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Labour Market Exit and Social Stratification in Western Europe: The Effects of Social Class and Gender on the Timing of Retirement

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Abstract

This paper analyses social variability in retirement timing. It draws on a social stratification perspective, which arguably provides a richer theoretical framework than one-dimensional *pull* or *push* approaches. The first objective is to establish how class membership influences both the timing of retirement as well as the degree of accessibility to different pathways to retirement. The second objective is to elucidate the interplay of gender and class in work-exit dynamics. The empirical analysis uses data from the Survey of Health, Ageing and Retirement in Europe (SHARE) to estimate a series of event-history models for a sample of respondents from 11 Western European countries. The results show that social class exerts a strong influence on retirement processes, over and beyond other socio-economic characteristics, and especially on the risk of involuntary retirement. Employment constraints (*push* factors) and economic incentives (*pull* factors) affect workers in different class positions in markedly different ways. While there exist significant gender differences in retirement behaviour, these appear to be largely driven by women's lower class positions. The article concludes that ill health and unemployment remain heavy obstacles to prolonging working life in contemporary Western Europe.

Key words: retirement; social stratification; life course; social class; gender; survival analysis.

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Abstract

This paper analyses social variability in retirement timing. It draws on a social stratification perspective, which arguably provides a richer theoretical framework than one-dimensional *pull* or *push* approaches. The first objective is to establish how class membership influences both the timing of retirement as well as the degree of accessibility to different pathways to retirement. The second objective is to elucidate the interplay of gender and class in work-exit dynamics. The empirical analysis uses data from the Survey of Health, Ageing and Retirement in Europe (SHARE) to estimate a series of event-history models for a sample of respondents from 11 Western European countries. The results show that social class exerts a strong influence on retirement processes, over and beyond other socio-economic characteristics, and especially on the risk of involuntary retirement. Employment constraints (*push* factors) and economic incentives (*pull* factors) affect workers in different class positions in markedly different ways. While there exist significant gender differences in retirement behaviour, these appear to be largely driven by women's lower class positions. The article concludes that ill health and unemployment remain heavy obstacles to prolonging working life in contemporary Western Europe.

Key words: retirement; social stratification; life course; social class; gender; survival analysis.

Introduction

Concerns regarding the long-term financial sustainability of the welfare state have stimulated a renewed research interest in retirement behaviour. To boost employment rates among older workers, economists recommend welfare reforms that reduce early retirement incentives (Gruber & Wise, 2004; OECD, 2005; 2006). Most OECD countries have followed this recipe by raising pension eligibility ages and by strengthening the actuarial fairness of public pension schemes through adjustment factors (European Commission, 2010). Although public resistance against such reforms seldom reaches the scale of the autumn 2010 protests in France, survey evidence shows that raising retirement ages is an unpopular policy option across all Western European countries (Frommert *et al.*, 2009). Critics warn against the possible return of widespread old-age poverty as a result of benefit cuts for anticipated pension entrance (Taylor-Gooby, 2004). However, because reforms of the statutory pension age are only gradually phased in, the social consequences of these policy changes are still largely unknown.

Research on the linkage between social inequality and retirement timing has been hampered by a fundamental ambiguity regarding the evaluation of work in later life: is early retirement a privilege, or does it mean exclusion from gainful employment and identity-enhancing, productive activity? Since it is unclear whether early retirement is a blessing or a curse for workers, it is difficult to approach the issue from an equality perspective. All available evidence suggests that early retirement *per se* is neither good nor bad in terms of consequences for individual well-being. Instead, adjustment to retirement depends almost entirely on a worker's situation and predisposition (Kim & Moen, 2002; Van Solinge & Henkens, 2005). Nevertheless, the transition from work to retirement is a critical life event with long-lasting consequences for economic well-being in old age. But unlike income, health, or happiness the age of retirement is not a measure of inequality that would allow for a mapping of the social structure along a continuum between a positive and a negative pole. Rather, heterogeneity of individual retirement experiences demands an approach that is sensitive to group-specific work-exit trajectories. Moreover, research is called upon to identify risk groups to help resolve the policy dilemma between economic efficiency and the prevention of old-age poverty.

This paper starts out by asking whether the most widely used theoretical approaches in the retirement literature – the so-called *pull* and *push* theories – are appropriate for explaining social variability in retirement timing. I argue that a social stratification approach that focuses on the intersection of push and pull factors provides a richer theoretical framework for addressing differential retirement behaviour. The first objective of this paper is to establish how class membership influences retirement behaviour and the accessibility to various pathways to retirement. The empirical analysis draws on the Survey of Health, Ageing, and Retirement in

Europe (SHARE) to estimate a series of event-history models based on a large-N sample comprising respondents from 11 Western European countries. My second objective is to better understand the interplay of gender and social class in work-exit dynamics. While previous research has focused on men, the growing representation of women in the workforce requires an examination of potential gender specificities in retirement patterns.

Beyond the Push versus Pull Dualism

Previous theoretical discussion about the determinants of retirement age can be summarised as a controversy between rational-choice "pull" approaches and firm-centred "push" approaches (Ebbinghaus, 2006; Kohli & Rein, 1991). While the former consider monetary incentives responsible for early exit from work, the latter highlight the role of structural constraints.

Labour supply theory assumes that individual workers make their retirement decisions by maximising their utility. Dynamic life-cycle models, such as the option value model, treat the transition to retirement as an inter-temporal optimisation problem (Blöndal & Scarpetta, 1998; Gruber & Wise, 2004). Accordingly, elderly workers face a trade-off between the consumption of goods which require earnings from work on the one side, and the consumption of leisure in retirement on the other. In a sequential decision-making process, the worker chooses his or her labour supply as a function of expected earnings and future pension entitlements. The optimal retirement age also depends on workers' impatience, risk aversion, and work-leisure preferences, although these parameters are typically assumed to be homogenous across the population.

From this point of view, early retirement is largely driven by the incentive structure of the public pension system and other welfare state programs which impose implicit taxes on work. Numerous econometric studies document the strong *pull* effect of monetary incentives on retirement decisions (Blöndal & Scarpetta, 1998; Gruber & Wise, 2004). Indeed, there is compelling evidence that the introduction of generous early retirement policies prompted the accentuated decline in economic activity rates among older workers that occured in most advanced societies during the 1970s and 80s (Ebbinghaus, 2006; OECD, 2006).

By contrast, *push* approaches assert the primacy of labour market constraints over financial considerations in retirement behaviour. Proponents of this view (mostly gerontologists, psychologists, and sociologists) highlight the important role of structural constraints on early retirement, particularly in the form of ill health and unemployment (Van Solinge & Henkens, 2007; Vickerstaff & Cox, 2005). Empirical evidence shows that early withdrawal from work is often involuntary, either induced by disabilities or employers' labour shedding practices (Riach & Loretto, 2009; Szinovacz & Davey, 2005). Without a doubt, many older workers do not give up their job because of favourable early retirement arrangements, but because of a lack of

alternatives. Moreover, it is argued that older workers' employability is low partly because of negative age stereotypes among employers (Duncan & Loretto, 2004).

The extensive debate on *push* versus *pull* factors in early exit from work has not produced a clear winner. Today, few doubts remain that both economic incentives *and* labour market constraints exert a significant influence on the age of retirement (Higgs *et al.*, 2003; Schils, 2008; Vickerstaff & Cox, 2005). Comparative studies of retirement behaviour have similarly moved beyond an understanding of retirement behaviour as being driven by economic incentives alone. Cross-national variation in retirement patterns is rather seen as the joint product of diverse labour market conditions and complex institutional arrangements which give rise to a plurality of work-exit pathways (Blossfeld et al. 2006; Ebbinghaus 2006).

The question of social heterogeneity in retirement behaviour has not received much attention thus far. Evidently, financial incentives and structural constraints will not affect all groups of workers in the same way. However, both *pull* and *push* approaches are too coarse to account for group-specific retirement patterns. While the former adopt a flawed voluntarism and neglect that actors may face various constraints to continued employment, the latter are overly deterministic. Moreover, *push* and *pull* theories rest on diametrically opposed, implicit assumptions regarding individual actors' retirement preferences, ignoring potential sources of heterogeneity in work orientations. While economists hold on to the idea that people would, in principle, prefer not to work, gerontologists often assume that most early retirees would have preferred to work longer.

Two decades ago Kohli and Rein noted that "to the extent that access to the pathways [from work to retirement] is distributed unevenly, the outcomes are also pertinent to social stratification" (Kohli & Rein, 1991:27). Social class positions will differ in the balance of 'push' and 'pull' processes impacting on individuals. So far, however, the stratification perspective has only sporadically been applied to labour force withdrawal. The main finding from previous studies that take social class into account, most notably the contributions to two edited volume by Blossfeld and colleagues (Blossfeld *et al.*, 2006; Blossfeld *et al.*, 2011), is that the working class tends to retire earlier than the service class. Yet, there is no clear explanation for this phenomenon as classes differ from each other in multiple ways. For example, the early exit of the working class could be attributed either to job loss, or to adverse incentives within the pension system.

Hypotheses: Social Class and Retirement Timing

Neo-Weberian class theory holds that market position determines the individual endowment of material resources and has stark effects on life chances and labour market mobility (Sørensen, 2000). From this perspective, we would expect that differences in the type of employment

relationship not only influence career trajectories but also render work-exit patterns in classspecific ways. In this vein, DiPrete (2002) argues that social stratification is most consequential in the conditions experienced in risky life events.

The opportunity structure of older workers is first and foremost a function of their level of employability and pension entitlements. Only someone who is healthy and has a job (or the chance to get one) can opt for continued work. In other words, the possibility to stay in gainful employment is a precondition of a long working life. Vice versa, only someone who has accumulated pension rights or holds significant assets can afford to retire early. In short, as market constraints are class-dependent workers' location in the occupational hierarchy is likely to have an impact on retirement behaviour.

In practice, opportunity structures are dictated by the accessibility to the various pathways that lead from work to retirement. The chance to draw early retirement benefits varies according to job characteristics as social security regimes are often fragmented across occupational divisions. It thus stands to reason that the ability to withdraw from work and take up an old-age pension under favourable conditions should be highly class-differentiated. Class effects on ill-health (Rose & Pevalin, 2000) as well as on the likelihood of job loss (Layte *et al.*, 2000) are well documented. Therefore, the risk of being pushed into early exit from work should likewise critically depend on social class.

A stylised overview of expected constraints by class categories, according to the European Socioeconomic Classification (ESeC) (Rose & Harrison, 2007) is given in table 1. The last column summarises the first hypothesis (H1), on the relationship between social class and retirement patterns.

The upper service class is largely free from constraints. Its high private and occupational pension claims allow for early retirement. At the same time employability is high even at an older age. The average income of the lower service class is lower, which makes early exit from work less feasible. Intermediate occupations are characterised by a medium level of employment risks and average pension entitlements. Self-employed persons and small employers, either agricultural or non-agricultural, can often adjust working hours more flexibly than dependent employees. Therefore, they have a better chance of working (at least) as long as they wish. Still, they are often not eligible for a full state pension, and therefore, welfare in old-age depends largely on private assets.

(Table 1 here)

The working class is generally defined by high employment risks and modest earnings. Lowskilled workers in sales and services carry a relatively lower risk of a health-related early exit than manual workers because work strain is typically lower. Likewise, their vulnerability with regard to job loss is lower than among skilled manual workers. Conversely, skilled manual workers and higher-grade blue collar workers can often benefit from special pension schemes. This opens up options for voluntary early retirement that are unavailable to the service proletariat or unskilled blue-collar workers. Routine workers, finally, carry high employment risks. If they do not exit the labour market through a disability scheme, it is likely that they cannot afford to retire before reaching statutory retirement age.

The Intersection of Gender and Social Class

The ageism literature has livened up again the controversy surrounding the alleged "gender blindness" of class theory (Sørensen, 1994), drawing attention to the intersection of gender, class, and age (Duncan & Loretto, 2004). The conventional view of class analysis holds that the (dis)advantages linked to each class position are inherent to the relational situation within the occupational hierarchy (Goldthorpe, 1983). While gender may have an impact on access to attractive jobs, the rents connected to these positions should not be dependent of the sex of their incumbent. Thus, the class primacy hypothesis (H2a) claims that there are no differences in the retirement behaviour between men and women within a given social class.

However, women receive lower pay than men and have fewer chances to climb up the career ladder (Mandel, forthcoming). Given the close link between the labour market and pension entitlements, retirement opportunities are thus likely to be gender-graded as well (Shuey & O'Rand, 2004). In fact, in many countries women have long been entitled to receive an old-age pension at an earlier age than men (European Commission, 2010). Moreover, women are arguably faced with gender-discriminatory employer practices, or *gendered ageism* (Duncan & Loretto, 2004). Indeed, current research finds that women retire earlier than men (Dahl *et al.*, 2003) despite lower levels of financial preparation (Noone *et al.*, 2010). A competing hypothesis (H2b) thus postulates significant class-gender interactions in retirement behaviour, with women exiting the labour market earlier than men in the same class.

Data and Methods

Data

Data for this analysis are taken from the Survey of Health, Ageing and Retirement in Europe (SHARE). This international and interdisciplinary survey targets the European population over 50 years of age living in residential households, plus their partners. It was carried out using

computer-assisted personal interviews. Sampling strategies varied by country. The analysis uses data from the first wave, which had an overall response rate of 61.8% with country-specific response rates ranging from 37.6% in Switzerland to 73.6% in France (for further details see Börsch-Supan & Jürges, 2005).¹ The sample includes 11 countries: Austria, Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden and Switzerland. Data collection took place between 2004 and 2005.

The analysis sample was restricted to the birth cohorts 1930 to 1949, which by the time of the first interview was between 55 and 75 years old. SHARE is designed as a panel. However, no ISCO codes for previous and current occupations were collected in subsequent waves. Given the central importance of occupational social class in this study the data analysis is thus based on the first wave of SHARE alone. Sampling weights are calibrated as to represent the elderly population of Western Europe.

As it is usual in the sociological literature, retirement is understood as withdrawal from lifetime employment (as opposed to a definition based on pension income). Accordingly, homemakers have been excluded from the analysis. The final sample size is 12,154. Country-specific case numbers range from n=407 for Switzerland to n=1,749 for Sweden. While most respondents are already retired at the time of the interview (7,527), more than a third of the sample is still in the labour force (4,627). The dependent variable in the event-history analysis is the age of leaving the last job.

Statistical Model

A piecewise constant exponential model (PCEM) is estimated to assess the influence of various socio-economic variables on retirement ages. The PCEM is the standard model in individuallevel analyses of retirement behaviour. Instead of assuming a specific pattern of the age-specific retirement risk, the analyst only defines the age intervals for the baseline hazard. In this way, the age-specific retirement risk may contain discontinuities that arise as a consequence of institutionalised age thresholds within the pension system. Here, respondents enter the risk set of the survival analysis when they turn 50. Retirement is defined as the event of leaving the last job for respondents who self-assess their employment status as retired or disabled. Subjective "retirees" are coded as active if they report at least 20 weekly hours of paid work. The definition of the baseline hazard (age 55–59; 60; 61–62; 63–64; 65; 66+) takes into account that the most common age boundaries in European pension systems are at ages 60 and 65.

Operationalisation of Independent Variables

Social Class: Class is operationalised using the European Socio-economic Classification (ESeC) (Rose & Harrison, 2007), which is a further development of the well-known Erikson-Goldthorpe class schema. Class coding is based on the characteristics of the main job (i.e., ISCO-88; employed/self-employed; supervisory status) for respondents who are employed at the time of the interview; for retired and unemployed respondents it refers to their main job.

Years of education: Educational attainment may influence retirement behaviour in (at least) two different ways: firstly, the level of education is a main sorting criterion for job allocation on the labour market. However, the effect of job type on retirement timing will be better captured by class membership. A second way in which education may impact on retirement age is through biographical pacing: people who spend more time in education enter the labour market later and have on average less work experience at any given age. A long working life is related with an increasing risk of health problems, larger pension entitlements, as well as possibly with decreasing work attachment. The models control for years of education to capture such possible pacing effects.

Job tenure: The number of years spent on the current job. Job tenure is implemented as time-varying covariate.

Household context: Household circumstances often play a significant role in retirement decisions (Kim & Moen, 2002). The operationalisation of spouses' employment situation has been combined with information on marital status, using a set of time-dependent dummy variables.² To avoid inter-temporal inconsistencies, a separate category has been created to deal with missing retrospective partner information.

Number of grandchildren: To control for family-related retirement preferences (Hochman & Lewin-Epstein, 2011) the (approximate) number of grandchildren at each age is implemented in the models as a time-dependent variable. Because of its direct relationship with fertility the number of grandchildren is moreover probably inversely related to socio-economic status.

Missing data: In the final sample, six per cent of subjects contained missing information on some of the relevant variables. Missing data have been imputed through multiple imputation by chained equations using the *ice* procedure for Stata (Royston, 2004). The share of imputed values per variable in the analyses are: social class (3.3%); years of education (0.8%); job tenure (2.6%); firm size (1.1%).

Retirement Timing and Social Class in Western Europe

Survival Analysis: Estimation Results

Estimated hazard ratios from the duration model are displayed in table 2. The results from the first two models show that women's retirement behaviour does not differ significantly from that of men when controlling for class position and family situation. At the same time, we observe accentuated class differences. The higher salariat, petty bourgeoisie and farmers retire far later than routine workers, the reference group. Skilled manual workers, lower sales and service workers, as well as the higher-grade blue-collar workers retire even earlier than unskilled workers.

Turning to the household context, the retirement status of the partner significantly influences retirement behaviour. In line with earlier research (Drobniĉ, 2002; O'Rand & Farkas, 2002), we find that a retired spouse makes retirement about 80 percent more likely when compared to the situation of a married person whose spouse is working.³

According to the second model, the more time people spent in education the later they retire. By contrast, job tenure is positively correlated with the risk of early retirement. To some extent the two effects are complementary. The longer people have been working for their last employer, the earlier they can retire, because access to firm-sponsored early retirement programs typically depends on tenure. At the same time, the longest working careers are to be found in occupations with low entry ages and low requirements of formal education. Because these are often characterised by difficult working conditions, the risk of early retirement is higher. The tenure effect may also be related to early exit in the public sector where job stability is very high.

(Table 2 here)

In line with earlier evidence (Hofäcker *et al.*, 2006), a larger firm size increases the likelihood of early retirement. Not only are larger firms more likely to dispose of early retirement programs. Big companies are also often found in the manufacturing sector, which has seen considerable downsizing over the last decades (Ebbinghaus, 2006).

To test H2, the third and fourth models allow class effects to differ between men and women. Unfortunately, interaction effects are difficult to interpret when based on conventional regression tables (Gayle & Lambert, 2007). To circumvent the reference category problem, Firth (2003) proposes "quasi standard errors" that facilitate the analysis of interacted categorical variables. In figure 1 the quasi-variance approach is used to plot 95% "comparison intervals" of all class-gender combinations.

Apparently, the influence of social class on retirement age is largely the same for both sexes.⁵ All class effects are gender-insensitive. The only notable gender discrepancy is that female routine workers – unlike their male counterparts – do not retire significantly earlier than women in the service class. In fact, women in lower service-class jobs and women in routine jobs exhibit markedly similar retirement behaviour. This could be due to the fact that many lower service-class jobs for women are in the educational and health sectors, where psychological stress is higher than in comparable "male" office jobs.

(Figure 1 here)

Divergent Pathways to Retirement: A Competing Risks Framework

The evidence provided thus far shows that the age of retirement is strongly related to class position. The next step of the analysis aims to establish whether class effects are due to choices or constraints. Disentangling the *push* and *pull* effects involved is instrumental to address the black-box problem inherent in social class analysis (cf. Weeden & Grusky, 2005).

The timing of retirement varies greatly across different institutionalised pathways, which can be either direct or sequential (Kohli & Rein, 1991). From the perspective of the individual worker, whether employment exit is voluntary or involuntary is of utmost importance (Van Solinge & Henkens, 2007). When withdrawal fromwork is voluntary psychological adjustment to retirement is better than when it is involuntary (Van Solinge & Henkens, 2005). Moreover, involuntary early exit has long-lasting negative consequence for income in old age (Heisig, 2011). Therefore, it is useful to distinguish transition modalities in terms of workers' degree of control over the timing of retirement.

Empirically, this can be achieved on the basis of a question in SHARE about the main reason for retirement, which taps into the subjective motivation behind withdrawal from work.⁴ The first transition modality – *involuntary early retirement* – comprises all those who mention "made redundant," i.e., who lost their jobs, or "own ill health" as the reason for retirement. In the case of multiple answers (<10 per cent of respondents), unemployment or ill health was treated as dominant with respect to the other two modalities. By exclusion all others form the second category of *voluntary retirement*.

Of course, this simple twofold typology cannot capture the whole variety of possible situations at the frontier between work and retirement. Especially, there is substantial heterogeneity in the

group of voluntary retirees, which clusters together those who retire early because they received a *golden handshake* or want to spend more time with the family with those who retire late because they cannot afford to stop working sooner. Unfortunately, the data at hand do not allow for a neat discrimination between these and other possible motivations because we lack information on the alternatives available to actors at different stages of their late career. Nonetheless, the distinction between involuntary and voluntary retirement captures a very meaningful divide between the opportunity sets of different groups of older workers.

Figure 2 shows the Kaplan-Meier survivor estimates for the two transition modalities among current retirees, by gender, and reveals some clear differences between them. People leaving the labour market *involuntarily* via unemployment or disability retire very early; by age 57, half of this group has already exited the labour force. Meanwhile, the *voluntary* pathway is associated with much later retirement. More than half of the people who use this exit pathway retire at age 60 or later. These results suggest that the dichotomous variable captures qualitatively different transition modalities. There are also significant gender differences. Women are pushed out of their jobs at a younger age than men. From age 60 onwards women also exit the labour market at a faster pace than men when retirement is voluntary.

(Figure 2 here)

Social Stratification in Retirement Timing: Agency or Constraints?

Figure 3 shows the incidence of involuntary early exit among men and women in each class. The graph reveals a marked difference between the working class on the one side and the service class on the other. Around three out of ten lower sales and service workers, skilled manual workers or routine workers retire due to health problems or unemployment, whereas only one out of five service class employees retire involuntarily. As expected the incidence among the petty bourgeoisie and farmers is low. The overall distribution of pathways for men and women is similar. The most pronounced gender contrast is the higher prevalence of involuntary retirement among male skilled manual workers and farmers as well as men in intermediate occupations.

(Figure 3 here)

A competing risks model was estimated to examine the way in which social groups differ in terms of pathways to retirement. Table 3 shows the risk-specific hazard rates corresponding to both transition modalities. The first two models refer to *involuntary early retirement*. When compared to routine workers most classes carry a significantly lower risk of being pushed out of the labour market. Only skilled manual workers and supervisors are not significantly more likely to exit the labour force earlier consequent to unemployment or health problems. The empirical ordering of the hazard ratios corresponds quite neatly to the theoretical ordering of social classes according to employment risks, as stated by H1 (see table 1). The finding of high rates of *involuntary early retirement* among blue collar workers reaffirms that disability is often the consequence of physical work. Moreover, the trend towards deindustrialisation entailed frequent dismissals among manual workers. Conversely, the situation of lower sales and service workers shows that the problem of a low employability of elderly workers is not confined to manufacturing; once we control for job tenure, education and firm size it can be found to the same extent in the lower realms of the service economy.

When controlling for social class, women's risk of involuntary retirement is, if anything, slightly lower than that of men. Thus, the above finding that women are pushed out of the labour market earlier than men is probably attributable to their lower class positions.

(Table 3 here)

Voluntary retirement transitions are analysed in models 3 and 4. In the absence of *push* factors, intermediate employees, lower sales and service workers as well as higher-grade blue-collar workers and skilled manual workers exhibit a high propensity to retire earlier. Put differently, routine workers retire rather late. The only classes with a lower transition rate are the self-employed and small proprietors. Surprisingly, the hazard rates for members of the higher and lower service class are indistinguishable from that of routine workers. Only after controlling for job tenure and education the transition rate of the higher salariat becomes significantly lower.

To further test the robustness of the findings, table S-1 in the online supplementary material shows how the results change when we relax the proportional hazard assumption by introducing time-dependent class effects. Interestingly, class effects for involuntary early retirement are generally stronger when workers are between 50 and 59 years old and diminish after age 60. However, allowing for duration dependence did not substantially alter our previous findings.

Additional models with class-gender interactions have been estimated for each risk type. Figure 4 contains the hazard rates and comparison intervals for *involuntary early retirement*. Men and women within the same class position are apparently subject to very similar late career

constraints. Conditional on class there is only one significant gender difference: men in intermediate occupations carry a higher risk to leave the labour market involuntarily than women in the same class. Otherwise, class effects on the risk of involuntary early exit are gender-invariant. In line with hypothesis H2a employment constraints indeed mainly operate on the level of social classes.

(Figure 4 here)

The introduction of class-gender interactions in the model for *voluntary retirement* transitions yields a similar pattern. Figure 5 contains the estimated hazard ratios and comparison intervals for all class-gender combinations. While there are significant class disparities in retirement decision-making there no indications of gender differences within social classes.

(Figure 5 here)

Country Heterogeneity

Until this point we have treated Western Europe as a single society. However, it should be considered an empirical question whether the nation state or some supranational entity is the appropriate geographical unit of analysis (Breen & Rottman, 1998). As suggested by the themes of "international proletariat" and "transnational capitalism," social class is inherently a supranational concept. However, given substantial institutional diversity of pension systems and labour market regulations the relationship between social class and retirement patterns might differ across countries.

Figure 6 contains the results of country-specific analyses that were carried out analogously to model 1 in table 2. It shows that the class differences established at the level of Western Europe are broadly representative of the patterns existing within the various national societies, at least insofar as the contrast between the working class and the higher salariat is concerned. The upper service class, petty bourgeoisie and agricultural self-employed almost everywhere retire later than routine workers. By contrast, skilled manual workers and manual supervisors mostly retire earlier. There is greater cross-country heterogeneity among the lower salariat, intermediate occupations and lower service workers.

(Figure 5 here)

A different approach to the question of country differences in retirement processes is used in table S-2 (see online appendix). Instead of using sample weights designed to represent the Western European elderly population as a whole, it uses a set of weights that give equal weight to each country in the sample. Essentially, this procedure mimics a Western European society in which each country has the same number of older inhabitants: instead of assigning the biggest aggregate weight to the largest countries, by equalising the sum of weights across the sub-samples from each country it pays much greater attention to respondents from small countries. It turns out that this nation-based approach produces very similar results. It appears that the results presented above are largely representative also of work-exit patterns in the smaller countries in SHARE. However, some deviations from the previous findings are again found with respect to intermediate occupations and lower service workers, which thus emerge as the classes, for which the relationship between class position and retirement behaviour is less consistent across countries.

It is beyond the scope of this paper to examine the sources of these international differences in class effects. Despite recent advances in our understanding of the institutional determinants of early retirement (Blossfeld *et al.*, 2006; Blossfeld *et al.*, 2011; Ebbinghaus, 2006; Schils, 2008), further research is needed to evaluate the impact of cross-nationally varying macro-societal configurations on differential retirement patterns.

Conclusion

In this paper, I have analysed the association between social stratification and retirement behaviour in Western Europe. The impact of class effects on retirement behaviour proved not only to be strong but also irreducible to other socio-economic variables such as education or job tenure. Moreover, it was shown that *push* and *pull* factors affect workers in different class positions in markedly different ways.

The groups of workers who retire latest are found at the upper and lower end of the occupational ladder. Because routine workers have low pension entitlements and limited access to firm-sponsored retirement plans, they retire rather late, except in the case of disability. The late retirement of the service class appears less a consequence of a strong work attachment than of being sheltered from labour market constraints, which frequently lead to involuntary early exit among the working class. Farmers and other self-employed workers, virtually regardless of circumstances, work until late in life. Skilled manual workers and higher-grade blue collar workers have the highest risk of early exit because, on the one hand, they are likely to lose their jobs or suffer disabilities, while, at the same time, they often have access to financially attractive

early exit schemes. Partly because of pension privileges in the public sector, employees in a mixed employment relation (e.g., administrative clerks) also exit the labour force rather early.

Furthermore, the analyses have demonstrated that the way in which social class influences retirement timing is largely the same for women and for men. Most importantly, by scrutinising involuntary early exit, almost no significant class-gender interactions were revealed. In consequence, we cannot reject the *primacy of class thesis*, which asserts that retirement opportunities are a function of occupational position, independent of sex. The fact that women are pushed out of the labour market at a younger age than men seems largely due to their disadvantaged class position.

The differential exposure to push factors emerges as one main reason for socio-economic differences in retirement timing. This finding has relevant policy implications. Ill health and unemployment remain heavy obstacles to prolonging working life in the 21st century – not only for manual workers but also routine service workers. Therefore, policy-makers should be aware of the limits to senior workers' capacity of "active ageing". Pension reductions caused by early retirement should be monitored closely as statutory pension ages are steadily lifted. From a social policy point of view, an increasingly important feature of pension systems is to heavily weigh the number of years worked. The more the age of retirement *per se* matters for old-age pension eligibility and the calculation of benefits, the more detrimental it is for working class individuals who still frequently retire involuntarily.

Notes

¹ There is a clear gap between Switzerland and Sweden, which had the next-worse response rate with 50.1%. Analyses that were performed excluding respondents from Switzerland did not produce substantially different results.

² For simplicity, "married" includes registered partnerships, and excludes spouses living separately. The latter are treated as divorced. Disabled spouses are treated as retired.

³ Further sex-specific model estimations (available from author upon request) have revealed that spousal characteristics are more important for women than for men, albeit the joint retirement effect was found significant among men as well.

⁴ The survey question in the generic questionnaire reads: "For which reasons did you retire?" The response categories are: 1. Became eligible for public pension; 2. Became eligible for private occupational pension; 3. Became eligible for a private pension; 4. Was offered an early retirement option/window (with special incentives or bonus); 5. Made redundant (for example pre-retirement); 6. Own ill health; 7. Ill health of relative or friend; 8. To retire at same time as spouse or partner; 9. To spend more time with family; 10. To enjoy life. In some countries, there was an additional option "Other Reason". There are some departures in wording due to translation and country-specific legislation, but the variation in meaning is within reason. Respondents who reported "disabled" as their employment status were not asked this question. Since health problems were the likely cause for retirement, these respondents were included in the "involuntary retirement" cluster.

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Tables and figures

CLASS	Employment	Employment	Old-Age	Expected	
(ESEC)	RELATION	Risks	Income	Retirement Pattern	
Upper Salariat	Service	low	high	Late	
Lower Salariat	Service	low	mid	Average	
Intermediate	Mixed	mid	mid	Average	
Self-employed	Independent	low	mid	Late	
Farmers	Independent	low	mid	Late	
Manual Supervisors	Mixed	high	mid	Early	
Lower Sales & Service	Labour	mid	low	Average	
Skilled Manual	Labour	high	mid	Early	
Routine Occupations	Labour	high	low	Average	

Table 1	Late-Career Constraints a	and	Expected	Retirement	Behaviour	by	Social	Class	for
	a Typical Actor								

Source: own elaboration.

ALL TRANSITIONS	1	2	3	4			
	Hazard Ratios						
Female	0.996	1.065	.903*	1.037			
Social Class (Ref.: Routine Occupations)							
Higher Salariat	.738***	.745***	.721***	.758***			
Lower Salariat	0.971	0.956	.901***	0.935			
Intermediate Occupations	1.112	1.095	0.984	1.003			
Petty Bourgeoisie	.580***	.548***	.555***	.546***			
Agricultural Self-employed	.716***	.559***	.648***	.533***			
Manual Supervisors	1.282***	1.191**	1.272**	1.216*			
Lower Sales and Service	1.090**	1.125***	1.059	1.172			
Skilled Manual	1.220***	1.170**	1.135***	1.133***			
Family Situation (Ref.: Married, Spouse E	mployed)						
Married, Spouse Retired	1.815***	1.793***	1.816***	1.790***			
Married, Spouse Homemaker	1.183***	1.121	1.180***	1.121			
Married, Spouse Missing	1.235***	1.206***	1.233***	1.203***			
Divorced	1.170*	1.260***	1.171*	1.260***			
Widowed	1.259***	1.271***	1.267***	1.271***			
Unmarried	1.140***	1.131***	1.139***	1.134***			
Number of Grandchildren		1.016**		1.016*			
Years of Education		.978***		.977***			
Job Tenure		1.021***		1.021***			
Firmsize		1.001***		1.001***			
Gender-Class Interaction (Ref.: Female &	Routine Occ.)						
Female & Hi.Salariat			0.984	0.898			
Female & Lo.Salariat			1.190	1.063			
Female & Intermediate			1.229**	1.146			
Female & Self-empl.			1.100*	1.013			
Female & Farmer			1.254	1.123			
Female & Manual Supervisor			0.932	0.896			
Female & Lower Service			1.079	0.960			
Female & Skilled Manual			1.278	1.154			
Country Dummies	YES	YES	YES	YES			
Period Effects	YES	YES	YES	YES			
Baseline Hazard	YES	YES	YES	YES			
Number of subjects (Transitions)	12,154 (7,527)	12,154 (7,527)	12,154 (7,527)	12,154 (7,527)			
F statistic	24093.54	4301.49	17632.24	23632.49			

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

Source: SHARE 1 2004 /05. Rel. 2.5; own calculations.

	INVOLUNTARY EARLY EXIT VOLUNTARY RETIRE!		RETIREMENT		
	Hazard Ratios				
Female	.879**	.879*	1.037	1.124	
Social Class (Ref.: Routine Occupations)					
Higher Salariat	.490***	.656***	0.849	.781**	
Lower Salariat	.599***	.755***	1.135	1.038	
Intermediate Occupations	.700***	.813**	1.308*	1.232**	
Petty Bourgeoisie	.453***	.511***	.630***	.561***	
Agricultural Self-employed	.615***	.582***	.761**	.555***	
Manual Supervisors	0.899	1.006	1.468***	1.277***	
Lower Sales and Service	.888*	0.985	1.178***	1.188***	
Skilled Manual	1.109	1.160	1.260***	1.164**	
Family Situation (Ref.: Married, Spouse E	Employed)				
Married, Spouse Retired	1.599***	1.530***	1.906***	1.900***	
Married, Spouse Homemaker	1.049	0.990	1.244***	1.175*	
Married, Spouse Missing	1.108*	1.100	1.293***	1.253***	
Divorced	1.323	1.363	1.108**	1.211***	
Widowed	1.287	1.214	1.266***	1.313***	
Unmarried	1.091	1.094	1.158***	1.142***	
Number of Grandchildren		1.051***		1.004	
Years of Education		.953***		.984***	
Job Tenure		1.007***		1.026***	
Firmsize		1.001		1.001***	
Country Dummies	YES	YES	YES	YES	
Period Effects	YES	YES	YES	YES	
Baseline Hazard	YES	YES	YES	YES	
Number of subjects (Transitions) F statistic	12,154 (2,030) 71292.32	12,154 (2,030) 41743.10	12,154 (5,497) 17513.90	12,154 (5,497) 7919.86	

Table 3 Competing Risks Models of Employment Exit (PCEM)
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* p<0.1, ** p<0.05, *** p<0.01 Source: SHARE 1 2004 /05. Rel. 2.5; own calculations.



Figure 1 Estimated Hazard Rates and Comparison Intervals (Quasi-Variances) in Model with Interaction Effects (All Transitions)

Figure 2 Divergent Pathways into Retirement





Figure 3 Incidence of Involuntary Early Exit by Social Class, Men and Women



Figure 4 Estimated Hazard Rates and Comparison Intervals (Quasi-Variances) in Competing-Risks Model with Interaction Effects (Involuntary Retirement)



Figure 5 Estimated Hazard Rates and Comparison Intervals (Quasi-Variances) in Competing-Risks Model with Interaction Effects (Voluntary Retirement)



Figure 6 Country-Specific Class Effects on Retirement Hazards (PCEM)