

NEGOTIATE

Overcoming early job-insecurity in Europe

Methodological challenges in the study of scarring effects early job insecurity

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Investigating Scarring Effects of Youth Unemployment: Competing Theoretical Perspectives and Methodological Challenges

Abstract

Entering the labour market during recession and becoming exposed to unemployment in early career may not only affect the establishment of youth within the labour market temporarily and in a transitory manner, but may rather lead to long-lasting adverse consequences concerning future job prospects and labour market integration. Persisting consequences of employment instability and unemployment have come to be known in the literature as scarring effects. Explaining scarring, diverse demand- as well as supply-side mechanisms are thought to be at a play, which are not easily disentangled in their effects. In addition, the empirical investigation of scarring effects is complicated, as causal effects of unemployment on subsequent employment prospects cannot easily be identified. A cross-national comparative investigation of scarring effects is further limited by comparable data availability allowing for a separation of causal effects at an individual level.

This working paper considers the complexity concerning the explanation and investigation of scarring effects and sheds some light on the manifold mechanisms underlying scarring. It also deals with the methodological challenges in their investigation. A suggestion is made for a promising approach concerning an internationally comparative investigation of scarring effects of youth unemployment.

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1. Introduction

Youth are particularly vulnerable to economic downturns because often new hiring is cut at the onset of a crisis and newcomers are hindered in setting foot in the labour market. In addition, young workers already settled are more likely to lose their jobs than older employees in the course of an economic downturn as from their work experience they mean a smaller loss to firms. Overall, young people are the ones *last-in* and *first-out* when the economy enters recession. Due to lack of seniority their jobs are not well protected by labour law and compensation for redundancy is typically less expensive to firms (Vandenberghe 2010: 4-5; Bell and Blanchflower 2011).

Moreover, not only does the higher vulnerability of young people to overall economic conditions make recessionary years especially difficult regarding their labour market

integration. In addition, research has highlighted that unemployment exposure can be rather persistent in its adverse consequences concerning young people's future careers and labour market integration as well as their future subjective well-being (Nilsen and Reiso 2011; Nordström Skans 2004; Luijkx et al. 2009; Schmillen and Umkehrer 2013; Gregg and Tominey 2005; Bell and Blanchflower 2011). Such adverse consequences of the experience of employment instability and unemployment on future employment outcomes are known in the literature as *scarring effects*.

A vast body of literature suggests that unemployment comes along with a considerable degree of persistence (Arulampalam et al. 2000, 2001; Stewart 2007). On the one hand, unemployment persistence can be explained by individual characteristics such as low qualifications, low motivation or a general lack of abilities, that make someone more likely to be unemployed successively (Biewen and Steffes 2010). On the other hand, it has also been proven that experiencing an unemployment spell increases *by itself* the likelihood of suffering unemployment again in the future – this type of scarring has come to be known among labour economists as *genuine state dependence in unemployment*. Besides scarring in terms of higher risk of subsequent unemployment, career prospects of formerly unemployed may also be hampered because of difficulties to secure high-quality jobs with good career prospects after exposure to unemployment. Thus not only higher risk of future unemployment but also lower career advancement in terms of lower promotion prospects, lower upward mobility concerning occupational status and lower wage growth among other factors, may characterise subsequent (scarred) careers of formerly unemployed.

Different theoretical explanations have been proposed in order to frame and explain scarring effects of employment instability, which will be briefly summarised and reflected upon for the case of young workers and labour market entrants in the following. The diverse sources or mechanisms behind such scarring effects of unemployment have proven difficult to disentangle, such that scarring needs to be viewed against the background of a set of diverse mechanisms presumably leading to the observed scarring effects in a combined way. Following the review of theoretical mechanisms behind scarring, this working paper further sheds light on methodological considerations and challenges concerning the empirical investigation of scarring effects.

2. Mechanisms driving scarring

Both demand as well as supply-side factors may be seen as driving mechanisms of scarring effects.

2.1 Demand-side mechanisms: employer discrimination

Recruitment practices of employers may be thought to discriminate formerly unemployed such that those who experienced some unemployment face difficulties and relative disadvantages at future hiring. Even though discrimination based on the experience of unemployment has so far been mainly neglected in discrimination theory (Harvard Law Review 1997), several theoretical discrimination approaches may be thought to extend to the group of formerly unemployed and lend themselves to explain or at least approach continuing deprivation and difficulties in the labour market of individuals with unemployment records. For example, economic perspectives based on rational profit maximizing recruitment strategies and wage setting decisions of

employers draw on the fact that hiring is an uncertain investment for employers in that they do not know the productivity and ability of job applicants. Thus employers need to assess unknown productivity of job applicants based on differential and more or less easily observable characteristics (such as educational certificates), which they believe can proxy productivity. Such productivity indicators used by employers in order to assess productive capabilities at hiring then determine job offers and wage setting decisions.

Discrimination in an economic sense may be described as differences in remuneration while productivity across individuals or groups to perform on a job is actually equal. Since productivity is not easily observed at hiring, discriminatory differences in remuneration and job offers may come to the fore as employers need to assess productivity based on differential characteristics for different identifiable groups of job applicants in the labour market. Drawing on *signalling theory* (Spence 1973) disadvantages in remuneration of one group compared to another comparatively productive group of job applicants may be thought to come about if employers do not regard signalling power of certain productivity indicators, such as educational qualifications, as equally representative of productivity across different groups of workers. By this, workers from different identifiable groups may be offered different returns resulting in distinctive employment outcomes even though they may otherwise be similar in their productive capabilities.

These theoretical considerations may be extrapolated to recruitment strategies of employers that put the group of young applicants with an unemployment record at a relative disadvantage compared to young labour market entrants with no unemployment record. Borrowing from *signalling theory* one may assume that employers believe signals, such as educational certificates, to not equally proxy productivity across groups of formerly unemployed compared to those who were never unemployed, which may then be thought to result in relative disadvantages for the former. Drawing in a broader sense on signalling theory it is often even assumed that unemployment records or gaps in the work history may themselves be of a direct negative signalling at hiring, conveying direct information on lower productivity and ability. Phrased differently, employers may be more reluctant to hire individuals with a history of (long-term) unemployment because they simply believe this information to signal a deterioration of their former human capital or may simply assume unemployment experience to indicate less motivation and less productivity (Blau and Robins 1990; Clark et al. 2001; Lockwood 1991 and Omori 1997). Negative signalling of former unemployment at future hiring may also be thought of in terms of *rational herding*, which refers to the idea that recruiting employers may believe that unemployed applicants must have been previously interviewed and in case these applicants had proven to be productive, they would have already become employed (Oberholzer-Gee 2008).

In a similar vein to signalling theory, equally productive and skilled workers receiving different remunerations may also be explained based on *statistical discrimination theory* (Aigner and Cain 1977). Following Aigner and Cain (1977), group discrimination in labour markets or economic discrimination exists if groups with otherwise equal average productivity and ability levels receive different returns. These differential returns across groups are explained by differences in the reliability of indicators used by employers to assess unobserved productivity of job applicants in combination with employer's risk-aversion. Put in other words, if observable productivity indicators, e.g. educational credentials, are assumed to be less reliable

productivity proxies for one identifiable group compared to another, and if further employers are reluctant to offer the same remuneration when to them payoff seems more uncertain for a specific group, then this group may be at a relative disadvantage concerning hiring and wage setting decisions of recruiting employers. Extrapolating these theoretical considerations one may assume that employers view signals like educational credentials to less reliably proxy on-the-job performance of formerly unemployed. Employers may be more reluctant to hire young applicants with some gaps in the work history because the expected on-the-job performance of the latter is less clear. Therefore, these young workers may only be offered risk discounted (lower) returns, and they may have trouble finding (highly) skilled jobs, hindering their career advancement.

Assuming imperfect information at hiring and general differences in average productivity across certain groups in the labour market, discrepancies in returns and in assignment to jobs with good promotion prospects may also come to the fore as group differences in average productivity are integrated in hiring and wage setting decisions of employers. By this, *stereotyping and judgement based on average group characteristics* may set individuals from certain groups –such as formerly unemployed- at a relative disadvantage (Aigner and Cain 1977; Blau and Jusenius 1976: 194).

Beyond economically driven explanations of discriminatory recruitment practices of employers, a historically established work ethic preoccupied with productive, which is gainful work, in combination with an individualistic ideology putting the blame of “not being a productive citizen” on individuals, further serve to legitimise social inequality and exclusion of those not meeting these normative standards.¹ In this context, discrimination of formerly unemployed at future hiring may not only be explained by more or less rational recruitment practices of employers but may also be thought to go together with *social construction and ascription of an identity of unemployed* that is believed to convey information on negatively connoted individual characteristics, such as laziness, less motivation and devotion to perform well on a job. In that jobless are perceived as members of a distinctive “unproductive” social class with negatively connoted and norm deviant attributes, they are subject to common experiences of economic and social discrimination, stereotyping and by this to further exclusion from the labour market (Harvard Law Review 1997). In this light, emotions and *gut feelings* on whether or not a job applicant is expected to fit into the (firm-)culture and work team, not solemnly trading the applicant’s productive capabilities, may also play an integral part in hiring decisions of employers (Imdorf 2010), having their share in (re-)employment chances of formerly unemployed. In line, former exposure to unemployment or gaps in the work history may be thought to be relevant sorting criteria at future hiring in not solemnly rational ways. In this sense, one may also refer to an *unemployment stigma* (Biewen and Steffes 2010; Ayllón 2013).

Work Package WP7 will examine employment insecurity by analysing the consequences of employers’ assessment of different dimensions and signals of job insecurity (timing and length of unemployment, unqualified employment, participation in active labour market policies measures) in a job candidate’s CVs when hiring for qualified jobs. WP7 thereby aims at finding

¹ The authors of the Harvard Law Review (1997) refer particularly to the American case, yet their main arguments may also be thought to apply to the European context.

evidence for employer discrimination from an international comparative perspective as a demand-side mechanism of scarring effects.

2.2 Supply-side mechanisms: human capital and self-selection

Based on *Human Capital theory* (Becker 1964) one may assume that youth who are exposed to unemployment episodes in early work life do not have the possibility to accumulate as much job-specific human capital (e.g. job-specific skills) as other young entrants who experience smooth transitions and no career instability. If investment in job-specific human capital pays off, then differences in the accumulation of job-specific human capital across young workers goes together with differences in returns, such as for example, differential wages at a later stage. Moreover during times of economic inactivity it is further assumed that human capital may depreciate (Pissarides 1992). In other words, young entrants who experienced a smooth transition into a first job of short tenure may be thought to lose some of their work-related skills if they do not quickly find a subsequent job and spend some time unemployed searching for a new job. Drawing on human capital assumptions, employment continuity in early work life in order to gain work experience is to be regarded as highly important for career advancement. Against human capital perspectives, scarring may be thought to occur in that those young workers who gained less work experience due to the exposure to employment instability in early career stay behind in their career advancement (for example, in terms of their wage development).

Besides restrained human capital development one also needs to take into account *self-selection processes* by the formerly unemployed themselves that are at a play when focusing on scarring effects of unemployment. Drawing on economic *reservation-wage assumptions* (Mortensen 1986) one may assume that as time spent in unemployment passes by, the jobless may lower their initial expectations and become more prone to apply for and to accept jobs that offer fewer returns and worse career prospects. By this, exposure to unemployment and its duration may also be thought to alter the application-behaviour of the young concerned and by this their (re-)entry processes and future integration.

Further discouragement (Ayllón 2013) and habituation (Clark et al. 2001), referring to the situation where individuals who are unemployed for some time get used to be without paid work and become resigned towards their labour force status, may also alter search intensity and success of unemployed. In line, early employment instability may exert a *psychological impact* in that it adversely affects psychological well-being and self-esteem (Goldsmith et al. 1997; Goldsmith et al. 1996). This psychological impact may then in turn affects future job search behaviour and success and fosters scarring with respect to future employment outcomes. Drawing on Erikson (1959: 94-100) a healthy psychological identity formation is thought to encompass the formation of an occupational identity characterising the transition from adolescence to adulthood. In this regard not finding into stable employment in early career emerges as a risk factor concerning a healthy psychological ego development of young adults. Similarly, following Seligman (1975) the experience of events appearing uncontrollable -such as one may assume is the experience of unemployment- as well as unfavourable social comparison processes (Sheeran et al. 1995) are thought to be related to worse psychological well-being and a lowering of self-esteem. These adverse psychological implications yet may not simply stay at a purely psychological level but have in turn motivational and behavioural

consequences in that they may tend to diminish the initiation of responses to successfully gain control over outcomes that are perceived as uncontrollable (Seligman 1975). By this, psychological implications of unemployment exposure in early career may manifest themselves again in altered job-search behaviour of the young adversely affecting their re-integration and career advancement and, as a result, leave scars.

2.3 Variation of unemployment scarring across business cycles and countries

All in all based on these differently motivated theoretical viewpoints one may generally expect worse employment prospects and outcomes for the young who were exposed to unemployment at labour market entry and employment instabilities in early career. In this sense, graduating in a bad economy, where risk of unemployment exposure is high, may be scarring and potentially leading to scarred generations of youth. Previous literature has shown that stigmatisation of unemployed is particularly prevalent when individuals experience unemployment during periods of economic growth (when the unemployment rate is low). Biewen and Steffes (2010), following Lockwood (1991), show that when the unemployment rate rises, unemployment state dependence decreases, indicating that employers are less suspicious towards prospect workers who experienced unemployment during periods of economic downturn, when the unemployment rate was above its trend. Unemployment experiences at times when general unemployment is wide spread may be viewed by recruiting employers as bad luck in that structural job shortages existed, hindering job applicants independently of their productive skills to become gainfully employed. Instead, employers discriminate individuals that experience unemployment when the current unemployment rate is low. In periods of economic growth unemployment experiences may be regarded as signalling lower productive skills and less motivation.

In a similar vein it may be assumed that in countries with generally higher unemployment rates, unemployment stigma effects are smaller and thus unemployment may be less of a negative signal regarding future re-employment prospects. Additionally, when unemployment during the transition from school to employment is more common, it may also be socially and individually more widely accepted such that psychological implications of transitory unemployment for youth may be smaller. Up to this point however, only national knowledge on scarring exists and empirical findings may not easily be compared across different countries due to differences in selection of the population investigated and differential methodological approaches applied. The aim of WP6 is to give an overview on how scarring effects of early job insecurity and employment insecurity² evolve in different national contexts and how they vary across different European institutional settings (Deliverable 6.2-6.3) concerning their existence and persistence. Furthermore the analysis is extended by a further cross-national comparative analysis (Deliverable 6.4.) investigating if stigma effects of unemployment are actually lower in times when unemployment is high compared to times when unemployment is low in a cross-country comparative perspective.

² While job insecurity encompasses the insecurity of maintaining the position with the current employer, employment insecurity is about the potential risk for securing continuous employment throughout the future employment career. Thus job insecurity may not necessarily coincide with employment insecurity if one can promptly gain re-hold in another job after job loss. Job insecurity may but need not lead to experiences of unemployment and employment instability. In contrast, employment insecurity is defined as insecurity that relates to vulnerable continuity and stability of the employment career in general, irrespective of whether or not job changes occur (see e.g. Chung 2015 and the respective discussion in Deliverable 3.1).

3. Methodological challenges investigating scarring

One main methodological challenge when investigating scarring effects is the identification of causal effects of early labour market experiences on future employment outcomes. The problem one faces – also known as the problem of endogeneity – is that both early labour market experiences as well as subsequent employment outcomes may depend on similar social, individual and contextual characteristics which are not separated easily and by this may bias the estimation of causal scarring effects. If for example young applicants who experience bumpy transitions to some degree also hold lower educational qualifications and less motivation to quickly position themselves into stable employment (or other individual characteristics associated with both the experience of bumpy transitions and the evolution of their careers) then it may as well be that these characteristics lead to unfavourable employment outcomes rather than the exposure to unemployment periods in early career by itself.

3.1 Micro-level approaches to analyse scarring effects

Empirical work under the label of scarring effects is usually concerned with whether or not individually experienced unemployment episodes in early career adversely impact on future labour market outcomes. By this, the focus is often on the micro-level (Vandenberghe 2010: 3-4), where a major challenge lies in robustly identifying causal effects of individual unemployment exposure on future employment outcomes given the problem of endogeneity.

When focusing on the micro level, one innovative set of methods that allows for the estimation of causal effects based on non-experimental survey data is propensity-score matching (Guo and Fraser 2010; Rosenbaum and Rubin 1983; Heckman et al. 1997). To put it simply, propensity score matching in the context of analysing scarring effects may be thought of as a matching of *statistical twins*, which are similar in relevant individual characteristics apart from their exposure to unemployment in early career. One then compares employment outcomes across individuals with unemployment records compared to their matched counterparts who have a smooth work biography. All else equal, one is then able to make causal conclusions about whether or not the exposure to unemployment leads to unfavorable employment outcomes in later career. However, this methodological strategy (similar to several other strategies) depends on a comprehensive survey of sufficient characteristics predicting both treatment (e.g. early unemployment) and outcomes (e.g. subsequent employment outcomes) of interest.

Applying propensity-score matching allows to eliminate bias based on *observed* characteristics (variables) present in the dataset at hand.³ Especially the case of a cross-national comparative analysis, propensity score matching makes exceedingly high demands on quality, quantity and cross-national comparability of the individual longitudinal data used to evaluate long-term effects of early job and employment insecurities, so as to guarantee a robust estimation of scarring effects and ensure comparability of results across national contexts. Therefore, investigating scarring effects in a cross-country comparative setting using propensity-score matching requires a broad enough set of comparable variables based on which propensity-score matching can be applied in a methodologically sound way. Since there exist only insufficiently

³ Or based on variables that may not be observed within the data at hand but which are correlated with observed variables on which estimation of propensity scores and matching might be based.

harmonised longitudinal data sets to evaluate scarring across different national contexts at this stage, propensity-score matching is presumably not the best methodological strategy to conduct a cross-country comparative investigation of scarring effects.⁴

To summarise, propensity score matching, the common methodological strategy dealing with endogeneity in the estimation of scarring effects on the micro-level, is an appropriate approach for national analysis of scarring provided that comprehensive high-quality longitudinal data is available. It is however less suited for the estimation of causal scarring effects within a cross-national comparative framework due to lack of sufficiently aligned longitudinal data sets.

3.2 Macro-level approaches to analyse scarring effects

A promising approach when reconsidering strategies to investigate scarring on a cross-national level is to conduct comparative regression analysis on an aggregate level where whole cohorts of labour market entrants rather than individuals are the units of analysis (Vandenberghe 2010). In short, the explanatory variable to provide evidence for scarring in such a research design could be the level of unemployment at graduation from school different cohorts were exposed to over time, indicating the varying degree of unemployment exposure (employment insecurity) of different school-leaver cohorts at their labour market entry. The dependent variable or outcome to be focused on is likewise measured at the cohort level. The dependent variable in this approach represents the degree by which former school-leaver cohorts are scarred in terms of their future employment outcome. The latter can be measured by the level of unemployment they experience at later stages, by cohort wage-profiles or by the degree of non-standard and precarious forms of work arrangements the cohorts are employed in.

Taking on a macro perspective in analysing implications of entering the labour market at different stages of the business cycle at an aggregate level of school-leaver cohorts is insofar promising as the focus is on exogenous variation in macroeconomic conditions. This means that the state of the economy at graduation from school that hinders or fosters labour market entrants in becoming established within the labour market is not driven by individual characteristics (unobserved individual heterogeneity). Rather bad luck at timing of labour market entry and corresponding employer behaviour in recruitment (that is demand-side mechanisms) matter. This allows for a more direct and robust identification of causal effects of employment insecurity at labour market entry on future careers of youth (Vandenberghe 2010).⁵ Based on a cross-national comparative regression analysis at an aggregate level of school-leaver

⁴ As an alternative strategy that allows controlling for selection based on unobservables – for example, non-random exposure to the experience of early unemployment –, one may also consider two-stage consistent estimation of treatment effects based on the econometric technique proposed by Heckman (Heckman 1978; Briggs 2004). However, models allowing for the estimation of consistent effect estimates in the case of selection on unobservables are based on distributional assumptions so that an estimate for selection bias can be obtained. These distributional assumptions are not easily justified as they are not based on prior knowledge but rather on convenience (see Raaum and Roed 2006: 194). Thus with the intention to compare scarring effects across different countries, such methodological approaches may not be a preferred strategy either. For instance, empirical differences in scarring across countries may be falsely detected because distributional assumptions regarding the estimation of selection bias do not fit equally well to the country-specific data at hand.

⁵ One may note that some attention still needs to be given to the problem of potentially selective labour force participation in that labour market entry may be postponed by certain cohorts in case of bad economy at graduation by e.g. participating in continuing education (see e.g. Vandenberghe 2010).

cohorts one can identify causal effects of employment insecurity in early career because unobserved individual heterogeneity plays much less a role in such a methodological setting. Thus, this approach comes along with fewer demands concerning the amount of comparable data and modelling requirements. Hence it offers a more feasible way to robustly estimate scarring effects from an international comparative perspective.

All in all, the focus of the proposed international comparative cohort-level analysis is on long-term consequences of the quality of labour market entry assessed in terms of overall economic conditions. This does not mean however, that one may not think of results (with some caution) from an individual point of view. Bearing the problem of ecological fallacy in mind when drawing conclusions from aggregated analysis on individual outcomes, one could also think of graduating during recessionary years as bearing negative consequences for individual career advancement and future labour market integration of the young in case that scarring is found to be prevalent at the cohort-level. The proposed methodological approach may best be regarded as a different analytical strategy that makes use of macro information about labour market conditions at labour market entry of the young to proxy their individual unemployment experiences in early career.

This empirical approach allows for circumventing identification problems regarding the estimation of (causal) scarring-effects in the context of cross-country comparative analysis, given the availability of appropriate survey data. Yet the respective statistical strategy similarly allows for the investigation of unemployment scarring by investigating effects of early career unemployment in the context of depressed labour market situations at entry to the labour market on future employment outcomes of groups of youth that had to become established in the labour market when the economy entered recession. This allows analysing long-term consequences – that is, scarring – of early employment insecurity while taking into account cross-country differences as well as within country heterogeneity across gender or educational subgroups. In addition, applying this methodological strategy to learn about scarring, general economic conditions affecting labour market entry and subsequent careers of youth are explicitly taken into account as the focus is not simply on individual experiences of unemployment.

Overall, only a few papers have so far taken advantage of focusing on economic conditions and recessions to learn about scarring based on aggregated data, and these studies have mainly been conducted for non-European contexts (Oreopoulos et al. 2012 for Canada; Kahn 2010 and Kondo 2007 for the US; Genda et al. 2010 for the US and Japan), with some exceptions for the UK (Burgess et al. 2003), Norway (Raaum and Røed 2006) and for Austria (Brunner and Kuhn 2009). Therefore, besides promising a methodologically sound way to estimate scarring effects, applying cohort-level regression analysis to comparatively evaluate scarring is also novel to the European context. Moreover, the proposed method makes fewer demands on data and can be applied based on series of cross-section data (e.g. annually conducted labour force surveys), which is available for different European countries.

4. Summary and next steps

Youth are particularly vulnerable to economic downturn, hindering them to settle early within stable employment. However, unemployment exposure and unfavourable dead-end jobs in early career may not only affect labour market integration of youth temporarily but may result

in long term scars concerning their career advancement. These adverse long-term consequences caused by the experience of unemployment or employment instability are known in the literature as scarring effects. Diverse demand and supply-side factors, such as e.g. lower accumulation of human capital (work experience), employer discrimination as well as adverse self-selection into lower quality jobs are driving mechanisms of scarring. These factors are yet not easily disentangled but rather foster scarring in a combined way.

Investigation of scarring effects at the individual level is demanding as causal effects of unemployment and early career instability on subsequent employment prospects cannot easily be identified. Individual characteristics associated with both a higher risk of unemployment in early career and future employment prospects are difficult to separate from scarring and may bias results. Methods that allow for a robust identification of scarring effects at the individual level depend on high-quality (longitudinal) micro-data providing information on a wealth of individual characteristics, which hardly exists at a cross-national comparative level to date.

Therefore, and to comply with the aims specified in the description of action (DoA) of the NEGOTIATE project, WP6 will follow a double strategy of analysis in order to investigate scarring effects of job and employment insecurities among young workers in Europe.

Based on an international case study approach, micro-level analysis of scarring effects will be used to capture the trade-offs experienced by young female and male workers from diverse backgrounds when faced with an insecure labour market integration in order to assess the long-term implications of job insecurities by the type of first job. The consequences of job insecurities and employment instability on later career outcome will be analysed with respect to objective and subjective dimensions of job quality at a later date. The United Kingdom, Poland and Norway will represent three case study countries for micro-level analysis. Longitudinal survey data providing a wide array of information about the quality of both early and more recent jobs as well as about subjective dimensions are available for all three countries (UK: Household longitudinal study ‘Understanding Society’ British Household Panel Survey BHPS; PL: ‘Social Diagnosis’ panel survey; NO: Young in Norway Longitudinal). The respective data sets enable to test whether engaging in insecure first jobs and having a volatile employment trajectory has an impact in the longer run both in terms of labour market outcomes (e.g. income; unemployment) and subjective domains (e.g. well-being). Results will be presented according to gender and different social backgrounds. Comparable analytical concepts (e.g. of job and employment insecurities) will allow to comparing future findings across those three countries on a conceptual (theoretical) level.

With regard to the international comparative aim of WP6, a macro-level analysis of scarring will complement the national case studies in order to yield confident cross-nationally comparative results on an empirical level. Drawing on a large-scale series of national cross-section data of the European Labour Force Survey (EU-LFS), this methodological strategy will make use of aggregate information on the business cycle, such as aggregate youth unemployment rates, to gauge and proxy early employment insecurity as well as future integration difficulties of youth cohorts entering the labour market during recession in several European countries. As aggregate unemployment rates faced by youth at labour market entry are exogenous, that is not determined by their individual characteristics, this method will allow for a straightforward cross-nationally comparative analysis of scarring in a variety of national

labour market contexts. EU-LFS data for Bulgaria, Switzerland, Germany, the United Kingdom, Poland, Spain, Denmark, Finland and Greece, for which variables used for measuring employment insecurity at labour market entry are available, will be considered to be used in the comparative macro level analysis of scarring.

The strength in methodological terms and content of both the micro-level and the macro-level approach will complement each other and allow for a differentiated and multifaceted picture of scarring effects from a European comparative perspective.

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