in the first quarter of 2012. Unemployment rates rose from 4.5 per cent to 14.7 per cent. How has this economic crisis affected the financial strain experienced by households in Ireland? In general, experiences of economic hardship are closely related to social class position. For example, there are clear class gradients regarding the risk of being in poverty or experiencing deprivation (Whelan *et al.*, 2008) and further, there are few indications that the risk of over-indebtedness at the onset of the recession was evenly spread among the social strata (Russell *et al.*, 2011). This is contrasted by an idea popular in public discourse in Ireland: The middle classes appear to be particularly hard hit by the recession (e.g., *The Irish Times*, 2012). Some observers have predicted the "impoverishment" of the middle classes (McWilliams, 2010) or observed that "real poverty has ... invaded middle class Ireland" (Ross, 2012) and a government minister warns that "middle classes can't keep paying" (Drennan, 2012).

In this paper, I want to examine how the recession has changed class differences with regard to experiences of economic strain. I will argue that from a class theoretical point of view, a recession is expected to widen the gaps between classes with regard to their ability to maintain living standards and that working, not middle classes bear the largest strain on economic well-being. Then I will reconstruct the arguments that the specificities of the economic downturn in Ireland have reversed this general expectation: Asset devaluation, most notably falling house prices, in conjunction with high private debt levels prior to the economic downturn, have as a consequence that the "propertied" classes, who had greatest access to credit in the pre-recession period, feel the most financial pain as a result of the downturn. Moreover, budgetary measures of the Irish state have primarily hurt the higher income groups. Both of these led to a narrowing of class differences in relation to their ability to maintain established living standards and to a higher strain on middle than working class households. I will test these competing hypotheses using data from the Irish leg of the *European Social Survey*.

II THEORETAL BACKGROUND AND HYPOTHESES

2.1 *Income and Class*

The term "middle class squeeze" originates from the US discussion. In the US it refers to the relative decline in earnings of middling groups and to the depletion of their wealth as a result of "overspending" in order to maintain established standards of living (PRC, 2012; Warren, 2007;

Wolff, 2010).[1] In this context, middle classes are generally understood and operationalised as the statistical middle income groups. In this paper, I do not follow the example of the US discussion to define class by the relative income of a household. Household incomes and individual earnings are very volatile (Gottschalk and Moffitt, 2009; Dynan *et al*., 2012) resulting in a very unstable composition of class delineated by relative income brackets. Moreover, income stability itself is closely associated with class position and plays a crucial role in mediating the effect of class position on experienced financial hardship (see below). Instead of income, I will use European Socio-economic Classification (ESeC; Rose and Harrison, 2007) which is based on information about occupation, supervisory and ownership status of the respondent, to mark the household's class position. This classification can be seen as "… de facto standard in European analyses of inequality" (Weeden *et al*., 2007, p. 714) and is grounded in a class theory that permits us to derive clear-cut hypotheses of the class-specific increases of the risk to experience economic hardship as a result of the economic downtown in Ireland. This classification is also sufficiently fine-grained to guide the examination of different variations of the middle-class squeeze theme such as the idea that the "middling" classes experienced the largest decrease in economic well-being.

2.2 *Social Class, Economic Strain and Recession: A Class-Theoretical Perspective*

Sociological research shows that social class position is strongly associated with earnings (Morgan and Tang, 2007; Tåhlin, 2007). "Higher" classes earn more than "lower classes" and not all of the additional income is spent: saving rates typically increase with earnings. As a consequence, higher class households in general are expected to find it easier to cope than lower class households. But how are these class differences affected by a recession? For simplicity, assume that pre-recession consumption levels of households or household spending largely mirror pre-recession income levels. This pre-recession consumption level forms the reference consumption level which households strive to maintain. Under this assumption, it is equally as difficult for higher class as lower class households to adjust the reference consumption level in response to changes in the income stream. The difficulties experienced in managing on the income in the recession can then simply be seen as a function of the stability of the income available to the household during the recession.

[1] In the Irish public discourse, the term "middle class" is less clearly identified with the "statistical income middle" and has also strong connotations of the sociological-historical and common-sense meaning of the term "middle class" as a stratum that is differentiated from the "working class" (and to the successors of the "upper class").

How is income stability (as opposed to income level) related to social class position? Goldthorpe (2007) has argued that class differences among employees derive from the kind of employment contract they have which in turn reflects underlying differences with regard to monitoring difficulties and asset specificities. Substantial monitoring difficulties and skill specificities induce employers to embed the labour exchange in long-term, diffuse employment relations. These service relationships are characterised by relative job security, salaried compensation, and upwardly sloped experience earnings profiles due to promotions or salary increases. Labour exchanges which pose no monitoring difficulties and involve no company-specific human capital are overseen by a labour contract that provides them with little job security, hourly payment and little prospect of wage growth. Occupations that typically involve some monitoring difficulties or some asset specificity are expected to be contracted by modes that combine elements of the service relationship and the labour contract (Goldthorpe, 2007; Goldthorpe and McKnight, 2006). These differences in the employment relation have as a consequence that the income stream of employees with a service relationship i.e., salaried employees, is more stable than the income stream of employees on a labour contract and these differences become more accentuated during an economic downturn: Employers are likely to lay-off workers on a labour contract if production volume shrinks but will try to retain those employees with a service relationship. For the employees who continue to be employed, a reduction in working hours immediately affects the pay-cheque of workers on a labour contract while the salaried status of employees in a service relationship protects their income from these fluctuations. Moreover, salaried employees on career contracts can compensate general wage cuts by individual advancements on the pay scale due to promotions or increments, options that are unavailable to workers on a labour contract. Hence, a recession is expected to widen the gaps between social classes in their ability to make ends meet as a consequence of a widened gap in income stability.

The recession is thus expected to widen the gap in financial hardship between working class employees – who are governed by a labour contract – and middle class employees. This holds if "middle class employees" are more narrowly defined as employees who enjoy the privileges of a service relationship ("new middle class") or in the broader sense of combining salaried and intermediate employee classes such as higher grade blue and white collar workers (e.g., Whelan and Maître, 2008 for this broader definition). The situation is different for the "old middle class" of self-employed workers and small employers. These classes are more directly exposed to market forces than salaried employees. Most self-employed and small employers produce goods and services for the domestic economy and their income is thus directly or indirectly dependent on domestic demand while salaried employees more

likely work in the public and international sectors of the economy. Moreover, being embedded in private and public bureaucracies, salaried employees suffer less under the general "liability of smallness" than own account workers or small employers. Finally, relatively rising fixed costs in the recession impact the incomes of residual claimants more than wage earnings and puts self-employed workers and small employers even on a disadvantage to employees on a labour contract. The petit bourgeoisie is thus expected to experience the greatest financial hardship. Farmers are an exception. Market income of farmers is highly volatile but both farm output and product prices are not strongly affected by the domestic business cycle and farm net income is largely secured by farm subsidies and direct payments. For example, in 2010 payments under the "Single Payment Scheme" accounted on average for 97 per cent of the net income of farmers and for 71 per cent in 2011 (Hennessy *et al.*, 2012).

Table 1: *Jobs by Occupation, Q4/2007 – Q4/2010 (Q4/2007 = 100)*

	Q4_07	*Q2_08*	*Q4_08*	*Q2_09*	*Q4_09*	*Q2_10*	*Q4_10*
Managers, self-employed	100	99.2	103.3	95.3	92.7	87.1	84.2
Managers, employed	100	107.5	102.8	105.9	105.6	106.7	103.1
Professionals	100	103.6	106.7	101.9	104.4	106.4	103.8
Associate Prof/Technicians	100	99.3	102.5	98.6	99.8	99.4	97.1
Clerical	100	100.1	97.7	96.8	95.2	94.8	89.6
Craft	100	94.0	87.1	70.1	63.5	61.1	57.0
Personal/Protective Services	100	99.2	96.7	97.6	95.9	93.1	94.2
Sales	100	96.7	95.5	89.5	87.8	84.4	85.0
Operatives	100	97.4	92.9	78.9	77.5	75.5	76.7
Other	100	95.7	85.3	73.7	72.5	70.7	73.0

Source: National Quarterly Household Survey, own calculations.

Table 1 provides some preliminary support for the class-theoretical hypothesis that the recession has affected the income stability of the working classes more than the income stability of middle class employees. Table 1 reports the number of jobs in the Irish economy by occupational group between the fourth quarter of 2007 and the fourth quarter of 2010 relative to the number of jobs per occupation in the fourth quarter of 2007. Employed managers, professionals and a good share of the associate professionals and technicians would be in a service relationship with their employer. More likely to be governed by a labour contract are craft, personal and protective service workers, sales workers, and operatives not working in supervisory positions, most of the other category and some of the clerical workers.

The figures show that, in the aggregate, hardly any jobs for salaried employees were lost up until 2010. For core groups of the service class employees, employed managers and professionals, job volume has even increased between end-2007 and end-2010. The numbers of jobs in labour contract occupations has shrunk far more with manual workers (craft, operatives, other) hit more severely than lower service occupations (personal and protective, sales workers).[2] The figures also show that the number of self-employed managers has declined far more than the number of service class positions. This gives a rough indication of the impact of the recession on the petit bourgeoise.

2.3 *Middle Class Squeeze: Debt, Asset Devaluation and Budgetary Responses*

While the economic crisis as an employment crisis has affected the income stream of the working classes more than the middle classes, there is the alternative argument that the economic crisis as a financial crisis has primarily hurt the middle classes who had easy access to credit in the years preceding the economic crisis and that this has been paralleled by government policies with a progressive tax effect. The core of the argument appears to be that rapid credit expansion in the years preceding the recession led to the accumulation of unsustainable debt among the middle classes in the light of overly optimistic expectations of earning prospects and house price development. Working classes in contrast, were credit-constrained even in the period of "easy credit". Subsequently, falling house prices and increasing mortgage burdens relative to stagnating earnings eroded the creditworthiness of the property-investing classes which in turn added pressure to "deleverage". Paying off their debt, middle class households find it difficult to maintain established living standards. An increasing tax burden and wage cuts have added to this middle class squeeze.

In the years preceding the economic downturn, Irish households experienced a massive increase in gross wealth. The assets of Irish households almost doubled between 2001 and 2006 from €418 to €824 billion. Investments by households accounted for only 16 per cent of the increase in gross worth, while 84 per cent were due to rising asset prices, largely rising house prices (Cussen *et al*., 2008). At the same time, Irish households accumulated substantial liabilities. Credit to private households increased from €58 billion in March 2003 to €150 billion at the peak in March 2008 (Central Bank, 2012a). Since the peak in 2007, asset values underwent a

[2] Goldthorpe and Knight (2006) also find in their analysis of UK data from the 1990s that unemployment risk is far more concentrated in the manual categories than in the lower service categories.

dramatic fall due to falling house prices, roughly halving by the end of 2011 (CSO, 2012a). In 2008 banks began to tighten credit standards for private households (Central Bank, 2012b; 2011: 47ff). The saving rate of households increased from a low rate of 1.5 per cent in 2007 to 10.5 per cent in 2010 (Durkan and O'Hanlon, 2012). "Saving" has mainly occurred in the form of paying off existing debt. By 2012 overall debt had reduced to €98 billion since the peaks, mostly due to paying off debts (Cussen and Phelan, 2010, pp. 69-71).

While the account data show that households are "deleveraging" after the onset of the economic downturn, they do not give an indication of which social strata have been most affected by the pressure to pay off mortgage and consumption debt. Table 2 shows how the share of owner-occupants within occupational groups has developed in the period of rising house prices and surging private indebtedness. While the share of owner-occupancy increased for employed managers and professionals and remained fairly stable for associate professionals and clerical workers, all blue and white collar working classes experienced a fall in owner-occupancy by about 6 percentage points and even 13 percentage points in the case of unskilled workers ("other"). House ownership has become more concentrated in the middle classes in the years of the property boom. In conjunction with the increasing share of mortgages for buy-to-let properties, this may suggest an increasing concentration of mortgage debt in middle class households.

Table 2: *Share Owner Occupier by Occupation, Q4/2000 – Q4/2007*

	Q4_2000	*Q4_2004*	*Q4_2007*
Managers, self-employed	93.3	87.4	95.7
Managers, employed	79.5	81.0	80.1
Professionals	76.3	77.0	80.6
Associate Professionals/Technicians	75.3	76.5	74.6
Clerical	80.7	78.5	79.1
Craft	79.4	76.3	73.5
Personal/Protective Services	72.7	70.2	66.1
Sales	76.9	73.8	69.4
Operatives	78.1	73.4	72.3
Other	70.2	67.2	57.5

Source: National Quarterly Household Survey, own calculations.

Additionally, consumer prices for education and health have also over-proportionally increased in Ireland since the early 2000s (CSO, 2007; CSO, 2012b) mainly affecting middle class households as the main consumers of these services. Up until 2011 government policies responding to the fiscal

crisis also appear to impact primarily the middle classes. Tax and welfare reforms had a progressive impact on income distribution. In particular the 2009 and 2010 budgets, by introducing progressive income levy, doubling the health levy and raising the ceiling for social insurance contributions, households in the upper half of the income distribution were hurt (Callan *et al*., 2010; for a summary of the measures: Callan *et al*., 2011, pp. 33-35). The combined effect of tax and welfare reform and public sector pay cuts amounted to a 10 per cent decrease in the income of the top 30 per cent of households between 2009-2011 which compares to a 7 per cent income reduction of middle households (D4-D7) and a 3 per cent reduction of the incomes of the bottom 30 per cent (Callan *et al*., 2011).

On the basis of these developments it can be argued that the economic downturn had the effect that debt-asset ratios have increased more for the higher classes than for lower classes. Faced with increasing debt-asset ratios and no longer able to roll over credits, higher class households may be particularly affected by debt repayment. Higher costs of middle class "essentials" and income-progressive policies reinforce this tendency. Again, it could be argued that the "middling" and not the highest groups feel the pain most.

2.4 *Hypotheses*

For the hypotheses derived from the class-theoretical approach, I assume that employee classes can be ordered on a service relationship-labour contract continuum (Tåhlin, 2007). The first hypothesis states that perceived financial hardship will exhibit class differences in both the pre- and post-recession period:[3]

> *(H1): The likelihood that a household experiences difficulties to make ends meet will increase along the service relationship – labour contract continuum*

The following hypotheses pertain to the change of class differences between the pre- and the post-recession period:

[3] The discussed theories/mechanisms allow only deriving hypotheses regarding the change of absolute risk differences between social classes. They do not permit to derive any expectations regarding a change of relative risks (or even change in odds ratios). In this respect, the situation is very different from research on social mobility. In the context of class mobility research, odds ratios or relative mobility have an established understanding as indicators of "fluidity", i.e., that origin does not affect destination, mostly interpreted as "equality of opportunity". And even more importantly: Theories of educational and social mobility that have been advanced to explain class inheritance yield hypotheses that predict, in contrast to the theories used in the paper, stability of odds ratios, as a result of strategies to maintain class position.

(H2a): Differences with regard to perceived financial hardship will increase along the service relationship – labour contract continuum between the pre- and post-recession period

(H2b): The petit bourgeois (non-agriculture) will experience a higher increase in perceived financial hardship than the average employee class between the pre- and post-recession period

The final hypothesis refers to the expectation that changes in differences among employee classes can be accounted for by differences in exposure to unemployment risk and earnings instability:

(H3): Changing employee class differences between the pre- and post-recession period are mediated by measures of unemployment risk and earnings instability

The Irish version of the middle class squeeze idea in contrast would lead to the expectation that the recession has narrowed class differences with regard to perceived economic hardship (H4a) or that the "middling classes" have experienced the largest decline of their economic position (H4b):

(H4a): Differences with regard to perceived financial hardship will decrease along the service relationship – labour contract continuum between the pre- and post-recession period

(H4b): Differences with regard to perceived financial hardship will follow an inverted U-curve along the service relationship – labour contract continuum between the pre- and post-recession period

III DATA AND METHODOLOGY

3.1 *Data*

The data are from the Irish leg of the *European Social Survey*, Round 1-5. The Irish leg of the *European Social Survey* has the advantage that it covers the period between the end of 2002 and beginning of 2012. Table 3 gives fieldwork data, sample sizes (n) and response rates (RR) for the different waves of the *European Social Survey* (Ireland). In this study, only data of respondents aged between 18 and 64 are used and respondents who have never worked or whose occupation is unknown are excluded. These relevant subsamples are also included (n_s).

Table 3: *Overview of the European Social Survey (Ireland)*

ESS Round	*Fieldwork*	*N*	*RR* %	n_s*
1	11.12.02-14.04.03	2,286	62.5	1,400
2	15.01.05-20.06.05	2,046	64.5	1,546
3	14.02.06-31.08.07	1,800	56.8	1,151
4	11.09.09-12.03.10	1,764	51.6	1,271
5	20.09.11-31.01.12	2,586	58.3	1,709

* Sample size: Eligible sample (16-64 year old, ever having worked), after listwise deleting of missing values on other variables.

3.2 *Perceived Financial Hardship: Measurement*

Perceived financial difficulties are measured by the following questions:[4] (1) Which of the descriptions on this card comes closest to how you feel about your household's income nowadays? (Living comfortably on present income = 1, Coping on present income = 2, Finding it difficult on present income = 3, Finding it very difficult on present income = 4). From this item, I derived a variable Financial Difficulties (1, 2 = no; 3, 4 = yes).

3.3 *Social Class*

Social class has been operationalised by the European Socio-economic Classification (ESeC, Rose and Harrison, 2007) which is based on the Erikson-Goldthorpe-Portocarero [EGP]-class scheme (cp. Erikson and Goldthorpe, 1992). This class scheme distinguishes between ten social classes (see Table 4). Petit bourgeoisie refers to self-employed workers and employers with less than ten employees. Employers with more than ten employees are allocated to the higher salariat. Self-employed or employing professionals are assigned to their respective salariat classes. I took a weak dominance approach, allocating respondents who have a partner to the partner's class if the respondent has never worked or if the partner's class is clearly "higher" than the respondents class. Unlike Rose and Harrison, I allocate unemployed people (as well as other non-employed people) into the social class according to the occupation, employment and supervisory status of the last job. In the analyses, I employ a simplified version of the ESeC scheme which combines the higher white collar and the higher grade blue collar to the *intermediate class*, and the skilled manual and semi-/unskilled workers to the *lower grade blue collar class* and retains the other classes. This simplified version combines adjacent classes with similar pre- and post-recession patterns of financial and borrowing

[4] Single questions are typically less reliable than multi-item measures, i.e., more affected by random measurement error (Liu, 2004).

difficulties. It is the simplest class scheme that can be applied in the subsequent analyses without a significant loss of information when compared with the nine class scheme (as evaluated by a LR/deviance test). The final column of Table 4 indicates the "class" position on a service relationship – labour contract continuum (HSA > LSA > INT > LWC = LBC).

3.4 *Analytical Strategy*

I will first present the proportions of members of the social classes by ESS survey who experience difficulties with their income. In the following, I use logistic regressions of this variable to examine whether the picture holds if the relationship between class and financial difficulties are controlled for the confounding effect of various factors. While these factors are related to social class and the vulnerability of getting into financial difficulties are applied, they are unrelated to the mechanisms linking social class and financial difficulties elaborated on in the theoretical sketch. Moreover, these models allow us to test the formulated hypotheses regarding the mediating effect of proxies for employment and earnings stability. These models compare the effects of social class between the period before (2003-2007) and after (2009-2011) the onset of the economic downturn. I use three models with nested sets of variables. The first model contains only social class X period interactions and depicts "raw" class differences in the two periods under consideration and how they have changed. I refer to this as the *raw model*. The second model includes variables that aim to capture heterogeneity between and within[5] classes regarding their group and age composition: Women and non-nationals are known to suffer a "penalty" on the labour market beyond their class membership (gender, non-nationals); the life cycle position is associated with borrowing behaviour in particular to finance property purchases. Finally, the theory under scrutiny assumes that differences in the governance of the employment contract underlie class differences with regard to experiences of financial strain. I, therefore, also controlled for "secondary" class differences pertaining to health risks and living and family arrangements, which have a direct and obvious effect on the risk of experiencing financial difficulties, but are not immediately an outcome of the service versus labour contract distinction. I refer to this model with control variables as the *reduced model* as it is used as a benchmark to evaluate the mediation hypotheses formulated above. The *full model* refers to the model that includes measures of

[5] As the data come from a repeated cross-section, the composition of classes may change over time and increasing class differentials may result from changing class composition. Analyses show that the class composition over time is fairly stable. For example, propensity scores regarding unemployment do not differ significantly for any class between periods.

Table 4: *ESeC Classes*

ESeC Class	*Common Term*	*Employment Relationship*	*Aggregated Classes*	*Short*	*Hierarchy*
1 Large employers, higher grade professionals, administrative and managerial occupations	Higher salariat	Service Relationship	Higher salariat	HSA	> LSA, INT, LWC, LBC
2 Lower grade professionals, administrative and managerial occupations and higher grade technicians and supervisory occupations	Lower salariat	Service Relationship (modified)	Lower salariat	LSA	< HSA, > INT, LWS, LBC
3 Intermediate occupations (most clerical and administrative associate occupations)	Higher grade white collar workers	Mixed	Intermediate Occupations	INT	< HSA, LSA > LWC, LBC
6 Lower supervisory and lower technician occupations (blue collar workers with supervisory status; same technicians and craft occupations)	Higher grade blue collar workers	Mixed			
7 Lower service, sales and clerical occupations	Lower grade white collar workers	Labour contract (modified)	Lower grade white collar workers	LWC	< HSA, LSA, INT = LBC
8 Lower technical occupations (most craft and some operative occupations)	Skilled workers	Labour contract (modified)	Lower grade blue collar workers	LBC	< HSA, LSA, INT = LWC
9 Routine occupations (elementary and most operative occupations)	Semi- and non-skilled workers	Labour contract			
4 Small employer and self employed occupations (excl. agriculture)	Petit bourgeoisie or independents	n.a.	Petit bourgeoisie or independents	SEE	n.a.
5 Self employed occupations (agriculture)	"Farmers"	n.a.	"Farmers"	FAR	n.a.
10 Never worked and long-term unemployed	Unemployed	n.a.	Excluded	–	n.a.

unemployment risks and income stability which, according to Goldthorpe, account for the different life chances of social classes (see below for details). A comparison between the class effects in the *full model* and the *reduced model* shows whether the class differences estimated in the first model can be explained by the different unemployment and income risks associated with the class position (Hypothesis 3).

The theories under scrutiny lead to hypotheses regarding change in absolute class differences and the support for these hypotheses needs to be evaluated accordingly. Changes in absolute differences are conceptually very different from odds ratios which are usually reported and sign-tested in studies employing logistic regressions. My testing and reporting will, therefore, focus on the probabilities predicted by the regression models (predictive means) and not on odds ratios.[6]

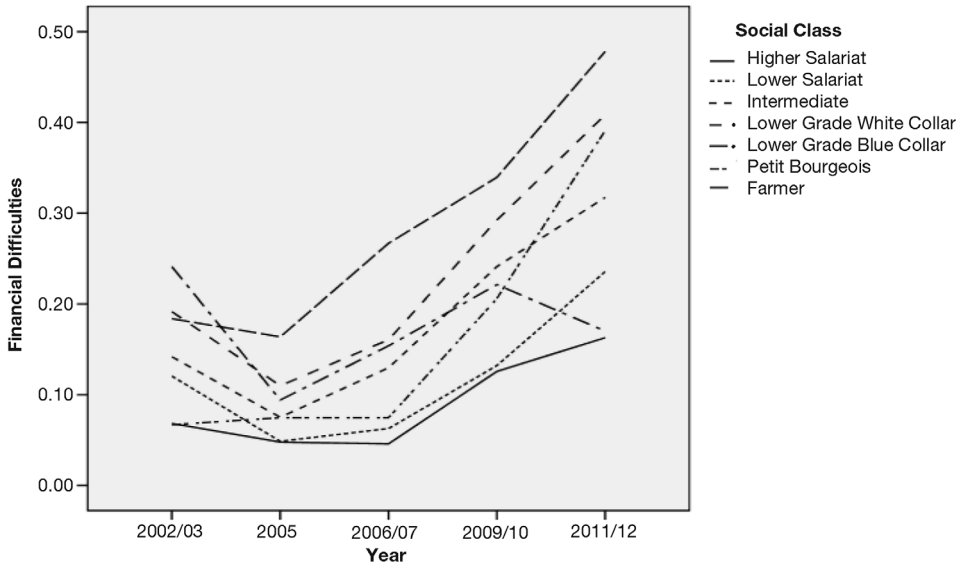
IV RESULTS

4.1 S*ocial Class and Financial Hardship: Preliminary Findings*

Figure 1 depicts the proportion of people that experienced financial difficulties by social class and year. The graphs illustrate that the share of households experiencing financial hardship has dramatically increased after the economic downturn for all classes. Moreover, the proportion of respondents reporting financial difficulties has continued to increase between 2009 and 2011. The notable exception of farmers whose propensity to experience difficulties coping due to their income declined after 2009 but did not change much between 2007 and 2011. Moreover, for the employee classes there is a clear pattern of class differences over the whole period under consideration which largely follows a service contract – labour contract continuum as expected by the class-theoretical approach (Hypothesis 1). The differences between the employee classes have somewhat widened after the onset of the economic downturn which provides first evidence for the class theoretical position (Hypothesis 2a) and against the middle class squeeze hypothesis 4a/b. The graph also shows that the position of the petit bourgeoisie has deteriorated to more than any other class which is also in line with class theoretical reasoning. (Hypothesis 2b)

[6] Predicted probabilities have the additional advantage that they are "scale-free" while regression coefficients (and odd ratios) in logistic regressions are scaled by the residual variance of the latent dependent variable (Long, 2009; Mood, 2010). This makes it difficult to compare regression coefficients across nested models (Karlson *et al*., 2012) and between groups such as social classes and time periods (Williams, 2009). These comparisons are unproblematic for predicted probabilities (Long, 2009).

Figure 1: *Financial Difficulties by Social Class, 2002-2012*



4.2 *Social Class, Unemployment and Earnings Stability*

Table 5 reports how the control and mediation variables are distributed along the social classes and how these have changed between the pre- and the post-recession period. The mediation variables (prefixed by #) attempt to measure different unemployment and earnings instability risks associated with classes. Employment instability (and welfare dependency) risk is measured by whether the respondent or the partner is unemployed at the time of the survey (*unemployed, unemployed (p)*), whether benefits are the main income source of the household (*HI_benefits*) and whether both the respondent and the partner are employed (*dual earner*). Further, unemployment history is covered by whether the respondent ever had an unemployment spell of more than 3 months (*unemp_3m)* and whether this happened in the last 5 years (*unemp_5yrs*). In line with the expectations derived from Goldthorpe's class theory, all these variables show a gradient along the service relationship – labour contract continuum and have for all classes strongly increased (for dual earner: decreased) between the pre- and the post-recession period. The strong concentration of unemployment in the lower grade blue collar class is striking. Earnings instability is measured by whether the respondent or his/her partner works full-time and whether actual hours worked exceed hours contracted (*overtime*). With respect to these variables there is little change over time and few systematic differences between social classes (with the exception of a low

share of full-time workers in the lower grade white collar class). Additionally, a dummy for being employed in the Public Service (interacted with the pre-/post recession dummy) is included, to capture the potential effects of wage cuts in the public service.

Table 5: *Control and Mediation Variables by Social Class by Period (Percentages)*

	HSA		*LSA*		*INT*		*LWC*		*LBC*		*SEE*		*FAR*	
	Pre	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*
Female	42	50	63	66	63	64	78	76	46	39	42	31	23	11
Age 18-29	16	17	17	14	22	20	37	30	24	26	5	5	6	1
Age 30-44	48	50	38	45	40	43	27	33	32	36	40	40	32	35
Age 45-64	36	33	44	41	37	37	36	37	45	38	55	55	62	64
Single	9	20	10	17	7	16	7	18	11	23	7	17	8	23
Couple	68	60	63	65	61	60	47	47	52	45	75	69	65	50
With Parents	9	5	10	4	11	5	22	8	14	7	3	1	12	8
Other	15	15	17	14	21	19	25	27	22	25	3	1	12	8
Children	43	38	43	44	42	41	41	38	35	32	51	42	36	30
X Single	1	2	4	5	5	5	8	12	6	7	3	3	0	3
Children > 2	12	11	11	11	11	10	10	10	11	7	14	12	15	8
Not citizen	7	14	4	11	4	10	4	16	4	18	4	10	2	1
Education	3	5	2	5	3	4	12	9	6	8	2	1	1	1
Illness/disability	1	1	2	4	3	4	4	5	6	8	3	5	2	0
#Dual earner	45	34	38	31	31	23	18	16	20	12	39	38	24	23
#Unemployed	1	7	2	10	3	14	7	14	9	30	1	13	2	0
#Unemplo (P)	0	3	0	5	1	6	2	8	2	7	5	4	0	0
HI_Pension	3	5	6	5	4	7	5	4	5	5	2	5	5	4
HI_Employm	90	86	87	81	84	75	75	67	72	54	87	78	87	93
#HI_Benefits	2	7	2	12	5	17	12	26	16	38	3	12	5	3
HI_Other	6	2	5	2	6	1	8	3	6	3	8	5	4	1
#Unemp_3m	15	23	16	26	24	32	24	36	29	53	21	29	7	9
#Unemp_5yrs	7	15	5	14	11	19	14	26	17	41	6	18	4	5
#Pub. Service	25	28	38	47	15	18	20	29	8	7	9	4	6	1
#Overtime	34	43	36	38	26	26	14	16	21	20	15	25	9	34
#Full-time	64	66	59	57	64	59	45	43	69	65	61	70	65	76
#Full-time(p)	37	33	36	37	39	30	28	24	25	15	38	27	28	15

As control variables for class heterogeneity and secondary class effects, the gender and age group of the respondent and the household type variables (single household, couple household, respondents live with parents younger than 65, other multi-person households; household with children, X single household, and household with 3 or more children). Further control variables are, whether the respondent or his/her partner where unable to work

(*Illness/disability*) or in full-time education (*education*) and the main source of household income (employment or benefits [reference] vs. pension or other sources).

Table 6 reports results from logistic regressions of perceived financial difficulties. The results pertain to the "full model" containing, beside the interaction between social class and period, control variables as well as mediating variables.

Table 6: *Logistic Regression of Financial Difficulties*

	Raw Model		*Reduced Model*		*Full Model*	
	Coeff	*SE*	*Coeff*	*SE*	*Coeff*	*SE*
Constant	–2.75***	0.19	–2.77***	0.21	2.96***	0.23
Post Recession	0.97***	0.24	0.87***	0.24	0.66**	0.26
Social class (ref: HSA)						
LSA	0.21	0.23	0.20	0.29	0.13	0.23
INT	0.72***	0.22	0.64**	0.22	0.41*	0.23
LWC	1.11***	0.22	0.99***	0.23	0.53**	0.23
LBC	1.49***	0.20	1.41***	0.21	0.97***	0.21
SEE	0.00	0.29	–0.04	0.29	–0.23	0.30
FAR	1.17***	0.27	1.31***	0.28	1.16***	0.28
LSA x PostRecession	0.21	0.29	0.20	0.29	0.15	0.31
INT x PostRecession	0.18	0.28	0.23	0.29	0.20	0.30
LWC x PostRecession	0.21	0.28	0.19	0.29	0.30	0.30
LBC x PostRecession	–0.00	0.26	–0.00	0.27	–0.22	0.28
SEE x PostRecession	1.28***	0.36	1.14***	0.37	1.29***	0.38
FAR x PostRecession	–0.62	0.41	–0.55	0.42	–0.12	0.43
R: Female			0.07		0.15*	0.08
R: Age (reference 45-64)						\
R: Age 18-29			0.30***	0.10	0.29***	0.11
R: Age 30-44			0.18**	0.08	0.20**	0.08
Household (ref: Single)						
Couple			–0.48***	0.10	0.03	0.12
Lives with parents			–1.04***	0.16	–0.71***	0.17
Other			–0.22*	0.11	0.03	0.12
Children			0.35***	0.09	0.41***	0.09
X Single			0.89***	0.16	0.39**	0.17
Children: 3+			0.22*	0.11	0.12	0.11
Not citizen			0.33***	0.10	0.25**	0.11
Education			0.16	0.15	0.01	0.16
Illness/disability			1.30***	0.15	0.82***	0.15
Dual earner					–0.70***	0.10
R: Unemployed					0.47***	0.12
P: Unemployed					0.44**	0.17
Household income (ref: Employment)						

Table 6: *Logistic Regression of Financial Difficulties (Contd.)*

	Raw Model		*Reduced Model*		*Full Model*	
	Coeff	*SE*	*Coeff*	*SE*	*Coeff*	*SE*
Pension			–0.04	0.16	0.24	0.16
Benefits					1.05***	0.11
Other			0.18	0.15	0.41***	0.16
R: Unemployed_3m					0.35***	0.10
R: Unemployed_5yrs					0.39***	0.12
R: Public Service					–0.09	0.14
R: Public Service x Post Recession					–0.02	0.18
R: Overtime					–0.12	0.08
R: Full-time					–0.16**	0.07
P: Full-time					–0.02	0.10
Observations					7,077	

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

Table 7 contains the key results of the analyses for the experience of financial difficulties. The table contains "raw" class differences[7] as estimated on the basis of the logistic regression (*raw model*), the class differences adjusted for the control variables (*reduced model*) and the class differences adjusted by the control and mediation variables (*full model*). Wald tests have been applied to evaluate the significance of the class differences for the change between the pre- and post-downturn periods. The discussion will focus on the differences between the *full* and the *reduced* model. For the overall sample, the percentage of households having experienced financial difficulties (adjusted for control variables) increased from 13.8 per cent in the pre- to 29.2 per cent in the post-recession period, a change of 15.5 percentage points. If the mediation variables are in place, the change reduces by 5.3 percentage points to 10.2 per cent. A mediation decomposition using the KHB method (Karlson *et al*., 2012) indicates that the increased number of households having benefits as their main income source is by far the most important mediation variable, followed by the reduced number of dual earner couples, unemployment of the reference person, the unemployment history of the reference person and having an unemployed partner. Being ill or disabled or having an ill or disabled partner contributed marginally. Measures of income stability (full-time, over-time) and whether a person works in the public service have a minimal mediation effect (decomposition not reported).

[7] All class differences are discrete AMEs (average marginal effects) relative to the reference category. Standard errors are calculated using the Delta method.

Table 7: *Predicted Probabilities of Experiencing Financial Difficulties*

	Raw Model			*Reduced Model*			*Full Model*		
	Pre	*Post*	*Difference*	*Pre*	*Post*	*Difference*	*Pre*	*Post*	*Difference*
Total	.130	.303	.173	.138	.292	.155	.159	.261	.102
HSA (1)	.060	.144	.084[23456]	.068	.142	.074[23456]	.108	.172	.064[46]
LSA (2)	.073	.205	.132[456]	.079	.201	.122[456]	.119	.210	.092[6]
INT (3)	.116	.294	.177[6]	.121	.286	.165[6]	.146	.259	.113[6]
LWC (4)	.162	.386	.224	.163	.355	.192	.159	.296	.137[6]
LBC (5)	.220	.427	.207	.228	.405	.177[6]	.213	.280	.066[46]
SEE (6)	.060	.321	.261	.063	.324	.261	.089	.336	.247
FAR (7)	.169	.225	.056[3456]	.202	.242	.039[3456]	.243	.331	.088[6]
ACD (1-5)	.084	.161	.077	.083	.146	.063	.050	.069	.019

Note: [2] Significantly smaller than difference of LSA. [3] Significantly smaller than difference of INT. [4] Significantly smaller than difference of LWC. [5] Significantly smaller than difference of LBC. [6] Significantly smaller than difference of SEE; Significance level: < 10 per cent if underlined, else < 5 per cent.

The figures derived from the reduced model confirm the different fortunes of the class of small employers and self-employed workers. The petit bourgeoise, who had substantially less financial difficulties than the average household in Ireland before the onset of the recession, experience far more financial difficulties than the average household in the post-recession period. Farmers, in contrast, were more likely to have financial difficulties than the average household before, but less likely than the average to have financial difficulties after the recession. The petit bourgeoisie experienced by far the highest increase in financial difficulties while farmers exhibit the lowest increase among all social classes.

For the employee classes, there is a clear gradient in the risk of having financial difficulties before and after the recession. The recession has increased the risk of all employee classes. This increase is quite modest for the salaried employees. The intermediate and working classes experienced a substantially higher increase. With regard to financial difficulties, the recession has widened class differences as the original class differences as well as the class-specific increases follow strictly the ranking on the service contract-labour contract continuum. These class differences can be summarised by the average ordinal class differences (ACD).[8] The ACD increased from .083 to .146 between the two periods, i.e., they almost doubled.

[8] The average ordinal class difference is based on all pairs of classes c_{ij} for which holds that class i is higher on the service relationship – labour contract continuum than class j. The average ordinal class difference is the sum of probability differences of all ordered class pairs c_{ij} divided by the number of class pairs c_{ij} .

Can the differences between the employee classes be explained by their different unemployment and benefit dependency risk? In the pre-recession period controls for these risks reduce the ACD by about 40 per cent, in the recession period, by more than 50 per cent. Most importantly, more than 2/3 of the increase in ACD between the periods is explained by the fact that that the unemployment and benefit dependency risk has increased more for the "lower" classes when compared with the higher classes.

These analyses thus provide robust support for the hypotheses that the risk of financial difficulties increases with the position on the service-labour contract continuum (H1) and that the increase in risk during the recession follows the same patterns (H2a). Moreover, as expected the self-employed exhibit the largest deterioration of their pre-recession position (H2b). Further support for the class-theoretical argumentation is supplied by the finding that differential increases in the risk of unemployment and earning losses account to a large degree for the widening gap between the classes (H3).

Even if we take this uneven increase in the risk of losing employment or earnings into account, there is still little that could support the expectation that the recession has hit the "middle classes" or "middling classes" particularly hard (H4a, H4b): The estimates of the full model evidence neither a reverse class gradient in the increase of the net risk of getting into financial difficulties nor an inverted U-shape relationship between class position and net risk.

In how far are the results robust and specific for the proposed explanation that differences in the governance of employment relations account for the observed pattern? Has the class-bias of the Irish recession not much more to do with the fact that some industrial sectors, in particular construction but also manufacturing, experienced a strong drop in demand with a corresponding reduction of their workforce or that the recession accelerated a general skill-biased change in the Irish economy?[9] Additional models (not reported) with period specific controls for industry and/or education (as proxy for skill) show that the observed gradient along the service-labour contract continuum and its change over time is very robust. The main reason for the fact that industry controls do little is that an over-proportional share of lower grade blue collar workers in construction and manufacturing is outbalanced by a strong concentration of lower grade white collar employees in the service industries. Education in turn affects the service-labour contract gradient only marginally, because education is not associated with growing financial difficulties when controlled for social class.

[9] I am grateful to an anonymous reviewer for alerting me to this point.

V SUMMARY AND DISCUSSION

Ireland has been particularly hit by the economic downturn of 2008. For many families in Ireland the economic downturn put strong pressures on their household budgets. As a result the share of Irish households reporting that they found it difficult or very difficult to live on their current income increased from 13 per cent in the period between 2002/2007 to 30 per cent in the period between 2009/2012. It is also obvious that the perceived financial situation of all social groups (with the likely exception of pensioners who were not included in the analysis) has deteriorated during the economic downturn. But has the recession hurt all social classes to the same degree, primarily affected the working classes or particularly impacted on the middle or the middling classes?

The analysis showed that it is essential to distinguish between employee classes and classes owning their means of production (or acting as independent contractors). Among the employee classes, the answer is surprisingly straightforward for the experience of financial difficulties: If employee classes are ordered on a continuum between service and labour classes, the likelihood of experiencing financial difficulties is lower the higher the class is ranked on the continuum and so is the increase of the risk in the post-recession period. The gaps between the middle class and the middling classes and between the middling classes and the working classes has widened as a result of the economic downturn.

The group hardest hit by the recession is not any of the employee classes, but the own account workers and small employees. Self-employed workers and small employers experienced the largest percentage increase in experienced financial difficulties. They started in pre-recession years as a level of difficulties close to the service classes and ended in the post-recession period at a level close to the manual working classes. This confirmed the expectation that the economic well-being of this social class is particularly closely tied to the state of the domestic economy, even more so than that of the working classes. It is likely that these self-employed workers and small employers "over-performed" in the "good years" before the economic downturns taking advantage of the opportunities provided by the booming domestic demand.

The situation of farmers is the complete opposite. Farmers experience the smallest increase of financial difficulties between the pre- and the post-recession period, starting at the level of manual working classes or lower white collar workers and ending at a level similar to the service classes. According to the survey data, farmers experienced an increase in financial hardship in the first years after the onset of the economic downturn, but their perceived economic well-being took a dramatic turn in 2010 and 2011. This

appears to directly mirror the development of farm incomes in the post-recession period. Family farm income was estimated to have fallen by 14 per cent in 2008 and by 30 per cent in 2009 (Connolly *et al*., 2010) and to have increased by 48 per cent in 2010 and by a further 30 per cent in 2011 (Hennessy *et al*., 2011; 2012).

The overall pattern is very much in line with the class-theoretical position that emphasises the importance of ownership and of the nature of the employment relationship as the underlying causes of economic vulnerabilities. This holds for the pre- and post-recession class differences in perceived financial difficulties, the strong decline of the perceived economic well-being of own account workers and small employers outside the agricultural sector and – most importantly – for the different impact the recession had on likelihood to experience financial difficulties. From a class-theoretical point of view the economic crisis in Ireland is primarily an employment crisis (and domestic demand crisis) and it is the higher vulnerability of the labour classes to unemployment and wage cuts and the higher exposure of the petit bourgeoisie to demand slumps that explains this pattern. The study provided striking support for this explanation: It showed that measures of unemployment risk and earnings stability with the particularly important role of the risks of unemployment and benefit dependency (a) explain a large share of employee class differences in the pre- and the post-recession period in perceived financial difficulties, (b) are more powerful as explanations in the post- than the pre-recession period, and (c) fully explain the increase of the employee class gradient with regard to the experience of financial difficulties.

The alternative idea examined was that middle classes were particularly strongly hit by the recession because they availed of privileged access to credit in the pre-recession period which may have resulted in high levels of indebtedness among middle-classes and strong pressure to de-leverage after the economic downturn. This may have been reinforced by government policies shifting burdens over-proportionally on to the shoulders of middle-class households and increasing costs for goods and services primarily privately secured by middle classes such as health, education and pensions.

The data provide no support at all for the hypothesis that middle classes in general have experienced a particular strong deterioration of their capability to manage expenditures with their available resources. Beside farmers, the higher service class which embodies the core of the "new" middle class experience the smallest increase in financial and borrowing difficulties between the pre- and post-recession period. Also, there is little to say in favour of the view that the "middling classes" were particularly hard hit by the mechanisms mentioned above. This suggests that the dominant mechanism accounting for the change in experienced economic hardship in the economic

downturn is the degree of direct exposure to market forces as identified by the "conventional" class view.

What explains than the widespread opinion that the "middle classes" are "squeezed"? A simple explanation may be that the working classes were "always" exposed to a substantial risk of financial difficulties and underlying causes such as unemployment or benefit dependency. For the middle classes, these hazards were truly exceptional in the pre-recession period (and have reached levels in the recession that are comparable with the working class situation before the recession). While the gap in absolute terms was widening between the classes, the gap in relative terms has been constant (difficulties) or closing (unemployment). For the middle classes, this may be experienced as a qualitative change of their situation which in their perception dominates the less salient, "merely" gradual change of the situation of the working classes.

It would have been desirable to have complemented the analysis of perceived economic hardship with "objective" economic hardship indicators such as household income or deprivation measures. However, perceived economic hardship appears to be a good proxy for material deprivation (Whelan *et al*., 2001) and merits interest as a phenomenon on its own. From a psycho-social perspective because perceived financial hardship clearly mediates the effects of socio-economic deprivation on mental illness and subjective well-being (e.g., Ervasti and Venetoklis 2010) and from a political and sociological perspective, because the erosion of established levels of livelihood may be more important as catalysts of political mobilisation than absolute or relative deprivation.

On a more general note, class theory is frequently accused of being increasingly useless in aiding the understanding social inequality. Both mechanisms I discuss are based on a social class explanation, i.e., that the structural labour market position of a household fundamentally shapes its opportunities and risks. The analyses provide evidence of substantial class inequalities in perceived economic hardship, which are increasing in the economic downturn. Although the risk has increased for all classes, it has not increased to the same degree: the increase in risk is class-differentiated and not general. The regression coefficients in Table 6 can be used to compare the strength of the class effect with proxies of other inequality dimensions. It is clear that life-cycle position, gender, having children, in particular as a single parent, or being an immigrant matters for the risk of experiencing economic hardship. But it matters not more and in most cases less than social class.[10]

[10] However, it would be interesting to examine whether and how the interaction between these risk factors and social class position has changed during the recession.

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