Innovative Social Policies for Inclusive and Resilient Labour Markets in Europe

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Review Essay on Labour Market Resilience

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Abstract

The INSPIRES project aims to contribute to resilient and inclusive labour markets in Europe. It comparatively assesses the resilience and inclusiveness of labour markets in European countries and identifies innovative policies that have contributed to resilience and inclusiveness. The concept of labour market resilience is a central concept within the INSPIRES project. Labour market resilience can be considered as labour markets’ capacity to adapt and respond to economic challenges. The concept is gaining increasing attention from economist, social scientists, policy makers and politicians. The aim of this essay is to provide conceptual clarity about labour market resilience. In doing so, it provides the conceptual and theoretical base for the INSPIRES project. This review essay focuses on the following three questions:

- What is labour market resilience?
- Which factors affect labour market resilience?
- How can labour market resilience be measured and analyzed across different countries?

The essay first provides a multi-disciplinary literature review of the concept of resilience. In many scientific disciplines, including biology, psychology and engineering, resilience refers to a system’s adaptive capacity. The characteristics of resilience in these disciplines may inspires and enrich our conceptualization of labour market resilience. Second, in this essay we argue that the current state of knowledge in labour market resilience to a large extend fails to explain differences in the adaptive capacities of labour markets in Europe, specifically when considering the labour market position of vulnerable groups liked migrant, youth and disabled people. Therefore, this essay explores how literature on comparative political economy and welfare states may improve the explanatory power of the resilience concept. Building upon these insights, the essay provides a definition and conceptual framework of labour market resilience. We perceive resilience as the capacity of labour markets to absorb external shocks and mitigate their impact for employment levels, specifically for vulnerable groups. Finally, this essay provides the operationalization for all variables in the conceptual framework. In doing so, it delivers an integrated framework that enables the comparative analysis of labour market resilience in distinct European settings for different vulnerable groups on the labour market.
Introduction

In the aftermath of the 2008 global economic and financial crisis, Europe continues to struggle with its consequences. This relates especially to high unemployment rates, which are heading toward 10.5% in the European Union (European Commission, 2012). One of the striking features of the current recession relates to a significant cross-country divergence of its negative impacts among the EU member states. Moreover, as the economic crisis has deepened in the EU between 2008 and 2012, unemployment is becoming more wide-spread and particularly imposes risks of poverty and social exclusion to specific vulnerable groups. Consequently, the active inclusion of the most vulnerable groups in society and in the labour market is currently at the core of the policy debate. This relates directly to the Europe 2020 Strategy, which follows upon the European Commission Recommendation on active inclusion (Commission Recommendation C(2008)5737).

Against this background, the economic and social problems confronting countries whose labour markets have weakened substantially since 2008, translated into increasing interest among policy makers in the concept of resilience. This concept is concerned fundamentally with the capacity of a system, region, community or individual to respond, adapt and cope with disturbance or rapid change. Recently it has found its way into the policy literature where it is often seen as a goal of post-crisis risk management and a key component of sustainable development (Hill et al., 2008; Pike et al., 2010; OECD, 2011; Mitchel and Harris, 2012; OECD, 2012b; UNDP, 2011). The aim of the resilience perspective is, thus, to ensure that shocks and stresses do not lead to a long-term downturn in development progress and that systems, regions or people quickly recover from these shocks (Mitchel and Harris, 2012).

The concept of resilience has a long history and has been adopted in diverse fields including psychology, environmental sciences, structural engineering and economic geography. Although the first use of resilience is contested, the origins of the concept can be traced back to the behavioural sciences and ecology (Holling, 1973, Pike et al., 2010). As a result of the multidisciplinary interest in resilience and the consequential lack of unified theory its measurement and operationalization are often contested. Simultaneously the variety of approaches to resilience opens up a space for wider interpretation that creates an opportunity to adopt the concept within the context of the labour market. This review essay sets out to explore the value of the concept of resilience in understanding the differences in the current crisis’ consequences in different European member states and for different vulnerable groups.

Conventionally, the notion of the labour markets refers to the institutions and practices that govern the exchange of labour services. These include the means by which workers are distributed among jobs and the rules that govern employment, mobility, the acquisition of skills and training, and the distribution of wages and other rewards (Kalleberg and Sorensen, 1979). Consequently, labour market actors face various risks and challenges, as a result of both broader structural transformations or abrupt and sudden changes. Governments are confronted with the so-called ‘trilemma’ of the service economy: between budgetary restraint, income equality, and employment growth. Firms face structural pressures towards more flexibility to respond to changing market conditions. Individual workers have to respond to the ‘new’ labour market offering short-term and unstable jobs (Iversen and Wren, 1998; Thelen, 2001; Auer and Cazes, 2000). Moreover, those who are in unemployment face social costs that
go beyond the loss of income. These costs involve social isolation, health problems and general lack of prospects, posing a risk of social exclusion.

Surprisingly, despite the increasing interest in the resilience concept and the adaptive capacities of the labour markets in the policy discourses, the concept of labour market resilience itself has been only slowly gaining popularity among scientists. By means of exception, recently the OECD (2012b) examined the role of some important institutional factors in explaining labour markets resilience. In addition to this, some academic and non-academic works concerned with the notion of labour market performances are also compatible either explicitly or implicitly in identifying factors that affect labour market resilience (Auer and Cazes, 2000; Sainsbury, 2001; Ortiz, 2002; Taylor-Gooby, 2002; Saint-Arnaud and Bernard, 2003; Drew, et al., 2004; Casella and Hanakib, 2005; OECD, 2006; Chapple and Lester, 2010).

One of the main drawbacks in the current state-of-the-art is the lack of a shared definition – or perhaps even a shared general understanding – of what labour market resilience is. This makes the accumulation of knowledge in systemic ways difficult. Moreover, up until now, the literature on resilience fails to explain varieties in the inclusive capacities of labour markets and the differences in high levels of unemployment rates, especially that of vulnerable groups, between European countries. This might be related to the lack of a coherent conceptual framework which would allow the assessment of labour market resilience empirically and comparatively. Rose (2004) suggests that there are three difficulties confronting researchers in the area of resilience: conceptual, operational and empirical. At the conceptual level the literature on resilience lacks a single conceptual framework. This triggers problems on the operational level: if we don’t know what a concept actually is, how are we expected to measure it? And empirically: how can we actually decide which empirical phenomena matter?

Therefore, against the background of the existing deficiencies in the literature on labour market resilience, this review essay aims to fill this knowledge gap by 1) providing a multidisciplinary literature review on resilience as a concept 2) building a conceptual framework about labour market resilience and 3) operationalizing it by providing a list of factors and conditions affecting labour market resilience. This enables us eventually to assess and explain labour market resilience across European countries, specifically for different vulnerable groups. From our viewpoint, resilience is very closely related to institutional regimes of labour market regulation. Therefore, the ability of labour markets to resist, adapt to and recover from crises is contingent upon the interaction of public and private actors, innovative approaches and regional economic and social policies. Consequently, the INSPIRES project perceives resilience not only in its economic but also in its social and institutional context. It tries to identify socio-economic and institutional conditions, and strategies aimed at active inclusion of vulnerable groups. Similarly, policy innovations that affect labour market participation can take place in different policy fields – i.e. labour market regulation, activating policies, income policies etc. Therefore we use insights from the Varieties of Capitalism (Hall and Soskice, 2001) approach, as well as other literature, in order to identify factors that contribute to resilience. Based on our conceptual framework we provide a list of factors and conditions affecting labour market resilience. In doing so, this essay contributes significantly to the knowledge about the performance of European labour markets, especially with regard to labour market participation and the inclusion of vulnerable groups.
The essay is structured as follows. In section 2, we discuss the state of the art on resilience from different scientific disciplines. This enables us to disentangle the key concepts of resilience, which are important in building a conceptual framework of labour market resilience. In section 3, we identify additional building blocks by discussing literature that offers theoretical approaches for the institutional analysis of labour markets. We discuss different types of regulation of industrial relations and production regimes, based on the Varieties of Capitalism (VoC) approach (Hall and Soskice, 2001) and relate these to our concept of labour market resilience. Finally, in section 4 we discuss the factors that affect labour market resilience and the ways in which these factors can be operationalized.
1 A multidisciplinary perspective on resilience

The concept of ‘resilience’ has attracted the attention of regional economists and social scientists, trying to explain why labour markets differ in their ability to respond to challenges (Chapple and Lester, 2010; OECD, 2012). However, in spite of a vast multidisciplinary literature on the notion of ‘resilience’, there is lack of a coherent conceptual framework that would allow us to assess labour markets’ responses to economic shocks, and thus, its resilience (Rose, 2004). This review essay aims to fill this gap by firstly focusing on how resilience has been conceptualized in other disciplines in order to identify key concepts or building blocks that will allow us to eventually define, explain and operationalize labour market resilience more systematically. The definitions of resilience that currently dominate the literature can be reduced to three main approaches, namely: engineering, ecological, and adaptive. In section 2.1 we will discuss these definitions of resilience. In section 2.2 we identify the shared elements in these approaches of resilience and reflect on the implications for our definition of labour market resilience.

1.1 Definitions of resilience

The word resilience has its roots in the Latin *resilire*, which means ‘to leap back’ or ‘to rebound’ (Simmie and Martin, 2010). Most scholars who use the resilience concept build on achievements from either the engineering or the ecological disciplines. Beyond these two approaches the so-called ‘adaptive-resilience’ has also gained attention. As illustrated in table 1 the variety of definitions of resilience differ between disciplines. However, all these definitions share common elements and therefore it is possible to disentangle three main categories of resilience conception. Below these approaches to resilience will be discussed in more detail. Moreover, their implication for this review essay and the INSPIRES project will be discussed.

**Table 1 Definitions of Resilience**

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering resilience</td>
<td><em>Resilience “concentrates on stability at a presumed steady-state, and stresses resistance to a disturbance and the speed of return to the equilibrium point”</em> (Berkes and Folke, 1998: 12; Pendall et al., 2010: 72).</td>
</tr>
<tr>
<td>Ecological resilience</td>
<td>“emphasizes conditions far from any steady state condition, where instabilities can flip a system into another regime of behaviour—i.e. to another stability domain” (Holling, 1973: 22-1996: 33; Gunderson, 2000: 426).</td>
</tr>
<tr>
<td>Adaptive systems</td>
<td>“Supposedly, what distinguishes complex adaptive systems is the way they exhibit self-organising behaviour, driven by co-evolutionary interactions among their constituent components and elements, and an adaptive capacity that enables them to rearrange their internal structure spontaneously, whether in response to some external shock, or in reaction to some emergent mechanisms or ‘selforganised criticality’” (Martin, 2011: 14, for a parallel discussion see Gunderson, 2000; Martin and Sunley, 2007).</td>
</tr>
<tr>
<td>Psychology: resilience</td>
<td>“Resilience is considered a personality characteristic that moderates the negative effects of”</td>
</tr>
</tbody>
</table>

**as a personal trait**  
*stress and promotes adaptation*” (Drawing on Wagnild and Young, 1993 Wells, 2010: 45).

**Psychology: resilience as a dynamic process**  
“*Resilience is a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma*” (Luthar and Cicchetti, 2000: 858; for a parallel discussion see Masten, 2011: 494).

**Enterprises resilience**  
“*capacity for an enterprise to survive, adapt, and grow in the face of turbulent change*” (Fiksel, 2006: 16).

**Sustainability and resilience**  
“*Resilience has been suggested as one of the guidelines for a conception of strong sustainability. Hereby the term refers to the maintenance of natural capital in the long-term in order to provide ecosystem services that provide instrumental as well as eudaemonistic values for human society.*” (Brand and Jax, 2007: 5).

**Urban studies**  
“*an extension of the concept to urban systems... rapid growth of the urban system is driven by the exponential growth (relative to population size) of social network connections between those of disparate backgrounds, which connections drive urban innovations, and (2) the “culturally-biased” notion that the natural environment that supports an urban system is fundamentally distinct from it and has limited the impact of these innovations to the built environment*” (Drawing on Ernstson, et al., 2010, Martin-Breen and Anderies, 2011: 20).

**Governance or institutional resilience**  
...*institutions and governance structures can be separated from their context, which enables the promotion of critical innovations* (Martin-Breen and Anderies, 2011: 17-18).

**Regional economic resilience**  
“*the ability of a region to recover successfully from shocks to its economy that either throw it off its growth path or have the potential to throw it off its growth path but do not actually do so*” (Hill et al., 2008: 4-5).

**Labour market resilience (regional perspective)**  
“*the ability to transform regional outcomes in the face of a challenge*” (Chapple and Lester, 2010: 86)

**Labour market resilience (workers perspective)**  
Resilient labour markets are “*labour markets that weather economic downturns with limited social costs or, more formally, limited losses in worker welfare*” (OECD, 2012b: 57)

### 1.1.1 Engineering resilience

In general the ‘engineering-resilience’ focuses on the stability of a system near an equilibrium or steady state and therefore it refers to the resistance of a system to a disruption and its return to the predisturbance equilibrium (e.g. Holling, 1973). As this interpretation of resilience suggests a single stability domain (equilibrium) it can be characterized as the traditional or an ideal-typical way of defining resilience (e.g. Pendell et al., 2010 and Hill et al., 2008, Martin, 2011). Many different disciplines concerned with resilience belong to this subfield of engineering resilience as they use insights on the ‘earthquake impact analysis’ developed for decades by engineers (Pendall et al., 2010 drawing on Bruneau et al., 2003). The regional economists, for instance, perceive regional economic resilience as the ability of a regional economy to maintain a pre-existing state when the economy is hit by some kind of exogenous shock. Also the studies investigating the response of a system to natural disasters as well as studies concerned with the performance of organizations or enterprises focus on systems’ abilities near equilibrium, and therefore, build upon the engineering conception of resilience. Traditionally, the psychological studies also applied an engineering-like definition of resilience (Martin-Breen and
Anderies, 2011; Fleming and Ledogar, 2008). Apart from the personal qualities, the social environment (i.e. family, community, culture, religion) of children also has a major influence on their resilience (Sun and Stewart, 2007). Hence, psychologists shifted their focus from identifying risks factors to also identifying protective factors which throughout time can lead to the development of multiple equilibriums (for an overview of protective factors see for instance Zolkoski and Bullock, 2012; Eriksson et al., 2010; Fleming and Ledogar, 2008; Sun and Stewart, 2007 and Olsson et al., 2003). Although the importance of engineering literature on resilience is unquestionable, this approach has also been strongly criticized for the simplistic assumption of a single equilibrium. As pointed out by Bahadur et al. (2010) approaches to resilience should not work with an idea of restoring equilibrium, because systems do not have a stable state to which they should return after a disturbance. Therefore, throughout time the focus of researchers concerned with resilience shifted to approaches of resilience that focus on more diverse and man-induced systems, like ecological resilience and adaptive resilience (Martin-Breen and Anderies, 2011, Berkes et al., 2003).

1.1.2 Ecological resilience

Ecological resilience builds upon the traditional notion of an ecosystem, in which external shocks and disturbances can move a system from one equilibrium into another. Therefore, in contrast to the engineering approach, the ecological-resilience assumes that a system has multiple rather than single stability domains. If a shock pushes a system away from its ‘elasticity threshold’ it may move to a new domain of stability (Martin, 2011). The scale of the shock or disturbance that can be absorbed before the system changes its function and structure is an important factor. However, it is not clear what precisely constitutes resilience. For instance in urban studies, resilience is explained by ‘slow variables’ or slow changes (such as population growth). Martin-Breen and Anderies (2011) argue that the development of cities depend on the interactions between the smaller utilities of cities (schools, workers, people, unemployed, poor, trains, buildings, etc.) and actors that enable them such as planners, builders, politicians and knowledge resources. Another example is the so-called sustainability resilience, which also starts from an ecological definition. In this line of thinking a resilient system is one that adapts successfully by either resuming or improving its long-run equilibrium growth path (Simmie and Martin, 2010). Similarly some economists (e.g. Chapple and Lester, 2010) focus on the so-called “slow burns”, such as the process of deindustrialization or demographic change as determinants of resilience. In other words, the common feature of studies that apply the ecological definition of resilience refers to the emphasis on the notion of multiple equilibriums (Hassink, 2010; Simmie and Martin, 2010). Thus resilient systems depend largely on the continuous process of so-called gradual institutional variables or changes (see for instance Streeck, 2009 and Hudson, 2010).

1.1.3 Adaptive resilience

The ‘adaptive-resilience’ with its roots in the theory of complex adaptive systems stresses the capacity of a system to reconfigure (adapt) its structure (firms, industries, technologies and institutions) in order to maintain an acceptable growth path in output, employment and wealth in the long run. From an
adaptive approach resilience therefore can be seen as an evolutionary and dynamic process of continual adjustments. In contrast to the equilibrium-based view that interprets resilience as a generic feature and quality of a closed system, the adaptive approach implies that resilience is a dynamic process of constant change, and therefore, requires no assumptions about equilibriums (e.g. Pendell et al., 2010; Hassink, 2010; Pike et al., 2010). Resilience through adaptability emerges by decisions to leave a path in favour of a new, related or alternative trajectory. The adaptive conception of resilience is related to the institutional or governance resilience which focuses on the self-organizational aspects of governance structures and institutions as in emergent properties of multi-agent and complex systems (see for example Gerrits, 2012). Institutional economists, for instance, use the concept of ‘social structures of accumulation’ to explain how the national macroeconomic performance evolves over a longer period of time. Social structures of accumulation refer to a combination of mutually reinforcing economic, political and social institutions that remain stable for long periods of time, e.g. fifty-year or longer, and create the conditions for long-term economic growth (Hill et al., 2008; Pendell et al. 2010; Hassink, 2010). Some regional economists also apply this conception of resilience to processes of innovation in which they argue that a deep recession – such as the 2008 economic crisis – is needed to sweep outdated and unproductive activities; for example ‘lame industries’ (see Williams, 2010). This then opens up a window of opportunity for the development of new activities and a renewed growth path; path breaking. Following this approach, labour markets can be seen as diverse, internally heterogeneous and complex social systems, which cannot be simply reduced to simple commodity markets (Sissons, 2009). Therefore, the adaptive approach to resilience highlights that different elements of labour markets (institutions, workers, sectors etc.) interact to provide more complex forms of resilience in particular times and places (Pike et al., 2010).

1.2 Implications for the essay and the INSPIRES project

The previous section has reviewed the theoretical use of the concept of resilience. Even though the engineering and ecological definitions of resilience assume that systems are path dependent, they do differ remarkably. The engineering resilience assumes a single state of equilibrium to which a system always returns whereas the ecological concept embraces the idea of multiple equilibriums. Adaptive resilience focuses on the long-term system performances and has no underlying equilibrium assumptions. These different approaches to resilience allow us to identify common central elements and related key concepts that together create what has been be conceptualised as ‘resilience’. Therefore, we may conclude that all approaches to resilience stress the following four categories of key concepts: challenges (disturbances or exogenous shocks), context, responses to challenges (resist, withstand, adjust or renew) and outcome (pre-challenge state, worse or better). Based on these key concepts, we may define ‘resilience’ as the capacity of a system to resist, withstand or quickly recover from negative exogenous shocks and disturbances and to renew, adjust or re-orientate in order to benefit from these shocks (Hill, 2007; Pendell et al., 2010).

This definition may serve as inspiration for our definition of labour market resilience. In the INSPIRES project, the concept of labour market resilience is used to analyze and explain differences in unemployment levels and the inclusion of vulnerable groups in European labour markets and, perhaps
even more importantly, differences in the way these are affected by economic crises. In other words, the ability of distinct European labour markets to resist, withstand or quickly recover from the global economic crises is contingent upon the context of labour markets and upon the interaction of public and social policies, innovative approaches and regional economic policies. In recent years, some authors have attempted to outline how the idea of labour market resilience might be defined and conceptualized in economics and in regional studies of labour market performances (e.g. Sainsbury, 2001; Ortiz, 2002; Taylor-Gooby, 2002; Saint-Arnaud and Bernard, 2003; Drew, et al., 2004; Casellaa and Hanakib, 2005). For instance, Chapple and Lester (2010) investigated the economic performance of different regions in the United States by focusing on the ability of labour markets to rebound and transform their structure in the face of structural challenges related to the process of de-industrialisation. Most recently, the Organisation for Economic Co-operation and Development (OECD, 2012b) in its Employment Outlook tried to find an answer to the following question: ‘What Makes Labour Markets Resilient during Recessions?’ In this respect, the OECD provides a more empirical definition of resilience which is slightly different from the aforementioned theoretical approaches to resilience. More specifically, the OECD focused on factors contributing to resilient labour markets by adopting the so called “workers perspective” in which the impact of selected labour market policies and institutions are argued to be important. Here resilient labour markets are defined as “labour markets that weather economic downturns with limited social costs or, more formally, limited losses in worker welfare.” (OECD, 2012b: 57). In so doing the OECD argues that labour market resilience can be measured by outcomes that are likely to capture the main channels through which economic downturns affect workers’ welfare. Hence, the OECD brings the notion of adaptive resilience to the labour markets. As already mentioned, however, the concept of labour market resilience is still in its ‘infancy phase’ and needs to be developed more systematically. Therefore, the next chapter provides a coherent framework for analyzing labour market resilience, building upon the key concepts of resilience for this section and ideas about the performance of labour markets.
2 Labour market resilience – theoretical considerations

After exploring the concept of resilience from a general perspective in the previous chapter, in this chapter we attempt to define and explain labour market resilience. In section 3.1 we first explore theories concerned with labour markets from a political economic perspective, more specifically the Varieties of Capitalism (VoC) literature which suggests that the extent to which an economy is regulated and managed influences its capacity to react to economic changes (Hall and Soskice, 2001). Therefore, the VoC approach provides us with the basis for our discussion and it contributes to the construction of a shared understanding of the concept of labour market resilience. In addition, we also use insights from the welfare state literature to reflect on the social, economic and political changes in Europe in the last three decades (Giddens, 1998; Esping-Andersen, 2001, 2002; Bonoli, 2004; Cantillon, 2011; Van Kersbergen and Hemerijck, 2012). This is important because previously we argued that the innovative capacity of labour markets or changes in policies can be seen as the response to challenges. Building upon these insights we provide a more precise definition of labour market resilience and a conceptual framework for analyzing it in section 3.2.

2.1 The Varieties of Capitalism

A large proportion of the labour market orientated literature often situate their arguments within the analytical framework provided by the Varieties of Capitalism approach, or deliberately argue against it, seeking to set up alternatives (Hall and Gingerich, 2004; Thelen, 2004, 2012; Taylor, 2004; Crouch, 2005; Kang, 2006; Kenworthy, 2006; Campbell and Pedersen, 2007; Lauder et al., 2008; Schneider and Paunescu, 2012; Zhang and Whitley, 2013). The VoC approach belongs to the stream of comparative capitalism, and was theorized in its classic form by Peter Hall and David Soskice in 2001. The main assertion of these authors is that affluent capitalist economies can be grouped into two types according to their institutional frameworks: ‘coordinated market economies’ and ‘liberal market economies’.

At the core of the VoC approach lie the notions of ‘institutional complementarities’ and ‘system coordination’ which are used to explain how firms resolve ‘coordination problems’ (Hall and Soskice, 2001). This relates directly to the institutional structures of liberal market economies and coordinated market economies and their labour markets that regulate the employment relationships. Conversely, there are two conflicting models of labour markets relevant for each type of the economy, which can be labelled as the competitive and the cooperative labour market model, and which reflect the general dichotomy between flexibility and commitment in labour relations (Den Broed, 1996). Broadly speaking, the competitive model argues that the institutional framework should be based primarily on the market mechanism of supply and demand of labour. Hence, the use of other instruments alters the workings of the labour market by diminishing its efficiency and hence its performance in terms of equity (Auer, 2007). Therefore, this school of thoughts stresses the importance of flexibility and deregulation in the institutions of social, employment and labour market policies as beneficiary for the unfettered working of labour markets. On the other hand, the cooperative model argues that mechanisms are required to protect workers against the structural inequalities that exist between stakeholders in the labour market (Auer, 2007). This dichotomy is of special importance for this essay because it suggests
that the extent to which an economy is regulated and managed also influences its capacity to react to economic change and firm performances – i.e the so-called ‘comparative institutional advantages’ (Hall and Soskice, 2001; Kang, 2006). Therefore, it is crucial to understand and explain the nature of the interactions between institutions and actors within labour markets as how these affect labour market resilience.

Table 2 Competitive and Cooperative Labour market models

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Competitive model</th>
<th>Cooperative model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of economy</td>
<td>Liberal Market Economies</td>
<td>Coordinated Market Economies</td>
</tr>
<tr>
<td>Institutional structure</td>
<td>Flexibility</td>
<td>Commitment</td>
</tr>
<tr>
<td>(type of regulation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour market entry and exit</td>
<td>Easy hiring and firing</td>
<td>Employment protection</td>
</tr>
<tr>
<td>Working time and wages</td>
<td>Flexible working hours &amp; wages</td>
<td>Centralized collective bargaining</td>
</tr>
<tr>
<td>Innovations</td>
<td>Radical innovations</td>
<td>Incremental innovations</td>
</tr>
<tr>
<td>Education and Skills</td>
<td>Investment in general skills</td>
<td>Investment in industry-specific skills</td>
</tr>
</tbody>
</table>


2.1.1 The Competitive Model

Hall and Soskice (2001) argue that national political economies can be compared by reference to the way in which firms resolve their coordination problems. In liberal market economies firms coordinate their activities primarily through competitive market arrangements and thus depend more heavily on macroeconomic policy and market competition to control wages and inflation (Hall and Soskice, 2001). One of the main features of the competitive model refers to an external flexibility, aimed at promoting the allocative efficiency of the labour market by allowing sufficient freedom to act for individual employers at a decentralized level (Den Broeder, 1996, Thelen, 2001). The term ‘flexibility’ has been used in many different ways, nevertheless, it generally describes the ability of firms or economies to swiftly vary the quantity and quality of labour inputs according to the frequent fluctuations in demand for the product/service they produce and according to the opportunities offered by the technological environment (European Commission, 2005, p. 20). Thus, labour flexibility involves different areas of the employment relationship, such as labour market entry and exit, the education and training system, the level and structure of compensation, and working time (see Table 2).

Consequently, various types of flexibility allow firms to modify the number of employees or working hours, in accordance with cyclical or seasonal shifts in demand, for instance by using overtime, shiftwork or flexible part-time working time arrangements (Den Broeder, 1996). Furthermore, the LME relies on labour markets that set wages through pure competition and allow very little regulation to protect employees from insecurity (Crouch, 2005). Another aspect relates to education and training systems in liberal market economies, that basically rely on investment in general, rather than industry-specific skills, and thus these systems are complementary to highly fluid labour markets (Hall and
Soskice, 2001; Thelen, 2001, 2004). The high levels of general education lower the cost of additional training and therefore the companies in these economies do a substantial amount of in-house training, although rarely in the form of the intensive apprenticeships. Moreover, the multiskilling of workers permits them to switch tasks and to adapt their working practices to new technological and organizational requirements (Esping-Andersen and Regini, 2000; Deakin and Reed, 2000; Kang, 2006). Workers investment in general human capital can be seen as an insurance against the consequences of economic fluctuations (Den Broeder, 1996; Thelen, 2001, 2004). This creates a labour force that is well equipped with general skills, especially suited to job growth in the service sector where such skills assume importance, but that leaves some firms short of employees with highly specialized or company-specific skills. Moreover, the education and training system enhances the diffusion of knowledge embodied in workers and the allocation of human capital.

Another important element of the competitive model is the ability to innovate. Broadly speaking, liberal market economies are considered by Hall and Soskice (2001) to be ill-equipped at making minor adaptive innovations, because employers make inadequate investment in employee skills which might produce such innovations (Crouch, 2005). On the other hand liberal market economies can be seen as ‘radical innovators’ because they are prepared to implement drastic innovations through the combination of free labour markets and external shareholders. In this context it is relatively easy to switch resources rapidly to new and profitable firms and areas of activity (Hall and Soskice, 2001; Crouch, 2005). In other words, liberal market economies and their flexible labour markets are defined by institutions that provide a comparative advantage for radical innovation while creating obstacles to incremental innovation.

Overall, we can conclude that the strengths of the competitive labour market model lie in the high level of external flexibility, which can be seen in the limited employment protection, decentralized wage formation and investment in general skills. This facilitates firms’ capacities to radical innovation and allows them to responsive quickly to external economic shocks. Moreover, limited income protection may provide incentives for unemployed to participate in the labour market through searching actively for a job and accepting it more easily. Against this background the competitive model assumes that a high level of flexibility in different areas of labour relations translates into higher degree of labour market resilience.

2.1.2 The Cooperative Model

In contrast with liberal market economies, the main feature of coordinated market economies relates to non-market relationships of firms based on coordination activities and cooperation with other actors. Therefore, in contrast to the competitive labour market model the cooperative model relies on commitment between employers and employees to support firm-specific investments in the quality of labour relations (Thelen, 2001; Den Broeder, 1996). These investments require that both employers and employees share the initial costs and the future benefits.

In other words, the institutions of the cooperative labour market model support the commitment of both employers and employees to keep to implicit arrangements in labour relations.
High level of employment protection, centralized collective bargaining and a co-determination of workers at the work floor provide a countervailing power to workers against unilateral actions of employers such as sudden dismissals and wage reductions (Hall and Soskice, 2001; Thelen, 2001; Crouch, 2005). Moreover, centralized wage formation gives employers a tool to prevent workers’ threats to quit unless they receive higher wages. Income protection systems insure workers against future losses of firm-specific human capital and supports outsiders during their search for a high quality job match. For the outsiders of this system, social security benefits guarantee a minimum income level. This safety net gives workers an incentive to invest in firm-specific skills, because they are insured against shocks that affect their values (Den Broeder, 1996, Thelen, 2001, 2004). Together, institutional arrangements common in cooperative economies such as employment protection, centralized bargaining and co-determination enable workers and employers to consider their labour relation from a long-term perspective.

Alongside the quality of labour relations, innovations are another key element of the cooperative labour markets, just as the cooperative market economies are considered by the VoC approach as incremental innovators. Therefore, unlike the radical innovations that are characteristic for liberal market economies, production based on incremental innovation prioritizes the maintenance of high quality in established goods and thus, requires a workforce that is highly skilled (Campbell and Pedersen, 2007). This in turn pressures the firms to provide workers with secure environments, autonomy in the workplace, opportunities to influence firm decisions, education and training beyond just task-specific skills (Hall and Soskice, 2001; Crouch, 2005). Hence, in order to create a cooperative and highly skilled labour force the institutions in a cooperative market economy allow for long-term investment horizons, Examples of these institutions are cooperative industrial relations systems within firms, coordinated wage bargaining across firms and nationally coordinated vocational training programs (Hall and Soskice, 2001; Campbell and Pedersen, 2007). Consequently, investment in education and training is another sphere where coordinated market economies typically make extensive use of labour with high industry-specific or firm-specific skills and therefore depend on education and training systems capable of providing workers with such skills (Hall and Soskice, 2001, Thelen, 2001, 2004).

Overall, these same institutions that provide comparative advantages for incremental innovation in coordinated market economies can also serve as obstacles to radical innovation common in liberal market economies. This does not imply, however, that one of the models is inherently better at generating good macroeconomic outcomes (Hall and Soskice, 2001, Kenworthy, 2006). According to the VoC approach both models and their institutions have the potential to perform better then types that lack institutional cohesion. Consequently, following the VoC line of reasoning, we can conclude that both flexibility and commitment in the labour markets will have a positive effect on labour market resilience.

2.1.3 Labour Market Resilience: a trade-off between commitment and flexibility?

The VoC literature often presents the USA as an ideal type of the liberal market economy and Germany as an ideal type of the coordinated market economy. Other Anglo-Saxon nations are considered to fit in the competitive model, while most continental European nations are considered to fit in the cooperative model. The proponents of the VoC approach argued that the two distinct types of capitalism have the
ability to perform successfully although for different institutional reasons (Hall and Soskice, 2001; Hall and Gingerich, 2004, Arpaia and Moure, 2005). This claim has been challenged on several occasions by many scholars who argued that both the extreme flexibility of the competitive model and the complete reliance on cooperative long-term labour relations in the cooperative model may in fact frustrate labour market performance and therefore influence its resilience (Den Broeder, 1996; Campbell and Pedersen, 2007; Schneider and Paunescu, 2012). For instance, in the competitive model lack of commitment might hamper firm-specific investments in workers quality, and limited social security may provide only little insurance to workers who have invested in firm-specific skills (Den Broeder, 1996). Conversely, in the cooperative model, restrictions on flexibility might frustrate the allocative efficiency of the labour market and reduce employment because it is assumed to hamper wage adjustments to firm-specific shocks. Moreover, the generous benefit system may create disincentives for individuals to participate, search and accept a job. Limited labour mobility might reduce the diffusion of knowledge embodied in workers through the economy. Thus, contrary to the VoC approach we can argue the strengths of both models clarify the main trade-off between commitment and flexibility (see Table 2).

Against this background, the simple dichotomy of the VoC approach has meet fierce criticisms and many scholars started to argue that there are more, hybrid types of political economies (Taylor, 2004; Crouch, 2005; Kang, 2006; Kenworthy, 2006; Campbell and Pedersen, 2007; Schneider and Paunescu, 2012), especially since European nations belong to different types of welfare regimes (see Esping-Andersen, 1990; Arts and Gelissen, 2001; Fenger, 2007). Moreover, it has been argued that European regimes have constantly been in crisis (e.g. Esping-Andersen and Regini, 2000) and in a permanent state of change (Van Gerven, 2009). Consequently, the gradual transformation of western economies towards a post-industrial, service-based knowledge economy throughout time resulted in major reforms concerning social, employment and labour market policies (Visser and Hemerijck 1997). According to Taylor-Gooby (1997: 171) these changes have led to the birth of a new paradigm for social policies which he characterizes as new welfarism: “(...) economic globalization, labour market flexibility, more complex patterns of family life and the dissolution of traditional class structures require a new welfare settlement. It has also been argued that the European welfare states have shifted toward the so-called social investment states that focus on investment in human capital and the enhancement of individual opportunities (e.g. Giddens, 1998; Esping-Andersen, 2001). The emergence of this new paradigm stresses the fundamental changes within traditional welfare states in perception of risks and the willingness to share risks (Van der Veen et al., 2012, Van Kersbergen and Hemerijck, 2012). Generally speaking this new approach in social, employment and labour market policies implies a shift away from passive social protection and job security to employment security and social investment agenda, aimed at reinforcing human capital (Esping-Andersen, 2002, 2011; Cantillon, 2011; Ellison and Fenger, 2013). This new framework is directly related to the Lisbon agenda, and was embedded into a much wider notion of the active welfare state, where investment in social policy plays a critical role as a part of virtuous circle combining adaptability, flexibility, security and employability (Cantillon, 2011). The social investment state can be seen as a welfare state in which public responsibility has changed from protective to preventive and in which public policies are directed at empowering people and communities and where individuals are held partially responsible and capable for dealing with their own
risks (Giddens, 1998; Bonoli, 2004).

The impact of these changes might be of greater importance on the coordinated market economies than on the liberal market economies as these gradual transformations have led to more flexibility in all types of policies. Therefore, the dichotomy of liberal market economies and coordinated market economies should not be taken as a given. Just as Esping-Andersen and Regini (2000) argue both of these polar positions are only partially true, and most of the European economies can be placed somewhere along the continuum. In fact, between these two poles lie a series of alternatives constituting the choices from which European policy-makers have drawn. Therefore, we have to discuss the main characteristics and mechanisms of both models in more detail and explore how they translate into resilience before we transfer them into our key concepts and framework.

Accordingly, in order to create resilient labour markets, institutions should strike a balance between flexibility and commitment to combine the strong points of both models (Den Broeder, 1996). This would imply a search for hybrid forms that consist of the strengths of both ideal-typical models. Moreover, in spite of the fact that the distinction between the two models is useful for analyzing the differences between the liberal market economies and coordinated market economies, national differences within both models exist because their particular welfare policies are context-bound. In different terms: what might work for the Netherlands or Germany might not work Greece or Italy and vice versa. In line with De Beer and Schills (2009) we conclude that there is no ‘optimum’ or ‘one best model’. Therefore, individual countries might follow one of these two roads in order to ensure a sustainable trade-off between greater flexibility and the adequate provision of collective goods such as social cohesion, wage coordination, trust and cooperation, availability of human capital. The actual solutions to this trade-off comprise variations and mixed processes (Esping-Andersen and Regini, 2000). Thus, the balance over time and across countries and industries might not be constant, but depends on the specific economic environment, which is largely influenced by unexpected shocks, such as the recent economic crisis.

All in all, different models of organizing labour markets can be seen as important variables in explaining divergent labour market responses to shocks, across countries and over time (Eichhorst et al., 2010). Hence, our discussion of labour market theories contributes to the conceptualization of labour market resilience in several ways. First, this section provides a clear theoretical model, in the form of a continuum between liberal market economies and coordinated market economies that can explain the differences between countries in the way their labour markets are regulated and managed. Based on the VoC approach as well as other literature that builds upon this work, we will be able to test the main propositions regarding the comparative institutional advantage (Hall and Soskice, 2001). Second, this discussion provides a basis for a list of institutional factors, which can be categorized broadly along the flexibility versus commitment dichotomy. As already argued, national differences might exist on the continuum of each category of factors (to be discussed in next chapter). Thirdly, it provides us with crucial knowledge on the innovative capacity of labour markets associated with both models, which is important in assessing the responses of labour market institutions to shocks. Finally, the relationships between firms and other actors on the labour markets are also of key importance for our conceptualization of labour market resilience. Therefore, in the following sections we will use these
insights by exploring more in detail how specific institutional elements - that largely define not only the broader context of labour markets but also the type of response to challenge - contribute to labour market resilience (see Table 2).

2.2 Labour market resilience – conceptual framework

The multi-disciplinary literature review presented in Chapter 2 enabled us to provide an answer to the question ‘what is resilience?’ Subsequently, we have discussed the theoretical considerations regarding labour markets by focusing on explanations provided by the VoC approach. This enables us to define labour market resilience by designing the conceptual framework. Jabareen (2009) defines a conceptual framework as “not merely a collection of concepts but, rather, a construct in which each concept plays an integral role” (Jabareen, 2009: 51). Therefore, following the logic of our conceptual framework of labour market resilience (see Figure 1), we will be able to create a list of factors affecting labour market resilience. These factors are related to the different parts of the conceptual framework: challenge, context, response and outcome. Building upon this, it will be possible to formulate and test specific hypothesis in a later stage and assess the nature of the relationship between these concepts.

**Figure 1** Labour market resilience – conceptual framework

The starting point for understanding labour market resilience can be seen in a disturbance or exogenous shock that triggers particular feedback mechanisms in terms of specific type of policy responses. In this review essay the concept of ‘challenge’ specifically refers to economic recessions triggered by external shocks that substantially weaken the functioning of labour markets through the decline in the productivity growth and increase in systemic uncertainty which results in increasing levels of unemployment (Bloom, 2009; Bartolucci et al., 2011; Jamet, 2011, IMF, 2012). This can be observed in the current economic crisis which continues to severely affect European labour markets, as millions of jobs have been lost ever since (Te Velde, 2008; Hurley et al., 2011, Foresti et al., 2011; Mitchel and Harris, 2012). The second key concept in our conceptual framework can be labelled as the context which shapes the labour market structures. In this essay the context of Labour Market Resilience refers to the basic labour market structures, which largely depend on the institutional, structural-demographic and socio-economic conditions. One of the central systemic features of labour markets relates to the unequal distribution of vulnerabilities among different groups, sectors, firms, regions and countries. In
In this respect, the importance of the context of different political economies and their distinct types of labour markets can be seen as fundamental elements of our framework. Consequently, a mix of regulations and institutions might be required in order to ensure the functioning of the labour market. However, there is no optimal combination of such mechanisms that fits different economies, as they are context-bounded. Moreover, the key challenge is to change labour market institutions in a partial way, by introducing reforms that only involve specific segments of the workforce (Arpaia and Mourre, 2005). The third key concept is response that is context-bounded and refers to the ability of systems to respond and adapt to the challenges that they are faced with (Pisano, 2012). Therefore, the concept of response by the institutions of labour markets (feedback mechanism) should be understood in terms of the adaptive capacity of labour markets which determine whether labour markets can respond ‘appropriately’ to sudden external shocks. The concept of adaptive capacity can be understood as the ability of labour markets to deal with challenges by innovating or rearranging their institutional structures. Translating this concept to our essay means that the institutions of labour markets should respond to challenges by policy innovations and institutional changes. The final key concept of labour market resilience model is the ‘outcome’. After labour market institutions and policies have reacted to the challenges, the labour market could ‘bounce back’ and recover by achieving its pre-shock state outcome or even improve it. In other words, the outcome refers to the extent to which the system has been affected by or recovered from the challenge. According to the OECD (2012b) the level of resiliency of labour markets can be measured by assessing the changes in social costs and workers’ welfare, measured by a number of labour market outcomes that are likely to capture the main channels through which economic downturns affect workers’ welfare. These consist of changes in the unemployment rate, changes in total earnings, the way the earnings’ impact is distributed over the labour force and the long term unemployment.

Moreover, in order to fully understand and eventually assess labour market resilience it is also crucial to shed light on temporal boundaries that frame the notion of resilience. Time according to (single) equilibrium approach can be measured in moments, such as pre-shock; shock and post-shock economic performances (e.g. Hill et al., 2008; Hassink, 2010 and Martin, 2011). In contrast, other approaches to resilience as discussed in the previous chapter focus on the structure of relationships between “the macroeconomic variables that persists over a long period of time and the economic, political, and social institutions that condition this structure” (Hill et al., 2008). As illustrated in figure 1, labour market resilience directly relates to the response of the labour market to the challenge, which can be observed through different outcomes. However, labour market resilience also depends on the initial structural context. Therefore, building on the previous sections concerned with both the general notion of resilience and the specific context of labour markets, we can define labour market resilience as the capacity of the labour markets to either resist, withstand or recover from challenges, by innovating through adjusting or re-orientating their structures, in order to maintain or improve its pre-shock state.
3 Factors affecting labour market resilience

Most authors studying (labour market) resilience are also trying to operationalize it by identifying the factors that affect this concept. In so doing, the existing literature has identified a number of factors that might explain how the institutions of labour markets across Europe respond to challenges such as the recent economic and financial crisis. Consequently, there is a general consensus that the interactions between macroeconomic shocks caused by global recessions and structural policy settings play a key role in determining labour market outcomes (OECD, 2006a, 2012b). It has also been argued that “a region’s economic structure, the competitiveness and innovative propensity of its firms, the skills of its workforce, its entrepreneurial culture, its institutional forms and its economic governance arrangements, will all shape the resistance and response of its economy to, and its recovery from, a shock” (Martin, 2011: 16). Moreover, in a long-term perspective, the ability of a region to have more and better jobs largely depends on the intensity and characteristics of economic growth and on the patterns of structural changes (Brada and Signorelli, 2012). In this respect, sectoral productivity dynamics, together with demographic trends (Colyer, 2011, Galgóczi et al., 2011) are also of key importance for economic decline of different regional labour markets.

Against this background, based on the literature review and conceptual framework discussed in the previous chapter, this section of the paper provides a detailed inquiry into key factors affecting LMR. The essay builds upon an evaluation of relevant sources in both scientific and empirical literature. We have applied different methods of desk research, by consulting a large amount of literature from different scientific disciplines, as well as more policy related sources, produced by the international organisations – e.g. European Commission, Organisation for Economic Cooperation and Development, International Labour Organisation. In line with our conceptual framework, in section 4.1, first we discuss factors related to the challenges that labour markets are faced with. In section 4.2 we operationalize the conditions affecting the context of labour market resilience. Subsequently, in section 4.3 labour market responses to the challenges are discussed. Finally, in section 4.4 the outcomes of labour markets resilience are operationalized.

3.1 Challenges

Systems, societies and individuals are increasingly subjected to various external shocks of both natural and man-induced origins that can move them from one stability domain to another, often affecting them negatively (Renaud et al., 2010). Consequently in recent years, different unpredicted events such as the Hurricane Katrina and the terrorist attacks of 9/11 have drawn the attention of researchers and policymakers. In the past, among the sources of large common shocks to an economy, oil price hikes have been considered as the most prominent (Duval, Elmeskov and Vogel, 2007). Another source of an external shock, which is highly relevant today and that can lead to significant macroeconomic turbulences is a financial crisis (Reinhart and Rogoff, 2008). These types of shocks have been occurring cyclically since the development of money and financial markets. However, its consequences have become more widespread as a result of growing interconnectedness of the global economy (cf. Fenger and Bekkers, 2012). Therefore, because of an intensifying transnational trade and financial links between
countries, there is a higher risk of more rapid and stronger transmission of such shocks across borders. This is particularly the case in the Eurozone where the common currency potentially leads to greater integration and faster transmission of the negative impacts (Duval, Elmeskov and Vogel, 2007). In this essay we focus on the impact of economic recessions such as the 2008 global financial crisis which, in turn, affect labour market outcomes across Europe. Against this background, there is a growing interest among scholars in the effects of the current recession on both national and regional labour markets. This literature focus mostly on main channels through which different labour market outcomes can be affected, such as the changes in output growth (measured by GDP) or in the degree of the systemic of uncertainty (IMF, 2010; Bartolucci et al., 2011; OECD, 2010, 2012; ECB, 2012, Boeri et al., 2012). This will be discussed in detail based on table 3.

The 2008 crisis, which started as a financial crisis, led to the biggest recession since the Great Depression of the 1930s, with widespread consequences on economic performance, labour productivity and employment in all countries around the world (Choudhry et al, 2010). The origins of this crisis are associated with the collapse of the US sub-prime mortgage market that quickly spread through the financial system, eroding the value of capital, undermining the creditworthiness of major global financial institutions, and triggering massive de-leveraging (World Bank, 2009). Efforts to re-establish capital competence and uncertainty about the underlying value of assets held in the form of sub-prime mortgage backed securities resulted in capital hoarding, eventually compromising the ability of borrowers to finance transactions in both the real and financial sectors (World Bank, 2009). This in turn reduced demand and employment, undermining consumer and business confidence, triggering further contraction in demand (World Bank, 2009). A dramatic rise in unemployment around the world suggests that global financial shocks do translate into labour market outcomes. As a result of the financial shocks the leveraged firms often find themselves in the position in which their liquidity is suddenly called back by the lender, which in turn has a direct consequence on firms’ ability to run and manage existing jobs (Boeri et al., 2012). Consequently, firms may be obliged to shut down part of their business and destroy existing jobs (Boeri et al., 2012). Therefore, one of the main consequences of the current crisis is likely to be persistently high unemployment rates, and because high unemployment can quickly become a structural problem, this could lead to serious political and social challenges (IMF, 2012).

**Table 3** Economic recession

<table>
<thead>
<tr>
<th>Source</th>
<th>Variables</th>
<th>Definition</th>
<th>Indicators/Measurement</th>
</tr>
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</table>
| IMF, 2010; Bartolucci et al., 2011; OECD, 2010, 2012b; Duval, Elmeskov and Vogel, 2007, Holló et al., 2012 | Economic recession | Economic recession is often defined as two successive negative quarter on quarter changes in constant price GDP. | - Changes in real output (productivity)  
- Output measures, seasonally adjusted indices  
- Degree of “systemic uncertainty”  
- Composite Indicator of Systemic Stress (CISS) |

A period of recession has to be distinguished from normal fluctuations of business activity, as it involves
a fall in demand for output of a magnitude not normally experienced by business (Hogarth at al., 2009). The literature concerned with the measurement of the effects of recent crisis has paid particular attention to the role of macroeconomic cyclical conditions in affecting labour market outcomes, usually departing from different specifications of ‘Okun’s law’, which focuses on the relationship between GDP growth and changes in unemployment rate (IMF, 2010; Bartolucci et al., 2011; OECD, 2010, 2012; ECB, 2012, Boeri et al., 2012). Specifically, Okun (1970) defined a coefficient corresponding to the rate of change of real output associated with a given change of the unemployment rate, focusing on the estimation of “potential” GDP (Bartolucci et al., 2011). The response of labour markets to the shock is summarised by the Okun’s coefficient, i.e. the ratio of the percentage-point increase in the unemployment rate to the percentage fall in real GDP. Some authors extended the assumptions of this model by including other factors associated with the crisis which might explain the changes in unemployment rates. For instance Bartolucci et al. (2011) estimated an extended Okun’s model able to identify the additional impact of the financial crisis attributed to the increase in systemic uncertainty, whereas IMF (2012) argues that the responsiveness of the unemployment rate to changes in output has increased over time for several advanced economies, due to less strict employment protection and greater use of temporary employment contracts.

Apart from the changes in output (measured by GDP) there has been also a debate on the role of changes in the degree of the “systemic uncertainty” (e.g. Bloom, 2009; Bartolucci et al., 2011; Jamet, 2011; IMF, 2012). The economic crisis increases the degree of uncertainty which in turns effects investments, labour demands and also unemployment rates. A high degree of macroeconomic uncertainty usually leads to the “wait-and-see” behaviour that is typical during such times. In fact, along with the beginning of the financial crisis in 2007, the European economy has been faced with an uncertainty, leading to increased panic of the financial markets and worsening of the debt crisis in several member states (Jamet, 2011). Furthermore, the prospects for recovery are slowed down due to an increase in uncertainty among investors in terms of potential risks they might be facing. As a result, there is growing pressure on decision makers from firms to receive some mid-term guaranties.

Good measures of uncertainty at the country level are limited (IMF, 2012). To some extent country-specific uncertainty can be captured by some components of the Composite Indicator of Systemic Stress (CISS) (Holló et al., 2012). The CISS enables to measure the current state of instability, i.e. the current level of frictions, stresses and strains (or the absence of these) in the financial system and to condense that state of financial instability into a single statistic..

Overall, the discussion in this section shows that one of the key drivers of the changes in unemployment rate is the change in the level of economic activity. Recessions linked with financial crises tend to lead to higher unemployment for a given decline in productivity (Bartolucci et al., 2011; IMF, 2012). This in turn heightens job destruction, especially in economies where the corporate sector is highly leveraged. However, the sensitivity of the unemployment rate to changes in output has increased over time for several advanced economies, as a result of different short term and long term institutional arrangements that emerged as a government response to the crisis as well as earlier (gradual) institutional changes (Mahoney and Thelen, 2010; IMF, 2012). The next section discusses the institutional context more in detail.
3.2 Context

This section provides an overview of the contextual factors that are of key importance for explaining labour market resilience. These factors are subdivided into institutional, structural-demographic and socio-economic explanatory factors of labour market resilience which can further interact with each other and whose relative importance changes over time. We first look at the institutional structure of labour markets (4.2.1), then discuss the socio-economic context (4.2.2). Finally we discuss the structural demographic factors (4.2.3).

3.2.1 Institutional structure

An institutional framework generally refers to the systems of formal laws, regulations, procedures and informal conventions, customs and norms that broaden, shape and detain socio-economic activity and behaviour (Donnellan et al., 2012). The institutional structure of the labour market aims at regulating the employment relationship, in form of the legal framework for standards at work, minimum wages and trade union recognition and powers. As discussed in the previous chapter, there are two main conflicting schools of thought regarding the institutional structure of the labour market, based on the flexibility versus commitment dichotomy. The competitive view argues that the institutional framework should be based solely on market mechanisms, because the use of other instruments alter the workings of the labour market, diminishes its efficiency and hence, its performance in terms of equity (Auer, 2007). In contrast, the “cooperative view” argues that mechanisms are required to protect workers against the structural inequalities that exist between stakeholders if the labour market (Auer, 2007). As pointed out by Blanchard (2002) labour markets needs proper institutions, because they are not, by their nature, perfectly competitive. Consequently, an optimal mix of regulations, taxes and subsidies are required in order to ensure the successful functioning of the labour market (Donnellan, et al, 2012). Moreover, many international organisations such as the European Commission, the Organization for Economic Cooperation and Development (OECD) and the International Monetary Fund (IMF) argue that the causes of high unemployment can be found in the design of the labour market institutions (Donnellanet al, 2012). Broadly speaking, the debate on how to reform the European labour market has been often dominated by the perception that there is always an inevitable trade-off between equity and efficiency. More specifically, countries with high levels of unemployment have been advised to undertake comprehensive structural reforms to reduce ‘labour market rigidities’, such as generous unemployment insurance schemes, high employment protection such as high firing costs, high minimum wages, non-competitive wage-setting mechanisms and severe tax distortions (see IMF, 2003). In table 4, we have summarized the institutional structure variables that shape labour markets. Below, these variables will be discussed in more detail.

Table 4 Institutional factors affecting the performance of labour markets

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<th>Source</th>
<th>Variables</th>
<th>Definition</th>
<th>Indicators/ Measurement</th>
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<tr>
<th>Source</th>
<th>Type</th>
<th>Description</th>
<th>Analysis/Questions</th>
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<tr>
<td>Sengenberger (ILO) (2011), Stovicek and Turrini (EC) (2012), (Schill and De Beer, 2009), (Gangle, 2004).</td>
<td>Unemployment Benefit (UB)</td>
<td>UB provides income loss replacement to those who are involuntary out of work or not required to fall back on other income sources. In this respect, UB softens the negative side effects of unemployment or income loss.</td>
<td>- % GDP spending on UB  - Number of UB receivers over time?  - Entitlement conditions: less or more strict (0-5)  - Unemployment traps: marginal effective tax rate (0-100) to take up a job  - Inactivity traps: marginal effective tax rate (0-100) to take up a job  - UB duration  - Time profile of benefits  - Job search and work availability: less or more strict (0-5).</td>
</tr>
<tr>
<td>Bonoli (2010)</td>
<td>Active labour market policies (ALMPs)</td>
<td>“Active labour market policies (ALMP) are being implemented to increase employment opportunities for job seekers and improve balance between jobs available and qualified employees.”</td>
<td>- Participation in active labour market programmes  - Expenditure on ALMPs Public Employment Services (job assistance, job-counselling etc.)  - Training  - Direct job creation and employment subsidies  - Special schemes</td>
</tr>
<tr>
<td>EC (2012) (see also OECD 2004)</td>
<td>Employment protection legislation (EPL)</td>
<td>“EPL consists of rules and procedures that define the limits to the faculty of firms to hire and fire workers in private employment relationships. Its features are enshrined not only in law but also in collective and individual labour contracts.”</td>
<td>- Strictness of EPL  - Job protection of regular employments /contracts against (individual) dismissals  - Difficulty of dismissal: Under which legislative conditions dismissal is “justified” or “fair”?  - Procedural inconveniences for starting the dismissal process  - Notice and severance pay provisions.  -Special requirements for collective dismissal  -Regulation of temporary work and fixed-term contracts  -Restrictions on use of temporary employment by firms</td>
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<td>Source</td>
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<tr>
<td>Virtenan et al. (2005), Kompier et al. (2009), Holman, (2013)</td>
<td>Labour contracts</td>
<td>Labour contracts can be divided into five categories: Permanent contracts, Semi-permanent contracts, Fixed term contracts, Temporary agency work, On-call work.</td>
<td></td>
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<tr>
<td>Schmid (1998); Sengenberger (2011); Bell et al. (2011)</td>
<td>Working hours</td>
<td>Working hours can be defined as the amount of hours that an individual spends on his work daily, weekly and annually.</td>
<td></td>
</tr>
<tr>
<td>OECD (2004b)</td>
<td>Wages setting institutions</td>
<td>Wage setting institutions comprise of trade union density, coverage by collective agreements (sometimes also called union coverage) and the centralisation and co-ordination of wage bargaining.</td>
<td></td>
</tr>
<tr>
<td>OECD (2007)</td>
<td>Minimum wages</td>
<td>The national minimum wage is enforced by law, often after consultation with the social partners, or directly by national intersectoral agreement. The national minimum wage usually applies to all employees, or at least to a large majority of employees in the country. Minimum wages are gross amounts, that is, before deduction of income tax and social security contributions.</td>
<td></td>
</tr>
<tr>
<td>OECD (2007)</td>
<td>Labour taxation</td>
<td>Tax wedge is sum of personal income tax and employee plus employer social security contributions together with any payroll tax less cash transfers, expressed as a percentage of labour costs.</td>
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</table>

**Unemployment benefits**

In essence, European unemployment benefit systems consist of two main instruments: unemployment insurance and unemployment assistance or social assistance (Stovicek and Turrini, 2012). The former is based on an insurance principle and individuals are insured in times of incomes losses during the
unemployment spell. Such benefits are payable to those who lose their jobs and have completed a minimum period of employment or paid contributions for a specific reference period. In other words, entitlement to unemployment insurance benefit is always subject to specific conditions, in which its duration can be reduced, monitoring possibilities can be increased as well as the exit probability. The latter, unemployment assistance is based on welfare principles and is mean-tested (see Fenger et al., 2013). The entitlement to unemployment assistance is usually either available for long term (low-income) unemployed people with insufficient means who are no longer entitled to the unemployment insurance benefits or to those failed to meet the qualification terms for unemployment insurance benefits in the first place. One could argue that systems of unemployment benefits are important because they reduce and thus contribute to resilience of labour markets. However, the level of generosity of unemployment benefits are often contested. Drawing on neoclassical literature, De Beer and Schills (2009), for instance, argue that generous unemployment benefits may cause a rise of unemployment rates because they reduce unemployment costs for individuals. Therefore, they argue that unemployment benefits have an impact on individuals’ behaviours in that they do not search intensively for jobs or raise their reservation wages. This is closely related to the idea of ‘moral hazard’ as introduced by Arrow (1963) in the classic welfare economics of medical care. Here, it implies that because of an individual receives unemployment benefit his incentive to find a new job might be limited (See also Fenger, 2009). However, other scholars argue that unemployment benefits give unemployed people the chance to search more selectively and adequately for high-quality jobs in terms of earning prospects and job security, rather than being forced to accept any job with the risk of becoming unemployed again quickly (Gangle, 2004). Moreover, if one also takes into account that different institutional structures produce contain types of skills it becomes difficult for individuals to accept any job because they cannot easily transfer their specialised knowledge to a new job. This raises the question how to explain the successful Scandinavian combination of generous unemployment benefits and low rates of unemployment. The answer to this question lies in what has been labelled the 1990s’ shift from passive welfare regimes (unemployment benefits) to active welfare regimes (activation policies) (e.g. Hemerijck, 2006; Pintelon et al., 2013). In the literature, this is attributed to the activation policies in these countries in which they introduced various measures to counterbalance the negative side effects of generous unemployment benefits. We will elaborate on the activation policies below.

**Active labour market policies**

Active labour market policies or activation policies, are an important area of labour market institutions as well as broader social policy making. The introduction and extension of active labour market policies has been promoted by international agencies and adopted in a number of countries over the last decades. Broadly speaking, we can categorise active labour market policies into two groups: those which aim at improving human capital and those which use essentially negative incentives to move people from social assistance into employment (Taylor-Gooby, 2004, Barbier, 2004, Bonoli, 2010). In line with Bonoli (2010), one could also distinguish between four different ideal-types of active labour market policies: incentive reinforcement, employment assistance, occupation and human capital investment.

**Table 5** Ideal types of active labour market policies
<table>
<thead>
<tr>
<th>Type</th>
<th>Objective</th>
<th>Tools</th>
</tr>
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<tbody>
<tr>
<td>Incentive reinforcement</td>
<td>Strengthen positive and negative work incentives</td>
<td>- Tax credits</td>
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<td></td>
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<td>- time limits on recipiency</td>
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<td></td>
<td></td>
<td>- benefit reductions</td>
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<tr>
<td></td>
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<td>- benefit conditionality</td>
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<tr>
<td></td>
<td></td>
<td>- sanctions</td>
</tr>
<tr>
<td>Employment assistance</td>
<td>Remove obstacle to employment and facilitate (re-)entry into the labour market</td>
<td>- placement services</td>
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<tr>
<td></td>
<td></td>
<td>- job subsides</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- counselling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- job search programs</td>
</tr>
<tr>
<td>Occupation</td>
<td>Keep jobless people occupies; limit human capital depletion during employment</td>
<td>- job creation schemes in the public sector</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- non employment-related training programs</td>
</tr>
<tr>
<td>Human capital investment</td>
<td>Improve the chances of finding the employment by up skilling jobless people</td>
<td>- basic education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- vocational training</td>
</tr>
</tbody>
</table>

Source: Bonoli (2010)

The first ideal type of active labour market policies, incentive reinforcement, refers to measures that aim at strengthening work incentives for benefit recipients. This can be done for example by limiting passive benefits or by use of sanctions. Benefits can also be made conditional on participation in work schemes or other labour market programmes. The second type, ‘employment assistance’, involves measures aiming at removing obstacles to labour market participation. These includes placement incentives, job search programmes, counselling and job subsidies which maybe be useful for beneficiaries who have been out of the labour market for a long time or who have never had a job. A third type of active labour market policy can be labelled as “occupation”. This type primarily aims at keeping jobless people busy in order to prevent depletion of human capital which is associated with unemployment. This type of active labour market policies consists of job creation and work experience programmes in the public or non-profit sector, but also training, such as short courses. Finally, active labour market policies can consist of providing vocational training to jobless people, or if needed basic education. The idea here is to offer a second chance to people who were not able to profit from the education system or whose skills have become obsolete. The provision of vocational training to jobless people is most developed in the Nordic countries (Bonoli, 2010). In these countries, participation in activation programmes such as job brokerage, counselling, training, job sharing, direct job creation and targeted measures for vulnerable groups functions as a precondition for receiving unemployment benefits. However, not all activation measures are effective. Drawing on Kluve (2006), De Beer and Schills (2009) argue that some services and sanctions have proven to be effective. These include job search assistance, vocational guidance, counselling and wage subsidies. In other words, various effective activation measures can contribute to a the resilient of labour markets. At the same time, the flows between unemployment and employment should not be hindered by generous benefits, meaning that the systems should have some kind of activating sanctions in place.
Employment Protection Legislation

In the contemporary literature employment protection legislation is considered as an important legislative system that prescribes the conditions under which dismissals can be ‘fair’ or ‘justified’ (see for instance OECD, 2004a; De Beer and Schills, 2009; EC, 2013a). Such regulations distinguish between permanent or regular contracts and temporary or fixed-term contracts (see also contract types and working hours). These regulations also state when individual or collective dismissals are justified. In many countries, additional provisions for collective dismissals were introduced because collective dismissals have higher social costs in comparison to individual dismissals. Therefore, OECD (2004a) argues that individual dismissal is easier than collective dismissal. In similar vein, workers with regular contracts are better protected against dismissal risks than fixed-term or temporary workers. The common way of measuring employment protection legislation is by assessing their rigidities or restrictedness in terms of the aforementioned indicators (see table 4) over time. In this regard it has been suggested that rigid employment protection legislation reduces the flexibility of the labour markets by restricting the unfettered working of labour markets. One could also argue that relaxation of (temporary) employment protection legislation could increase the flexibility of labour markets and the flows between of employment and non-employment, thus also resilience.

Labour contracts

Closely related to employment protection legislation are the so-called labour contract variables. Traditionally, labour contracts are divided along the dichotomy of permanent and temporary contracts (Virtenan et al., 2005). Recently, however, some authors argue that more than two types of contracts exist. They especially stress the rise of the variety of temporary contracts (e.g. Hatton, 2013). Kompier et al. (2009) also argue that over the past two decades across Europe temporary contracts have increased, while permanent contracts have decreased. Currently, however, at least five types of contracts are dominating European labour markets. Firstly, permanent contracts are characterized by the fact that workers are directly employed and paid by the employer or firm. Secondly, semi-permanent contracts are in essence temporary contracts, but with prospect of permanent employment. Thirdly, fixed-term contracts are also temporary, but without prospect of permanent employment. Workers with one of these two types of temporary contracts are appointed by the firm either on fixed terms for some years or based on a probationary period followed with permanent contracts. Their job stability might differ remarkably (Kompier et al., 2009). Fourthly, more and more people are hired via temporary work agencies and thus not directly paid by the firm. Last but not least, workers are hired, especially the venerable groups, based on zero-hour or on-call contracts. Consequently, the workers with permanent contracts also have better future prospects and better quality jobs than the workers with temporary contracts. Also the well-being of the temporary workers is worse than people with permanent contracts. Especially, workers with temporary agency and on-call contracts are doing precious positions that are peripheral to many firms. At the same time their employment stability is low. Consequently, the qualities of jobs are varying as well (Holman, 2013). All in all contract types affect the employment rates and poverty levels, and therefore the labour market resilience in terms of outcomes.
**Working hours**

Also related to the employment protection legislation conditions are the so-called working times which regulate the maximum working hours for employees in order to ensure their well-being. Moreover, the concept of working time is also associated with contract type, especially to the concept of full employment. Usually, the concept of working time is assessed by indicators such as working hours *annually, weekly* and *daily*. The general trend is that working hours across Europe have declined significantly (Sengenberger, 2011). Recently, the European Commission adjusted its Working Time Directive regulation in which a maximum of 48 weekly hours and 8 hours per day under normal circumstances is set for European nations. Despite these maximum standards, differences between countries exist. For example, in Austria, France, Germany, Japan, Luxembourg and Portugal a maximum of 10 hours is institutionalised, 13 hours in the United Kingdom, while the United States have no maximums. These differences could be explained in line with our discussion of differences between liberal market economies and coordinated market economies whereby the former (e.g. US and UK) stresses the importance of flexibility. Some European countries also apply temporal flexibility or flexi-time programmes which allow workers and employers to schedule their hours in flexible manners on daily or weekly basis. The impact of working hours for employees could be understood in terms of poverty and more specifically ‘time poverty’ (Bell et al., 2011 drawing on Vickery, 1979). This is because under-employed workers who wish to work more are not offered more hours, while over-employed people do unpaid overtime works. The direct consequence of overtime work is that it keeps many under-employed and unemployed people from working. In Europe this is roughly estimated at a potential of 3.5 million jobs (Schmid, 1998). The indirect effect of overtime working is that workers’ well-being is affected negatively (see for instance Bell et al., 2011).

**Wage setting institutions**

Wage setting institutions belong to another group of policies that are of key importance not only for the individual households and labour markets, but also for the overall economy. The evolution of wage setting institutions has to be considered against the background of the institutional set-up of the labour market, and the labour and industrial relations system. Among the characteristics of wage-setting institutions are (see table 4): trade union density, coverage by collective agreements (sometimes also called union coverage) and the centralisation and co-ordination of wage bargaining (OECD, 2004b; EC, 2012). While union density represents one measure of potential union bargaining advantage, collective bargaining coverage measures the real extent to which salaried workers are subject to union-negotiated terms and conditions of employment. The main feature of wage-setting mechanism relates to different levels of bargaining, which may explain differences between countries in Labour market performance. In relations to this empirical analysis shown that both centralised (at national or multi-industry level) and decentralised (at the level of firms) bargaining systems perform better than intermediate ones (at the level of industries) (see for instance: Calmfors and Drifill, 1988; Den Broeder, 1996; OECD, 2004b; 2012bArpaia and Mourre, 2006, 2009). This can be attributed to both the co-operative behaviour of the former that creates incentives to moderate wage claims and greater aggregate real wage flexibility, and
market forces restrain wages when bargaining occurs at the plant level, and thus offering stronger relative wage flexibility (Den Broeder, 1996; Arpaia and Mourre, 2006, 2009; Duval, Elmeskov and Vogel, 2007).

Furthermore, bargaining institutions force the wage distribution and raise the relative wage for specific socio-economic groups (e.g. youth or less educated workers). In contrast, decentralized bargaining allows higher relative wage flexibility, and leaves more room for bargaining on issues such as working time and working conditions. In principle, minimum wages can contribute to the fairness aspect of social cohesion by protecting vulnerable workers from exploitative employment that pays less than a “decent wage” (Betcherman, 2012) For example in some countries sub-minimum wages exist for certain groups, such as teenagers or trainees (Betcherman, 2012). However, although the underlying principle of minimum wages is to set a universal floor, in practice the situation is much more complex. Moreover, as suggested by the OECD (2004b). unions can reduce wage inequality, particularly in countries where union membership and bargaining coverage are high, and bargaining is either centralised and/or co-ordinated. However, the evidence is mixed concerning whether the wage compression associated with union involvement in wage setting affects the relative employment rates of workforce groups whose members tend to be over-represented in low-paid jobs, such as youths, women and less-skilled workers (OECD, 2004b; Betcherman, 2012).

All in all, recent developments suggest that a moderate legal minimum wage generally does not undermine employment, but also that adequate allowance for wages below that level for youth and possibly other vulnerable groups is essential (OECD, 2006a). A few countries that have introduced in-work benefits in order to increase employment have at the same time found it useful to introduce moderate minimum wages to guarantee that the in-work benefits raise the rewards from work rather than leading to lower wages. However, as suggested by the OECD (2006a) such a measure has to be designed carefully since recent analysis confirms that high minimum wages together with high payroll taxes may affect the employment prospects of vulnerable groups.

Taxes

The role and impact of labour taxation policies on European labour markets outcomes in Europe is very complex (EC, 2011a). In fact, while taxation policy plays only a minor role in determining labour market outcomes as compared to more effective policy measures such as wage bargaining arrangements or active labour market policies (EC, 2011a), tax reforms that increase the rewards from work may encourage labour force participation (OECD, 2006b). For budgetary reasons, general cuts in taxes on labour income need to be accompanied by increased taxes on goods and services or on other types of income, or by lowering public spending (OECD, 2006b). The European Commission (2011a) suggests that when using taxation policies to improve labour market performance, it is better to target them on specific groups of workers (e.g., married women, lone mothers, low-educated individuals). Targeted tax cuts for some under-represented/vulnerable labour market groups, which are found to have a powerful effect on whether they work, can also be financed by imposing higher taxes on the income of other groups. In this case stronger work incentives for some go hand-in-hand with less rewards for work effort for other (OECD, 2006b, EC, 2011a). Therefore, the tax-benefit system have a potential for mitigating the
social costs of the labour market response to economic downturns for specific groups of workers and their families (OECD, 2012b).

Tax wedge is a useful measure in assessing the role of labour taxes for labour market resilience. The measure of the tax wedge on labour is defined as the difference between the salary costs of a single “average worker” to their employer and the amount of net income (“take-home-pay”) that the worker receives (OECD, 2007). The taxes included are personal income taxes, compulsory social security contributions paid by both employees and employers, as well as payroll taxes for the few countries that have them. The amount of these taxes is expressed as a percentage of the total labour costs for firms, i.e. the sum of gross earnings, employers’ social security contributions and payroll taxes (OECD, 2007). Taxes on capital income may also affect the labour market outcome when capital markets are internationally integrated. Moreover, the impact of taxes differs substantially whether one assumes that labour markets are perfectly competitive or not. Taxes also influence the size of the shadow or informal economy. In fact the incidence of informal employment depends heavily in certain countries on taxation of low-paid (formal) employment vis-à-vis taxation of income from activities with a high incidence of undeclared work, like small businesses; the stringency of employment regulations (which may make employers reluctant to formalise employment relationships) and the extent to which formal employment entails a right to pension and unemployment benefits (to make formal employment attractive to workers themselves) (OECD, 2006b).

In sum, tax-benefit reforms, including in-work benefits, if well-designed, may help ensure that benefit recipients have a financial incentive to work. Recent evidence suggests that, if combined with other measures and well-targeted, the provision of in-work benefits promotes re-employment prospects of jobseekers and attenuates in-work poverty (OECD, 2006b).

**Conclusion: institutional structure for labour market resilience?**

In this section we have discussed a variety factors related to the institutional structures of labour markets. The institutional context aims to either protect the workers from getting dismissed or soften the negative side-effects of unemployment for unemployed people. Thus, on the one hand, unemployment benefits (income maintenance or poverty reduction) and activation policies (shortening benefits) are aiming to soften the negative side-effects of income losses. However, they cannot directly reduce the risk of dismissal or increase number of people that are hired by employers. On the other hand, labour market regulations directly affect the number of job dismissals and job hires. A variety of laws and regulations – e.g. working time regulation, minimum wage, etc. – do affect the flows between unemployment and employment (De Beer and Schills, 2009). This is why we argue that there is a significant interdependency between these policies/regulations and therefore labour market performances might be affected by the interplay of these policies. In other words, the different sets of policies and regulations as discussed in this section are important variables in explaining divergent labour market performance across countries and over time (Eichhorst et al., 2010). Therefore, the institutional structures of European labour markets can affect our dependent variables in terms of equity and efficiency in integrated ways and thus not separately. The latter (efficiency) is also reflected in our discussion of labour market regulations, whereby we discussed how different policies and regulations affect the flows from unemployment to employment. Moreover, resilient labour markets
have to do with the systems’ ability to achieve low poverty risks (equity) and its capacity to achieve incentives in terms of largest possible employment rate (efficiency). In other words, these policies and regulations play important roles on the outcomes of labour markets.

### 3.2.2 Socio-economic structure

This section is concerned with the socio-economic conditions that affect labour market resilience. Under the heading of socio-economic conditions we distinguish between three types of variables, namely: firm size, regional disparities and industry structures. The regional disparities and industry structures are closely related to one another. Therefore, these two variables will be discussed that way as well after having discussed firm size variables (see table 6 for an overview).

**Table 6 Socio-economic factors**

<table>
<thead>
<tr>
<th>Source</th>
<th>Variables</th>
<th>Definition</th>
<th>Indicators/Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCED. (1998, 2005), Rajan et al., (2001), (European Commission (2003), Traxler (2004), Russo and Tencati (2009)</td>
<td>Firm size</td>
<td>Firm size can be classified based on the number of employees that a firm employ</td>
<td>Small and Medium Entities (SME’s):&lt;br&gt;- Micro-entities (&gt;10)&lt;br&gt;- Small firms (&gt;50)&lt;br&gt;- Medium firms (&gt;250)&lt;br&gt;Large firms (&gt;250)</td>
</tr>
<tr>
<td>Eurostat (2012)</td>
<td>Regional disparities</td>
<td>The dispersion of regional GDP is calculated on the basis of regional GDP at NUTS level 2 and 3.</td>
<td>Supply-side:&lt;br&gt;- e.g. Education (see demographic)&lt;br&gt;Demand-side:&lt;br&gt;- e.g. Capacity to generate job (see also firm size), Industry STRUCTURE</td>
</tr>
<tr>
<td>Eurostat (2012)</td>
<td>Industry structure</td>
<td>L. M. sector specialisation at regional level: is broadly understood to be the extent to which particular economic sectors attract larger shares of employment or output in one region as compared with another.</td>
<td>Regional sectoral specialisation by NUTS 2 regions, 2008&lt;br&gt;‘cyclically sensitive’ and ‘cyclically stable’ industries&lt;br&gt;- Agriculture, value added (% GDP)&lt;br&gt;-Industry, value added (% GDP)&lt;br&gt;-Services, value added (% GDP)</td>
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**Firm size**

Firm size is another independent variable that can help us explain labour market resilience. Firm size is also a variable that has been operationalized differently by different scholarly and non-scholarly literature. The main differences are concerned with its definition and measurement. However, there are also many similarities between different authors as they distinguish between at least small, medium and
large corporations. Even though a clear definition of firm size is lacking, the EC’s definition of small and medium-sized enterprises (SME) recently gained much attention which also provides a definition of larger corporations (see table 6). The abbreviation "SME" is also used by other organisations such as the OECD (2005). In this respect, the EC and OECD consider firms with less than 250 employees as SME’s, and firms with more than 250 employees as large firms. The SME is further subdivided into micro firms (up to 9 employees), small firms (up to 49 employees) and medium-sized firms (up to 249). In Europe the SME’s outnumber large firms by a wide margin of around 99% to 1% with exception of Ireland (90%) (see Traxler, 2004). As already mentioned firm size is an important variable because it directly relates to the reallocation of jobs (see for an overview of the literature Haltiwanger et al., 2010). Especially, the role of SME’s on creating or destructing jobs and its contribution to the total employment rates has gained widely attention. According to the EC (2013a-b-c) 85% of net new jobs between 2002 and 2010 were created by the SME’s. This is much higher the than SME’s total share of 67% in employment. Also other studies suggest that SME’s, especially small firms, “generate the most new jobs, across country income groups” (Haltiwanger et al., 2010). Moreover, SME’s role in relation to the 2008 economic crisis also gained much attention as billions of aid across countries are directed at fostering the growth of small and medium size firms (Ayygari et al., 2011). It has also been argued that the economic growth of industries takes place through the growth in the size of existing organizations (e.g. Rajan et al. 2000). However, while the firm size literature acknowledges SME’s role as the driver of innovations in different economic sectors which might explain job creation, they are also vulnerable in times of crisis because of the have less resources which might explain their exit and thus job destruction. Large firms have more financial resources and technical capabilities and thus more income which enable to survive economic shocks more easily than their smaller counterparts (Damanpour, 2010; Bartelsman et al., 2009). One could also argue that firm size diversity affects the resilience of economies and therefore labour markets. This argument is brought forward by Garmestani et al. (2006) who argue that employment trends are less volatile to shocks in countries with higher firm diversities.

Regional disparities and industry structure
Another central feature of the socio-economic context of labour markets relates to the regional disparities, reflected in an uneven ability of regions to adapt their labour markets in the face of a challenge (Chapple and Lester, 2010). The evolution of regional labour markets is directly related to the spatial dynamics of capitalism and the uneven geographies of their mechanisms of growth and decline (Hudson, 2005). This in turn translates into significant disparities in regional unemployment and employment rates that persist between the regions of the EU-27. There are several factors that can largely explain regional disparities of the national labour markets. 

First, the resilience of local labour markets may depend on the outcomes of their geographically contiguous regions, even if they are located in different countries. In fact, the employment and unemployment outcomes of individual regions appear to be much closer to the average outcomes of their neighbours rather than to the average outcomes of other regions within the same country (Overman and Puga, 2002). In many European countries, more than one half of the national income is produced in a few core regions that account for less than one quarter of the country’s total surface (OECD, 2005). Such agglomeration of population and economic activities can be partly attributed to the
proximity to the areas endowed with natural advantages such as raw materials, availability of fertile soil, suitability of weather conditions or easy access by land or water (OECD, 2005). However, the fact that industries such as textiles or software are often concentrated in space suggests that forces beyond natural endowments can also lead to concentration of economic activities. Furthermore, irrespective of natural advantage, firms may benefit from being located beside many other firms if the scale of the economic environment adds to productivity. This approach emphasizes the role of interactions between economic agents in the same geographic space, rather than interactions between agents and nature in determining industrial location (OECD, 2005). Second, the supply side factors, such as demographic characteristics (e.g. educational attainment) of the population, related to the general stock and the quality of the human capital in certain areas are important in explaining regional differences in labour market resilience. Therefore, it is hard to imagine a region engaging in a sustained path of technological upgrading without an abundant supply of skilled labour (OECD, 2011). In particular, existing differences in the age composition of regions, reinforced by selective labour mobility and foreign immigration can be seen as a challenge (OECD, 2011). Demographic characteristics will be discussed more in detail under the demographic structure in the next section. Finally, the demand-side factors, such as the capacity to generate new jobs are of key importance for the regions ability to maintain its growth level (OECD, 2005). This specifically relates to the initial sectoral specialisation of regions, because structural differences between regions in terms of the industry composition are likely to have implications on the way in which labour market respond to the aggregate shocks to the economy (OECD, 2005).

Therefore, labour markets can be influenced by its prevalent industry structure in a number of ways. Firstly, in the short-run, the industry composition of employment within a region may have a significant effect on the region’s vulnerability and their response to the macroeconomic shocks. Regions in which there is a relative concentration of employment in ‘cyclically sensitive’ industries, such as construction, tend to experience wider cyclical variations in employment and unemployment than regions that are specialised in more ‘cyclically stable’ industries (Robson, 2006). Secondly, structural changes following from longer-term shifts in the pattern of labour demand across industries may lead to increases in regional unemployment as labour, which is displaced from declining industries takes time to be absorbed into the new emerging sectors of the economy (Robson, 2006). Finally, a region’s labour market performance may be influenced by the degree of specialisation or diversity in the region’s industry mix (e.g. Diamond and Simon, 1990; Neumann and Topel, 1991). Therefore, a region that is characterised by a diverse industry employment mix may be less vulnerable to the effects of adverse shocks to aggregate demand than one in which employment is concentrated within a relatively small number of related industries (Robson, 2006; OECD, 2005). Hence, mono-industrial regions, where previous dependence on a single industry and the absence of a recent history of innovation often imply lack of the economic and social capacity to become ‘learning regions’ (Sissons, 2009). Conversely, as employment growth tends to be less dynamic in some sectors such as agriculture and some manufacturing sectors, unemployment level differentials at the regional level may simply mirror differences in initial sectoral specialisation (OECD, 2005).

Moreover, apart from the general industry structure of an economy, restructuring processes of de-industrialisation can be seen as a long term slow moving challenge facing regional labour markets.
The past decades have seen significant changes in the structure of national European economies, in particular the decline of many traditional manufacturing and primary sector industries and the growing significance of the service sector. Subsequently de-industrialization has been held responsible for generating significant disorder in the labour market as jobs have been reallocated from declining to growing sectors, and led to significant changes in the pattern of industrial specialisation at both the national and regional level (Robson, 2006). Moreover, loss of industrial jobs led to a growth of more flexible employment relationships, with increasing numbers of people involved in less secure, contingent, and often part-time work (Pierson, 2001).

All in all, socio-economic factors are important in explaining labour market resilience, because they can help us explain variance in the employment and unemployment rates between different countries and more importantly between different regions. Moreover, economic variables related to the economic concentration of resources, industry structure and processes of economic re-structuring can be seen as important factors in explaining regional differences in labour market resilience. The persistence of regional disparities within countries suggests that “market” mechanisms are often inefficient to play a self-equilibrating role. Moreover, the implications of the post-industrial transition are vital for many challenges facing post-industrial political economies in general, and welfare states in particular (Pierson, 2001). As most of the European countries experience substantial variations in employment outcomes at the sub-national level, addressing the regional dimension of labour market problems can be seen as a part of a successful strategy for reducing overall unemployment. Finding the successful strategy is related to finding the optimal balance between institutional flexibility and commitment in the labour market policies.

3.2.3 Structural-demographic context

Apart from the institutional and socio-economic structural characteristics another important set of factors affecting labour market resilience relates to the demographic structure that also defines regional and national labour markets. Population structure relates directly to an adequate availability of labour supply for the different needs of labour markets (Gesano et al., 2009). It may also affect labour markets through its impact on human capital formation, productivity and technological change. Moreover, broader changes that occur in partnership, fertility, mortality, ageing and migration have profound implications for the design of social protection measures, labour market polices and the individual well-being of citizens (Avramov, 2002). Thus, challenges in the field of social protection are deeply rooted in demographic dynamics, particularly population ageing and family formation and dissolution, while social vulnerabilities are strongly connected to the combined effects of age, gender and family composition (Gesano et al., 2009). Hence, the amount and share of social spending on education, health, elderly assistance, etc. largely depends on the prevailing or emerging demand coming from the demographic trends. In the operationalization of the population structure of the labour force, several indicators can be used, which present an overall picture of the demographic trends (see Table 7).
Table 7 Demographic context of the labour markets

<table>
<thead>
<tr>
<th>Source</th>
<th>Variables</th>
<th>Definition</th>
<th>Indicators/Measurement</th>
</tr>
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<tbody>
<tr>
<td>(Kapsos, 2007)</td>
<td>Population structure</td>
<td>The share of population aged 0-14 (young age-dependent), 15-24 (working-age youth) and 25-64 (prime working age)</td>
<td>- Population age structure by major age groups&lt;br&gt;- Old age dependency ratio</td>
</tr>
<tr>
<td>OECD (2012a)</td>
<td>Education and skills</td>
<td>Education and Skills can be defined as the package of knowledge, attributes and capacities that can be learned and that allow individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning .</td>
<td>- Education attainment-Early school dropout&lt;br&gt;- Life-long learning&lt;br&gt;- Total population having completed at least upper secondary education (%)&lt;br&gt;- Early leavers from education and training (%)</td>
</tr>
<tr>
<td>Eurostat (2011)</td>
<td>Migration</td>
<td>Net migration rate - is the ratio of net migration (differences of immigrants and emigrants) during the year to the average population in that ear. The values are expressed per 1 000 inhabitants</td>
<td>- Net migration rate&lt;br&gt;- The share of foreign born population</td>
</tr>
</tbody>
</table>

Population developments in the various EU member states differ, as well as the rate of ageing. For instance, eastern EU member states have relatively young and slowly-ageing populations now, but face the prospect of very rapid ageing from 2025 onwards. Across the member states, the share of young population (0-14 years old) was largest in Ireland (21.6 %) and smallest in Germany (13.2 %), while the highest share of older persons has been recorder in Germany and Italy (both 20.6 %) and Ireland had the lowest share (11.9 %) (Andueza Robustillo et al., 2013).

At the country level, changes in the age structure of populations, such as population aging or generational crowding, may affect labour force participation rates over time. Different age cohorts tend to have different labour force participation rates, and thus changes in the aggregate age structure of a population can affect the overall participation rate (Kapsos, 2007). Population ageing is a long-term demographic trend, which can be observed in the development of the age structure of the population and is mirrored in an increasing share of older persons together with a declining share of working-age persons in the total population (Münz, 2007, Andueza Robustillo et al., 2013). The term “baby boom” has been used in the literature to indicate the substantial increase in the size of younger cohorts and other similar changes in the population age structure; while “generational crowding” has been often used to define the worsened economic conditions for the younger cohorts (Biagi and Lucifora, 2005). It has been predicted that demographic ageing and workforce decline in the EU will create bottlenecks to the available labour force in the medium term, even though, at present, countries still have un-deployed
human resources which could potentially produce further employment growth (Andueza Robustillo et al., 2013). Hence, in order to incorporate these types of demographic effects, variables of the share of population aged 0-14 (young age-dependent), 15-24 (working-age youth) and 25-64 (prime working age) can be used in order to account for an important relationship between participation and demographics (Kapsos, 2007).

Education and Skills
Another group of key factors affecting labour market resilience relates to the educational level of the population. In order to succeed on the labour market, people need specific skills, which can be defined as the package of knowledge, attributes and capacities that can be learned and that allow individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning (OECD, 2012a). Without adequate skills, people are at a higher risk of social exclusion, technological progress does not translate into economic growth, and countries can no longer compete in an increasingly knowledge-based global society. Highly educated individuals are more mobile and adapt more easily to new circumstances (UNDP, 2006). Moreover, people with poor skills face a much greater risk of experiencing economic disadvantage, and a higher likelihood of unemployment and dependency on social benefits (OECD, 2012a).

Therefore, education and skills are of key importance for policy makers and social scientists. A core element of the current debate is that matching skills to jobs is a crucial part of resilient labour markets. This can be seen in unemployment rates, which show significant variation by educational levels: more educated workers are two to three times less likely to be unemployed as compared to their low educated counterparts and over the business cycle their relative rates tend to diverge (Biagi and Lucifora, 2005). These patterns are highly policy-relevant and result in a fierce debate on the economic effects of the increase in the youth share of population, and the relationship with the rise and the persistence of (youth) unemployment.

Skills mismatch is one implication of an inadequate educational system, which has important economic implications at various levels (see Table 8). At the individual level, for instance, it affects job satisfaction and wages. At the firm level, it reduces productivity and increases on-the-job search and turnover. At the macroeconomic level, it increases unemployment and reduces GDP growth via the loss in human capital and/or the reduction in productivity it generates (Quintini, 2011). To limit these negative effects, it is important to identify the main causes of skills mismatch and design a comprehensive policy strategy to address them (Quintini, 2011). Therefore, a well-functioning education and training system – including initial education and adult education and training – should be associated to lower levels of persistent mismatch between the skills of its graduates and those required by the labour market. For instance, many analysts consider the too-rapid rise in the number of university graduates relative to demand as the main determinant of qualification mismatch. Also, employers often blame initial education for not providing youth with the skills needed on the labour market.

Table 8 Types of mismatch that may cause problems in the job matching process

<table>
<thead>
<tr>
<th>Types of mismatch</th>
<th>Definitions</th>
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</table>
Skills mismatch
This is the mismatch between the skills (i.e. generic, technical and soft skills) held by workers and those required by their jobs. Skills mismatches involve:
- Skill deficit (skill gap), where a worker’s skills are not up to the requirements of the job;
- Skill underutilisation (overskilling), which arises when skills exceed those required by the job.

Qualification mismatch
This is the mismatch between educational qualifications (i.e. formal academic skills) held by workers and those required by their jobs. Two situations may arise:
- Over-education, when a worker has more educational qualifications than those required;
- Under-education, when a worker has fewer educational qualifications than those required.

Regional and sectoral mismatch
Depending on regional and sectoral employment and unemployment dispersion, this arises when the locations and sectors where job openings are available are poorly matched with potential employees.

Source: European Commission (2013d)

Lifelong learning addresses the problem of skill mismatch, and aims at improving adaptive capacities on the job market. Therefore, adult learning and training, including activation programmes for the unemployed, are important in addressing skills obsolescence as well as new skill requirements driven by technological change. Both the unemployed and over-skilled workers risk suffering from skill obsolescence following from not using their competences for a prolonged period of time (Quintini, 2011). Therefore, it is important to see how the access to training and the level of skills and education is distributed over the adult workforce in European countries, and how this translated into resilience of certain groups.

Migration patterns
Job mobility, which can consist of moving from one employer to another or involve changing one’s job profile or career level (with or without a change in employer), is an important adaptive strategy of workers who have problems with finding a job that matches their skills. Another strategy involves geographical job mobility, which include a move from one region to another within the same country (internal mobility) or a move across national borders (e.g. intra-EU mobility) (EC, 2012). The propensity to be mobile could be of great benefit to the EU as it might enable better matching of skills and language ability with job opportunities. In fact pro-active migration policies and measures that aim at identifying future labour and skills gaps are considered as important for the future of well-functioning labour markets. In this context Europe has a genuine incentive to compare its efforts and experiences with those of traditional countries of immigration, such as the US, Canada or Australia (Münz, 2007). Considering migration as a way for reducing asymmetric imbalances between countries and their labour markets, is directly related to the objectives of the EU Cohesion Policy (Collyer, 2011). Thus, intra-EU labour migration, instead of being seen as something to be controlled, is gradually perceived as something to be managed for wider benefits.

However, the empirical evidence on the effects of labour mobility on national labour markets in sending and receiving countries is less clear (Boeri and Brücke, 2005; Brücker, 2007; Kahanec and
This relates to the fact that labour migration can lead to diverse economic, social and demographic consequences and therefore it affects labour market resilience in a number of ways. Specifically labour flows affect local labour markets and the quality of labour supply, by influencing the employment levels of both sending and receiving regions, the transfer of human capital (brain drain/gain/circulation) and an influence on income levels (Julca, 2010). Moreover, migration flows may exert pressure on demographic structure of local communities, through increasing or relieving population ageing, either by swelling or depleting the cohorts in young labour age, or by generating the new born cohorts to approximately maintain the present population structure (Gesano et al., 2009).

The net migration rate is the mostly used, valid and reliable indicator for migration flows between countries. It summarises the overall effect of population movements and therefore, gives a good overview in general migration trends. Net migration is defined as the total number of immigrant nationals and foreigners minus the total of emigrant foreigners and nationals (OECD, 2009). Negative migration rates indicate that there are more people leaving the country, whereas positive net migration rates imply that there are more immigrants than emigrants. Arrivals and departures for purposes such as tourism and business travel are not included in the statistics (OECD, 2009). Overall, we can conclude that the institutional, socio-economic and demographic structural factors, discussed in this chapter, are highly relevant for understanding labour market resilience, as the risk of being exposed to an exogenous shock is actively created by these different contextual factors. Therefore, the extent to which external shocks alter the system is closely intertwined with the unfolding of broader, longer run and slow-burn processes of change (Pike at al., 2010, Freks et al., 2011). Together they create a starting point for the labour markets, by preparing them to face particular exogenous shocks, which will be discussed in next section.

### 3.3 Response to challenges

In order to respond to challenges countries, national governments, social partners, employers, job seekers and other stakeholders are forced to seek for innovative solutions to adapt the existing institutions of labour market policies, employment policies and social policies. There is a growing body of literature in which governments’ responses to crises and shocks are conceptualized in terms of policy innovation and institutional change. Esping-Andersen and Regini (2000) argue that European welfare states have constantly been ‘in crisis’ since the 1970s. On the one hand, this ‘crisis’ is the result of the gradual transformation of western economies towards post-industrial, service-based knowledge economies and on the other hand the result of the accompanying processes of globalisation and individualisation. These economic and social transformations affect the fiscal basis of the ‘social’ Europe and the institutional capacities of the states to manage social risks collectively. Broadly speaking, there are two perspectives on policy innovations and institutional changes (Fenger, 2011 drawing on Howlett, 2009 and Jensen, 2009). The first perspective puts emphasis on policy discontinuity, abrupt and/or radical changes as caused external shocks/critical junctures (see for instance the punctuated equilibria by Baumgartner and Jones, 1993). The second perspective seems to emphasis policy continuity, less abrupt and wholesale transformations that tend to be slow and piecemeal changes – i.e. incremental changes (see for instance Mahoney and Thelen). In this essay, we discuss both of these perspectives on
innovations respectively under short and long term government responses to crises and external shocks in terms of policy innovations. Below, both types of government responses will be discussed briefly.

Table 9 Response to shocks

<table>
<thead>
<tr>
<th>Source</th>
<th>Variables</th>
<th>Definition</th>
<th>Indicators/Measurement</th>
</tr>
</thead>
</table>
| Rogers (2003: 12), cf. Walker(1969), Berry and Berry (1990), Mahoney and Thelen (2010), Thelen (2005) | Policy innovations | Policy innovation is an idea, practice or object that is perceived as new by an individual or a unit of adoption, which intend to improve the resilience the labour markets. | Short term/ radical response  
- Immediate (temporary)  
- Displacement  
Long term/ gradual response  
- Inertia/status quo  
- Layering  
- Drift  
- Conversion  
- Displacement |

**Short term response/innovation**

The 2008 crisis eroded the trust in banks and created burdens for the financial resources available to firms which placed considerable pressure on them, because of their decreased scope of action, especially in Europe (e.g. Bertelsmann Foundation, 2009). However, it also forced European governments to undertake swift and resolute action in mitigating the effects of the crisis by introducing short term (temporary) policy measures aiming at quick recovery from shocks. Such short term crisis responses have the character of immediate policy innovations. Pollitt and Bouckaert (2009) describe this type of innovation or government response as a radical change and they characterised it as an ‘earthquake’. Hall (1993), arther sees radical innovation as a third-order policy change that according to him can be measured by assessing whether a paradigm change has occurred or not. A paradigm change is more or less similar as policy innovation that occur whenever governments enter new policy domain as a result of societal developments (Hogewood and Peters, 1983). Radical innovations can also be measured by the concept of displacement which refers to a situation whenever ‘new models emerge and diffuse which call into question existing, previously taken-for-granted organizational forms and practices’ (Streeck and Thelen, 2005: 19). Indeed, in the aftermath of the crisis that started in 2008 institutional changes have occurred across Europe varying from tax-cuts for firms to support for SMEs, support for specific industry and vice versa. Witness the of short term (temporary) policy innovations as identified by the Bertelsman Foundation (2009) which has been labelled as “resolute, immediate, pragmatic and comprehensive set of responses” to the uncertainties that global recession created. For example, Germany, Austria and the Netherlands all adopted short-time work compensation (STC) programs as key responses to the crisis in keeping unemployment levels low, while other countries adopted other key responses. In spite of the many common features (immediate (temporary) and/or radical innovations) that these crisis responses shared, their effects rather quickly dissipated in some
countries. This may perhaps explain why some countries were less affected by the crisis in comparison to other countries. In other words, cross-national discrepancies suggest two things:

- how governments introduced different policy instruments to mitigate the impact of the 2008 crisis and,
- the concrete actions (pre-crisis or follow-up actions) taken by governments to address long-term challenges differed remarkably across Europe.

Below, we will discuss long term responses to challenges – i.e. pre or post crisis incremental innovations – In somewhat details.

**Long term response/innovation**

As already suggested, social Europe has constantly been ‘in crisis’ (Esping-Andersen and Regini, 2000). On the one hand, most European governments were forced to innovate their social, employment and labour market policies continuously either radically or incrementally. On the other hand, a high level of inertia hindered some governments to innovate their policies as governments reacted to crisis throughout time by investing on outdated and unproductive activities, whereby the labour markets’ vulnerability and exposure to new shocks continued to exist. In the literature inertia is often regarded as an obstacle to policy innovations. Moreover, inertia and innovation are generally considered as the opposites of one another (Ahrne and Papakostas, 2001). The literature on ‘gradual institutional change’, however, has criticised the notion of inertia. Thelen and Steinmo (1992: 18) argue that although institutions may be rigid and unresponsive, they do leave some room for policy change and adaptation (see also Genschel, 1997). Mahoney (2010), for instance, argues that a small improvement in the unemployment rate for a given period could be seen as an example of incremental change. He, also argues that the accumulated impact smaller changes - *a series small improvements* - add up to a big change over a longer period of time. In this respect, Mahoney and Thelen (2010) distinguishes between four types of incremental institutional changes that occur in relation to the administrative and political characteristics of a country. Indeed, Mahoney and Thelen approach, but also the works Streeck and Thelen and their other colleagues, are recognised as important contribution to institutional theory which enables us to come up with explanation for gradual processes of institutional change and at the same time it complements the theory of exogenous critical junctures (see for instance Fenger, et al. 2014). Based on table 1, below, we will discuss the assumptions behind the four types of institutional changes. Before doing so, it should be noted that ‘displacement’ is already mentioned as a way of measuring short-term responses to crisis.
**Table 10 Four forms of institutional change**

<table>
<thead>
<tr>
<th>Characteristics of Targeted Institution</th>
<th>Characteristics of Targeted Institution</th>
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</thead>
<tbody>
<tr>
<td>Low level of discretion in interpretation/enforcement</td>
<td>High level of discretion in interpretation/enforcement</td>
</tr>
<tr>
<td>Strong veto possibilities</td>
<td>Layering</td>
</tr>
<tr>
<td>Weak veto possibilities</td>
<td>Displacement</td>
</tr>
</tbody>
</table>

Source: Mahoney and Thelen (2010: 19)

Mahoney and Thelen (2010) provide many hypotheses in relation to the concerned institutions, characteristics of the political context, change agents, and modes of institutional change. In order to come up with different types of institutional based they state two broad questions/dimensions that characterize the political context within which institutional change takes place. The first dimension is concerned with the extent to which the political context provides the defenders of status quo strong or weak veto possibilities. The second dimension is concerned with the degree of opportunities of actors for exercising discretion in interpretation or enforcement that the targeted institution affords. In line with Table 1, incremental institutional changes or long term responses can be measured by the following four types of institutional changes:

- The literature on incremental change, *layering* is considered as a discontinuous mode of change whereby institutions are altered through the introduction of new properties or features (see for an overview literature Mahoney, 2012). Therefore, layering is concerned with the attachment of new arrangements on top of the old ones which involves a process of amendments, revisions, or additions to existing arrangements (Mahoney, 2010). An excellent of layering is the amendments and revisions of Dutch Labour migration policy (AEA) for non-EU labour migrants as AEA has been confronted with significant external developments such as free traffic of workers from Central and Eastern Europe, but still, it remained rather stable in its formal design (Fenger, et al., 2014).

- *Drift*, on the other hand, occurs when the core features of concerned institutions formally remain the same but rather their impact changes because they cease to function or work in the same as once before (Mahoney, 2010). For example, drift occurs if the national birth rate rises in country while policy makers do not (intend to) increase funding for family allowances and day-care (Combell, et al., 2007: 13).

- Conversion is closely related to drift, which refers to the “redeployment of old institutions to new purposes” (Streeck and Thelen 2005: 31). Indeed, here also the core features of the concerned institutions formally remain the same, however, in practice they are applied in new ways. An excellent example of conversion is that “German vocational training was initially
intended to undermine the social democratic labour movement, but eventually became a source of strength to that movement vis-a-vis employers” Combell, et al. (2007: 13).

- Displacement, refers to introduction of ‘new models’ which we have discussed as a way of radical innovations. An excellent example of displacement that Spain and Portugal used the 2008 crisis a window of opportunity to reform their educational and training policies (OECD, 2009a).

All in all, and in line with Hall and Soskice (2001), one could also argue that Liberal Market (LMEs) Economies are better equipped to deal with the crisis (coordination problem) through immediate responses because there are less institutional blockades in relation to radical changes in comparison to Coordinated Market Economies (CMEs). This is because the institutional structures of LMEs are concerned with more flexibility in which firms are allowed to easily hire and fire employees. This might imply that the need for radical changes is less pressing in LMEs in times of crisis. In contrast, CMEs may feel the urge to introduce crisis measures. Moreover, the processes of gradual institutional changes enable the CMEs to continuously adjust their policies according to the time. However, inertia could hinder governments to innovate their policies which could increase their vulnerability to next the crisis. But then again, as already mentioned, the literature on incremental institutional change demonstrates that there is always room for change or innovation. In this respect, Van der Heijden (2010) drawing on Thelen (1999), argues that incremental institutional evolution is path dependency, ‘which involves elements of continuity and (structured) change’. In other words, as important as immediate responses may be in addressing short term problems by enabling policy makers to introduce radical innovations in order to realize quick recovery; less abrupt or wholesale transformations that tend to be slow and piecemeal changes are also important, if not the most important innovations, especially in CMEs just as the OECD (2012b) argues that both pre and post crisis actions taken by governments to address long-term challenges of their labour markets are crucial. Therefore, at this moment we might concluded that LMR may depend as equally on immediate short term responses as on more persistent, incremental and longer term responses.

3.4 Outcomes

As discussed earlier, labour market resilience can be perceived as a process of continual adjustment to shocks and the capacity of labour markets to respond and adapt to challenges, which result in different labour market outcomes. Hence, we can argue that resilience becomes evident in the outcomes after the shock occurs and the government responds, by either a return to a pre-shock state as outlined in the equilibrium framework, or stepping into another stability domain as outlined in the multiply equilibriums approach. Consequently, some approaches to resilience offer valuable and legitimate metaphors for researchers interested in these outcomes, as the rates of unemployment, poverty or labour-force participation can be considered as equilibrium phenomena (Pendall et al., 2010). Thus, in order to assess whether a system is resilient in the aftermath of the shock, it is crucial to assess the outcome measures that may resume either their pre-shock levels or their new post-shock trajectories (Pendall et al., 2010). In a similar manner, OECD (2012b) attempts to capture labour market resilience by looking at the
changes in workers welfare, based on the following labour market outcomes: i) changes in unemployment rates. ii) change in total earnings, and iii) the way the earnings impact is distributed over the labour force.

As the INSPIRES project aims to define, conceptualise and eventually assess labour market resilience for different countries as well for specific vulnerable groups, there is a need for variables and indicators that capture labour market resilience at different levels. Inspires project defines vulnerable groups as those which experience a higher risk of poverty and social exclusion than the general population. Hence apart from both qualitative and quantitative dimension of employment, we will also discuss the indicators of both social exclusion and poverty, that are highly interrelated and relevant outcomes. Hence, this section of the essay identifies vulnerable/at-risk groups in the labour market, according to country of origin/race/ethnicity, age, and disability criteria (see Table 11). Moreover, in this section we discuss main concepts (employment/unemployment, job quality and poverty and social exclusion) that will enable us to quantify the impact of the recession on specific groups, based on Table 11. Although some might argue that during crisis the distinction between “general” and “vulnerable” population might is not entirely clear, there are certain groups of workers, that tend to face at higher risk of negative effects of the crisis, such as unemployment, low quality jobs, poverty and eventually social exclusion. This relates to the uneven distribution of the negative impact of recession among different labour market segments. Hence, there might be large differences in unemployment levels as well as other indicators, among different segments.
### Table 11 Vulnerable groups

<table>
<thead>
<tr>
<th>Source</th>
<th>Variables</th>
<th>Definition</th>
<th>Indicators/instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eurostat</td>
<td>Youth</td>
<td>Youth labour force comprises all persons between the age of 15 and 24 who were either employed or unemployed over a specified reference period.</td>
<td>- Youth unemployment rate for those aged 15-24</td>
</tr>
<tr>
<td>Eurostat, 2011</td>
<td>Migrants</td>
<td>- <strong>Foreign citizens</strong> (non nationals) are defined as persons who do not hold the citizenship of their country of residence, regardless of whether they were born in that country or elsewhere.</td>
<td>- People at risk of poverty or social exclusion aged 25–54 by groups of country of citizenship and gender, EU 27, 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <strong>Second-generation migrants</strong>, i.e., either those with one parent or two parents born abroad) refer to two different groups of immediate descendants of migrants. The first group, with a mixed background, is defined as persons who are native born and who have one foreign-born parent and one native-born parent. The second group, with a foreign background, is defined as persons who are native born with both parents foreign born.</td>
<td>- Activity rate of persons aged 25–54 by type of background and gender</td>
</tr>
<tr>
<td>Eurostat, 2010b</td>
<td>Older workers</td>
<td>The number of persons (females, males) aged 55-64 in employment as a share of the total population (females, males) of the same age group.</td>
<td>The employment rate of older workers is calculated by dividing the number of persons in employment and aged 55 to 64 by the total population of the same age group.</td>
</tr>
<tr>
<td>Eurostat, 2008</td>
<td>Disabled</td>
<td>Disabled persons are those who stated that they had a longstanding health problem or disability (LSHPD) for 6 months or more or expected to last 6 months or more. The results refer to persons aged 16-64 years, living in private households.</td>
<td>- Employment rate of disabled persons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Activity rates</td>
<td></td>
</tr>
</tbody>
</table>

Youth is considered to be particularly affected by the crisis, because their productivity is generally lower given differences in skills and experience (Kuddo, 2012). The INSPIRES project defines young people as people aged from 15 to 24 years, in line with the European Commission and Eurostat statistical definitions. Young people that have only completed lower secondary education (early leavers from education and training) bear the highest risk of unemployment. Being unemployed at a young age has a long-lasting negative impact, a 'scarring effect' (Eurostat, 2009a). Young people might be trapped in the
lower end of the labour market, with less on-the-job training, lower wage levels and weaker long-term employment and career prospects, consequently experiencing long spells of joblessness and facing a high risk of exclusion. This could pose a serious threat to social cohesion and increase the risk of political instability. Therefore, the prospect of a "lost generation" urges EU institutions and governments, businesses and social partners at all levels to address the youth unemployment challenge.

Migrants are another group that especially during crisis face a higher risk of unemployment, poverty and social exclusion. Several studies (European Commission, 2011; Hogarth et al, 2009) suggest to a “hypercyclic” nature of migrants employment. In other words migrants unemployment rate increases in recession periods and decreases quickly in economic expansion times. Therefore, migrant unemployment is much sensitive to economic cycles than native one. In addition, migrant jobs have worse quality due to sometimes they are low-skilled and the difficulty for recognizing their qualification and make an effective use of their human capital (European Commission, 2012c).

Disabled people, might also be at higher risk of social exclusion during recession. This group of workers often rely on labour market activation for disabled persons, which are generally easier to address in periods of increasing labour demand and lower levels of unemployment than in times of recession (Greve, 2009). Therefore, people with intellectual impairments and mental health conditions face particular difficulties in entering and/or remaining in the labour market (Greve, 2009). Hogarth et al (2009) suggest that the recession also affects activity rates with a fall in these for disabled people.

The last vulnerable group are older workers. As suggested by Eurofound (2012) in a serious recession some older workers never return to the labour force after losing their jobs. Previously early pensioning was financially feasible in the short run and relatively attractive to workers as well as social partners, this is no longer the case. A lesson drawn from the previous major recessions of the late 1970s and 1980s was that early pensioning of a significant number of employees was not in the long-term interests of member states (Eurofound, 2012).

**Measuring the outcome**

As mentioned earlier, the literature concerned with the effects of crisis, usually departs from different specifications of ‘Okun’s law’, which is concerned with the relationship between GDP growth and changes in unemployment rate (UR) (IMF, 2010; Bartolucci et al., 2011; OECD, 2010, 2012; ECB, 2012, Boeri et al., 2012). However, labour market performance can be measured both in quantitative and qualitative terms (see Table 12). In terms of the quantitative dimensions, unemployment rate is an important indicator which consist of both social and economic dimensions. Rising unemployment results in a loss of income for individuals, increased pressure with respect to government spending on social benefits and a reduction in tax revenue. From an economic perspective, unemployment may be viewed as unused labour capacity (Eurostat, 2013). The International Labour Organization definition of the unemployment rate is the mostly used labour market indicator, as it allows for cross-national comparability and relatively timely availability. Moreover, besides the unemployment rate, indicators such as employment rates, labour force participation, working hours and job vacancies also give useful insights into labour market developments (Eurostat, 2013). Moreover, we can distinguish between those who are employed, unemployed or economically inactive according to definitions of the ILO. Moreover,
it might be also useful to consider the “activity rate”, as indicator of inclusion for vulnerable groups. For example vulnerable groups could be discouraged in looking for a job and statistically this aspect influences the unemployment rate.

Table 12 Outcome

<table>
<thead>
<tr>
<th>Source</th>
<th>Variables</th>
<th>Definition</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| Eurostat (2009b) | Unemployment/Employment | An unemployed person is defined by Eurostat, according to the guidelines of the International Labour Organization, as someone aged 15 to 74 without work during the reference week who is available to start work within the next two weeks and who has actively sought employment at some time during the last four weeks. The unemployment rate is the number of people unemployed as a percentage of the labour force. | -unemployment rate  
-employment rate  
-long term unemployment  
 activity rates |
| Eurostat (2010a)  
EC (2013c) | Poverty and social exclusion | At risk of poverty or social exclusion, abbreviated as AROPE, refers to the situation of people either at risk of poverty, or severely materially deprived or living in a household with a very low work intensity. The AROPE rate, the share of the total population which is at risk of poverty or social exclusion | -AROPE rate  
-at risk poverty rate  
-total earnings  
-disposable income  
-education  
-health |
| Guergoat -Larivière (2010) | Job Quality | Job quality includes the impact of employment on other spheres of life, such as for example the possibility of reconciliation between work and family life. | -working hours  
-type of contract  
-job satisfaction  
-skills and training opportunities  
-working conditions, includes accidents, work intensity, long working hours, health at risk etc.  
-work-family reconciliation |

Although the unemployment rate incorporates the effects of job losses, its individual implications are likely to be more complex. Unemployment often involves social costs that go beyond the loss of income by adversely affecting other outcomes such as health, crime or happiness (OECD, 2012). The indirect effects of the recession upon employment include psychological stress, which in turn might affect the household with increased levels of marital breakdown and domestic violence, having repercussions long after the recession has ended and employment has returned to its long-run growth path (Hogarth et al., 2009). In order to assess labour market resilience for specific vulnerable groups there is a need for use of broader measures. In this respect, the multidimensional concept of social inclusion and exclusion is of relevance particularly in the assessment of the position of vulnerable groups, because it encompasses various channels through which negative effects of unemployment can be distributed (e.g. poverty, access to education, childcare and health facilities, living conditions, social isolation).
The concept of social exclusion is mostly used in defining the position of certain social groups, such as the young people, disabled or minorities. The concept refers primarily to exclusion from the labour market, as labour is considered not only on the basis for economic independence; but also for promoting certain moral values, such as self-respect and a desire for advancement (UNDP, 2006). The social exclusion theory assumes a downward spiral or a vicious circle in which labour market marginality leads to poverty and social isolation, which in turn reinforce the risk of long-term unemployment, which imposes constraints on job search, fracturing of people’s social ties and growing social isolation, psychological distress, tensions within the family and marital dissolution, prevalence of violence (Gallie et al., 2003; Eurostat, 2010). However, the measurement of social exclusion is difficult because it is a multidimensional concept that includes other factors besides the economic dimension. For this reason, the framework of the 2020 strategy, adopted the AROPE (At Risk Of Poverty and Exclusion) as an indicator that is capable of measuring both concepts (European Commission, 2011b). This indicator contains the three sub-indicators that are developed below (European Commission, 2011b; European Commission, 2013c):

- Poverty risk rate: people with an equalised disposable income below the poverty threshold (set at 60% of national median disposable income (after social transfers).
- Severe deprivation. Material deprivation is an indicator in EU-SILC that expresses the inability to afford some items considered by most people to be desirable or even necessary to lead an adequate life.
- Low labour intensity: Persons are considered living in households with very low work intensity if they are aged 0-59 and the working age members in the household worked less than 20% of their potential during the past year.

Apart from the quantitative aspect of employment, it is also important to investigate the changes in the job quality as a result of crisis. In times of economic recession there is a higher of short-term and unstable jobs, which may be of low quality in terms of wages, skills and working conditions. As suggested by Auer and Cazes (2000) this relates to the idea of a flexible labour market, where individuals are expected to prepare to frequent changes between jobs, or between jobs and other activities or spells of inactivity. Therefore, the quality dimension (of jobs) has become a central concern of the European Employment Policy, which can be seen as complementary to the job quantity dimension (Muñoz de Bustillo et al., 2009). In fact, job quality has been one of the main objectives of the European Employment Strategy and the Lisbon Strategy, and has been pronounced in call for “more and better jobs”.

However, there are certain challenges in terms of the measurement of job quality. While the quantitative aspect of employment suggests to something which is clear and measurable in principle (e.g., the number of people employed and unemployed), the aspect of job quality is more complex, because the general or overall quality of a job is the sum of multiple features affecting both the employment relation and the work itself (Muñoz de Bustillo et al., 2009). This multidimensional nature of job quality makes the development of a single indicator or a system of indicators more difficult as it is necessary to define what aspects should be taken into consideration and their overall impact on job
quality (Muñoz de Bustillo et al., 2009). For instance in labour economics, job quality was traditionally understood as being represented by the wage level, while in some sociological or industrial relations studies, it was related to working conditions (Erhel and Guergoat-Lariviére, 2010). Moreover, recent development in both disciplines resulted in dimensions to the definition of job quality, such as decent living standards, wage equity, and good wage mobility. Therefore, as pointed out by Erhel and Guergoat-Lariviére (2010) a modern definition of job quality should also include the impact of employment on other spheres of life, such as the possibility of reconciliation between work and family life. Hence, the broad defining of job quality includes four main components. First, socio-economic security is composed of indicators on wages and contracts, but also of some subjective indicators, such as job satisfaction. Labour income changes, not only capture the loss of earnings associated with job loss, but also those associated with reduced working hours and hourly wages (OECD, 2012). The second dimension, skills and training opportunities, is about education and training, and gathers indicators on both initial and continuous education. The third dimension, working conditions, includes accidents, work intensity, long working hours, health at risk etc. The last dimension encompasses, related ability to combine work and family life, and promotion of gender equality, is represented by the indicators on gender equality (such as the gender employment gap and pay gap) and on work-family reconciliation (childcare structures etc.) (Erhel and Guergoat-Lariviére, 2010).

Furthermore, as important as the selection of the right indicators representing the outcome, is the aspect of defining the time frame in which we can “observe” labour market resilience. As pointed out by the OECD (2012b) labour market resilience is, in principle, consistent with very different labour-market dynamics. It may reflect a relatively strong initial response of labour market outcomes (e.g., unemployment rate) to shocks followed by an immediate recovery or a weaker initial response followed by relatively more persistence response. Therefore, in order to assess labour market resilience, it is crucial to observe the changes in outcomes over a relatively longer period of time after the occurrence of shock.
Conclusion

The concept of labour market resilience and the capacities of labour markets to respond to crises are a key puzzle for the academics and practitioners. This essay attempted to address this issue. Indeed, in the existing literature there is no widely accepted definition and conceptual framework of resilience that would provide a solid basis for the empirical analysis of labour market resilience. Consequently, there are also many issues related to the operationalization of resilience in general and labour market resilience in particular. Therefore, this essay aimed to address these issues by defining, conceptualising and operationalising labour market resilience.

Against this background, the essay has followed three steps. In Chapter 2, we have reviewed the multidisciplinary literature concerned with various meanings of resilience. This enabled us to identify four common categories of key concepts, that could be translated into the labour market context. Subsequently, in chapter 3, we reflected on the theories of labour markets by using insights from the comparative political economy literature, more specifically the VoC literature, as well as the insights from the welfare state literature. We have concluded that the VoC approach provides us with the theoretical foundation, based on the flexibility versus commitment dichotomy, that will allow us to account for the differences in the institutional structures of different economies and how this relates to labour market resilience. This enabled us to conceptualise and define labour market resilience. Finally, in chapter 4, we have provided an extensive list of factors that can explicitly or implicitly explain labour market resilience.

Therefore, the contribution of this essay is manifold. First, it has implications for the further progress of the INPSIRES project. Based on this first official working paper of the INSPIRES project, in the upcoming working papers we will further operationalise the aforementioned factors more systematically by building a new database. Moreover, we will conduct quantitative analysis of the impact of these factors on labour market resilience. Second, in more general terms this essay has an important implication for the on-going debate on the resilient labour markets in Europe and its innovative capacity. This relates to the general aim of the INSPIRES project is to provide systematic and comparative empirical fundaments for the further development of innovative policies aimed at the construction of resilient and inclusive labour markets, specifically for vulnerable groups. Finally, the ambitious, comprehensive and integrated goal of INSPIRES project marks out the unique contribution of INSPIRES to the existing body of knowledge on the performance of European labour markets and the EU’s role in policy learning in this area.
List of References


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