

‘Outsiderness among young people in Europe: A fuzzy set analysis’

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Prepared for Presentation at the ‘Inaugural WINIR Conference’, London, UK

11-14 September 2014

Abstract

This paper applies fsQCA to examine the determinants of outsiderness among young people. The analysis reveals two possible paths for the outcome and that fertile breeding grounds for social conflict and the absence of a high share of lower tier jobs are necessary for each of them. The first path combines the absence of a high share of lower tier jobs, high employment protection, and low coordination in the industrial relations system, while the second path combines the absence of a high share of lower tier jobs, the absence of high employment protection and liberalisation. Besides clarifying the existing controversies among dualisation scholars and highlighting the strengths of an institutionalist approach to the issue of labour market segmentation, this paper sheds new light on the Southern and Anglo-Saxon cases and identifies the conditions contributing to high levels of outsiderness among young people.

Keywords: segmentation, youth, labour market institutions, welfare state, social conflict, QCA

JEL classification: P16 political economy

1. Introduction

Several authors have pointed out that post-industrial labour markets have downplayed the position of young people, women and the low skilled (Esping-Andersen, 1999, p. 306; Oliveira *et al.*, 2011, p. 163). This can be explained by the fact that young people hold a much weaker position in the labour market and are therefore endowed with few power resources. Taking into account that post-industrial labour markets are characterised by a growing number of jobs in services and that these jobs are more insecure and less regulated by collective arrangements than jobs in the manufacturing sector, it is not surprising that young people are more vulnerable to this process and therefore more penalised. Notwithstanding, recent research has shown that some countries are much more vulnerable to this process than others (Lodovici, 2000; Blanchard, 2006, p. 12; Ebbinghaus, 2006a, p. 125; Chauvel, 2010).

Recent research in the field of comparative political economy has pointed to a growing inequality across the Western European countries. These authors have pinpointed the process of dualisation as the main driver of change (Rueda, 2007; Palier and Thelen, 2010; Emmenegger *et al.*, 2012; Rueda, 2014). Although these scholars speak of the existence of different patterns of dualisation (Schwander and Häusermann, 2013), they do not explain why in some countries it is mostly young labour market participants who are the outsiders. In my view, its emphasis on efficiency to explain institutional change (inspired by the Varieties of Capitalism approach) contributes to this fact. Indeed, by arguing that the process of dualisation began with the attempt to save the core manufacturing economy, Palier and Thelen point to efficiency as the main driver of labour market reforms, given that comparative advantages would otherwise be undermined. In other countries however, it seems that the opposite has occurred, especially if we take into consideration the consequences of the divides based on age. Age dualities have contributed (especially during the crisis) to a dramatic increase in youth unemployment (e.g. in Southern European countries). If we take into account the fact that the younger generations are comparatively more educated, the situation becomes even more dramatic, due to the waste of productive potential. Therefore, rather than efficiency, a different cause must be identified to explain this process.

In this paper, I argue that to explain growing labour market inequalities based on age, a different analytic focus is necessary; one that, even though it borrows important insights from the recent literature on dualisation, departs from it in three ways. First, differences between the industrial relations systems must be highlighted. Rather than cross-class coalitions between trade unions and employer associations of the core manufacturing economy, what characterises some countries is the conflict between labour and capital. Second, I suggest placing more emphasis on the process of liberalisation. Indeed, liberalisation scholars have made a powerful critique to the rationalist-functional assumptions in which the Varieties of Capitalism (VoC) approach relies and

argue that in all capitalist economies change is driven by a process of market expansion and by the social conflicts associated with this process. Finally, although these two factors play a crucial role to explain labour market inequalities based on age, they are not the only drivers of this process. In my view, it is also because some countries have seen a reduction in the share of lower tier jobs (i.e., a reduction in the lower tier of the primary sector) that a growing number of outsiders among young people exist.

This paper applies fuzzy-set qualitative comparative analysis (fsQCA) to examine the determinants of outsideness among young people in Europe. Based on my theoretical argument, I hypothesise that fertile breeding grounds for social conflict (due to either the low coordination in the industrial relations system *or* liberalisation) and the absence of a high share of lower tier jobs are necessary conditions for high levels of outsideness among young people. The results of the fsQCA analysis show that the absence of a high share of lower tier jobs and the combination of conditions low coordination in the industrial relations system and liberalisation are necessary conditions for the outcome high levels of outsideness among young people. Furthermore, I find no evidence that high employment protection is a necessary condition for the outcome. As concerns the analysis of sufficient conditions, two possible paths for the outcome are identified: the first combines the absence of a high share of lower tier jobs, high employment protection, and low coordination in the industrial relations system, while the second combines the absence of a high share of lower tier jobs, the absence of high employment protection, and liberalisation.

There are three important areas where this study makes an original contribution. First, it clarifies the controversies among dualisation scholars and highlights the strengths of an institutionalist approach to the issue of labour market segmentation. Second, since it is the first study on dualisation to analyse the drivers of growing labour market inequalities based on age, it enhances our knowledge of the conditions contributing to high levels of outsideness among young people. Finally, given that the vast majority of studies on dualisation are focused on the Continental and Nordic cases (e.g. Palier and Thelen, 2010; Eichhorst and Marx, 2011; Lindvall and Rueda, 2012; and almost all chapters in Emmenegger *et al.*, 2012), this paper extends the analysis to countries that have received less attention from dualisation scholars, namely Southern Europe and Anglo-Saxon countries (as for Anglo-Saxon countries, exceptions include Fleckenstein *et al.*, 2011). Indeed, as it is explained below, high levels of outsideness among young people are mainly found in Southern Europe and Anglo-Saxon countries.

The first section of this paper reviews the literature on labour market stratification, puts forward the theoretical argument, and presents the fuzzy-set hypotheses. The second section begins by discussing why fsQCA is used in this paper. Thereafter, it presents each condition and the

outcome, and discusses the results of the empirical analysis. Finally, the conclusion gives a brief summary and critique of the findings.

2. Explaining growing labour market inequalities based on age

A considerable amount of literature has been published about the existing divides in the labour market. Dual labour market theories (Doeringer and Piore, 1971) and economic insider-outsider theories (Lindbeck and Snower, 1988) are often cited as the most relevant literature in this area.¹ More recently, a new approach – the dualisation literature – has gained importance within the field of comparative political economy (Rueda, 2007; Palier and Thelen, 2010; Emmenegger *et al.*, 2012; Rueda, 2014). As can be seen below, each of these three strands of literature has different analytical roots and attempts to deal with different socio-political challenges. I will begin by pinpointing the main features of each approach and thereafter describe the main differences between them. Finally, building on the literature reviewed in this section I put forward the hypotheses of this study.

2.1 Institutional versus mainstream economics: Disentangling the controversies among dualisation scholars

Dual labour market (DLM) theories have their roots in the American Institutionalist School (Doeringer and Piore, 1975, p. 70; Cain, 1976, pp. 1226-1228; Leontaridi, 1998, pp. 68-69; Barbier, 2011, pp. 7-9), particularly in the contribution of Kerr (1954) and Dunlop (1957). Together with institutional economics, DLM scholars challenged classical and neo-classical explanations about the workings of the labour market. Indeed, against human capital theories, they argued that the labour market is not a single competitive market and that skills per se do not guarantee access to that labour market. For the DLM scholars several non-competing segments exist, as well as institutional barriers between them. They point to the existence of two sectors: a primary and secondary. While the primary sector is characterised by ‘relatively high wages, good working conditions, chances of advancement, (...) and above all employment stability’ (Piore, 1972, p. 2), the secondary sector is characterised by relying mainly on poor jobs (low wages, few promotion possibilities, poor working conditions and high labour turnover).

The primary is characterised by having well developed internal labour markets in which institutional rules (formal and informal) substitute for market mechanisms. To explain this, DLM theories argue that firms in the primary sector depend more on their employees’ specific skills (acquired through on-the-job training and experience) and therefore develop strategies to protect their labour force from the risk of poaching (Rubery, 1978, p. 19). Notwithstanding, dual labour market scholars later distinguished between an upper and a lower tier within the primary sector. Piore (1972, p. 3) argued that ‘the upper tier of the primary sector is composed of professional and

managerial jobs. Such jobs tend to be distinguished from those in the lower tier by the higher pay and status, and the greater promotion opportunities which they afford. They are also distinguished by the mobility and turnover patterns, which tend to more closely resemble those of the secondary sector except, in contrast to the patterns of that sector, mobility and turnover tend to be associated with advancement'. Furthermore, while in the upper tier workers make use of general skills, the lower tier is mainly characterised by the use of specific skills. In their view, 'it is for this reason that lower tier jobs place a premium upon stability and routine' (Piore, 1972, p. 14).² The secondary sector covers workers outside internal labour markets (i.e. where the tasks performed by the workers depend less on specific skills). In this sector, supply and demand forces play a pivotal role, there exist more entry ports and therefore workers are more vulnerable to pressure from outside. As a consequence, the mobility of employees between segments is restricted and therefore excess demand pressures do not imply changes in the labour conditions in the primary sector. Finally, the socio-political context has also exerted great influence over dual labour market scholars. This approach has tried to provide an answer for the political concerns of the 1960s: structural unemployment, racial discrimination, poverty and inequality. Contrary to human capital theories (which argued that education and training programs could fight poverty), segmented labour market scholars stressed that poverty could only be tackled by providing access to primary employment to those excluded from it (Piore, 1970, p. 55).

Economic insider-outsider theories emerged at the end of the 1980s. Rather than considering the rise of poverty and inequality, their puzzle relied on the intriguing high levels of structural unemployment in Europe, especially compared with the situation in the US where it was much lower (Blanchard, 2006, p. 19). Against prevalent explanations based on the natural rate framework, they considered that short-term economic shocks were not the main reason behind unemployment. Moreover, economic insider-outsider theorists argued that market mechanisms were not able to explain the rise of structural unemployment. They pointed to the fact that a decline in productivity growth (due to rapid deindustrialisation throughout the 1980s) did not lead to an adjustment in wages (Emmenegger, 2009, p. 133). To explain this, they preferred to blame labour market institutions by arguing that some workers are trapped in involuntary unemployment because labour market institutions impede competition between the unemployed (or those working in the informal economy) – the outsiders – and those already in the labour market – the insiders (Lindbeck and Snower, 1988). They point to the existence of conflicting interests between insiders and outsiders as a consequence, given that the latter prefer to dismantle existing labour market institutions (which impede their entrance into the labour market), while the former prefer the opposite, giving their intention as preserving their (good) jobs. When speaking of labour market institutions, economic insider-outsider theorists mean institutions that protect insiders from the competition of outsiders

(e.g., severance-pay, seniority rules, requirements that firms give insiders advance notice of dismissal) (Lindbeck and Snower, 2001, p. 167). Finally, although economic insider-outsider theory challenges classical explanations, this approach is built on the assumptions of mainstream economics, taking into account that, for them, institutions impede the optimal functioning of the market (Barbier, 2011, p. 4).

Two main differences between DLM theory and economic insider-outsider theory should be underlined: its theoretical roots and its socio-political motivations. First, the separation between these two strands of literature is rooted in a broader debate between institutional economics and mainstream economics. While for institutional economics social groups and institutions are a crucial part of the functioning of the labour market and are indeed inseparable from it, mainstream economics emphasises the role of market mechanisms: for them institutions only disturb the functioning of the market. Second, each approach attempts to deal with different challenges: DLM scholars focused on the rising levels of poverty and inequality in the US, while the high level of structural unemployment in Europe was the conundrum behind the economic insider-outsider framework.

The dualisation literature provides interesting insights for understanding post-industrial labour markets. It has been inspired by the seminal work of David Rueda (2007). However, recent contributions have challenged Rueda's initial framework: while Rueda has drawn on the economic insider-outsider theory, Palier and Thelen (2010) and Emmenegger *et al.* (2012) have mainly built their ideas on DLM theory. Following the economic insider-outsider framework, David Rueda has argued that 'labor is divided into two segments: those with secure employment (insiders) and those without (outsiders) ... [and that] the interests of insiders and outsiders are fundamentally different and, in some circumstances, contradictory' (Rueda, 2007, pp. 2-3, insertions mine). Rueda goes beyond the economic insider-outsider framework in at least two ways. First, as well as the unemployed, he includes those with temporary jobs in the group of outsiders. Second, he argues that in the presence of conflict between different groups within the labour force, social democratic governments often do not promote the interests of the weakest members of society, and therefore exacerbate the gap between insiders and outsiders. This happens, Rueda argues, because insiders disproportionately vote for social democratic parties and are over-represented within trade unions. Rueda stresses that for electoral reasons social democratic parties (together with trade unions) contributed to an increase in the gap between insiders and outsiders because they have promoted job security for the employed insiders instead of active labour market policies to support outsiders. The negative role of social democratic parties has however been challenged by others (Emmenegger, 2009, pp. 133-137; Palier and Thelen, 2010, p. 121; Thelen, 2012). They argue that where social democratic parties are stronger (e.g. in the Nordic countries), dualistic trends are less pronounced.

Second, Palier and Thelen put forward a different explanation for the growing levels of dualities by arguing that the attempt to save the core manufacturing economy has been the main driver of change towards dualisation in Continental Europe. Their argument has its roots in the concept of complementarities (see also Iversen and Soskice, 2009). They point to the fact that changes in one sphere of the political economy have contributed to changes in others as well. They defend the view that reforms during the 1980s and 1990s have shrunk the industrial sector's size and therefore allowed the expansion of new types of jobs on the outside, giving rise to the emergence of a secondary labour market. To maintain a set of institutional comparative advantages, coordination between capital and labour was maintained in the core manufacturing economy (preserving therefore a number of stable and well remunerated jobs), but the expansion of the secondary sector contributed to the spread of poor jobs.³ Additionally, the welfare state has reinforced the problem in countries where the eligibility for benefits is historically based on past contributions. By emphasising the role of policies, they stress that dualisation does not imply that all countries will necessarily experience high levels of insider-outsider divides. The existing differences between countries illustrate how some policies may reinforce dualisation while others (if, for instance, outsider policies are relatively generous) may reduce it.

But, even though policies are the main cause of the existing dualities; they only become important because of previous changes that have taken place in the labour market, which is why there exists a clear link between the argument of Palier and Thelen and that of Emmenegger *et al.* The same is not true of Rueda's argument, considering his emphasis on the negative role of social democratic parties and trade unions. Contrary to Rueda's point of view, Emmenegger *et al.* argue that social policies carried out by the social democratic parties are indeed the cause of lower levels of dualisation in those countries. Finally, while Rueda is focused on the high levels of unemployment, Emmenegger *et al.* (2012, pp. 3-4) are mainly concerned with the increasing levels of poverty and inequality.

Comparing these two approaches, I consider Rueda's perspective too much focused on unemployment. Indeed, due to its mainstream assumptions it does not pay enough attention to job quality. As the empirical results of this paper will show, less employment protection does not guarantee, *per se*, less labour market segmentation based on age. The approach put forward by Palier and Thelen is better placed to address the issue of job quality, but it also has its limitations. Regardless of its merits, it is difficult to explain growing labour market inequalities based on age with this framework. This is, in my view, related with the pitfalls of rational choice institutionalism, namely its tendency to see institutions as 'guardians' of efficiency (Howell, 2003, p. 110; Streeck, 2009, Chapter 13). While this conceptual framework is well suited to explain Continental and Nordic countries pattern of dualisation, the same does not apply to Southern Europe and to the

Anglo-Saxon countries. Recently, Häusermann and Schwander have provided empirical evidence about the process of dualisation across regimes and by doing so have shown that different patterns of dualisation exist: ‘in the Nordic and Continental countries, gender is the most important criteria, while in Southern European regimes it is mostly young labour market participants who are potential outsiders, and in the Anglo-Saxon countries, outsiders are predominantly found among the low-skilled’ (2012, p. 34). The gender divide reflects the split between jobs in industry (where males are over-represented) versus jobs in services. As regards the Anglo-Saxon case, the existing divides have their roots in differences within the service sector. Indeed, contrary to what has happened in Continental Europe, the core manufacturing economy was not saved in the 1980s (Margaret Thatcher’s era). As for Southern Europe, it also lacks the logic of complementarities extant in Continental and Nordic countries (Molina and Rhodes, 2007). As its industrial sector was much less competitive (relying mainly on low wages rather than on specific skills) than its counterparts in Continental Europe, reforms during the 1980s and 1990s did not save the core manufacturing economy. We must therefore innovate conceptually in order to integrate the existing diversity into this literature.

2.2 Looking for the drivers of dualisation based on age

The above-mentioned tendency to see institutions as ‘guardians’ of efficiency (and therefore of stability) has concealed crucial features of some countries and has neglected the conflictual logic of the capitalist system. In my view, this has contributed to a lack of understanding of the growing labour market inequalities based on age. To overcome these problems, it is crucial to highlight the distinctive characteristics of the industrial relations system in some countries and to place greater emphasis on liberalisation. Finally, it is also necessary to underline that it is precisely the fact that some countries have seen a reduction in the share of lower tier jobs that has led to a growing number of outsiders among young people.

European countries diverge regarding the functioning of the industrial relations system: while more cooperative relations between social partners characterise Continental and Scandinavian countries, more conflictual relations historically characterise Southern Europe and Anglo-Saxon countries. Colin Crouch (1993, pp. 61–62) analysed how the industrial relations system evolved in a large set of European countries between 1870 and 1990 and stressed the existence of three ideal types of interest intermediation: (i) contestative relations, (ii) pluralist collective bargaining, and (iii) neo-corporatism. As is well documented, contestative relations characterise Southern Europe, and pluralist relations the Anglo-Saxon countries (Ebbinghaus, 2006b, p. 73; Molina and Rhodes, 2007; Lima and Naumann, 2011). The conflictual logic of some industrial relations systems is problematic to the dualisation framework given the emphasis that this literature places on

cooperation.⁴ Indeed, to see trade unions, which historically followed a class struggle approach, as guiding their behaviour by strategic coordination with the employers of the core manufacturing economy is, at the minimum, debatable. In spite of this, in my opinion, a different point must be highlighted: in countries with low levels of coordination between labour and capital the low levels of union density led unions to represent their members first and foremost and to neglect the remaining workers (i.e., to protect those workers with more political power rather than those in a weaker position). This happened not because labour market insiders acted against outsiders but because they preferred confrontation instead of cooperation with employers. Since younger generations are less unionised and therefore have less political power, this process has particularly affected them.

Furthermore, social conflict can also result from market expansion, as liberalisation scholars have emphasised.⁵ The liberalisation literature, as an institutional theory of capitalism, emphasises the communalities between countries rather than their varieties and criticises the functionalist's assumptions on which the VoC relies (Streeck, 2009). Drawing on Polanyi's (1944) 'double movement' of market expansion and market containment thesis, it argues that in all capitalist economies, change is driven by a process of market expansion and by the social conflicts associated with this process. This emphasis on the conflictual logic of the capitalist system (Streeck, 2009, pp. 5–6), is very much in line with the point I stressed above: politics plays a crucial role in countries with more conflictual relations since those who are more organised (and hold more political power) are the insiders, rather than those with more specific skills. The social countermovements have protected these workers more, but this is neither an efficient nor a stable solution.⁶ The two factors – low coordination in the industrial relations system and the process of liberalisation – can be synthesised under what I call *fertile breeding grounds for social conflict* because both market expansion and a conflictual industrial relations system are conducive to social conflict. Social conflict affects negatively the young people because, as mentioned above, they hold less political power.

By arguing that the dualisation framework is particularly well suited to explaining the situation in Continental and Nordic European countries, I do not mean that the emphasis on differences between the primary and the secondary sector is useless for understanding the situation in Southern Europe and Anglo-Saxon countries. In my view, that emphasis is crucial, but for the opposite reason. I argue that it is precisely the fact that some countries have seen a reduction in the share of lower tier jobs that has led to a growing number of outsiders among young people. Indeed, while in Continental Europe the manufacturing sector still provides access to stable jobs, the same does not apply to the Southern and Anglo-Saxon countries. For instance, in Southern Europe, the massive process of delocalisation of multinationals since the 1980s (e.g. in the textile sector) has

dramatically reduced the share of jobs in the manufacturing sector. The new generations entering the labour market after/during this process have been severely affected. The deterioration of the position of young people on the labour market is therefore directly related to the reduction of the lower tier of the primary sector.

Thus, these two factors – fertile breeding grounds for social conflict and a reduction in the share of lower tier jobs – are the cornerstone of my theoretical argument: they both have to be present in order to produce high levels of outsiderness among young people. The first reduces the share of stable jobs and the second triggers social conflict, which leads to an uneven distribution of risk across different social groups because political power is unevenly distributed. Therefore, I hypothesise that fertile breeding grounds for social conflict (due to either the low coordination in the system of industrial relations *or* liberalisation) and the absence of a high share of lower tier jobs are necessary conditions for high levels of outsiderness among young people. Moreover, although I criticise the emphasis placed by the economic insider-outsider framework on the role of employment protection, it seems plausible to hypothesise that employment protection is an INUS condition, that is, an insufficient but non-redundant part of an unnecessary but sufficient (combination of) condition(s) (Schneider and Wagemann, 2012:79). Indeed, it is plausible that employment protection in combination with an uncoordinated system of industrial relations and the absence of a high share of lower tier jobs constitute one path toward high levels of outsiderness among young people. However, alone this condition is neither necessary nor sufficient.

3. Methods and data

This paper applies fsQCA (Ragin, 2008; Schneider and Wagemann, 2012) to examine the determinants of outsiderness among young people. Three main reasons explain the choice of this method. First and foremost, to test the two hypotheses put forward above I need a data analysis technique able to analyse the existence of a complex causal explanation for high levels of outsiderness among young people. FsQCA places a great emphasis on complex causal explanations, contrary to statistical methods, which focus mainly on the net effect and statistical significance, fsQCA focuses on how causal conditions combine to generate outcomes. Second, in the last section it is argued that dualisation in some countries is very much age-based. To test if my theoretical argument explains the outcome in Southern Europe and Anglo-Saxon countries I need a data analysis technique that allows the existence of different independent explanatory paths. This is the case with fsQCA, since ‘multiple conjunctural causation contains the notion of *equifinality*, which simply means that different paths can lead to the same outcome’ (Rihoux and Ragin, 2009, p. 8). Finally, I opt for fsQCA because this analysis entails the ‘few cases, many variables’ problem. Besides the above-mentioned problems with statistical analyses (namely its focus on the net effect),

regression analysis is not especially useful here because the relatively small number of cases would produce unreliable results.⁷

3.1 Data

Following Marx (2006), who has argued that a moderate ratio of conditions to cases is required to ensure the validity of results, this analysis has four conditions: a high share of lower tier jobs (LTP), high levels of employment protection (EP), low levels of coordination in the industrial relations system (LCO), and high levels of liberalisation (L). This section first presents the outcome high levels of outsiderness among young people (YO) and thereafter presents each condition. The calibration of fuzzy set scores is discussed in detail, following the instructions of Ragin and Sonnet (2005, p. 193), who have argued that the calibration must be presented as transparently as possible.⁸ The direct method of calibration (Ragin, 2008) is used to calibrate the fuzzy set score for the outcome and for the four conditions. The fuzzy set scores are displayed in Table 1. Finally, besides relying on theoretical knowledge, I used obvious value breaks among the cases to set three qualitative anchors, and I have made sure that no cases are classified on the crossover point. This same procedure is followed in all four conditions. Table 2 summarises the qualitative anchors for both the outcome and the conditions.

High levels of outsiderness among young people (YO). Given the focus on the differences between age groups (rather than on the overall number outsiders) the outcome under study is the high levels of outsiderness among young people, which is calculated as the percentage point difference between the proportion of outsiders among young people (< 40 years old) and the proportion of outsiders among older age groups (≥ 40 years old). In this study I follow Häusermann and Schwander's (2012; Schwander and Häusermann, 2013, pp. 252-254) definition of outsiders: they are defined as those belonging to occupational groups that incur a particularly high probability (i.e., statistically significant) of atypical employment and/or unemployment. Taking into account that Häusermann and Schwander analyse separately different groups of countries, occupational groups characterised by atypical employment/unemployment differ in each country. To compute the proportion of outsiders among young people, the following procedures were performed. First, for each country, the number of young individuals who belong to occupational groups that incur a particularly high probability of being in atypical employment and/or unemployment was computed. Second, it was established that insiders are considered as those who belong to occupational groups that do not face a high probability of being in atypical employment. Finally, the proportion of outsiders among young people was calculated. The same procedure was followed to calculate the proportion of outsiders between the older generations. With regard to databases, with exception of

Austria and Italy, the European Social Survey 2010 Round 5 is used (ESS, 2010). Since Austria did not participate in the ESS 2010 Round 5, the ESS Round 4 – 2008 database is used for the Austrian case (ESS, 2008). As Italy has not participated in ESS since 2004, the International Social Survey Programme 2009 ‘Social Inequality IV’ database is used (ISSP, 2012).

High share of lower tier jobs (LTP). This condition is calculated as the percentage point difference between the proportion of workers in the lower tier of the primary sector among young people (< 40 years old) and the proportion of workers in the lower tier of the primary sector among older age groups (≥ 40 years old). To measure the weight of lower tier jobs I use the absolute skill specificity, an indicator that assigns a different degree of skill specificity to different occupations (Iversen and Soskice, 2001; Cusack *et al.*, 2006). Using the ESS (2010) (see above-mentioned exceptions), I first calculate the degree of absolute skill specificity attached to each occupational group. Thereafter, workers in the occupational groups with high levels of skill specificity are considered as belonging to the lower tier of the primary sector. Finally, I calculate the proportion of lower tier jobs for each age group and I compute the difference between them. A positive value means that the share of lower tier jobs is higher among young people.

High levels of employment protection (EP). Two sub-indicators are used to measure employment protection: the ‘employment protection index’, and ‘collective bargaining coverage’. The first is taken from the ‘OECD Indicators of Employment Protection’ (OECD, 2013a), while the second is taken from the ‘Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS)’ (Visser, 2013). The OECD indicators cover three broad aspects of employment protection regulations: ‘protection for regular contracts’, ‘protection for temporary contracts’, and ‘collective dismissals protection’ (Venn, 2009). With regard to the weights given to each item, following the suggestions made by Emmenegger (2011), three changes to the original weights of the employment protection index were performed (see the detailed appendix for further details on this). In many European countries, collective agreements or individual contracts may include provisions more generous than those within legislation (Venn, 2009, p. 16; Emmenegger, 2011). Therefore, ‘collective bargaining coverage’ is also used. To calculate the additive indicator, I have standardised the two indicators to range between 0 and 4. Since the ‘employment protection index’ is the crucial sub-indicator in this condition, the two indicators are added using different weights: $4/5$ and $1/5$ respectively. Finally, data for the employment protection index refers to the average between 2008 and 2010, while data for collective bargaining coverage refers to 2010 (due to data availability).

Low levels of coordination in the industrial relations system (LCO). The following dimensions are used to measure the level of coordination in the industrial relations system: wage coordination and the level of organisation of labour and capital. All the indicators in this condition were taken from the ICTWSS database (Visser, 2013). Regarding the first dimension (wage coordination), I have used the indicator ‘coordination of wage-setting’, which is based on Kenworthy (2001). To complement the information gathered in the first indicator, information on the level of organisation of labour and capital are also provided (Ebbinghaus, 2006b, p. 74), namely ‘employers’ organisation density’ and ‘union density’. To calculate the additive indicator, I have first standardised the three indicators to range between 0 and 4. Instead of using equal weights for the three different sub-indicators, I have given greater weight to the first sub-indicator: wage coordination is weighted at $\frac{3}{4}$, while employers’ organisation density and union density are weighted at $\frac{1}{8}$ each. The average for the period 1980-2011 is calculated because the objective is to capture the pattern of coordination in these countries, rather than the coordination in a specific period.

High levels of liberalisation (L). To calculate this condition, two sub-indicators are used: ‘the index of product market regulation’, and the ‘weight of the financial sector’ (Glyn, 2006; Streeck, 2009). The first is taken from the ‘OECD Product Market Regulation Database’ (OECD, 2013b), while the second is taken from the ‘Eurostat National Accounts Database’ (Eurostat, 2008). The OECD ‘index of the degree of product market regulation’ is used to measure the process of market expansion and privatisation. This index covers three general regulatory issues on fields such as: state control of business enterprises, legal and administrative barriers to entry, and barriers to international trade and investment (Wolf et al., 2009). Since the index only covers the period between 1998 and 2008, the difference between these two years is calculated. With regard to the rise of the financial sector, I calculate the weight of financial activities and insurance activities on the Gross Value Added (at basic values, millions of euro, chain-linked volumes, reference year 2005), in 2008. Finally, to calculate the additive indicator, I have standardised the two indicators to range between 0 and 4, and have calculated the average score for every country.

Table 1 – Summary table of all fuzzy set scores

Countries	YO	LTP	EP	LCO	L
Austria	0.18	0.52	0.77	0.06	0.67
Belgium	0.15	0.38	0.70	0.00	0.00
Denmark	0.59	0.00	0.37	0.22	0.67
Finland	0.36	0.35	0.63	0.00	0.57
France	0.27	1.00	1.00	1.00	0.63
Germany	0.03	0.92	0.63	0.39	0.60
Greece	1.00	0.00	0.83	1.00	0.08
Ireland	0.88	0.45	0.23	0.58	1.00
Italy	0.92	0.00	0.97	0.83	0.77
Netherlands	0.01	0.07	0.67	0.33	0.83
Portugal	0.87	0.00	1.00	1.00	0.73
Spain	0.87	0.15	0.83	0.75	0.93
Sweden	0.51	0.00	0.60	0.11	0.53
United Kingdom	0.93	0.00	0.00	1.00	0.57

Table 2 – Qualitative anchor points for the calibration of fuzzy sets

Outcome/condition	Fully out	Crossover point	Fully in
High levels of outsiderness among young people	8.0	17.0	45.0
A high share of lower tier jobs	-3.0	0.0	3.0
High levels of employment protection	0.0	1.5	3.0
Low levels of coordination in the industrial relations system	3.0	2.1	1.5
High levels of liberalisation	0.9	1.5	3.0

3.2 Analysis of necessary and sufficient conditions

Following Schneider and Wagemann (2010), necessary and sufficient conditions are analysed in separate analytical steps, with the analysis of necessary conditions preceding the analysis of sufficiency. A condition (or a combination of conditions) is considered to be necessary (even if not sufficient) if the outcome cannot occur in the absence of the condition, while a condition is sufficient for an outcome if the outcome always occurs when the condition is present.

3.2.1 Necessary conditions for the outcome ‘high levels of outsiderness among young people’

Table 3 displays the results of the analysis of the necessary conditions for the outcome high levels of outsiderness among young people, namely the consistency and coverage measures for necessary conditions. Taking into account that for necessary conditions a consistency threshold of at least 0.90 is required (Schneider and Wagemann, 2012, p. 143) Table 3 shows that the absence of a high share of lower tier jobs is a necessary condition for the outcome, which supports the first part of the main hypothesis. On the other hand, an analysis of necessary conditions can also be performed by combining conditions via logical ‘OR’. However, this strategy ‘only makes sense if there are strong and plausible theoretical or substantive arguments to support the claim that the conditions combined by logical OR operate as *functional equivalents*’ (Schneider and Wagemann, 2012, p. 74). This is the case for both the lack of coordination in the industrial relations system and liberalisation. As the second part of the main hypothesis states, fertile breeding grounds for social conflict play a crucial role in explaining divides based on age, high levels of outsiderness among young people is expected

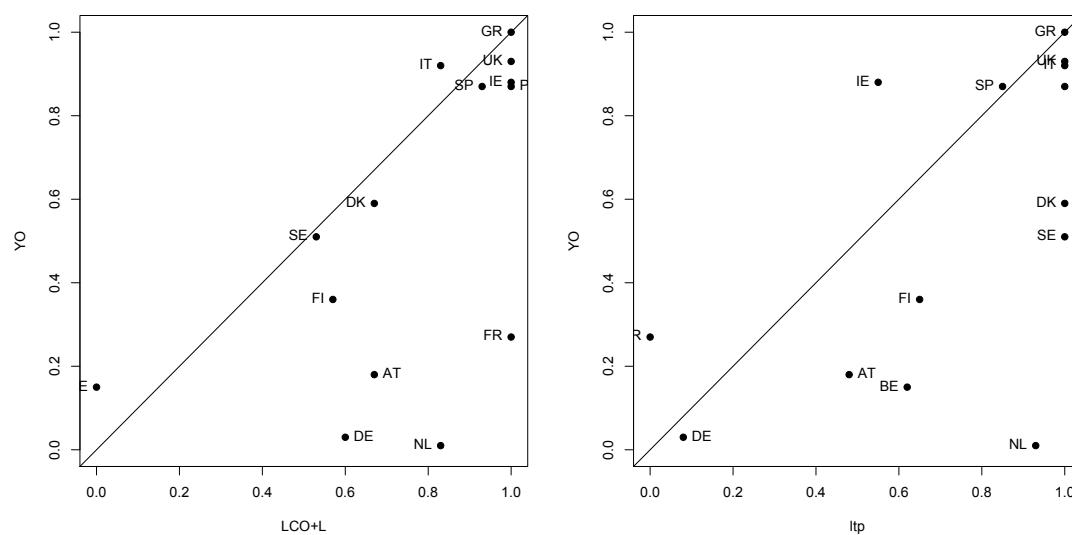
in countries with either (i) low coordination in the industrial relations system, (ii) liberalisation, or (iii) both. As can be seen in Table 3, this is the case. The consistency value in the combination of conditions LCO+L is very high; therefore, this combination is a necessary condition for the outcome. Finally, the analysis of necessary conditions is graphically presented through XY plots: Figure 1 shows that for the absence of a high share of lower tier jobs, only three cases are clearly located above the diagonal, and regarding LCO+L, only two cases are located above the diagonal. However, in both graphs other cases are clearly below the diagonal.⁹ This means that while low coordination in the industrial relations system, or liberalisation are necessary for the outcome, their presence is not sufficient (e.g., see the French case). The same applies to the other necessary condition: it is necessary for the outcome but it is not sufficient on its own (e.g., see the Dutch case).

In short, the analysis of necessary conditions supports the main hypothesis. First, the absence of a high share of lower tier jobs is a relevant (coverage 0.684) and consistently (0.918) necessary condition for the outcome. Second, the combination of conditions LCO+L is a relevant (0.690) and consistently (0.968) necessary condition for the outcome.

Table 3 – Analysis of necessary conditions for the outcome ‘high levels of outsiderness among young people’

Condition	Consistency	Coverage
ltp	0.918	0.684
L	0.773	0.682
LCO	0.748	0.779
EP	0.734	0.602
LCO+L	0.968	0.690

Figure 1 – Necessary conditions for the outcome ‘high levels of outsiderness among young people’



3.2.2 Sufficient conditions for the outcome ‘high levels of outsiderness among young people’

With regard to the analysis of sufficient conditions, this section begins by displaying the truth table and explaining the process of Boolean minimisation. Thereafter, the solution term and parameters of fit are discussed.

Table 4 displays the truth table. Besides presenting the truth table rows, the table also reveals eight logical remainders, that is, configurations with no empirical observations. To overcome the problem of limited diversity (i.e., the presence of logical remainders), I draw on the strategy suggested by Ragin (2008): the ‘Standard Analysis procedure’. It consists of producing the complex solution (without assumptions about logical remainders), the most parsimonious solution (all simplifying assumptions), and the intermediate solution (only easy counterfactuals). In this study, only those counterfactuals that correspond to the theoretical expectations (easy counterfactuals) are incorporated. Therefore, the results presented in this section refer to the intermediate solution. For the analysis of sufficient conditions of the outcome high levels of outsiderness among young people I used a consistency threshold for sufficient rows of 0.82. There are three principal reasons for this: following Schneider and Wagemann (2012, p. 127), values below 0.75 are considered problematic as they have consequences for the subsequent analysis; no true logically contradictory cases exist (Schneider and Wagemann, 2012, pp. 182-186), and the threshold is also justified by a large gap below the consistency value of 0.82. Finally, the software minimises the truth table using Boolean algebra and identifies the combinations of conditions that are sufficient to produce the outcome.¹⁰

The solution term and the parameters of fit are presented in Table 5. The solution shows satisfactory consistency (0.909) and coverage (0.789). The analysis of the sufficient conditions shows two possible paths for the outcome. The first path combines the absence of a high share of lower tier jobs, high employment protection, and low coordination in the industrial relations system, while the second path combines the absence of a high share of lower tier jobs, the absence of high employment protection, and liberalisation. This solution explains high levels of outsiderness among young people in Portugal, Spain, Italy, Greece, Ireland, United Kingdom, and Denmark. Therefore, the solution term can explain every country except Sweden. Note however that Sweden, in comparison with the countries that are more in than out of the set of countries with high levels of outsiderness among young people, is the one with the smallest fuzzy set score (0.51). Finally, Figure 2 presents the results graphically. This figure shows whether the combination of conditions $ltp*EP*LCO$ and the combination of conditions $ltp*ep*L$ are sufficient. For a condition to be sufficient, all cases should be located around or above the bisecting line (Ragin, 2000, p. 236; Schneider and Wagemann, 2012, p. 69).

The previously identified necessary conditions (ltp, and LCO+L) can also be found in the analysis of sufficient conditions. All countries with high levels of outsiderness among young people exhibit the two necessary conditions. However, the absence of a high share of lower tier jobs, liberalisation, and low coordination in the industrial relations system alone are not sufficient conditions: Finland, the Netherlands, and Belgium exhibit the absence of a high share of lower tier jobs but no high levels of outsiderness are observed; Austria, Finland, the Netherlands, France and Germany, exhibit liberalisation but no high levels of outsiderness among young people; France has low coordination in the industrial relations system, and high liberalisation, but no high levels of outsiderness among young people. France is indeed a very interesting case; it combines several characteristics of the Southern European case but it also has a high share of lower tier jobs.

Taking into account the combination of conditions in the first path, the analysis of sufficient conditions supports the second hypothesis – that employment protection is an INUS condition. These results contain however an unexpected and interesting result: if in combination with the absence of a high share of lower tier jobs and liberalisation, the absence of employment protection is also an INUS condition. This fact illustrates how simplistic it is to focus the analysis on single variables rather than on complex causal explanations, and to see the reduction of employment protection as the best solution to tackle labour market segmentation. Finally, it is significant that of the total solution's coverage of 78.9% (based on the so-called unique coverage of the paths), 39.6% is uniquely due to the first path (ltp*EP*LCO), while the second path (ltp*ep*L) uniquely covers 26.8%.

Table 4 – Truth table for the analysis of sufficient conditions for the outcome ‘high levels of outsiderness among young people’

D	EP	LCO	L	Cases	Consistency
0	1	1	0	Greece	0.897
0	1	1	1	Italy, Portugal and Spain	0.890
0	0	1	1	Ireland and United Kingdom	0.832
0	0	0	1	Denmark	0.823
0	1	0	0	Belgium	0.663
1	1	0	1	Finland, Netherlands and Sweden	0.630
0	1	0	1	Austria and Germany	0.495
1	1	1	1	France	0.490

Table 5 – Analysis of sufficient conditions for the outcome ‘high levels of outsiderness among young people’

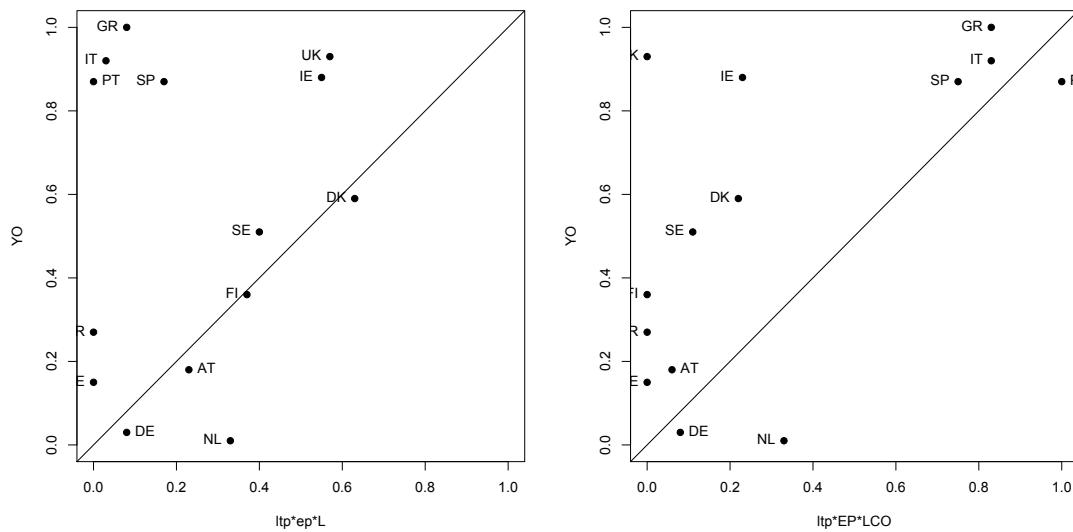
Solution term	$\text{ltp} * \text{EP} * \text{LCO} +$	$\text{ltp} * \text{ep} * \text{L} \rightarrow \text{YO}$
Raw coverage	0.520	0.392
Unique coverage	0.396	0.268
Consistency	0.887	0.863
Covered cases*	Italy, Portugal, Spain, and Greece	Ireland, United Kingdom, and Denmark
Solution consistency	0.909	
Solution coverage	0.789	
Uncovered cases**	Sweden	

Note: Consistency threshold 0.82. The complex and intermediate solutions are identical. The parsimonious solution is $\text{ep} + \text{ltp} * \text{LCO} \rightarrow \text{YO}$ (coverage: 0.908, consistency: 0.861).

* Cases with membership in path > 0.5

** Cases with membership in solution < 0.5 and outcome > 0.5

Figure 2 – Sufficient conditions for the outcome ‘high levels of outsiderness among young people’



4. Conclusions

This paper applied fsQCA to examine the determinants of outsiderness among young people. As mentioned earlier, the dualisation literature argues that the attempt to save the core manufacturing economy has been the structural driver of change, and emphasises the role of different welfare regimes to explain different degrees of dualisation. Although these scholars speak of the existence of different patterns of dualisation, they do not explain why in some countries it is mostly young labour market participants who are the outsiders. Besides clarifying the existing controversies among dualisation scholars and highlighting the strengths of an institutionalist approach to the issue of labour market segmentation, this paper also sheds new light on the Southern and Anglo-Saxon cases, given that up until now this literature has been mainly focused on the Continental and Nordic countries, and more importantly, it identifies the conditions contributing to high levels of outsiderness among young people. The analysis of necessary conditions points to the existence of two necessary conditions for the outcome of high levels of outsiderness among young people: the absence of a high share of lower tier jobs (ltp) and the combination of (i) low coordination in the

industrial relations system and *(ii)* liberalisation (LCO+L). The analysis of sufficient conditions reveals two possible paths for the outcome: the first combines the absence of a high share of lower tier jobs, high employment protection, and low coordination in the industrial relations system, while the second combines the absence of a high share of lower tier jobs, the absence of high employment protection, and liberalisation. The first path covers Portugal, Spain, Italy, and Greece, and the second path covers the United Kingdom, Ireland, and Denmark.

However, this study also has its limitations. The first concerns the Danish case, which is particularly striking. Even though Denmark is more in than out of the outcome set, it is more out than in with regard to the condition of low levels of coordination in the industrial relations system. Indeed, it is the only case (covered by the solution term) that combines coordination between labour and capital, and the outcome. To clarify this, future research must analyse the Danish case in depth and contrast it with cases where the absence of a high share of lower tier jobs, liberalisation, and low employment protection are also contributing to the generational divide. Furthermore, this analysis has not examined whether high levels of outsiderness among young people have consequences regarding differences in terms of access to social benefits. Future research must analyse whether labour market inequalities based on age are also translated into differences in terms of eligibility for social benefits, and if these differences are mainly found in Southern Europe, Anglo-Saxon countries, Denmark, and Sweden.

Overall, this analysis points to two main conclusions. It illustrates the pitfalls of seeing institutions solely as guardians of efficiency and as the only source of institutional change. On the contrary, this paper shows how other institutional factors are crucial to explain the high levels of outsiderness among young people. On the other hand, this analysis also illustrates how fruitful the use of fsQCA can be: in line with the hypotheses of this study, this analysis shows that no single condition is sufficient to explain the outcome.

References

- Ball, L. (1990) ‘Insider and Outsiders: A Review Essay’, *Journal of Monetary Economics*, **26**, 459-469.
- Barbier, J-C. (2011) *Employment Precariousness in a European Cross-national Perspective. A Sociological Review of Thirty Years of Research*, CES Working Papers No. 78/2011, Centre d’Economie de la Sorbonne, Paris.
- Blanchard, O. (2006) ‘European Unemployment: The Evolution of Facts and Ideas’, *Economic Policy*, **21**, 5-59.
- Cain, G. (1976) ‘The Challenge of Segmented Labor Market Theories to Orthodox Theory: A Survey’, *Journal of Economic Literature*, **14**, 1215-1257.
- Chauvel, L. (2010) ‘Comparing Welfare Regimes Changes: Living Standards and the Unequal Life Chances of Different Birth Cohorts’. In Tremmel, J. (ed.) *A Young Generation Under Pressure? – The Financial Situation and the ‘Rush Hour’ of the Cohorts 1970-1985 in a Generational Comparison*, Heidelberg, Springer, pp. 23-36.
- Crouch, C. (1993) *Industrial Relations and European State Traditions*, Oxford, Oxford University Press.
- Cusack, T., Iversen, T. and Rehm, P. (2006) ‘Risks at Work: The Demand and Supply Sides of Government Redistribution’, *Oxford Review of Economic Policy*, **22**, 365-389.
- Davidsson, J. and Naczyk, M. (2009) *The Ins and Outs of Dualisation: A Literature Review*, RECOWE Working Paper No. 02/2009.
- Doeringer, P. and Piore, M. (1971) *Internal Labour Markets and Manpower Analysis*, Lexington, Heath Lexington Books.
- Doeringer, P. and Piore, M. (1975) ‘Unemployment and the “Dual Labour Market”’, *The Public Interests*, **38**, 67-79.
- Dunlop, J.T. (1957) ‘The Task of Contemporary Wage Theory’. In Taylor, W. and Pierson, F.C. (eds) *New Concepts In Wage Discrimination*, New York, McGraw-Hill, pp. 117-139.
- Dusa, A. and Thiem, A. (2012) *QCA: Qualitative Comparative Analysis*. R Package Version 1.1-2.
- Ebbinghaus, B. (2006a) ‘Trade Union Movements in Post-industrial Welfare States: Opening Up to New Social Interests?’ In Armingeon, K. and Bonoli, G. (eds) *The Politics of Post-Industrial Welfare States: Adapting Post-war Social Policies to New Social Risks*, Oxon, Routledge pp. 123-142.
- Ebbinghaus, B. (2006b) ‘Protection, Production, and Partnership Institutions: From Institutional Affinities to Complementarities’. In Ebbinghaus, B. *Reforming Early Retirement in Europe*, Oxford, Oxford University Press, pp. 51-84.

- Eichhorst, W. and Marx, P. (2011) ‘Reforming German Labour Market Institutions: A Dual Path to Flexibility’, *Journal of European Social Policy*, **21**, 73-87.
- Emmenegger, P. (2009) ‘Barriers to Entry: Insider/Outsider Politics and the Political Determinants of Job Security Regulations’, *Journal of European Social Policy*, **19**, 131-146.
- Emmenegger, P. (2011) ‘Job Security Regulations in Western Democracies: A Fuzzy Set Analysis’, *Journal of European Social Policy*, **50**, 336-364.
- Emmenegger, P., Häusermann, S., Palier, B. and Seeleib-Kaiser, M. (eds) (2012) *The Age of Dualization – The Changing Face of Inequality in Deindustrializing Societies*, Oxford, Oxford University Press.
- Esping-Andersen, G. (1999) ‘Politics Without Class? Post-Industrial Cleavages in Europe and America’. In Kitschelt, H., Lange, P., Marks, G. and Stephens, J. (eds) *Continuity and Change in Contemporary Capitalism*, Cambridge, Cambridge University Press, pp. 293-316.
- ESS (2008) *European Social Survey Round 4 Data. Data file edition 4.1*. Norwegian Social Science Data Services, Norway-Data Archive and distributor of ESS data.
- ESS (2010) *European Social Survey Round 5 Data. Data file edition 3.0*. Norwegian Social Science Data Services, Norway-Data Archive and distributor of ESS data.
- Eurostat (2008) *National Accounts Database*, accessed at <http://epp.eurostat.ec.europa.eu/portal/national-accounts/data/database> on February 18, 2014.
- Fleckenstein, T., Saunders A.M. and Seeleib-Kaiser, M. (2011) ‘The Dual Transformation of Social Protection and Human Capital: Comparing Britain and Germany’, *Comparative Political Studies*, **44**, pp. 1622-1650.
- Glyn, A. (2006) *Capitalism Unleashed: Finance, Globalisation, and Welfare*, Oxford, Oxford University Press.
- Häusermann, S. and Schwander, H. (2012) ‘Varieties of Dualization? Labour Market Segmentation and Insider-Outsider Divides Across Regimes’. In Emmenegger, P., Häusermann, S., Palier, B. and Seeleib-Kaiser, M. (eds) *The Age of Dualization – The Changing Face of Inequality in Deindustrializing Societies*, Oxford, Oxford University Press, pp. 27-51.
- Howell, C. (2003) ‘Review Article: Varieties of Capitalism – And Then There Was One?’, *Comparative Political Studies*, **36**, 103-124.
- ISSP (2012) *International Social Survey Programme: Social Inequality IV – ISSP 2009*. GESIS Data Archive, Cologne. ZA5400 Data file Version 3.0.0.
- Iversen, T. and Soskice, D. (2001) ‘An Asset Theory of Social Policy Preferences’, *American Journal of Political Science Review*, **95**, 875-893.

- Iversen, T. and Soskice, D. (2009) ‘Dualism and Social Coalitions: Inclusionary Versus Exclusionary Reforms in an Age of Rising Inequality’. Presented at the Annual Meeting of the American Political Science Association, Toronto, Canada.
- Kenworthy, L. (2001) ‘Wage-Setting Institutions: A Survey and Assessment’, *World Politics*, **54**, 57-98.
- Kerr, C. (1954) ‘The Balkanisation of Labour Markets’. In Bakke, E., Hauser, P., Palmer, G., Myers, C., Yoder, D. and Kerr, C. (eds) *Labour Mobility and Economic Opportunity*, Cambridge, Technology Press of MIT, pp. 92-110.
- Leontaridi, M. (1998) ‘Segmented Labour Markets: Theory and Evidence’, *Journal of Economic Surveys*, **12**, 63-101.
- Lima, M. and Naumann, R. (2011) ‘Portugal: From Broad Strategic Pacts to Policy-Specific Agreements’. In Avdagic, S., Rhodes, M. and Visser, J. (eds), *Social Pacts in Europe: Emergence, Evolution, and Institutionalization*, Oxford, Oxford University Press, pp. 148-173.
- Lindbeck, A. and Snower, D. (1988) *The Insider-Outsider Theory of Employment and Unemployment*, Cambridge, MIT Press.
- Lindbeck, A. and Snower, D. (2001) ‘Insiders versus Outsiders’, *Journal of Economic Perspectives*, **15**, 165-188.
- Lindvall, J. and Rueda, D. (2012) ‘Insider-Outsider Politics: Party Strategies and Political Behaviour in Sweden’. In Emmenegger, P., Häusermann, S., Palier, B. and Seeleib-Kaiser, M. (eds) *The Age of Dualization – The Changing Face of Inequality in Deindustrializing Societies*, Oxford, Oxford University Press, pp. 277-303.
- Lodovici, M. (2000) ‘Italy: The Long Times of Consensual Re-Regulation’. In Esping-Andersen G and Regini, M. (eds) *Why Deregulate Labour Markets*, Oxford, Oxford University Press, pp. 271-306.
- Marx A (2006) *Towards More Robust Model Specification in QCA: Results from a Methodological Experiment*, COMPASSS WP Series 2006-43, www.compasss.org
- Molina, Ó. and Rhodes, M. (2007) ‘The Political Economy of Adjustment in Mixed Market Economies: A Study of Spain and Italy’. In Hancké, B., Rhodes, M. and Thatcher, M. (eds), *Beyond Varieties of Capitalism*. Oxford, Oxford University Press, pp. 223-252.
- OECD (2013a) *Indicators of Employment Protection, Annual Time Series Data 1985-2013*, www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm.
- OECD (2013b) *Product Market Regulation Database*, www.oecd.org/economy/pmr.

- Oliveira, L., Carvalho, H. and Veloso, L. (2011) ‘Youth and Precarious Employment in Europe’. In Price, R., McDonald, P., Bailey, J. and Pini, B. (eds) *Young People and Work*, Farnham, Ashgate, pp. 163-181.
- Palier, B. and Thelen, K. (2010) ‘Institutionalizing Dualism: Complementarities and Change in France and Germany’, *Politics & Society*, **38**, 119-148.
- Piore, M. (1970) ‘Jobs and Training’. In Beer, S. and Barringer, R. (eds), *The State and the Poor*, Cambridge, Winthrop, pp. 53-83.
- Piore, M. (1972) *Notes for a Theory of Labour Market Stratification*, Working Paper Department of Economics No.95, Massachusetts Institute of Technology, Cambridge.
- Polanyi, K. (2001 [1944]) *The Great Transformation – The Political and Economic Origins of Our Time*, Boston, Beacon Press.
- Ragin, C. (2000) *Fuzzy-set Social Science*. Chicago, University of Chicago Press.
- Ragin, C. (2008) *Redesigning Social Inquiry. Fuzzy Sets and Beyond*, Chicago, Chicago University Press.
- Ragin, C. and Sonnett, J. (2005) ‘Between Complexity and Parsimony: Limited Diversity, Counterfactual Cases and Comparative Analysis’. In Kropp, S. and Minkenberg, M. (eds), *Vergleichen in der Politikwissenschaft*. Wiesbaden, VS Verlag für Sozialwissenschaften, pp. 180-197.
- Rihoux, B. and Ragin, C. (eds) (2009), *Configurational Comparative Methods – Qualitative Comparative Analysis (QCA) and Related Techniques*, Los Angeles, Sage.
- Rubery, J. (1978) ‘Structured Labour Markets, Worker Organisation and Low Pay’, *Cambridge Journal of Economics*, **2**, 17-36.
- Rueda, D. (2007) *Social Democracy Inside Out: Government Partisanship, Insiders, and Outsiders in Industrialized Democracies*, Oxford, Oxford University Press.
- Rueda, D. (2014) ‘Dualization, Crisis and the Welfare State’, *Socio-Economic Review*, **12**, 381-407.
- Schneider, C.G. and Wagemann, C. (2010) ‘Standards of Good Practice in Qualitative Comparative Analysis (QCA) and Fuzzy-Sets’, *Comparative Sociology*, **9**, 1-22.
- Schneider, C.Q. and Wagemann, C. (2012) *Set-theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*, Cambridge, Cambridge University Press.
- Schwander, H. and Häusermann, S. (2013) ‘Who is In and Who is Out? A Risk-based Conceptualization of Insiders and Outsiders’, *Journal of European Social Policy*, **23**, 248-269.
- Streeck, W. (2009) *Re-forming Capitalism – Institutional Change in the German Political Economy*, Oxford, Oxford University Press.

- Thelen, K. (2012) 'Varieties of Capitalism: Trajectories of Liberalization and the New Politics of Social Solidarity', *Annual Review of Political Science*, **15**, 137-159.
- Venn, D. (2009) *Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators*, OECD Social Employment and Migration Working Papers, No.89, Paris, OECD.
- Visser, J. (2013) 'ICTWSS: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 34 countries between 1960 and 2012'; Version 4.0, Amsterdam, Amsterdam Institute for Advanced Labour Studies AIAS.
- Wolf, A., Wanner, I., Kozluk, T. and Nicoletti, G. (2009) *Ten Years of Product Market Reform in OECD Countries – Insights from a Revised PMR Indicator*, Economics Department Working Papers, No.695, Paris, OECD.

Endnotes

¹ Independent of the analytical focus, several authors have surveyed this literature. See for instance: Cain, 1976; Rubery, 1978; Ball, 1990; Leontaridi, 1998; Lindbeck and Snower, 2001; Blanchard, 2006; Davidsson and Naczyk, 2009; Barbier, 2011.

² By clarifying the differences within the primary sector dual labour market scholars recognised that not all jobs in the primary sector are characterised by employment stability. This clarification is crucial because the objective of the present study is to explain the rise of atypical employment and/or unemployment. Therefore, it is expected that only lower tier jobs are characterised by stable contractual arrangements.

³ Palier and Thelen's argument points to the same type of institutions Doeringer and Piore (1971) identified in the 1970s to explain the existing dualities in U.S. labour markets. Indeed, what Palier and Thelen call 'the core manufacturing economy' is similar to what Doeringer and Piore called, in the 1970s, the primary sector (characterised by well-developed internal labour markets).

⁴ For 'dualisation framework' I here mean the perspective of Palier and Thelen (2010).

⁵ Although dualisation scholars often contrast their perspective with the liberalisation framework (Palier and Thelen, 2010, p. 120; Thelen, 2012, p. 138-139; Emmenegger *et al.*, 2012, p. 10) in my view these two strands of literature are not incompatible. Against some misconceptions, liberalisation does not claim the end of strategic coordination between capital and labour (Streeck, 2009, p. 158), and does not argue that all capitalist economies are converging towards the 'liberal market economy' model (Streeck, 2009, p. 168). What Streeck does defend is that the German political economy underwent a process of liberalisation that led to a shift from organised to disorganised capitalism (rather than from a coordinated to an uncoordinated system – from Streeck's point of view, coordination may go hand-in-hand with disorganisation). This fact is, in my opinion, very much in line with the dualisation literature: as Streeck (2009, p. 51) notes: 'liberalization, in other words, sets actors free from institutionalized obligations, allowing solidarism to be overruled by segmentalism (...), but does not preclude and is not incompatible with coordination in a "coordinated market economy", provided such coordination comes about voluntarily and from below'.

⁶ Note that contrarily to economic insider-outsider scholars, the liberalisation framework does not see conflict as a constraint that disturbs the functioning of the market, but as an intrinsic feature of capitalism. In their view it is market expansion that triggers social conflict and not the conflicting interests between insiders and outsiders.

⁷ This analysis is based on 14 cases (Ireland, United Kingdom, Denmark, Finland, Sweden, Austria, Belgium, France, Germany, Netherlands, Spain, Greece, Italy and Portugal).

⁸ Some details are not explained in the paper due to space restrictions. See the detailed appendix for further details on the calibration. The appendix also provides the results of the robustness tests.

⁹ XY plots show whether a specific condition is necessary. They offer graphical insights on whether a necessary condition might be trivial empirically. For a condition to be necessary, all cases should be located around or below the bisecting line (Ragin, 2000, p. 215; Schneider and Wagemann, 2012, p. 76).

¹⁰ In this analysis I use the R Package 'QCA', version 1.1-2 (Dusa and Thiem, 2012).

Appendix

This appendix explains in great detail the calibration, provides all the data necessary to replicate the analysis, and presents the robustness tests. It has been divided into two parts. The first deals with the calibration of the outcome high levels of outsiderness among young people and of each condition: high share of lower tier jobs (LTP), high levels of employment protection (EP), low levels of coordination in the industrial relations system (LCO), and high levels of liberalisation (L). The second part presents the robustness tests.

I – Data and calibration

Outcome: high levels of outsiderness among young people (YO)

The outcome under study is the high levels of outsiderness among young people (YO), which is calculated as the percentage point difference between the proportion of outsiders among young people (< 40 years old) and the proportion of outsiders among older age groups (≥ 40 years old). The question, however, is how to define outsiders. This section will explain how outsiders have been defined in the scope of the dualisation literature, and discuss the definition followed here. This section concludes by explaining the calibration of fuzzy set scores.

Two different strategies have been used within the scope of the dualisation literature. The first, used by Rueda (2005, p. 63; 2006, p. 395; 2007, pp. 14-15), Emmenegger (2009, p. 137), Lindvall and Rueda (2012, pp. 296-297), and Davidsson and Emmenegger (2013, p. 360) defines outsiders as those who are unemployed or holding part-time jobs, fixed-term contracts, or temporary jobs.¹ The second, used by Häusermann and Schwander (2012; Schwander and Häusermann, 2013, pp. 252-254), is more sophisticated: rather than relying on a ‘snapshot’ categorisation, outsiders are defined as those belonging to occupational groups that are ‘typically’ affected by atypical work and unemployment. Drawing on the class scheme proposed by Oesch (2006) and Kitschelt and Rehm (2005), Häusermann and Schwander (2013, pp. 252-253) identify five broad classes (capital accumulators, socio-cultural professionals, blue-collar workers, low-service functionaries, and mixed-service functionaries), then divide each class (except for capital accumulators, which they define as insiders) by sex and two age groups (< 40 years old and ≥ 40 years old), ending up with 17 occupational groups. Häusermann and Schwander define outsiders as those belonging to occupational groups that incur a particularly high probability (i.e., statistically significant) of atypical employment and/or unemployment. Furthermore, they analyse separately each regime (Esping-Andersen, 1990), and consequently occupational groups characterised by atypical employment/unemployment differ in each regime (Table A1). By assigning to each occupational group a different probability of being in atypical employment and/or unemployment, this definition addresses the issue that people do not form identities on the basis of momentary

labour market status and that outsiders are not a homogeneous group, as suggested by a conceptualisation based on current labour market status (Schwander and Häusermann, 2013, pp. 251-252). Though Schwander and Häusermann's definition tackles some of the problems inherent to a 'snapshot' classification of outsiders, it still relies on the same logic as Rueda and Emmenegger: outsiders are those who are unemployed or holding atypical jobs. Therefore, regardless of their differences, both definitions contribute to the same strand of literature.

Table A1 – Occupational groups with a statistical significant probability of being in atypical employment and/or unemployment

Regimes	Young people	Older generations
Southern	LSF women LSF men SCP women BC women MSF women	LSF women
Anglo-Saxon	LSF women LSF men SCP women BC young women MSF young women	LSF woman
Nordic	LSF women LSF men SCP women BC women MSF women	LSF women SCP women BC women
Continental	LSF women SCP women BC women MSF women	LSF Women SCP Women MSF Women

Note: LSF, low service functionaries; SCP, socio-cultural professionals; BC, blue-collar workers; MSF, mixed service functionaries. As for the operationalization of each occupational group see Schwander and Häusermann (2013, p. 266). The authors recode ISCO88 in order to calculate each occupational group.

Source: Schwander and Häusermann (2013, p. 255).

In this study I follow Häusermann and Schwander's definition of outsiders. As mentioned earlier, the outcome is calculated as the percentage point difference between the proportion of outsiders among young people (< 40 years old) and the proportion of outsiders among older age groups (≥ 40 years old).² To compute the proportion of outsiders among young people, the following procedures were performed. First, for each country, the number of young individuals who belong to occupational groups that incur a particularly high probability of being in atypical employment and/or unemployment was computed. Second, it was established that insiders are considered as those who belong to occupational groups that do not face a high probability of being in atypical employment. Finally, the proportion of outsiders among young people was calculated. The same procedure was followed to calculate the proportion of outsiders between the older generations. In short, Schwander and Häusermann's procedure is replicated, except for using

different databases and calculating the difference between outsiderness among young people and outsiderness in older age groups.

With regard to databases, with the exception of Austria and Italy, the European Social Survey 2010 Round 5 is used (ESS, 2010). This is first and foremost because this database uses the International Standard Classification of Occupations (ISCO), therefore allowing the replication of the procedure followed by Schwander and Häusermann (see discussion above). Second, the data was collected in 2010 (i.e., after the global economic downturn), reflecting the changes that have occurred in the labour market since then. Finally, it provides large samples for each country. Since Austria did not participate in the ESS 2010 Round 5, the ESS Round 4 – 2008 database is used for the Austrian case (ESS, 2008). As Italy has not participated in ESS since 2004, the International Social Survey Programme 2009 ‘Social Inequality IV’ database is used (ISSP, 2012). The ISSP 2009 database also uses the ISCO classification and provides data for 2009.

The direct method of calibration is used to calibrate the fuzzy set score for the outcome.³ The raw data and the fuzzy set scores are displayed in Table A2. The fact that, in comparison with older age groups, young people are more affected by atypical work and unemployment is not surprising: several authors have pointed out that post-industrial labour markets have downplayed the position of young people (Esping-Andersen, 1999, p. 306; Bonoli, 2006, p. 3; Tremmel, 2010; Oliveira *et al.*, 2011, p. 163; Price *et al.*, 2011, p. 4; Emmenegger *et al.*, 2012, pp. 6-7; Häusermann and Schwander, 2012, p. 29). Therefore, it is not the difference between age groups but rather the *degree* of that difference that is important. Corroborating this, raw data in Table A2 shows that in all countries the proportion of outsiderness among young people is higher than that among older age groups. Thus, I consider that at least 45 on the indicator is required for full membership, at least 17 to be more in than out of the set, and 8 (or less) for full non-membership.⁴ Italy, Greece, Spain, Portugal, Ireland, United Kingdom, Denmark, and Sweden are considered more in than out of the set. I consider the Danish and Swedish cases as more in than out of the set because a huge gap exists between these two countries and the countries considered more out than in the set. Furthermore, the overall number of outsiders (second column), that is, regardless of the difference between age groups, shows that these two countries are closer to the Southern and Anglo-Saxon countries than to the Continental countries or Finland.

Table A2 – Calibration of the outcome ‘high levels of outsiderness among young people’

Country	% Outsiders (<40 years old)	% Outsiders (≥ 40 years old)	Difference between young and old outsiders	Fuzzy set score
Austria	54.0	42.8	11.2	0.18
Belgium	49.7	39.0	10.7	0.15
Denmark	60.5	38.6	21.9	0.59
Finland	55.5	41.1	14.4	0.36
France	52.5	39.7	12.8	0.27
Germany	44.9	36.4	8.5	0.03
Greece	58.4	12.7	45.7	1.00
Ireland	56.6	18.2	38.4	0.88
Italy	50.5	9.7	40.8	0.92
Netherlands	50.1	42.0	8.1	0.01
Portugal	65.5	27.6	37.9	0.87
Spain	56.6	18.9	37.7	0.87
Sweden	60.0	42.4	17.6	0.51
United Kingdom	60.0	18.7	41.3	0.93

Source: Authors' own calculations based on ESS2010; ESS2008; and ISSP2009.

Condition I: high share of lower tier jobs (LTP)

The dual labour market theory speaks of the existence of a primary and a secondary labour market. While the first depends on the employee’s specific skills (acquired through on-the-job training and experience), the second lacks that logic: it is supply and demand forces that play the pivotal role. Later, dual labour market scholars distinguished between an upper and a lower tier within the primary sector. By doing this, they recognised that not all jobs in the primary sector are characterised by the use of specific skills and employment stability. Piore (1972, p. 3) argued that ‘the upper tier of the primary sector is composed of professional and managerial jobs. Such jobs tend to be distinguished from those in the lower tier by the higher pay and status, and the greater promotion opportunities which they afford. They are also distinguished by the mobility and turnover patterns, which tend to more closely resemble those of the secondary sector except, in contrast to the patterns of that sector, mobility and turnover tend to be associated with advancement’. To explain this, they argued that while in the upper tier workers make use of general skills, the lower tier is mainly characterised by the use of specific skills. In their view, ‘it is for this reason that lower tier jobs place a premium upon stability and routine’ (Piore, 1972, p. 14). Since the aim of this study is to explain the rise of atypical employment and/or unemployment among young people, my interest is on employment stability rather than on higher pay or status. Therefore, this condition is calculated as the percentage point difference between the proportion of workers in the lower tier of the primary sector among young people (< 40 years old) and the proportion of workers in the lower tier of the primary sector among older age groups (≥ 40 years old).

To measure the weight of lower tier jobs, conceptualisations based on the dichotomy between outsiders and insiders are useless. Indeed, the operationalization of outsiders and insiders used by dualisation scholars was taken directly from the economic insider-outsider theory (due to

Rueda's bias towards this strand of literature on the detriment of dual labour market theory). To measure the weight of lower tier jobs it is therefore necessary to use an indicator that gives a pivotal role to specific skills rather than to the type of contracts. Absolute skill specificity (Iversen and Soskice, 2001; Cusack *et al.*, 2006) is an indicator that assigns a different degree of skill specificity to different occupations.⁵ The logic is as follows: absolute skill specificity of an occupation is the higher (*i*) where it has the higher number of sub-occupations and (*ii*) where it has the lower share in the labour force in empirical terms. This indicator is calculated using the ISCO (the same classification scheme for occupations used to calculate the outcome), a classification scheme that identifies nine occupational groups and a different number of sub-occupations attached to each occupational group (see Table A3). As this classification is used in several surveys (namely in the ESS and ISSP), it is possible to replicate the procedure first put forward by Iversen and Soskice (2001). Having explained why absolute skill specificity captures better the logic of the lower tier of the primary sector than does a measure based on the type of contracts, let us now explain how this indicator is calculated.

Using the ESS 2010 (see abovementioned exceptions), one can calculate the degree of absolute skill specificity attached to each occupational group, and to compute the proportion of workers holding jobs that require high levels of skill specificity. Using data for all cases (i.e., all countries) under analysis (see Table A3), the level of absolute skill specificity attached to each occupational group is calculated. Table A3 shows that two different groups exist within the results: three occupational groups with a much lower level of skill specificity ('clerks', 'service workers and shop and market sales workers', and 'elementary occupations'); and three occupational groups⁶ where the level of skill specificity is higher ('craft and related trades workers', 'plant and machine operators and assemblers', and 'technicians and associate professionals').⁷ Thereafter, workers in the occupational groups with high levels of skill specificity (identified in the first step) are considered as belonging to the lower tier of the primary sector. Finally, the proportion of workers in the lower tier of the primary sector for each age group is calculated and its difference is computed. Table A4 summarises that information.

Table A3 – Absolute skill specificity: all countries

ISCO88 1 digit	Description of occupational group	Number of sub- occupations	Sub- occupations, % of total	% in the labour force	Absolute skill specificity
1	Legislators, senior officials and managers	33	0.085	6.4	13.2
2	Professionals	55	0.142	14.4	9.9
3	Technicians and associate professionals	73	0.188	15.1	12.5
4	Clerks	23	0.059	11.5	5.1
5	Service workers and shop and market sales workers	23	0.059	23.6	2.5
6	Skilled agricultural and fishery workers	16	0.041	1.5	27.1
7	Craft and related trades workers	70	0.180	10.8	16.7
8	Plant and machine operators and assemblers	70	0.180	5.8	30.8
9	Elementary occupations	25	0.064	10.9	5.9
	Sum	388	1	100	

Source: Authors' own calculations based on ESS2010; ESS2008; and ISSP2009.

The direct method of calibration is used to transform the resulting indicator into a fuzzy set. The raw data and the fuzzy set score are displayed in Table A4. For this condition, at least 3 is required for full membership; values below -3 reflect full non-membership; and 0 is a crossover point. These qualitative anchors were chosen because what is relevant is the difference between generations rather than if the degree of that difference is very high. Interestingly, Table A4 shows that in France and Germany – the two case studies analysed by Palier and Thelen (2010) – the lower tier of the primary sector is larger among young people than between older age groups. Furthermore, Finland is also considered to be more in than out of the set. However, in the remaining countries the opposite is the case.

Table A4 – Calibration of the condition ‘high share of lower tier jobs’

	% Lower tier jobs (<40 years old)	% Lower tier jobs (≥ 40 years old)	Difference between age groups	Fuzzy set score
Austria	29.9	29.8	0.1	0.52
Belgium	31.0	31.7	-0.7	0.38
Denmark	29.2	38.5	-9.3	0.00
Finland	33.5	34.4	-0.9	0.35
France	41.7	36.2	5.5	1.00
Germany	44.1	41.6	2.5	0.92
Greece	26.6	29.7	-3.1	0.00
Ireland	25.2	25.5	-0.3	0.45
Italy	35.7	39.0	-3.3	0.00
Netherlands	32.3	29.7	-2.6	0.07
Portugal	34.9	40.9	-6.0	0.00
Spain	29.9	32.0	-2.1	0.15
Sweden	35.7	40.2	-4.5	0.00
United Kingdom	24.2	28.1	-3.9	0.00

Source: Authors' own calculations based on ESS2010; ESS2008; and ISSP2009.

Condition II – high levels of employment protection (EP)

The economic insider-outsider theory (Lindbeck and Snower, 1988; Blanchard, 2006) is one of the leading strands of literature regarding labour market segmentation. Scholars within this perspective argue that structural unemployment results from the existence of certain labour market institutions. Some workers, they argue, are trapped in involuntary unemployment because labour market institutions impede competition between the unemployed and those already in the labour market. When speaking of labour market institutions, economic insider-outsider scholars specifically mean institutions that protect insiders from the competition of outsiders, namely through rent-related labour turnover costs such as severance pay, seniority rules, requirements to give advance notice of dismissal, and other forms of legal protection. Furthermore, these scholars point to ‘restrictions on strikes and picking and relaxing job security and seniority legislation’ (Lindbeck and Snower, 2001, p. 184) as the best solution to overcome the existing labour market divides. As discussed in detail below, two sub-indicators are used to measure employment protection: the ‘employment protection index’, and ‘collective bargaining coverage’. The first is taken from the ‘OECD Indicators of Employment Protection’ (OECD, 2013a), while the second is taken from the ‘Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS)’ (Visser, 2013). This section concludes by explaining the calibration of raw data.

Even though the OECD indicators of employment protection have been criticised by several authors (Crouch *et al.*, 1999; Addison and Teixeira, 2003; Venn, 2009, pp. 12-15; Barbier, 2011, pp. 5-6), they have nevertheless been widely used to measure the level of strictness of employment protection (e.g., Emmenegger, 2009; Venn, 2009, p. 12; Emmenegger, 2011). They are compiled from twenty-one items covering two broad aspects of employment protection regulations:

‘protection for regular contracts’ (including additional provision for collective dismissals) and ‘protection for temporary contracts’ (all indicators are expressed in a scale of 0-6). These items are very much in line with the discussion made in the scope of the economic insider-outsider literature. However, with regard to the weights given to each item, following the suggestions made by Emmenegger (2011, online appendix), three changes to the original weights of the employment protection index were performed.⁸ First, instead of using equal weights for the two level 2 indicators for temporary contracts (‘fixed-term contracts’ and ‘temporary work agency employment’), the minimum of the two is used. This is done because the original coding does not take into account that the two are substitutable (i.e., for employers it does not matter whether a worker has a fixed-term contract or is contracted from temporary work agencies). Second, instead of using equal weights for the three indicators for the regulation of regular contracts, the weight of the indicator ‘difficulty of dismissal’ is increased (from $\frac{1}{3}$ to $\frac{1}{2}$), while those of the other two indicators (‘procedural inconveniences’, and ‘notice period and severance pay for non-fault dismissals’) are decreased (both from $\frac{1}{3}$ to $\frac{1}{4}$). This is done because the OECD does not provide any reason to give equal weights to the three indicators. Emmenegger (2011, online appendix) provides evidence that ‘difficulty of dismissal’ is the only indicator (among these three) significantly related to the percentage of currently unemployed people who left their job due to a layoff. Third, instead of using equal weights for the different aspects of employment protection regulations, the regulation of regular contracts (including additional provision for collective dismissals) is weighted at $\frac{3}{4}$ and the regulation of temporary work at $\frac{1}{4}$. This is done because temporary workers have always been a minority and therefore it does not make sense to give an equal weight to each. The weights used are based on the contributions of each type to total employment growth (Emmenegger, 2011, online appendix).

Even though the ‘employment protection index’ is the crucial sub-indicator in this condition, an additional sub-indicator is taken into account. As is well documented, legislation is not the only source of regulation. In many European countries, collective agreements or individual contracts may include provisions more generous than those within legislation (Venn, 2009, p. 16; Emmenegger, 2011). Therefore, besides the ‘employment protection index’, ‘collective bargaining coverage’ is also used. Data for this sub-indicator is taken from the ICTWSS database, which calculates the level of coverage as the number of employees covered by collective (wage) bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargaining, expressed as percentage, adjusted for the possibility that some sectors or occupations are excluded from the right to bargain.

The direct method of calibration is used to calibrate the fuzzy set scores for this condition. The raw data, the additive indicator, and the fuzzy set score are presented in Table A5. My

calibration of high levels of employment protection combines two indicators: ‘employment protection index (2008-2010)’ and ‘collective bargaining coverage (2010)’. Furthermore, I have standardised the two indicators to range between 0 and 4. Since the ‘employment protection index’ is the crucial sub-indicator in this condition, the two indicators are added using different weights: $\frac{4}{5}$ and $\frac{1}{5}$ respectively. As for the qualitative anchors, at least 3 is required for full membership; 1.5 is a crossover point, and values equal to 0 reflect full non-membership. Thus, Southern European countries, Continental European countries, Sweden, and Finland are more in than out of the set, while Anglo-Saxon countries and Denmark are more out of than in the set.

Table A5 – Calibration of the condition ‘high levels of employment protection’ (EP)

	Employment protection index, 2008-2010	Collective bargaining coverage, 2010	Additive indicator	Fuzzy set score
Austria	2.5	99.00	2.3	0.77
Belgium	2.4	96.00	2.1	0.70
Denmark	1.8	85.00	1.1	0.37
Finland	2.3	89.50	1.9	0.63
France	3.2	92.00	3.3	1.00
Germany	2.5	61.00	1.9	0.63
Greece	2.9	65.00	2.5	0.83
Ireland	1.8	42.00	0.7	0.23
Italy	3.0	85.00	2.9	0.97
Netherlands	2.4	84.30	2.0	0.67
Portugal	3.1	90.00	3.1	1.00
Spain	2.8	73.20	2.5	0.83
Sweden	2.2	91.00	1.8	0.60
UK	1.3	30.80	-0.1	0.00

Source: Authors’ own calculations based on OECD Indicators of Employment Protection; and Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS), version 4.0, April 2013.

Note: As for collective bargaining coverage (third column), in Denmark data refer to 2007, in Finland to 2009, and in France, Greece and Portugal to 2008. Regarding union density, in Greece data refer to 2008.

Condition III – low levels of coordination in the industrial relations system (LCO)

The following dimensions are used to measure the level of coordination in the industrial relations system: wage coordination and the level of organisation of labour and capital. It is explained below how each dimension is computed, and how I have turned raw data into set-membership scores.

All the indicators in this condition were taken from the ICTWSS database (Visser, 2013). Regarding the first dimension (wage coordination), I have used the indicator ‘coordination of wage-setting’, which is based on Kenworthy (2001) and ranges between 1 and 5. Countries with corporatist arrangements (centralised bargaining by peak associations) are ranked in the first two levels (4-5); those without corporatist arrangements but with a certain level of coordination (e.g., coordination only with some unions, and irregular industry-level bargaining with irregular and uncertain pattern setting) are ranked in the third level; finally, those with little pattern of bargaining or fragmented wage bargaining are ranked in the last two levels (1-2). To complement the

information gathered in the first indicator, information on the level of organisation of labour and capital are also provided (Ebbinghaus, 2006, p. 74), namely ‘employers’ organisation density’ (as a proportion of employees in employment) and ‘union density’ (net union membership as a proportion of wage and salary earners in employment).

The fuzzy set is calibrated using the direct method of calibration. The raw data, the additive indicator and the fuzzy set score are presented in Table A6. My calibration of the set low levels of coordination in the industrial relations system combines therefore three indicators: ‘coordination of wage-setting’, ‘employers’ organisation density’, and ‘union density’. To calculate the additive indicator, I have first standardised the three indicators to range between 0 and 4. Instead of using equal weights for the three different sub-indicators, I have given greater weight to the first sub-indicator: wage coordination is weighted at $\frac{3}{4}$, while employers’ organisation density and union density are weighted at $\frac{1}{8}$ each. As for the qualitative anchors, full membership in this set is reached when the level of coordination in the industrial relations system does not exceed 1.5, full non-membership is assigned when the level of coordination is above 3, and the crossover point is 2.1. The average for the period 1980-2011 is calculated because the objective is to capture the pattern of coordination in these countries, rather than the coordination in a specific period. Given that this database provides data for the entire period, I have decided to compute the average of each sub-indicator. In line with Crouch (1993), low levels of coordination in the industrial relations system are observed in France, in Southern Europe, and in Anglo-Saxon countries.

Table A6 – Calibration of the condition ‘low levels of coordination in the industrial relations system’

	Wage coordination (1980-2011)	Employers’ organisation density (1980-2011)	Union density (1980-2011)	Additive indicator	Fuzzy set score
Austria	4.1	100.0	41.3	2.9	0.06
Belgium	4.6	82.0	52.7	3.2	0.00
Denmark	3.8	65.0	72.5	2.6	0.22
Finland	4.3	72.7	73.1	3.0	0.00
France	2.0	75.0	10.0	0.9	1.00
Germany	3.9	60.0	28.0	2.3	0.39
Greece	2.2	43.7	31.6	1.0	1.00
Ireland	3.3	60.0	45.2	2.0	0.58
Italy	3.0	58.0	38.2	1.7	0.83
Netherlands	3.7	85.0	24.5	2.4	0.33
Portugal	2.6	65.0	30.0	1.4	1.00
Spain	3.2	75.0	14.2	1.8	0.75
Sweden	3.9	83.0	79.5	2.8	0.11
UK	1.0	35.0	36.8	0.0	1.00

Source: Authors’ own calculations based on Data Base on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts, 1960-2011 (ICTWSS), version 4.0, April 2013.

Note: Regarding employers’ organisation density, in Belgium and Sweden data refer to 2009, in Denmark, France, Germany, Greece, Italy, Netherlands, Portugal, Spain, and United Kingdom data refer to 2008, in Finland to 2006, and in Ireland to 2002.

Condition IV – high levels of liberalisation (L)

As an institutional theory of capitalism, the liberalisation literature emphasises the communalities rather than the varieties between capitalist economies, and criticises the functionalist's assumptions upon which the VoC approach is based. Drawing on Polanyi's 'double movement' of market expansion and market containment thesis (1944), it argues that change in all capitalist economies is driven by a process of market expansion, and highlights the social conflicts related to it. Furthermore, drawing on the historical institutionalist theory on institutional change (Streeck and Thelen, 2005) it argues that in all capitalist economies the direction of change points towards liberalisation (Streeck, 2009, chapter 17). To calculate this condition, two sub-indicators are used: the 'index of product market regulation', and the 'weight of the financial sector'. The first is taken from the 'OECD Product Market Regulation Database' (OECD, 2013b), while the second is taken from the 'Eurostat National Accounts Database' (Eurostat, 2008). First, though, it is explained below why these two sub-indicators are used to calculate this condition, and thereafter it is explained how fuzzy set scores have been calibrated.

Wolfgang Streeck's seminal book (2009) is focused on the German case and defines liberalisation in the German political economy as disorganisation (Streeck, 2009). As this study is not exclusively concerned with Germany but also with a wider group of European countries, liberalisation is analysed broadly (i.e., not as disorganisation but rather as a process of market expansion). Also relevant is the contribution of Glyn (2006), which points to two main characteristics of liberalisation: the reduction of intervention in industry through the privatisation of state-owned enterprises (2006, pp. 37-42), and the rise of the financial sector (2006, p. 51).⁹

First, the OECD 'index of product market regulation' is used to measure the process of market expansion and privatisation. This index is constructed from 18 low-level indicators and covers three general regulatory issues on fields such as: state control of business enterprises, legal and administrative barriers to entry (regulatory and administrative opacity; administrative burdens on start-ups, and barriers to competition), and barriers to international trade and investment (Wolf et al., 2009).¹⁰ This index ranges between 0 and 6, reflecting increasing restrictiveness of regulatory provisions for competition. Since the index only covers the period between 1998 and 2008, the difference between these two years is calculated. Second, with regard to the rise of the financial sector, I calculate the weight of financial activities and insurance activities on the Gross Value Added, in 2008.¹¹

The direct method of calibration is used to calibrate the fuzzy set score for this condition. The raw data, the additive indicator, and the fuzzy set score are presented in Table A7. My calibration of high levels of liberalisation combines two indicators: 'index product market

regulation (1998-2008)' and 'weight of the financial sector (2008)'. Furthermore, I have standardised the two indicators to range between 0 and 4, and have calculated the average score for every country. With regard to the qualitative anchors, at least 3 is required for full membership; 1.5 is a crossover point, and values equal to 0.9 reflect full non-membership. As can be seen in Table A7, the majority of countries have high levels of liberalisation, since only Belgium and Greece are more out than in the set.

Table A7 – Calibration of the condition ‘high levels of liberalisation’

Countries	Index product market regulation (1998-2008)	Weight of the financial sector (2008)	Additive indicator	Fuzzy set score
Austria	-38.7	5.9	2.0	0.67
Belgium	-10.0	6.0	0.9	0.00
Denmark	-34.8	7.3	2.0	0.67
Finland	-44.5	2.6	1.7	0.57
France	-43.3	4.2	1.9	0.63
Germany	-36.5	5.2	1.8	0.60
Greece	-21.0	4.3	1.0	0.08
Ireland	-45.9	15.8	3.8	1.00
Italy	-47.8	5.5	2.3	0.77
Netherlands	-43.1	8.2	2.5	0.83
Portugal	-37.8	7.7	2.2	0.73
Spain	-61.1	5.6	2.8	0.93
Sweden	-33.5	4.7	1.6	0.53
United Kingdom	-22.2	8.5	1.7	0.57

Source: Authors' own calculations based on OECD Indicators of Product Market Regulation; and Eurostat National accounts.

II – Robustness tests

Following Schneider and Wagemann (2012, pp. 284-294), a series of tests to assess the robustness of the analysis are carried out. First, I change the score of the case just above the crossover point to 0.49, and the case just below the crossover point to 0.51.¹² Table A8 shows that the solution term is robust to revisions of the calibration: in eight cases the solution term is identical. As for the case (fifth row) in which the second path is different ($ltp*LCO*L$), the unique coverage for this path decreases to 0.128. Regarding the case where the first path is different (ninth row), this is because the revision of this fuzzy set score requires a huge change in the calibration. Generally speaking, Table 6 shows that the solution term is robust.

Second, I change the consistency levels for truth table rows. With a consistency threshold of 0.885 (instead of 0.82), the solution turns into $ltp*EP*LCO$ (coverage: 0.520, consistency: 0.887). Note, however, that in comparison with the solution displayed in the paper, the number of uncovered cases increases to four and the solution coverage decreases sharply. I prefer the solution displayed in the paper because more cases are covered by the solution term, and because the

existing differences between Southern Europe and the Anglo-Saxon countries (together with Denmark) are clarified.

Finally, to assess the robustness of the analysis, I tested a different solution including five conditions instead of four. This new condition (DR) is based on the aggregate index of dualisation (Rueda, 2014, pp. 390-391). The objective is to test if the introduction of the new condition changes the main results of the analysis. The aggregate index of dualisation is the ratio of employment protection for standard employment over active labour market policies (ALMP) generosity. To measure employment protection for standard employment I use data from ‘OECD Indicators of Employment Protection’ (OECD, 2013a). ALMP generosity is measured as the ratio of ALMP to GDP over the ratio of the unemployed to the labour force. The first indicator is taken from Armingeon *et al.* (2012), while the second is taken from OECD.Stat (unemployment is the harmonised rate, measured as a percentage of the civilian labour force). Data for the aggregate index of dualisation refers to 2010. As for the calibration of this condition, I consider that at least 2.5 on the indicator is required for full membership, at least 0.95 to be more in than out of the set, and 0.0 for full non-membership. The fuzzy set scores and raw data for this condition are displayed in Table A9. With five conditions the solution term (complex solution) consists of two conjunctions: $ltp^*DR*EP*LCO + ltp^*dr*ep*L$ (coverage: 0.908, consistency: 0.782). The first covers Italy, Portugal, Spain, and Greece, while the second covers Ireland, United Kingdom, and Denmark. Comparing with the solution term displayed in the paper, the major difference is the presence of DR in the first conjunction and its absence in the second. Thus, DR follows a similar pattern to the condition high employment protection. Furthermore, the analysis of necessary conditions shows that DR is not a necessary condition for the outcome. Overall, the introduction of DR does not change the main results of the analysis.

Table A8 – Robustness of solution term

	Recalibration	Solution term	Comment
1	YO: Finland from 0.36 to 0.51	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term.
2	YO: Sweden from 0.51 to 0.49	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term.
3	LTP: Ireland from 0.45 to 0.51	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term.
4	LTP: Austria from 0.52 to 0.49	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term.
5	EP: Denmark from 0.37 to 0.51	$ltp^*EP*LCO + ltp^*LCO*L$	Unique coverage of both terms drops to 0.125 and 0.118, respectively. The solution coverage drops to 0.638. Denmark becomes an uncovered case.
6	EP: Sweden from 0.60 to 0.49	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term. Sweden becomes a covered case.
7	LCO: Germany from 0.39 to 0.51	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term.
8	LCO: Ireland from 0.58 to 0.49	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term.
9	L: Greece from 0.08 to 0.51	$ltp^*LCO*L + ltp^*ep*L$	This new calibration implies a huge change in the fuzzy set score for Greece.
10	L: Sweden from 0.53 to 0.49	$ltp^*EP*LCO + ltp^*ep*L$	Identical to solution term.

Table A9 – Calibration of the condition ‘high levels of dualisation’ (DR)

Countries	Aggregate index of dualisation	Fuzzy set score
Austria	0.60	0.32
Belgium	0.61	0.32
Denmark	0.41	0.22
Finland	1.05	0.53
France	1.12	0.55
Germany	1.10	0.55
Greece	3.01	1.00
Ireland	0.38	0.20
Italy	1.98	0.83
Netherlands	0.63	0.33
Portugal	3.55	1.00
Spain	1.58	0.70
Sweden	1.01	0.52
United Kingdom	0.36	0.19

Source: Authors' own calculations based on OECD Indicators of Employment Protection; Comparative Political Data Set I 1960-2011; and OECD.Stat.

References

- Addison, J.T. and Teixeira, P. (2003) ‘The Economics of Employment Protection’, *Journal of Labor Research*, **24**, 85-129.
- Armingeon, K., Knöpfel, L., Weisstanner, D., Engler, S., Potolidis, P., and Gerber, M. (2012) *Comparative Political Data Set I 1960-2011*, Bern, Institute of Political Science, University of Bern.
- Barbier, J-C. (2011) *Employment Precariousness in a European Cross-national Perspective. A Sociological Review of Thirty Years of Research* CES Working Papers No. 78/2011, Centre d’Economie de la Sorbonne, Paris
- Blanchard, O. (2006) ‘European Unemployment: The Evolution of Facts and Ideas’, *Economic Policy*, **21**, 5-59.
- Bonoli, G. (2006) ‘New Social Risks and the Politics of Post-industrial Social Policies’. In Armingeon, K. and Bonoli, G. (eds) *The Politics of Post-Industrial Welfare States. Adapting Post-war Policies to New Social Risks*, London, Routledge, pp. 3-26.
- Crouch, C., Finegold, D. and Sako, M. (1999) *Are Skills the Answer? The Political Economy of Skill Creation in Advanced Industrial Countries*, New York, Oxford University Press.
- Crouch, C. (1993) *Industrial Relations and European State Traditions*, Oxford, Oxford University Press.
- Cusack, T., Iversen, T. and Rehm, P. (2006) ‘Risks at Work: The Demand and Supply Sides of Government Redistribution’, *Oxford Review of Economic Policy*, **22**, 365-389.
- Davidsson, J. and Emmenegger, P. (2013) ‘Defending the Organisation, Not the Members: Unions and the Reform of Job Security Legislation in Western Europe’, *European Journal of Political Research*, **52**, 339-363.
- Ebbinghaus, B. (2006) ‘Protection, Production, and Partnership Institutions: From Institutional Affinities to Complementarities’. In Ebbinghaus, B. *Reforming Early Retirement in Europe*, Oxford, Oxford University Press, pp. 51-84.
- Emmenegger, P. (2009) ‘Barriers to Entry: Insider/Outsider Politics and the Political Determinants of Job Security Regulations’, *Journal of European Social Policy*, **19**, 131-146.
- Emmenegger, P. (2011) ‘Job Security Regulations in Western Democracies: A Fuzzy Set Analysis’, *Journal of European Social Policy*, **50**, 336-364.
- Emmenegger, P., Häusermann, S., Palier, B. and Seeleib-Kaiser, M. (eds) (2012) *The Age of Dualization – The Changing Face of Inequality in Deindustrializing Societies*, Oxford, Oxford University Press.
- Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism*, Cambridge, Polity Press.

Esping-Andersen, G. (1999) 'Politics Without Class? Post-Industrial Cleavages in Europe and America'. In Kitschelt, H., Lange, P., Marks, G. and Stephens, J. (eds) *Continuity and Change in Contemporary Capitalism*, Cambridge, Cambridge University Press, pp. 293-316.

ESS (2008) *European Social Survey Round 4 Data. Data file edition 4.1*. Norwegian Social Science Data Services, Norway-Data Archive and distributor of ESS data.

ESS (2010) *European Social Survey Round 5 Data. Data file edition 3.0*. Norwegian Social Science Data Services, Norway-Data Archive and distributor of ESS data.

Eurostat (2008) *National Accounts Database*, accessed at <http://epp.eurostat.ec.europa.eu/portal/national-accounts/data/database> on February 18, 2014.

Glyn, A. (2006) *Capitalism Unleashed: Finance, Globalisation, and Welfare*, Oxford, Oxford University Press.

Häusermann, S. and Schwander, H. (2012) 'Varieties of Dualization? Labour Market Segmentation and Insider-Outsider Divides Across Regimes'. In Emmenegger, P., Häusermann, S., Palier, B. and Seeleib-Kaiser, M. (eds) *The Age of Dualization – The Changing Face of Inequality in Deindustrializing Societies*, Oxford, Oxford University Press, pp. 27-51.

ISSP (2012) *International Social Survey Programme: Social Inequality IV – ISSP 2009*. GESIS Data Archive, Cologne. ZA5400 Data file Version 3.0.0.

Iversen, T. and Soskice, D. (2001) 'An Asset Theory of Social Policy Preferences', *American Journal of Political Science Review*, **95**, 875-893.

Kenworthy, L. (2001) 'Wage-Setting Institutions: A Survey and Assessment', *World Politics*, **54**, 57-98.

Kitschelt, H. and Rehm, P. (2005) 'Work, Family and Politics: Foundations of Electoral Partisan Alignments in Postindustrial Democracies'. Paper presented at the Annual Meeting of the American Political Science Association.

Lindbeck, A. and Snower, D. (1988) *The Insider-Outer Theory of Employment and Unemployment*, Cambridge, MIT Press.

Lindbeck, A. and Snower, D. (2001) 'Insiders versus Outsiders', *Journal of Economic Perspectives*, **15**, 165-188.

Lindvall, J. and Rueda, D. (2012) 'Insider-Outer Politics: Party Strategies and Political Behaviour in Sweden'. In Emmenegger, P., Häusermann, S., Palier, B. and Seeleib-Kaiser, M. (eds) *The Age of Dualization – The Changing Face of Inequality in Deindustrializing Societies*, Oxford, Oxford University Press, pp. 277-303.

- OECD (2013a) *Indicators of Employment Protection, Annual Time Series Data 1985-2013*, www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm.
- OECD (2013b) *Product Market Regulation Database*, www.oecd.org/economy/pmr.
- Oesch, D. (2006) *Redrawing the Class Map: Stratification and Institutions in Germany, Britain, Sweden and Switzerland*, London, Palgrave Macmillan.
- Oliveira, L., Carvalho, H. and Veloso, L. (2011) ‘Youth and Precarious Employment in Europe’. In Price, R., McDonald, P., Bailey, J. and Pini, B. (eds) *Young People and Work*, Farnham, Ashgate, pp. 163-181.
- Palier, B. and Thelen, K. (2010) ‘Institutionalizing Dualism: Complementarities and Change in France and Germany’, *Politics & Society*, **38**, 119-148.
- Piore, M. (1972) *Notes for a Theory of Labour Market Stratification*, Working Paper Department of Economics No.95, Massachusetts Institute of Technology, Cambridge.
- Polanyi, K. (2001 [1944]) *The Great Transformation – The Political and Economic Origins of Our Time*, Boston, Beacon Press.
- Price, R., McDonald, P., Bailey, J. and Pini, B. (2011) ‘A Majority Experience: Young People’s Encounters with the Labour Market’. In Price, R., McDonald, P., Bailey, J. and Pini, B. (eds), *Young People and Work*, Farnham, Ashgate, pp. 1-17.
- Ragin, C. (2008) *Redesigning Social Inquiry. Fuzzy Sets and Beyond*, Chicago, Chicago University Press.
- Rueda, D. (2005) ‘Insider-Outsider Politics in Industrialized Democracies: The Challenge to Social Democratic Parties’, *American Political Science Review*, **99**, 61-74.
- Rueda, D. (2006) ‘Social Democracy and Active Labour-Market Policies: Insiders, Outsiders and the Politics of Employment Promotion’, *British Journal of Political Science*, **36**, 385-406.
- Rueda, D. (2007) *Social Democracy Inside Out: Government Partisanship, Insiders, and Outsiders in Industrialized Democracies*, Oxford, Oxford University Press.
- Rueda, D. (2014) ‘Dualization, Crisis and the Welfare State’, *Socio-Economic Review*, **12**, 381-407
- Schneider, C.Q. and Wagemann, C. (2012) *Set-theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*, Cambridge, Cambridge University Press.
- Schwander, H. and Häusermann, S. (2013) ‘Who is In and Who is Out? A Risk-based Conceptualization of Insiders and Outsiders’, *Journal of European Social Policy*, **23**, 248-269.
- Streeck, W. (2009) *Re-forming Capitalism – Institutional Change in the German Political Economy*, Oxford, Oxford University Press.

- Streeck, W. and Thelen, K. (2005) 'Introduction: Institutional Change in Advanced Political Economies'. In Streeck, W. and Thelen, K. (eds) *Beyond Continuity: Institutional Change in Advanced Political Economies*, Oxford, Oxford University Press, pp. 1-39.
- Thelen, K. (2012) 'Varieties of Capitalism: Trajectories of Liberalization and the New Politics of Social Solidarity', *Annual Review of Political Science*, **15**, 137-159.
- Tremmel, J. (ed.) (2010) *A Young Generation Under Pressure? – The Financial Situation and the 'Rush Hour' of the Cohorts 1970-1985 in a Generational Comparison*, Heidelberg, Springer.
- Venn, D. (2009) *Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators*, OECD Social, Employment and Migration Working Papers, No.89, Paris, OECD.
- Visser, J. (2013) 'ICTWSS: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 34 countries between 1960 and 2012'; Version 4.0, Amsterdam, Amsterdam Institute for Advanced Labour Studies AIAS.
- Wolf, A., Wanner, I., Kozluk, T. and Nicoletti, G. (2009) *Ten Years of Product Market Reform in OECD Countries – Insights from a Revised PMR Indicator*, Economics Department Working Papers No.695, Paris, OECD.

Endnotes

¹ However, some differences exist within this group: while some authors define as outsiders those who work part-time, the fixed-term employed, and the part-time employed (e.g., Emmenegger, 2009), others (e.g., Rueda, 2006) only include these categories if these workers want a permanent job or a full-time job, otherwise they exclude them from the group of outsiders.

² These two age groups (more and less than 40 years old) are used because, as Häusermann and Schwander (2013, p. 253) have remarked before, ‘most European countries have still a considerable number of young adults in education at the age of 30 years (...). Considering that acquiring a firm position in the labour market requires another couple of years, a substantial share of people in their 30s must still be counted as labour market entrants’.

³ Following the procedures put forward by Ragin (2008), to calibrate raw data it is necessary decide where the point of maximum indifference regarding membership versus non-membership is located (0.5), to define the point of full membership (1.0) and the point of non-membership (0.0).

⁴ Besides relying on theoretical knowledge, I used obvious value breaks among the cases to set three qualitative anchors, and I have made sure that no cases are classified on the crossover point. This same procedure is followed in all four conditions.

⁵ See the Excel spreadsheet showing the calculation of the specificity measure, available at:
<http://www.people.fas.harvard.edu/~iversen/SkillSpecificity.htm>

⁶ One might also have included workers from the first occupational group in the lower tier of the primary sector. Indeed, its level of absolute skill specificity is similar to the third occupational group. I decided not to do so because this literature clearly states that the first two occupational groups belong to the upper tier of the primary sector (Piore, 1972, p. 3).

⁷ For a definition of each occupational group see ILO’s webpage:
<http://www.ilo.org/public/english/bureau/stat/isco/isco88/major.htm>

⁸ As for the original weights of the ‘employment protection index’, see: Venn (2009, p. 43).

⁹ Glyn’s book is mentioned several times in Streeck’s book. Indeed, these two books are often seen as the main contributions to this literature (Palier and Thelen, 2010, p. 120; Thelen, 2012, pp. 138-139).

¹⁰ For the weights given to each indicator, see Wolf *et al.* (2009).

¹¹ At basic values, millions of euro, chain-linked volumes, reference year 2005.

¹² I take this from Davidsson and Emmenegger (2013).