

Patterns of Non-employment

**How Labour Market Institutions Shape Social Inequality in
Employment Performance in Europe**

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Preface

The following manuscript is the framework paper of the dissertation „Patterns of Non-employment: How Labour Market Institutions Shape Social Inequality in Employment Performance in Europe“. Its purpose is to elaborate on the motivation, theoretical background and approach of three journal articles, which are the heart of the dissertation. It will also provide information on the overall research design and summarize empirical findings before, finally, drawing conclusions from the collected efforts of the three studies. The dissertation's main topic is social inequality on the labour market. The main factors of interest are the institutions surrounding the labour market. More specifically, the thesis engages in exploring how institutional arrangements shape social patterns of employment and non-employment, how they affect transitions on the labour market, in which constellations they lead to unequally distributed chances of getting employed, and in how far they keep disadvantaged groups from establishing stable labour market careers. The articles, which aim to answer these questions and which can be found at the end of this framework paper, are the following:

“The Impact of Labour Market Institutions on Social Inequality in Employment in Europe” (*manuscript to be submitted*).

“On the Outside Looking in? Transitions out of Non-employment in the United Kingdom and Germany”, in: *Journal of European Social Policy*, (2014), 24(1): 3-18.

“(Con-)sequences of Non-employment. Labour Market Reintegration in the United Kingdom and Germany” (*manuscript to be submitted*).

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My parents were supportive of my studies for so many years, which is something that sociologists know they have to value very highly, especially those who are interested in the processes of social inequality generation.

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Framework

1. Introduction

The received wisdom is that higher and more socially equal labour market participation is a necessary means to achieve a competitive economy and a sustainable welfare state. From an individual perspective - although being employed is not a guarantee to foreclose economic hardship (e.g. Andreß and Seeck, 2007, Brady, 2003, Lohmann, 2010) - *not* obtaining a stable income from work is still a strong predictor of poverty risks (Gallie et al., 2003). Employment is not only a source of economic security but also an integral factor for social inclusion and personal well-being (Gallie et al., 2003, Jahoda et al., 1975). Being non-employed, i.e. without a job, thus is a major cause of economic and social deprivation in today's performance oriented society. On the aggregate level, society faces challenges because of unexploited productivity potentials, the necessity to support jobless¹ individuals and deteriorating social cohesion. These challenges become more salient with the sheer amount of non-employment but even more so if non-employment is distributed unequally across social groups. Thus, goals of higher employment and more even social inclusion into the labour market play an important role in policy makers' agendas.

In Europe these goals are represented most prominently in the so-called Lisbon strategy, in which the European Union set itself new strategic goals at the European Council in Lisbon in March 2000. A major component of its official objective „to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion“ (European Council, 2000) was higher levels of overall employment and a stronger social inclusion of the labour market. The Council expressed these goals with numbers: Until 2010, an overall employment rate of 70% was aimed for. To foster social inclusion, this included a 60% employment rate for women and a 50% employment rate for the 55 to 64 year olds. The commitment to these goals has been renewed as 2010's Europe 2020 Strategy set the bar to a 75% employment rate to be reached in 2020. While increasing employment levels is an EU wide objective and the specific targets referred to the EU average, different member states are faced with very different challenges. Some countries such as Sweden, Denmark or the Netherlands exceeded the employment goals already in 2000, while the road seemed much farther and rocky for countries such as Italy, Spain or Greece. The question that arises is why is there variation in non-employment across countries? International variation suggests a relationship with macro-context variables. Within the general research agenda of searching for explanations of non-

¹ Non-employment and joblessness will be used as synonyms for the remainder.

employment and its social distribution, this dissertation therefore takes a comparative viewpoint. The literature discusses – among others – macroeconomic shocks or the occupational structure of labour markets (e.g. Brady, 2005, Jackman and Roper, 1987, Layard et al., 2005, Phelps, 1994). The bulk of the existing comparative research on labour market performance, however, focuses on the impact of labour market policies and institutional settings. This dissertation aims to contribute to this latter strand of research for two reasons: Firstly, there is evidence that the impact of most other macro-level factors is moderated by the institutional context of labour markets (Blanchard and Wolfers, 2000, Nickell et al., 2005, OECD, 2006). Secondly, political efforts to improve national labour market performance usually come in the form of policy measures and institutional reform while other determinants are seen to be more or less out of reach from political influence.

The Lisbon Strategy and Europe 2020 not only set clear benchmarks to measure the success of labour market policies; they also epitomize a shift in their objectives. The specific employment goals highlight two aspects, which are particularly relevant to the research agenda of this dissertation.

Firstly, the EU document displays an emphasis on equal labour market participation of all societal groups in order to increase social cohesion. From a sociological perspective labour markets are “machines of inequality production” (Abraham and Hinz, 2008: 12). They are the main distributors of not only income but also social status and affect a large number of social relationships. In consequence, they structure society and determine the degree of social inclusion and cohesion. Compared to the macro-economic interest in the performance of labour markets on the aggregate level the sociological approach makes a point of disaggregating non-employment along social dividing lines. The central question present work is concerned with is therefore not merely why does non-employment differ between economies in its absolute level but **why is there cross-national variation in the socio-demographic composition of non-employment?** The interest in the relationship between institutions, policies and employment in an economy is directed towards the social structural consequences of different labour market contexts. Social inequality in employment distribution is increasingly salient because there is not only stratification along the usual division lines but disadvantages are accumulated in social groups. Women, labour market entrants, older workers and those with low education are identified as being at high risk of experiencing disadvantages on the labour market. At the same time these groups coincide with what are termed the new social risk groups. Their protection by the welfare state has

become increasingly perforated in recent decades (Bonoli, 2006, Taylor-Gooby, 2004). As household forms pluralize and the economic dependence from a main breadwinner becomes an unsustainable model, chances to enter wage labour need to be provided for all social groups if they are not to accumulate risks.

Disadvantages are furthermore accumulated over the life course (Merton, 1968). This raises awareness that to analyse a snapshot of the labour market is not enough to understand its proceedings. There is a need to explore who stays without a job and who can make the transition into paid work in order to comprehend the impact of the institutional context on social structures. Even more so, since being without a job can be seen as less problematic if it is a relatively rare and short transition status within the life course. Stable non-employment is a more serious challenge. It can only be assessed from a longitudinal perspective. In addition, this provides a view on non-employment not as a mere result of labour market processes but also as a determinant of subsequent work-life histories. What kind of quality do positions after leaving non-employment have? Who can establish a stable labour market career? Regarding the interest of this dissertation in the shaping powers of the institutional context on socially stratified labour market performance, the following questions can be formulated: **How does the institutional context of the labour market affect transitions between labour force statuses? Are the transitions of distinct social groups affected in different ways?**

Secondly, the EU processes set the target in terms of increasing employment rates. This is a paradigm shift from the previous focus on lowering unemployment rates with crucial implications: Economic inactivity is to be lowered as well. The other side of the coin of increased employment rates is not decreased unemployment but decreased non-employment, i.e. unemployment and inactivity. When the fight against unemployment was at the centre of attention in the 1980s and early 1990s, some policies aimed to reduce the number of unemployed individuals by pulling them into inactivity via welfare benefits. Prime examples of this praxis are the pathways into early retirement offered by the German state (Ebbinghaus, 2006). Economic activation has been the major buzzword in labour market policies since the late 1990s. Many reform projects, for instance the Hartz reforms in Germany starting from 2003 or the British New Deal programs for disadvantaged groups since 1997, revolved around the notion of increasing incentives to join the labour force and helping individuals into jobs. Unemployment describes the joblessness of prime-aged males rather accurately – although recent developments show that there is a growing divergence between the two phenomena

within this socio-demographic group as well (Rosenbaum, 1975). Other social groups, however, frequently spend periods off the labour market in forms of economic inactivity, such as household responsibilities, early retirement or incapacity and disability. Especially when interested in social inequality in employment, not including the inactive population means missing a significant part of transitions and dynamics on and off the labour market (Murphy and Topel, 1997). In addition to siding with political trends, there are strong theoretical and statistical reasons for an inclusion of all non-employed to labour market analysis (e.g. Brandolini et al., 2006, Clark and Summers, 1982, Flinn and Heckman, 1983, Gregg and Wadsworth, 1998, Marzano, 2005, Murphy and Topel, 1997). Even though more and more studies analyse levels and changes in employment (e.g. Arpaia and Mourre, 2012, Genre et al., 2005), thus mirroring non-employment, not unemployment, or directly tackle non-employment and inactivity (e.g. Amable et al., 2010, Clasen et al., 2006), the main subject of labour market research is still unemployment (recent examples of macro-economic studies of labour market performance are: Appelbaum, 2011, Bassanini and Duval, 2009, Flaig and Rottmann, 2011, Lehmann and Muravyev, 2012, Sachs, 2011). A specific contribution of this dissertation to the literature on institutional impact on social inequality in employment is to include inactive individuals.

Nationally distinct patterns of non-employment indicate that idiosyncratic institutional settings foster more or less the labour market integration of different social groups. To answer the aforementioned questions, this dissertation argues that a model combining macro- and micro-level explanations is needed in order to explain national patterns of non-employment – and employment for that matter. It not only includes institutional factors as well as individual characteristics but it focuses on the very interaction between the two. At its core, the dissertation tackles economic questions. Yet, in doing so it takes a sociological perspective, enriching economic theory by factors that originate from sociological thinking on social structural differences and the shaping powers of the institutional context in particular. It is thus rooted in and contributes to both the literature on labour economics as well as social stratification in its interest in the distribution of life course risks. It draws on economic theory and sociological accounts of labour market dynamics. It furthermore ties in with existing research on institutional impact on labour markets and the literature on labour market mobility. The dissertation develops a theoretical macro-micro model that extends individual level labour market theories by including the institutional context. Starting from a Rational Institutional understanding of how institutions provide constraints for individual decisions, mainstream economics expectations are contrasted and complemented with insights from

approaches that highlight the importance of labour market positions, especially insiders and outsiders, and the actual processes of job and employee search and their matching. The central argument is that national employment/non-employment patterns are a consequence of the international variety of labour market institutions and how they interact with individual characteristics and micro-level processes.

The following section will discuss the necessity and advantages of looking at non-employment instead of unemployment. Section 3 will quickly present the underlying empirical puzzle of social inequality in non-employment in Europe. Subsequently, section 4 discusses the theoretical background. In a first step it lays out the argument about institutions' impact on the labour market. In a second step it elaborates on three groups of theories, which all highlight specific aspects of micro-level labour market processes and therefore arrive at distinct expectations regarding the institutional impact on social inequality in non-employment. Section 5 presents the research design, datasets and methods and summarizes the findings of the three studies. In section 6 I draw conclusions and point out tasks for future research.

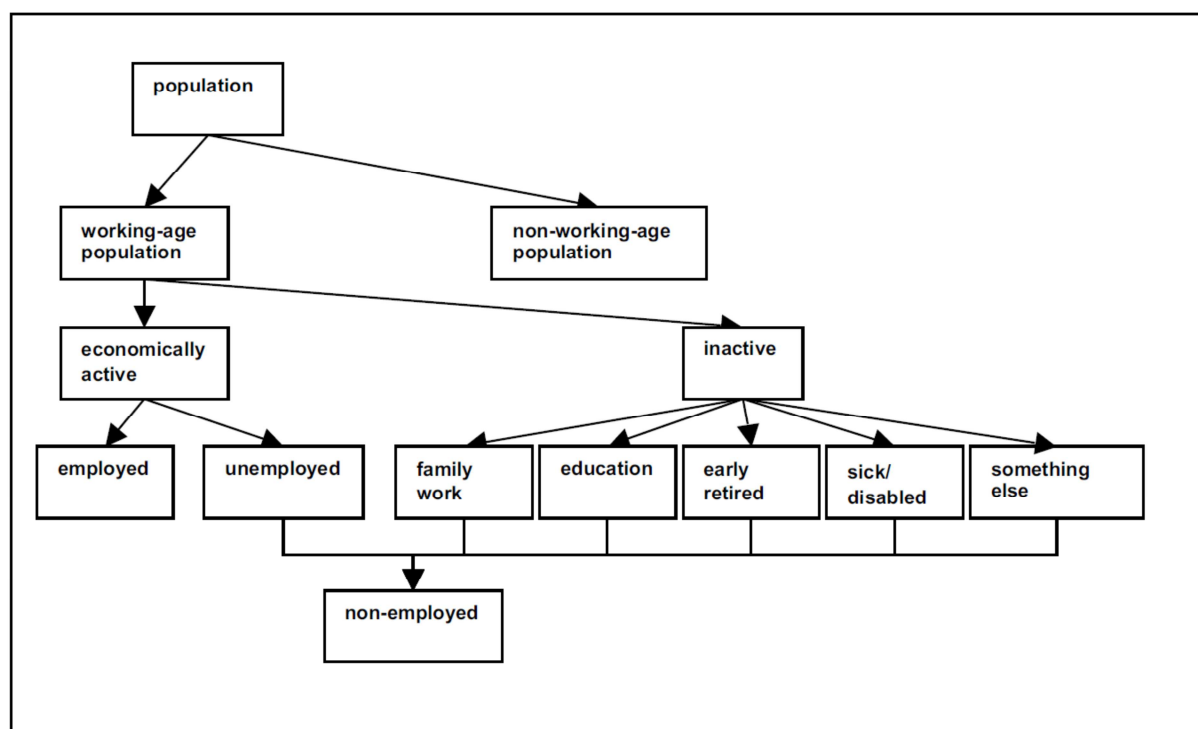
2. Why Look at Non-employment?

The rate of unemployment is the crucial indicator for the assessment of labour market performance in most political documents, public media coverage, but also scientific research. Understanding the causes of unemployment is one of the major concerns in social sciences because it pertains to a wide array of problems. For economists unemployment indicates inefficiencies in economic systems and the use of productivity potentials. In financial terms, higher unemployment does not only mean more benefit recipients but also less contributions to welfare states. Leaving the macro level, economies face social inequality in the distribution of unemployment, which challenges social peace. Even more so, as gainful employment provides income but also increases feelings of self-worth, social inclusion and cohesion. Only rarely the question is asked why these issues should be restricted to unemployment. By focusing entirely on the dynamics within the so-called labour force, i.e. those in work and those actively searching for it, the inactive population, i.e. those without work and not actively searching for it, is disregarded.

Recent developments in policy orientation as described above are not the only reasons warranting the analysis of non-employment as a whole. There are crucial statistical and theoretical reasons that need to be considered before even touching upon social issues. The

main statistical definition of an unemployed person is that he or she firstly has not worked at least 1 hour in the last week and secondly has been actively searching for a job in the last 4 weeks (ILO, 1982). This raises questions concerning the demarcation line for employment because it is debatable if one hour of work in a week constitutes any serious form of employment. Far more troubling, however, is that a large part of the working age population is excluded from labour market analysis by this definition: the economically inactive population, i.e. those who have not worked in the last week and have not actively searched for a job in the last four weeks. Among the inactive are as diverse categories as individuals in education, early pensioners, sick or disabled persons and individuals whose primary responsibility is in the household (see Figure 1).

Figure 1: Labour Market States



Source: Clasen et al. 2006

Statistically, a one-sided focus on unemployment leads to over- and underestimations of change. As Murphy and Topel (1997) show, the increase in US joblessness is not captured by unemployment rates since the main component of this change is the non-participation of prime-aged men. Hence, a policy can seemingly decrease unemployment due to outflows towards employment as well as towards inactivity. Vice versa, employment growth might not be recognized because of inflows to unemployment from inactivity, while the unemployment rate stays the same.

In addition to the statistical issues arising from the distinction of unemployment and inactivity, the disregard of inactive individuals can be contested from a theoretical perspective. The theoretical assumption that underlies the analytical exclusion of inactive individuals is that of voluntary unemployment. Studies deliberately neglecting the inactive population heavily rely on the assumption that individuals are permanently inactive without any chance for activation. The distinction referring to different kinds of behaviour is shown to be not as straightforward as suggested (Brandolini et al., 2006, Clark and Summers, 1982, Flinn and Heckman, 1983, Marzano, 2005). While Clark and Summers (1982) argue that there is no behavioural distinction between the unemployed and inactive, Flinn and Heckman (1983) contest this view by finding higher exit rates from unemployment towards employment than from inactivity. Yet, their findings do not refute the allegation of arbitrariness of such demarcation. The disregard of so-called voluntary unemployment is deeply rooted in economic thinking and the assumption that individuals not actively searching for work simply have a stronger preference for leisure time. Labour market attachment should be considered more as fine-grained degrees of inclusion than a binary category of unemployed/inactive. Discouraged workers, for instance, may not actively look for a job because they believe that work is not available, but they would nevertheless be willing to take a job if offered. Burchhardt and Le Grand (2002) show for the British labour market that after inclusion of various layers of constraints such individual characteristics, labour market experience, place of residence and household composition no more than roughly 10% of non-employment is unambiguously voluntary.

The flawed nature of the simple distinction becomes even clearer when conceiving of labour markets and people's preferences as dynamic. Even if not having a job is voluntary in case of the inactive in a cross-sectional perspective, treating this preference as being constant over the life-course is a long stretch. Various events in the life course, such as motherhood or long-term sickness, as well as external conditions, such as economic downturns or structural change, might lead to periods of economic inactivity without preference for leisure time. This is a major problem as soon as inactive individuals do not make the intermediate step through unemployment but transfer to employment immediately. Empirical studies of movement between different labour market states deliver evidence that despite the lack of active searching, there are lower but still significant transition rates into employment out of other non-employment states than unemployment (Amable et al., 2010, Nicaise, 2007). Gustavsson and Österholm (2012) show that changes in the long-term unemployment rate cannot fully capture changes in joblessness, not even for the group of prime-aged males. Furthermore,

when taking a life course perspective, maintaining the usual focus on unemployment and deliberately excluding inactive labour market states means creating significant gaps in the observation of some individuals. In conclusion, to focus on exits from unemployment would paint not only an incomplete but also an inaccurate picture of the impact of institutional settings on employment performance. Especially for sociologists there are no grounds for exclusion of the inactive as they have a general interest in the distribution of life chances. Research in social stratification must ask who are the inactive. Is inactivity really voluntary? What consequences does inactivity have for the life situation and how does it play out over the life course?

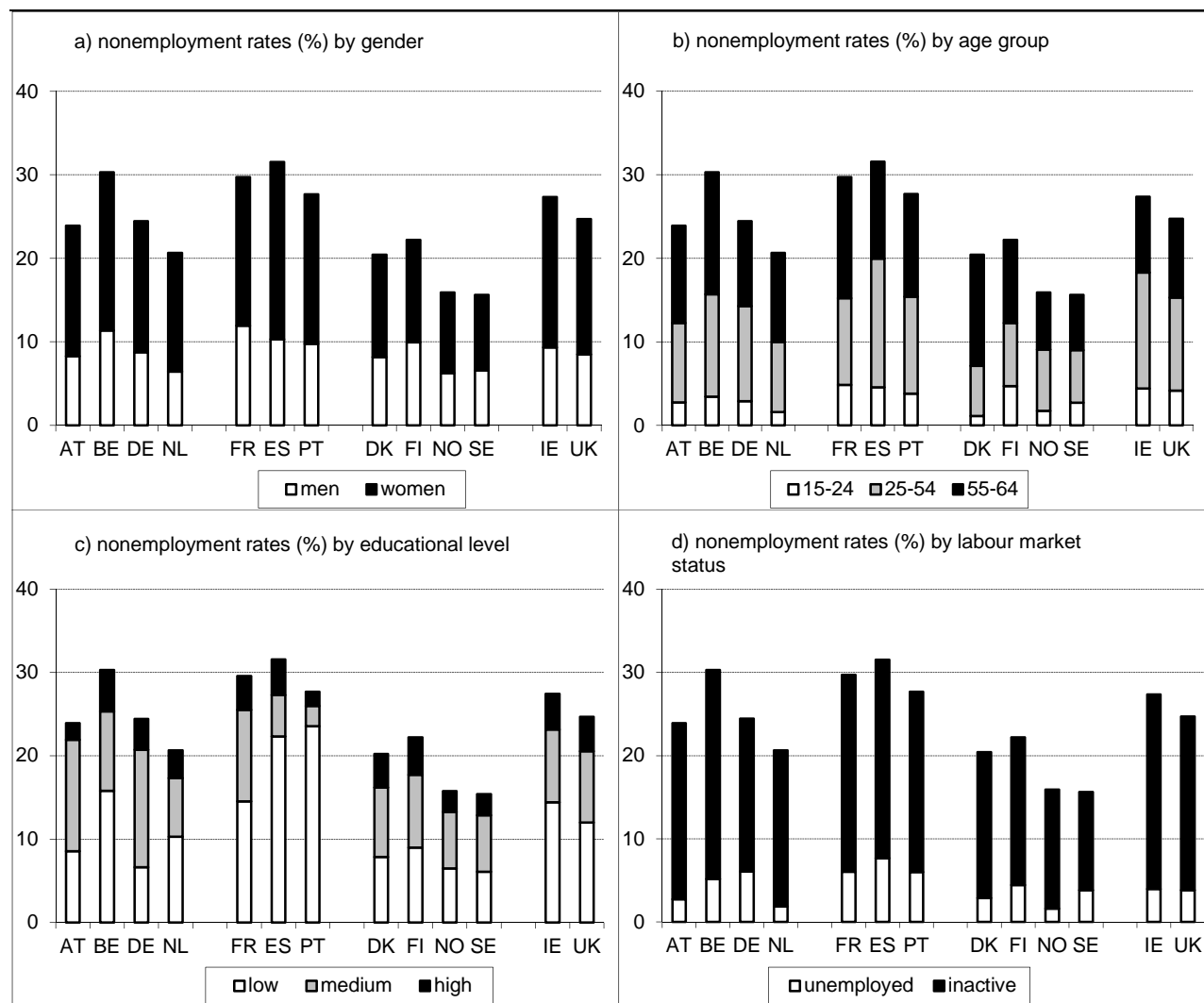
Some researchers suggest the distinction of more than two transition states (Brandolini et al., 2006, Jones and Riddell, 2006, Marzano, 2005). While this might help in expressing the different degrees of labour market attachment at a given point more accurately, more states cannot suppress the problem of over- and underestimation of change. More importantly, from a theoretical point of view, increasing the number of categories still rests on the assumption that a person's preferences and expectations towards employment are inalterable. This dissertation therefore follows Gregg and Wadsworth's (1998) proposition to perceive the non-employed as distributed along a continuum. Positions closer or farther from employment are determined by individual characteristics important for labour market attachment, while the institutional setting affects how these individual factors play out. Thus, almost every person is a potential worker if only opportunities and restrictions fit his/her predispositions. Of course, some individuals' preferences or personal situations are so far detached from the labour market that an institutional context that either motivates or forces them to work is neither realistic nor desirable. The heterogeneity within non-employment certainly is a challenge. Individuals in further education, for instance, can be expected to return to the labour market with a higher likelihood than someone with a severe disability. On the other hand, can we really assume that unemployment is a category consisting of homogenous individuals? The position this dissertation takes is that the pitfalls of having to deal with heterogeneity in non-employment are preferable to excluding a large part of the working age population from analyses of the labour market.

3. Social Inequality in Non-employment in Europe

This section presents the underlying puzzle of the dissertation. It illustrates social inequality in non-employment in Europe with descriptive figures and discusses the arising research

agenda. Figure 2 displays the variation in joblessness across social groups according to gender, age and education within 13 European countries in 2008 (Figure 2 a through c).

Figure 2: Non-employment in 13 European countries (2008)



Source: EULFS 2008. Working age population 15 to 64, excluding individuals that are both in education and under 30 years of age.

Prime-aged men are considered the core of the labour force. Considering that this age group is the largest in the data, the graphs show that in comparison women, younger and older individuals are without employment more often. Furthermore, across all socio-demographic groups those with low levels of education face particular disadvantages when seeking a job. As the welfare state is less and less able to provide economic security (Taylor-Gooby, 2004) and the social net within households cannot be relied on as much as some decades ago, being without regular income bears a high risk of poverty for these groups. Their fate on the labour market is therefore of special concern.

In accordance with the arguments made in section 2, Figure 2d shows how the distribution of inactivity and unemployment vary, underlining the problems when focussing on only one of them. Unemployment is a phenomenon that almost fully describes the problem of being without gainful employment for the group of prime-aged men. The average inactivity rate for men between 30 and 54 is below 7% compared to more than 23% in the remaining working age population². Some decades ago, when the male breadwinner model was still dominant in most countries, analysing unemployment in the population thus might have uncovered almost all joblessness that could be conceived as being problematic. Today, in a world of pluralized household forms, increased female labour market participation, challenges of financing pensions and rising problems of labour market integration for young workers, there is a stronger dependence from an income of one's own. Different forms of joblessness cannot simply be left by the wayside anymore.

Various micro-level approaches can hand us explanations for why some groups show comparatively poor labour market participation. Yet, micro-level theory alone cannot explain the international variation in social inequality. Only systematic differences on the country level and their interaction with micro-level processes can account for the patterns shown in Figure 2. It groups 13 European countries according to frequently used typologies of welfare states (Esping-Andersen, 1990, Esping-Andersen, 1999) and production systems (Hall and Soskice, 2001). These typologies and their extensions suggest that there is a Continental European, a Mediterranean, a Nordic and an Anglo-Saxon group of countries. Referring to the regimes that surround the labour market, employment regimes based on these ideal types can be formulated (Schmid, 2002). However, despite some clustering becomes apparent regarding absolute non-employment levels and social differences, the variation within the regime types indicates that a more fine-grained approach is necessary. The following section will discuss the theoretical background and approach with which this thesis aims to explain this variation. It will put a particular focus on institutions governing the labour market and their interaction with individual characteristics. In the first step of the empirical analysis, this will provide the thesis with the explanatory means to shed more light on the non-employment patterns in the 13 European countries. The thesis is moreover interested in the longitudinal processes that lead to these patterns and how institutions affect their stability over time. The theoretical section will highlight the dynamics on the labour market and how they lead to different labour market careers for social groups. In the empirical studies, the dynamic aspect will be explored

² Source: EULFS 2008, total working age population of 13 European countries, excluding individuals who are both in education and below 30 years.

for the two country cases of the United Kingdom and Germany. The two economies regularly inhabit polar opposites in the aforementioned regime typologies. Looking at absolute non-employment levels in Figure 2, the outcomes on the population level do not seem to differ much. Nevertheless, when dissecting non-employment according to social groups and non-employment status, differences appear. While women seem to be similarly disadvantaged, the youth and the low educated make up a larger share of non-employment in the United Kingdom. In the German labour market regime, on the other hand, unemployment plays a particularly strong role. The empirical studies in the second step will focus on the question to what extent the institutional regimes of the two countries can explain social inequality in joblessness from a longitudinal perspective.

4. Theoretical Background

The dissertation engages in explaining cross-national differences in non-employment. Its primary focus is on the distribution of non-employment across social groups from a cross-sectional and a social dynamic perspective. Therefore, it has to recur on theories that explain the existence of non-employment on the one hand and the socially unequal distribution of non-employment on the other. To approach the subject, the dissertation draws on economic theories, which generally understand the processes on the labour market as a result of the relationship between labour supply and demand. However, as the interest in social inequality is the driving force behind this dissertation, it places high emphasis on aspects that are brought forward mostly by sociological research and the literature on social stratification. Furthermore, the international variation in non-employment calls for a theoretical approach that factors in variation on the level of economies since cross-national differences can hardly be explained solely by factors on the individual levels. The central explanatory variable is the institutional context of the labour market and how it interacts with individual characteristics and micro-level labour market processes.

There are a number of structural aspects in a country's macro-economic setup besides institutions that can be considered to affect labour market processes: Most prominently the sectoral and occupational structure of economy, macro-economic shocks such as the recent economic and financial crisis, economic cycles, national culture and work ethic, but also aggregated micro-level factors, such as overall distribution of education, which shape the competitive situation on the labour market. While all these aspects warrant research efforts in their own rights, this dissertation focuses on the crucial role of institutions for two reasons in

particular. Firstly, even when interested in other macro-economic conditions, there is ample evidence that their impact is filtered and moderated by the institutional context of an economy (e.g. Bertola et al., 2007, Blanchard and Wolfers, 2000, Mortensen and Pissarides, 1999). Secondly, political efforts to improve labour market performance usually aim at changing the institutional context.

However, while institutions – just as any other macro-level factor – are apt to explain differences in overall labour market performance, it is only in the interaction of macro-level conditions and micro-level factors through which cross-national differences in the individual-level variation can be explained. The major focus of this work, thus, is on the interaction between institutions and individuals. Hereby, the dissertation aims to provide explanations for the cross-nationally varying risk of non-employment experienced by specific socio-demographic groups. In the following I will shortly provide the backgrounds of institutionalist theory and then elaborate on the constraints that institutions impose on individuals. Subsequently, I will discuss micro-level labour market theories, join them with the institutional level in a macro-micro approach and derive theoretical expectations for the ensuing analyses.

4.1 The Institutional Context of the Labour Market

Coase (1998) compares economics that ignore institutions to the analysis of the blood circulation without concern for the body that it is flowing in. Highlighting transaction costs in human interaction and the role institutions play in lowering them, his ground-breaking works (especially: Coase, 1937, Coase, 1960) ignited the field of New Institutional Economics. Similarly, New Economic Sociology emphasises institutions as a consequence of the notion of social embeddedness. Recurring on Polanyi's "The Great Transformation" and his use of the word to embed market-economies in their social structural context, Granovetter (1985) picked up the term to emphasize that human action is neither atomistic as it is often construed in economics nor determined entirely by social positions, norms, values and roles as some sociologists assume.

Institutions and Constraints for Individual Action

In the wake of Coase's work, institutions found their way into economics - although at first mostly as an attempt to generalize the neo-classical model (Furubotn and Richter, 2005). However, economists investigating the impact of institutions are often not explicit about their

understanding of what constitutes an institution. The most common conception of institutions among economists is North's (1990) definition of institutions as "rules of the game in a society or, more formally, [...] [as] the humanly devised constraints that shape human action" (North 1990: 1). This understanding is closest to what political scientists and sociologists call Rational Institutionalism (Hall & Taylor 1996). Here, institutions exist to serve individuals utility maximizing interests in governing the behaviour among them. Other variants of institutionalism such as Sociological and Historical Institutionalism put more emphasis on the socially constructed origins of institutions, path dependency in their development and the notion that institutions have a life of their own once they are created (e.g. DiMaggio and Powell, 1983, Mahoney, 2010, Pierson, 2004). However, the disparities in the understanding of what constitutes institutions are not particularly large between the Institutionalisms (Hall & Taylor 1996). Moreover, this dissertation is not interested in explaining the emergence and development of institutions; the focus is on how institutions affect actors' behaviour. This particular aspect is where institutionalist approaches in Political and Sociological Theory diverge (see DiMaggio & Powell 1991, Hall & Taylor 1996). In the following, I will shortly discuss why and to what extent this dissertation follows the approach of New Institutional Economics and Rational Institutionalism.

Both in New Institutional Economics as well as Rational Institutionalism individuals are seen as rational actors whose choices are constrained by the institutional contexts (Ingram and Clay, 2000). The assumption of rational actors who maximize their utility is appropriate in the labour market context. The decision of potential employees to seek or of potential employers to offer a job can be considered well calculated. Rational choice institutionalism is very precise on how institutions affect actors' behaviour: Institutions structure the strategic interactions of actors "by affecting the range and sequence of alternatives on the choice-agenda or by providing information and enforcement mechanisms that reduce uncertainty about the corresponding behaviour of others and allow 'gains from exchange', thereby leading actors toward particular calculations and potentially better social outcomes" (Hall & Taylor 1996: 945). While rational actors strive to maximize their individual utility, institutions provide them with opportunities and constraints.

Most rational choice approaches treat individual preferences as a fixed set that is exogenously given (Hall & Taylor 1996). This assumption can be seen as one of the roots of economic studies' focus on unemployment. Inactivity is voluntary and this preference to be outside the labour market is constant. Thus, for institutionalist accounts based on rational

actors, only unemployment – being involuntarily without work – is a problem that needs to be investigated. “Realism, however, cannot be among the virtues invoked on behalf of the exogenous preferences premise“, as Bowles (1998: 102) put it. Economists more and more realize the necessity of conceptualizing preferences to be endogenous (Bowles, 1998). From a sociological point of view, the co-constitution of institutional context and individual preferences is more self-evident (for a fundamental contribution see: Berger and Luckmann, 1966). In line with the notion that institutions affect preferences and that institutional change can lead to change in preferences, this dissertation contends that not only chances to get employment but also preferences to be employed are conditional on the institutional context. In sum, the dissertation rests on the assumptions of rational actors forming their preferences and making choices within given opportunity structures shaped by the institutional context (see: Ingram and Clay, 2000).

Labour Market Institutions

Which institutions are considered to be immanent to answering the questions of differences in the social distribution of non-employment across countries? Most definitions of institutions, such as North’s (1990), comprise formal and informal rules. Present work, however, heavily emphasizes institutions that are formally coded. Informal rules, for instance work ethic or gender norms, are very likely to add to the international differences. Yet, the study’s focus is on institutional arrangements that are subject to reform efforts in order to provide a basis for policy recommendations. Thus, informal institutions are assigned secondary roles in the analyses. From a theoretical as well as methodological perspective, the dissertation will approach the impact of the informal context so that it should not bias the results for the arrangements of interest.

There are a wide variety of institutions that constitute the setup of a national economy. Among them many can be argued to have an effect on the labour market in at least an indirect way by affecting the overall economic performance. We can think of institutions in the financial sector such as the central bank and its monetary policies, laws in various economic areas or the legal obstacles to starting a business and thereby creating jobs. This dissertation, however, puts its major focus on institutions with a direct impact on labour markets. These can be allocated to two broad categories. One category consists of institutions that regulate the labour market and shape its workings. From an economic theory perspective, they extend on a regulatory dimension between rigidity and flexibility (Layard et al., 2005). Specific examples are ways how wages and working conditions are agreed upon in the bargaining

system; which role trade unions, employer organizations and the state play in it; how work contracts are formed and how they can be dissolved as specified in employment protection regulations; and what kind of burden labour taxes and social insurance schemes put on wages. Latter example is building a bridge to the second broad group of institutional arrangements, as taxes and social security contributions are at its base.

The second category comprises what can be termed labour market policies, either in their passive or active form. These institutions can be regarded as the public attempt to take care of individual's life course risks and to deal with the malfunctions of the labour market. On the one hand, they impact on employment and non-employment in the way provisions such as unemployment benefits secure the living standard of those without work. As the dissertation makes a point of expanding the view from mere analysis of unemployment, further schemes such as long-term sickness benefits and social assistance come into focus. On the other hand, further arrangements integrated in the overall welfare regime have a more work enabling function, such as active labour market policies and public childcare services. They aim to reduce the costs and opportunity costs of working. Economic theory mostly focuses on the dimension on which they provide incentives and disincentives to work; yet the employment enabling aspect should not be underestimated (Dingeldey, 2007, Eichhorst et al., 2008).

There are institutional arrangements with particular importance to the labour market performance of distinct social groups. For instance, the constitution of the educational system and how it is connected to the labour market has a tremendous effect on transitions between education and work, thus shaping youth non-employment (Shavit and Müller, 1998). Family policies determine employment chances of women by regulating their child care burdens (Daly, 2000, Gornick et al., 1997). Pension schemes can provide an additional set of incentives for older workers to exit work early (Ebbinghaus, 2006). The dissertation heavily focuses on institutional arrangements pertinent to the whole working age population but will consider arguments about these specific institutions where necessary. Furthermore, the central theoretical arguments will be directed at single institutional arrangements. As pointed out in section 3, regime typologies are too broad to explain existing cross-national variation in non-employment. Yet, since institutional regimes typically follow an inherent logic and isomorphism can be detected in different arrangements (Esping-Andersen, 1990, Gallie, 2003, Hall and Soskice, 2001), arguments can sometimes be generalized to whole country setups. For instance, we could speak of strongly regulated labour market regimes or economies with a

generous welfare state. How the various institutional arrangements can be expected to affect non-employment of social groups is dependent from the assumptions about the behaviour of employees and employers and the approach to micro-level labour market dynamics. The following sections will discuss labour market theories in detail. The sections will derive expectations towards the impact of labour market institutions on social inequality in employment according to the specific theoretical accounts.

4.2 Explaining Social Inequality in Non-employment

For the purpose of explaining social inequality in non-employment, this section allocates existing theories to three different categories. They highlight distinct aspects of labour market processes and therefore arrive at varying and at times competing conclusions regarding the impact of labour market institutions. After shortly presenting the theoretical mechanisms at the micro-level, the sections will elaborate the expected impact of the institutional context in the particular setting. A special focus will be placed on the different effects that social groups will experience. The main interest is in the groups with particular disadvantages and a specific risk of being deprived of life chances. Although maybe self-evident, it is necessary to point out that in the theoretical discussion as well as in the empirical praxis the divisions between the theoretical approaches are more fluent. They are allocated to clear-cut categories in the following sections in order to be able to derive straightforward expectations.

The discussion starts out with the economic core-concept of the neo-classical model. Because of its assumption of a homogenous workforce, the model cannot provide any expectations regarding variance in institutional impact across different types of workers. Human capital theory, one of the most prominent extensions of the neo-classical model, emphasises productivity levels of workers. Taken together, this mainstream economic model provides straightforward expectations for institutional impact. Because of assumptions regarding perfect information, mobility and flexibility, variance of institutional impact is only caused according to productivity of workers. A second category of theoretical approaches highlights the importance of positions in the labour market. Especially insider/outsider theory – and its recent revival in the literature on dualization processes – make a point that labour market positions held by individuals will significantly shape future trajectories. The expectation is that this varies according to the institutional setting. Finally, job search and matching theory suggest that the processes of searching for employment and for employees, respectively, do entail friction and cost. The allocation of individuals to jobs and resulting social inequality is therefore assumed to be consequence of individuals' ability to cope with

these costs and employers evaluation of the signals they omit. Again, it is argued that these factors vary with the constitution of institutional settings.

4.2.1 The Neo-classical Model, Human Capital Theory and Productivity Differences

The Neo-classical Model of the Labour Market

Neo-classical approaches in economics view the labour market as one of three major markets besides those for commodities and capital. It is assumed to work along the same principles with the price – here called wage - being the adjustable factor bringing supply and demand into a market clearing equilibrium (for introductions see: Borjas, 2005, Hinz and Abraham, 2008, Kaufman and Hotchkiss, 2006). This labour market model stands on a fundament built from a number of strong assumptions. Firstly, the model assumes full competition on the market. There are no single actors or groups who can notably affect the wage by themselves. Secondly, wages are fully flexible and thus can always adjust to changes and fluctuations. Thirdly, the market is transparent; there is full and symmetric information for all actors. And finally, workers are mobile and homogenous, meaning that they are fully substitutable. If these conditions are fulfilled, the basic mechanism of the wage bringing together labour demand and supply will always lead to zero unemployment in equilibrium. External shocks can shortly put the labour market off this equilibrium but an adjusting wage always leads it back.

Although the empirical evidence for neo-classical expectations is mixed at best (see: Baccaro and Rei, 2007, Baker et al., 2005, Howell et al., 2007) and alternative institutional approaches such as the Danish flexicurity model (reconciling high benefit and high employment levels) have proven successful, the consequent flexibilization and deregulation view is still strong especially among economists (e.g. Bassanini and Duval, 2009, Destefanis and Mastromatteo, 2010). In neo-classical economics various societal concerns such as social equality and cohesion as well as poverty relief play only a minor role. The task of institutional arrangements in dealing with these issues is therefore not weighed against their predicted harmful effects. From a mere labour market perspective – i.e. one in which labour supply and demand interact and are brought together via wages – the neo-classical view is still the strongest comprehensive theoretical account of institutional impact. A large part of the expectations of this dissertation's analyses are therefore guided by this view to at least some degree.

There are two major implications of the neo-classical model in opposition to the research questions of this dissertation: Firstly, there should be no non-employment. The market clearing mechanism of adjusting wages prevents that. To be more precise: There should be no involuntary unemployment. The neo-classical model is based on the fixed preferences assumption like most rational choice approaches. In this case, individuals have a set preference for either leisure or work with the dividing line for their decision being marked as their reservation wage: Starting from which wage level does an individual prefer taking a job to staying at home? Those, whose wage expectation is not met, stay home voluntarily and are thus not a major concern for economic analysis. This theoretical reasoning is seemingly congruent with the distinction of unemployment and inactivity as discussed in section 2. The existence of unemployment in the long run is one of the most prominent pieces of evidence to state that the neo-classical model does not accurately describe reality. For its proponents, however, it is mainly a theoretical model and for some it depicts an ideal to strive for. Institutions and the way they interfere with the basic market mechanism in their view are inherently sources for deviation from the equilibrium. Neo-classical theory has straightforward expectations regarding the impact of institutions governing the labour market. They interfere with the basic mechanism in which wages adjust for differences in labour demand and labour supply and thus are among the crucial causes for involuntary joblessness (Layard et al., 2005). They are not only a reason for the existence of unemployment, from a dynamic perspective they also prevent jobless individuals from finding employment quickly. In one way or the other, they lead to violations of basic assumptions. Strong unions (but also strong employer organizations for that matter) can fathom market power and directly influence prices. Similarly, wage agreements often have far-reaching consequences beyond the level of single firms, sometimes covering whole industries or more while at the same time fixing wages for the run of a year or more thereby violating the flexible wages assumption. Employment protection inhibits easy firing and thus hampers the adjustment of wages. At the same time, it strengthens trade unions' bargaining position and constrains the substitutability of workers. Welfare benefits provide an alternative source of income and thus raise workers' reservation wages, which, in turn, increases overall wages and impede market clearance. Although the main suspect among benefits is unemployment insurance, other benefits, such as social assistance and disability benefits are rarely included in economists' analyses, yet can be expected to affect labour market participation along the same incentive effect.

Among the institutional arrangements governing the labour market, there are two that can have positive effects on employment in specific situations even from a neoclassical view:

Active Labour Market Policies (ALMP) and centralized wage bargaining. ALMP are designed to smooth the transition process and improve the employability of jobless individuals. Although the effectiveness of single programs is disputed (Carcillo and Grubb, 2006, Kluve, 2010), ALMP are generally seen to foster employment. Centralized and coordinated wage bargaining is usually argued to hamper individual firms' ability to cope with precarious situations. However, inspired by the success of Sweden and its strongly centralized and coordinated wage bargaining process, Calmfors and Driffill (1988) argue that very strong unions might be willing to constrain their demands in periods of economic downturn. Since they are so large that they cannot externalize detrimental effects on the economy they are likely to opt for employment-friendly wage agreements (Calmfors and Driffill, 1988). To bring the benefits of these two institutional arrangements in line with general neo-classical thinking, however, some authors imply that the employment enhancing effects of centralized wage bargaining are only countering the negative impact of strong unions and ALMP can flourish solely in an environment of high joblessness created by generous unemployment benefits (Bassanini and Duval, 2009, Nickell, 1997).

The second implication of the neo-classical model at odds with the research questions of this work is that there should be no social inequality. The assumption of homogeneity of workers shows that the model has no interest in labour market inequality. Many studies of institutional impact based on the neo-classical model are situated at the macro-level (e.g. Bassanini and Duval, 2006, Blanchard et al., 2006, Blanchard and Wolfers, 2000, Nickell, 1997, Nickell et al., 2005). As aggregate numbers are at their centre of interest, the problematic assumption of homogenous workers is negligible. Looking at micro-level processes, this assumption cannot be maintained. There is systematic social inequality on and off the labour market that needs to be accounted for in labour market theory. A theoretical approach that does not recognize these differences is without use for understanding social stratification as a result of labour market processes. The model needs to be extended in order to explain labour market inequality.

Human Capital Theory

The most prominent among the theoretical accounts that dissolve the homogenous worker assumption is human capital theory (Becker, 1964). Human capital is the skill potential individuals can derive from their education and work experience. Thus, workers can be distinguished according to their productivity, which is determined by the level of human capital they are equipped with. The main idea is that the acquisition of human capital is costly

for workers. They have to decide if it will be a worthy investment over their life course. By this mechanism, the theory cannot only explain differences in jobs achieved but also devises a reason for social inequality on the labour market that transcends educational levels. Because some groups such as women expect lower payoff from investing in human capital, they end up not acquiring it in the first place and are therefore allocated to lower positions just as their productivity levels justify. There are a couple of factors that can be criticized about this approach (see Ben-Porath, 1982). Not the least among them is the fact that the blame for their poor labour market placement is given back to disadvantaged groups.

Initially being an extension of the neo-liberal model, there is a strong focus in human capital theory on the labour supply side (Granovetter, 1986). However, when incorporating demand, i.e. the employers, the explanatory power of approaches focusing on different productivity levels is increased significantly. It is now possible to account for mismatches between human capital level and acquired jobs since the positioning is dependent from employers' evaluation of a worker's productivity. This is also where arguments about discrimination come into play (Becker, 1971). Be it in the sense of systematic misevaluation of a specific group or statistical discrimination, i.e. the biased evaluation of a single worker because of group membership that is still accurate in terms of the average productivity of the group.

The possibility of human capital deterioration provides an alternative – or at least an addition - to the aforementioned self-fulfilling prophecy of investment in human capital to explain labour market inequality more realistically (Mincer, 1974, Mincer and Ofek, 1982). Especially in the case of work interruptions – relevant for female labour market careers in particular but also for the re-employment chances after joblessness in general – a significant loss of human capital over time can be assumed. Resulting lower productivity explains worse labour market performance afterwards. The notion of human capital and its deterioration are of particular importance to the questions of work-life course consequences of non-employment, which this dissertation is concerned with. If certain groups experience work interruptions systematically more often than others, we can account for differences in labour market performance despite formally equal education levels. Productivity, its estimation by employers and its variation according to added education or work interruptions, is therefore the key concept to account for heterogeneity among potential workers.

Institutional Impact According to Productivity

If we consider human capital theory an extension to the neo-classical model that brings social differences into play, there are a number of general expectations in line with the original model but amended by social structural aspects. Individuals with low human capital should have the highest risk of non-employment and the lowest chances to leave it for a stable entry to the labour market. According to human capital theory, it is not only individuals with low levels of educational attainment who are equipped with low human capital. Human capital arguments also apply to discrepancies in employment prospects of different age groups. Younger workers have disadvantages at entering the labour market as they can show educational credentials but not work commitment and experience (e.g. Mincer, 1974). Human capital theory furthermore extends to gender discrepancies. The notion of human capital depreciation highlights the negative consequences of work interruptions. Career breaks caused by motherhood and their consequences are discussed extensively in the labour market body of research (e.g. Goldin and Rouse, 2000, O'Neill and Polachek, 1993). Regarding work-life consequences of non-employment and the job search situation, human capital levels and long periods without employment can affect employees' further choices (Becker, 1964). The feeling of significant human capital loss might lead individuals to refrain from work-search because of lowered expectations. In a worsened economic situation, they might be willing to take job offers below their initial prospects. The observation of social inequalities on the labour market leads to reduced expectations for members of the disadvantaged groups. In turn, they decrease their reservation wages, leave the labour market or take on worse jobs, thus perpetuating the socially unequal pattern. Reconciling work and family might also increase the likelihood of selecting atypical jobs, which offer more flexible working hours.

The inclusion of the employers' side bolsters arguments concerning disadvantages of these groups. Job chances of women might be diminished if employers anticipate childbirth and, therefore, decide against investing in such employment relationships. Additionally, older workers usually can signal more experience and willingness to work with previous employment spells, but employers are reluctant to invest in further education of individuals whom they do not expect to stay long-term (Taylor and Walker, 1994). Their specific human capital might also be not well adjusted to technological development. In sum, the emphasis of this approach is on issues on the supply side even when looking at processes on the employers' side.

Institutions can be assumed to affect the labour market as in the pure neo-classical model. Non-employment resulting from the barriers that institutions bring into the working of the labour market is concentrated among those with low human capital. Low productivity – be it self-imposed or a consequence of more complex processes such as discrimination and the development of expectations – is the crucial explanatory factor in this approach. The detrimental consequences of institutions for the labour market increase joblessness in general, but the ones with low productivity will be affected the most. It is these very groups that will have the most trouble to exit joblessness.

The neoclassical model in combination with human capital considerations relies on some very strong assumptions, such as perfect mobility and substitutability of workers. There are also no frictions in the search processes of workers and employees. As a result, the approach implicitly assumes that current positions have no impact on future labour market trajectories. Mismatches between jobs and employees cannot be taken into account. The following sections will elaborate on theoretical approaches to labour market processes that highlight these aspects. As will be seen, these in consequence also suggest alternative expectations regarding the institutional impact on social inequality on the labour market.

4.2.2 Segmented Labour Markets, Insider/Outsider Theory and Positions on the Labour Market

Segmented Labour Markets

Segmented labour market theories are driven more strongly by sociological considerations, emphasizing hierarchies and the power of positional advantages in the labour market (Piore, 1973): All segmented labour market theories – in a wide variety of different ways (e.g. Berger and Piore, 1980, Doeringer and Piore, 1971, Reich et al., 1973) – emphasize that there is not only one labour market and that at least one of the submarkets is not governed by wage adjustment. Mobility between the submarkets is inhibited. In the protected inner labour market(s), positions are achieved through vertical career chains, firm internal job allocation or skill adjusted positional changes. Instead of being defined by labour supply and demand, wages and job allocation are determined by administrative rules and procedures, implying a hierarchical and power driven process in a sociological sense compared to the image of a free running market. Social inequality comes into play as only certain groups can enter the primary labour market while some others are bound to secondary markets. Theories focus on occupational groups, educational levels, but also divisions between the sexes or age groups. Some approaches additionally emphasize that the labour market segment in return shapes the

life styles of workers (Piore, 1978). The various accounts belonging to the segmentation theory can provide insights into the issue of social inequality in the distribution of work. However, the focus is on inequality in the quality of jobs, i.e. the type of contract, level of income and career prospects. There is no particular micro-level mechanism to explain why some individuals are not in employment, which is why there are no specific hypotheses to be derived for the questions central to this dissertation. Even so, the level of segmentation of national labour markets does differ and poses a structural condition in need of consideration when assessing the impact of institutional surroundings.

Insider/Outsider Theory

At first sight similar to labour market segmentation, the insider/outsider theory incorporates the aspect of positional differences into a more economic understanding of labour market processes. It explains labour market inequality and the existence of unemployment not with specific characteristics of workers but with their positions. It highlights how labour market insiders can use their position to strengthen the barrier for outsiders and increase status stability (see: Lindbeck and Snower, 1988). The fundamental assumption of the insider/outsider theory is that firms are faced with labour turnover costs when replacing workers, for instance because of lengthy search processes or training costs. In a nutshell, insiders accumulate market power since employers are not willing to replace them with cheaper outsiders in order to avoid extra transaction costs. The insiders use this power to push wages above the market clearing level arriving at a better and more stable position. As a result, involuntary unemployment becomes a permanent phenomenon and the insider/outsider divide in job distribution signifies inequality on the labour market.

Originally, the insider/outsider divide separated those in work from the unemployed (Lindbeck and Snower, 1988). More recently, some authors have argued that individuals in atypical jobs, i.e. part-time employment or jobs with temporary contracts, should be considered outsiders as well, making workers with permanent full-time positions the only real insiders (King and Rueda, 2008). In line with this dissertation's argument, inactivity can be regarded as an outsider status as well, particularly from a life-course perspective.

Typical outsiders are those who either have not found their way into the labour market yet, i.e. labour market entrants, or those who because events in the life course have to leave employment at some point, i.e. women because of motherhood or low-educated individuals because they often only have temporary contracts and are generally more likely to lose a job.

These groups coincide with the disadvantaged groups identified with a human capital approach with the exception of older workers. Insider/outsider theory usually considers older workers to be well established in the labour market and being protected by insider/outsider divides. Some empirical works on institutional impact on social groups partly base their considerations on insider/outsider arguments (e.g. Genre et al., 2005). They find that so-called typical outsiders (women, younger workers and the low-educated) often experience different or particularly strong effects from labour market institutions. However, the insider/outsider theory cannot provide an explanation for why certain social groups are outsiders. Firstly, the theory works with homogenous workers who are only distinguished according to their position. The identification of the 'typical outsiders' is purely descriptive. Additionally, while the theory delivers a sound basis to explain status stability, it fails to answer the question who is becoming an insider in the first place. Still, when looking at labour dynamics in a longitudinal life-course perspective, it can provide insights to questions concerning differences of spells and labour market segments between variants of employment regimes.

Institutional Impact According to Position

The institutions most often discussed in the insider/outsider framework are the ones that increase the crucial transaction costs and thus improve insiders' market position (Lindbeck and Snower, 1989). Strong employment protection legislation enhances the disadvantages of labour market outsiders. It increases firing costs, thus making employers more reluctant to replace insiders or to create new positions. Strong unions bundle the interests of insiders and improve their bargaining position. Unemployment benefits assure unions' threat to strike and bolster that position further (Lindbeck and Snower, 2001). Developments in these institutional arrangements are also at the centre of the literature that observes processes of dualization on European Labour markets. This strand of research argues that recent changes in these institutional arrangements constrain the benefits derived from employment protection, benefit systems and union representation to the very core of the labour market, i.e. permanent full-time positions (Emmenegger et al., 2012, Palier, 2010, Palier and Thelen, 2010, Rueda 2005). In general, the main expectation for institutional impact on inequality in joblessness is therefore that these institutions favour insiders, which increases the divide between insiders and outsiders. From a regime perspective, a dualized labour market context will lead to higher inequality between insiders and outsiders. In contrast, it can be assumed that institutional arrangements that decrease the gap, for instance a centralized wage bargaining process that

moderates wages and flattens their distribution, are able to lower the barrier to insider positions.

Thereby, the insider/outsider theory is also mainly interested in the transitions on the labour market – although the explanatory approach focuses on stability. With regard to the analyses in this dissertation the central argument therefore is that the institutional arrangements in question affect the probability of making the transition from an outsider position, i.e. non-employment, to an insider position. Consequently, disadvantaged groups in dualized labour markets not only have higher chances to be without employment, the barrier to an insider position is especially high for them as well. As pointed out above, insider/outsider theory has no direct implication regarding which social groups are typical outsiders. Similarly, the dualization literature identifies women, labour market entrants and low-educated individuals only in a descriptive way (Emmenegger et al., 2012, Häusermann and Schwander, 2012, Schwander and Häusermann, 2013). Between the insider/outsider theory and the human capital approach we are able to explain labour market inequality and its persistence. However, what is still missing is an approach that models the allocation of employees to jobs in the first place.

4.2.3 Job Search Processes and Matches on the Labour Market

Job Search Theory

Job Search Theory introduces friction to the well-oiled machine of the neo-classical model by loosening the assumption of perfect and symmetric information (McCall, 1970, Mortensen, 1970, Mortensen, 1984). How do rational individuals act in a job seeking situation if they are not fully informed about what kind of job they can get and how well job offers match their expectations? In these models individuals generally know about the distribution of potential jobs. However, job seekers do not get offers regarding these jobs all at once but instead receive a sequence of different job offers. Declining job offers is costly as it takes time until the next offer arrives and potential wages are lost. To optimize the search process, individuals now estimate the potential gain of staying on the job market longer in contrast to taking the newest offer. This way, a certain level of non-employment can be assumed to be efficient since workers wait for job offers matching their expectations. Imagining specific job distributions according to specific productivity levels can approach the heterogeneity of workers. At this point, it is useful to bring in the human capital theory and the notion of human capital depreciation to make sense of the impact of work interruptions on subsequent

labour market careers. Deprecating human capital changes the job distribution of workers and finally forces them to take on jobs that are worse than their previous positions. The literature on scars of unemployment establishes job-loss as an event able to explain different career trajectories of otherwise comparable individuals (Arulampalam et al., 2001, Brand, 2006, Gangl, 2006). While most of the studies are concerned with losses in income, recently aspects of job quality and type of work contract have come into focus (e.g. Dieckhoff, 2011). Regarding the central questions of this dissertation, these arguments highlight that the social inequality in the incidence of non-employment is likely to translate into socially unequal problems of leaving non-employment and the accumulation of disadvantages over the life course (Merton, 1968, Rosenbaum, 1975). Search theories help in understanding how workers evaluate job offers and how joblessness emerges. To fully explain how workers are allocated to their jobs, however, there is still a need to incorporate the labour demand side. There is also a neglect of characteristics of jobs as, for instance, wages are treated as a trait of individuals although they are traits of the job (Granovetter, 1986).

Labour Market Matching

Based on job search processes, matching theory, defines job acquisition as the product of a two-sided process. On the one hand, workers search for jobs with acceptable pay and work conditions. The criterion for employers, on the other hand, is the productivity of potential employees. If labour demand and supply meet, positions are filled (Sørensen, 1983, Sørensen and Kalleberg, 1981). To include employers in the equation improves the understanding of labour market processes in two respects (Hinz and Abraham, 2008): Firstly, employers can adjust job offers to attract the type of workers they need. Secondly, matches between jobs and workers might not be perfect. From a dynamic perspective the models can now account for job separations. Mobility on the labour market is thus a result of the attempt to optimize the match of workers and jobs (Hinz and Abraham, 2008: 25-26).

In general, employers make job offers and decide on employing workers after evaluating their productivity. However, information is uncertain not only for workers regarding potential jobs. Employers are unsure about workers' productivity as well. Signalling theory proposes that employers assess potential workers by picking up signals about skills and working commitment in order to minimize mismatches (Spence, 1973, Spence, 2002). Educational certificates are the most prominent source of such signals. Education systems vary in the specificity of these certificates and the type of education they represent, thus their signalling power differs across countries (Shavit and Müller, 1998). But

also signals about previous work experience, reasons for job-loss and long work interruptions are of considerable importance to an employer's choice (e.g. Brand, 2006, Dieckhoff, 2011, Gibbons and Katz, 1991). The selection of workers by employers can thus be argued to react differently to jobless individuals and perpetuating social inequality. Employers are more careful towards individuals omitting bad signals and therefore either offer them no jobs or positions of lower quality. In summary, labour demand and supply match and produce a socially unequal distribution of labour market positions. Additionally, the occurrence of jobless spells will have negative consequences for later employment.

Institutional Impact on Job Search Processes and Labour Market Matches

From a search theoretical perspective, the institutions that affect the labour market process the most are the ones that have an impact on search costs and the virtual job distribution. Different kinds of welfare benefits lower search costs by replacing market income and thus increase search duration and in consequence aggregate joblessness. There is a contrasting argument stating that welfare benefits lower search costs and thus create better job matches, which lead to more stable careers (Gangl, 2004). This type of stable employer-employee relationship is what the Varieties of Capitalism approach sees at the heart of Coordinated Market Economies (Hall and Soskice, 2001). Both arguments have to be adjusted to the type of benefit, however. They can only apply to individuals who are eligible. Unemployment benefits will only lower search cost and eventually increase job match quality for those who worked previously and acquired the right to these benefits. In accordance with the argument about Coordinated Market Economies, only skilled workers should benefit from prolonged job search and better job matches (Hall and Soskice, 2001).

In countries with high employment protection, these careers are secured additionally. The number of stable careers can be expected to be higher in these countries especially when protected jobs are the result of longer job search made possible by generous benefits. Matching the disadvantages of specific social groups on the labour supply side, however, employers have to choose their employees with more care if costs for replacing them are high. Arguing again with differences in human capital, once being jobless, women, labour market entrants, low-educated and older individuals should experience employers' heightened cautiousness. This increases social inequality in offered positions but also in the use of inferior jobs as a screening device. As in- and outflow on the labour market is lowered, periods of non-employment should be prolonged. The result is stronger stigmatization, which leads to worse employment chances and a higher risk of atypical jobs. Since disadvantaged

groups are more likely to be without employment in the first place, they are disproportionately affected. The expectation, therefore, is that disadvantaged groups have a lower probability to leave non-employment and a higher risk to take an inferior work contract in economies with high labour market regulation. Good job matches and stable career entry after non-employment is then distributed more socially unequal in these systems, too. In the process, disadvantages and scars are accumulated in a more socially unequal way when job allocation processes are more selective. Labour market institutions affect not only search processes of supply and demand, respectively, but also how they find their match. ALMP intend to improve these matches and therefore add another aspect to the arguments about labour market policies and labour market regulation. By lowering search costs through job search assistance and improving employability of job seekers, ALMP should decrease search duration, increase the quality of fit and reduce job separations.

In some ways expectations of the three presented theoretical categories do not only compete but also overlap or complement each other. By highlighting different aspects of labour market dynamics they shed a light on how non-employment patterns are formed by national institutional labour market regimes and how individuals' likelihood of being without employment and their chances of leaving joblessness are shaped. The following section shortly summarises the general theoretical expectations of the dissertation

4.3. Summary of Theoretical Expectations of Labour Market Institutions Impact on Social Inequality in Employment

This section summarises the major insights of the presented theoretical approaches to formulate general expectations towards the central research questions of this dissertation: How do labour market institutions shape the social composition of non-employment? How do they affect social inequality in the transitions out of non-employment and subsequent labour market careers? The dissertation rests on the assumptions of rational actors forming their preferences and making choices within opportunity structures shaped by the institutional context (Ingram and Clay, 2000). The institutional arrangements in focus are either regulating the labour market or dealing with detrimental labour market outcomes. The emphasis of the study is on the interaction between institutional context and individual traits. Most importantly, expectations are specific about which social groups are at high risk to experience cumulative disadvantages on the labour market and how this is affected by the economy's institutional context.

Joining human capital theory and neo-classical expectations, the disadvantaged parties, i.e. women, low-educated individuals, older and younger individuals, are more likely to experience non-employment, stay out of occupation or accept an inferior job if offered. They are particularly affected by the institutional impact as proposed by the neo-classical model. Stronger regulations as well as generous benefits are expected to lower employment, with the potential exception of centralized wage bargaining and ALMP.

Insider/outsider theory expects that institutions that deliver advantages to selective groups broaden the gap between these insiders and labour market outsiders, i.e. those in non-employment or in atypical jobs. This perspective expects that institutions disproportionately harm those with the worst chances by increasing labour costs and lowering labour market turnover. Women, labour market entrants and low-educated individuals are identified as typical outsiders. Older workers, whose positions are secured by strong employment protection, remain in an advantaged position as long as they stay employed.

Job search and matching theory argue that institutions affect search processes and the quality of fit between employees and jobs. Welfare benefits are expected to increase non-employment duration but also lead to a better job match and lower separation numbers. ALMP are often designed to help individuals lower search cost, increase employability and improve job matches. Labour market regulation however might increase the selective criteria for employers because they have a strong incentive to lower the risk of employing less productive workers. To distinguish individual workers this approach also heavily relies on human capital theory. The disadvantaged individuals in the job search process are therefore women, low-educated individuals and older and younger individuals. In addition, this perspective places emphasis on the consequences of non-employment spells for further trajectories and the problem of accumulated disadvantages. These general theoretical expectations provide a signpost but will have to be specified and enhanced in the single studies. Table 1 gives a broad summary of the various arguments.

Table 1: Theoretical Expectations

	Neo-classical/Human Capital approach	Insider/Outsider Theory	Job Search/Labour Market Matching
Labour Market Regulation	EPL, strong unions, labour taxes lower employment, especially for those with low productivity; potential exception: centralized wage bargaining	only regulation that benefits insiders increases gaps, typically disadvantaged are women, labour market entrants and low educated	employers more selective because of high firing costs when EPL is strong, result is higher inequality
Labour Market Policies	welfare benefits lower employment, especially for those with low wage expectations; some ALMP raise employment of targeted	only benefits that target only insiders increase gaps, typically disadvantaged are women, labour market entrants and low educated	benefits lower search costs and increase job fit, especially for skilled individuals, better matches because of ALMP
Dualized vs. Flexible Labour Market Regimes	lower employment in dualized regime, especially for those with low productivity	higher inequality in dualized regime as insider and outsider status are expected to be distributed socially unequal	better matching for those with good productivity signals in dualized regime, result is higher inequality

5. EMPIRICAL STUDIES

5.1 Research Strategy

The dissertation aims to shed more light on how labour market institutions affect the labour market performance of individuals. More specifically, its main interest is in how institutions shape the social distribution of non-employment. Joblessness is a state that is directly related to economic hardship, social exclusion and diminished psychological well-being of individuals. Furthermore, being outside the labour market is especially problematic if the status is long-term. The dissertation therefore also explores if institutions affect transitions between labour market states and if they do so in a socially unequal way.

In order to find answers to the research questions and to test the theoretical expectations outlined in the previous sections, the empirical studies need to provide three things: Firstly, to discern the impact of institutions at the macro-level, there is a need for variation in institutional arrangements. To this end the dissertation employs an internationally comparative design. As the institutions of interest are situated primarily at the national level, countries are the unit of observation on the macro-level. Certainly, some important

arrangements vary on the regional, local or sometimes even individual level, yet, data availability did not allow a more in depth analysis. Furthermore, the analysis is restricted to Western Europe so that only countries with a similar economic and political development and the same external factors of influence, i.e. supra-national governance and macro-economic fluctuations, are compared. Secondly, social groups need to be distinguished. The studies do not stay at the macro-level but use micro-level data to quantify institutional impact on distinct social groups. The main focus of all three empirical studies is on differences between men and women, young, prime-aged and older workers and low, medium and high-educated individuals. They highlight how the disadvantaged groups, i.e. women, younger and older, workers and low educated individuals are either helped or marginalized further by institutional settings. Thirdly, information on work histories of individuals is needed to look at duration of labour market states. With longitudinal data we can answer who can leave joblessness more easily, what are the consequences of non-employment for long-term labour market careers and how do these processes differ according to institutional context.

The dissertation consists of three empirical studies that are approaching the research questions in a cumulative way. In a first step, the study applies a quantitative approach to infer to relationships between institutional settings and individual level outcomes. More specifically, Study 1 “The Impact of Labour Market Institutions on Social Inequality in Employment in Europe” uses individual level data from the European Labour Force Survey (EULFS) from a sample of 13 Western European countries for the period between 1992 and 2008. The countries as well as the time period are chosen based on data availability for individual labour market performance as well as institutional indicators. The social inequality in non-employment is measured via the employment status of gender, age and education groups. Thereby, only a basic distinction between being employed and being jobless is used. The data is joined with macro-level indicators for institutional arrangements from various sources. The necessary variation in institutional indicators is derived not only from the differences between countries but also from the changes over the time period. Besides from adding a number of additional control factors, the analysis uses a fixed effects approach to account for all unobserved time-constant heterogeneity, which otherwise would heavily bias the results. In order to find differences in the institutional impact for social groups interaction terms between institutional indicators and social groups are introduced to the regression models. This analysis allows conclusions about the impact of institutions on the social composition of non-employment. It thereby can contrast the expectations of mainstream economics with those that put a stronger emphasis on labour market dynamics. However, the

analysis cannot directly observe longitudinal processes. It also does not distinguish between different states of non-employment and job types.

Thus, in the second step of empirical part of the thesis, I compare the two cases of the United Kingdom and Germany in more detail, relating institutional context and labour market dynamics in a qualitative way although still using quantitative methods to explore micro-level processes. With good reason the United Kingdom and Germany are two of the most frequently compared economies in labour market research (e.g. Gebel, 2011, Giesecke, 2006, Hillmert, 2002, McGinnity, 2002, Scherer, 2001). The institutional setup of the two countries under observation is very different: The United Kingdom is a liberal market economy with only minor security for non-employed persons and a fairly unregulated labour market, whereas Germany's coordinated market economy offers strong job protection and status-preserving security measures in the case of job-loss. In regime typologies of the welfare state and production systems, the two countries are typically seen as occupying opposite corners (Esping-Andersen, 1990, Hall and Soskice, 2001). Additionally, the literature on dualization processes regards Germany as one of the countries where the institutional context provides particularity large advantages to insiders. Although differences between insiders and outsiders exist in the United Kingdom as well, they are argued to be less pronounced in liberal countries (Emmenegger et al., 2012). Instead of singling out individual institutional arrangements and their impact, the studies on the United Kingdom and Germany highlight the regime aspect by comparing a flexible labour market system with a coordinated one. Both studies use information on individual life courses to explore differences in labour market careers after non-employment and if social groups experience distinct disadvantages in the two countries. They use data from the British Household Panel Study (BHPS) and the German Socioeconomic Panel (GSOEP) from 1992 to 2008 (2009 in case of Study 3). The panel data are used to construct individual work histories. The starting point for the observation of individuals is the first experience of non-employment after leaving education in both studies. In addition, they extend on the simple distinction between non-employment and employment by including information on job quality after leaving joblessness. Study 3 also distinguishes the various forms of non-employment; in Study 2 only a distinction between inactivity and unemployment is used. While Study 1 is devoted to answering the question of how institutions shape the socially unequal patterns of non-employment in national economies, Studies 2 and 3 intend to follow up on the question how these patterns are made up from individual labour market careers, how transitions on the labour market are affected and how stable labour market (re-)entry is in the two distinct institutional settings.

Study 2 “On the Outside Looking in? Transitions out of Non-employment in the United Kingdom and Germany” focuses on the direct transitions out of non-employment. Which social groups have the best chance to leave joblessness and does social inequality show a distinct face in the two labour market regimes? It applies a competing risk event history analysis to the dataset in order to find out if the two labour market regimes differ in how they shape transitions out of non-employment. It places an emphasis on insider/outsider divides, contesting that Germany can be called a dualized labour market system. In line with the dualization literature, which includes individuals with atypical jobs into the category of outsiders, the study not only analyses who can leave non-employment, but also who can make the transition to an insider job, i.e. permanent full-time employment. The study’s assessment of successful labour market transitions, however, is limited to the first observation of employment after joblessness. No statements regarding the stability of labour market re-entry after non-employment can be derived.

Table 2: Research Question, Theoretical and Empirical Approach of the 3 Studies

	Research Question	Theoretical Focus	Data	Method
Study 1	How do labour market institutions affect social inequality in employment?	mainstream economics vs. alternative expectations of insider/outsider theory and matching	European Labour Force Survey & institutional Indicators for 13 countries, 1992-2008	pooled cross-sectional time series analysis with fixed effects
Study 2	How do labour market regimes shape social inequalities in leaving non-employment?	insider/outsider theory and labour market matching processes	German Socioeconomic Panel and British Household Panel Study, 1992-2008	competing risks event history analysis
Study 3	How do labour market regimes shape social inequalities in long-term career trajectories after non-employment?	insider/outsider theory and labour market matching processes in the long run	German Socioeconomic Panel and British Household Panel Study, 1992-2009	optimal matching sequence analysis and cluster analysis

Study 3 “(Con-)sequences of Non-employment. Labour Market Reintegration in the United Kingdom and Germany” tackles this issue by observing labour market careers in the long run. It explores long-term labour market careers after the experience of non-employment. As successful labour market reintegration is not only depending from high transition rates into

employment but also from the stability of subsequent careers, the study uses sequence analysis, which enables a holistic perspective of trajectories. More specifically, individual's work history is followed up for 60 months after the beginning of their first non-employment spell. The sample differs in comparison to Study 2 as only individuals who were employed before are included. Sequence analysis and the optimal matching algorithm in combination with cluster analysis allow finding specific patterns of typical labour market re-entries. Those job seekers who make the transition into work in that window are distinguished according to the stability of the subsequent labour market career. Theoretically, the expectations of generous welfare benefits leading to better job matches and strong employment protection enabling secure positions is contrasted with insider/outsider theory's assumption that outsiders face bigger challenges in a strongly coordinated economy in establishing a stable labour market re-entry. By contrasting the United Kingdom and Germany, the study also aims to juxtapose the notions of job security, i.e. being certain to remain in the same job, with employment security, i.e. an individual's security to be employed no matter in which job. The study aims to answer the question if job security by way of strong employment protection results in higher employment security as well. The central research question, theoretical focus, datasets and quantitative method of the three studies are summarised in Table. The following section gives an overview of the results found in the empirical analyses.

5.2. Empirical Findings

Using different data sources and methods and focussing on the three discussed theoretical approaches to a varying degree, the three studies delivered a number of empirical results and provided insights on the impact of institutions on the social distribution of non-employment, exit from joblessness and subsequent career trajectories. Before turning to the findings regarding the interaction between institutional context and individual characteristics, I briefly present the results for the two levels separately. The general finding on the micro-level is that, as expected, disadvantaged groups have a higher probability to be without employment: Study 1 itself does not discuss the effects of individual level variables, however complementary analyses published in the form of a working paper (Biegert, 2011) provide the following insights: On average in the 13 European countries women, younger, older and low educated individuals have a higher likelihood of being without a job. Study 2 enhances these findings by showing that these very groups also have lower chance of leaving non-employment in the United Kingdom and Germany. Study 3 adds to that in showing that they also have diminished chances of establishing a stable labour market career in the 5 years after initial

non-employment. The findings conform to standard theoretical expectations regarding the differences between social groups.

On the macro-level, Study 1 delivers results on the impact of single institutions on non-employment of the total population in a first step. As neo-classical theory expects, raising unemployment benefits, EPL and labour taxes significantly decreases employment for the total working age population. A larger investment in ALMP is correlated with higher employment, while neither social assistance nor union power and wage bargaining centralization show a significant impact. The extended results of the working paper also underline that looking at non-employment is preferable to a focus on unemployment when interest in institutional impact on the labour market. By distinguishing between unemployment and inactivity, the analysis shows that institutions by and large affect both categories in similar ways. In general, inactivity levels change less with changes in the institutional setting but there is significant impact (Biegert, 2011). The analyses in Study 2 indicate that it is less likely and takes longer to leave non-employment in Germany. Not only exit from non-employment but also finding an insider position instead of atypical employment happens more regularly in the flexible British labour market. Surprising at first sight, the number of stable labour market re-entries is also lower in the dualized German labour market, as Study 3 shows. This is likely due to selection into non-employment. The analysis only observes individuals that are non-employed at some point. The typically rather stable careers in Germany might therefore be excluded as these individuals never enter the sample. Still, once jobless, career chances are worse in Germany in the long run as well. For those who are rid of job security at some point, a system with strong employment protection cannot provide employment security. Altogether, the macro-level evidence indicates that regulation and labour market policies increase non-employment and have negative consequences for labour market dynamics. Thus, it seems there is some, although not overwhelming, evidence, for mainstream economic arguments. The main interest of the studies, however, was not the micro- or macro-level, but the interaction of the two and how institutional arrangements shape social inequality. As the central results show, the social disaggregation of institutional impact helps understand what is actually going on and delivers strong evidence against a simple neo-classical perspective.

5.2.1 Institutions and the Social Composition of Non-employment

Study 1 set out to explore the impact of single labour market institutions on social inequality in the distribution of jobs. It emphasizes the particular disadvantages some groups experience

on the labour market and how institutions can either strengthen disparities or help lowering them. Confirming the general expectations, the results indicate that labour market regulation and labour market policies can have diverse effects for social groups. In their structure, however, positive as well as negative impact of institutions lends more support to arguments about their power to improve employability, social inclusion and job matches on the one hand and the dividing effects postulated by insider/outsider theory on the other. In comparison, men, prime-aged individuals and those with higher education are significantly less affected by changes in the institutional setting than their peers, indicating their strong position in the labour market. As suggested by the insider/outsider theory and dualization literature, it is those institutions that help labour market insiders, i.e. EPL, unemployment benefits and strong unions, which increase the disadvantages of risk groups and in the process also raise general joblessness levels. On the other hand, broad poverty prevention via social assistance and steering of wage bargaining processes decrease inequality and foster employment. That less conditional benefits help typically disadvantaged groups strengthens arguments of labour market matching and the quality of fits, especially because the groups that profit are women, younger individuals and those with medium education. This last group fits the pattern expected by the Varieties of Capitalism literature, which argues that only those with skills will find better job matches. It might be argued that non-employment decreases correlated with rising social assistance are accompanied by labour taxes causing opposite developments, that the employment enhancing effects of centralized wage bargaining are only countering the negative impact of strong unions and that ALMP can flourish solely in an environment of high joblessness created by generous unemployment benefits. Study 1 did not look into institutional interaction effects, however. The extended results presented in the working paper deliver some evidence to that end. Welfare benefits impact on employment is in parts significantly dependent from other institutional arrangements, especially labour market regulation (Biebert, 2011). The dualization literature considers individuals in atypical jobs to be outsiders (King and Rueda, 2008), which points to another limitation of this study: Job quality was not subject to the analysis. Studies 2 and 3 build on the insights of Study 1 and extend them by distinguishing job types, exploring longitudinal labour market processes and discussing institutional interaction effects by making arguments about overall regime logic.

5.2.2 Labour Market Regimes and Social Inequality in Leaving Non-employment

Results in Study 2 show that the German labour market regime not only decreases the likelihood of (re-)entering an insider position in the form of permanent full-time work after non-employment: It also fosters larger social inequalities in these transition probabilities.

Although women, labour market entrants and older workers face bigger problems in both countries, social discrepancies are more pronounced in Germany. Low-educated individuals are the exception, which is arguably due to the nexus between the educational system and the labour market in Germany. The strong connection between the two provides lower educated individuals with better options than in the United Kingdom, thus reducing social inequalities in educational levels. Longer spells of non-employment increase the likelihood of staying without a job or acquiring only an atypical job; the effect is more pronounced in Germany than in the United Kingdom. In line with the theoretical expectations, most factors increasing the likelihood of staying out of employment raise the risk of atypical employment in a corresponding fashion. As the event history analysis stops observation of individuals at the moment they make a transition, the study falls short in making claims regarding the long-term outcomes of successful or unsuccessful labour market (re-)entry.

Building on the insights of Studies 1 and 2, Study 3 uses the longitudinal data to follow individuals over a period of 5 years after initial joblessness. In line with the findings in Study 2, Study 3 reveals that stable positions are less frequent after non-employment in Germany and distributed similarly unequal. Results show that the flexible labour market of the United Kingdom offers higher employment rates and more consistent reintegration after once losing or leaving a job, thus providing a higher level of employment security. The emphasis on job security in Germany does not help individuals to stable labour market reintegration once they find themselves being in an outsider position. Similarly to Study 2, the social differences are stronger in Germany, too: Surprisingly enough, not between men and women, however, but between age groups and educational levels. The differences to the results of Study 2 are likely to be related to the sample selection. Study 3 only incorporates individuals who were employed before being jobless. There might be a selection process for women in Germany in which women with lower labour market attachment never enter the labour market and thus are not part of the sample. This leads to systematically better employment prospects compared to British women. Similarly, the advantages of the educational system-labour market connection can be argued to be less strong for those who lost a job, which explains the differences in the results for educational levels between the two studies.

From a cross-sectional perspective, insider/outsider theory would expect older workers to be better off as a result of being well established in their positions. As the analysis shows, however, once they are without employment and thus outsiders, they face relatively large

obstacles re-entering the labour market. This is an important insight emerging from taking insider/outsider arguments to a dynamic perspective that focuses on actual transitions in the labour market. The studies' findings also underline that matching processes are affected by the institutional context. In a labour market regime in which replacing workers is more costly, employers are more careful in the selection process, which increases the gradient that is based on productivity signals. The empirical analysis shows that institutions strengthening the insider/outsider divide have an impact in two ways: Firstly, they increase inequality between insiders and outsiders in terms of economic and positional stability. And secondly, a stronger divide interacts with micro-level matching processes on the labour market. By reinforcing social differences in the chance to obtain an insider position, inequality is thus even further pronounced. Table 3 summarizes the main insights from the three studies.

Table 3: Overview of the Findings

	Social Composition of Non-employment	Social Differences in Exit from Non-employment	Social Differences in Career Trajectories after Non-employment
Labour Market Regulation	EPL, strong unions, labour taxes increase social inequality in non-employment; wage bargaining decreases it		
Labour Market Policies	unemployment benefits increase social inequality, ALMP and social assistance decrease it		
Dualized vs. Flexible Labour Market Regime		dualized regime lowers the chances of women, younger and older individuals to leave non-employment; low educated not as disadvantaged in Germany	dualized regime lowers chances of stable reintegration, especially for younger, older and low-educated individuals; gender segregation stronger in the United Kingdom
Support for Theoretical Expectations	some for neo-classical/human capital and labour market matching, strong support for insider/outsider arguments	strong support for insider/outsider arguments combined with a micro-level matching approach	strong support for insider/outsider arguments combined with a micro-level matching approach

5.2.3 Limitations

The analyses face several limitations that have to be considered before drawing conclusions. Alternative theories about individuals' achievements on the labour market have not been included or tested for. For instance, the role of social networks in finding a job was neglected (Granovetter, 1973). This particular theory was left out because of a lack of theoretical arguments about how institutions would shape social inequality via networks. Another approach, segregated labour market theory, was introduced but not used to derive hypotheses because there are no specific arguments about the allocation to employment and non-employment.

Empirically, both Study 2 and 3 observe individuals starting from their first non-employment. Study 3 only includes individuals that have been in a job before. Neither of the studies therefore is able to account for the different selection processes into joblessness that might drive the constitution of the sample in Germany and the United Kingdom. This might diminish comparability of the two country samples. Claims can only be made referring to individuals once they are without employment. The social differences in the transitions out of non-employment and the ensuing trajectories are likely to be different from the more general social inequality on the German and the British labour market.

The two countries have been selected as representatives of typical institutional regimes. However, they might still differ from other dualized and flexible labour market regimes in many respects, which prohibits generalizations. Similarly to the German educational system other institutional arrangements could counter typical patterns in other countries. This concern also applies to Study 1. The selection of 13 European countries constitutes a contingent set of observation units. The sample is thus not random which violates inference assumptions and inhibits generalization to other parts of the world (Ebbinghaus, 2005). Furthermore, the differences in the institutional settings of the two countries are not quantified. The interpretation of differences between them is based solely on theoretical considerations and plausibility. Study 1 used macro-indicators to model institutional arrangements. Due to their aggregate character they cannot fully account for the complexity of institutional arrangements. For instance, it is nearly impossible to include all dimensions of welfare benefits since measures of benefit levels, duration, access and conditionality have to be weighed against each other. Moreover, existing indices usually refer to constructed average households and individuals. Their representation of an institutional

arrangement therefore might be more appropriate for some individuals than for others. The proxy nature of these indicators needs to be kept in mind.

One of the most important limitations refers to the operationalization of labour market status. Study 1 relied on a simple distinction between employment and non-employment based on the ILO definition. It did not take into account the different types of non-employment in which individuals might be situated nor did it distinguish jobs according to their quality. Although studies 2 and 3 used more extensive information in this regard distinguishing temporary and permanent employment as well as full-time and part-time jobs and on the other side controlled for inactivity and unemployment (Study 2) and looked at more detailed states of non-employment (Study 3), information on further characteristics would have been desirable. The data quality, however, did not allow an analysis of aspects such as wage differentials or subjective security in jobs. The studies' focus was on the differences between men and women, age groups and educational levels. All of them use a number of covariates to control for confounders that might drive the results. Here, too, more detailed information would have been an advantage. What can be inferred from the data are the gross differences between these groups. Causal claims about effects of different traits cannot be made. Also as a result of the country-comparative setup that invites a large number of potential observed and unobserved differences and thus bias in the coefficients, the studies do not observe causal relationships (Heckman, 2005, Morgan and Winship, 2007). The applied methods as well as the longitudinal data, however, help eradicate at least some sources of bias and thus allow at least to some degree conclusions about relationships between institutional arrangements and individual labour market performance.

6. CONCLUSIONS

The central research question of this dissertation was how the institutional context affects labour market performance of different social groups, thus shaping national patterns of non-employment. To fully grasp labour market processes and institutional impact on them, the study proceeded in two steps. It firstly quantified the relationship between institutions and the social composition of non-employment in a multi-country analysis. It then, secondly, explored transitions and trajectories out of non-employment in more detail in the United Kingdom and Germany taking a longitudinal perspective. In the studies, theoretical expectations of mainstream economics were complemented and contrasted with approaches that emphasize the importance of current labour market positions for subsequent careers and longitudinal

search and matching processes. I argued that when interested in the distribution of life chances and the – often cumulatively – disadvantaged positions of women, youth, older workers and those with low education, a focus on the development of unemployment is not sufficient. Periods of inactivity need to be included and thus non-employment as a whole has to be subject of labour market analysis.

Contributions to the Existing Literature

The dissertation made several contributions to the existing literature. Developing a macro-micro model that highlights the impact of institutions and how it differs according to our understanding of micro-level labour market processes, the dissertation emphasized that there is a need to leave the macro-level in order to understand the mechanisms leading to social inequality in employment. It extended the insights of the existing macro-economic literature on institutional impact on national employment performance by disaggregating effects according to social groups and including all non-employment. Instead of only focussing on overall unemployment levels, it highlighted the consequences for social inequality in Study 1. While most of the macroeconomic literature insists on a neo-classical reading – despite very mixed evidence (Baker et al., 2005, Howell et al., 2007, Howell and Rehm, 2009) – the analysis showed that institutional arrangements such as social assistance, ALMP and centralized wage bargaining can have a positive impact on employment, especially for otherwise disadvantaged groups. In line with insider/outsider theory, institutions that provide benefits for selective groups, i.e. unemployment insurance, strong unions and employment protection increase inequality and in the process raise overall non-employment levels. As concerns theory, there is a need to understand the importance of positions and resulting power relations in labour markets as well as a more realistic grasp on labour market processes than the one offered by the neo-classical model.

The dissertation contributed to the literature on insider/outsider theory as well as the more recent dualization literature. While their theoretical groundwork is focused very much on the stability of positions, both these approaches refer to typical outsiders when it comes to social inequality (Emmenegger et al., 2012, Schwander and Häusermann, 2013). The actual process of becoming an in- or outsider and transitions between these states are usually not subject to analysis. Studies 2 and 3 assessed the chances to make these transitions and the quality of subsequent trajectories. The analyses showed that institutions regulating the labour market and aiming to deal with its consequences not only have a direct impact on individuals and social inequality by providing them with differing degrees of economic, temporal and

welfare security, they also set the stage for the matching process on the labour market, thereby shaping social stratification in employment. The Comparative analyses for the labour markets of the United Kingdom and Germany indicated that a strongly regulated labour market leads to longer duration of non-employment but cannot deliver a more stable labour market re-entry. More importantly, the chances to obtain permanent full-time employment are distributed more socially unequally in the long run. Especially when considering individuals in atypical employment to be outsiders, the beneficial effects of strong regulation and generous benefits seem to be confined to those with good positions in the labour market, i.e. permanent full-time employees. Once individuals find themselves in an outsider position, they are more likely to accumulate further disadvantages in the labour market in such institutional configuration. These results also add to the research on scars of unemployment by showing that scars differ for social groups. These differences in turn vary with the institutional context (Gangl, 2004).

Policy Recommendations and Further Research

At first sight the results speak for neo-classical deregulation arguments as the flexible British labour market fares better in integrating the non-employed and does so in a more socially equal way. In combination with the findings from the multi-country study, however, the conclusions have to be modified. All three studies underline that it is those institutional arrangements that provide insiders with advantages that increase social inequality, lower overall employment and chances to return to work. The evidence of positive impact of social assistance and centralized wage bargaining as well as ALMP indicate that regulation and welfare benefits per se do not harm employment as mainstream economics would expect. The policy recommendations emerging from the combined findings of the dissertation, therefore, are to provide universal support and regulate labour comprehensively instead of securing certain positions and setting specific wages. Increasing the employability of job seekers and improving job matches via ALMP helps achieving high and socially inclusive employment. As social inequality is connected to overall employment levels, there are implications when thinking about the specific consequences these insights have for the subject of non-employment as opposed to unemployment. Typically disadvantaged groups have a higher likelihood to be inactive; therefore we can argue that these favourable institutional constellations show their impact especially because they help individuals who would otherwise become inactive. The studies were not concerned with observing or explaining institutional change. The literature on dualization contends that relaxed regulations only for

temporary contracts and an emphasis on conditionality of benefits in a number of Continental European countries indicate an ever-growing gap between insiders and outsiders (Palier and Thelen, 2010). This position is not undisputed. Other observers report a trend of liberalization and a long-term convergence with liberal systems (Eichhorst and Marx, 2011, Fleckenstein et al., 2011). Yet another group of researchers neither detects a lower benefit generosity nor a deepening divide between insiders and outsiders (Clasen and Goerne, 2011). Regardless, even if recent policy developments have not lead to an increased gap between insiders and outsiders, the studies of this dissertation showed that in their actual state already, institutional settings that favour insiders inhibit social inclusion to the labour market. Especially disadvantaged groups are more likely to accumulate risks in these regimes. Regarding the EU goals of increased overall employment and stronger social inclusion, the dissertation underlines that these cannot be thought about separately. Reforming institutional arrangements to foster social inequality in the labour market is very likely to lead to better general employment performance.

On the flipside, the above arguments imply that we might find particularly well-run economies in the Nordic countries as they are usually seen to combine generous universal benefits, a centralized wage bargaining process and an emphasis on ALMP (Esping-Andersen, 1999, Powell and Barrientos, 2004). In future research, the analysis comparing the United Kingdom and Germany could be extended to these countries in order to explore if their overall positive employment performance also results in lower social inequality in transitions and trajectories after non-employment. In the last decade the successful combination of these institutional arrangements was most prominently discussed in reference to the Danish flexicurity model (Viebrock and Clasen, 2008, Wilthagen and Tros, 2004). The model points at the importance of institutional interactions and the problem of isolating single institutions' impact without consideration of the overall regime context. While generous welfare benefits, for instance, might be unproblematic for the labour market when combined with activating measures and a strong labour demand, as the Danish case suggests, their impact in combination with a strongly regulated labour market could be more harmful. In the comparison of the United Kingdom and Germany, the dissertation furthermore suggested the importance of the link between the educational system and the labour market in Germany. The empirical results indicated that institutional constellations, such as this one, are able to counter the generally harmful implications of a dualized labour market. It is reasonable to assume that, for instance, family policies or well directed active labour market policies could lead to less problematic outcomes of strong labour market regulation. Here is where future

studies of institutional impact on social groups' labour market performance should place a stronger emphasis. Although some recent quantitative studies focus on institutional interactions (e.g. Bassanini and Duval, 2009, Belot and van Ours, 2004, Sachs, 2011), existing evidence not only ignores economic inactivity but also differences between social groups. Additionally, studies could aim to model employment regimes more comprehensively, incorporating often-neglected institutional arrangements, such as social assistance and disability benefits, as well as policies that aim to enable individuals' labour market participation, such as public childcare. Only by combining a comprehensive understanding of labour market regimes and the varying impact it has on individuals, we can see the mechanisms leading to national patterns of non-employment.

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Study 1: The Impact of Labour Market Institutions on Social Inequality in Employment in Europe

The Impact of Labour Market Institutions on Social Inequality in Employment in Europe

(manuscript to be submitted).

Abstract

This article investigates the impact of labour market institutions on social inequality in employment. It highlights the consequences for disadvantaged groups, i.e. women, labour market entrants, older workers and low educated individuals. The analysis draws on data from the European Labour Force Survey from 13 countries between 1992 and 2008. Results indicate that by favouring groups at the core of the labour market employment protection, strong unions and unemployment benefits increase social inequality thereby raising joblessness. Active labour market policies, social assistance and a centralized and coordinated wage bargaining process, however, help disadvantaged groups and increase labour market participation by improving employability, social inclusion and labour demand. In contrast to mainstream economics' recommendation for general deregulation and welfare state retrenchment, the study concludes that labour market reform should focus on diminishing social inequality on the labour market in order to increase overall employment.

Introduction

Mainstream economics see institutions as the major source of friction and rigidity on national labour markets and thus at the root of unemployment (Layard et al., 2005). Although these claims are disputed either by questioning the empirical evidence (Baccaro and Rei, 2007, Baker et al., 2005) or by contrasting them with a Keynesian perspective that highlights the importance of investments (Stockhammer and Klär, 2011) there is a large number of studies assessing the relationship between labour market institutions and aggregate employment while endorsing a deregulatory view (e.g. Bassanini and Duval, 2009, Blanchard and Wolfers, 2000, Destefanis and Mastromatteo, 2010, Nickell & Layard, 1999, Nickell et al., 2005, OECD, 2006). This literature aims to draw a comprehensive picture of institutional impact by including institutional arrangements with direct effects on the labour market in quantitative analyses. The main concern of these studies is the overall economic performance, which is why they usually stay on the macro level.

From a sociological perspective, to assess institutional impact via their correlation with aggregate unemployment is not enough for two reasons. Firstly, institutions of the welfare state and labour market regulation have the purpose of securing citizens from the risks of life and to protect workers weighed against their impact on employment in economists' studies. Secondly, staying on the aggregate level obscures the view on the impact of institutions on social inequality. As jobs not only provide income but also play a crucial role for social inclusion and personal well-being (e.g. Gallie et al., 2003, Jahoda et al., 1975) a socially equal distribution of employment is paramount for cohesion and peace. Both aspects advise caution towards the suggestion of deregulation and welfare state retrenchment.

This study extends the existing macro-economic studies by highlighting the latter aspect. Labour market sociology identifies women, labour market entrants, older workers and those with low education as being at high risk of experiencing disadvantages. At the same time these groups coincide with what are termed the new social risk groups. Their protection by the welfare state has become increasingly perforated in recent decades (Taylor-Gooby, 2004). As household forms pluralize and the economic dependence from a main breadwinner becomes an unsustainable model, chances to enter wage labour need to be provided for all social groups if they are not to accumulate risks. The central question of this study thus is how do labour market institutions affect the social distribution of employment?

Despite the focus of quantitative macroeconomic studies on aggregate unemployment levels, some deliver insights regarding institutional impact on employment participation of gender and age groups (e.g. Bertola et al., 2007, Genre et al. 2005). They do not expound the problems arising for social equality; still they indicate that a social structural approach to institutional effects delivers important insights that are missed in analyses of aggregate figures. Because this article is concerned with the inequality of employment chances across social groups, it departs not only from the aggregate level but also from the usual focus on unemployment. Unemployment describes the joblessness of prime-aged males rather accurately – although recent developments show that there is a growing divergence between the two phenomena within this socio-demographic group as well (Gustavsson and Österholm, 2012). Other social groups, however, frequently spend their time off the labour market in forms of economic inactivity, such as household responsibilities, early retirement or incapacity and disability. Not including the inactive population means missing a significant part of transitions and dynamics on and off the labour market (Murphy and Topel, 1997). Furthermore, inactivity reacts highly sensible to the institutional context and should be central to the task of lowering joblessness in general (Amable et. al., 2010). The study thus not only contributes to the existing literature by disaggregating institutional impact according to social groups it also includes all non-employed in order to fully capture dynamics on the labour market.

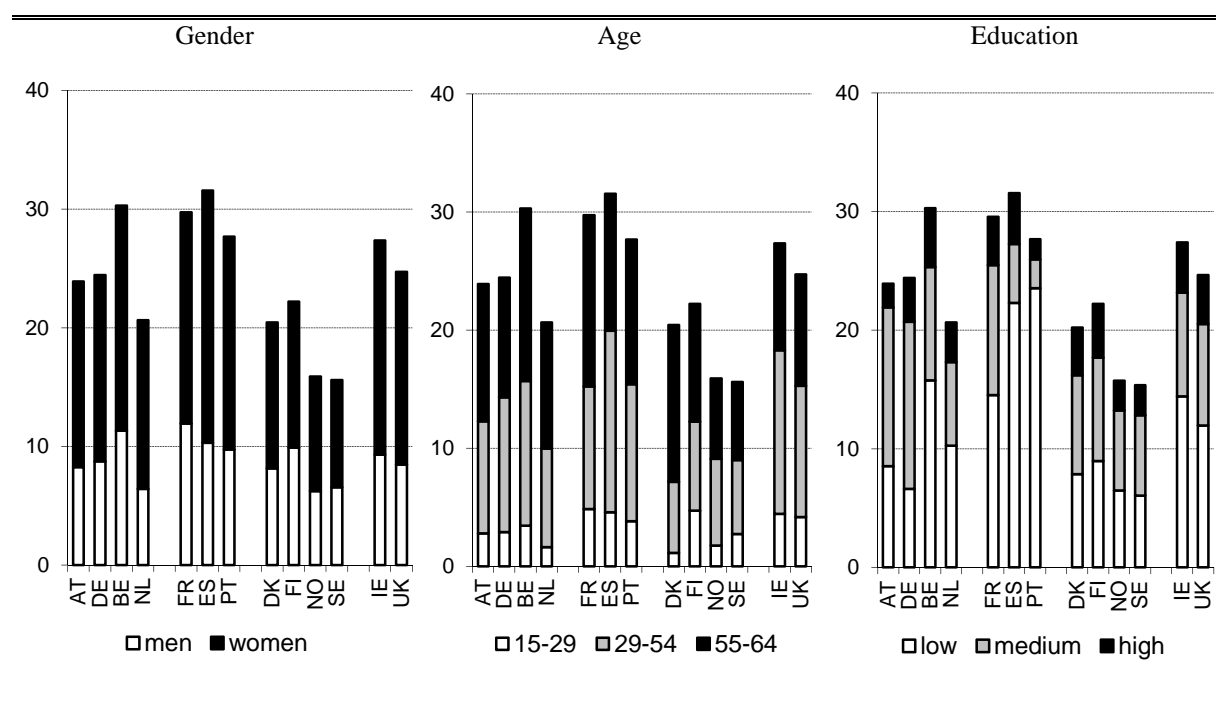
Institutions and Inequality in Employment

Prime-aged men are considered the core of the labour force. Figure I shows that in comparison women, younger and older individuals are without employment more often. Across all socio-demographic groups those with low levels of education face particularly disadvantages when seeking a job. As the welfare state is less and less able to provide security (Taylor-Gooby, 2004) and the social net within households cannot be relied on as much as some decades ago, being without regular income bears a high risk of poverty for these groups. Their fate on the labour market is therefore of special concern.

Various micro-level approaches – such as human capital theory (Becker, 1964) or theories on discrimination (Becker, 1971) – can hand us explanations for why these groups show comparatively poor labour market participation. Yet, micro-level theory cannot explain the international variation in social inequality. Only systematic differences on the country level and their interaction with micro-level processes can account for the patterns shown in

Figure I. This study focuses on the role of institutions. It follows a rationalist approach, which broadly defines institutions as “the rules of the game” (North, 1990: 1). Institutions structure the strategic actions of individuals “by affecting the range and sequence of alternatives on the choice-agenda or by providing information and enforcement mechanisms that reduce uncertainty about the corresponding behaviour of others and allow ‘gains from exchange’, thereby leading actors toward particular calculations and potentially better social outcomes” (Hall and Taylor, 1996: 945). Rational actors strive to maximize their individual utility, yet their choices are constraint by the institutional surrounding (Ingram and Clay, 2000). This also implies that the impact of institutions cannot be generalized but that it differs according to individual characteristics.

Figure I: Non-employment of 13 European countries by gender, age and education (2008)



Source: EULFS, working age population 15 to 64 excluding individuals in education and under 30 years.

Figure I groups 13 European countries according to frequently used typologies of welfare states (Esping-Andersen, 1999) and production systems (Hall and Soskice, 2001). Although there is some clustering regarding absolute non-employment levels and social differences, the variation within the regime types indicates that a more fine-grained approach is necessary. When interested in the labour market performance of disadvantaged groups, some studies focus on institutional arrangements that are specifically related to certain groups. Research analyses, for instance, family policies regarding employment of women (e.g. Gornick et al.,

1997), the nexus between educational system and the labour market easing transitions into work for labour market entrants and those with lower education (e.g. Shavit and Müller, 1998) or early retirement schemes pulling older workers out of their jobs (e.g. Ebbinghaus, 2006). This study, however, focuses on institutional arrangements that constitute the general setup of the labour market. It follows this approach taken by a large number of macro-economic studies in order to contrast their findings on aggregate employment performance with results obtained when leaving the macro-level. Institutions included in virtually all of these studies are employment protection legislation (EPL), labour taxes, union power, wage bargaining coordination and unemployment benefit generosity. Corresponding to its rising prominence in labour policy debates expenditure for active labour market policies (ALMP) has become an essential ingredient as well. The following will discuss the theoretical mechanisms mainstream economics see operating between institutions and employment. Mostly, these are based on neo-classical theory. The neo-classical model of the labour market itself is based on the assumption of homogenous workers. Based on arguments of human capital theory – originally an extension to neoclassical approaches for the purpose of distinguishing different classes of workers –neo-classical considerations can be extended: In the way institutions affect overall employment, those individuals with a low productivity should be hit the hardest. Low productivity is not only a consequence of low educational attainment but also of low experience, career breaks and out-dated skillsets. Therefore, the argument applies not only to those with low education, but also to labour market entrants, women and older workers respectively. Mainstream economics are contrasted with alternative expectations from a more sociological perspective that emphasizes the importance of social inclusion via employment and highlights the role of institutions for inequality regardless of their overall impact on employment.

Theoretical Expectations

Labour market regulation

Neo-classical theory has straightforward expectations regarding the impact of institutions governing the labour market. They interfere with the basic mechanism of the labour market in which wages adjust for differences in labour demand and labour supply and thus are among the crucial causes for involuntary joblessness (Layard et al., 2005). Employment protection legislation (EPL) determines how easy or difficult it is to hire and fire employees, which reduces the flow in and out of the labour market. Although these effects might cancel each

other out, price adjustment is hampered and labour market flexibility is reduced. EPL should thus lower employment. Yet, the evidence on EPLs impact is mixed at best in macro-economic studies and it has been suggested that “time spent worrying about strict labour market regulations, employment protection [...] is probably time largely wasted” (Nickell and Layard, 1999: 3080). When interested in the particular impact on disadvantaged groups, however, EPL gets a different spin as emphasized by insider/outsider theory (Lindbeck and Snower, 1989). According to this approach insiders can use the fact that it is costly to find new employees to push wages above market clearing level, thus creating involuntary joblessness. The insider/outsider theory has recently become more prominent again through its role in the research on dualization processes. This strand of literature highlights the rising inequality in European countries created by institutions favouring insiders and affecting inequality by way of shaping labour market processes (Emmenegger et al., 2012, Author A, 2014). As typical insiders are prime-aged men, this has important implications for the distribution of jobs. Labour market entrants and women should be outsiders more frequently. Similarly, employers are reluctant to employ low-educated individuals if they see no chance of being able to fire them easily. Since EPL increases transaction costs, it should increase the risk of disadvantaged groups to stay without employment (Barbieri, 2009, Esping-Andersen, 2000). Older workers are an exception because EPL benefits those already positioned in the labour market by impeding layoffs.

Strong unions can acquire market power and push wages above market clearing levels. The neo-classical expectation is again that overall employment is lowered (Layard et al., 2005). Unions are also seen as representatives of insider interests. From an insider/outsider perspective the social distribution of employment should therefore be affected in the same way as in the case of EPL (Bertola et al., 2007).

Centralized and coordinated wage bargaining is usually argued to hamper individual firms’ ability to cope with precarious situations because wage agreements violate the flexible price assumption. This should crowd out especially workers with low wages. In contrast, Calmfors and Driffill (1988) argue that in a centralized system unions are willing to constrain their demands in periods of economic downturn. Since they cannot externalize detrimental effects on the economy they are likely to opt for employment friendly wage agreements, which should benefit low wage earners (Calmfors and Driffill, 1988). As this positive impact is shown in a number of empirical studies, some authors with a neo-classical background

argue that the employment enhancing effects of centralized wage bargaining are only countering the negative impact of strong unions (Nickell et al., 2005).

Labour taxes increase labour costs for employers and also lower employees' net earnings by driving a wedge between what employers pay and what employees receive. Thus, they should lower both labour demand and supply (Layard et al., 2005). Combining these expectations with human capital theory, individuals with a lower productivity and resulting low wage expectations, should be affected the most.

Labour market policies

Passive labour market policies, i.e. welfare benefits, provide an alternative source of income and thus raise workers' reservation wages (Layard et al. 2005). This increases overall wages and impedes market clearance. The focus is usually on unemployment insurance. Eligibility for unemployment benefits is usually restricted to those who have worked previously. Since this study is interested in the impact on the whole working age population, social assistance is included in the analysis. This benefit is less conditional but neo-classical thought should expect it to affect labour market participation along the same incentive effect as unemployment benefits (Lemieux and Milligan, 2008). Joining this reasoning with human capital theory, passive labour market policies should affect disadvantaged groups disproportionately for two reasons. Firstly, those with lower productivity are the ones who get crowded out of the labour market first when involuntary joblessness exists. Secondly, they should expect to earn only low wages and be thus more receptive regarding alternative income from benefits. Insider/outsider theory contents that unemployment benefits improves the bargaining position of unions and thereby increases the differences between insiders and outsiders (Bertola et al., 2007). As the eligibility criterion only applies to unemployment insurance, this should not be expected for social assistance. Across macro-economic studies, the negative impact of unemployment benefits on employment is the most robust (Nickell et al., 2005). Yet, by questioning indicators and datasets, as well as conducting their own analysis, Howell and Rehm (2009) content that the incentive effect is not decisive. They point out that individuals value jobs not only because of wages but also because they are aware of social inclusion and the scarring consequences unemployment has for the life course (Howell and Rehm, 2009). Generous benefits also provide individuals with the means to keep up their living standards and their social networks, giving them the chance to turn inclusion into new employment. From a job matching perspective, higher payments with longer duration allow jobseekers to search for better job matches, thereby decreasing the probability of future

separations (Gangl, 2004). Alternative approaches therefore doubt the detrimental impact of benefits and raise the possibility of positive effects especially for disadvantaged groups.

Table I: Theoretical expectations

	<i>Mainstream Economics</i>	<i>Alternative Approaches</i>
<i>Labour Market Regulation</i>		
EPL	Lower labour turnover –lower employment, especially for less productive groups <i>or</i> no direct implication	Insider/outsider theory: lower employment especially for women, younger workers and low educated individuals, employment security for older workers
Union Power	Increased wages – lower employment, especially for less productive groups	Insider/outsider theory: lower employment especially for women, younger workers and low educated individuals, employment security for older workers
Wage Bargaining Centralization	Rigid wages lead to lower employment especially for low-wage earners	Wage moderation leads to higher employment especially for disadvantaged groups
Labour Tax Wedge	Increased labour cost, lower incentives -> lower employment, especially low incentives for potential low wage earners	
<i>Labour Market Policies</i>		
Unemployment Benefits	Higher reservation wages lead to lower employment, especially for less productive groups.	Social inclusion increases chances of finding a job. Matching theory: Better job fits, less job separations. Insider/outsider theory: Eligibility strengthens insiders, employment losses concentrated on outsiders
Social Assistance	Higher reservation wages lead to lower employment, especially for less productive groups.	Social inclusion increases chances of finding a job. Matching theory: Better job fits, less job separations.
ALMP	Higher employment especially for targeted groups; reservations concerning overall impact.	Higher employment because of better workers and better matching, especially for targeted/disadvantaged groups.

ALMP are designed to smoothen the transition process and improve the employability of jobless individuals. According to mainstream economics, increasing productivity with training, assisting in the search process, as well as lowering labour costs with subsidies should increase employment. Job creation by the state is seen as dangerous in crowding out regular jobs. Although ALMP regularly show a positive impact on employment, some authors of the

neo-classical school remain partial towards their impact. Similar to arguments about the positive impact of centralized and coordinated wage bargaining, they content that ALMP can flourish solely in an environment of high joblessness created by generous unemployment benefits (Bassanini and Duval, 2009). Although some measures' effectiveness is doubted, the positive impact especially of further education is not debated in other literatures. Active measures are frequently directed at disadvantaged groups, especially younger workers and women, thus they are expected to profit more (Kluve, 2010). Table I displays an overview of the theoretical expectations and juxtaposes mainstream economics with alternative approaches.

Methodology

The standard quantitative approach to the impact of institutional arrangements on labour market performance is to use pooled cross-sectional time series data on the country level, i.e. time series indicators for the institutional arrangements and to correlate them with the aggregate employment or unemployment rate using panel regression methods with fixed country effects. Fixed effect models offer to mitigate omitted variable bias by controlling for all time-constant unobserved heterogeneity of the observation units (Allison, 2009). This is extremely valuable in cross-national studies as there are a wide variety of factors that potentially bias the coefficients. In the analysis at hand this includes country-specific factors such as work ethic and culture as well as macroeconomic conditions or unobserved institutional arrangements.

Present analysis leaves the macro-level and explores differences in institutional impact across gender, age and education groups. The only dataset that offers detailed information on individuals and their labour market status from a large number of European countries and for a long period of time is the European Labour Force Survey (EULFS). Its data structure is repeated cross-sectional, thus fixed effects panel regression is not possible. An approach to arrive at the same results, however, is to introduce dummy variables for the units of observation (Allison, 2009). Similarly to the more elegant panel fixed effects, introducing a dummy variable controls for the mean value of the unit of observation and thus eliminates all time-constant heterogeneity. The dataset does not follow individuals over time; yet social groups can be followed in the form of a panel and dummies can be introduced at the level of country-specific social groups. This way, the models control for all time-constant unobserved heterogeneity on the level of these groups. The resulting coefficients are based solely on the

correlation of changes over time within the groups with changes in the institutional arrangements on the country level. This also accounts for the nested structure of individuals within countries¹. The dummy fixed effect approach is rarely feasible because the number of dummy variables leaves no degrees of freedom for the variables of interest. The large number of observations in the EULFS eliminates this problem.

Data & Variables

The study uses the EULFS as a micro-level basis to enable a social structural analysis of the impact of labour market institutions. The EULFS contains information on individuals in private households with a special focus on their working life, pooling national labour force surveys of all EU members since 1983. The analysis uses data for the period from 1992 to 2008 from 13 countries. Because of missing information in some cases the used datasets consists of 195 country-years². The analysis includes all individuals of working age (15-64) except inactive persons below 30 who are still in education³. Random samples of 5 000 individuals are drawn from each country-year in order to give equal weight to every existing institutional constellation. Thus, the dataset includes 975,000 individuals.

Employment, coded as a dummy of being employed (1) or non-employed (0), serves as the dependent variable. All labour force surveys follow the ILO definition of employment. Everyone who worked at least one hour in the week before being interviewed is considered employed. The data quality of further interesting aspects of employment, such as income levels, temporary and permanent contracts, part-time and full-time positions, is poor, which is why the analysis is restricted to the simple distinction of employment and non-employment.

EULFS information on education follows the 1997 version of the International Standard Classification of Education (ISCED) distinguishing three different levels: ISCED0-2 includes lower secondary education or less, ISCED3-4 upper and post-secondary education and ISCED5-6 tertiary education. These are operationalized in the form of three dummy variables. Regarding age groups labour market entrants (15-29), prime-aged (30-49) and older individuals (50-64) are distinguished. Again, the groups are represented by dummy variables. Gender is introduced as a dummy variable as well (coding 0=male 1=female). The EULFS does not offer household information consistently. To capture variation in the household economic background of work decisions, marital status – serving as proxy for household composition – is included as a control variable (dummy variables representing “married”,

“single” and “widowed, divorced, separated”). Data quality does not allow the inclusion of further individual level variables of interest, such as migration background.

Institutional arrangements are modelled with macroeconomic indicators. The time-series of these indicators are merged to the individual level information according to the respective country-years. The OECD’s EPL index quantifies the costs and procedures involved in individual or collective dismissal (Venn, 2009). The indicator ranges from 0 to 6. To make effect sizes comparable it is rescaled to 0 to 1 as all other institutional indicators are either percentages or ranging from 0 to 1. Union density, also provided by the OECD, indicates organizational power of unions by giving the percentage of salary and wage earners who are union members. Visser (2009) develops a summary indicator (ranging from 0 to 1) that takes into account both union authority and union concentration at multiple levels. This centralization indicator thus expresses the scope and coverage of wage bargaining agreements as well as the degree of union coordination. The OECD calculates the labour tax wedge for a single-earner couple with two children and an average income. The tax wedge is the sum of personal income tax and social security contributions as a percentage of total income.

Turning to labour market policies unemployment benefit generosity is measured using net replacement rates. The indicator gives the percentage of the former income an average production worker receives from unemployment insurance after taxes and social security contributions. Van Vliet and Caminada (2012) provide data, which focuses on the replacement rate in the initial phase of unemployment. To take into account different family situations the average of the net replacement rate for singles and one-earner families with two children is used. Nelson (2007) collects absolute amounts of social assistance. Present analysis constructs a ratio that compares these payments to the average wage in the respective year and country to capture the incentive provided by the benefit. The extent to which a country invests in ALMP is measured by expenditures relative to the GDP. In order to consider the number of individuals targeted by ALMP, this indicator is adjusted for unemployment rates. Additionally, to avoid potential bias from country-specific economic cycles the OECD’s output gap is introduced, which measures the distance between trend predicted and actual outcome of GDP in a year.

Modelling

As the fixed effects approach is modelled by introducing dummy variables into the pooled data it can be expressed via the functional form of a logistic regression:

$$\ln(y = 1 | 0)_{jit} = C_{000} + \sum_{k=1}^K I_k X_{kji} + \sum_{l=1}^L M_l Z_{lji} + M_l * I_k X_{lkjit} + \sum_{j=1}^J N_j Z_{ji} + \sum_{j=1}^J N_j * \sum_{k=1}^K I_k X_{kjit} + \sum_{t=1}^T W_t X_t$$

where the left hand side of the equation expresses the logarithmic probability that individual i in country j and year t is employed compared to the probability to be not employed. On the right hand side C_{000} is the intercept. I_k represents the coefficients for the individual level variables (k =gender, age group, educational level, marital status). The macro-level indicators are included via M_l (l =EPL, union power, wage bargaining centralization, labour taxes, unemployment benefits, social assistance, ALMP and the economic output gap). N_j signifies the dummies for the j countries. The dummies for the country specific gender, age and education groups are created by interacting these variables with each other up to four-time interactions, represented by the multiplied sums of N_j and I_k . All the main effects and the two- and three-time interactions are included as well. All dummies related to the reference of the respective variables are excluded because of collinearity leaving us with 232 dummies. The models thus control for all time-constant factors on the level of gender-, education- and age groups within countries⁴. Furthermore, wave dummies - W_t - are included to control for period effects such as world economic downturns. The main focus of every model is the interaction between one specific institutional variable and one socio-demographic characteristic. This interaction is expressed by the coefficient $M_l I_k$ where l specifies the institution and k the social characteristic - gender, age or education. Every model features only one of these interactions to avoid overspecification. As there are seven institutional variables and three individual level characteristics of interest, 21 separate models are calculated. Prior to that, the baseline model looking at institutional impact on the total working age population includes all the variables except for this interaction term.

Time series might be autocorrelated and heteroscedastic. The models therefore cluster data in country-years to calculate robust standard errors that are corrected for within-group correlation and heteroscedasticity. Furthermore, the interpretation of coefficients from logistic regressions is challenging. While the direction and significance of log-odds of main effects can give some insight, the size of the coefficient has no immediate meaning. The non-linear

functional form and problems with varying unobserved heterogeneity creates problems also for the frequently used odds-ratios (Mood, 2010). Furthermore, it is problematic to interpret the coefficients for interaction effects (Ai and Norton, 2003). The analysis follows Mood (2010) and presents results in the form of average marginal effects. The coefficients indicate the de- or increase in employment probability of a social group that is related to a marginal change in the specified institutional arrangement, controlling for individual level variables, further institutional arrangements, all country- and social group specific unobserved time constant heterogeneity and economic cycles.

Empirical Results

Table II: Institutional impact on employment probabilities of the total working age population

<i>Labour Market Regulation</i>	<i>Marginal Effects</i>
EPL (OECD Index, ranging from 0 to 1)	-0.18***
Union Power (% of union organized workers)	-0.06
Wage Bargaining Centralization (Visser's index, ranging from 0 to 1)	0.10
Labour Tax Wedge (in % of income)	-0.17**
<i>Labour Market Policies</i>	
Unemployment Benefits (net replacement rates in % of former income)	-0.11†
Social Assistance (absolute level in % of average income)	0.09
ALMP (spending in % of GDP, adjusted for unemployment rate)	0.09*

Source: EULFS, own calculations. Model includes all potential interaction dummies between country, gender, age group and educational level as well as their main effects (N=232); model includes wave dummies (N=16), economic output gap and marital status. p<*** p<0.001, ** p<0.01, * p<0.05, † p<0.1. N=975,000.

Table II displays the baseline model's results for institutional impact on the total working age population. As neo-classical theory expects, raising unemployment benefits, EPL and labour taxes significantly decreases employment for the total working age population. A larger investment in ALMP is correlated with higher employment, while neither social assistance nor union power nor wage bargaining centralization show a significant coefficient. Thus, there seems to be some - although no overwhelming - confirmation for mainstream

economics' arguments. The following will explore if these results are robust when disaggregating them for social groups and in how far these institutions affect social inequality on the labour market.

Table III: Institutional impact on employment probabilities of men and women

<i>Labour Market Regulation</i>	<i>Marginal Effects</i>	
EPL (OECD Index, ranging from 0 to 1)	men	-0.12**
	women	-0.25***
Union Power (% of union organized workers)	men	0.05
	women	-0.17†
Wage Bargaining Centralization (Visser's index, ranging from 0 to 1)	men	0.03
	women	0.18*
Labour Tax Wedge (in % of income)	men	-0.13*
	women	-0.21**
<i>Labour Market Policies</i>		
Unemployment Benefits (net replacement rates in % of former income)	men	-0.03
	women	-0.19*
Social Assistance (absolute level in % of average income)	men	0.02
	women	0.15*
ALMP (spending in % of GDP, adjusted for unemployment rate)	men	0.08*
	women	0.11*

Source: EULFS, own calculations. 7 single models for interactions between institutional arrangement and social groups. Models include all potential interaction dummies between country, gender, age group and educational level as well as their main effects (N=232); models include wave dummies (N=16), economic output gap and marital status. p<*** p<0.001, ** p<0.01, * p<0.05, † p<0.1. N=975,000.

Table III shows the marginal effects of institutions separated for men and women. EPL is significantly related to lowering employment for both men and women. In line with insider/outsider theory, however, it increases social inequality by affecting female employment more strongly. The results for union power underline this argument as strong unions only increase women's non-employment significantly. Labour taxes affect both men and women in the expected way, meaning they decrease non-employment even more for women. On the other hand, a more centralized and coordinated wage bargaining process is related to higher employment of women, thus contrasting neo-classical expectations and confirming Calmfors and Driffill (1988). While the other institutions regulating the labour market increase inequality, higher centralization leads to more equal employment distribution.

The results for labour market policies also indicate differences between men and women. The overall negative impact on employment of unemployment benefits seems to be driven by its correlation with female non-employment. Again, the case can be made for insider/outsider arguments that content that unemployment benefits strengthen the position of insiders, i.e. typically men. On the other hand, neo-classical reasoning could argue with a stronger impact on those with expected low earning. This is contrasted, however, by the employment increasing impact of higher social assistance. In the case of this less conditional benefit, the incentive argument does not apply, thus bolstering the point made by insider/outsider theory. The result for social assistance is also in line with job matching expectations, although these are not supported by the results for unemployment benefits. Finally, ALMP help both men and women in finding a job, although advantages are found for men. They do thus not increase gender equality, which might be because they target men more often or because men are more inclined to take up these offers.

Turning to differences between age groups, some similar patterns but also some differences become obvious (see Table IV). As expected by insider/outsider theory, higher EPL decreases labour market entrants' employment chances the strongest while older workers do not experience significant impact. However, neither strong unions nor centralized and coordinated wage bargaining show significant impact on any of the age groups. Lower employment related to high labour taxes is concentrated on the young and prime-aged while older workers are not affected. The strong impact on labour market entrants can be explained by their disadvantaged status, older workers strong position however, is an unexpected result.

The marginal effects for unemployment benefits again follow the pattern proposed by insider/outsider theory, as a significant employment decreasing impact is only found for labour market entrants. In the case of different age groups, social assistance shows no significant impact on social inequality. ALMP achieve their goal of helping individuals into the labour market most notably in the case of the young. This is likely to be related with ALMP often targeting this group.

Table IV: Institutional impact on employment probabilities of 15-29, 30-54 and 55-64 year olds

<i>Labour Market Regulation</i>	<i>Marginal Effects</i>	
EPL (OECD Index, ranging from 0 to 1)	15-29	-0.41***
	30-54	-0.13**
	55-64	0.00
Union Power (% of union organized workers)	15-29	-0.08
	30-54	-0.03
	55-64	-0.15
Wage Bargaining Centralization (Visser's index, ranging from 0 to 1)	15-29	0.17
	30-54	0.07
	55-64	0.14
Labour Tax Wedge (in % of income)	15-29	-0.47***
	30-54	-0.09†
	55-64	-0.02
<i>Labour Market Policies</i>		
Unemployment Benefits (net replacement rates in % of former income)	15-29	-0.20†
	30-54	-0.08
	55-64	-0.06
Social Assistance (absolute level in % of average income)	15-29	0.14
	30-54	0.06
	55-64	0.10
ALMP (spending in % of GDP, adjusted for unemployment rate)	15-29	0.24***
	30-54	0.09*
	55-64	-0.02

Source: EULFS, own calculations. 7 single models for interactions between institutional arrangement and social groups. Models include all potential interaction dummies between country, gender, age group and educational level as well as their main effects (N=232); models include wave dummies (N=16), economic output gap and marital status. p<*** p<0.001, ** p<0.01, * p<0.05, † p<0.1. N=975,000.

Table V shows the marginal effects for educational levels. Again there are similarities as well as differences in comparison to the differences between men and women and age groups. EPL has an employment decreasing impact across the board, yet most strongly for those with low and medium education. This is in line with insider/outsider arguments but also does not stand in opposition to neo-classical thinking: Those with lower productivity are affected the most. Contrasting the expectations of both approaches strong unions as well as a coordinated and centralized wage bargaining process is significantly correlated with the employment of individuals with medium education – in opposite directions. Here, neither arguments about outsider positions nor about lower productivity can deliver a satisfactory explanation.

Similarly, labour taxes' most notable impact is on this group, yet there is also a significant effect on low educated.

Table V: Institutional impact on employment probabilities of low, medium and high educated

<i>Labour Market Regulation</i>	<i>Marginal Effects</i>	
EPL (OECD Index, ranging from 0 to 1)	low education	-0.22***
	medium education	-0.20***
	high education	-0.07†
Union Power (% of union organized workers)	low education	0.07
	medium education	-0.18†
	high education	0.03
Wage Bargaining Centralization (Visser's index, ranging from 0 to 1)	low education	0.08
	medium education	0.11†
	high education	0.11
Labour Tax Wedge (in % of income)	low education	-0.17*
	medium education	-0.26***
	high education	-0.02
<i>Labour Market Policies</i>		
Unemployment Benefits (net replacement rates in % of former income)	low education	-0.08
	medium education	-0.18**
	high education	-0.02
Social Assistance (absolute level in % of average income)	low education	0.22*
	medium education	0.03
	high education	-0.01
ALMP (spending in % of GDP, adjusted for unemployment rate)	low education	0.11*
	medium education	0.11**
	high education	0.04

Source: EULFS, own calculations. 7 single models for interactions between institutional arrangement and social groups. Models include all potential interaction dummies between country, gender, age group and educational level as well as their main effects (N=232); models include wave dummies (N=16), economic output gap and marital status. p<*** p<0.001, ** p<0.01, * p<0.05, † p<0.1. N=975,000.

This pattern is continued in labour market policies, as unemployment benefits, too, have a significant impact only on individuals with medium education. It could be argued from a neo-classical perspective that this group experiences a stronger incentive effect because low educated individuals are less often eligible for unemployment benefits in the first place. The assumption of an incentive effect, however, is thwarted by the positive impact social assistance has on low and medium educated individuals' employment chances. Again, there is a case to be made about the positive impact benefits can have as they enable social inclusion

and better job search. The two groups are also assisted into employment by higher expenditure for ALMP.

The analyses provide several insights. Firstly, institutions that are related to absolute employment levels show variation in the impact on men and women, different age groups and educational levels. Secondly, institutions that do not show a significant impact on overall employment still have notable power in shaping the social distribution of positions on and off the labour market. Even if the importance of labour market institutions for the emergence of unemployment is debatable (e.g. Baker et al., 2005, Stockhammer and Klär, 2011), their impact on social inequality in micro-level labour market processes can hardly be denied. Thirdly, their overall as well as their socially disaggregated impact does not strictly follow patterns expected in mainstream economics. A coordinated and centralized bargaining process, ALMP and social assistance are ways of achieving higher employment rates for some groups, thus contrasting recommendations for deregulation and welfare state retrenchment. These results indicate that labour market regulation cannot be fully understood when only considering the potential rigidities it introduces to the adjustment of labour supply and demand, that active labour market policy is able to achieve a better integration of the labour market especially of targeted groups and that poverty preventing passive labour market policies not necessarily provide incentives to stay out of work but can enable stable social inclusion and better job search results. And fourthly, in both positive and negative ways, institutions have a particularly strong impact on disadvantaged groups, i.e. labour market entrants, women and individuals with lower education. As these groups are the ones who face challenges from a micro-level perspective already, the institutional context has a crucial role in either fostering or soothing social inequality in employment. Against this background, the crucial insight is that, as expected by insider/outsider theory, institutions that widen the gap between insider and outsiders, i.e. EPL, strong unions and unemployment benefits, increase joblessness of these groups and thus strengthen social inequality. In contrast, institutions that frame labour market processes in a more general way, i.e. social assistance and wage bargaining centrality, help achieve higher employment rates for some of these groups and thus lead to more equality by improving matching and increasing demand. The case of insider/outsider theory is strengthened by the strong position of older workers, whose lower productivity should lead to problems for their employment situation according to mainstream economics. In sum, the results underline that labour market institutions have a consistent impact on employment inequality in particular for groups at higher risk of being without a

job. Instead of focusing solely on their impact on overall employment performance, consequences for social inclusion and cohesion need to be highlighted.

Conclusions

This study set out to explore the impact of labour market institutions on social inequality in the distribution of jobs. It emphasized the particular disadvantages some groups experience on the labour market and how institutions can either strengthen disparities or help lowering them. As some groups are farther from the labour market over the life course, the analysis departed from the usual focus on unemployment rates and included inactive individuals. Compared to mainstream economics, the results indicated that labour market regulation and labour market policies can have diverse effects for social groups. In their structure, positive as well as negative impact of institutions lends more support to arguments about their power to improve employability, social inclusion and job matches on the one hand and the dividing effects postulated by insider/outsider theory on the other. The results confirm the suggestions of the dualization literature, that it is those institutions that help labour market insiders, which increase the disadvantages of risk groups and in the process also raise general joblessness levels. This does not justify recommendations for general deregulation and welfare state retrenchment, however, since broad poverty prevention and steering of wage bargaining processes decreases inequality and fosters employment.

The dualization literature considers individuals in atypical jobs to be outsiders (King and Rueda, 2008), which points to one of the limitations of this study: Job quality was not subject to the analysis. Moreover, one might argue that non-employment decreases correlated with rising social assistance are accompanied by labour taxes causing opposite developments, that the employment enhancing effects of centralized wage bargaining are only countering the negative impact of strong unions and that ALMP can flourish solely in an environment of high joblessness created by generous unemployment benefits. These considerations warrant a look at interaction effects between institutions. Furthermore, the results were not able to explain low employment of individuals above 50. This highlights the importance of more group specific institutional arrangements, such as pension systems, family policies, the nexus between educational system and the labour market or disability benefits. In order to understand the impact of institutions on social inequality in employment more fully, further research should therefore strive to model the labour market regime more comprehensively.

Endnotes

1 Because the nested data structure violates the observation independence assumption of standard regression analysis, researchers interested in the effects of country-level characteristics on micro-level outcomes increasingly use multilevel modelling techniques. However, this framework is designed for datasets with a large number of higher-level units and runs into problems when applied in comparative country studies. Not only does the small number of cases allow for the inclusion of only few country-level factors and cross-level interactions, there is also high chance of omitted variable bias in the coefficients. Because of the possibility to account for time-constant unobserved heterogeneity the proposed fixed effects approach is superior (for a comparison see Möhring 2012).

2 Data availability and quality in the EULFS as well as regarding the macro-level indicators determine the number of countries. The countries are Austria, Belgium, Germany, Denmark, Spain, Finland, France, Ireland, Netherlands, Norway, Portugal, Sweden and the United Kingdom.

3 Data collection for Austria, Finland, Norway and Sweden started in 1995. Since the EULFS delivers data for Germany only from 2001 onwards, German data is taken from the Mikrozensus, the more comprehensive original source for the EULFs. Mikrozensus data start in 1993 but miss 1994. Data from 1998 is dropped for Ireland and the United Kingdom due to missing information on education. The same applies to the Netherlands and Norway before 1996. Some of the macro-level indicators are available only starting from 1996 for Portugal, which is why previous years are dropped for this country.

4 Allison (2009) points out an inconsistency problem when estimating logistic regression fixed effects using the dummy approach. However, estimators are not biased if there are large numbers of observations within the groups the dummies represent (Katz 2001). The large sample size of the EULFS and the extensive time period of observation thus eradicate this concern. Sensitivity tests using linear probability modeling produced no substantively different results.

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Study 2: On the Outside Looking in? Transitions out of Non-employment in the United Kingdom and Germany

On the Outside Looking in? Transitions out of non-employment in the United Kingdom and Germany

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Abstract

This article investigates differences in the likelihood of becoming an insider between Germany and the United Kingdom. Consistent with recent literature on dualization it contends that insider protection is more pronounced in the corporatist system and conservative welfare state of Germany. In conjuncture with micro-level labour market sociology, the study argues that this affects the job matching process of the labour market. Using individual level panel data in event history models, it contrasts leaving non-employment for an insider position, that is, permanent full-time employment, with staying on the outside of the core labour market, that is, remaining without employment or taking up an atypical job. Results demonstrate that insider positions are harder to attain in the German labour market as a consequence of the institutional context that makes the said posts so appealing in the first place. At the same time, the German labour market regime strengthens the mechanisms of selection in terms of gender, age, and education. The insider/outsider divide thus works in two ways: First, it increases inequality between insiders and outsiders in terms of economic and positional stability. Second, a stronger divide interacts with micro-level matching processes on the labour market. By reinforcing social differences in the chance to obtain an insider position, inequality is thus even further pronounced.

Introduction

A growing body of literature reports on processes of dualization in Europe (e.g. Emmenegger et al., 2012a, Palier, 2010, Palier and Thelen, 2010). In contrast to researchers proposing a general trend of flexibilization and convergence towards liberal regime types (Fleckenstein et al., 2011, Streeck, 2009), those postulating dualization argue that reforms of labour market-related policies and institutions have spared the inner core of the workforce from dramatic changes. Reviving the theory on labour market insiders and outsiders (Lindbeck and Snower, 1989), proponents of this approach see the gap between the two groups widened and social inequality increased. The recent debate predominantly deals with the question of whether the reforms, especially in continental Europe, can actually be subsumed under the dualization moniker (e.g. Clasen and Goerne, 2011, Eichhorst and Marx, 2011). Despite the division between insiders and outsiders being, at its very core, concerned with social inequality, the questions of who the insiders are and how they attain the status have only scarcely been considered (Häusermann and Schwander, 2012, Schwander and Häusermann 2013). This article proposes that the very institutions promoting the divide between insiders and outsiders foster an increase in social inequality regarding the possibility of making the transitions from the outside to the inside.

The categorization of insiders and outsiders in most studies is based on a snapshot of actual labour market positions. This creates an image of impermeable labour market segments. In fact, Emmenegger and colleagues (2012b) argue that, compared to the 1980s, the barriers thus constructed have become harder to break through. Yet, as Lindbeck and Snower (2001) point out, the differences between the categories are not static but marked by a certain degree of flexibility. As cross-sectional data cannot give insights to labour market flows, the question of a persisting constant stock of outsiders remains empirical. The same cross-sectional patterns provide descriptive evidence that mostly women, younger and older individuals, and those with low education find themselves in precarious positions. The social differences in the likelihood of being an outsider vary further across countries (e.g. Emmenegger et al., 2012a, Häusermann and Schwander, 2012). Neither the micro-level mechanisms easing or preventing transitions to insider positions nor their interaction with the macro-level context have been the focus of recent research.

The main argument of this article proposes that the stability of positions and the social inequality in their distribution depends on the type of labour market regime. To explain the

processes leading to socially unequal distribution of labour market positions and their international variation, it combines the theory on dual labour markets with accounts from micro-level labour market sociology. Using panel data in event history models, it compares individual level transitions out of non-employment in Germany and the United Kingdom (UK) between 1992 and 2008. It contends that the corporatist German labour market regime with its conservative welfare state may be characterized as more strongly dualized in the observation period than the liberal regime of the UK. By looking at the cross-national differences regarding which individuals are more likely to leave non-employment and what job they are able to obtain, it answers two immanent questions: does a strongly dualized labour market regime lower the inflow to insider positions compared to a flexible one? And does this increase social inequality in the likelihood of making the transition to an insider position? Thus, the article fills a gap in the existing literature by providing an individual level analysis for the question of social composition of in- and outsiders in differing labour market regimes.

Theoretical background

The literature on dualization is informed by the insider/outsider theory (Lindbeck and Snower, 2001). Its main emphasis is on the labour market position of individuals and how insiders use theirs to strengthen the barrier and increase status stability (Häusermann and Schwander, 2012). The fundamental condition required to make individuals more likely to stay inside is that firms are faced with labour turnover costs when replacing insiders with outsiders. In a nutshell, insiders use the market power deriving from these costs and push wages above market clearing level. Employers will not replace them with lower-wage outsiders due to extra transaction costs.

In the early versions of the insider/outsider theory, the dividing line was placed between the employed and the unemployed (Lindbeck and Snower, 1989). More recently, individuals in atypical employment, that is, part-time jobs or temporary contracts, have been included in the outsider category (Emmenegger, 2009, King and Rueda, 2008, Lindbeck and Snower, 2001). This updated division is based on the assertion that the introduced labour market reforms increased flexibility and lowered regulations for temporary work contracts, part-time positions, and self-employment, but did not affect the core of the workforce, that is, those in permanent full-time employment (Emmenegger et al., 2012b, Palier and Thelen, 2010). In line with dual and segmented labour market theory (e.g. Doeringer and Piore, 1971,

Piore, 1975), the dualization literature places the divide between insiders and outsiders within the working population. Yet, the width of the gap in question, and thus the degree of dualization from an economic perspective, is determined by the context of the labour market. Strong employment protection legislation for positions at the core of the labour market, powerful unions, and generous income-related insurance and benefit schemes play a decisive role (Emmenegger, 2009, Lindbeck and Snower, 2001, Palier and Thelen, 2010). Restrictions for the dismissal of employees on permanent contracts enhance the disadvantages of labour market outsiders. This not only lowers chances of attaining an insider position, but also increases the employers' willingness to create atypical jobs (Olsen and Kalleberg, 2004). Unions organize insider interests and increase the efficiency with which they can use their labour turnover cost advantage (Lindbeck and Snower, 2001). Income-related insurance systems are often only available for those with permanent contracts and help them secure their status over the life course. Furthermore, the unions' bargaining position is improved by a high social security level (Bertola et al., 2007). The institutional context thus has an impact on the attractiveness of insider positions and, at the same time, determines the width of the gap between the inside and the outside. In the following, a labour market regime fostering the divide will be called a strongly dualized labour market.

The positions of insiders are advantageous in several aspects. Permanent full-time jobs provide a comparatively high and consistent level of income. Connected to these jobs, a variety of insurance programmes secures a higher standard of living and builds the foundation for future pension benefits. In contrast to the outsiders, insiders are thus protected against three types of insecurity: economic, temporal, and welfare (Kim and Kurz, 2001). This is especially problematic if the considered positions are stable, as the insider/outsider concept implies. The theory delivers arguments for positional stability of insiders and outsiders. However, there are transitions between those states. Thus, the question remains: who is able to cross the divide. Basing on snapshot categorizations of labour market status, the insider/outsider and dualization literature identifies women, low-educated individuals, the youth, and the older workers as typical outsiders. Schwander and Häusermann (2013) point out that a life-course approach is needed to determine who insiders and outsiders are. In two recent studies, they have delivered extensive evidence that certain occupational groups, defined by gender, age, and class, are more likely to experience unemployment or atypical employment. Again, the three socio-demographic characteristics, gender, age, and education correlate with labour market positions while varying in importance across institutional

regimes (Häusermann and Schwander, 2012, Schwander and Häusermann, 2013). Yet the studies do not follow work-life histories of individuals, but use cross-sectional data. Although they can show that certain occupational groups are more prone to being outsiders, they cannot answer the question of how stable these positions are and how they are distributed within the investigated groups.

In the following, theory and evidence from individual level labour market sociology is used to supplement the insider/outsider concept as regards who is able to cross the barrier. Matching theory concerns job acquisition as the product of a two-sided process. On the one hand, workers search for jobs with acceptable pay and work conditions. The criterion for employers, on the other hand, is the productivity of potential employees. If labour demand and supply meet, positions are filled (Sørensen and Kalleberg, 1981). In general, employers make job offers and decide on the quality of the job after evaluating the productivity of a worker. As information about actual productivity is uncertain, employers assess potential workers by picking up signals about skills and working commitment (Spence, 1973). According to human capital theory, higher educational levels are associated with increased productivity (Becker, 1964). Human capital arguments also apply to discrepancies in employment prospects of different age groups. While older workers usually offer more experience and can indicate willingness to work with previous employment spells, employers are reluctant to invest in individuals whom they do not expect to stay long-term (e.g. Taylor and Walker, 1994). Younger workers, in turn, have disadvantages at entering the labour market as they can only signal acquired skills but not work commitment and experience (e.g. Mincer, 1974). The negative consequences of work interruptions caused by motherhood are discussed extensively in the labour market body of research (e.g. Goldin and Rouse, 2000, O'Neill and Polachek, 1993). But job chances of women might also be diminished if employers anticipate childbirth and, therefore, decide against investing in such employment relationships. Furthermore, employers see potential loss of human capital and lower levels of commitment in long-lasting spells without employment (e.g. Dieckhoff, 2011). Thus, women, individuals with low education, labour market entrants and older workers, and those with long-lasting work interruptions can be expected to attain only atypical employment offers or no job at all.

Considering the labour supply side, human capital levels and periods without employment can affect employees' further choices (Becker, 1964). The feeling of significant

human capital loss might lead individuals to refrain from work-search because of lowered expectations. Thus, in a worsened economic situation, they might be willing to take job offers below their initial prospects. Existing social inequalities on the labour market lead to reduced expectations for members of the disadvantaged groups. In turn, they decrease their reservation wages, leave the labour market, or take on worse jobs, thus perpetuating the socially unequal pattern. Reconciling work and family might also increase the likelihood of selecting atypical jobs, which offer more flexible working hours. Thus, the disadvantaged parties, that is, women, low-educated individuals, younger and older workers, as well as those experiencing spells of non-employment are more likely to stay out of occupation or accept an atypical job, if offered. In summary, labour demand and supply match and produce a socially unequal distribution of labour market positions.

The aforementioned socially unequal distribution is problematic per se as only insider positions provide economic, temporal, and welfare security. It is cause for particular concern in economies where the institutional context increases the divide between insiders and outsiders, thus rendering the labour market positions more stable and unequal at the same time. Furthermore, from the perspective of labour market sociology, this escalating split will result in stronger social inequality. There is ample empirical evidence, provided by comparative research, indicating that job matching mechanisms are moderated by the institutional setting (e.g. Dieckhoff, 2011, Gangl, 2004). Employers have to choose their employees with more care if replacing them is especially costly. Thus, a strongly dualized labour market strengthens the importance of productivity signals. This increases social inequality in offered positions, but also in the use of atypical jobs as a screening device. Moreover, dualization in general and employment protection in particular slow down the employment in- and outflow, implying prolonged out-of-work terms. This increases stigmatization, which leads to worse employment chances and higher risk of atypical jobs. To sum up, the institutional context of a strongly dualized labour market increases the attractiveness of insider positions as well as the barrier between those and their outsider counterparts, and consequently leads to a more pronounced social inequality in the chances to obtain an insider position.

Research Design and Hypotheses

In order to assess the impact of the labour market regime on the absolute and the social differences in chances to cross the insider/outsider barrier, this paper contrasts transitions out

of non-employment in the UK and Germany. Which individuals are able to find an insider position, that is, permanent full-time employment, after non-employment? Which remain in outsider positions by either staying non-employed or only finding atypical occupation? By analysing labour market transitions, the investigation follows individuals over time. Only in longitudinal analysis, the fluidity of a labour market system can be assessed accurately. It also helps avoid ecological fallacies in the attribution of causes for labour market status, often distorting the cross-sectional view on the distribution of insider and outsider positions. Non-employment is chosen as the common starting point to create a homogenous group of comparable individuals. Influential factors such as scar effects of periods without employment or the dependence of subsequent labour market states are thus distributed equally to the whole population under observation. By excluding these potential sources of heterogeneity the probability of finding unbiased differences is increased. A sole focus on unemployed persons, that is, those who by definition actively seek work, might lead to an even more homogenous group. Yet, it blocks the view of a large proportion of actual transitions on the labour market. The division of the unemployed and the inactive population is highly disputed as the implicit assumption that all inactive individuals are constantly removed from the labour market is contested (Brandolini et al., 2006, Jones and Riddell, 2006). There is evidence for frequent shifts out of inactivity into employment and institutional impact on these transitions (Amable et al., 2010). The heterogeneity within the population of the non-employed can be dealt with in the multivariate analysis.

The UK and Germany are two of the most frequently compared economies in labour market research. Considered prototypes of opposing institutional models, the UK is a liberal market economy with only low levels of welfare benefits and a flexible labour market. In contrast, Germany's coordinated market economy offers pronounced job protection and status-preserving security measures (Esping-Andersen, 1999, Hall and Soskice, 2001). Strong unions organize workers' interests in the wage coordination process in Germany, whereas their role was marginalized in Thatcher's Britain (Ebbinghaus and Visser, 2000). In line with the argument for increased dualization, German governments since the 1980s relaxed regulations only for temporary contracts, despite the widespread impetus for general flexibilization. Between 2003 and 2005, the so-called Hartz reforms led to significant changes in existing legislation, most notably, the introduction of a new unemployment assistance scheme that is regarded markedly less generous than the previous system. In the dualization literature, this development has been subsumed as an indication of the ever-growing gap

between insiders and outsiders (Palier and Thelen, 2010). Other observers report a trend of liberalisation and a long-term convergence with the British system (Eichhorst and Marx, 2011, Fleckenstein et al., 2011), while yet another group of researchers neither detects a lower benefit generosity nor a deepening divide between insiders and outsiders (Clasen and Goerne, 2011). This article does not address these concerns. Regarding the institutional context, it argues that Germany can be considered a dualized labour market regime, regardless of how one interprets recent reforms. Particularly in contrast to the UK, Germany still shows strong employment protection of the core workforce, generous income-related insurance schemes, and powerful unions. In the UK, the flexible labour market structure leads to lower labour turnover costs, and thus a smaller gap between insiders and outsiders. In addition, the British and the German labour markets differ in their occupational structure. In Germany, manufacturing plays a larger role while the service economy is more dominant in the UK. Typically, manufacturing jobs provide permanent full-time contracts, while part-time employment or temporary contracts are found predominantly in the service industries. Surprisingly, Tomlinson and Walker (2012) point out that the distribution of insiders and outsiders across occupations is fairly similar in the two countries, as is the number of individuals in both groups.

The differences in the labour market context also raise the question of comparability of insiders and outsiders in the UK and Germany. The extent to which insiders are advantaged differs across countries and welfare regimes (Häusermann and Schwander, 2012). By definition, the insiders in a strongly dualized labour market enjoy more privileges. Permanent full-time positions are better protected in Germany and associated with higher levels of social security. Insiders' interests are better represented by strong unions. However, insiders are still significantly better situated in the UK, as there is a marked gap in income levels between in- and outsiders in the British labour market (Häusermann and Schwander, 2012). To top up the existing modest flat-rate benefits, insurance schemes (such as pension plans) have to be set up either privately or by the employer. Related to both these points, outsider status is a strong predictor of future poverty in the UK. In fact, recurrent poverty is a bigger problem among outsiders in the UK than in Germany (Tomlinson and Walker, 2012). Adding to higher economic and welfare security, permanent contracts increase the temporal security of workers even without high employment protection legislation. Thus, insiders and outsiders are not the same in the two considered populations. In both countries, however, the division marks a

relevant gap between labour market positions, making low transition numbers between them and socially unequal distribution across them a challenge.

The following hypotheses are based on the theoretical considerations presented in the previous section and the differences in the labour market regimes of the UK and Germany.

Hypothesis 1: Obtaining an insider position after a spell of non-employment is more likely in the UK than in Germany.

As the German dualized labour market causes lower turnover rates, exit from non-employment is less likely than in the UK. Accordingly, either staying non-employed or atypical employment is more likely in Germany. Because firing insiders is relatively easy in the UK, British employers do not take risk when offering permanent full-time positions. German employers are more willing to hand out atypical jobs in order to avoid strongly protected posts and to screen employees while lowered expectations increase the likelihood of outsider-employment acceptance.

Hypothesis 2: The likelihood of obtaining an insider position after a spell of non-employment is distributed more socially unequally in Germany than in the UK.

Women, younger and older individuals, and those with low education are disadvantaged in both countries. Employers are more selective in the German market because of labour turnover costs. In turn, employees adjust their expectations. Thus, the disparities increase.

Hypothesis 3: The likelihood of obtaining an insider position after non-employment is decreased by the duration of non-employment spells more strongly in Germany than in the UK.

Since employers pick up signals of low work commitment and deprecated human capital, the prolonged duration of the non-employment spell increases the chance of staying non-employed or taking up an atypical job. The selective mechanism has more weight in Germany than in the UK.

The institutional arrangements forming the dualized labour market in Germany and the flexible labour market in the UK are part of a more comprehensive regime. Other institutions might affect the mechanisms expressed in these theoretical expectations. For instance, higher

benefits for outsiders in form of social assistance (or unemployment assistance since the Hartz reforms) stabilize positions in Germany even further, as they guarantee that outsider wages are not lowered beyond the benefit support threshold. Family policies change the set of incentives and opportunities, especially in the case of women. In the last decades, both countries have taken steps to help women reconcile family and work (Lewis et al., 2008). Still, female labour participation does not experience great support in either country. In Germany, this is usually attributed to the political interest in fostering traditional male breadwinner models, while the liberal British regime tends to let the market forces rule as long as possible, and thus does not even-out the disadvantages women experience due to (potential) motherhood.

Comparative studies on the integration into the labour market emphasize the differences in education systems and how they interlock with labour market structures (Hillmert, 2002, Scherer, 2001). The signalling powers of education certificates are influenced by the design of national educational institutions. A close link between education and labour market can be found in Germany, with its education system accentuating vocational training and its occupationally structured labour market. Individuals with low education are still provided with clear job-opportunity structures in Germany, especially those with vocational training. Jobs requiring such training, for instance manufacturing jobs, are more frequently permanent full-time positions. In contrast, the link between education and employment is weak in the UK. Since education is rather general and certificates are not tailored to employers' needs, the education system only provides unclear signals. British employers will always prefer a more productive candidate: the one with a higher level of education. Thus, concerning differences in transitions out of non-employment, a competing hypothesis to Hypothesis 2 can be formulated:

Hypothesis 4): In the UK the educational inequality in the likelihood of obtaining an insider position is more pronounced than in Germany.

Sample construction and variables

Data are taken from the British Household Panel Study (BHPS) and the German Socioeconomic Panel (GSOEP), spanning the period between 1992 and 2008¹. Both surveys provide abundant information on individual work careers in the form of monthly panel data². The sample consists of working-age (15-64) individuals who finished their education and

entered the labour market. In order not to count short sequences between different periods of education as full labour market entry, individuals needed to be out of education for at least 12 months to be included. The time of observation starts with the first non-employment spell in an individual's career. The analysis is restricted to the first non-employment spell as repeated spells are not independent from each other.

Individuals end their non-employment spell in three distinct ways: finding a permanent full-time position, getting employed in an atypical job, or staying non-employed. Atypical jobs are defined as either temporary full-time positions or part-time work³. Non-employment spells starting with further education or retirement are excluded. It is feasible to assume that labour market reintegration of individuals entering further education directly after leaving a job follows distinct mechanisms, while retired individuals can be expected to stay out of the labour market in almost all instances. After exclusion of cases with missing values on the covariates, the samples include 3,838 individuals in the UK and 5,192 in Germany, respectively. Table A1 in the Appendix presents descriptive numbers of the socio-demographic distribution of the samples. The data from the two countries are pooled, leading to a total case number 9030.

The analysis includes a variety of variables to test the proposed hypotheses. Besides a dummy variable distinguishing the UK and Germany, the main independent variables are gender, age, and educational level. Gender is introduced as a binomial variable. Assuming non-linear effect of age, the variable is grouped in categories for youth (15-24), younger and older prime-aged (25-39 and 40-54), and older individuals (55-64). CASMIN classes provide the most reliable information when comparing across educational systems (König et al., 1988). Low, intermediate, and higher education are distinguished. In order to account for differences between general and vocational training, a separate category for vocational education completes a total of four educational classes. Duration of the non-employment spell is measured in months. Previous research shows that job search processes run nonlinearly, therefore, this variable has a logarithmic form.

Further control variables are introduced to account for potential heterogeneity that might bias the coefficients. As active job search can be assumed to result in a higher probability of finding employment, a dummy variable distinguishes if the non-employment spell is spent in unemployment or inactivity. Another dummy variable indicates if an individual has worked before, in order to control for work experience and heterogeneity in

willingness to work. Three dummy variables illustrate the number of children in the household (no children, one child, two or more children). Three more, account for further household income by controlling for the labour market status of the partner (no partner, non-employed partner, employed partner). Furthermore, migrational background is modelled as a dummy variable, representing nationals and non-nationals depending on their place of birth. In order to account for macroeconomic fluctuations, the models include year dummies.

Methodology

Transitions out of non-employment in Germany and the United Kingdom are analysed using discrete time event history models with competing risks (Allison, 1982, Allison, 1984, Box-Steffensmeier and Bradford, 2011). Event history methods are frequently applied to the analysis of transitions in the labour market. Making use of panel information, these models follow individuals over time until an event of interest occurs. They enable researchers to account for time-dependence of the likelihood of events. Coefficients in the models express the effect of covariates on the conditional probability of the event of interest occurring at a given point within a spell, provided that it has not occurred before. Event history models include right-censored spells, that is, individuals who do not experience an event within the period of observation, without imposing an artificial ending. Thus, potential bias is avoided, as the analysis is not restricted to successful job-seekers.

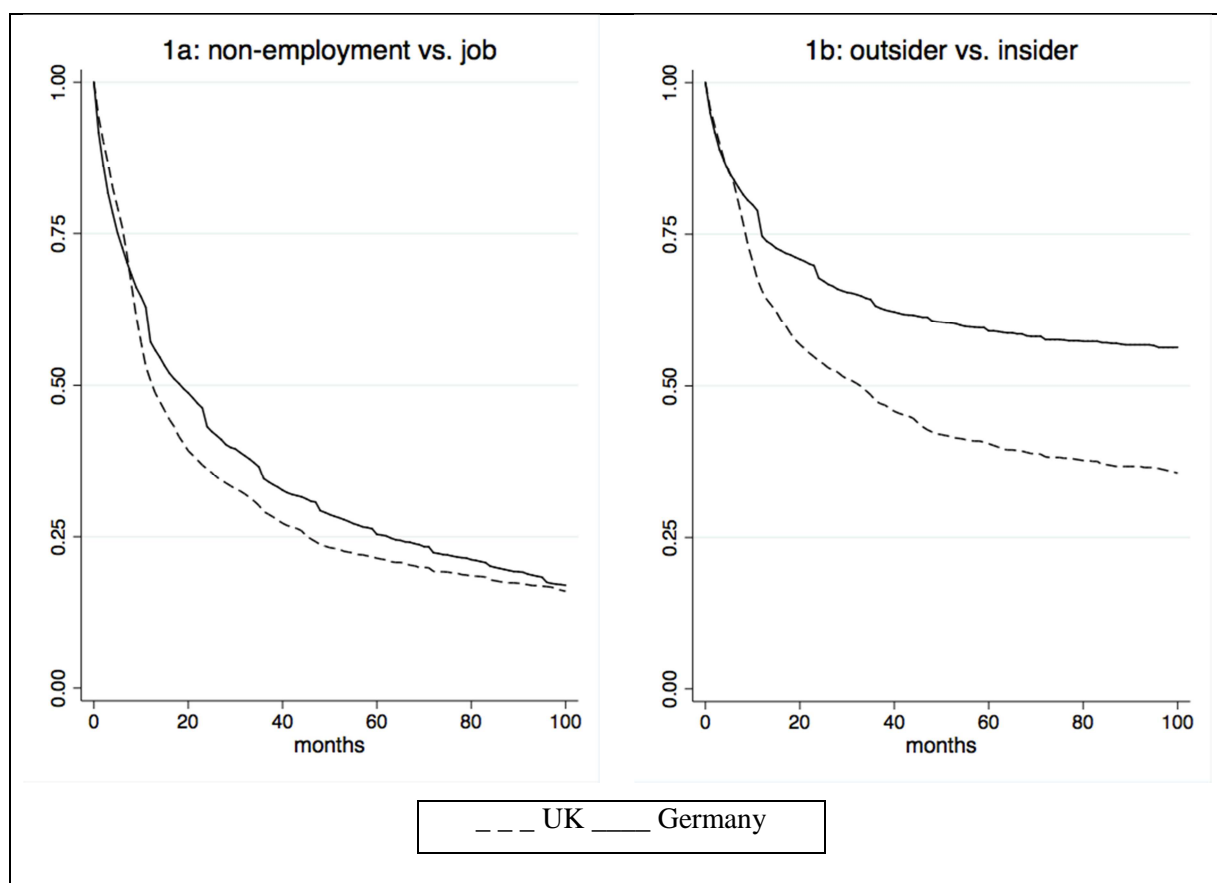
In the datasets at hand, time is measured in months; hence, the data is interval-censored. To account for the structure of the data, the multivariate analysis uses discrete time methods (Allison, 1982, Jenkins, 1995). In comparison to continuous time models, the data is not organized in spells but in calendar form. Thus, individuals are observed for the number of months it takes them to leave non-employment. This offers the advantage of easy inclusion of time-varying covariates. Clustered standard errors, correcting for the nested data structure, deal with unit dependence of the repeated observation of single individuals. Time dependence is accounted for by the introduction of the logarithmic time variable.

The events of getting employed in an atypical job or finding permanent full-time employment constitute competing risks. To estimate compositional effects and differences between the exit states, multinomial logistic models are used (e.g. Box-Steffensmeier and Bradford, 2011). These models are more efficient and the standard errors, smaller, as they use all observations, in contrast to separate comparisons (logits), leaving out cases that are not

relevant to their relation. In case of the present analysis, censoring, that is, the non-event of staying without employment, is also one of the results of interest. In order to highlight the impact of socio-demographic factors on the likelihood of staying an outsider, the transition to permanent full-time employment is specified as the baseline, with which staying non-employed and finding atypical employment are contrasted. To statistically test differences between the UK and Germany, the two datasets are pooled. A country dummy is introduced, interacting with the variables of interest, thus providing insights not only into disparities in the size of effects but also significance levels⁴.

Empirical Results

Figure 1: Leaving non-employment for a job and an outsider for an insider position in the UK and Germany



Note: Source: BHPS, GSOEP 1992-2008. 1a: Survival functions indicating the likelihood of staying non-employed in contrast to finding a job (atypical or permanent full-time employment) in a given month, conditional on not having left non-employment before. 1b: Survival functions indicating the likelihood of staying in an outsider position (non-employment or atypical job) in contrast to entering an insider position in a given month, conditional on not having left the outsider position before.

Figure 1 displays first descriptive evidence for a higher barrier to employment, in general and especially to insider positions, in Germany. The curves depict the likelihood of staying without employment when the risk is getting a job (1a) and of either staying without employment or getting employed atypically when the risk is getting an insider position (1b), depending on the duration of the non-employment spell.

Although the survival curves in Figure 1a do not diverge drastically, individuals find employment faster in Britain than in Germany. In the sample, 29 percent of the Germans and 27 percent of the British do not find an exit out of non-employment in the time span observed (see Table A1; also for the following figures). Therefore, the differences in Figure 1a can be attributed to longer search periods but not necessarily lower overall success. The duration of the spells in Germany is, on average, 30 months, compared to 25 months in the UK. The difference of 5 months remains the same when only the length of successful spells is being compared (21 vs. 16 months). The differences are markedly larger when the survival functions of outsiders are juxtaposed. British individuals are notably more likely to find an insider position. While in Germany 58 percent of those successfully leaving non-employment enter atypical occupation, and thus stay outsiders, only 42 percent obtain permanent full-time positions. The relation is inverted in the UK, with 61 percent entering permanent full-time employment and 39% taking on atypical jobs. These figures provide first support to claims of a stricter barrier to insider positions in Germany. However, they might result from the differences in the social composition of the national samples. The multivariate analysis accounts for all the observed differences. The models do not enable to control for unobserved heterogeneity. However, the tests for general differences between the countries as well as discrepancies in social stratification are rather conservative. Insider positions in Germany should be more appealing; therefore, the reduced likelihood of obtaining them cannot be explained by unobserved factors such as lower motivation. Additionally, selection into non-employment should create rather homogenous samples in terms of unobserved characteristics.

Table 1 displays the results of multinomial logistic regressions on the exit from non-employment. The models show relative risk ratios computed with permanent full-time employment, serving as a reference category⁵. Relative risk ratios are interpreted as increase or decrease in relative risk of encountering the event in the specified category of the dependent variable, in contrast to experiencing it in its reference category. Thus, coefficients in the present models are explicated regarding the impact of individual level factors on

increasing or decreasing the relative risk of obtaining an atypical job or finding no employment at all in the observed period, compared to attaining a permanent full-time position. Coefficients above 1 indicate an increased relative risk, while values between 0 and 1 show a reduced relative chance. Model 1 includes all main effects. Subsequently, Model 2 introduces interactions between the socio-demographic variables of interest and the country. As the reference category is the UK, the main effect in Model 2 can be interpreted as the impact of the covariates in the British labour market, while the interaction term needs to be added to the main effect to elucidate their impact in Germany.

Table 1: Differences between the UK and Germany in the relative risks of staying non-employed or finding atypical employment, in contrast to finding a permanent full-time position after non-employment

	Model 1		Model 2	
	Main Effects		Interactions	
<u>Ref. perm. full-time employment</u>	no exit	atypical employment	no exit	atypical employment
COUNTRY				
Germany (<u>Ref. UK</u>)	1.664***	2.033***	0.974	1.235
DURATION				
time(log)	1.545***	1.200***	1.408***	1.085**
Germ. X time(log)			1.195***	1.210***
GENDER				
female (<u>Ref. male</u>)	1.986***	2.735***	1.481***	2.100***
Germ. X female			1.879***	1.789***
AGE				
15-24 (<u>Ref. 25-39</u>)	0.663***	0.756***	0.542***	0.767*
40-54	1.638***	1.021	1.439***	0.916
55-64	4.495***	1.977***	2.680***	1.594
Germ. X 15-24			1.478***	1.058
Germ. X 40-54			1.294*	1.284
Germ. X 55-64			2.235**	1.551
EDUCATION				
low (<u>Ref. med.</u>)	2.194***	1.307**	2.516***	1.460***
voc.	1.150*	0.877†	1.347***	1.063
high	0.878*	0.976	0.910	0.862
Germ. X low			0.579***	0.671*
Germ. X voc.			0.644***	0.681*

Germ. X high			0.778†	1.115
CONTROLS				
unempl. (<u>Ref. inactive</u>)	0.330***	0.671***	0.332***	0.692***
worked before	0.655***	0.987	0.646***	0.951
1 child (<u>Ref. no childr.</u>)	1.115*	1.133†	1.110*	1.171*
2 or more childr.	1.483***	1.233*	1.466***	1.259**
single (<u>Ref. emp. part.</u>)	1.201***	1.173*	1.242***	1.211**
partner non-emp.	1.328***	0.926	1.402***	0.977
foreign born	1.277***	0.877	1.290***	0.885
wave dummies	yes	yes	yes	yes
Constant	16.60***	0.363***	24.55***	0.476***
N observation months	243,049	243,049	243,049	243,049
N individuals	9030	9030	9030	9030
Pseudo R2	0.0838	0.0838	0.0866	0.0866

Note: Source: BHPS, GSOEP 1992-2008, *** p<0.001, ** p<0.01, * p<0.05, † p<0.1. Relative risk ratios from multinomial logistic regressions on destination state after non-employment.

Model 1 shows that Germans bear a significantly higher relative risk of remaining without employment and, if they enter the labour market, of doing so more frequently on a part-time basis or a temporary contract. Controlling for all covariates, there is a 66 percent increased relative chance to stay non-employed in Germany, while the compared risk of being employed atypically is more than doubled. These results confirm Hypothesis 1, arguing that the barrier to insider positions is larger in Germany than in the UK. However, in Model 2, these effects disappear. This is in consequence of introducing the interaction effects, and thus can be seen as evidence that the overall differences between the two countries may be explained by the disparities in the social groups' (re-)employment chances and the impact of time spent in non-employment.

Confirming expectations, the time spent in non-employment increases the relative chance of maintaining that state. In the same way, it augments the relative risk of atypical employment. Thus, it has an effect on the evolution of wage and job expectations and affects job matching processes. Model 2 shows that this effect is significantly larger in Germany than in the UK. This lends support to Hypothesis 3, postulating a stronger relationship between non-employment spell duration and the likelihood of obtaining an insider position afterwards in Germany. From a matching perspective, this means that the higher barriers in Germany result in lowering expectations of non-employed individuals more strongly with increasing time, so that they either give up the job search or are willing to accept atypical employment.

Welfare benefits then provide an alternative income. On the other hand, employers are more cautious about the signals a long non-employment spell sends, and thus offer either no job or atypical employment.

Model 1 indicates that, compared to men, women bear almost double the relative risk of staying non-employed and an even larger relative chance of obtaining atypical posts after a spell of non-employment. Yet, by introducing the interaction effect between gender and country in Model 2, a significant cross-national difference becomes evident. While the effect of gender is reduced for both categories of the dependent variable in the UK, it is even larger in Germany. As the model affords controlling for other individual level covariates as well as household economic factors, the analysis reveals that the German labour market system establishes higher barriers to insider positions for female workers than the British. Hypothesis 2 states that the social distribution of the chance to obtain an insider position after non-employment is more unequal in Germany than in the UK. The established stronger gender segregation is its first confirmation.

The curve representing the age groups progresses in an almost linear form, instead of the expected u-shape, in the main effects model. The older prime-aged as well as older workers display a higher relative risk of staying non-employed or, in case of older workers, only finding an atypical job. However, young people obtain permanent full-time positions with an increased chance, compared to the reference group of the young prime-aged. Since the model enables controlling for education, the possibility that this is caused by the clear educational signals of the German education system is accounted for. Model 2 confirms that the high relative chance of getting into permanent full-time employment is driven by British youth. Compared to the 25 to 39 year-olds, they have a significantly reduced chance of staying non-employed or getting an atypical job. Obtaining this result underlines the advantages of longitudinal individual level analysis. Previous studies have stated that outsider positions are disproportionately more frequent for young persons in liberal regime types (Schwander and Häusermann, 2013). The present analysis demonstrates that this group also has a high relative chance of leaving the outsider status behind. In Germany, the youth only have a reduced relative risk to enter atypical employment. Instead, the relative risk of remaining without employment is even larger for the two older age categories, as compared to the British labour market. It has to be noted, however, that the differences in atypical employment are marginal, if any, for the age groups between the two countries. Only a

slightly larger increase for the 40 to 54 year-olds, compared to the younger prime-aged, can be seen in Germany. When juxtaposing the two older age groups with the younger ones, the results affirm the expectations formulated in Hypothesis 2, as the former show a significantly higher relative risk of staying on the outside in Germany, thus implying higher social segregation. It might be argued that the pattern observed in Germany is a typical pathway into retirement via a spell of unemployment (Ebbinghaus, 2006). However, the disparities between the younger and older prime-aged still illustrate the suggested social group differences of a dualized labour market. The results obtained for the youth are unexpected. The British sample encompasses a markedly larger number of individuals experiencing their first spell of non-employment at that age (see Table A1). Hence, selection bias cannot be excluded as part of the explanation, despite the control variables. It might be argued that it is common in the UK to experience a spell of non-employment at labour market entry, even for those with good prospects. This might make it comparatively easy for a large part of this group to find an insider position later on as employers regard non-employment of labour market entrants as a common phenomenon.

Model 1 shows a continuously rising relationship between the level of education and the relative chance to obtain a permanent full-time position. Individuals with low education bear a more than two times increased risk of staying non-employed, compared to their peers with intermediate general education. Their relative chance to attain an atypical job is 30% higher. In contrast, the high educated are at a significantly lower relative risk of remaining non-employed. However, there is no difference concerning atypical jobs. It can be argued that individuals with higher education often enter temporary jobs that cannot be compared to other atypical jobs in terms of precariousness (Giesecke and Groß, 2003). Individuals with vocational training have an increased chance to stay without employment. Yet, they have a lower relative chance of entering atypical occupations. It can be argued that jobs associated with vocational training are more often situated in economic sectors where the ‘gold standard employment model’ is still prevalent. Moving on to the differences between the countries displayed in Model 2, considerations about the effect of the German education system are corroborated. Low educated individuals are not as disadvantaged in Germany as they are in the UK, as the interaction effect counters the strong main effect of low education for staying non-employed as well as obtaining atypical employment. Another consequence of the German dual education system is that the vocationally trained are advantaged in leaving non-employment and obtaining a permanent full-time position instead of an atypical job. In

contrast, finding an insider position proves slightly more straightforward for generally trained individuals in the UK. However, the equalizing impact of the educational system pertains only to the lower educated. Having a higher education decreases the relative chance of remaining non-employed to a stronger degree in Germany. Although the nexus between education system and jobs can circumvent the segregating effects of the German labour market to some degree, the general picture still persists. Educational differences between highly educated individuals and the other groups, therefore, are in line with Hypothesis 2. Yet, these differences are smaller in Germany when low and intermediate education levels are being compared. Thus, Hypothesis 4, stating that educational inequality is lower in Germany, is supported as well, as particularly those with vocational training are provided with good job opportunities.

The control variables vary only marginally between the two models. The coefficients are mostly in line with existing evidence and pre-existing expectations. Being unemployed instead of inactive decreases the relative risk of staying without a job or acquiring atypical employment. Previous work experience lowers the comparative chance of persistent non-employment, but has no significant effect on the risk of getting atypically employed. The number of children increases the relative chance of staying in non-employment or obtaining either a temporary or a part-time job. Surprisingly, singles as well as individuals with a non-employed partner are more likely to stay without employment. Single persons are also more likely to get an atypical job than those with an employed partner. These results might hint at a polarization of non-employment in the household context (Gregg et al., 2008). Finally, migrational background increases the risk of remaining non-employed.

Summing up, the hereby presented analysis lends strong support to the formulated hypotheses, with some exceptions. Indeed, the German labour market regime not only decreases the likelihood of (re-)entering an insider position in form of permanent full-time work after non-employment; it also fosters larger social inequalities in these transition probabilities. The nexus between the German education system and the labour market provides lower educated individuals with better options, thus reducing social inequalities in this specific aspect. Furthermore, longer spells of non-employment increase the likelihood of staying without a job or acquiring only an atypical post; the effect is more pronounced in Germany than in the UK. In line with the arguments of matching theory, most factors

increasing the likelihood of staying out of employment, raise the risk of atypical employment in a corresponding fashion.

Conclusion

The aim of this study was to explore how the German labour market shapes transitions out of non-employment in comparison to the British regime. It supplemented insider/outsider theory and the literature on dualization with approaches to micro-level job search and matching. The derived hypotheses were tested with event history models using individual level panel data from the two countries. Staying outside, that is, either remaining non-employed or acquiring an atypical job, was contrasted with making the transition inside, that is, finding permanent full-time employment, and modelled in a competing risks framework. Results showed that obtaining an insider position is significantly more difficult in the strongly dualized German system, compared to the flexible labour market of the UK. These differences translate into more pronounced social inequalities in Germany. Although the stratification according to individual characteristics is tangible in both countries, gender, age, and education are better predictors of success in search of an insider position in the German system. This partly corroborates existing evidence. Häusermann and Schwander (2012) point out that continental European regimes foster a particularly strong insider/outsider divide for gender and age groups. They also find that in liberal regimes especially the low-educated and the young find themselves in outsider positions. Profiting from the advantages of longitudinal data, the analysis presented provides a longitudinal micro-level basis that in some cases confirms but also transcends some of the existing findings. For instance, results show that the situation of young persons in the UK is less problematic, as they have a higher relative chance to find a way to insider positions. In sum, transitions (back) into the labour market happen faster and in a more socially equal way in the UK. In order to provide valid policy recommendations, future studies have to scrutinize whether these transitions lead to stable labour market careers in the long run.

In regard to the on-going discussion on dualization, the study emphasizes that the divide between insiders and outsiders has consequences for social inequality in two ways. Firstly, the potentially growing division further stimulates social inequality through providing significant advantages and economic, temporal, and welfare security only to insiders. Secondly, if these advantages are achieved through a labour market regime with high employment protection for the core workforce, generous income-related benefits, and

powerful representation of insiders by strong unions, the said barrier is reinforced. In interaction with micro-level labour market mechanisms, the above lowers the chances of making the transition from outsider to insider position in general and, even more so, for disadvantaged social groups. Empowering insider positions predominantly through higher income, like in the British system, leads to a more permeable labour market with lower social inequality. However, the differences between individuals with low and medium education and vocational training did not follow the same pattern. In the case of Germany, the strong relationship between the education system and the job market prevents high inequality between the aforementioned educational levels. Accordingly, it is feasible to assume that, for instance, family policies or well directed active labour market policies could counter the socially segregating tendencies of insider/outsider divisions in other cases.

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Endnotes

1 1992 initiates the observation period because in that year all the relevant data on atypical jobs were collected for the first time in the BHPS. 2008 is the latest available survey year.

2 A strict hierarchy of labour market states deals with the possibility to indicate more than one state at a time in the GSOEP and potential overlaps and inconsistencies between different datasets of the BHPS. Being in education ranks above atypical employment, permanent full-time employment, unemployment, and the various forms of inactivity.

3 The necessary information to build these categories is available only for the jobs individuals have at the time of the interview. Therefore, the sample is restricted to non-employment spells that end either with an individual not finding a job during the time of observation or a job that is reported at the time of interview. Self-employment is excluded from the analysis, since highly specific mechanisms might be involved.

4 Interpretation of results from logistic regressions can be problematic since coefficients show the slope of a function at a given point, determined by the specific values of all other covariates. Coefficients for interaction effects can be particularly misleading (Ai and Norton, 2003). However, all of the variables in the models, except for the logarithmic time variable, are coded as binomial. The coefficient is based on the change between 0 and 1. Although the effect is still dependent on the specification of the covariates, the change from 0 to 1 expresses a linear relation affording a more straightforward interpretation.

5 The comparison of log odds ratios across models and groups is problematic because of varying unobserved heterogeneity (Mood 2010). Present analysis avoids these issues partly by only comparing relative risk ratios within the same model. As there still might be bias in the comparison between groups, I followed Mood's (2010) advice and calculated average marginal effects for robustness checks. They confirm the results expressed in relative risk ratios and lead to no changes in the conclusions. I chose to display relative risk ratios because the article is more interested in the relative differences between the groups and the relation between the competing risks than in absolute effects.

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Appendix

Table A1: Socio-demographic composition of the samples

	UK	Germany
GENDER		
Men	49%	43%
Women	51%	57%
AGE GROUP		
Youth (15-24)	62%	28%
Young prime-aged (25-39)	22%	48%
Older prime-aged (40-54)	12%	17%
Older (55-64)	4%	7%
EDUCATIONAL LEVEL		
Low education	22%	14%
Medium education	44%	10%
Vocational training	14%	63%
Higher education	20%	13%
STATUS AT START OF OBSERVATION		
Unemployment	35%	65%
Inactivity	65%	35%
STATUS AT END OF OBSERVATION		
Non-employment	27%	29%
Atypical employment	29%	41%
Permanent full-time employment	44%	30%
AVERAGE SPELL DURATION (months)		
All spells	25	30
Spells ending in employment	16	21
Note:	Source:	BHPS, GSOEP 1992-2008, N=9030.

**Study 3: (Con-)sequences of Non-employment: Labour
market Reintegration in the United Kingdom and
Germany**

(Con-)sequences of Non-employment: Labour market Reintegration in the United Kingdom and Germany

(manuscript to be submitted)

Abstract

This article uses data from the British Household Panel Study (BHPS) and the German Socioeconomic Panel (GSOEP) between 1992 and 2009 in order to analyse the shaping powers of labour market institutions for individual labour market trajectories after non-employment. As successful labour market reintegration is not only depending from high transition rates into employment but also from the stability of subsequent careers, the study uses sequence analysis, which enables a holistic perspective of trajectories. Results show that the flexible labour market of the United Kingdom offers higher employment rates and more consistent reintegration after losing or leaving a job, thus providing a higher level of employment security. The emphasis on job security in Germany does not help individuals into stable labour market reintegration once they find themselves being in an outsider position. At the same time, social segregation in the quality of labour market trajectories is more pronounced in Germany, indicating a stronger selection mechanism in regulated labour markets.

Introduction

The reintegration of individuals who lost or left their job is one of the major tasks of labour market policies. Neoclassical economics highlight the benefits of flexible labour markets (Layard et al., 2005). The claim is that flexible labour markets are more open and inclusive because of lower hiring and firing costs. It is suggested that low levels of regulation enable the economy to adjust to fluctuations leading to higher levels of employment overall. In addition, the frequent combination of a rigid labour market with generous benefits in European countries is seen to provide disincentives for the job search activity of those without employment. However, reintegration is not completed with the entrance to the labour market but is much more a process of establishing a stable position. As firing is easy, low levels of job security and instable career trajectories are considered the negative consequences of a flexible labour market. The common assumption is that job security and long-term employer-employee relations are found more frequently in regulated and coordinated market economies (Hall and Soskice, 2001). Benefits allow job-seekers a prolonged search process, which leads to better job matches, and the regulated labour market compensates for its presumably lower transition numbers by providing stability resulting in better labour market reintegration in the long run (Gangl, 2004, Gangl, 2006).

Contrasting these widespread expectations, proponents of the ‘flexicurity’ model argue that smooth transitions back into the labour market result in high levels of employment also over the individual life course as spells of non-employment are kept short (European Commission, 2007, Wilthagen, 2005). According to this understanding, a flexible labour market can provide long-term economic assurance by achieving employment security instead of job security. Additionally, the literature on dualization processes contends that the traditional regulated labour markets only protect those at the core of the work force from volatile labour market careers, thus instilling doubt in the integrative powers of these institutional setups (Emmenegger et al., 2012a, King and Rueda, 2008, Palier and Thelen, 2010). This study compares reintegration trajectories of individuals in a flexible labour market, the United Kingdom (UK), with a highly regulated one, Germany, in order to answer the question which system can provide individuals with consistent employment after non-employment.

Losing a job or leaving it is considered an event of major impact on the subsequent labour market career. Existing research shows that breaks in the work history leave significant

scars frequently leading to losses in income and job quality (e.g. Arulampalam, 2001, Dieckhoff, 2011, Ruhm, 1991). There is also evidence that the institutional context moderates the severity of these scars (Dieckhoff, 2011, Gangl, 2004, Gangl, 2006). Regarding the long term labour market reintegration, studies show that the experience of unemployment also increases the likelihood of subsequent unemployment spells (Arulampalam, 2001, Belzil, 1995). Although there is thus evidence that subsequent events within labour market careers are not independent from each other, most studies exploring labour market reintegration focus on single transitions using event history models. In contrast, the concept of holistic trajectories emphasizes that single events cannot be analysed in isolation but the continuity of these transitions needs to be accounted for (Aisenbrey and Fasang, 2010). The method of choice to follow individuals' life courses and to explore different types of career trajectories is sequence analysis (Abbott and Hrycak, 1990). While its application to labour market processes is becoming more frequent, sequence analysis' predominant use so far is to explore patterns of labour market entry after leaving education (e.g. Anyadike-Danes and McVicar, 2010, Brzinsky-Fay, 2007, Malo and Muñoz-Bullón, 2003, Scherer, 2001). This study argues that sequence analysis can yield important new insights regarding the questions of long-term labour market reintegration under different institutional regimes.

The article proceeds as follows: The next section debates the theoretical background, presents the labour market regimes of the UK and Germany, and formulates expectations. Subsequently the British and German data are described and methodological principles of sequence analysis and optimal matching are introduced. After presenting and discussing the empirical results conclusions are drawn.

Theoretical Background

The UK and Germany are two of the most frequently compared economies in labour market research. The institutional setup of the two countries is very different: In Europe, the UK is the prime example following a strongly supply-side oriented labour market policy approach. Market forces are supposed to lead to optimal outcomes and incentives are set in a way to foster market participation. While the labour market structure and welfare state arrangement of the UK are faced in that direction no later than the Thatcher-era, Labour governments have since only moderately countered these developments (Lindsay, 2007). Germany is often seen as the prototype of a strongly coordinated market economy and a status-preserving welfare state (Esping-Andersen, 1999, Hall and Soskice, 2001). German reform projects since the late

1990s are concurrently oriented towards re-commodification while keeping path-dependent idiosyncrasies (Dingeldey, 2007).

The crucial institutional arrangement for transitions on the labour market and thus for reintegration dynamics and career stability is labour market regulation and in particular employment protection legislation (EPL). Mainstream economics contend, that high levels of EPL inhibit easy firing of employees, which in turn leads to lower number of new hires as fewer positions free up and employers are more cautious in handing out permanent contracts (Layard et al., 2005). Thus, by slowing down the in- and outflow of the labour market, non-employment terms should be prolonged. On the other hand, EPL benefits workers already positioned in the labour market by impeding layoffs. Thus, longer and more stable spells of non-employment and employment can be expected under higher levels of EPL (Boeri and van Ours, 2008). In Germany, a comparatively high EPL is an integral part of what Hall and Soskice (2001) call the prototype of a coordinated market economy. Despite the international deregulation impetus and recommendations by the OECD and the EU, German governments since the 1980s still only relaxed regulations for temporary contracts. Being a representative of liberal market economy, the UK shows fittingly low labour market regulation (Hall and Soskice, 2001). Conservative governments further deregulated existing legislation until the Labour government reduced the qualification period, in which employees cannot claim unfair dismissal from two years to twelve months.

Hypothesis 1: A low level of EPL leads to shorter stays in non-employment, but also a lower degree of stability after re-entries to the labour market in the UK. German trajectories after non-employment are characterized by relative stability and low numbers of different episodes.

However, recent literature detecting processes of dualization in European labour markets emphasizes that only insiders profit from high levels of regulation (Emmenegger et al., 2012b). In Germany the inner core of the labour market was spared from the institutional changes that increased flexibility and lowered regulations for temporary work contracts, part-time positions and self-employment (Eichhorst and Marx, 2011, Palier and Thelen, 2010). As insiders are usually regarded workers with permanent full-time contracts, individuals who lost or left their job are outsiders by definition. From a signalling theory perspective, individuals without employment wear the stigma of losing or leaving their job, which expresses lower productivity and human capital losses (Gibbons and Katz, 1991, Spence, 1973). In the light of

high levels of employment protection, employers might be more reluctant to hand out permanent contracts. Especially since regulations for temporary contracts have been lifted, they provide an opportunity to screen potential workers for up to two years and to build a buffer for times of economic downturns. Hypothesis 2 therefore contrasts Hypotheses 1 in the case of Germany.

Hypotheses 2: Strong regulation for jobs at the core of the labour market will lead to less secure positions at the fringes and thus increase instability of reintegration for those who lost or left their jobs.

The level of decommodification, i.e. the degree of independence from labour market income that is provided by the welfare regime, is central for processes of labour market reintegration as well. Economic theory emphasizes the disincentives to work provided by “free” income, be it unemployment benefits, social assistance, pensions, or incapacity benefits (Layard et al., 2005). By raising reservation wages and labour costs, benefits are deemed to lower overall employment levels. Esping-Andersen (Esping-Andersen, 1999) subsumes the German welfare state under the conservative regime type. Unemployment benefits are rather generous but closely related to former earnings. But also social assistance provides individuals with a significant income in international comparison. The British liberal welfare state in contrast offers only low levels of decommodification (Esping-Andersen, 1999). Unemployment benefits are low and conditional. In the course of activation reforms in the mid-1990s, these conditions were tightened and a negative income tax was introduced to “make work pay” and to reduce entrapment in social assistance (Eichhorst et al., 2008). Benefits for disabled or long-term sick persons are a special case in the British welfare state. The relative ease and unconditionality with which invalidity benefits could be obtained until the late 1990s resulted in a disproportionally large number of individuals in this benefit scheme (Clasen et al., 2006, Erlinghagen and Knuth, 2009). In general, however, the welfare regime sets complementary incentives to labour market regulation in both countries. While low benefit levels force British workers who left or lost their job to seek a new job immediately, the more generous German welfare state provides income security to bridge longer breaks between employment spells. Thus, the expectation is, that individuals without employment will take longer to re-enter the labour market in Germany (Hunt, 1995). The welfare regime complements labour market regulation and strengthens Hypothesis 1. Also in line with Hypothesis 1, Gangl (2004) makes the convincing case that higher payments with

longer duration allow jobseekers to search for better job matches, thereby decreasing the probability of future separations and increasing employment stability (see also: Pollmann-Schult, 2005).

Yet, high benefit levels can also be seen to strengthen the arguments made for Hypothesis 2. From an insider-outsider perspective, higher reservation wages strengthen union bargaining strategies, again increasing the gap between insiders and outsiders (Bertola et al., 2007). The social protection connected to stable insider positions in Germany also causes extra costs for employers. This might increase their willingness to offer only temporary contracts and thus unstable reintegration. The same line of reasoning not only contradicts Hypothesis 1 but also suggests bigger social differences in the reintegration process in Germany. Based on signalling arguments, employers provide individuals with the opportunity of stable labour market re-entry relying on the signals they omit. Social groups send different signals of work commitment and human capital. Typically, women, low educated individuals, youth and older workers are considered to be less productive in this sense. According to human capital theory, it is not only individuals with low levels of educational attainment who are equipped with low human capital (Becker, 1964). Human capital arguments also apply to discrepancies in employment prospects of different age groups. Younger workers have disadvantages at entering the labour market as they can show educational credentials but not work commitment and experience (e.g. Mincer, 1974). Older workers usually can signal more experience and willingness to work with previous employment spells, but employers are reluctant to invest in further education of individuals whom they do not expect to stay long-term (Taylor and Walker, 1994). Their specific human capital might also be not well adjusted to technological development. Human capital theory furthermore extends to gender discrepancies. The notion of human capital depreciation highlights the negative consequences of work interruptions. Career breaks caused by motherhood are discussed extensively in the labour market body of research (e.g. Goldin and Rouse, 2000, O'Neill and Polachek, 1993). In a regulated labour market with high costs of social protection, employers can be expected to be more cautious and thus more selective in their choice of workers.

Hypothesis 3: The social differences between men and women, age groups and educational levels in being able to establish a stable re-entry to the labour market will be larger in Germany than in the UK.

In the discussion of achieving employment security, the notion of employability, i.e. having the necessary set of skills to take on a new job, is paramount. Comparative studies on the integration into the labour market put emphasis on the differences in the educational systems and how they connect to labour market structures (Gebel, 2010, Hillmert, 2002, Scherer, 2001). One important aspect for education-job fits is the generality or specificity, respectively, of acquired skills (Shavit and Müller, 1998). Vocational specificity that is stated in highly standardized certificates sends clear signals about an individual's skills to potential employers. This close link can be found between the German educational system with its emphasis on vocational training and the occupationally structured German labour market (Blossfeld and Mayer, 1988). Jobs that require vocational training are disproportionately frequent in the manufacturing industries and usually connected to permanent full-time positions. Skill specificity, however, might also lead to longer waiting periods, since matching job demand needs to arise. Furthermore, the German labour market is strongly segmented according to different skills due to the strong connection between education and occupations. The skill divide therefore results in uncertain work arrangements in lower labour market segments for those with lower skill levels (Gebel, 2010). In contrast, the link between education and employment is weak in the UK. Since education is rather general and certificates are not tailored to employers' needs, the educational system only provides unclear signals (Kim and Kurz, 2003). The internal labour market facilitates entry by supporting on the job training and high mobility levels. The consequence of the uncertainty in the matching process on the British labour market should be high number of job changes and lower stability in work careers. The large secondary labour market in the low-wage sector gives chances to low educated persons but without any guarantees for stability (Brown, 1990). In general, the differences in the educational systems and their connection to the labour market lock in with labour market regulation and the welfare regime. They support the expectation that both non-employment terms as well as employment should be more stable in Germany and thus strengthen Hypothesis 1. The social distribution of stable labour market re-entries should be more stratified according to educational credentials in Germany with special advantages for individuals with vocational training, which adds another dimension to Hypothesis 3.

Methodology & Data

Sequence Analysis

Sequence analysis can be called an elaborate descriptive method enabling a comprehensive view on the context of causal relationships. It is not the instrument of choice if the aim is to find specific causal mechanisms but highlights the context, which needs to be considered in order to appropriately assess single transitions in the life-course. Although life course approaches aim to use a holistic view on life trajectories, underlying theoretical models and derived hypotheses are always targeting single transitions. Despite the focus on path dependent processes and the incorporation of historic states in terms of context conditions, the single event lies at the core of the explanation. Sequence analysis' advantages as a methodological instrument are not in the area of testing causal mechanism since it cannot account for unobserved variables and time-varying factors. However, the exploratory nature of this approach enables research to refine theories of single transitions concerning their embeddedness in complete trajectories and their interdependence.

The use of sequence analysis in sociology was stimulated by Abbott, who used optimal matching to identify similarities between life courses of German musicians in the 18th century (Abbott and Hrycak, 1990). Optimal matching has since been the most frequently used means to compare sequences. The basic idea behind this method is the definition of simple operations that transpose one sequence until it is like the other. Three elementary operations are considered: *Insertion* is the introduction of a new element into the sequence. *Deletion* in turn is the exclusion of an element. Finally, *Substitution* is the process of changing on element into another. The core idea for a distance measure between two sequences is the shortest way in which one sequence can be transformed into another. Abbott and Hrycak (1990) extensively describe the algorithm that is necessary to calculate these operations. The distance between sequences, the so-called Levenshtein distance, is simply the sum of the operations needed. Result of the algorithm is a matrix indicating the distance of all the sequences to each other.

This principle can be adapted by weighing operations. The distance measure for sequences heavily depends on the specification of substitution and indel cost (insertion and deletion). In general, there are only few guidelines. The specification of costs for different operations is also one of the main points of critique that has been brought forward (Wu, 2000). Wu (2000) criticises a lack of theoretical reason for specific cost structures. However,

there are several approaches to solve this problem (Aisenbrey and Fasang, 2010). A more inductive procedure, for instance, is to derive cost matrices from the data in use, by making transition costs dependent from the frequency of how often these specific transitions actually happen. This study follows the advice of Anyadike-Danes and McVicar (2010) and tests the sensitivity of the outcomes for different cost specifications (unweighted and weighted with a substitution cost matrix). Results are surprisingly stable across different specifications. As Anyadike-Danes and McVicar (2010) point out, it seems the patterns are just waiting to be discovered. The results presented are the ones using a substitution cost matrix based on the actual occurrence and frequency of transitions.

In answering other criticisms of the method, there are suggested improvements and alternatives to optimal matching, mostly with the goal of improving the sociological meaningfulness of the operations (e.g. Aisenbrey and Fasang, 2010, Elzinga, 2010). Especially useful regarding the questions of this study is Halpin's (2010) suggestion to weigh the operation costs inversely by the length of the episode. The straightforward optimal matching algorithm does not discriminate between, for instance, deleting one month of a 20 month episode in non-employment or deleting a whole one month break without employment between two episodes of being in a job. By making the substitution of a sequence element more costly if it is part of a short episode, this enhancement ensures that short term breaks in work careers are not so easily overlooked. The present analysis therefore adjusts distance matrices produced by optimal matching by weighing the elementary costs with the length of the episodes.

Optimal matching does not deliver any meaningful classifications of the sequences. Therefore, the distance matrix obtained through optimal matching is used in cluster analysis with a Ward algorithm in order to find the most typical homogenous patterns of trajectories after non-employment. As both the optimal matching procedure and cluster analysis are inductive methods whose results are driven by features of the data, the analyses are conducted separately for the UK and Germany.

Sample Construction

For both the United Kingdom and Germany panel data studies give rich information on individual work careers. The British Household Panel Study (BHPS) started in 1991 with a representative sample of around 5 500 households wherein 10 300 household members were

interviewed. Since then, additional samples have been introduced for Scotland, Wales, and Northern Ireland. Interviews with the respondents are conducted at one-year intervals subsequently. The BHPS collects information on various aspects of individuals' lives, one of the core areas being the employment conditions and work history. Individual labour market careers can be constructed from 1990, where the respondents first had to indicate their labour market status, until the last interview. Furthermore, respondents were asked to give a full history of their employment status and occupations in the second and third wave. The German dataset, which resembles the BHPS in many aspects, is the German Socio-Economic Panel (GSOEP). This panel study took off in 1984 in close to 6 000 Western German households with around 12 300 adult members. Since then, there have been a number of sample refreshments to balance panel mortality and increase representativity. In 1990 the GSOEP expanded its survey population to East Germany. This study, however, is constrained to West Germany because of the persisting economic differences between East and West. Furthermore, I restricted the German data to the original sample and refreshment samples in order to avoid overrepresentation of specific groups and to keep the two datasets comparable. In the GSOEP every new respondent to the survey is asked to give a full summary of his or her previous employment history.

By merging the information from on-going interviews and retrospective surveys, individual work histories can be constructed from the point of leaving education. In case of inconsistencies and overlaps between the different datasets, preference is always given to the source of information most recent to the information in question. To ensure individuals are not only in-between education spells and in order not to look at insignificant jobs, they are included into the sample only after they had at least 12 consecutive months out of education. In the German case, military service is not counted as labour market entry either. The study is interested in long-term trajectories after the incidence of either losing or leaving a job. Therefore it takes a look at five-year periods after the first observed non-employment episode of individuals. Only individuals who worked before are included in order to not conflate results with those who have no interest in entering the labour market at all. Thus the sequences begin with $T=1$ at the first incidence of non-employment, i.e. when respondents indicate their main activities as being unemployment, household responsibilities, long-term sickness or disability. Individuals declaring themselves as retired at $T=1$ were excluded from the sample since they can be considered to have left the labour force for good. As sequence analysis has no way of dealing with censoring, this problem has to be contained in the process

of assembling the data. Left censoring is prohibited by only including sequences where the first non-employment spell is observed after December 1991 in order to have full information on the on-going sequences in both datasets. Right censoring is avoided by defining January 2005 as the latest starting point as data is only available until December 2009. Only complete 60 months sequences are considered. Because gaps in the data constitute a problem not only for interpretation but also for sequence analysis, individuals are left out of the sample if missing employment status information in these 60 months amount to more than 12 months. After the exclusion of cases with missing values on covariates we are left with a sample of 2,388 sequences in the BHPS and 3,165 in the GSOEP.

Measures

Sequence analysis requires a specific structure of data. Every observation shows an ordered list of elements. In the case of this study these elements represent labour market states. The position of the single elements is fixed by elapsed time. The sequences themselves consist of the chronologically ordered labour market states of the individuals. To arrive at the typical patterns of labour market reintegration, these sequences are built on the mere distinction between non-employment and employment. For descriptive purposes, various types of employment and non—employment are distinguished. Jobs can either be part-time or full-time. Information on temporary and permanent contracts is not consistent over the course of the panels, which is why this distinction is not made in the analysis. As the study looks at employment status sequences in the long run, it can be argued that the results will show the outcome of contract types if they have serious consequences. Non-employment spells can consist of unemployment, household responsibilities (which includes parental leave because of low case numbers), long-term sickness and disability, return to education, retirement, and a category for other activities and missing information. The British employment status of long-term sick or disabled has no direct equivalent in Germany. Thus seven different labour market states in are distinguished in Germany and 8 in the UK. For the case of individuals indicating parallel states a hierarchy is introduced, in which education ranks higher than part-time employment and full-time employment which in turn rank above unemployment, retirement, long-term sickness or disability in the UK, household responsibilities, and other activities or missing information.

For the description of the sample composition as well as analyses of social allocation across different sequence types, measures of individual characteristics are taken for their

values at the start of the sequence. The datasets contains a dummy variable for sex and four more dummies for low, medium, vocational and high education. The educational levels are grouped together according to the CASMIN classification, which is particularly adequate for international comparisons (König et al., 1988). Age is grouped into 3 categories: youth (15-24), prime-aged (25-49), and older workers (50-64), whereby only individuals up to the age of 59 can start a sequence because of the needed observation period of 5 subsequent years.

Empirical Results

Sample composition and overall mobility

As Table 2 shows, the composition of the sample differs in the two countries, indicating that there is country-specific socio-demographic selection into non-employment. Women more frequently lose or leave their job in both countries. They provide 57% and 54% of the British and German sample, respectively. The differences between the United Kingdom and Germany are larger in the distribution across age groups. While in the UK, 40% experience the first non-employment after entering the labour market already at a young age; only 26% of the Germans between 15 and 24 lose or leave their job. According to its wider span, the dominant category is the prime-aged, with 61% in Germany and 51% in the UK. Finally, a smaller number of individuals experiences non-employment only at higher age (9% in the UK, 14% in Germany). The most drastic differences in the sample composition can be found in educational levels. First non-employment is rather evenly distributed in the UK (low educated: 21%, medium educated: 30%, vocational training: 21%, high educated 27%). In contrast, 62% of the German sample consist of individuals with vocational training while the other categories are comparatively small (low educated 13%, medium educated: 11%, high educated: 14%). This reflects not only distinct selection into non-employment but is also partly due to compositional effects. Population rates with high educational levels are significantly higher in the UK whereas vocational training is much more common in Germany. When later on interpreting the social distribution of distinct career trajectories after non-employment, the differences in the initial selection into non-employment have to be kept in mind.

Table 1: Social composition of the samples

	UK	Germany
GENDER		
men	43%	46%
women	57%	54%
AGE GROUP		
youth (15-24)	40%	26%
prime-aged (25-49)	51%	61%
older (50-64)	9%	14%
EDUCATION		
low education	21%	13%
medium education	30%	11%
vocational training	21%	62%
high education	27%	14%

Source: BHPS, GSOEP 1992-2009, own calculations.

Starting with non-employment, the overall mobility in subsequent years is of great interest. Very low mobility in a national economy can be seen as an indication for low chances of re-entering the labour market. Very high numbers, however, might result from rather instable career patterns. One indicator of overall mobility is the number of different episodes the individuals experienced over the course of their 60-month sequences. On average, British individuals experience 2.56 different episodes over the 60-month sequences, while Germans show a slightly higher mobility with 2.75 episodes of non-employment and employment. Furthermore, 52% of all the observations within the sequences represent a month of non-employment in Germany compared to 45% in the UK. These descriptive results seem to reject the hypotheses of the greater fluctuation in the British labour market and indicate greater success of the British system to reintegrate individuals who lost or left their job.³

Description of the clusters

For an understanding of what lays behind these differences on the aggregate level, the following section presents the results from the optimal matching procedure and the ensuing cluster analysis. The choice of number of clusters lies with the analyst. Based on theoretical and substantive reasoning, five sufficiently distinct and homogenous clusters provide a reasonable solution in both countries. As these results are based on separate datasets comparability is an issue. As it turns out, however, the typical sequences resemble each other

³ Bear in mind though that direct job-to-job changes are not observed in these data, it might therefore still be the case, that British individuals change jobs more often.

in the UK and Germany. This result taken from the inspection of the different sequences grouped within the clusters is supported by the similarities in their characteristics, which are displayed in Table 2. Yet, there are notable differences, which will be highlighted in the following descriptions.

Table 2: Clusters of typical labour market trajectories after job exit

	UK					Germany				
<i>cluster</i>	1 =>	2 =>	3 =>	4 =>	5 =>	1 =>	2 =>	3 =>	4 =>	5 =>
<i>description</i>	<i>quick and consistent return to work</i>	<i>later but consistent return to work</i>	<i>late and/or inconsistent return to work</i>	<i>very inconsistent return to work</i>	<i>consistent non-employment</i>	<i>quick and consistent return to work</i>	<i>later but consistent return to work</i>	<i>late and/or inconsistent return to work</i>	<i>very inconsistent (return to work)</i>	<i>consistent non-employment</i>
<i>frequency</i>	39%	21%	6%	5%	29%	29%	20%	13%	8%	30%
<i>non-emp.</i>	12%	34%	70%	39%	93%	14%	32%	68%	62%	92%
<i>n. of epis.</i>	2.78	2.74	3.05	4.03	1.86	3.36	2.77	2.95	3.98	1.68
<i>full-time</i>	66.6%	41.9%	17.5%	41.6%	3.5%	68.5%	41.4%	15.2%	19.3%	3.6%
<i>part-time</i>	18.1%	21.9%	11.0%	14.4%	2.7%	20.1%	24.9%	15.6%	18.9%	3.0%
<i>unemp.</i>	6.6%	12.2%	18.1%	11.4%	21.4%	7.3%	10.2%	17.9%	23.8%	30.5%
<i>early retirem.</i>	0.1%	0.2%	0.6%	3.0%	7.6%	0.1%	0.1%	0.9%	3.2%	14.9%
<i>hh. respons.</i>	2.4%	8.6%	21.1%	12.9%	34.6%	3.1%	10.4%	28.2%	23.7%	34.9%
<i>sickn./disab.</i>	1.5%	4.6%	9.8%	3.9%	20.6%	-	-	-	-	-
<i>further edu.</i>	1.7%	8.6%	20.8%	6.0%	7.3%	3.9%	11.6%	21.2%	9.4%	10.4%
<i>other/miss</i>	3.0%	2.1%	1.2%	6.9%	2.2%	2.1%	1.5%	1.0%	1.9%	2.9%

Source: BHPS, GSOEP 1992-2009, own calculations.

Opposite of each other are Clusters 1 and 5, both of which incorporate the largest groups of sequences in the UK as well as in Germany. Sequences in Cluster 1 can be described as consisting of rather short spells of non-employment followed by rather consistent return to employment. On average only 12% and 14% of the observed months are spent in non-employment in the UK and Germany, respectively. The cluster can be considered to provide high employment security. The largest part of the sequences is spent in full-time jobs (UK: 66.6%, Germany: 68.5%) while part-time plays a smaller role (UK: 18.1%, Germany: 20.1%). When individuals in Cluster 1 are without employment, they are mostly unemployed (UK: 6.6%, Germany: 7.3%) and thus actively searching for a job. The cluster differs in that the

average number of episodes is 2.78 in the UK compared to 3.36 in Germany, indicating that a quick return to work is more consistent in the British labour market. Furthermore, 39% of the observed British individuals are members of this cluster, while in Germany it only represents 30%. The quick return to employment therefore is not only more consistent in the UK, it is also more common.

Cluster 5, on the opposite, groups the sequences that are almost consistently spent without employment (UK: 93%, Germany: 92%). Consequently, there are a low number of different episodes (UK: 1.68, Germany: 1.81) and the various forms of non-employment dominate the sequences. Household responsibilities make for around one third of this cluster (UK: 34.6%, Germany: 34.9%). In Germany unemployment is the next largest proportion with 30.5% hinting at problems with long-term unemployment. In the UK the additional state of long-term sickness or disability is almost as sizeable (unemployment: 21.4%, sickness/disability: 20.6%), which supports existing findings of incapacity benefits providing an alternative pathway out of the labour force in the British labour market regime (Erlinghagen and Knuth, 2009). On average 7.3% of this cluster are spent in further education in the UK and 10.4% in Germany. Finally, 7.6% and 14.9% of the observed months in Cluster 5 are individuals in early retirement in the UK and Germany, respectively. This also means that almost all observations of early retirement in the samples can be found in this cluster. Although, the distribution across different types of non-employment differs to some degree between the two countries, this cluster represents individuals who are unable or unwilling to return to work in both. With 29% and 30% of the sequences it also has comparable size in the UK and Germany.

In comparison to Cluster 1, Cluster 2 is composed by individuals who spend a longer time in non-employment (UK: 34%, Germany: 32%) but still return to employment rather consistently (number of episodes UK: 2.74, Germany: 2.77). It also differs from Cluster 1 by the higher proportion of part-time employment (UK: 21.9%, Germany: 24.9%) and the correspondingly lower percentage of full-time jobs (UK: 41.9%, Germany: 41.4%). Different types of non-employment take comparable parts of the clusters with early retirement playing almost no role. Despite the larger percentage of non-employment the low number of different episodes indicates that the individuals in this cluster still experience a rather high level of employment security. With 21% and 20% a similar number of individuals are members of Cluster 2 in the two countries.

Cluster 3 shows a slightly higher number of different episodes (UK: 3.05, Germany: 2.95) and a significantly larger percentage of months without employment (UK: 70%, Germany: 68%). While the spells spent in full-time employment still outweigh part-time employment in the UK (17.5% and 11.0%), they show almost the same number in Germany (15.2% and 15.6%). Different types of non-employment are spread similarly in Cluster 3 in both labour markets, with the exception of the missing sickness/disability category that is missing in Germany and a correspondingly higher number of months of household responsibilities. The cluster shows a large amount of months in further education (UK: 20.8%, Germany: 21.2%). Interpreting this as education leading to inconsistent careers with high proportions of non-employment is deceiving as the time spent in education already is a big part of overall non-employment. Nevertheless, within the observed 5-year window, individuals in this cluster have a comparatively low employment security. It is markedly more prevalent in Germany (13%) than in the UK (6%).

Finally, Cluster 4 shows a very high number of labour market status changes (number of episodes UK: 4.03, Germany: 3.98). Its composition in regards to labour market states differs significantly between the UK and Germany. While these fluctuations result in only 39% non-employment in the UK with most of the employment being full-time (41.6% compared to 14.4% part-time), in Germany non-employment dominates this cluster (62%) with 19.3% of the sequences in full-time employment and 18.9% in part-time. Correspondingly, the numbers for unemployment (23.8%) and household responsibilities (23.7%) are higher in Germany. The high volatility of labour market states in this cluster leads to high employment insecurity in both countries. However, in the UK the insecurity is connected to longer episodes in employment. This rather small Cluster 4 (UK: 5%, Germany: 8%) is the least comparable between the two countries.

The overall allocation to the clusters and how they differ at times between the UK and Germany indicate higher employment security in the British labour market. Patterns of (relatively) stable return to employment are more frequent in the UK (Cluster 1). Later returns as well as more disrupted attempts of labour market re-entry are more frequent in Germany (Clusters 3 and 4). The evidence thus supports Hypothesis 2. In the highly regulated German labour market those who at one point fall out of the protection of insider positions have trouble of consistently returning to employment. Job exit leads to an outsider status, which in comparison to the UK seems to leave a more consequential mark in the long-term career

trajectory. Consistent non-employment is found similarly frequent in both countries. As the British welfare state only offers low levels of benefits, this can be regarded more problematic in the UK.

Social Allocation to the Clusters

Table 3 shows how different social groups are allocated to the clusters. By comparing the percentages of the groups to the percentage to which the total population is member of a particular cluster, we can see which groups are over- and underrepresented in the clusters.

Table 3: Social distribution of the clusters

	UK					Germany				
Cluster	1	2	3	4	5	1	2	3	4	5
total	39%	21%	6%	5%	29%	29%	20%	13%	8%	30%
male	48%	19%	6%	5%	22%	35%	20%	10%	7%	28%
female	32%	23%	5%	6%	34%	23%	20%	17%	8%	32%
low educ.	30%	21%	4%	5%	39%	17%	15%	15%	10%	43%
medium educ.	39%	19%	6%	5%	32%	28%	21%	12%	8%	30%
voc. training	40%	22%	7%	6%	26%	31%	21%	18%	6%	23%
high educ.	46%	23%	4%	5%	22%	39%	22%	12%	7%	21%
15-24	43%	23%	6%	7%	21%	29%	19%	17%	9%	26%
25-49	38%	22%	5%	4%	31%	33%	24%	13%	8%	23%
50-64	29%	13%	4%	6%	48%	10%	7%	6%	7%	70%

Source: BHPS, GSOEP 1992-2009, own calculations.

In both the UK and Germany, men dominate cluster 1 and therefore find a quick and (rather) consistent way back into work. In the other clusters, men are either underrepresented or do not deviate from the total distribution. Still, a large number of men in both countries stay consistently out of employment or at least struggle to be reintegrated with high stability. Not surprisingly women more frequently stay non-employed or show sequences with a higher number of transitions. Especially in Germany they are overrepresented in clusters 3 and 4, which only offer low employment security. However, the gender differences are not as strong as expected, especially in Germany. This might be related to the selectivity of the samples as only individuals who already were employed are included, thus only women who are willing to work are observed. This selection phenomenon could be more extensive in Germany.

Turning to educational levels, an almost linear distributional pattern is visible. Low educated individuals are strongly underrepresented in the cluster offering high employment security and most frequently stay consistently out of employment. Not only is this relation stronger in Germany, here low educated also are disproportionally often in the clusters with high levels of fluctuation and phases of non-employment. In both countries, higher levels of education are associated with a more consistent return to the labour market. Especially individuals with high education or vocational training find themselves less often in Cluster 5 and more frequently in Cluster 1 and 2. Vocational training is also overrepresented in Cluster 3 – especially in Germany. It can be argued that these individuals might have to wait longer for job opportunities but then find relatively stable employment.

In Germany, Cluster 1 and 2, which offer high or at least moderate employment security are most frequent for the prime-aged. In the UK in contrast, it is the young who are overrepresented here. The youth in Germany show low numbers for consistent non-employment, too. However, they are overrepresented in Clusters 3 and 4, thus only inconsistently return to the labour market more often than the average population. Older workers find stable new employment relatively rarely and most often stay out of employment over the five-year sequences in both countries. This pattern is much more frequent in Germany, however, showing that older workers have only low chances to be consistently reintegrated into the labour market.

These results partially support Hypotheses 3. Except for gender differences, Germany's social distribution of the clusters is more unequal. Surprisingly, vocational training does not help to a consistent labour market reintegration to the expected degree. The high number of young British individuals finding a stable re-entry to the labour market might be related to the fact, that – as the sample composition shows – it is a much more common phenomenon to be without employment in young age in the UK, therefore the stigma effects in the eyes of future employers are less strong.

Conclusions

This study's aim was to take a look at the processes of labour market reintegration after job exit. To this end, the analysis compared individuals' labour market trajectories over 60 months starting with the first non-employment after losing or leaving a job using data from the UK and Germany in the period from 1992 to 2009. Sequence analysis enabled a view that

exceeded the focus on single transitions and rather emphasized long-term dynamics. The high numbers of employment status changes and the fact that a majority of non-employed individuals cannot establish themselves in a stable labour market career indicated, that it is problematic to only focus on single transitions in labour market processes. By highlighting interdependence of subsequent states, sequence analysis enabled a more comprehensive picture of individuals' life courses. In further developing it and in combination with methods more focussed on causal relationships, important insights about labour market processes can be expected in the future.

The form of typical patterns after non-employment was surprisingly similar in both countries. Not only regarding the overall distribution of spells between employment and non-employment, but also in more detail when distinguishing types of jobs and main activities of the jobless. However, the overall as well as the social distribution differed significantly. Consistent return to work was found to be less frequent in Germany. The British labour market system provided a higher level of employment security for those experiencing a job exit. Overall mobility levels and percentages in unstable career trajectories were lower in the UK. Additionally, the chances of consistent labour market reintegration were spread more unequally across educational levels and age groups in Germany. Evidently, the special group under observation – those who lost or left a job - is not profiting from the advantages the institutional contexts offer to the core work force. From a comparative perspective, neither do the German benefit levels seem to help improve job matches nor does employment protection increase employment stability. This is in stark contrast to existing evidence (Gangl, 2004, Gangl, 2006). On the other hand, the group of individuals who consistently stay out of employment is equally large in both countries. Considering the low levels of benefit generosity, their situation is more problematic in the UK.

As a consequence of the institutional setting in both countries, the observed group might be much more selective in Germany. While the labour market regime is likely to already be more selective in terms of which parts of the population enter the labour market in the first place in Germany, the experience of losing or leaving a job is more evenly distributed in the British population, too. This, however, does not change the problematic position of those who exit a job and find themselves on the outside of the dualized German labour market. Concerning recent policy changes, the study's results therefore are in line with the expectations of the literature on dualization. The flexibilization of regulations only on the

labour market's fringes is highly problematic for labour market outsiders. In contrast, the flexible labour market of the UK offers higher employment security and spreads it more socially equal. It has to be kept in mind, however, that some aspects of job quality were not considered in this study. For instance, there was no measure of the security employees actually feel in their jobs. It is debatable if individuals prefer employment security to job security. Direct job changes were not observed in the present analysis. Even without spells of non-employment in between, workers might find high workplace mobility straining. Finally, as the discussion about employment security originated from the Danish 'flexicurity' concept, future research should explore if the benefits of a flexible labour market regarding long term labour market reintegration cannot be combined with the social advantages of income security provided by generous welfare benefits.

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