REGIONAL CHALLENGES IN THE PERSPECTIVE OF 2020
REGIONAL DISPARITIES AND FUTURE CHALLENGES

A report to the Directorate-General for Regional Policy
Unit Conception, forward studies, impact assessment

BACKGROUND PAPER ON:

NEW SOCIAL RISKS

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SUMMARY

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In the framework of both the Lisbon Strategy and the Sustainable Development Strategy, European institutions agreed on the necessity to modernise and develop the European social model in the light of slowing growth, persistent structural unemployment, rising inequalities.

In recent years along with the persistence of the main risks of the industrial society (illness, disability, old age) new social risks are brought about by economic and demographic developments; main factors are: a higher probability of job loss for larger parts of society and different age cohorts; changes in size and composition of families with reduction of the capacity to provide “in house” care; limited capacity of welfare systems to deal with these risks due to financial constraints and difficulty in updating welfare arrangements; cultural and education gaps. These transformations pose a serious problem of adequacy of the European welfare states. The present patterns may reveal not as successful as they used to be in protecting all against poverty, in guaranteeing social cohesion and in responding to citizens’ aspirations in modern democracies.

Social challenge is common to all EU Member States, but exposure to old and new social risks largely varies across regions. In this paper, the assessment of regional sensitivity is based on a summary index of social risk which combines several indicators of drivers referring to three relevant dimensions: family, labour market, and welfare. With more detail, the following indicators have been used:

- the share of poor at regional level, as a proxy of the size of the social risk in terms of income;
- the rate of employment calculated on total population, that embodies the social impact of both demographic trends (share of population in working age) and of labour market factors (activity rate on working age population and rate of unemployment);
- the educational attainment of working people, as a proxy of the regional share of low-skilled workers with higher probability of experiencing unemployment or of receiving a low wage;
- an index of efficacy, adequacy and sustainability of the welfare states at national level

According to the level of social risks measured by the summary index, regions have been classified in five typologies which have been displayed in a map. More than one half of European regions show a low or very low sensitivity to social risks. These top class regions are concentrated in Northern (especially low risk regions) and Central Europe along with United Kingdom. On the opposite side, about one quarter of European regions have a high or very high sensitivity confirming the existence of great disparities among countries and regions. Generally speaking, the two most critical areas are individuated in the Mediterranean countries -
Portugal, Southern Spain, Greece, Italian Mezzogiorno- and in the Eastern area of new Member States with the exception of Estonia. Comparison with maps of European cohesion policy is interesting. All the regions with high and very high exposure to social risk are regions of Convergence or phasing-out area, with few exceptions. In the other direction, most of the regions of Convergence area show a high and very high social risk exposure. This is especially true for Southern Italy, Spain, Portugal, Greece, Hungary, Poland, Slovakia, Latvia and Lithuania (and would be true also for Bulgaria and Romania not included in summary index). There are however important exceptions regarding some of the new Member States (Czech Republic, Slovenia and Estonia), Eastern Germany and Convergence regions in the United Kingdom showing an intermediate or low social risk sensitivity.

In neighbour countries the picture is more concerning. Fight against poverty and promotion of employment are priorities in each country. Most of them are still faced with a number of challenges such as high unemployment, which particularly affects young people and women, the prevalence of an informal economy, leaving workers without social rights and social protection, as well as the mismatch between education and labour market needs. Most countries lack an integrated approach combining economic, employment and social objectives. They also suffer from poor administrative capacity in this area. Significant efforts are needed to implement effective labour market policies, to promote decent work and guarantee productive employment, rights at work, social protection and equal opportunities for men and women.

As far as challenge intensity is concerned, the European Union is in a favourable condition with regard to social risks in a broader OECD perspective; in fact, all countries with income inequality below OECD average level are European. Nevertheless there are various factors which may increase the intensity of the challenge on Europe. The number of Europeans living under the poverty line has increased in the last decades. Around 100 million Europeans in 2004 (22.5% of the total population) had less than 60% of the EU median income, but the situation is widely differentiated across countries and within them. Although social benefits reduce the percentage of people at risk of poverty, serious holes exist in the social protection policies in several countries. In addition there are doubts on the financial sustainability of the present model in the next decades and on its adequacy to deal with new social risks. The employment and participation rates remain below the targets set within the Lisbon Strategy, especially for women and old workers. Data on educational attainment show that the share of population with secondary and tertiary education is lower than other large OECD countries.

Impacts of social challenge on disparities depend on the relation between regional sensitivity and challenge intensity and they are assessed in a qualitative
manner through construction of two scenarios corresponding to the two extremes of the expected range of variation of challenge intensity. A pessimistic scenario is characterised by a decrease in the number of double wage households and an increase in the number of people living in working-poor families or depending on social transfers. In a context of slow growth and of tightening financial constraints, new demand for welfare do not find adequate coverage. The target set by Lisbon Strategy in terms education and of employment rates are only partially achieved. This pessimistic scenario is likely to lead to increasing regional inequalities.

In an optimistic scenario, greater labour demand driven by economic expansion, and more effective policies allow an increase in participation rates and in the number of double wage earner households. In addition investments in education and life long learning increase average skill levels of both local and immigrant workers, reducing the proportion of low skilled low-income workers. Effective reforms of the welfare states, made easier by loosening financial constraints, ensure greater coverage for old and new social risks. This optimistic scenario is likely to be linked to a process of convergence.
1. Introduction

1.1 Goals of the analysis

The present paper provides a concise analysis of the potential impact of the evolution of social risks on regional disparities in Europe and of the neighbouring countries role in this process, in the perspective of 2020. The paper aims to stimulate a discussion, involving international institutions as well as independent experts, from which two opposite scenarios will be produced.

The analysis is part of a broader project of DG REGIO, which, together with the World Bank and the Bertelsmann Foundation, has established the Regional Future Initiative, a network of experts looking at the future of regional trends. The objective of the network is to analyse and build a consensus on the future impacts of key challenges (globalisation, climate change, demographic change and migration, energy risks and social polarisation) that regions will face in the perspective of 2020, and to elaborate and discuss possible responses. The output of the network should provide a basis for policy discussion and choices in the coming years.

In the framework of both the Lisbon Strategy and the Sustainable Development Strategy, European institutions agreed on the necessity of the modernisation and development of the European social model in the light of slowing growth, persistent structural unemployment and rising inequalities. “Unless we are able to change, the forces of global competition, the impact of new technologies and our ageing population will increase the gap between the two Europes, and between Europe and the world. Our economic success and the financial viability of our social systems -pensions, welfare, health- is called into question. This is not simply a matter of economics or public finances; this is first and foremost a question of social justice. This is about the kind of Europe we want our children to live in – and how we pay for it” (COM2005, 33).

The European social model is based on the existence of highly developed welfare states in post-Second World War Western Europe and the persisting emphasis on equality, redistribution as well as the provision of public goods and collective insurance against risk for individuals. Those common values shared by the large majority of Europeans have been translated into a wide diversity of national social and welfare systems -reflecting different institutions, political traditions and productivity levels- which have different approaches to the new challenges (COM2005, 33; COM2005, 94; COM2005, 525).

The welfare state in industrial society was intended to provide for needs which were not adequately met through the market -interruption of income (retirement, unemployment, sickness or disability) and mismatch between income and need during the life-cycle (i.e. child endowment)- or for needs where state provision was
widely recognised as desirable (i.e. health and education). In recent years along with the persistence of the main risks of the industrial society, new social risks are being brought about by economic and demographic developments. New social risks are not fully consistent with traditional classification of social risks - class based risks, life courses risks, intergenerational risks (Esping-Andersen, 1999) - but they can affect any social group in a particular phase of a life cycle, being the result of general existential risks and several group specific ones (Kitschelt and Rehm, 2006). This makes it more difficult to understand their regional pattern and therefore the changes that may occur in regional disparities. Two reasons make new social risks a worldwide challenge (World Bank, 2003): they are likely to involve larger segments of the population and not only traditional social groups (e.g. the unemployed, the elderly, the low skilled, the blue collars); they partly depend on factors that differ from the drivers of traditional social risks.

New social risks may affect people in different critical stages of their lives (Whelan et al., 2008) or when facing particular events - job loss, birth of children, departure from original household and setting up of an autonomous family, divorce or partner's death, disability or ill health of a family member, elderly care needs, etc.. Structural features, such as education, belonging to a certain social group and range of the welfare system, may help to deal with these critical phases successfully or vice-versa may make it more difficult to deal with critical events. New social risks are likely to be stronger where the negative impacts of other challenges, especially globalization and demography, are more severe. Moreover, rather than substituting “traditional” social risks, new social risks tend to extend their scope and increase the likelihood of incurring “traditional” risks, involving stronger and wealthier social groups and regions.

The goal of the analysis is to briefly examine in the light of recent literature the transformations which have lead to the emergence of new social risks, to assess the regional sensitivity to social challenge and to outline possible opposite scenarios of social risks evolution in Europe. The ultimate aim is to identify the main issues for the debate.

1.2 Literature review

Literature about social risks in Europe is impressive and often directly stimulated by European Institutions and policies. For the purpose of this study we focus on three broad challenges facing the European social model: the persistent pattern of poverty, exclusion and social vulnerability; the adequacy and sustainability of European welfare states and finally their capacity to deal with emerging new social risks. The main concern regards the capacity of welfare regimes to deal with new social risks and to integrate new answers with traditional protection, without increasing the taxation level and labour cost. It is important to look at this challenge in the broader framework of the renewed Lisbon Strategy for Growth.
and Jobs, and to attempt to highlight the regional dimension and the impact on economic and territorial cohesion.

**Poverty and social exclusion**

In recent years the European Union recognised that current policies have not delivered social justice for everyone, and in particular have left low level of employment especially among women, young and old; weaknesses in education and innovation potential which in turn lower productivity levels and standards of living of the population (EC2005, 525).

A great amount of research has concentrated on the meaning and measurement of poverty and social exclusion. Income is the most frequently used proxy to analyze poverty. In particular disposable income is used to take into account both primary and secondary distribution of income. It therefore consists of all income earned as employee and as self-employment in the labour market, as well as capital income deriving from the stock of wealth. It includes, as incomings, all public cash transfers to the household budget and, as outgoings, all taxes and social contributions paid by the household. The household is the unit of analysis because it is in fact the basic unit for collecting and distributing resources, and converting them into well-being. Therefore disposable income is equivalised to take into account different size and composition of families through an equivalence scale that attributes different weight to family components (e.g. distinguishing among adults and children). Prevalent measurement of poverty is relative; the risk of poverty is defined as the share of persons with an equivalised disposable income below a certain threshold. This method is widely used in the literature, and it is based on recognition of the historically determined character of a socially accepted standard of living. It is not without drawbacks, however, especially when used in dynamic analysis (Curatolo and Wolleb, 2009 forthcoming). In the European Open Method of Coordination in the field of social protection and social inclusion, the threshold is set at 60% of the national median equivalised disposable income, expressed in purchasing power parity to take into account differences in prices in different countries. As an alternative, some studies take as reference the European median to look at poverty in European perspective, recognizing the emergence of a European life standard in the future (this is the approach we shall follow in the regional analysis below).

Cross section analyses are prevalent for comparisons across countries or regions. Several authors have however stressed the limits of a cross sectional approach that focuses exclusively on the situation at a certain point in time, and the analytical advantages of a longitudinal analysis. Longitudinal analysis has shown that the number of people facing episodes of poverty is much higher than the number of the poor in a certain point in time, and permits a distinction between temporarily poverty, persistent poverty and cyclical poverty (Apospori and Millar, 2003; Layte and Fouarge, 2004; Layte and Whelan, 2003; Leisering and Leibfried, 1999; Whelan and Maitre, 2007; Curatolo and Wolleb, 2009 forthcoming). This is a signal of the existence of a wide cohort of households which live in conditions of
vulnerability and are subject to fall under the poverty threshold every time they face a negative event during the life cycle. This cohort is much larger than the share of poor measured in a single year.

It has also been widely recognized in the literature that income measures are not sufficient to describe the phenomenon of poverty. The standard of living in addition to income depends on savings, on credits and debts, on the availability of public services such as health and education, on what households can produce by themselves (Eurostat, 2008b; Whelan et al., 2002; OECD, 2008). Empirical evidence in particular suggests that distribution of wealth is much more unequal than that of income, reflecting differences in saving patterns and transmission of market wealth across generations.

To overcome the limits of a relative income approach to poverty, various authors have used absolute measures to identify households with low standards of living. These measures refer to different dimensions of “well being”. The most common dimensions identified (also conditioned by data constraints) are related to life-style -food and clothing, a holiday at least once a year, a car, a phone, a color television, a video, a microwave and a dishwasher, ability to afford scheduled payments; housing facilities -housing services such as the availability of a bath or shower, an indoor flushing toilet and running water; housing deterioration -the existence of problems such as a leaking roof, dampness and rot in window frames and floors; environmental problems -noise, pollution, vandalism and crime, inadequate space and light (Eurostat, 2008b; Whelan et al., 2002; Whelan et al., 2001). There are various sources of data on which the above studies have been based; for cross country comparisons the most important have been the European Community Household Panel (ECHP), the Eurostat project Statistics on Income and Living Conditions (EU-SILC), the Luxembourg Wealth Study.

Old and new social risks

Social risks have been defined as the likelihood that life chances are reduced while a perception of insecurity, isolation, inequity and inequality is fuelled (Ranci, 2009 forthcoming; Sen, 1985, 1987; Van Den Bosh, 2001). A distinction has been advanced between risk and vulnerability. Risk refers to the probability of a certain event of occurring, vulnerability to the severity of the impact of a certain event, regardless of its probability of occurring.

Social risks emerge at the intersections between the different life dimensions of an individual. There are three relevant dimensions: family, labour market, and welfare (Bertola et al., 2000). Most situations of poverty, privations and exclusion arise whenever there are cumulative disadvantages in different dimensions. But when a weakness concerns only one dimension (e.g. labour market rather than family) this does not necessarily produce poverty, privations and social exclusion if it is offset by advantages in another dimension.

Income inequality and poverty reflect the interplay of many factors within these dimensions. Focusing on the family, reduction in the average size and
consequently in the economies of scale in consumption, may increase poverty because a higher money income is needed to assure the same level of household well being. Changes in demographic structure and in patterns of behavior (i.e. aging population, single parent households, etc.) have increased income inequality in a majority of countries, both directly and through changes in living arrangements (i.e. more people are living alone and in lone-parent households). Within the labour market dimension, great attention in literature has gone both to the amount of work delivered by the family components and by their level of earnings. Social risks may derive from the diffusion of atypical jobs (part time and temporary jobs) and from a high level of unemployment. But they may derive as well from a low level of earnings, normally associated with low levels of education. Globalisation and technological progress may have played an important role in widening earning differential according to the level of education. Access to paid work remains the main factor shaping the risk of poverty, but work, if not adequately paid, may not ensure an adequate standard of living. Moreover a higher level of employment may not translate into a more equal distribution of income if employment gains are concentrated among people with high or intermediate education. Welfare systems play a crucial role in decreasing the inequality of market income distribution and in dealing with social risks. However, the impact depends on the extent of the coverage guaranteed by welfare systems. This impact varies greatly within European countries.

New social risks are related to the socio-economic transformations that have brought post-industrial societies into existence: the tertiarisation of employment - widening earning inequalities and reducing job stability- and the massive entry of women into the labour force (Taylor-Gooby, 2004; Bonoli, 2005; Ranci, 2009 forthcoming). New social risks, as they are identified in the literature, include the following:

- Reconciling work and family life
- Single parenthood
- Having a frail relative
- Possessing low or obsolete skills

It has been put forward that new social risks can hit any social group in a particular phase of a life cycle (Leisering and Leibfried, 1999; Barnes et al., 2002) rather than hitting a limited social group. They increase vulnerability of a large part of society to the events of life as a consequence of greater job insecurity, income instability, increasing fragility of family support and inertia of welfare institutions (Vatsa, 2004; Ranci, 2009 forthcoming). This makes it more difficult to understand their regional pattern and therefore their impact on regional disparities.

New risks depend on a number of possible negative outcomes which are difficult to correlate with specific causes. They can however be ascribed to the evolution of different factors (Liddle and Lerais, 2008; Eurostat, 2008b):

1. Transition to a post-industrial and knowledge based economy has tightened the link between education and employment and has widened the gap between high skilled and low skilled workers. In EU 25, between 2006 and 2020, the proportion of jobs requiring high levels of educational attainment should
rise from 25.1% to 31.3% of the total; jobs requiring medium qualifications should also increase slightly, from 48.3% to 50.1%. This implies a significant increase in skills, competencies and qualification requirements and a renewed need to ensure a better match between skills demanded and supplied, and also a great potential for employment creation in Europe in the medium and long term. (EC2008, 868);

2 Labour market transformation in the direction of greater flexibility and destabilisation of workers (higher probability of job loss during the whole working life), with an impact on larger parts of society and different age cohorts and no longer limited to a specific social class. Earnings inequality and labour market instability mean that employment income alone is sometimes not sufficient to ensure a poverty-free existence (EC2007, 359);

3 Changes in size and composition of families: large families have almost disappeared in most advanced countries; one parent families are growing in number. Female activity rate has increased sharply: the emergence of dual-earner couples reduces families’ financial dependency on the male breadwinner, but also generates new problems and dilemmas related to externalisation of care and domestic work, traditionally performed by housewives on an unpaid basis (EC2007, 244; EC2005, 33). There is a greater need for reconciliation policies to face long term economic and demographic challenge (EC2009, 77).

Sustainability and adequacy of present models of social welfare
The way governments redistribute income among individuals through taxes and transfers has an important role and impact on inequality and social exclusion. The cross country differences in the scale of redistribution among people with different incomes partly reflect differences in the size and structure of social spending. Redistribution among individuals with different income levels always coexists with redistribution across the life course of the same person -with spending towards people of working age achieving a larger reduction in poverty than social spending towards the elderly.

In addition to this general redistributive role, welfare system provides coverage against main social risks; it represents the majority of total public expenditure in the European Union, around one quarter of GDP, going mainly on health care and old age pensions. In recent years social protection expenditure has grown slightly more rapidly than GDP due to more dynamic developments in health care and unemployment expenditure, while pensions expenditures has grown more slowly.

Theories and researches on the so called welfare regimes have highlighted big differences among social models of national countries inside the European Union. In her 1990 seminal work, Gøsta Esping-Andersen reclassified national welfare systems into three distinctive regimes, constituting three coherent clusters of macroeconomic policy, industrial relations, social insurance, labour market regulation and social service provision, built around the principles of Scandinavian universalism, Continental social insurance and Anglo-Saxon targeted means-testing. A fourth typology, labelled Mediterranean regime, has been singled out by other authors and applied to Southern Europe countries. While the Continental
welfare states rely on relatively high income replacement benefits, linked to the claimant’s employment history and family situation, the Nordic welfare states not only offer generous income guarantees, but also a wide range of public social services and an active labour market policy aimed at maximising employment for both men and women. The Anglo-Saxon welfare states rely on relatively modest individualized income-dependent unemployment, sickness and old age benefits, with strict rules for social assistance. In the Mediterranean welfare states, the family makes up for the underdevelopment of formal social assistance and services, while social insurance transfers cover core workers, especially in the area of pensions.

Social policies, solidarity and sustainability of welfare systems in Europe are necessary for deeper and wider economic integration to go on; the big debate is between policies aiming at remedying inequalities after they have occurred (redistribution strategy) and policies aiming at preventing inequalities making the distribution of income less unequal, mainly through better and larger employment (work strategy). European institutions are driving a recasting of welfare systems with the aim to sustain publicly funded health-care, social protection and pensions, against a backdrop of demographic change, and to enable EU citizens to successfully adjust to change. A number of Member States have introduced reforms in order to reduce the level of taxation on labour both through a greater control of expenditures in order to limit additional demand in the future (e. g. pensions) and through a reduction of social contributions on wages by shifting part of taxation on other bases (EC2008, 42; Hemerijck, 2008; EC2006, 211).

The transformation of the labour market and of family structures poses a serious problem of adequacy for the European welfare states. The present patterns may prove not as successful as they used to be in protecting all against poverty, in guaranteeing social cohesion and in responding to citizens’ aspirations in modern democracies. European welfare systems show a limited capacity to deal with old and new social risks due to financial constraints, trends in employment basis, and difficulty in adapting welfare arrangements. Nevertheless, different welfare regimes behave differently so that they have a direct influence on the way and the strength new social risks emerge across countries or regions. On average in Europe, in 2004 old age and survivors benefits accounted for almost 50% of total social protection expenditure, a little more than one quarter went for sickness/health, and about 8% for disability. Only less than 8% of total expenditure was addressed to the function family/children, and 6.5% to unemployment and the so called flexicurity. Efforts are made in the direction of an integrated flexicurity approach linking together flexible and reliable contractual arrangement in the labour market, comprehensive lifelong learning strategies, effective active labour market policies and modern social security system to provide adequate income support, encourage employment and facilitate labour market mobility (EC2007, 359).
2. Assessment of regional sensitivity to challenge

2.1 Sensitivity ranking of European and neighbouring regions

The assessment of regional sensitivity to social challenge is based on a summary index which combines several indicators of drivers and it is summarised in a map of European regions in the next section. More details on single indicators are reported in the annex.

There is a lack of availability of common European indicators at regional level related to social risks and social policies; the EU Social Protection and Social Inclusion Process based on open method of coordination has focused attention to national level analysis and policies, even if many National Action Plans highlight territorial disparities in social exclusion and poverty, not only in terms of urban/rural divide but also of disparities across administrative regions (C.R.I.D.I.RE, 2003; EC 2008, 412). The sub national distribution of risks can be simply inferred focusing on some structural factors which we hold responsible for social disparities and for which we have detailed and homogeneous information, such as income levels, labour market conditions, demographic trends, education and human capital. The main difficulty we met is to find suitable indicators for the role played by the welfare state at regional level. This because of lack of comparable data and because of the inherent difficulty of comparing with simple indicators the efficacy of different regimes of welfare. The solution adopted can therefore be easily questioned.

For the purposes of the present paper, three main drivers which play a significant role in the concrete manifestation of social risks have been identified:

- The number of people employed on total population depending on a) the share of working age population on total population, related to demographic trends -natural trend and migratory flows; b) activity rate of working age population related to models of behaviour of different cohorts of population (men, women, aged workers, young people, etc.); and c) the share of people in employment on labour force, related to structural and conjunctural economic situations. Growth in employment rate reduces social risks because there is an increase of the number of working people in households.

- Educational attainment, which is supposed to influence the probability of remaining unemployed and of getting low levels of earnings. In both cases a low educational attainment is associated with a condition of greater social vulnerability. Empirical evidence corroborates the hypothesis that in recent years the wage gap between high and low skilled workers has markedly increased in developed countries. There is no agreement on the causes of this widening gap; globalisation could have played a role in the reduction of the demand of low skilled work in developed countries through an increase in imports from low cost countries and an increase in outsourcing in
developing countries. Technological progress could have contributed as well with a generalised increase in skill requirements for job. A higher educational attainment reduces social risks because it reduces the share of low skilled-low wage workers, even without considering positive effects on productivity and economic growth through human capital.

- Welfare and social protection system that has the role of helping people and households to face social risks in every situation that may emerge. The adequacy of welfare systems to deal with social risks depends on the specific welfare regime, on the choice of different political options, on financial constraints. The welfare regime is important because structure and generosity of national welfare systems derive from history and can be modified only gradually and incrementally; political options are relevant because increases or decreases in social expenditure or changes in its composition produce conflicts and generate costs for some social groups; financial constraints are related to sustainability in the long run. A more comprehensive and rationalised welfare system reduces social risks because it provides help to households in the case of problematic events in the life cycle and favours equal opportunities for all and allows a better reconciliation between paid work and care commitments.

Regional dimension of drivers
Regional disparities within European Union have a long history; they are at the origin of the EU economic and cohesion policy, and have strongly increased after recent enlargements and the inclusion of 10 new Member States, with GDP and income per capita largely lower than the average level of old Member States. As a consequence, the share of poor which reflects these differences is unevenly distributed across European regions. Moreover, each one of the selected drivers has a strong regional dimension being partially the outcome of regional or local economic and social structure and partially factors themselves of potential change. The favourable or unfavourable trends of the drivers are therefore determinant to promote processes of convergence or of increasing inequalities. The regional sensitivity depends on the combination of present picture of social risk, as inherited by the past history of the region, and the direction and the magnitude of the action of the different drivers.

As will be showed below, participation and employment in the labour market and educational attainment record very different levels within European Union (see the last Commission Report on economic and social cohesion). Welfare systems have an important regional dimension too: a) local and regional welfare, even if does not account for large share of expenditures, is important especially for the provision of certain services to persons and households; b) the structure of expenditures and welfare arrangements are not neutral with respect to regional and local social and economic structure; c) local and regional context affects the efficacy of national welfare provisions.

To analytical purpose, a further step is the identification of indicators congruent with these drivers to best describe sensitivity of European regions with regards to
old and new social risks. Keeping in mind the lack of availability of data at an adequate geographical level, we have chosen the following four indicators to create the summary index, giving to each of them the same weight:

- the share of poor at regional level, as a proxy of the size of the social risk in terms of income. This represents the starting situation of each region in terms of level of per capita income, of productivity and of structure of income distribution. Any change in the drivers discussed above affects social risks given the starting situation of each region or country. It has been calculated, at national level, as the share of population with a disposable income in PPS under 60% of EU median. The national results have been regionalised using the gap of each region in per capita disposable income relative to the national average; the higher this share, the higher the social risk;

- the number of people employed on total population. It embodies the social impact of both demographic trends and of labour market factors. Increases in the number of people employed in total population, reduce the social risk;

- educational attainment of working people, as a proxy of the relative shares of low-skilled workers with higher probability of experiencing unemployment or of receiving a low wage and of high skilled workers with lower probability of experiencing unemployment and of receiving a lower wage. A decrease of the share of unskilled workers and an increase of the share of skilled workers reduces the social risk;

- an index of the efficacy, adequacy and sustainability of the welfare state. This index is obtained from the average of three different indicators: the share of total social benefits on GDP as a proxy of the redistributive impact of the welfare system; the share of child and care social expenditure as a proxy of adequacy to new social risks; the ratio of public debt on GDP as a proxy of the sustainability of financial social expenditure. The first two are negatively correlated with social risk while the third is positively correlated with social risk.

A brief description of the construction of each indicator and of the summary index is reported in the methodological annex.

2.2 Main geographical patterns of sensitivity

The regional sensitivity measured through the summary index covering the area of demography, labour market and public social policies, is shown in the map below. To allow for a more detailed survey of regional disparities within countries, five levels of exposure to social risk have been distinguished: very high, high, medium, low and very low.
More than one half of European regions (60%) show a low or very low sensitivity to social risks. These top class regions are concentrated in Northern Europe (especially very low risk regions) and Central Europe along with United Kingdom. On the opposite side, over one quarter (26%) of European regions have a high or very high sensitivity confirming the existence of great disparities among countries and regions. The most critical situations are all concentrated at the border of the Union: Bulgaria, Romania, Poland, Baltic Countries, Hungary, Slovakia, Southern Italy, Portugal and south west of Spain, Greece. More generally speaking, the two most critical areas are identified in the Mediterranean countries – Portugal,
Southern Spain, Greece, Italian Mezzogiomo- and in the Eastern area of new Member States.
Finally, the remaining 14% of regions regarding North and South East of Spain, Czech Republic, Centre and North of Italy, Estonia, few regions in France and UK are in an intermediate condition.

The situation shown in the map derives from different indicators displaying quite a diversified pattern (see annex 3). The poverty rate distribution (ranging from 1.04% in Luxembourg to 94.26% in Podkarpackie -Poland) is broadly consistent with the division between Old and New Members States. After the enlargement national income disparities within European Union markedly increased so that in cross-regions comparison the level of national poverty threshold possibly prevail on sub-national disparities (for example in Romania the richer region (București-Ilfov) has an average disposable income double than the poorest one (Nord-Est) but in the EU27 wide rank they are both in the bottom group). In fact, risky situation are concentrated in the new member States of Eastern Europe (with exception of Slovenia and Czech Republic). Among Old Members only Portugal is in an intermediate condition.

With regards to employment (variation from 46.91% in Praha -Czech Republic- to 24.34% in Corse -France), the most critical situations emerge in Southern Italy, Southern Spain, Eastern Greece and in most regions of Eastern European countries. Educational attainment has a different pattern (minimum value of -0.43 in Região Autónoma dos Açores -Portugal- and maximum of 1.33 in Dresden and Leipzing -Germany), with Eastern European countries being in the top or second class of low exposure. The most critical situations emerge in Portugal, and to a lesser extent in the Mediterranean countries (Spain, Italy and Greece).

Finally, the welfare system indicator shows a particularly weak position of Italy, mainly because of the inadequacy to the emergence of new social risks and an impressive cumulated government debt. High levels of risk emerge also in Portugal, Greece, Hungary, Poland and Baltic Countries. United Kingdom, Ireland, Spain, Belgium, The Netherlands, Austria, Slovenia, Czech Republic, Slovakia and Romania are in an intermediate position. But Nordic countries, Germany and France are, at the opposite, in a favourable condition. This indicator, it should be remembered, is calculated at national level and may lead to biased interpretations, especially in countries with wide internal disparities and important components of local welfare.

It is quite interesting to compare the distribution of social risks with the cohesion map of regions in Convergence Objective for 2007-2013 programming period. What we expect is a strong overlapping of the two typologies of regions because it is reasonable to assume that social risks depend to a great extent to the GDP per capita. Some of the factors behind a gap in relative GDP per capita are the same behind a high social risk. But we do not expect a perfect overlapping because the spectrum of factors which determine social risks is wider, and partly different, than that which determines the level of GDP per capita. Regions with similar GDP per capita may differ for the degree of inequality in the distribution, in the efficacy of
the welfare state and even in the level of education. The results are broadly in line with expectations. All the regions with high and very high exposure to social risk are regions of Convergence or phasing-out area, with the exception of 7: Corse in France, Sereia Ellada and Notio Aigaio in Greece, Lisboa and Regiao Autonoma da Madeira in Portugal and in Italy Sardegna and Molise. In the other direction, most of the regions of Convergence area show a high and very high social risk exposure. This is especially true for Southern Italy, Spain, Portugal, Greece, Hungary, Poland, Slovakia, Latvia, Lithuania, Bulgaria and Romania. There are important exceptions regarding some of the new Member States (Estonia, Czech Republic, Slovenia), Eastern Germany, Convergence regions in the United Kingdom, few regions in Spain and Greece (see annex 4 for the map).

2.3 Social exclusion and social risks in neighbour countries in the perspective of enlargement

The countries of the European Union have many common interests with their southern and eastern neighbours. The European Neighbourhood Policy was developed in the context of the EU's 2004 enlargement, with the objective of strengthening stability, security and well-being for all concerned. Development of neighbouring countries can have a positive impact on regional cohesion within Europe as it is likely to benefit lower-income regions in the East and South of Europe which at the moment suffer from their peripheral relationship with core regions of Europe. Following the 2008 Implementation Report of European Neighbourhood Policy, in the field of employment and social policy much remains to be done. All neighbour countries continue to consider the fight against poverty and the promotion of employment as priorities. Most countries are still faced with a number of challenges such as high unemployment, which particularly affects young people and women, the prevalence of an informal economy, leaving workers without social rights and social protection, as well as the mismatch between education and labour-market needs. Most countries lack an integrated approach combining economic, employment and social objectives. They also suffer from poor administrative capacity in this area. Significant efforts are needed to implement effective labour-market policies and to promote decent work, and aimed at productive employment, rights at work, social protection and equal opportunities for men and women. The social and employment impact of the global economic crisis is increasing these challenges. Overall, social protection coverage remains poor. Most countries are still in the early process of developing social protection and pension schemes but a few have started reforms. The measures undertaken have not yet fully yielded their fruits and the impact of the financial crisis is expected to enhance the challenges for social protection. The social inclusion of vulnerable groups needs to be further addressed (EC2009, 188/3).
Internal disparities are wide and can be wider than differences across these countries. A global outlook is beyond the purpose of this section. The neighbour countries differ in their regional disparities and dynamics: some (e.g. Croatia) are strongly capital-centred and the rural-urban divide is deeper than regional disparities while in others, like Turkey, there is a wide development gap between administrative and geographical regions. Despite similar global challenges, three main neighbouring areas are distinguished and their relative position with respect to social risk are summarised below.

States of the former Soviet Union experienced a dramatic economic breakdown after the disintegration of the Union. They slowly started to recover and grow, but they have been seriously affected by the present global economic crisis. The social impact is likely to unfold with risks of increased vulnerabilities and poverty making social responses and reforms more urgent and challenging.

Poverty is a critical concern in this area, with percentage of people under the poverty line far above EU average. Most of the countries have set out plans for improving the standard of living of their citizens, but progress and solutions are still far away.

In the former Soviet Union countries 50 million people have moved out of absolute poverty (income less than $2.15 a day in PPS) due to the economic growth since the financial crisis of 1998, nevertheless the proportion of the absolute poor in the population is still relevant and ranges from 2.9% in the middle income CIS, to 5.8% in South-eastern Europe (SEE), and to 38.6% in the low income CIS. In addition to the 35 million people in absolute poverty, nearly 88 million in 2005-2006 lived on an income of $2.15–$4.30 a day in PPS, being extremely vulnerable to downturns in economic activity. The highest levels of absolute poverty are found in the lower income countries of Central Asia and the Southern Caucasus, but most of the region’s poor and vulnerable are in populous, middle income countries, such as Russia, Ukraine and Kazakhstan. While the groups at highest risk of poverty are the young, rural or secondary city dwellers, the unemployed, and the poorly educated, the majority of the poor are made up of working adults, whether employed for wages or self-employed, together with children (often the children of working parents). Building on the legacy of socialism, inequality is broadly comparable to OECD countries and East Asia but remains a sensitive issue because of the region’s political history. In addition, many of the countries have pockets of deep poverty and inequality, concentrated among particular social groups or lagging regions. Consumption inequality declined in the region, with the Gini coefficient standing at 0.35 in 2006, but it increased in Tajikistan, the poorest country in the region, and in several other countries. An examination of recent growth trends reveals important shifts in the pattern of regional growth in Russia. The regionally broad-based growth in the years following the financial crisis of 1998-1999 has been replaced by much more geographically uneven growth that is concentrated in agglomerations in the Western part of the country. As a number of Western regions experiencing relatively rapid growth have below-median income levels, and growth has slowed in some resource-rich regions, regional growth patterns in Russia still have a strong pro-poor component. Yet, the
emergence of Western growth agglomerations and the growing East-West divide suggest strong challenges in managing the future regional dimension of economic development in the country. It is recognised the need for equalization measures to ensure minimal social (and living) standards in poorer regions to accompany the national strategy for regional development (Mitra, 2008; The World Bank, 2009a). Labour market conditions vary markedly within the region. The broad-based improvement in productivity and real wages that accompanied the resumption of growth in the region has not been matched by job growth. In many countries, the process of labour reallocation is far from over, as job destruction which accompanied restructuring in many old-economy sectors has outpaced job creation in new areas. In the western area, partly because of important past migratory outflows and productive investment inflows, unemployment rates are not the main concern. Nevertheless the situation is not homogeneous for all cohorts and it deteriorated from 2008 due to the economic crisis.

As regards the welfare system, it is far from adequacy in contrasting poverty and social exclusion. Poverty was not a central issue at the beginning of the 1990s and economic growth was expected to rapidly reduce it, but reality has been significantly different. Progress on non-income dimensions of poverty, such as access to education, healthcare, safe water, and heating (a specific issue for the region), remains mixed. Although inherited literacy rates are high in the region, the quality of education is not improving and remains ill-suited to the new demands of the labour market. Life expectancy losses during transition have proved difficult to reverse. Neglected maintenance and subsequent erosion of infrastructure networks have taken a toll on access and quality of infrastructure services, in particular water and heating. Pensions are insufficient to keep old people out of poverty, and important reforms are in progress.

Public policies to address poverty reduction in Eastern Europe and Central Asia need to focus on three areas common to all of the countries: fostering job creation and raising productivity; improving public service delivery; addressing spatial inequalities.

Turkey and the Balkans have recently experienced relatively high economic growth (approximately 5.5% in 2007, double the level in the Euro zone), but absolute levels are still far from EU levels.

The picture is heterogeneous: income inequalities in Croatia are similar to the corresponding levels in Germany and France but Turkey is the most unequal country, reflecting a dualistic social structure. Turkey suffers of large regional development disparities: these are significantly larger than in EU15 countries, and at the high end of disparities prevailing in new EU members. Disparities in regional economic development are reflected in disparities in household income, with relatively high concentrations of poverty in the East. Second, the absence of economic growth in the East could spur additional migration to the large cities of the West, contributing to urban congestion. Overall, there is no clear evidence of convergence in per capita income across regions over 1980-2000: while disparities among individual provinces appear to have decreased, disparities between the
lagging region as a whole and the advanced region as a whole have increased or remained constant. The region as a whole has managed to translate the economic expansion into higher employment. Over the last 4-5 years unemployment rates have gradually fallen, but are still relatively high in Turkey. Also activity rates remain below average EU27 especially because of a wider gender gap in Turkey and other smaller countries. The dynamics of activity and employment rates in Croatia (like in other ex communist countries) were determined by major restructuring processes resulting in output declines. Labour markets policies in all these countries will be faced with very similar challenges to those faced by the NMS: (i) past and ongoing economic restructuring; (ii) disincentives to labour market participation (iii) a high tax wedge; (iv) administrative and legal barriers to job creation including rigidities on the labour market; and (v) skill mismatches (AA.VV., 2006).

The effectiveness of the social protection system is about the same as in the EU25 for Croatia, but it is the lowest in Turkey where alternative institutional systems emerged at local level. Pension systems have undergone reforms in each country in recent years and they are likely to be further reformed in the coming years, although for different reasons. The average education level of the labour force and quality of education are somewhat lower than in advanced EU economies (there are large differences between countries in this respect, too). The convergence process may involve high social costs, such as high unemployment rates among unskilled groups and increasing skill-related wage dispersion.

Middle East and North African (MENA) regions are experiencing relatively average high growth rates of about 5%-6%. Nevertheless income distribution is extremely unequal and poverty reaches values around 40% of population. Economic growth has helped with poverty reduction, but its effect on poverty has weakened over time. In the nine years between 1981 and 1990 about 3% of the population in MENA moved out of extreme poverty. During that period, the proportion of people living under the poverty line of $1.25 a day declined from 8.6% to 5.4%. In the next 15 years, between 1990 and 2005, poverty continued to fall, but by 2005 the proportion of people living under $1.25 levelled at 4.6%. During those 15 years just 1% of MENA’s people moved out of poverty compared to 3% in the 9 previous years. The same deceleration is observed for a higher poverty line of $2 a day (28.7% in 1981, 22% in 1990 and 19% in 2005). This slowing pace in poverty reduction outcomes was accompanied by rapid population growth: as a result, the absolute number of poor has even increased from 12.2 million people in 1990 to 14 million in 2005 ($1.25 poverty line) and from 49.6 million in 1990 to 58 million in 2005 ($2 poverty line). In addition, behind these average figures, there are tremendous variations across countries. Therefore in latest years poverty reduction has been declared as a priority by every Government. Employment remains low despite the acceleration in GDP growth; labour demand is far from being able to absorb the new entrants in the labour market (labour force growth of average 3.4% a year) and the existing unemployment. Unemployment has decreased due to the sustained economic expansion of the
last decade (from 14% during the 1990s to 11% in 2005) despite labour force
growth, driven by demographics and rapidly rising participation rates, especially
among women, peaked during the same period. The majority of the unemployed
were young, new entrants to the labour markets, and many of them with higher
levels of education. Yet, despite this progress, the job situation in the region as a
whole remains dire; one in two persons of working age does not have a job, but is
either unemployed or not active in the labour market and quality of job gains
remain a critical issue.

Migratory pressure is expected to be stable at high levels with significant youth
unemployment. In MENA region the labour force will continue to expand in the
coming decades, while other areas of the World, including China and the
European Union, will face the challenge of increasingly old populations and a
shrinking labour force. These latter are likely to significantly accelerate recruitment
from abroad to attempt to maintain their labour force at its current level. In many
MENA countries, like in other parts of the world, the skilled and highly educated
workers may leave in high numbers attracted by better working conditions and
higher income abroad. In this context and in light of the increasing qualification
requirements in global labour markets, the MENA region must improve the level of
education and its quality and increase labour force participation (especially of
women) in order to avoid significant “arms and brain” drain as large numbers of
workers at the middle and high levels of the skills spectrum respond to better
opportunities abroad (The World Bank, 2009b).

Social protection systems need important modernization programmes to widen
coverage for basic needs (healthcare and pensions) in the direction of more
universalistic systems.

As underlined by a recent World Bank report, youth represent a great undervalued
asset in the MENA region. Young people constitute well over half the population of
the region, with growth rates that are second only to Sub-Saharan Africa. This
creates a demographic window of opportunity in which economies can benefit
from a majority of individuals entering their productive peak, while the share of the
population that is very young and the elderly still remains fairly small. To take stock
of these opportunities it is recognized the necessity of specific strategic policies
devoted to learning and education, working and employment, migration within
and without the region, staying healthy and forming families. The great youth
potential is complementary with ageing population in European regions;
narrowing cultural and educational gap seems to be the primary key factor to a
better integration of the two areas. Both industrial and developing countries stand to
benefit from better-organized migration schemes, more opportunities for labour
migration, and better matching between skill demand and skill supply (The World
Bank, 2007).
3. Challenge intensity: recent trends and future impacts on regional pattern and disparities

3.1 Recent trends: global and European outlook

An analysis of poverty and social exclusion in a worldwide perspective is neither easy nor useful in this study. The phenomenon has many faces, changing from place to place and across time. Estimating poverty worldwide to set a common reference poverty line, the World Bank uses level of income of $1.25 and $2 per day. Focusing analysis on European regions, this poverty line is not very meaningful. In this section we highlight recent trend of social situations and main factors in Europe and in OECD countries following the recent OECD report “Growing unequal?” (OECD, 2008) and leaving aside problems of poverty and inequalities in less developed countries.

Poverty and inequality

In an OECD perspective, the European Union is in a favorable position with regard to social risks; nevertheless there are doubts on the sustainability of the present model in the next decades and the situation is widely differentiated across countries and within them.

International comparison shows great disparity in income distribution among OECD countries, with values of Gini coefficient index in the top countries double than the ones in the bottom ones. All countries below OECD average level are European (with Switzerland); at the same time Portugal and Poland are in the top five group (but with values far below Turkey and Mexico), and Italy and United Kingdom follow shortly. Relative poverty rates are among the lowest in Sweden, Denmark and Czech Republic, and among the highest in the United States, Turkey and Mexico; they are below average in all Nordic and several Continental European countries, and above average in Southern European countries as well as Ireland, Poland, Japan and Korea.

Generally speaking from the mid 1980s to the mid 1990s inequality increased; in the subsequent decade, the pattern was diversified: income distribution widened again in several countries – especially in the nineties – but narrowed in others. Across the 24 OECD countries over the entire period, inequality increased in two-thirds of all countries by about 7%, with most of the rise experienced in the first decade. The context of stronger income growth over the past decade has generally benefited people across the entire distribution although with important differences across countries; generally speaking an important result is that the middle class has lost relative ground in several countries. In only a few countries the real income of people in the bottom 20% of the distribution fell in absolute numbers (Austria, Germany, Japan, Turkey, Mexico and US).

At the same time changes, in economic conditions have shifted poverty risks among various demographic groups. The most significant of these shifts has been
away from the elderly and towards young adults and children: very old people continue to face a greater risk than population average, but the difference has greatly narrowed; old people 66-75 have a lower risk than other groups.

From a European perspective, as recognised by the European Commission current policies have not delivered social justice for everyone (EC, 2005 525). Around 100 million Europeans in 2004 (22.5% of the total population) had less than 60% of the EU median income of around 670 PPS per month for a single person (€22 a day measured on an equivalised basis). If the comparison is made with the national median level the percentage falls to 16% this is the weighted average of the figures for the risk of poverty at national level across the EU (It is the indicator used in the Open Method of Coordination in the field of social protection and social inclusion). The at risk of poverty rate is a bit lower (14%) in Bulgaria and higher (18-19%) in Romania, the two last new Member States. Just over 5% of the total population in the EU had a daily income in 2004 of less than €10 a day; in Latvia and Lithuania, the percentage rise to 37-40% of the population, and in Estonia and Poland it is over a quarter. The proportion was also significant in Slovakia (18%), Hungary (15%) and Portugal (9%). Around 1.5% of the EU population, almost 7 million people, had a disposable income of just €5 a day (again measured in PPP terms) in 2004; 9-10% of population of Latvia and Lithuania, and 7% in Poland.

The number of Europeans living under the poverty line has increased in the last decades; social benefits reduce the percentage of people at risk of poverty in all countries, but to very disparate degrees; researches demonstrated that serious holes exist in the safety net and other social policies in several countries (Eurostat, 2008b; Sainsbury and Morissens, 2002).

Low income does not necessarily by itself imply low living standards; other indicators are specifically devoted to measurement of deprivation, defined as lacking the resources to obtain the goods, facilities and opportunities identified as generally appropriate in the community in question. Deprivation and financial hardship are especially spread in new Member States, apart from Cyprus, Slovenia and Czech Republic, with a proportion of 40% or more. In most countries, and in all of the new Member States, around two-thirds or more of those concerned had income above the at-risk-of-poverty threshold.

Inequality of income distribution varies widely across European countries: Portugal has the highest degree of inequality of income distribution (40%); the new Member States of Lithuania, Latvia and Poland form a second group of countries (>35%); a third group is composed of the other three Southern European countries of Spain, Greece and Italy, the UK and Ireland, and Estonia (30%-35%). At the other extreme, countries with the lowest degree of inequality are Sweden, Denmark and Slovenia (<25%). In general, Member States with higher levels of inequality tend to have a lower level of average income. The relationship, however, is by no means systematic. In particular, there are a number of countries with very different
degrees of income inequality which have similar levels of GDP per head, such as the UK, Belgium and Denmark or Portugal, Greece and the Czech Republic. As already said for OECD countries, in the last decades inequality followed an increasing trend: between the mid-1980s and the mid-1990s data show a marked increase in most European countries and again it widened in the subsequent five years in several countries. Between 2000 and 2004 there were relatively few countries in which values differ enough to denote a significant change, but the countries concerned - Hungary, Ireland, Italy, Poland, Lithuania and Portugal - generally showed an increase (Eurostat, 2008a, Eurostat, 2008b).

The risk of poverty within Member States varies markedly between different sections of population, and those most exposed to risk vary across countries. Nevertheless, four groups stand out as having a high risk in nearly all countries:
- people of working age living alone with a dependent child - women in the majority of cases (31% at risk of poverty);
- people living alone aged 65 and over who are no longer in paid employment - women prevail again, especially women who may not have been working before reaching 65 - (25% at risk of poverty, ranging from 7% in Luxembourg to 62% in Ireland and 70% in Cyprus). Still in the mid-1990s the poverty rate of the elderly was lower than the national average in nearly all the countries; ongoing pensions reforms aimed to ensure long term financial sustainability of social protection systems may accentuate the risk of inadequate coverage against old age risk and poverty risk for people over 65 and over 75 years old;
- people living alone of working age who are not in employment (the share is increasing). At the same time “working poor” account for about 8% of European population;
- families with children where only one of the parents is in employment or large families with three or more children.

These groups vary across countries not only in terms of the risk of poverty they face but also in terms of their numbers and the share of total population they represent. As a result, in a majority of Member States the largest segment of the population at risk of poverty consists of couples with one or two children where one of the partners is not working - the ‘male breadwinner’ family type. These differences also reflect the differing composition of households across the EU as well as differences in the level of pensions and social transfers - especially transfers to the unemployed - and finally the level of wages in different countries.

Following a life cycle approach, the distribution of poverty risk among different age groups follows a U-shaped curve in most countries. In 2005 19% of young people under 24 lived in low income households in EU-25 member states. For working age adults (aged 24-64) the risk of living in a low income household was lowest (14%) and raise again until 19% of people aged 65 and over. Of greater concern, the child poverty rate approaches 30% in the worst affected countries, and it is an outcome from a complex interaction between three main factors: joblessness, in-work poverty and insufficient financial support (EC2008, 42).
Ethnic minorities
There is evidence that ethnic minorities and people with migrant background face a greater risk of poverty and social exclusion. A significant number of people from different ethnic backgrounds live in the EU, and this ethnic diversity is tending to increase in most parts of the EU as a result of continuing inward migration at a relatively high rate. People born outside the EU are exposed to a higher risk of poverty in all EU countries regardless of the presence of children, even if this is a contributory factor. At the same time, migrant children represent around 5-6% of all children under 16 in the EU and their median income in 2004 was less than 80% of the median income of ‘home’ children, except for three new Member States (Estonia, Cyprus and Slovenia). Equally, in all countries without exception, the proportion of children with income below the at-risk-of-poverty threshold was much larger among ‘migrant’ children than among ‘home’ children (Eurostat, 2008).

One of the most numerous ethnic minority groups in the EU, and certainly in the new Member States, is the Roma community; although exact numbers are not known, estimates suggest that that there are possibly over 10 million Roma in Europe, and they make up between 5% and 10% of the population in Romania, Bulgaria, Slovakia and Hungary. As confirmed in a recent report prepared for the European Commission based on national studies (AA.VV., 2006b), Roma are more exposed to different aspects of social exclusion: extreme poverty, including persistent inter-generational poverty, often compounded by a regional concentration of the Roma in economically deprived areas; poor housing conditions, often in segregated settlements with poor public health provisions; poor health due to poverty-related factors compounded by inadequate access to health services; high rates of child and adult mortality, low life expectancy; segregated and inferior education, low educational attainment and language barriers; high unemployment rates and poor employment opportunities which are mainly insecure or poorly rewarded and heavily concentrated in the informal economy; high rates of crime; a pattern of economic survival encompassing high dependency on social welfare systems, that can be hardly accessed because of the lack of appropriate documentation and problems of statelessness. In addition cultural and behavioural patterns (e.g. the age of marriages and women role in society) accentuate social exclusion and constitute significant obstacles to the integration in regions where they live.

Education and social class
Equal opportunities for people throughout the EU, irrespective of their social origin, are still far from reality. There are obstacles preventing everyone having the chance to realise their potential and contribute to the full to economic advancement and raising living standards. This range of obstacles, leaving aside immigration issues, consists mainly of:
Employment trap: the proportion of people aged 25-64 who are employed as managers, professionals and technicians varies markedly across the EU, but in every Member State in over 50% (sometimes over 60%) of cases the father was in a similar job. So someone whose father had a job in this occupational group is over twice as likely as other people to have such a job himself. The countries where the ratio is lowest, though significant (Germany, the Netherlands, the UK, Ireland, Finland and Denmark) and where there is a greater chance than elsewhere in the EU of securing a high-level job without having a father with such a job, are also the countries where the odds ratio for education levels was lowest.

Education trap: the probability of men and women aged 25-64 having tertiary level education is significantly higher (over 50%) in all EU Member States if their father had the same level of education. Moreover, in all countries, the chances of people having this level of education if their father had the same level are over twice as high as for people whose fathers had only basic schooling, although the gap has narrowed over the long term in 17 of the 24 EU Member States for which data are available.

Data on educational attainment show that, in 2006, just over three quarters (77.8%) of the EU-27’s population aged 20 to 24 had completed at least an upper secondary level of education. However, 15.3% of those aged 18 to 24 (17.5% of men and 13.2% of women) were early school leavers, with at most a lower secondary education. In general, higher education qualifications would appear to reduce the risk of unemployment. A gender breakdown would tend to suggest that women find themselves unemployed more frequently than men with the same qualifications.

There were more than 16 million students active in tertiary education in the EU in 2005 (excluding France and Luxembourg). Proportionally more young men than women opt for a vocational education, while women outnumber men in tertiary education. As the emphasis placed on qualifications grows in relation to entering further education or obtaining a job, it is important to note that the participation rate of girls in education after the completion of compulsory education is higher than that for boys in most Member States, and that girls obtain more upper secondary education qualifications than boys (Eurostat, 2008b).

Employment and labour market
The employment rate among the EU-27’s population aged between 15 and 64 years old was 64.4% in 2006. Although this represented a further rise in the employment rate since the relative low of 60.7% recorded in 1997, it remains below the target rate of 70% for the EU set for 2010. Indeed, employment rates above 70% were only achieved in five Member States (Denmark, the Netherlands, Austria, Sweden and the United Kingdom). In contrast, employment rates below 60% were recorded in Bulgaria, Italy, Hungary, Malta, Poland, Romania and Slovakia. In 2006, the employment rate for women was 57.2% a significantly higher rate than that recorded (54.3%) in 2001, although considerably lower than the corresponding rate (71.6%) for men in 2006. Thirteen Member States recorded employment rates...
for women above the target 60% in 2006, with the rates recorded in Denmark and Sweden exceeding 70%.

Policy matters: the relative financial resources that Member States spend on labour market interventions to get the unemployed and other target groups into the labour market vary widely; the highest level of relative expenditure on labour market policy measures and supports in 2005 is estimated to have been in Denmark followed by the Netherlands and Sweden and the lowest in Estonia, Greece and Romania, more than ten times smaller. The largest share of expenditure on labour market policy measures in the EU went on training (38.6%) to improve the employability of the unemployed and other target groups. Almost one quarter (23.8%) of EU expenditure was also accounted for by employment incentives, with a little under one third (30.9%) being relatively equally shared between programmes developed to integrate persons with reduced working capacity and to create additional jobs. The breakdown of expenditure on labour market policy measures across the Member States was extremely varied, however, reflecting the different characteristics and problems faced within the individual labour markets (Eurostat, 2008b).

Social protection system
Social protection expenditure in the EU-25 represented about 27% of GDP in 2004, a proportion that grew by 2.6% compared with the equivalent share recorded in 2000. The largest proportion was recorded in Sweden, France, Denmark. At the other end of the spectrum, the Baltic countries accounted for the lowest proportion of GDP dedicated to social protection. Old age represented the largest social benefit function (more than 40% of total social benefits) in the EU-25 in 2004, followed by sickness and healthcare (28%). Between 2000 and 2006, social benefits developed at differing speeds for the different functions, responding to changing needs, fluctuations in the economy, demographic trends and changes of social protection legislation. Taking all benefits together, the growth over this period averaged 2.6% per annum in EU-25. The overall changes in each country were the result of the different rates of change for each function. In the EU-25 the average annual increase was of 2.3% for old age and survivors' benefits, 3.7% for sickness/health care expenditures, 2.1% for family/children benefits devoted for about 70.2% to cash family benefits (but this increase is not linked to a rise in the number of children, since the population aged between 0 and 19 years fell by 3.9% during the same time), only 0.9% for unemployment, 4.1% for housing and social exclusion functions.

Social protection was mainly financed by employers' social contribution (39%) and general government contributions (37%) in the EU-25 in 2004. The structure of funding is, rather, widely varying between countries, depending strongly on country-specific rules and on the institutional reasoning behind social protection systems. Countries like the Czech Republic, Estonia and Belgium were characterized by higher social contributions (more than 70%). Conversely, Denmark's and Ireland’s systems relied for the 60% of their total receipts on government funding; Cyprus, the United Kingdom and Sweden followed with a taxes-related financing set over 45% (COM2008, 42).
3.2 Expected developments: an optimistic and a pessimistic view

Impacts on disparities depend on the relation between regional sensitivity and challenge intensity. This relationship is assessed in a qualitative manner in the present chapter, according to the potential effects (relative certainties and likely effects; key uncertainties and potential consequences) of the challenge in the future. This qualitative assessment starts from the groups of regions identified by means of the analysis of sensitivity and the ranking presented in Chapter 2. The results of the assessment are summarized in two scenarios (optimistic and pessimistic scenarios), that correspond to the two extremes of the expected range of variation of challenge intensity in Europe. Impacts of scenarios are extremely imprecise and are to be interpreted simply as indications for debate. The sensitivity index derives from the combination of different drivers: in the same group, regions can have very different situations with regards to single components.

The main hypothesis for future scenarios

As we have seen, social risks derive from the interaction of three dimensions: demography, labour market, welfare system. Their evolution however depends on the economic trend, both at macro-economic and micro-economic level, and is closely related to the pattern of growth of regional economic systems. There are three main channels through which economic growth affects the poor in the labour market. The unemployed poor benefit directly from increased employment resulting from growing demand for their labour. The working poor gain from rising real wages or increased productivity of their self-employment. And growth can trickle down to the economically inactive poor through increased public and private transfers.

The greater international competition induced by trade and capital liberalization was blamed for increased income disparities within industrialized countries, placing particular strain on low-skilled work in older industries, the first to be transferred to lower-cost countries. However, the export of jobs due to globalization is only a minor consequence; of greater concern is the effect of capital mobility on fiscal policy. International tax competition is imposing severe limits on the financing of the welfare state. Several studies conclude that social change has been mainly internally driven, and globalisation cannot be addressed as the principle driver for future social challenge (see also Globalization Challenge Background Paper in this study). Some key trends may be accentuating: the disappearance of traditional industrial jobs (in conjunction with the impact of new technology and the emergence of new consumer demands); the requirement for a highly educated society able to develop the talents of all its citizens to the full; the emergence of striking new geographic and income inequalities as the fortunes of 'winners' and 'losers' diverge; the imperative of designing a more environmentally sustainable economy; and the challenge to the benefits of openness from the problems of mismanaged migration and failed integration (AA.VV., 2007; COM2005, 525).
The present financial and economic crisis may however change the worldwide future trends of economic growth (for short term effects of the crisis see for example the last World Bank EU10 Regular economic report). Next to the conjunctural effects on levels of employment and income, it may cause structural changes of the European and World pattern of growth. As a result of this, the configuration of social risks may also change in the future in ways that we are not able to forecast.

Demography
Some changes in the future population dynamics are almost independent of the future macro-economic prospects and from the relevant scenarios. Natural change is set to decline both because of a reduction in the number of women in the higher fertility ages and of fertility rate contraction. The trend will be stronger where fertility is not sustained by specific policies and/or by the immigration of young families from countries where fertility is higher than in the EU. The process of population ageing will lead by 2020 to a temporary relief in the number of the population 65-79 years and to a fast increasing number of the population 80-and-over, given the dimension of the relevant cohorts and of their increasing survival rate. Increasing pressure on the health and assistance systems will follow (see also Demographic Challenge Background Paper in this study). Labour-age population will be interested by a negative turnover in most European regions; regional differences are expected to be especially high in the size of young cohorts which will enter the labour market. Migratory flows will play a crucial role in sustaining growth of population and in weakening the process of ageing but they may create more and more serious problems of social integration and of cultural intolerance. Migration may assume however very different characteristics in various regions, according to their capacity of attraction. Core regions and metropolitan areas with high growth rates may attract highly skilled workers in a much larger measure than lagging regions. This may represent in the long run a factor of increasing regional disparities in the endowment of human capital.

Labour market
The EU's working age population (leaving aside positive immigration impacts), as stated by the fourth Cohesion Report, will be shrinking by 2020 to an extent that can no longer be compensated by increased participation rates (EC, 2007). This suggests that a strong productivity dynamic is an irreplaceable source of economic growth. The employment rate projections made in Regions 2020 working documents (EC, 2009) show a substantial increase from 63% in 2005 to 70% by 2020 Nevertheless, major disparities are expected to remain with several regions continuing to experience levels below 55%. These are Southern Italy and parts of Romania, Hungary and France. Employment rates would still be relatively low in Poland Romania, Bulgaria, Greece the Centre of Italy, the South of Spain. Unemployment is expected to decline, but substantial regional variation, as is already the case today, will remain in 2020. Applying the current structure of
regional unemployment levels to the assumed national unemployment levels in 2020 provides a rough indication of where unemployment may still be high. It may still be close to 10% or higher in Southern Spain, Southern Italy and in most regions in Poland, and Eastern Germany.

Education
In the post-industrial knowledge based economy, labour productivity depends to a large degree on the education level of the labour force. Again according to Regions 2020 projection (EC, 2009), there will be a slight drop in the share of people lacking a complete secondary education from 29% in 2005 to 25%. The share of people aged 25-64 without a complete secondary education is expected to be very low in the Nordic Member States, the Baltic States, Poland, the Czech Republic and Slovakia. It will remain relatively high in Portugal, Spain, France, Italy, Greece and parts of Romania and Bulgaria.

The education level projections indicate that the growth of tertiary education levels will not be sufficient to catch up with other large developed countries such as the US and that large disparities between EU regions will remain. In terms of higher education, at the international level the EU 27 scores low with only 22% of people aged 25-64 with a tertiary education compared to a 45% in Canada, 39% in the US and 30% in Australia and Korea. In the EU only the three Nordic countries achieve similar performances. To accomplish the goal of being a strong knowledge-based economy, the EU would need to attract more knowledge workers, to retain a growing share of global R&D expenditure and to facilitate the shift to higher value added economic activities. For the future, the projections indicate that by 2020, regions in the Nordic Member States, Benelux, UK, Ireland, France and Northern Spain will mostly have more than 35% of tertiary educated aged 25-64. However, regions in Portugal, Italy, Romania, Hungary, Austria and the Czech Republic will still have quite low levels, especially outside the capital region, with a still notable number of regions with less than 20% of tertiary educated.

Welfare
The welfare challenge for the next decade will be strong to narrow disparities among European regions and countries with respect to the adequacy of social protection systems in dealing with new and old social risks. Action is necessary to reduce persistent and important inequalities in health outcomes, that are important determinant of life chances.

Following, 2008 Joint report on social protection and social inclusion, demographic ageing and socio-economic change (family's structure and size) can be seen as the main drivers of higher future demand for long-term care services. In fact, increases in demand are driven mainly by increases in life expectancy and the incidence of invalidity and dependency. Member States have realised the need to look at long term care as a new social risk to be covered by social protection and are committed to ensuring near universal access. Despite the recognised need, current supply does not necessarily translate into a comprehensive and universal framework for long term care provision; attempts are in progress to
ensure a sustainable mix between public and private sources of finance through changes in the financing mechanisms, but much is still to be done. Extensive structural labour market and pension reforms have taken place in most countries in the past decade and still continue in some Member States. They build on a life-cycle approach by strengthening the link between pension contributions and benefits and on active ageing strategies by reducing access to early retirement schemes, strengthening incentives to work longer and improving the employability of older workers. They need to be complemented by flexicurity measures along the life cycle and by measures to improve both the quantity and the quality of jobs particularly for those with less stable careers, those on low pay and those facing difficulties to acquire an adequate pension. In some Member States, however, the take-up of early exit benefits is still increasing. More systematic reforms are thus needed to significantly reduce the period between the end of the last job and the take-up of statutory pension. Most measures reinforce the expected decrease in future public pension provision at a given age, and hence increase concerns regarding future adequacy (EC2008, 42).

Our ultimate aim is to assess impact of social challenge on regional disparities, so in sketching possible scenarios we note the greater or smaller possibility of convergence between European regions. Our hypothesis is that in a conjuncture of sustained growth lagging regions have greater chances to use their underexploited potential of resources (i.e. human capital) and to catch up with leading areas. Then a lower probability of convergence is associated with the pessimistic scenario, and a higher probability with the optimistic hypothesis. Correlation between economic growth and social exclusion is however not straightforward, nor it is obvious the linkage between economic growth and greater regional cohesion. More overall growth can be associated with more personal and regional inequalities and less overall growth with more personal equality and regional cohesion.

**Pessimistic scenario**
The present financial and economic recession will be severe and long-lasting. It will involve large parts of the economy of many EU countries, starting from the less competitive sectors, but progressively extending to the core, more traditional productions (e.g. car industries). The financial market will prefer to invest in economies outside the EU, where the returns are higher and production costs are cheaper. Unemployment in the EU will hit both the workers of closing plants and the young cohorts now entering the labour market. The slow-down of the economy will reduce the amount of tax raised, thus reducing public spending on the welfare and investments: reductions in the civil service may also follow, at least as a slow-down in the employee turnover. A consistent part of the population will be out of work, with small and uncertain incomes. Consumption will fall, thus involving in recession retailers, traders and import companies, as well as craftsmen and large distribution. A decrease in the number of double wage households is registered, while households depending on social transfers (inadequate because
of tighten financial constraints) and the number of people living in working-poor households increase due to a greater share of part-time and temporary workers and fall in average wage levels. This pessimistic scenario is likely to lead to increasing regional inequalities if investment and high skilled workers accrue to the core regions of the Union and if, in a context of overall slow growth, lagging regions will find much more difficult to exploit their underutilized resources and the welfare systems to compensate for rising inequalities. It cannot however be totally excluded a downward convergence process with advanced regions suffering more than lagging regions.
Characteristics of regional sensitivity

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensitivity ranking</strong></td>
<td><strong>Characteristics of regional sensitivity</strong></td>
<td><strong>Intensity</strong></td>
</tr>
<tr>
<td>69 Regions characterised by high and very high sensitivity (SI average = 0.79)</td>
<td>Mainly: higher at-risk-of-poverty rate compared to European median; lower total employment rate because of narrower share of labour force on total population, lower activity rate or lower employment rate; higher share of low educated workers and narrower share of tertiary educated ones; ineffective welfare system in respect of redistributive capacity, adequacy to new social risk and compatibility with financial constraints</td>
<td>EU working age population will be shrinking to an extent that it can no longer be compensated by increased participation rates. Employment rate will more than increase by 2020, but major disparities will remain. People with a complete secondary education will slightly increase, but regional disparities will remain. Tertiary education levels in EU are significantly lower than in other large developed countries. Progress in the next decade will not be sufficient to catch up and only regions in the Nordic Member States, Benelux, UK, Ireland, France and Northern Spain will mostly have more than 35% of tertiary educated aged 25-64. Demographic ageing and socio-economic change drive a rising demand for long term care and social protection expenditures. Disparities in access and quality of health outcomes will underline national and regional disparities. Pensions reforms aimed to guarantee financial sustainability, insufficient reforms in the direction of the flexicurity model will undermine a adequacy of future old age and dependency risks cover and increase the risk of higher poverty and social exclusion.</td>
</tr>
<tr>
<td>37 Regions characterised by medium sensitivity (SI average = 0.56)</td>
<td>Mainly: medium at-risk-of-poverty rate compared to European median; medium total employment rate because of narrower share of labour force on total population, non satisfactory activity rate or medium employment rate; intermediate educational attainment of working population; limited adequacy of welfare system with regard to redistributive capacity, capacity to deal with new social risk and compatibility with financial constraints</td>
<td>Employment rate will still be relatively low in 2020, and participation rate increase is relatively slow; Migration flows could compensate for demographic change but generate conflict with local workers, especially low skilled ones; Low educated people remains at a relatively high even though decreasing level; growth of tertiary education level is slow. Exposure to international competition will be critical and economic growth will be unsatisfactory. Problems of sustainability of social protection systems emerge because of increasing expenditures for health and old age pensions. Demand for welfare increases can hardly find adequate answer. Poverty and social exclusion increase relatively to the rest of Europe.</td>
</tr>
<tr>
<td>160 (Regions characterised by low and very low sensitivity (SI average = 0.23)</td>
<td>Mainly: low or very low at-risk-of-poverty rate compared to European median; high total employment rate because of positive demographic and labour market conditions; high educational attainment of working population adequate to knowledge society needs; effective welfare system in respect of redistributive capacity and new social risks.</td>
<td>Participation and employment rate rise further but are not sufficient to compensate for working age population reduction. There is a mismatch of immigrant skills and labour demand trends; conflicts may arise with local “losers”; Educational attainment is competitive with other large developed countries. Labour productivity will increase further, but international stronger competition will contain economic growth. Financial constraints and increasing expenditures for health and pensions do not allow for widening welfare. Income and employment growth are distributed asymmetrically and inequalities widen.</td>
</tr>
</tbody>
</table>

**Impacts**

- Potential increase of participation rate of women and older workers remains unexploited; employment rate still under EU average;
- Migration flows generate serious conflicts with local “losers”;
- Working age people without a complete secondary education remains significantly high; higher educated people do not increase adequately.
- There will be a drop in labour productivity and economic growth;
- Financial constraints and incomplete reforms further reduce redistributive capacity of welfare system, primarily challenged by increasing health care expenditures.
- Lack of employment growth drives an increase in one worker, no worker or atypical worker households and in families depending on social transfer.
- Poverty and social exclusion increase relatively to the rest of Europe.
**Optimistic scenario**

The present financial and economic recession ends in a couple of years, leaving the EU27 productive system free of its less productive parts and more concentrated in new technologies, renewable energies and forefront research. These sectors will require high-educated workers that, in the case of insufficient home supply might be engaged through selected migration from any country in the world. Immigration from abroad, however, will also be welcomed for low-level jobs, simply because of the ascending status of the internal workforce in the professional ladder and the consequent more affluent milieu. Growth in GDP will loosen financial constraints and problems of sustainability of social protection system; reforms are effective and greater coverage of new social risks is possible: child and old people care, disability and long term care, family setting, flexicurity. Greater labour demand and more effective policies allow an increase in female participation rate and the number of double wage earner households. In addition investments in education and life long learning increase average skill levels of both local and immigrant workers, reducing the proportion of low skilled low-income workers. The probability of this scenario strongly depends on the future policies of European institutions, at different level of government; the scenario is largely overlapping with the success of the so called Lisbon Strategy and implies that its targets are reached.

This optimistic scenario is likely to be linked to a process of convergence if lagging regions, with higher margins of improvement in education and employment rates, exploit their underutilized resources and the spillovers from advanced regions. It cannot however be excluded a scenario with an asymmetric distribution of the benefits of economic expansion favourable to the core regions,
<table>
<thead>
<tr>
<th>Sensitivity ranking</th>
<th>Characteristics of regional sensitivity</th>
<th>Qualitative assessment of intensity</th>
<th>Impacts</th>
<th>Regional exposure in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>Mainly: higher at-risk-of-poverty rate compared to European median; lower total employment rate because of narrower share of labour force on total population, lower activity rate or lower employment rate; higher share of low educated workers and narrower share of tertiary educated ones; ineffective welfare system in respect of redistributive capacity, adequacy to new social risk and compatibility with financial constraints</td>
<td>EU working age population will be shrinking to an extent that can no longer be compensated by increased participation rates. Employment rate will substantially increase by 2020, but major disparities will remain. People with a complete secondary education will slightly increase, but regional disparities will remain.</td>
<td>These regions exploit the wide margins of improvement. Participation rate of old workers and women increases. Favourable conjuncture creates higher employment both for local and foreign workers. Economic transition to knowledge-based economy is pulled by world economic growth and pushed by policies to strengthen human capital qualification. Economic growth allows loosening financial constraints of welfare system and it is possible to sustain major redistributive policies for lagging regions. Reforms of welfare system widen protection against new social risks.</td>
<td></td>
</tr>
<tr>
<td>69 Regions characterised by high and very high sensitivity ($S$ average = 0.79)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Group 2</td>
<td>Mainly: medium at-risk-of-poverty rate compared to European median; medium total employment rate because of narrower share of labour force on total population, non satisfactory activity rate or medium employment rate; intermediate educational attainment of working population; limited adequacy of welfare system with regard to redistributive capacity, capacity to deal with new social risk and compatibility with financial constraints</td>
<td>Tertiary education levels in EU are significantly lower than in other large developed countries. Progress in the next decade will not be sufficient to catch up and only regions in the Nordic Member States, Benelux, UK, Ireland, France and Northern Spain will mostly have more than 35% of tertiary educated aged 25-64. Demographic ageing and socio-economic change drive a rising demand for long term care and social protection expenditures. Disparities in access and quality of health outcomes will underline national and regional disparities.</td>
<td>Employment rate will growth substantially and participation rate will increase. Reduction of working age population is overcome by migration flows; Investment in education and research will increase the share of medium and high educated workers. Spillover from leading regions can be exploited; Economic growth allows loosening financial constraints of welfare system and it is possible to sustain major redistributive policies. Reforms of welfare system widen protection against new social risks.</td>
<td></td>
</tr>
<tr>
<td>37 Regions characterised by medium sensitivity ($S$ average = 0.50)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>Mainly: low or very low at-risk-of-poverty rate compared to European median; high total employment rate because of positive demographic and labour market conditions; high educational attainment of working population adequate to knowledge society needs; effective welfare system in respect of redistributive capacity and new social risks.</td>
<td>Growth rate sustain labour demand both for qualified and less skilled jobs. Migration flows overcome working age population reduction and no particular conflicts in labour market arise; Educational attainment will further increase and will be competitive with other large developed countries. Labour productivity will increase further and will sustain new investment in research and innovation, also in neighbouring lagging regions; Economic growth allows loosening financial constraints of welfare system and it is possible to sustain major redistributive policies. Reforms of welfare system widen protection against new social risks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>160 (Regions characterised by low and very low sensitivity ($S$ average = 0.23)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 1

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## Methodology

Almost all the basic data were drawn from the EUROSTAT database, with few exceptions as reported in the table below.

<table>
<thead>
<tr>
<th>DATA</th>
<th>SOURCE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable income of private households, by NUTS 2 regions (EUR per inhabitant)</td>
<td>Eurostat</td>
<td>The disposable income of private households is the balance of primary income (operating surplus/mixed income plus compensation of employees plus property income received minus property income paid) and the redistribution of income in cash. These transactions comprise social contributions paid, social benefits in cash received, current taxes on income and wealth paid, as well as other current transfers. Disposable income does not include social transfers in kind coming from public administrations or non-profit institutions serving households.</td>
</tr>
<tr>
<td>Employment and educational attainment</td>
<td>EU Labour Force Survey</td>
<td>The survey covers the entire population living in private households and excludes those in collective households such as boarding houses, halls of residence and hospitals. Employed persons are those who during the reference week did any work for pay, profit or family gain for at least one hour, or were not at work but had a job or business from which they were temporarily absent. Employed are divided into 3 groups according to their educational attainment: low, medium, high.</td>
</tr>
<tr>
<td>Total population</td>
<td>Eurostat</td>
<td>The inhabitants of a given area on 1 January of the year in question (or, in some cases, on 31 December of the previous year). The population is based on data from the most recent census adjusted by the components of population change produced since the last census, or based on population registers.</td>
</tr>
<tr>
<td>GDP per capita (PPS)</td>
<td>Eurostat</td>
<td>Gross domestic product (GDP) is a measure for the economic activity. It is defined as the value of all goods and services produced less the value of any goods or services used in their creation. The volume index of GDP per capita in Purchasing Power Standards (PPS).</td>
</tr>
<tr>
<td>Social benefits per head of population by function (PPS)</td>
<td>Eurostat</td>
<td>Social benefits consist of transfers, in cash or in kind, by social protection schemes to households and individuals to relieve them of the burden of a defined set of risks or needs. Functions: sickness, old age, survivors, disability, family, house, unemployment, social exclusion.</td>
</tr>
<tr>
<td>Total expenditure on social protection per head of population (PPS)</td>
<td>Eurostat</td>
<td>Expenditure on social protection includes: social benefits, which consist of transfers, in cash or in kind, to households and individuals to relieve them of the burden of a defined set of risks or needs; administration costs, which represent the costs charged to the scheme for its management and administration; other expenditures, which consist of miscellaneous expenditure by social protection schemes (payment of property income and other).</td>
</tr>
</tbody>
</table>
### General government consolidated gross debt as a percentage of GDP

- **Source:** Eurostat
- **Definition:** The general government sector comprises the subsectors of central government, state government, local government and social security funds. GDP used as a denominator is the gross domestic product at current market prices. Debt is valued at nominal (face) value, and foreign currency debt is converted into national currency using end-year market exchange rates (though special rules apply to contracts). The national data for the general government sector are consolidated between the sub-sectors. Basic data are expressed in national currency, converted into euro using end-year exchange rates for the euro provided by the European Central Bank.

### % of EU population below poverty line (60% of EU-25 median)

- **Source:** Social Inclusion and Income Distribution in the European Union - 2007
- **Definition:** The relative number of people with income below a certain level in the EU (in our case 60%) has been estimated starting from the data collected by the EU-SILC in 2005 for disposable household income at national level in 2004, equivalised to adjust for differences in the scale and composition of households. These data, however, do not include Bulgaria and Romania. Moreover, no detailed data are available for Malta. Accordingly, the estimates presented below relate to 24 Member States.

The most recent data at regional level available for the EU countries have been used; wherever possible, we used the three years average for the variables chosen to describe the drivers. In case of lack of the three-year data, a two-year average or the single year value was used.

The five Danish and two Scottish regions for which no recent data were available have been equalised to the country or NUTS1 values for all the variables drawn from the database. This procedure, with reference to NUTS1 or old NUTS2 level, has been applied also to a few regions of German, Spain, Italy and Finland for which no recent data on single variables is available. There is a lack of data for the majority of variables for Malta and for the French overseas regions, and therefore these have been omitted on the map. For Bulgaria and Romania no data on at-risk-of-poverty rate with reference to the European median was available. If the risk of poverty is calculated with reference to national median income level, these two countries show a similar performance to several other EU Member States (around 15%); at the same time the poverty threshold in these two countries is much lower than EU25 average. As a shortcut, in this paper we assume for every region of Bulgaria and Romania the worst value of normalised at-risk-of-poverty rate (value=1).

Starting from the basic data, indicators have been constructed as follows:

- **At risk of poverty rate:** percentage of population below poverty line at EU level (60% of the median equivalised per capita disposable income). The indicator is available at a national level; the number of poor at national level has been allocated regionally at NUTS2 level according to an indicator of the percentage gap between regional and national per capita disposable income, for which we have regional data from Eurostat;
The total employment rate, calculated as the ratio between total employment available from LFS and total population;

Educational attainment: LFS distinguishes among employed people with low, medium and higher education. A comprehensive indicator is calculated as a weighted sum: \( EA = \sum \{ (-1) EMP_{low}; (1) EMP_{med}; (2) EMP_{high} \}; \)

Welfare system summary index calculated as an average of the following single indicators: a) social spending for new social risks: the share of social benefits for family, unemployment, house and exclusion on total social benefits (other functions are sickness, old age, survivors, disability) (Eurostat); b) total expenditure on social protection as a share of GDP, (Eurostat); c) total government debt as a percentage of GDP (Eurostat)

Each index is assumed to have a positive impact on the social risk, with the exceptions of at-risk-of-poverty rate and public debt on GDP. To allow for summarising in a single indicator, for each original index \( V \) we calculated a normalised indicator \( Z \) by using the range of \( V \) in the following formulae:

\[
Z = \frac{\text{Max} V - V}{\text{Max} V - \text{Min} V}, \text{ in the case of positive components}, \quad Z = \frac{V - \text{Min} V}{\text{Max} V - \text{Min} V}, \text{ in the case of negative components}.
\]

After that, all the indicators vary from 0 to 1, 0 being the ‘best’ situation and 1 the ‘worst’ situation in the EU regional panorama. Welfare system index is calculated as the simple average of the three components (adequacy to NSR, redistributive capacity, general financial constraints).

In the table below the average value and standard deviation are reported for each indicator. They give hints on the statistical distribution of the regional normalised indicators.

<table>
<thead>
<tr>
<th>Component and Index</th>
<th>Average value</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regionalised At-risk-of-poverty rate</td>
<td>0.26</td>
<td>0.29</td>
</tr>
<tr>
<td>Total employment rate</td>
<td>0.43</td>
<td>0.2</td>
</tr>
<tr>
<td>Educational attainment</td>
<td>0.3</td>
<td>0.18</td>
</tr>
<tr>
<td>Welfare system</td>
<td>0.47</td>
<td>0.14</td>
</tr>
<tr>
<td>- adequacy to NSR</td>
<td>0.5</td>
<td>0.23</td>
</tr>
<tr>
<td>- redistributive capacity</td>
<td>0.36</td>
<td>0.24</td>
</tr>
<tr>
<td>- general financial constraints</td>
<td>0.54</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Standard deviation measures the dispersion of regional values around the average, therefore it can be read as an index of regional diversity. We incorporated the standard deviation of indicators in the construction of the sensitivity index \( SI \) that summarise them. It has been calculated by summing up the four indicators \( I_k \) multiplied by the corresponding standard deviation.
SD(\(k\)) = \(k \cdot SD(k)\)

The sensitivity index was then reduced to a range 0 - 1 by the conversion formula

\[ SI' = \frac{SI - \text{Min}(SI)}{\text{Max}(SI) - \text{Min}(SI)} \]

The sensitivity index \(SI'\), calculated in this way for all the EU regions, has an average value of 0.417 and a standard deviation of 0.257. Following the distribution of summary index we classified the 266 EU regions considered in the analysis (excluding Malta, Bulgaria and Romania for which not enough data are available) in five classes of sensitivity to the social challenge:

- Very low sensitivity (0-0.19): 46 regions;
- Low sensitivity (0.20-0.39): 114 regions;
- Medium sensitivity (0.40-0.59): 37 regions;
- High sensitivity (0.60-0.79): 37 regions;
- Very high sensitivity (0.80-1): 32 regions.

Such classification was also used in the Sensitivity map presented in the text.
Annex 3

1) Maps of drivers - Poverty
2) Maps of drivers - Employment
3) Maps of drivers - Education
4) Maps of drivers - Summary of regional indicators

[Map showing regional sensitivity with color codes: very high (29), high (30), medium (29), low (99), very low (73)]
5) Maps of drivers - Welfare system
Annex 4

Comparison with EU cohesion policy regions

Social Risk and EU Cohesion Policy
- High risk Convergence regions: 32
- Non high risk Convergence regions: 32
- High risk non Convergence regions: 7
- Other regions: 185