



UPLIFT – Urban PoLicy Innovation to address
inequality with and for Future generaTions

Deliverable 1.4

Framework study on socio-economic inequalities in Europe

Drivers of inequalities and typology of inequalities

December 2020



This project has received funding from
the European Union's Horizon 2020
research and innovation programme
under grant agreement No 870898.

Project title	UPLIFT – Urban PoLicy Innovation to address inequality with and for Future generaTions
Grant Agreement No.	870898
Project duration	January 2020-December 2022
Project website	http://Uplift-youth.eu
Project coordinator	Metropolitan Research Institute
WP 1	Overview of the drivers, dimensions and trends of urban inequalities in Europe
WP duration	January 2020-December 2020
Deliverable title	D1.4 Framework study on socio-economic inequalities in Europe
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Date of submission	30/12/2020
Dissemination level	Public

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1 Executive Summary

As demonstrated in UPLIFT Deliverable D1.3: Atlas of inequalities, a variety of different inequalities are present across Europe. These inequalities occur (among others) in the labour market domain, the housing domain, the education domain and the health domain. This framework study seeks to integrate the results of UPLIFT Deliverables D1.2 (literature review) and D1.3 (Atlas of inequalities) through summarizing the mechanisms creating inequalities in these four domains and in areas that relate to them (cross-cutting issues). It also seeks to develop a simple typology of metropolitan areas using indicators of competitiveness and social cohesion. This framework study is to provide important contextual information for the analysis of local policy ecosystems in UPLIFT Work Package 2, the context in which interactions happen between institutions and young people.

The key findings from the synthesis report are as follows:

- Economic shocks or recessions are a significant driver of inequalities across all of the domains. For example, the economic crisis and subsequent recession of 2008-09 has been found to have contributed to worsening inequalities, including inequality in access to acceptable housing, inequality in educational attainment, inequality in labour market access and position, and inequality in health outcomes.
- The younger generation was found to have been disproportionately affected by the 2008-09 recession, as their disadvantaged position particularly in the housing and labour market saw them experience redundancies, lack of employment opportunities and difficulties in affording housing to a greater extent compared to other age cohorts. The impact of economic shocks or recessions on young people is not just in the short term; lasting impacts have been observed, especially in reduced employment prospects.
- The effect of globalization as a driver of inequalities is not straightforward. While globalization has brought new challenges, such as a growing precariat, and driven new trends, such as increasing returns to education, especially higher education, nations still retain considerable room to manoeuvre in mitigating the impacts of globalization, especially through education and welfare policies.
- Young people have been especially affected by the increasing prevalence of precarious work. This manifests as inequalities in labour market opportunities and health outcomes.
- The rise in precarious work has been enabled in part by a long-term trend in labour market deregulation, with employees at the bottom end of the labour market most affected by the reduction in employment security.
- Skill-biased technological change has helped drive a growing stratification in labour markets, as returns to education increase, the difference between mean salaries of high-skilled and low-skilled jobs increases and a lack of education and skills becomes a barrier for those wishing to progress beyond low-paid, low-skilled work.

- Welfare regimes can mitigate inequalities, particularly income inequality, through redistribution through the tax system and government transfers, such as unemployment benefits, state pensions, child benefits and tax credits. Welfare systems that are more redistributive and have higher government transfers, such as those described as 'social-democratic' (e.g., Nordic countries) or 'conservative-corporatist' (e.g., France and Germany) by Esping-Andersen, tend to have lower levels of inequality than 'liberal' regimes (e.g., the UK and Eastern Europe) or Southern European welfare systems. However, those countries with the lowest inequality after tax and transfers also tended to have the lowest inequality before tax and transfers which raises the assumption that structural drivers of inequality are exceeding the impacts of redistribution.
- The characteristics of the economies of cities and metropolitan areas, as well as their relative position in regional, national and global economies, have an important role in the extent of within-country and within-region inequalities.
- Spatial segregation according to ethnicity or socioeconomic status plays a key role in reinforcing existing inequalities in all domains.
- Rising housing costs and the growing unaffordability of housing is increasing housing inequalities in terms of the affordability of housing and the security of tenure. Young people are especially disadvantaged in comparison to older cohorts, who are much more likely to be owner-occupiers.
- Individual and family wealth have grown in importance as drivers of inequality. Having a privileged or wealthy background provides an advantage in education, the labour market and the housing market. Also, the wealthier an individual's parents, the higher the individual's expected income later in life. Increasingly, wealth begets more wealth.
- Individual characteristics such as gender, ethnicity, socioeconomic status, disability status, immigrant status and LGBT+ status, can have significant influence whether somebody experiences inequality through active discrimination or structural disadvantages.
- As regards inequality based on gender the literature concludes that the gender balance is kept in education in general while gender segregation is persistent across fields of study in tertiary education, differences in the transition from school to work and asymmetry in family roles both leading to inequalities in the labour market resulting in inequalities in other spheres of life. (It is interesting to note however that the phenomenon of gender pay-gap does seem to cut across welfare regimes.)
- Youngsters in general are in more precariat labour market and housing situation than older age cohorts. To some extent it is natural as they are in a more temporary and more mobile life situation, and the younger generation is more used to this fragility. The major question here however (that should be further analysed in Work Package 2 and 3) is whether this fragility remains in their further life carrier causing growing inequalities, or whether this is rather a temporary phenomenon.

The key findings from the typology of metropolitan areas are as follows:

- There is a general separation between Northern and Western European metropolitan areas and Southern and Eastern European metropolitan areas, with some notable exceptions.
- The competitiveness of a city or metropolitan area seems to have a serious impact on social cohesion (with regards to education and the labour market) in the case of the most competitive and the least competitive cities and metropolitan areas. Capitals and economically-strong cities tend to have higher values for equity, innovation and GDP per capita, and lower values for labour market exclusion. On the other hand, the most depressed cities (the cluster of Southern Italian cities) perform weakly in all dimensions. This fact emphasizes the role of the local economy in creating widely-accessible employment opportunities as the crucial foundation of social cohesion.
- The differences between cities may be related to the diversity of the economy and the prevalence of high-paid, highly-skilled employment in scientific and technical knowledge-based sectors.

2 List of abbreviations

Abbreviation	Full word
CEB	Council of Europe Development Bank
EEA	European Environment Agency
EIGE	European Institute for Gender Equality
EU	European Union
Eurofound	European Foundation for the Improvement of Living and Working Conditions
EU-SILC	European Union Statistics on Income and Living Conditions
FEANTSA	European Federation of National Organisations working with the Homeless
FRA	European Union Agency for Fundamental Rights
FUA	Functional urban area
GDP	Gross domestic product
ICT	Information and communications technology
ILO	International Labour Organization
LGBT	Lesbian, gay, bisexual and trans
LGBT+	Lesbian, gay, bisexual, trans and others
LGBTIQ	Lesbian, gay, bisexual, trans, non-binary, intersex and queer
NEET	Not in education, employment or training
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
OED	Oxford English Dictionary
OOP	Out-of-pocket

Abbreviation	Full word
PISA	Programme for International Student Assessment
STYLE	Strategic Transitions for Youth Labour in Europe
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization
WP	Work Package
YLL	Years of life lost

3 Introduction

The purpose of Deliverable 1.4 is to reveal the complex picture of inequality in Europe. This is achieved through a synthesis of Deliverable 1.2: Inequality concepts and theories in the post-crisis Europe and Deliverable 1.3: Atlas of inequalities. This framework study has been separated into two parts. The first part identifies the main drivers of different inequalities in Europe using D1.2, as well as any additional relevant literature. It also discusses how the driver specifically impacts the young generation, i.e., those aged 15-29, and uses data and analysis from D1.3 to try to find evidence of the impact of the drivers, particularly in the wake of the 2008-09 financial crisis. The purpose of this first part is to provide important contextual information for future UPLIFT work packages in terms of the drivers and causes of inequalities in different domains and at different governance levels, identifying the scope cities and metropolitan areas have in influencing different inequalities. The second part of the framework study aims to develop a typology of metropolitan areas in Europe according to variables related to competitiveness and social cohesion. The purpose of the second part is to create a simple scheme with which to classify metropolitan areas according to their inequalities and to identify particular drivers behind each classification and the inequalities they display. The typology will also be used to classify the 16 functional urban areas (FUAs) being studied in UPLIFT Work Package 2, which will help to identify the most important drivers of inequality present. The accuracy of the typology will also be assessed based on the results from the analysis of local policy contexts (Task 2.2).

According to the Oxford English Dictionary, inequality is '[t]he state or condition of being unequal; want of inequality' (OED, 2020). This can apply to physical quantities, people and abstract concepts, such as power. In this framework study, inequality is considered in terms of the outcomes, whether tangible outcomes such as income and housing costs or less tangible ones such as educational opportunities, that are experienced by both individuals and groups of people. Since inequality manifests differently depending on the context and circumstances, there is no single definition of inequality. As a result, the drivers of inequality are assessed in relation to four 'domains': housing, education, employment and health. Each driver may operate within one domain or may span several domains. They may also operate at different governance levels, for example, the global level, the national level, the city or regional level, or the individual level. It is also important to recognize that the drivers will work differently depending on the local context, which is likely to have bearing on the outcomes and, therefore, the inequalities that exist. Hence, it is expected that the drivers will behave differently between European countries, resulting in distinct patterns of inequalities in each national context.

As discussed in both D1.2 and D1.3, there has been a trend of increasing inequalities among European countries, as well as other countries in the Organisation for Economic Co-operation and Development (OECD, 2011). This trend has continued both through and since the economic crisis of 2008-09, with the greatest rises in income inequality being observed in those countries worst-hit by the crisis (OECD, 2013). As well growing inequality within

countries, the economic crisis also halted the steady convergence of incomes between European Union (EU) member states (Blanchet et al., 2019; OECD, 2013). In addition, younger generations were especially impacted by the 2008-09 economic crisis (Eurofound, 2012; Medgyesi, 2018; O'Reilly et al., 2015), and it may have long-term effects on multiple aspects of their lives. Hence, it is important to investigate and identify the drivers of the inequalities that exist across Europe, how they specifically affect young people and to inform policy making. D1.4 shall both identify the main drivers of inequalities and how they impact on young people.

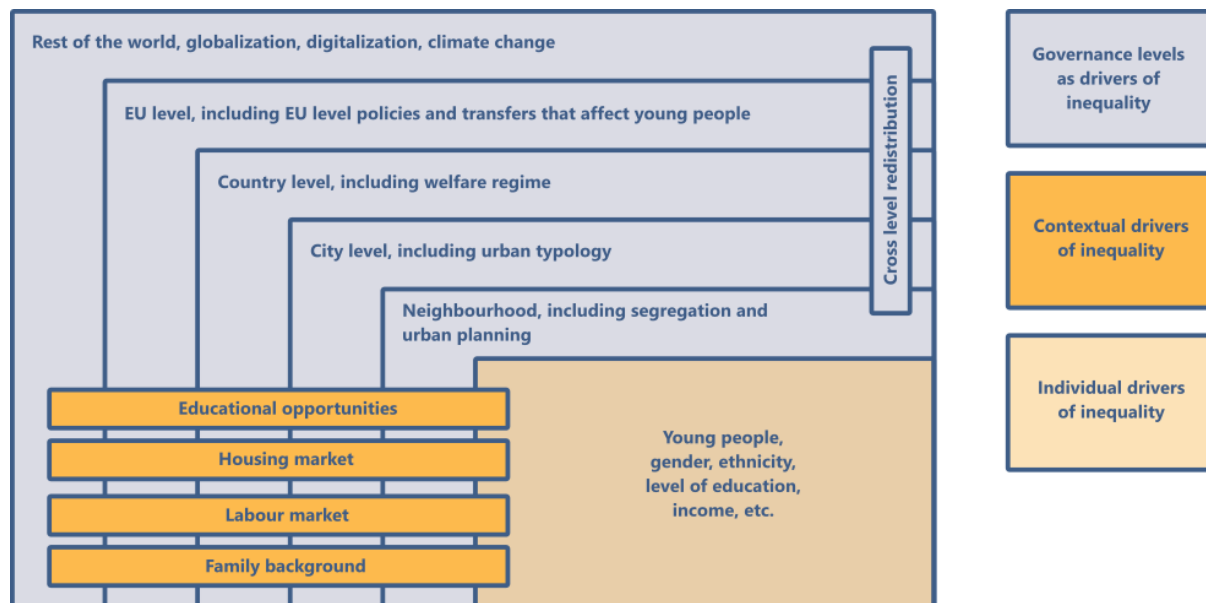
Previous studies have examined several different examples of inequality and their drivers, such as income inequality (Dabla-Norris et al., 2015), housing inequality (Ben-Shahar and Warszawski, 2016) and health inequalities (Mackenbach, 2018). Previous research has also considered the effects of different inequalities on young people, such as housing inequality (Forrest and Yip, 2013) and inequality in labour market integration (de Lange et al., 2014). Such studies tend to focus on an inequality in a particular domain, for example, housing or the labour market. However, according to the theory of "vicious circles of segregation", each domain, whether, for example, the labour market, education or housing, impacts on the other domains (van Ham and Tammaru, 2016; van Ham et al., 2018). Therefore, studies that focus on one particular domain will struggle to understand the importance of drivers that exist in other domains or occur across multiple domains. By investigation the drivers of inequalities across the housing, education, employment and health domains, this framework study intends to fill this knowledge gap. Furthermore, it intends to relate the drivers specifically to their impact on the younger generation, who were most affected by the 2008-09 economic crisis. Considering the ongoing economic crisis caused by the Covid-19 pandemic, this study is especially relevant.

4 Drivers of Inequality

4.1 Analysis framework

The framework used to analyse the drivers of youth inequality was outlined in Section 3.3 in UPLIFT Deliverable 1.1: Methodological Guideline and Work Plan for WP1. This framework, shown here in Figure 1, identifies drivers according to the context in which they occur, the governance level at which they operate and those that exist at the individual level. The identification of contextual drivers is based on the domains approach as proposed in van Ham and Tammaru (2016).

Figure 1: Framework for the analysis of drivers of youth inequality



4.2 Drivers identified

Following a review of D1.2: Inequality concepts and theories in the post-crisis Europe, a number of drivers of inequalities have been identified. To understand how these drivers relate to each other and where they fit within the analysis framework in Figure 1, a modified framework diagram has been produced which positions drivers based on their context or domain and the governance level at which they operate (Figure 2). Four key domains have been identified: housing, education, employment and the labour market, and health. Drivers which operated in only one domain and drivers which operated across multiple domains were identified, while some drivers were considered to occur at more than one governance level.

For each driver identified, a description of the driver is provided, followed by a section focusing on how the driver specifically affects young people and, where relevant indicator data and analysis is available in D1.3, a brief discussion and analysis of evidence of the drivers.

Figure 2: Drivers of inequality identified from D1.2 organized according to the governance level at and domain in which they operate

		Housing	Education	Employment and the labour market	Health
Global level	Within domain			Globalization and other global trends Precarity in employment	
	Cross domain	Economic shocks / recessions "Free" choice policies and the marketization of public services			
National level	Within domain		School allocation and educational tracking policies	Labour laws Immigration policies Regional economic imbalances	Access to healthcare Environmental policies
	Cross domain	Welfare regimes			
City/regional level	Within domain	Local housing market Affordability of housing	School allocation policies at the local level School quality	Structure of local economy	Access to healthcare Environmental policies
	Cross domain	Urban morphology	Access to transport	Spatial segregation and neighbourhood effect	
Individual level	Within domain				
	Cross domain	Gender Ethnicity	Family background and socioeconomic status	Disability status Immigrant status	LGBT+ status

4.3 Cross-domain drivers of inequalities: global scale

4.3.1 Economic shocks / recessions

In general, an economic shock is an unexpected event that affects the economy, either positively or negatively. Here we focus mainly on the inequality effects of negative shocks, more precisely unpredictable recessions like the Great Recession in 2008-2009 or the current Covid crisis. Although recessions reduce average incomes and contribute to an increase in absolute poverty, there is no clear theoretical prediction about the effect on income inequality (Jenkins et al., 2013). The reason is that the impact on inequality depends on where the social groups more affected by the crisis are located in the income distribution. Although increasing unemployment tends to affect more those at the bottom (or the lower middle part) of the distribution, recessions can harm the rich as well, e.g., by having a negative effect on capital incomes (Roine et al., 2009). The economic crisis can have different effects horizontally (between different social groups) as well: the effects can be differentiated by gender if sectors with different gender composition of the workforce are affected differently. Such differential impact by gender can also be detected during the Covid crisis as women with higher care responsibilities are more affected by lockdown policies involving the home-schooling of children (for example, see Fodor et al., 2020).

There is also a wide variety of country experiences of the recession. During the Great Recession in 2009, some countries experienced falling employment which mainly manifested in increasing unemployment but, in other countries, reduction of working hours and increasing

part-time employment was also widespread (Vaughan-Whitehead, 2012). In other countries, labour market adjustment also brought about a decline in wages, while employment has changed to a lesser extent. Countries also differ to a great extent in how social welfare policies are able to mitigate the adverse consequences of the crisis.

Regarding the short-term impact of the Great Recession, the OECD shows that, between 2007 and 2010, inequality of market income increased in 20 countries out of the 30 OECD member states for which data was available. The largest increase has been observed in countries most affected by the crisis, like Ireland, Spain and Estonia, where the Gini index increased by 4-6 points (OECD 2013). The tax and transfer system was able to mitigate the rise in market income inequality in the early years of the crisis so inequality of disposable income was much more stable: the majority of the countries had Gini changes between -1 and +1 points.

Young people (aged 15-29) experienced much greater increases in the Gini index in some regions than others between 2012 and 2018 (see Figure 1.1.4, D1.3). The regions of Scotland (UK) and South-Western and South-Central Bulgaria (Bulgaria) saw particularly high increases in the Gini index for those aged 15-29, while South Region (Spain) and Insular Italy (Sardinia and Sicily) also saw comparatively large rises in inequality among young people. These increases in Gini index suggest, for some regions at least, there has also been a longer-term impact due to the Great Recession, in addition to short-term one mentioned previously. From Figure 1.1.6 in D1.3, it can be seen that, across many European regions, the Gini coefficient of equivalized household income is greater for urban youth than the active population (15-64), with Aquitaine-Limousin-Poitou-Charentes (France) having the greatest difference. This apparent greater inequality experienced by young people may also be a consequence of the Great Recession: young people were hit hardest by job losses and declines in income and, therefore, has seen the greatest stratification in income.

Research analyzing the impact of tax and benefit policy on income inequality differentiates between automatic and discretionary components of policies. Automatic stabilizers are benefits (e.g., unemployment benefit or other safety-net benefits) that are increasingly claimed during recessions when the number of unemployed or those falling below the minimum income threshold increases. In addition, governments might implement explicit discretionary changes in tax-benefit policies (e.g., higher tax rates or lower welfare payment rates) in case of a recession, for example, to mitigate the increase in budget deficit. Callan et al. (2018) conclude that automatic stabilization, particularly through the benefits system, played a greater role than discretionary policy in reducing inequality.

The impact of austerity measures implemented after economic crises on inequality is often debated in the literature but, as many empirical studies focused on effects of austerity on economic growth, relatively fewer modelling efforts were devoted to the medium- and long-term distributional effects of austerity. In this context, Rawdanowicz et al. (2013) point out to various potential channels through which fiscal consolidations might increase income inequality: a rise in unemployment widens market income disparities, the impact of social transfer cuts mostly affects households at the lower end of the income distribution, and

curtailments of public programmes targeted at the poor. In a systematic analysis of the dynamic effects of fiscal consolidation episodes on income inequality in the short and medium run, Heimberger (2018) finds that consolidation packages in the time period 1978-2013 have resulted in an increase in income inequality. The size of the effect depended positively on the size and length of the fiscal consolidation package. He also found larger effects if the fiscal consolidation was based more on spending cuts than on tax increases. The effect was also dependent on the timing of the package: it was larger when the consolidation started in the aftermath of a financial crisis rather than in a non-crisis episode when the adjustment happened in a low-growth period rather than in high-growth period.

The economic crisis resulted in an increase in unemployment in general and an even more severe increase has been observed among young people (O'Reilly et al., 2015). Between 2008 and 2011, youth unemployment primarily grew in those countries most affected by recession, e.g., Greece, Spain, Latvia, Lithuania and Ireland. In addition, the occurrence of fixed-term employment also increased more sharply among young people than among employees overall. These data suggest that many young employees are on the periphery of the labour market and work in jobs that offer poor employment security, relatively low wages and few promotion prospects.

The experience of youth unemployment can have long-lasting impacts on the labour market career as it increases the likelihood of becoming unemployed later and reduces future wages (Bell and Blanchflower, 2011). The reasons for these "scarring effects" are missing work experience, devaluation of human capital and potential employers regarding unemployment as a sign of low productivity (Scarpetta et al., 2010).

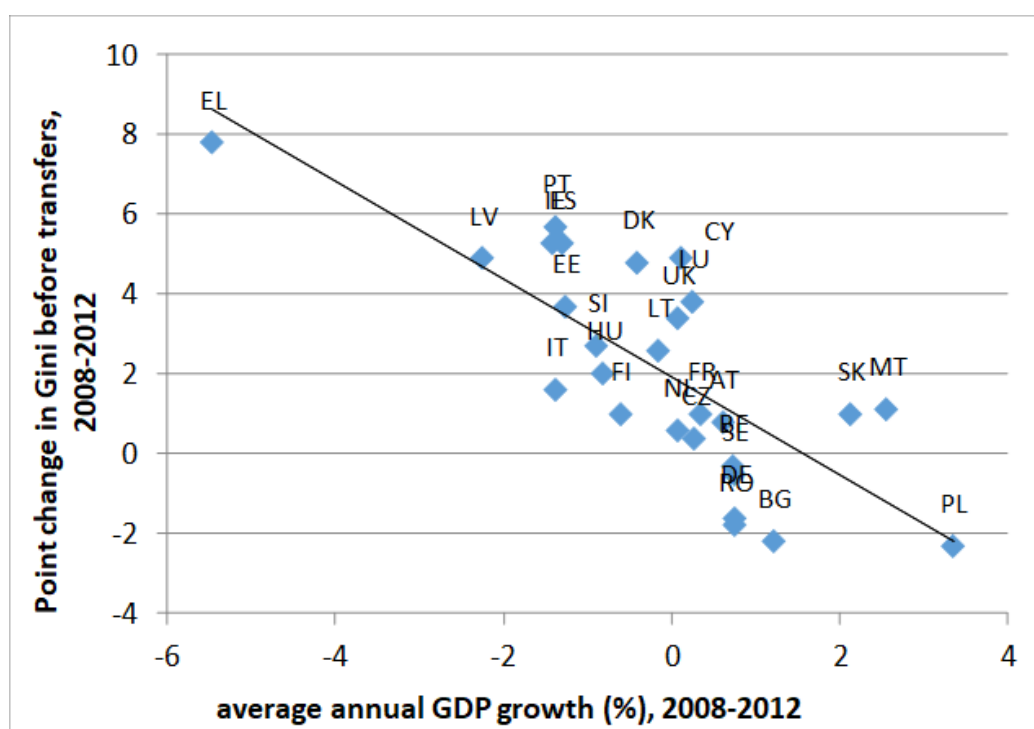
The impact of the 2008-09 crisis appears to be evident in unemployment statistics across EU member states. As described in Section 5.3.1 of D1.3, in almost all member states, the unemployment rate grew between 2007 and 2012. Similarly, there is evidence of the post-crisis recovery, as most member states see a reduction in the unemployment rate between 2012 and 2018. When examining only those aged 15-29 who live in urban areas (Figure 3.1.3), while the relative positions of the countries are very similar to that of the overall active population (Figure 3.1.1), the values of the unemployment rate are significantly higher (see also Figure 3.1.5). This is consistent both pre- (2007) and post-crisis (2012 and 2018). This indicates the relative disadvantage of the younger generation in terms of labour market entry. There are also differences in the extent to which there has been a recovery in terms of the unemployment rate: for most countries, the rate in 2018 is similar to that in 2007 and, in some cases, lower; however, for a small number of countries, Greece, Spain, Italy, Cyprus and Ireland, the unemployment rate for urban youth remains significantly higher in 2018 than in 2007, suggesting that the economic recovery has been relatively weak and that many young people are still enduring the consequences. Similar patterns are observed when examining the rate of those aged 15-29 not in education, employment or training ("NEET") (Section 5.3.2, D1.3).

The adverse effect of the crisis on youth extends to the other aspect of well-being as well. In the case of housing, evidence of young people (aged 15-24) delaying the start of independent

life away from the family home during the crisis (2008-2011) is especially present in the countries hit hardest by the recession (Ireland, Spain, the three Baltic States and, to a lesser extent, Greece) (Ward et al., 2012). The income situation of the young has also been adversely affected, which is demonstrated by increasing poverty rates among the young (Medgyesi, 2018). The groups of young people with lowest levels of education and skills are of particular concern, especially when they belong to racial and ethnic minorities (Bell and Blanchflower, 2011). Differences between young people according to family background can also be seen: more wealthy families can provide more help to their children in labour market advancement and also by providing non-monetary (e.g., accommodation) or monetary transfers.

As an illustration of the relationship between economic recession and inequality, the following figure shows GDP growth and the change in the Gini index of household income before transfers (in order to abstract from the effect of the effect of welfare policies) during the 2008-2012 period. The figure shows a negative association: the increase in income inequality being more pronounced in countries with a greater fall in the GDP and inequality declining in countries where GDP continued to increase in the 2008-2012 period. Needless to say, the figure does not prove causality, as the relationship between inequality and growth can run in the other direction as well.

Figure 3: GDP growth and inequality during the recession years in EU member states.



Further evidence of the impact of the Great Recession on young people is indicated by at-risk-of-poverty data in Section 5.1.2 of D1.3. While some regions, especially Eastern Austria, have seen reductions in the urban youth at-risk-of-poverty rate (ages 15-29) between 2012 and 2018, many have seen very little changes, while others have seen the rate increase (Figure 1.2.4,

D1.3). The South region in Spain has seen its rate increase the most, while the Community of Madrid in Spain, Insular Italy and South Italy in Italy, "Aegean Islands, Crete" in Greece, Southern Austria (Austria), Macroregion Południowo-Zachodni in Poland, Luxembourg, the Netherlands, Wallonia in Belgium, and East of England in the UK also see increases in at-risk-of-poverty rate for those aged 15-29. Figure 1.2.6 shows that, in 2018, there were substantial differences between regions in terms of at-risk-of-poverty-rate for urban youth (15-29) relative to the active population (15-64). This indicates that in some regions, for example, Normandy and Aquitaine-Limousin-Poitou-Charentes in France, North and East Finland and Helsinki-Uusimaa in Finland, and Denmark, young people are far more at risk of poverty than the active population as a whole and, therefore, are more vulnerable to entering poverty during a recession.

Further evidence of the impact of the Great Recession on young people is Figure 1.3.3 from D1.3. In most EU countries, the severe material deprivation rate among urban youth (15-29) increased between 2008 and 2012.

4.3.2 "Free" choice policies and marketization of public services

"Free" choice policies increasingly have been implemented across Europe. "Free" choice policies are where public services that have traditionally been allocated centrally according to certain criteria, such as schools and public housing, are allocated, at least in part, according to the preferences of those in receipt of such services. The rationale is that, by introducing market forces through choice, there is an incentive for public services to improve as the highest quality services will be the most sought after. However, situation circumstances often mean that the available choice is constrained as opposed to being truly "free". Free choice policies have been most widely implemented in school allocation, public and social housing allocation, and healthcare provision, where they have tended to widen inequalities rather than narrow them. Where parental choice has been applied to school allocation, constraints on allocation, especially geographical constraints such as catchment areas, have been relaxed and parents have been given greater choice over which school to send their children. However, rather than enabling a wider number of parents the opportunity to send their children to the best quality schools and reducing inequalities, the expansion of parental choice in school allocation has generally increased inequalities (Wilson and Bridge, 2019), as parents with greater financial and cultural capital are able to access a wider choice of schools and are better able to exercise that choice. As a result, students from higher socioeconomic backgrounds are even more likely to attend the best schools and students from lower socioeconomic backgrounds the worst than under purely catchment-area-based allocation. With regards to public or social housing, instead of being allocated a dwelling, households can choose from those available or even wait until a better property became available. The result is that households with less urgent housing needs can afford to wait until a higher quality dwelling became available, while those with the most acute housing needs have to accept whatever is available at the time. Therefore, those with the most urgent housing needs tend to become housed in the lowest quality and least desirable public housing, whereas those with less urgent needs tend to reside in better

quality public housing (Manley and van Ham, 2011). In some healthcare systems, the implementation of choice in service provision appears to have widened inequalities as socioeconomic factors affect people's ability to exercise choice (Dahlgren, 2014; Fotaki and Boyd, 2005). Higher income and higher socioeconomic status individuals may have more choice available in healthcare provision.

The adoption of "free" choice policies has also contributed to the widening of inequalities among young people. The fact that increased parental choice has tended to see more students from higher socioeconomic backgrounds and fewer from lower socioeconomic backgrounds translates into educational attainment, with an increased socioeconomic attainment gap. As there is a strong link between ethnicity and socioeconomic status, the ethnic attainment gap is increased too. The wider inequalities in educational attainment result in wider inequalities in employment opportunities and income. Since young people tend to have fewer resources and capital available to them, they tend to have more immediate and urgent housing needs. Therefore, where choice has been implemented in public housing allocation, young people are generally unable to wait until a higher quality dwelling is available and have to accept poorer quality housing. Hence, choice-based policies have contributed to widening youth inequalities in housing. In addition, disadvantaged young people may also suffer from the social stigmatization associated with growing up in neighbourhoods and attending schools with poor reputations. While young people tend to enjoy better physical health than older cohorts, they are still subject to health inequalities. As the introduction of patient choice in healthcare provision may increase inequalities based on socioeconomic circumstances, young people from lower socioeconomic backgrounds may experience even greater health inequalities compared to those from higher socioeconomic backgrounds.

4.4 Global drivers of inequalities in the labour market

4.4.1 Globalization and other global trends

Globalization¹, a multidimensional term for describing the interconnectedness of different economies and societies, is one of the most prominent trends that shapes the world and affects the nature of inequalities (Bergh et al., 2017). Globalization refers to several ongoing processes such as internalization of markets, decline of significance of national borders; financialization, financial integration (mobility of capital), relocation of products, tax competition, technology transfers, intensification of competition; off-shoring; outsourcing, peoples' and firms' connection through global networks by ICT, deregulation which has led to the accumulation of capital (Atkinson, 2015; Förster and Tóth, 2015; Kanbur, 2015; Anand and Segal, 2015; Blossfeld et al., 2005). Globalization unquestionably resulted in rising living

¹ In Section 5.1.1 of the D1.2 deliverable, we have described the history of globalization. Now, we refer mainly to the so-called "fourth wave" of globalization.

standards and economic growth, it has however numerous negative consequences, namely its effect on inequalities.

In parallel with globalization, there are important global trends² that must be taken into account as a part of the (re)production of inequalities. Technological change, being a part/parallel process of globalization have led to change the demand and supply of the job market. Rapid technological development and digitalization has changed the demand on the labour, preferring highly skilled workers on the labour market while immigration, educational transformation, female labour market participation, among others, have changed the supply of labour. These changes resulted in flexibility and insecurity of labour market positions (Harjes, 2007; Förster and Tóth, 2015). Among others, de-industrialization has led the workforce shifting out of manufacturing into services (D1.2; Thelen, 2019). Life expectancy at birth has increased, and is expected to grow further in the future, which raises an expanding financial and institutional burden to societies for organizing care for the ageing population. The growth of the older population also means that the working-age population is shrinking, which could bring new challenges to national and local welfare systems. Composition of households also has been changing; people living alone, single parents and couples without children are more typical in present societies. Besides the decreasing number of childbirths, the birth of the first child has been delayed. Migration within the EU has also become more significant.² Also, the expansion of general education contributes to the structure of low- and high-skilled people which has political consequences, namely the greater-educated are more likely to actively participate in democracy (Förster and Tóth, 2015). The intensity of the mentioned global trends is often varying even within countries, thus analysis for finding new solutions for the consequences of changes must also be at the regional- and local-level.²

Inequality can be viewed at different levels: on a global level, among richer and poor countries, among countries/regions and territories, within countries/regions and territories, and among households/individuals. Many claim that globalization is among the drivers of inequalities, or in other words, the development and goods of global processes are not evenly distributed among territories (D1.2, Section 5.2.1; Atkinson, 2015; Förster and Tóth, 2015; Milanovic, 2018). 'The consequence of globalization is that workers in poor economies will be richer, while in rich countries they will become poorer' (D1.2. Section 5.2.1, p. 38). According to an analysis by Anand and Segal (2015) on global inequality, they claim that between-country inequality is larger than within-country inequality, however, while inequality declines between-countries, it increases within-countries. Some argue that change in the supply and demand in the labour market due to skill-biased technological change, further financial openness, outsourcing possibilities and so on contribute to the rise of income inequality within countries and to the decline between countries as well. Others argue that, instead of changes in the supply or demand within the labour force, changes in labour market policies and institutions including minimum wage, degree of unionization, deregulation or tax law changes cause rising

² https://ec.europa.eu/info/sites/info/files/demography_report_2020_n.pdf

inequalities (Harjes, 2017; Card and DiNardo, 2002; Dorn et al., 2017; Bergh et al., 2017; Förster and Tóth, 2015).

Most efforts that have been taken regarding inequality are to reduce it rather than engineer totally equitable societies (Atkinson 2015). In response to negative consequences, countries introduced mass education, considered protectionist measurements, the need for social protection expenditure and the introduction of progressive rate structures for personal income taxes (Atkinson, 2015; Bergh et al., 2017; Harjes, 2007; Milanovic, 2018, 2020). The question which is highly relevant and important for the UPLIFT project is: how much room for manoeuvre do nation states have in compensating the negative consequences (including inequalities) of globalization? According to Milanovic (2020), national policies can definitely impact on the distribution of capital ownership among individuals, aiming towards de-concentration within national borders, which can decrease inequalities. Anand and Segal (2015) similarly claim that a nation, through its domestic policies, can have an impact on reducing inequalities within it. All in all, we come to the conclusion already stated in the D1.2.: 'While globalization may narrow the room to manoeuvre for nation states, they keep a relative autonomy in their strategy of adaptation' (D1.2, p. 23).

The above-mentioned global changes and trends resulted in new types of social risk (e.g., temporary employment, involuntary part-time work, low-paid employment, need for more care capacity, financial strain in housing due to high rental or mortgage costs, etc.) with rising insecurity about life in general. Increasing volatility and new risks affect youth the most during the early part of their life course, through institutions such as the educational system, employment relations, national welfare state regimes and the family (Ranci, et al., 2014; Blossfeld et al., 2005). Youth are considered as newcomers in the globalized job market, which makes them the most vulnerable among others from the introduction new technologies that replace low-skilled work, which excludes low-educated, low-skilled youth. Youth culture, which has been also changing due to increasing and globalizing media channels, raises the expectations of material wellbeing, from which marginalized, low-educated, low-skilled youth are excluded.³ 'The final conclusion is that young people's experience with globalization has been negative thus far; efforts are therefore needed to ensure that they become active and productive global citizens' (UN, 2003, p. 291).

4.4.2 Precarity in employment

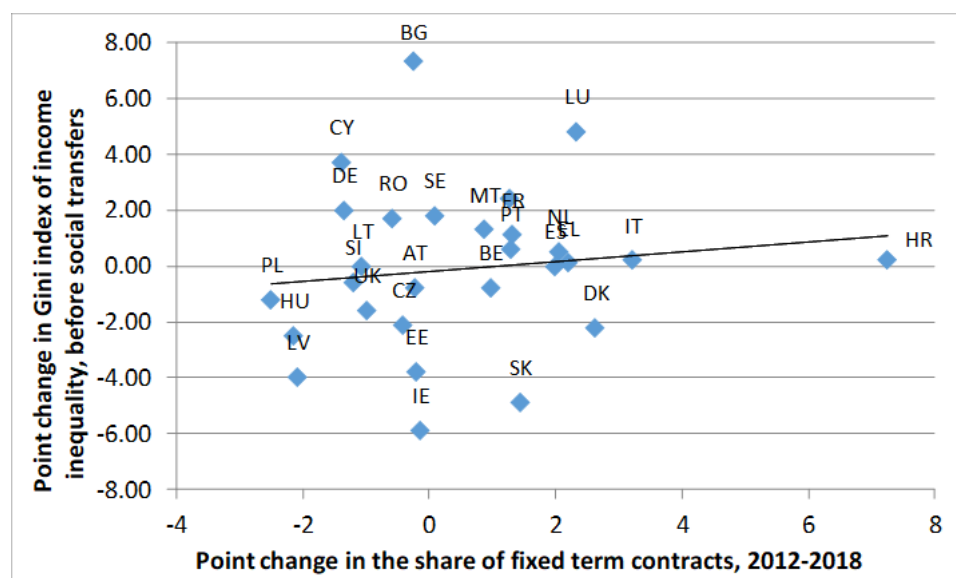
Kalleberg and Vallas (2018) define precarious work as employment that is uncertain, unpredictable and risky from the point of view of the worker. According to the ILO (2012), precarious work is defined by specific contractual arrangements (limited duration of the contract, bogus self-employment, subcontracting and agency contracts) and also by precarious work conditions, which include low wages, poor protection from termination of

³ <https://www.un.org/development/desa/youth/globalization-wpay.html>

employment, lack of access to social protection and benefits, and limited possibility to exercise workers' rights.

Precarious work has been shown to be associated with higher levels of poverty and social exclusion. It has been shown, for example, that those in non-standard work (temporary contracts, involuntary part-time employment or self-employment) have higher degrees of in-work-poverty rate compared to those in standard full-time or permanent contracts in EU countries (see, for example, Eurofound, 2017). Similarly, increased prevalence of precarious and non-standard work is associated with an increase in wage inequality. As an illustration, Figure 4 shows a weak positive relationship between the change in prevalence of fixed-term contracts and change in income inequality before social transfers during the post-crisis period (2012-2018).

Figure 4: Change in prevalence of fixed-term contracts and change in income inequality before social transfers during the post-crisis period (2012-2018).



Another important distributional implication is that specific social groups have been affected more strongly by the increase in precarious work than others. One important aspect here is differences by age: precarious work has been repeatedly shown to be more prevalent among the young (e.g., Medgyesi, 2018; see also Section 5.3.3, D1.3). The crucial issue here is knowing if precarious work is a stepping-stone to more stable employment (e.g., de Graaf-Zijl, 2011) or whether the young people in precarious jobs are more likely to experience difficult integration into the labour market throughout their working careers. Some of the literature (e.g., Chung et al., 2012) argues that transition rates from temporary work to stable employment are low and decreasing, thereby creating a persistent disadvantage for the young. This is especially pronounced in more segmented (dual) labour markets, where jobs belonging to "insiders" (i.e., those with full-time, permanent contracts) are more protected and are inaccessible to "outsiders", who remain in precarious jobs or unemployment.

Precarious work is also stratified according to gender, migrant status and race. Temporary work or part-time work was popular among women under the male breadwinner model and, even today, women tend to have higher levels of precarious work (EIGE, 2017). Migrants have also been documented to make up a large part of the precariat (Standing, 2011; Banki, 2013), as this is a group with problematic integration into the labour market and social rights and entitlement to benefits tend to be restricted for migrants compared to citizens, which reinforces insecurity (see, for example, Römer, 2017). In the United States, precarious work also varies according to racial lines: African Americans have been more exposed to labour market uncertainties and job precariousness (Kalleberg and Vallas, 2018).

In addition to the impacts on poverty and inequality work, precariousness has a number of other social consequences. An important implication of the increased prevalence of precarious work among the young is the delay of transition to adulthood (Furlong and Cartmel, 2007). In countries like Spain or Italy, where labour market dualisation is pronounced and precarious employment among the young and youth unemployment is important, the typical age of leaving the parental home is much higher compared to Northern or Western European countries (Chiuri and del Boca, 2010). The adverse consequences of precarious work on health have also been described in the literature. Precarious work might involve physically demanding or dangerous work that increases health and safety risks. Health problems might also be connected to increased stress arising from employment insecurity, the tendency for precarious workers to hold multiple jobs, working irregular or long hours, and limited legal protections (see Benach et al., 2014).

4.5 Cross-domain drivers of inequalities: national-level policies

4.5.1 Welfare regimes

As discussed in Section 6.1.1 of the conceptual literature review (D1.2), the concept of welfare states has generated a vast literature over the past 30 years. Regardless of the precise definitions the literature recognizes the fundamental importance of how different countries have embarked on different trajectories in designing tax systems, social service provision and protection of its citizens. This affects the level of inequality in outcomes but also in opportunities. However, Esping-Andersen and Myles (2011) correctly state that "[b]ecause it taxes and spends, the welfare state is by definition redistributive, but this does not automatically entail that it creates more equality."

Potential effects arise from both the funding and the expenditure side of welfare state provision. How states finance their support systems – whether social benefits and protection when having children, losing one's job, falling ill, becoming unemployed or retiring is publicly funded or funded by market-related or insurance contributions and in what combination – clearly affects people's net income. And if protection is publicly funded it is of importance whether taxes are progressive, regressive or neutral, as this would affect the after-tax income stratification. Therefore, although a lot of attention has been paid to the level of generosity and expenditures, how the state's resources are generated also affects inequality.

The expenditure side of different welfare state regimes has been a key aspect of how different systems are labelled and differentiated from each other. While in particular the Nordic states – or the Social Democratic regime-type to use a commonly applied label (Esping-Andersen, 1990) – operated more generous and universal benefit systems where eligibility was (and often still is) granted to all in a particular life situation, other countries have more selective eligibility and frequently more modest compensation levels, often based on type of occupation or sector of the economy. Both the degree of generosity and eligibility regulations affect social outcomes, particularly in certain life situations: is it costly to give birth to a child and for arranging childcare? Will arrangements affect men and women differently? What is the effect of losing one's work, of falling sick, needing dental service, or retiring?

One way of measuring the overall income inequality effects of welfare state arrangements is to calculate income before and after transfers. This, however, disregards the fact that welfare arrangements primarily tend to smooth incomes across the life cycle and redistributive effects must then be related to income on a lifetime basis. Furthermore, the redistributive effects sometimes co-vary with generosity but not in a straightforward way. They are for instance fairly modest in the Nordic countries where the lower level of inequality is mostly the result of relatively equal market income distributions, and – as stated by Esping-Andersen and Myles (2011) – "... the Nordic regime's service-intensive nature means also that any egalitarian outcome cannot be identified with standard income data".

Fiscal expansion and institution building of the welfare states during the second half of the last century were, in many instances, followed by retrenchment or, in more severe cases, austerity policies. The globalization trend, in itself, pressurized governments to reduce taxes, while additional erosion of the tax base was experienced due to the relocation of production processes and tax-optimization policies of global or regional multinational economic actors. The weakening of redistributive policies (most importantly, due the consequent cutbacks in spending) did, in themselves, have a secular effect on the growth of inequalities prior to the 2008/2009 economic crisis (OECD, 2015). Furthermore, the financial and economic crisis prompted, in many places, additional cuts in welfare expenditure. This tendency, often labeled as austerity, may have induced further widening in the distribution of incomes.

The actual incidence of austerity measures was dependent upon the portfolio of measures taken on the one hand, and the prevailing institutional architecture of the welfare regimes (providing more or less "buffer" for the inequality effects of consolidation programmes) on the other. For more on the differential effects of economic shocks and resultant policy responses, see Section 4.3.1.

Welfare state arrangements do affect peoples' lives and opportunities but it is important to note that many important aspects of the difference between how countries' policy choices shape opportunities and outcomes are seldom covered by the notion of the welfare state. Neither the housing system nor the healthcare system is typically part and parcel of designating countries to a particular welfare regime. However, both could have crucial importance for shaping inequality, a fact that has become very obvious during the current

COVID-19 crisis. In European policy debates such broader welfare dimensions are often discussed using the concept of the European Social Model (Barr, 2004; Sapir, 2005), but it is nevertheless a fact that welfare models differ across countries and that their design can drive or mitigate inequality.

The different welfare regimes may explain the differences observed in Figures 1.4.1 and 1.4.2 in D1.3. Countries that saw low percentages of middle class transiting into poverty included Northern European nations (Denmark, Sweden and Finland) and Western European nations (Austria, France and the Netherlands) that either comparatively rich or have generous welfare systems or both. Eastern and Southern European nations, which are comparatively poorer and have less generous welfare provision, tend to have higher shares of the middle class entering poverty.

4.6 Drivers of inequalities in the education domain: national policies

4.6.1 School allocation and educational tracking policies

School allocation and educational tracking policies can have a profound impact on inequalities. This section is concerned with allocation and tracking policies implemented at the national level; allocation and tracking policies implemented at the local, i.e., city or regional level, are considered in section 4.11.1. The most direct effect of school allocation and educational tracking policies is on educational inequalities, but inequalities regarding labour market outcomes, such as income or job security, are also influenced by such policies. School allocation policies are important as they determine the student composition of schools, which in turn affects the outcomes associated with peer effects, neighbourhood effects and family background effects. Schools with a student population drawn from mainly low-income households tend to have lower educational attainment than those with a population from mainly high-income households (see UPLIFT Deliverable 1.2, p. 90-91). As students with minority ethnicity or immigrant backgrounds are more likely to come from lower income households, this means there often is an ethnic attainment gap as well. The use of catchment areas as a school allocation method can reinforce existing residential segregation and associated inequalities (Boterman, 2019; Frankenberg, 2013). As mentioned in Section 4.3.2, education systems where parental choice in school allocation has been derestricted results in parents with greater financial and cultural capital having both a greater choice of schools and a greater ability to exercise that choice, which also contributes to socioeconomic and ethnic attainment gaps. Affluent parents can also exercise choice by sending their children to private schools. Finally, education systems where tracking or streaming takes place, or school places are assigned based on performance in academic entrance tests, also generally have larger socioeconomic and ethnic attainment gaps, as students from high-income households have greater access to educational resources and, therefore, tend to do better on academic selection tests and are more likely to be allocated to academic rather than vocational tracks (see UPLIFT Deliverable 1.2, p. 91). Those attending academic track schools are more likely to continue into higher education and enter the labour market in a higher position.

The most direct impact school allocation and tracking policies have on youth inequalities is in mediating or exacerbating educational inequalities. Places with high levels of residential segregation, a high degree of parental choice in school selection and/or academic tracking are more likely to have greater inequality in terms of educational attainment according to both socioeconomic status and ethnicity than places without. These policies also indirectly impact on youth inequalities in the labour market, as educational attainment affects the employment opportunities of young people and their future incomes.

Examining the ratio of early leavers from education and training for people aged 15-29 indicates that there is considerable variation between European countries (e.g., Spain: 0.261 in 2007, 0.193 in 2012 and 0.146 in 2017; Poland: 0.038 in 2007, 0.044 in 2012 and 0.036 in 2017; data from Labour Force Survey, see also Figure 2.1.1, D1.3), which may be related to different school allocation and educational tracking policies in each country.

Differences in allocation and academic tracking policies in different education systems may explain the vast differences in odds ratios of educational mobility among urban youth in EU member states in 2011 (see Figure 2.2.3, D1.3). Finland, Slovenia, Estonia, and Latvia, education systems known to be relatively comprehensive and equitable in terms of allocation, all have low odds ratios (around 1 or 2), indicating high educational mobility and low inequality in opportunities. However, despite implementing academic tracking, Lithuania also achieves a low odds ratio for educational mobility among urban youth. Luxembourg's extremely high odds ratio (22), indicating very low educational mobility, may be due to the fact that it sorts students between academic and vocation tracks relatively early. Bulgaria's relatively high odds ratio (>6) may also indicate an effect from educational tracking, but Denmark and Portugal have high odds ratios despite relatively equitable student allocation.

There are also large differences in the educational level of 15-29-year-olds in different European countries, both in terms of those with tertiary education (levels 5-8) (e.g., Cyprus: 36.1% in 2019; Romania: 11.1% in 2019; data from Eurostat) and those with lower secondary education or lower (levels 0-2) (e.g., Denmark: 44.1% in 2019; United Kingdom: 17.7% in 2019; data from Eurostat). These may also be affected by different school allocation and educational tracking policies in each country. Underachievement in reading, mathematics and science according to the OECD's Programme for International Student Assessment (PISA) varies significantly between European countries: 11.1% (Estonia) and 47.1% (Bulgaria) for reading, 10.2% (Estonia) and 46.6% (Romania) for mathematics, and 8.8% (Estonia) and 46.5% (Bulgaria) for science. Again, differences in school allocation and educational tracking policies may be a factor in the differences at the national level. However, it is necessary to be very cautious in drawing any causal links between the indicators and school allocation and educational tracking policies, as the indicators are influenced by several additional drivers, such as school quality, spatial segregation and neighbourhood effects, and family background and socioeconomic status.

4.7 Drivers of inequalities in the labour market: national policies

4.7.1 Regional economic imbalances

Region of residence can be a significant factor in labour market inequality contributing to differences in wages and employment prospects between otherwise similar individuals (in terms of age, gender, education, etc.). Persistence of regional differences is a puzzle for basic neoclassical economic theories (Kanbur and Rapoport 2005), which expect that mobility of labour to more developed regions and of capital to less developed regions will equalize differences between regions. Spatial concentration of economic activity has been explained by the “new economic geography” as an outcome of centripetal and centrifugal forces. Centripetal forces – such as market size, concentration of skilled labour and externalities (e.g., knowledge spillovers) – increase spatial concentration, while centrifugal forces – such as immobility of factors, rising land and housing prices, transportation and congestion costs, etc. – favour dispersion of economic activity. Persisting or increasing concentration of economic activity can thus be explained by the inability of centrifugal forces to counterbalance centripetal forces.

Recent results show that variation in GDP per capita between countries and regions of Europe declined before the economic crisis, mainly as a consequence of the Central and Eastern European countries and regions growing faster than the EU average (Alcidi et al., 2018). At the same time, within-country regional inequality has increased in many countries (Martin, 2005), as capital regions were growing faster than average (Rosés and Wolf, 2018). Since the economic crisis, variation in GDP per capita between regions of Europe has begun to increase (Alcidi et al. 2018), while variation between countries has stagnated.

Another aspect of the development of regional inequalities in Europe is what the literature calls “the great inversion” or “new geography of jobs”. Some of the large metropolitan areas and their suburbs are now the most dynamic in terms of income and employment creation while rural regions and once prosperous, industrialized metropolitan areas are characterized by job losses and income decline (Iammarino et al., 2019). These latter cities have been described as shrinking cities, where the population is declining, traditional economic sectors are disappearing, vacancy rates are rising, and the birth rate is declining.

These changes are a result of the interaction of the regional forces described above with economy-wide forces such as skill-biased technological change and globalization. Technological development (such as the use of computers in manufacturing and services) has increased the productivity of skilled labour compared to unskilled labour and contributed to an increase in the wage premium of education. This wave of technological change, coupled with globalization, has discouraged employment creation in middle- and, especially, low-skilled jobs in manufacturing sectors in developed countries. As high-skilled people tend to be concentrated in large cities, these trends have favoured metropolitan regions at the expense of intermediate and peripheral regions (Iammarino et al. 2019). At the same time technological development reinforced the centripetal forces mentioned before and increased

the advantages of large metropolitan regions by fostering innovation, knowledge-sharing between firms, leading to further migration of skilled labour to these regions.

4.7.2 Labour laws

Since the mid-1970s, national labour laws based on the principles of extensive regulation, collective bargaining and social protection – key features of Keynesian policies – were increasingly transformed based on neoliberal understandings of free markets and individual choice (Kovács, 2005; Sassen, 2007; Castles, 2010). This transformation, construed as a solution to legislation that was deemed too rigid and bureaucratic, included the adoption of ‘flexible’ labour market policies, which facilitated the expansion of precarious and low-paid work as well as the decline of industrial relations (Kalleberg, 2000; Fourcade and Healy, 2007; Piore, 2011; Gallie, 2013). A variety of simultaneous trends – growing globalization, more intense competition between firms, financialization of the economy, expansion of the service industry and introduction of new technologies (Beck, 2000; Thelen, 2019) – demanded strong public intervention to tackle risks of inequality across and within countries. However, national states remained under pressure to reduce labour regulation (Crouch, 2011). The importance of labour market institutions on wage and income inequality should not be neglected, as it helps explain difference across countries and variation over time (Förtser and Tóth, 2015).

Following the crisis of 2008, the policies of austerity adopted by most governments in Europe included further labour law reforms, even if differences in pace, content and scope are apparent across countries (Schömann, 2014; Blanton and Peksen, 2016). Our literature review exposes a general increase of precarious work, defined by the ILO (2012) as a combination of insecure contractual arrangements and weak working conditions. In 2020, the COVID-19 pandemic questions once again the ability of countries to protect their population from losing jobs and social protection (ILO, 2020).

Throughout the last decades, young workers have been overexposed to the downsides of flexible labour laws, in particular precarious employment, often associated with low wages, limited career prospects and difficulties in exercising workers’ rights (Esping-Andersen, 1993; Corral & Isusi, 2013; Demaret, 2013; Rokicka and Kłobuszewska, 2016). In the post-2008 recession, youth unemployment increased more than overall unemployment (Bell and Blanchflower, 2011). As emphasized by Green (2017, p. 121), ‘intergenerational inequality could be reaching a critical point’ and ‘the gap between the old and the young grows consistently in all areas, except education’. The impacts of the crisis over young adults’ lives have been studied over the past decade, concluding that youth was hit the hardest in terms of unemployment (O’Higgins, 2014) and deterioration of labour market conditions (Sironi, 2018). Indicators such as part-time work, working-time preferences and increased migration suggest that younger age groups are more supply-constrained than other age groups by reduced levels of labour demand during the recession (Bell and Blanchflower, 2011).

The impact of labour laws on youth is expected to vary across countries, depending on national economic and institutional characteristics. For instance, data from 2019 show that 16.4% of

the 20-34-year-olds in the EU – approximately 12.7 million young people – are “NEET”, but this rate ranges from below 10% in Malta, the Netherlands, Luxembourg and Sweden, to above 25% in Italy and Greece; in all countries women are more affected than men (Eurostat, 2020). The impact of labour laws is likely to vary within the young population depending on characteristics such as gender, education or ethnicity (Standing, 2011; EIGE, 2017; Kalleberg and Vallas, 2018).

4.7.3 Immigration policies

A substantial part of migration flows is the outcome of inequalities, either between different regions of the world, different countries, or different areas of the same country (Castles and Miller, 2003). In their places of destination, migrants are also exposed to several forms of inequality vis-à-vis national citizens. In segmented labour markets, newcomers are likely to follow more pragmatic and individualized considerations, often leading them to engage – and remain – in low-quality and low-status jobs or precarious forms of self-employment (Piore, 1979; Piore and Sabel, 1984; Åslund and Skans, 2010; Simón et al., 2014). They have also been found to cluster in particular industrial sectors and occupations (Catney and Sabater, 2015; Lindemann, 2011). The vulnerability of migrant workers can be understood as a systemic mechanism to reduce labour costs insofar as they are expected to accept poorer working conditions, many times lacking social protection and trade union coverage (Esping-Andersen, 1993; Castles and Miller, 2003). While the circulation of capital and trade has been increasingly facilitated around the globe, the circulation of people is still heavily and carefully regulated according to social, economic and political concerns (Sassen, 2007). Immigration policies play a very important role in these various aspects – cross-border movements, labour market integration and social inclusion at large. They can prevent, fail to tackle or actually reinforce existing inequalities, depending on how they are designed and implemented.

Young migrants, specifically, find themselves at an intersection of risks associated with their visa or legal status and their age, besides other potential factors of inequality such as gender, religion or disability (Standing, 2011; Kalleberg and Vallas 2018). Their overexposure to precarious work and labour exploitation translates into additional penalties in periods of economic downturn, including rampant unemployment, poverty and social exclusion, often without entitlement to welfare benefits (Fullin, 2011; Kogan, 2011; Römer, 2017; Schmitt and Teney, 2019), while (re-)integration into the educational system should be prioritized in the case of young migrants. This has been emphasized in the post-2008 economic crisis, with specific population groups such as migrants and youngsters suffering a disproportionate share of the impacts (Brandsen, 2014, p. 2).

While borders between EU member states have been gradually eliminated, and some attempts have been made to develop a coherent framework of immigration policies at the EU level, the adoption of rules and measures with respect to third-country nationals still varies across states. A complex combination of institutional standards is in place depending on the options taken in each country. Likewise, anti-immigration movements are also more relevant in some places than in others. The concentration of migrants in particular city areas or neighbourhoods raises

particular concerns as to integration and prejudice. Immigration policies may also influence the experiences of the migrants' children, including their access to nationality, educational opportunities or healthcare.

4.8 Drivers of inequalities regarding health: national policies

4.8.1 Access to healthcare

Access to healthcare system on a national level plays an essential role in the nations' health status among other dimensions of healthcare systems such as effectiveness, resilience, availability of services, coverage, affordability (cost of the system) and quality. According to the United Nations Universal Declaration of Human Rights (1948) and Art. 35 of the Charter of Fundamental Rights, access to healthcare is a human right. In this section we discuss healthcare access at a national level as a driver of inequalities, which exist both between and within European countries. Both the healthcare system and the individual characteristics of patients must be understood. Besides taking into account factors such as the design of statutory healthcare, financing (including the share of public money spent on the healthcare system), coverage, public benefits, human resources, quality of healthcare, unmet needs due to waiting lists, geographical disparities in healthcare provision and costs we also have to consider the socio-economic status (income, education level, neighbourhood, ethnicity etc.) the age of the patients, lack of registered access, lack of information regarding rights and available services (Baeten et al., 2018).

According to the European Commission, there are three main types of healthcare systems: 1) National Health Service, which is a primarily tax-funded system; 2) Social Health Insurance, which is financed by a mix of social contributions and general taxation; and 3) Private Health Insurance, in which private health insurance plays a key role. There is a great variety among European countries regarding the public resources spent on healthcare. The funding model of each system does not seem to be linked directly to inequalities in access to healthcare. Underfunded systems, which result underdeveloped health systems are proven to be more unequal in regard to access between different income groups, which results a greater variability in the availability of quality healthcare (due to affordability problems), which could possibly increase the length of waiting lists. Waiting lists are considered to be a common issue among European countries especially when they go hand-in-hand with informal payments, which contributes to inequalities. Where either voluntary or occupational health insurance is present, more private health services are enlisted, often in parallel, with a shift of health professionals from the public to the private sector (Baeten et al., 2018, p. 46). The funding model can be represented in the quality of the provided services and the cost to the patients that affects the accessibility to a quality healthcare system. However, the outcome of countries spending similar amount of public money on healthcare can be quite different, which shows that, on its own, this driver does not create inequality, but does so in combination with other drivers.

Among European countries there is a difference regarding the coverage, which has three main dimensions: 1) the share of the population who are eligible for the publicly financed health services; 2) the range of health services are covered; and 3) user charges (e.g., excess fees or informal payments). Coverage can depend on the employment situation: for instance, people in non-standard employment or a precarious job situation might not be covered mandatorily in some countries. Patients do not only have to have access to the care/doctors but also have to be able to afford medication. Access to pharmaceutical products is an important factor of inequality however it is measured very rarely. Exclusion of vulnerable groups in countries can occur because of high out-of-pocket (OOP) payments for medicines (Baeten et al., 2018). Baeten et al. (2018, p. 46) concludes that a healthcare system would be more successful in terms of accessibility if “the country-specific details of financing and organisation of healthcare provision and funding, and the way in which vulnerable groups are protected from user charges within each of the systems”. Another very important element is access to primary health care because it can reduce costs. “Strong primary health care makes health systems more effective, efficient, and equitable” (OECD, 2020 p. 11). Moreover, good primary care can reduce health inequalities. (OECD, 2020).

In every society, different groups of people with common characteristics, such as income (e.g., lowest-income quintiles), ethnicity (e.g., Roma), gender (women), residence status (migrants, asylum seekers, refugees etc.), or people living in segregated areas or regions or areas with a lack of infrastructure including transportation are considered to be more disadvantaged in terms of access to the healthcare system in general (Brezzi and Luongo, 2016; Baeten et al., 2018). Another area of concern is regarding access to mental healthcare and dental care for vulnerable groups (Baeten et al, 2018). Last but not least, a very important factor regarding access to health is health literacy: the ability access to sufficient information and consciousness about health in general. Health literacy is a contributing factor towards more equal access to healthcare (WHO, 2013).

Unlike many other domains, young people tend to experience fewer health inequalities than other age cohorts, particularly regarding physical health (Section 5.5.1, D1.3). However, this does not mean that such inequalities are immaterial. Since young people tend to earn comparatively lower wages, have fewer financial resources available and are more likely to be unemployed than other age cohorts, they are less able to afford insurance premiums in systems where private health insurance is a component. This exacerbates inequalities in healthcare access based on socioeconomic characteristics and income. Due to comparatively better physical health than other age cohorts, young people are disproportionately affected by mental illnesses. As a result, youth inequalities in health are affected by the level of expenditure relating to mental health and the extent of mental healthcare provision, with countries that have systems with lower expenditure levels and narrower provision likely to have greater youth health inequalities.

EU-SILC indicators observe substantial differences between European countries. There is a considerable range in the percentage of the urban population age 15–29 with a chronic illness,

with 2.3% observed in Romania and 25.4% observed in Finland (2018 data, see also Figure 5.1.3, D1.3). However, a higher percentage of people with chronic illness is not necessarily an indication of poorer access to healthcare: higher percentages may be the result of better diagnoses provided by wider access. Also, other factors unrelated to healthcare access, such as demography, may play a significant role.

There are also noticeable differences in the percentage of the urban population aged 15-29 with self-reported unmet need in healthcare, ranging from 0.1% in Austria to 23.8% in Greece (EU-SILC data, see also Figure 5.2.3 in D1.3). As perhaps would be expected, as young people's health needs tend to be less severe, in most EU countries the percentage of the urban population between 15 and 29 with unmet healthcare need is lower than that for the active population as a whole (Figure 5.2.5 in D1.3). However, a higher percentage of young people report unmet need(s) in healthcare in a small number of EU countries: Sweden, France, Slovenia, Slovakia and Greece. This demonstrates that some young people do experience inequalities in health in EU countries. However, as with the percentage of the urban population aged 15-29 with chronic illness, it is difficult to separate the effect of the healthcare system from other factors like demography. Also, the unmet need is self-reported, and may be a relative perception of unmet need rather than absolute: someone in good health but living among people in very good health may consider themselves to have greater unmet need than someone in good health living among people in poor health.

4.8.2 Environmental policies

Environmental policies can also contribute to health inequalities. Here, "environmental policies" refers to policies that affect the quality of the natural environment people experience and this section focuses specifically on health outcomes related to such policies.

Air quality is an important factor in health, with residents of cities with poorer air quality having poorer quality of health. Therefore, policies and legislation that reduce the amount of particulates and harmful gas emissions is likely to reduce health inequalities. Such policies include regulations on the concentrations of certain compounds in vehicular and industrial emissions, increased investment in greener sources of power and reduced use of fossil fuels in power generation.

Also, decisions regarding the funding of transport and transport infrastructure have environmental consequences. For example, the decision to invest in public and/or active transport schemes instead of road schemes, can stall declines in air quality or even improve it. Schemes that encourage active transport can result in improved health outcomes. Policies on waste disposal impact on citizens' health.

The disposal of household or commercial waste through landfill or incineration can release harmful compounds in the environment, either into soils and groundwater or into the atmosphere. Policies and regulations on the handling of industrial waste are also important: the introduction of heavy metals and other toxic chemicals into the environment can have serious health impacts.

Noise pollution can have detrimental impacts on people's health, therefore policies which alleviate background noise levels can reduce health inequalities.

Patterns in the urban morphology and urban segregation also play a role in health inequalities due to air quality, as they dictate who lives in neighbourhoods with better and worse air quality. This tends to mean that individuals from low socioeconomic backgrounds are more likely to live in neighbourhoods with poorer air quality, although historical settlements patterns mean that this is not the case in every city (Verbeek, 2019; Padilla et al., 2014; Deguen and Zmirou-Navier, 2010; Mitchell and Dorling, 2003). Similarly, individuals from lower socioeconomic backgrounds are often at greater risk of exposure to toxic chemicals from waste and noise pollution (Dreger et al., 2019). Countries which implement stricter policies and regulations regarding waste disposal are also likely to see reduced health inequalities.

The urban form also impacts on health inequalities through the provision of parkland and green space. People with greater access to green spaces tend to experience better physical and mental health. Access to green space is often related to socioeconomic status, as low socioeconomic neighbourhoods tend to have poorer access to parks and other green spaces (Hoffman et al., 2017; Rigolon and Flohr, 2014). Hence, improving access to such spaces for those from low socioeconomic backgrounds may help to narrow health inequalities. Widening access to transport (see Section 4.9.2) can widen access to open, green space, negating some of the impact of living in poor-air-quality neighbourhoods.

While environmental policies tend to affect all age cohorts equally, young people do experience health inequalities differently as a result of their position in housing markets. As young people are comparatively disadvantaged in housing markets, they tend to live in comparatively lower-socioeconomic neighbourhoods, which often have worse air quality, greater exposure to toxic elements and compounds from the disposal of waste, greater exposure to excessive noise levels and poorer access to green space. Therefore, the more equitable implementation of environmental policies could contribute to decreasing youth health inequalities.

The variation of air quality across European countries is detailed extensively in the European Environment Agency's (EEA) 2019 report (EEA, 2019). The levels of particulate matter with a diameter less than 2.5 μm (PM_{2.5}), particulate matter with a diameter less than 10 μm (PM₁₀), ozone (O₃), nitrogen dioxide (NO₂), benzo[α]pyrene (BaP), sulphur dioxide (SO₂), carbon monoxide (CO), benzene (C₆H₆) and toxic metals in the air varies substantially both between and within European countries, in some cases exceeding EU air quality standards and WHO guidelines. Furthermore, there are significant differences in the years of life lost (YLL) attributable to PM_{2.5}, NO₂ and O₃ between European countries (see Table 10.2, EAA (2019)). Different environmental policies, particularly those concerning emissions regulations, may explain to some extent these variations. However, the urban morphology and built environment and past and current local industrial activity are also likely to contribute.

4.9 Cross-domain drivers of inequalities: city / regional level

4.9.1 Spatial segregation and neighbourhood effects

Spatial segregation (sorting of individuals by socioeconomic status and ethnicity across neighbourhoods) might affect one's opportunities in life negatively, while another's positively, depending on the neighbourhood and the spatial opportunity structure it is positioned in (see also 6.3.4 in D1.2). How and to what extent neighbourhoods affect one's life opportunities are studied under the neighbourhood effects rubric. Neighbourhoods could affect people's lives through social composition and socialization processes, local social networks, neighbourhood reputation, and neighbourhood services. Low-income neighbourhoods tend to have worse access to basic services (public transportation, education, health services, etc.), but also lack of 'good' role models and valuable contacts through which information, knowledge and resources could be transmitted. Some neighbourhoods are more exposed to violence and/or have poor access to suitable job opportunities. Negative reputations of a neighbourhood (i.e., stigmatization) can affect many spheres of its residents' lives, e.g., job opportunities, educational prospects, self-esteem, and feelings of 'otherness'. Although the discourse is very often on the negative effects of spatial segregation, concentrations of poverty are not always areas without opportunities. Some of these neighbourhoods in Europe are full of activity with strong social networks, well connected to infrastructure, linked to economic centres by public transport, and have good-quality housing.

Spatial segregation is a driver of inequality that is linked to many other domains. For example, school allocation is often based on catchment areas (see also 4.6.1) and education is a significant factor in determining where someone works later in life. Children living in neighbourhoods that are doing socioeconomically better tend to see higher levels of educational attainment and earn more in adulthood. Socioeconomic segregation can also perpetuate across generations. Better financial means translate into more choices in the housing market and greater possibilities to place their offspring in a spatial opportunity structure that can provide better life opportunities. These mechanisms tend to work in an opposite way for someone who grows up in a low-income neighbourhood; in that case, these connections between different domains are sometimes called vicious circles of segregation (see also 6.3.3 in D1.2; van Ham et al., 2018). Disadvantage based on neighbourhood experiences is inherited and persistent, but for some groups, e.g., ethnic minorities, the disadvantage is more persistent than for others.

4.9.2 Access to transport

Access to transport in its broad interpretation is covered by the topic of transport poverty (reduced accessibility and affordability of transport services) (Lucas, 2016). Transport poverty occurs when an individual cannot afford or has no or restricted access to transport services.

Affordability of public transportation is highly dependent on the ownership – either it is publicly or privately owned – and the level of subsidies attributed to it. There are different

models throughout Europe: while the cost for public transportation is high in London (where the public transportation system is highly privatized), it is relatively low in Vienna (where there are substantial public subsidies included).

Affordability of private transportation is connected to having or not having a personal car, and being or not being able to fuel it, which is strongly related to the financial state of a household. However, 'forced car ownership' is also an aspect of transport poverty: a household may have to spend an unreasonable share of income for individual transportation due to the lack of public transportation options. (When we compare the number of cars/thousand inhabitants in European cities, we find that this indicator does not have a strong connection to the average income level of inhabitants, rather to the availability of alternative transportation means).

Accessibility of transport can be analysed on three major levels:

- Micro level (access to vehicles);
- Meso level (network connectivity and severance); and
- Strategic level (e.g., sub-regional access to workplaces and services).

These levels are built on each other, so that a failure in any of these levels may restrict access to the whole system. (Lucas, 2012)

On the micro level (access to vehicles), one of the factors is the access to public transport by people with physical disabilities either due to their health or age.

At the meso level (network connectivity), measurement and quantification involves assessing the directness of routes from A to B, their accessibility to different groups (through appropriate provision of micro-level design aids), and traveller perceptions of the safety of different routes.

In general, the organization of the public transportation is based on urban density: the denser an urban area is the more efficient it is to provide public transportation of high quality. In this respect, high density areas (even marginalized ones) have an advantage against family-house areas (with usually higher social prestige). On the other hand, urban design may create physical barriers (e.g., railway lines dividing neighbourhoods or big, brownfield complexes hiding residential areas) contributing to the devaluation and marginalization of certain neighbourhoods.

Modal split (share of different transportation modes) may also have an exclusionary effect in the case where public transportation has a marginal share, either due to the fact that people use predominantly cars or where bicycling is a major mode of urban transportation. (At first glance, cycling seems to increase equity as it increases affordability, but it may also exclude those who are physically not able to ride or lack confidence.)

Strategic accessibility is concerned with the degree to which the land use pattern and associated modal transport networks over a substantial area (ranging in size from a town to a region) facilitate travel from one local area to another in order to participate in a particular kind of desired activity (e.g., health care, education, employment). This problem has a higher

importance in a rural-urban relation (people in the countryside having little access to jobs and services in urban areas) and gains great importance in Central and Eastern Europe, where poverty concentrates more in rural than in urban areas, with a great extent due to the lack of access to proper transportation services (Lieszkowszky, 2017). In urban agglomerations, however, barriers in access of transportation lead to the ‘suburbanization of poverty’: families originally settle in or move out from the city and into suburban areas that have much lower real estate prices but also low levels of services and jobs, and will have reduced labour market and educational opportunities due to transport constraints, which further increases social inequality (Bailey and Minton, 2017).

Different social groups are affected more by transport poverty: e.g., the elderly, disabled citizens, low-income households, and people living in remote areas. The young generation may also be deeply affected:

- NEET youngsters may have already lost their eligibility for subsidized public transportation fares but have insufficient income to cover higher fares.
- Youngsters are more attached to the city centre due to services they need, while they may not be able to afford the higher housing costs and, thus, are highly dependent on transportation services.
- Younger generations can less afford car ownership and, consequently, are more dependent on public transportation, the accessibility of which is strongly related to their housing situation.

4.9.3 Urban morphology

The ‘urban morphology’ refers to the shape, function and location of the various elements that constitute the urban built environment. Particularly the spatial aspects of the urban morphology can be important drivers of inequality. In this respect, relevant elements are the spatial distribution of housing (e.g., in terms of prices, tenure and quality), the presence and spatial distribution of services and facilities (e.g., schools, employment, shops, sport and leisure facilities) and the networks of transport infrastructure (roads, public transport). Following this line of reasoning, the urban morphology is likely to have a profound impact on the so-called *spatial opportunity structure* (Galster and Sharkey, 2017, p. 7; see also Section 6.3.4 of D1.2 and Section 4.9.1 of this report).

Perhaps the most important dimension of the spatial opportunity structure is the spatial distribution of the housing stock. Indeed, increasing spatial segregation in the field of housing is often an indication of growing socioeconomic inequality. For example, gentrification is currently transforming many European city centres. As part of the gentrification process, cheap dwellings are demolished and replaced by expensive luxury apartments for higher-income groups. The result is that people with more modest incomes are pushed to more peripheral neighbourhoods (or sometimes even to neighbouring towns), where housing is more affordable. This may hamper their access to important urban facilities (e.g., employment,

higher education, train stations, and administrative offices) that remain concentrated in the more central parts of the cities.

For young people, such a gentrification process may be particularly detrimental. After all, young people disproportionately make use of inner-city facilities (for their work, education and social life), whereas they are generally not able to afford a dwelling anywhere close to these facilities. Thus, an urban morphology that results in mismatches between the residential location of young people on the one hand, and the locations that they want/need to visit for work, education and social life on the other hand, can contribute to social inequality and exclusion. Possible interventions that could reduce such mismatches are investments in accessible transport (creating a wide-ranging network of affordable public transport) and careful spatial planning.

The urban morphology and the related spatial opportunity structure are not static. They are constantly changing under the influence of broad structural trends. For example, the rapid increase in online shopping clearly is starting to have detrimental effects on the traditional inner city shopping zones (see also Welteveden, 2007). Furthermore, the Covid-19 pandemic might contribute to a much broader crisis for the inner city as an attractive residential and commercial space (see also Section 5.2.2 of D1.2). Depending on how long the pandemic will last and how structural its impact will be, it may reverse the trends of gentrification and urbanization that have been prevalent in recent decades, thereby creating new patterns of spatial and socioeconomic inequalities.

4.10 Drivers of inequalities in the housing domain: city / regional level

4.10.1 Local housing market

The dynamics of local housing markets influence inequalities in cities and regions. Factors such as house price development, tenure structure, access to credit, and local imbalances between demand and supply can affect the extent to which different groups can access secure housing.

In particular, tenure structure is the factor that most directly translates income and wealth inequality into housing inequality. Indeed, a higher proportion of social rental, as can be found in countries with a corporatist welfare regime such as the Netherlands, allows also lower-income households to have a secure home. On the other hand, small and poorly-regulated rental sectors, as can be found in Mediterranean welfare regimes, do not provide enough secure options for households. Thus, they tend to be chosen only by low-income households with little choice on the housing market. Instead, a large rental sector, like it can be found in Germany, allows for more residential mobility and better access for young households. However, it needs to be carefully regulated to protect both tenants and landlords.

Widespread and state-supported homeownership – strongly promoted in Europe since the 1980s – was thought to foster stability and act as a great equalizer, but the “homeownership society” has shown its weaknesses (Elsinga, 2017), as it is strongly connected to a retrenchment of the welfare state, whereby homeownership is intended as social security and as an asset for

later in life. Those who have accessed owner-occupation in previous decades have built up housing equity and need house prices to keep rising to make their investment profitable, effectively excluding younger generations from the housing ladder. In this sense, housing inequalities tend to reinforce existing wealth inequalities. Indeed, intergenerational transfer of wealth through the transfer of homeownership can be one of the ways in which wealth inequality in a society builds up over time (Boehm and Schlottmann, 2002; Di and Yang, 2002). Not only there is an intergenerational divide between older owner-occupiers and younger renters, but also a class divide between young people who can access family transfers and those who cannot.

Although they existed previously, housing inequalities increased with the 2008 financial crisis (Dewilde and De Decker, 2016). The easier access to mortgage credit and the low interest rates available before the crisis are believed to have increased inequalities (CEB, 2017), especially because, today, mortgage credit is not as easily available as before, particularly for young households with unstable incomes.

Finally, general trends such as privatization of social housing, financialization of the housing market, and trends in the construction sector also have an impact on the local dynamics of demand and supply of housing.

4.10.2 Affordability of housing

Housing is typically one of the largest and very often the main component of a household's expenditure. Thus, it is hardly surprising that it is one of the dimensions where income inequality reflects the most. High housing costs tend, very often, to be a heavy burden and can lead to arrears in paying housing related bills and/or to being unable to afford other (essential) services (e.g., Abbé Pierre Foundation/FEANTSA, 2019). Furthermore, high housing costs may mean insecure and sub-standard housing conditions, especially for low-income households. Overcrowding, lack of proper heating and sanitation, as well as high levels of pollution and criminality in the neighbourhood are among the indicators of housing deprivation. However, if well-designed, local or national public policies that provide housing allowances and subsidies can go a long way in mitigating issues of housing unaffordability and deprivation. A higher portion of social rental dwellings can also improve access to housing for the more vulnerable groups.

Housing (un)affordability also has spatial implications, connected to the accessibility of services and opportunities. Cheaper dwellings tend to be further away from central and well-served areas, and the costs that households have to face in order to access jobs, public and private services and amenities represent a large portion of their monthly expenditure (see Woodcock et al., 2007; Mattingly & Morrissey, 2014; Lucas et al., 2016 on commuting and fuel costs as part of housing affordability). Thus, low-income households are often forced to trade-off housing costs with access to opportunities. Moreover, they tend to have less access to financing, especially if they are young. Thus, they face restrained choices in terms of residential locations and thus tend to live in areas that, in turn, accentuate inequalities. The differentiated

housing options that are available to different groups of population have played a role in the growing economic segregation in many European cities and regions (Musterd et al., 2017).

Issues of housing affordability tend to have a greater impact on young people, due to their more insecure labour market position and overall lower economic stability, which affect their ability to access housing at high prices. Moreover, unaffordability hampers access to independent housing, thus delaying emancipation from the family of origin and transition to adulthood (Furlong and Cartmel, 2007; Mills et al., 2011). Indeed, living with one's parents reduces housing costs and is also a form of insurance against unemployment risk (Bell and Blanchflower, 2011).

Overall, inequality in housing increased during and after the crisis and the social implications of barriers in access to affordable housing for a growing proportion of the population, especially for vulnerable groups including young people, are evident from the data on relevant indicators. Indeed, the housing cost overburden rate, that is the percentage of the population living in households where the total housing costs ('net' of housing allowances) represent more than 40% of disposable income ('net' of housing allowances), has reached its peak in most European countries in 2012 (see Table 1 below and Section 5.4.2 in D1.3), with higher values for individuals between 15 and 29 years of age. Data on housing deprivation⁴ follows a similar pattern, highlighting the difficult condition of households in the aftermath of the economic crisis (Table 2 below and Section 5.4.1 in D1.3).

⁴ Housing deprivation identifies people living in households which have any one of the following deficiencies: leaking roof, damp walls, rot; no bath or shower in the dwelling; no indoor flushing toilet for sole use of the household; difficulties of keeping the house warm; problems because of dwelling being too dark.

Table 1: Housing cost overburden rate. Source: EU-SILC

Country	Housing cost overburden rate, population aged 15-64			Housing cost overburden rate, urban population aged 15-29		
	2008	2012	2018	2008	2012	2018
Austria	8%	7%	7%	11%	15%	11%
Belgium	11%	11%	8%	11%	12%	9%
Bulgaria	13%	13%	15%	16%	13%	12%
Cyprus	2%	3%	2%	2%	6%	3%
Czech Republic	12%	9%	7%	12%	11%	10%
Germany	26%	16%	13%	27%	20%	16%
Denmark	18%	16%	16%	30%	34%	34%
Estonia	4%	9%	5%	7%	13%	8%
Greece	23%	34%	41%	31%	44%	46%
Spain	10%	12%	10%	15%	15%	13%
Finland	5%	5%	5%	9%	7%	10%
France	5%	6%	5%	8%	11%	9%
Croatia	-	7%	5%	-	5%	4%
Hungary	12%	15%	10%	14%	16%	11%
Ireland	3%	7%	5%	5%	10%	6%
Italy	8%	9%	9%	9%	10%	10%
Lithuania	5%	8%	5%	5%	10%	6%
Luxembourg	4%	5%	11%	4%	5%	12%
Latvia	10%	13%	10%	10%	18%	11%
Malta	3%	2%	2%	2%	2%	1%
Netherlands	14%	16%	10%	15%	18%	15%
Poland	11%	14%	17%	13%	16%	21%
Portugal	9%	9%	6%	11%	12%	7%
Romania	18%	18%	10%	18%	19%	9%
Sweden	10%	9%	11%	18%	15%	17%
Slovenia	4%	5%	5%	3%	4%	4%
Slovakia	5%	7%	8%	4%	5%	8%
United Kingdom	16%	8%	18%	19%	11%	23%

Table 2: Housing deprivation. Source: EU-SILC

Country	Housing deprivation, population aged 15-64			Housing deprivation, urban population aged 15-29		
	2008	2012	2018	2008	2012	2018
Austria	18%	16%	15%	22%	23%	20%
Belgium	26%	24%	24%	27%	24%	26%
Bulgaria	32%	30%	25%	31%	27%	23%
Cyprus	28%	33%	32%	29%	29%	35%
Czech Republic	16%	13%	10%	16%	13%	11%
Germany	18%	18%	17%	19%	23%	20%
Denmark	13%	22%	22%	15%	31%	29%
Estonia	18%	24%	17%	11%	19%	11%
Greece	21%	19%	15%	18%	22%	16%
Spain	20%	15%	19%	19%	13%	20%
Finland	9%	11%	10%	9%	12%	12%
France	19%	19%	19%	22%	23%	22%
Croatia	-	19%	14%	-	22%	15%
Hungary	34%	27%	25%	35%	28%	24%
Ireland	15%	20%	17%	14%	26%	21%
Italy	23%	24%	15%	24%	26%	15%
Lithuania	27%	28%	24%	27%	17%	15%
Luxembourg	20%	22%	24%	18%	27%	25%
Latvia	30%	37%	29%	28%	31%	25%
Malta	10%	15%	16%	10%	14%	15%
Netherlands	19%	21%	21%	21%	25%	26%
Poland	26%	17%	16%	23%	16%	16%
Portugal	25%	27%	32%	27%	29%	34%
Romania	47%	38%	28%	26%	23%	16%
Sweden	14%	13%	14%	16%	13%	16%
Slovenia	36%	36%	25%	36%	37%	26%
Slovakia	11%	11%	8%	10%	9%	7%
United Kingdom	24%	23%	23%	28%	28%	27%

4.11 Drivers of inequalities in education: city / regional level

4.11.1 School allocation policies at the local level

As well as at the national level, school allocation policies can vary between regions and cities within countries. Some regions and cities allocate students based on catchment areas, some implement academic tracking, and others allow different degrees of parental choice. As discussed in Section 4.6.1, these can influence inequalities. Catchment areas mean that school composition is strongly related to neighbourhood composition, which means that any inequalities and segregation between neighbourhoods is also reproduced in schools (Boterman, 2019; Frankenberg, 2013). Academic tracking can exacerbate inequalities as students from affluent backgrounds tend to perform better on academic entrance tests, as their families are able to invest greater cultural and financial resources into preparing their children for the tests (see UPLIFT Deliverable 1.2, p. 91). Policies that offer greater parental choice can also widen inequalities, as parents with a higher educational level and greater socioeconomic status tend to have more choice in schools, more information on which to make their decision and greater ability to exercise their choice (see Section 4.3.2).

As at the national level, places with high levels of residential segregation, a high degree of parental choice in school selection and/or academic tracking from an early age will most likely have wider inequalities than places that do not implement such policies. Schools with student compositions with a greater proportion of students from lower socioeconomic households tend to have lower educational attainment due to peer and neighbourhood effects. As minority ethnicities tend to have lower socioeconomic status, this also translates into an ethnic attainment gap. As educational attainment level affects labour market opportunities and future income, with students with higher educational attainment generally having more opportunities and higher incomes, places with high levels of residential segregation, a high degree of parental choice in school selection and/or academic tracking from an early age are more likely to have wider inequalities concerning labour market opportunities and income.

There are distinct differences when examining the number of early leavers at a regional level (Figure 2.1.2 in D1.3). The noticeable regional differences observed in Spain, France, Italy and Bulgaria may be the result of differences in school allocation and tracking policies. However, on its own, the indicator is unable to differentiate between the impact of school allocation policies and the impact of other drivers such as school quality, spatial segregation and neighbourhood effects, and family background and socioeconomic status.

4.11.2 School quality

School quality can have a significant impact on inequalities experienced by individuals. Education is widely regarded as being an important mediator in social mobility, allowing people from disadvantaged backgrounds to overcome barriers and access a greater array of opportunities (e.g., De Vuijst et al, 2017; Jerrim and Macmillan, 2015), and the quality of teaching at schools affects students' attainment (Rivers and Sanders, 2002). However, school

quality is neither easy to define nor to measure. This is in part due to the significance of factors such as peer effects and/or neighbourhood effects; schools located in more affluent neighbourhoods with more affluent student compositions tend to achieve higher average attainment than schools located in less affluent areas with less affluent student compositions. Hence, high academic attainment is not necessarily the result of quality teaching alone; the socioeconomic composition of the school may also be a factor in academic performance. Therefore, school quality is better evaluated when assessing students' performance compared to what would be expected based on their background and that of their classmates. On this basis, a high-quality school would be one that achieved educational attainment that most exceeded that predicted according to the characteristics of its student population. Hence, a higher quality education can overcome the disadvantages of family background, neighbourhood effects and peer effects and reduce educational inequalities (De Vuijst et al., 2017; Jerrim and Macmillan, 2015).

Access to high quality education, regardless of socioeconomic background, can reduce inequalities experienced by young people. In particular, the establishment of high-quality schools in lower socioeconomic neighbourhoods can reduce the significance of peer effects and neighbourhood effects in educational attainment and, as a result, improve labour market opportunities and future earnings potential for young people from those neighbourhoods, thus narrowing both educational and employment inequalities.

Indicators that are relevant to school quality vary considerably across Europe. In 2018, the student/teacher ratio in primary education for European countries varied from 9.0 in Luxembourg to 19.9 in the UK, according to Eurostat data. Also, there are noticeable differences in the educational level of 15-29-year-olds in different European countries and levels of underachievement in reading, mathematics and science according to PISA results (see Section 4.6.1). Finally, significant variation in PISA results have been observed between regions within countries, for example, Italy and Spain (Hippe et al., 2018). However, it is important to consider that, while differences in school quality may be responsible for variation in the indicators, it is difficult to separate the effects from those of peer effects, neighbourhood effects and family background.

4.12 Drivers of inequalities in the labour market: city / regional level

4.12.1 Structure of the local economy

Global trends (e.g., globalization, de-industrialization, tertiarization, digitalization, etc.) and the related new social risks have had different impacts on urban areas and resulted in different social outcomes depending on how the structure of the local economy was able to adapt to global challenges.

In general, the structure of workplaces and the labour market frequently exhibits segregation. Different sociodemographic groups have been found to cluster in particular sectors and at different levels in the labour market. Different sectors and niches can be segmented according

to ethnicity, socioeconomic background, level of education, gender and migration status (D1.2, p.93).

This division of workplaces has different representation in urban areas depending on their economic processes. In most of the cities and agglomerations, where economic restructuring in the deindustrialization process was fast and successful, and the economy turned to sectors with higher value added, the job market became of a dual nature. This dual nature of occupations increased social inequalities, as these economies required a high-skilled workforce, providing them with high incomes and high urban quality, while also attracting people, in many cases with a migrant background, to occupy jobs in the tertiary sector that require a low qualification level and provide a low income and level of living conditions (D1.2, p. 44). It seems that most of the dual economies resulted in growing inequalities, except for the largest ones (e.g., Amsterdam, Frankfurt, London, Paris, Munich), where the local job market is large enough to provide job opportunities for all. In addition, urban areas with a successful transformation of their economies that are integrated into a strong social welfare state are able to counterbalance the differences in job opportunities (e.g., Stockholm, Copenhagen, Helsinki, Malmo) (Ranci et al., 2014). It is important to note that even if inequality is in general higher in urban agglomerations with a dual labour market it does not necessary mean that material deprivation or absolute poverty is higher, as these urban agglomerations create opportunities as well (e.g., due to the high activity rate, it is possible to obtain a moderate income).

The other extreme is represented by cities with collapsing industries and a shrinking population. In these cities, job opportunities both for the high end and low end of occupation has decreased, increasing unemployment, material deprivation and poverty, but also increasing gender and educational gaps in the labour market. Due to the shrinkage process, the more qualified are the first to leave and the most marginalized neighbourhoods are the first to be affected by negative social consequences. (Cunningham-Sabot and Fol, 2009). In addition, strategies against shrinkage may also contribute to further social polarization through fostering gentrification and crowding out vulnerable communities from the core locations (Fol, 2012).

In between the two extremes (dynamically-restructuring cities and cities shrinking due to the collapse of industry) there are wide varieties of urban areas with different economic structures. Some of them seem to experience a lower level of inequality (e.g., urban areas with a still-strong manufacturing background producing standardized traditional goods but still able to provide high employment levels), while others have less potential to provide opportunities for everyone (e.g., urban areas where economic restructuring resulted in jobless growth).

4.13 Drivers of inequalities regarding health: city / regional level

4.13.1 Access to healthcare

Inequality in access to healthcare system does not exist only on a national level but it has a more specific spatial aspect within countries, between and within localities, regions, metropolitan areas or cities. "Regional differences in access to care may be particularly high in countries where competences for the organization of healthcare have been (partially) devolved to the regions" (Baeten et al., 2018, p. 43). The following dimensions of access to healthcare can be different between the regions of European countries: supply of health services between regions and across urban and rural areas; distance to healthcare (travelling time); length of waiting lists; access to different types of care/medication and specialist care e.g., dental care (Baeten et al., 2018). As mentioned in Section 4.8.1, young people are generally better off than other age cohorts in terms of physical health. However, they are still affected by policies concerning access to healthcare. As mentioned previously, the tendency to earn lower wages and the lack of savings means they find it more difficult to afford insurance premiums in insurance-based systems. The greater relative prevalence of mental illnesses among young people means the funding and provision of mental health services impacts on youth health inequalities: cities and regions which provide greater funding and provision of such services will likely see lower health inequalities.

Capital regions are often more advantaged compared to other regions with regard to health determinants (e.g., economic and social conditions; healthcare resources). Factors that significantly affect the health of inhabitants (e.g., air pollution and crime (Santana, 2017)) can make outcomes of healthcare worse (Costa et al., 2019). However, as mentioned in Section 4.8.1, there are several groups of people who live in more deprived and disadvantaged neighbourhoods (within regions/cities) where the lack of access to quality healthcare, among other drivers, contributes to worse health outcomes.

An important aspect of access to healthcare (among all other services) across localities is the difference between rural and urban areas. In rural areas there are usually less healthcare services available due to the fact that such services in less popular areas are not considered to be financially viable, due to low number of potential participants and long travel distances, especially where the transportation system connects efficiently less populated areas with cities where healthcare services are available. Furthermore, the quality-of-service provision in rural areas may be negatively affected by a lack of concentration of knowledge and experience in comparison to cities. The cost of specialized care in these areas is also considered to be unviable, because of financial reasons (Baeten et al., 2018). Thus, in rural areas, there is more likely to be a lack of infrastructural access to healthcare services compared to urban areas. In urban areas, where the infrastructure is more developed and equipped compared to rural areas, there are several factors that have to be taken into account in case of healthcare outcomes. Contextual, social, physical and built urban environments have a great impact of health outcomes in urban areas (e.g., access to green or public spaces, level of air or noise

pollution, access to affordable, good quality housing, use public transportation etc.). Healthcare outcomes are crucial, especially because the majority of the population live in urban areas/cities (Costa et al., 2019).

The percentage of the urban population aged 15-29 with chronic illness varies between different regions in EU countries (see also Section 5.5.1, D1.3). For example, the percentage varies from 53.7% in South Finland to 1.3% in Macroregion One in Romania, according to 2018 NUTS 1-level EU-SILC data. Percentage-point changes in the prevalence of chronic illness among urban youth between 2012 and 2018 also vary widely between different EU regions. In Figure 5.1.4 in D1.3, there can be seen a small number of regions in Finland, Spain, Italy, Belgium and the United Kingdom where there has been a noticeable improvement in the prevalence of chronic illness among young people. However, it is also clear that, in many EU regions, rates of chronic illness among young people in urban areas have increased, especially in Germany, parts of Poland and parts of the United Kingdom.

Similarly, there is considerable variation in the percentage of the urban population aged 15-29 with self-reported unmet need in health care among NUTS 1 regions (see Section 5.5.2, D1.3). The percentage ranges from a high of 26.6% in Attica (Greece) to a low of 0.03% in Sur (Spain) (2018 EU-SILC data). In terms of percentage point changes in unmet need for urban youth between 2012 and 2018, Figure 5.2.4 of D1.3 shows that, in most EU regions, there has been either a slight decrease or increase. However, the regions of Greece universally demonstrate a significant increase in the percentage of urban youth with unmet need.

As mentioned in Section 4.8.1, in addition to differences in regional / city-level policies on healthcare access, demography may explain differences in the percentage of the urban population aged 15-29 with chronic illness. Also, higher percentages of individuals with chronic illness does not necessarily mean poorer access to healthcare: higher percentages may be the result of better diagnostic services. Similarly, the differences in percentages of self-reported unmet need in health care among the urban population aged 15-29 may be affected by demographic factors in addition to or instead of healthcare access policies. The self-reported level of unmet need may be perceived differently from one region to another.

4.13.2 Environmental policies

As with Section 4.8.2, 'environmental policies' refers to policies that impact the quality of the natural environment people experience and the section focuses on health outcomes resulting from such policies. As at the national level, environmental policies implemented at the city or regional level can affect health inequalities. In recent years, some cities have started implementing congestion charging schemes and low emission zones. While the former is, in part, motivated by a desire to reduce road traffic, it also has a benefit in terms of reducing emissions from road traffic, which should improve air quality. The latter restricts which vehicles can enter a defined area based on the levels of compounds in their emissions, with only those below the threshold allowed to enter. As at the national level, decisions on transport investments can also affect air quality, e.g., whether to invest in active transport, public

transport or private road transport. Regulations and policies regarding waste disposal can affect health inequalities at the city- or regional-level, as well as at the national level. Local policies and regulations on noise pollution also have the potential to reduce health inequalities. As mentioned in Section 4.8.2, people in the lowest socioeconomic groups often live in areas with the worst air quality and are most affected in terms of health. Similarly, they are at greater risk of exposure to toxic chemicals such as heavy metals. Therefore, city- or regional-level policies that improve air quality, such as congestion charging schemes, low emission zones or investment in cleaner forms of transport, are likely to reduce health inequalities. Cities and regions with more stringent policies and regulations regarding waste disposal are also likely to reduce health inequalities. Widening access to transport (see Section 4.9.2) can widen access to open, green space, negating some of the impact of living in poor air quality neighbourhoods.

As discussed in Section 4.8.2, young people may experience greater health inequalities related to environmental policies because of their comparative disadvantage in housing markets. They tend to live in lower socioeconomic neighbourhoods, which often have the poorest air quality and greatest exposure to harmful chemicals from waste. Therefore, measures to improve air quality or dispose of waste more carefully may reduce the health inequalities they experience.

4.14 Individual-level factors determining social inequality

4.14.1 Gender

While overall developments in education, employment, housing and other areas of society can affect men and women, a wide array of literature shows that impacts are hardly gender-neutral. Indeed, the increasing participation of women in paid employment over the last decades is closely entwined with the growing introduction of corporate flexibility strategies, and women are still more likely than men to find themselves in precarious work (Esping-Andersen, 1993; Kalleberg and Vallas, 2018). There is also evidence of horizontal segregation (between sectors or occupations) and vertical segregation (between hierarchical levels), both to the detriment of women (EIGE, 2017).

Perrons et al. (2005) argue that there is a paradox between the public policies for gender equality increasingly implemented by countries in Europe and the adoption of a neoliberal agenda that contributes, even if indirectly, to reinforcing gender asymmetries in the labour market. Examining the consequences of post-2008 fiscal consolidation measures for gender inequality, Perugini et al. (2019) conclude that austerity measures impacted significantly on various aspects of gender wage inequality, jeopardizing the relatively little progress achieved in Europe until then. The unequal distribution of domestic and care work in the family contributes to hinder women's professional availability and remains a key factor to explain the operation of different welfare regimes (Esping-Andersen, 1990; Isakjee, 2017). Policies supporting women's participation in the labour force and decreasing their burden of care (e.g., public childcare services and entitlements for fathers) also play an important role in regard to health: gender inequalities in self-perceived health are higher in countries with family policies

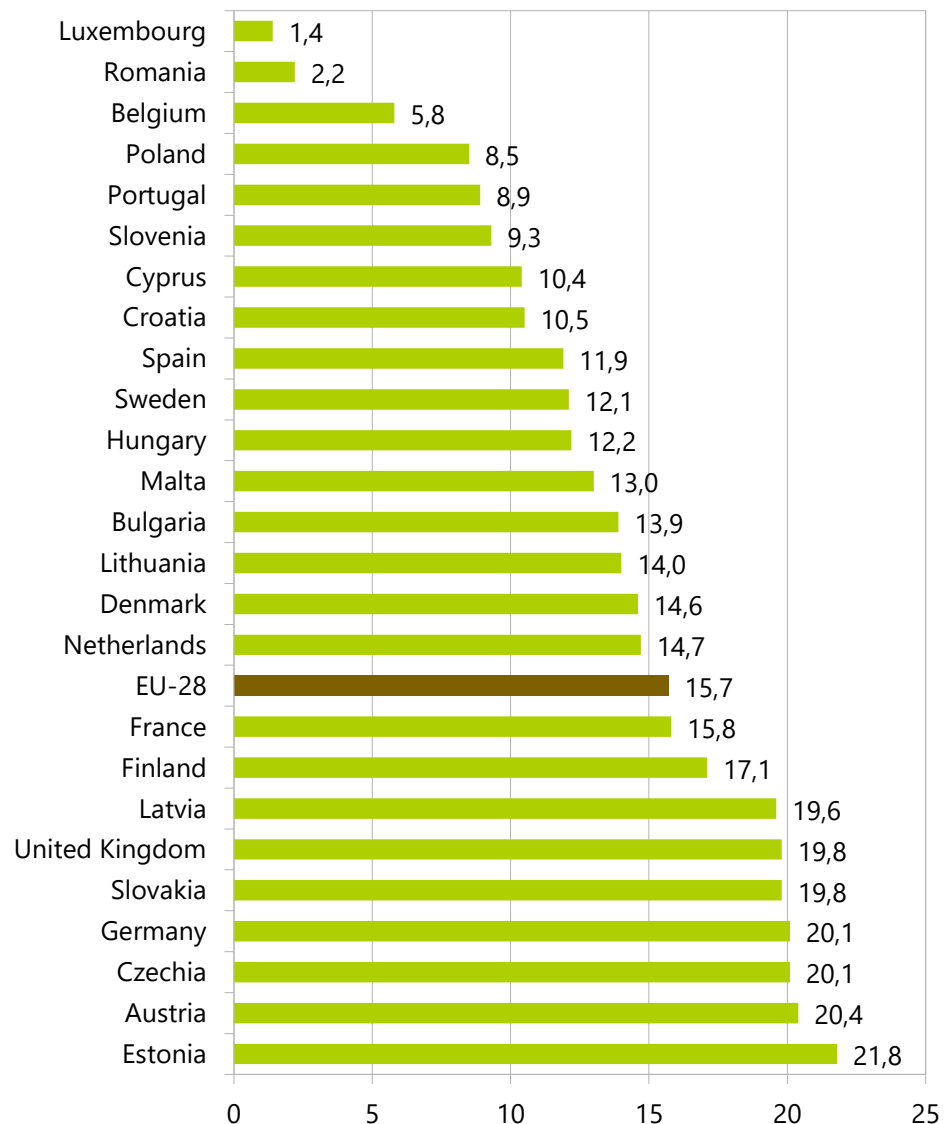
that are less oriented to gender equality, especially those in Southern Europe (Palencia et al., 2016).

The indicators of monetary poverty, severe material deprivation and very low work-intensity expose the disadvantage of women, who may also accumulate the gender penalty with penalties related to other sociodemographic characteristics such as young age, disability, single parenthood or low educational attainment (Eurostat, 2019). A recent multidimensional analysis, assessing developments in the domains of work, money, knowledge, time, power, health, violence and work-life balance confirms that EU countries are moving towards gender equality at a “snail’s pace” (EIGE, 2020).

Some gender inequalities are expected to be lower in the young population, while others remain high or can even increase. For instance, Esping-Andersen (2015) identifies the policies of educational democratization and women’s emancipation as the two main factors explaining the equalization of the opportunity structure; in particular the upward social mobility of children of the working class, which is explained by education especially in the case of women (Abrantes and Abrantes, 2014). Notably, the educational attainment of women is now at parity or even surpasses that of men in most countries of Europe, but labour market outcomes are still unequal due to persistent gender segregation across fields of study in tertiary education, differences in the transition from school to work and asymmetry in family roles (Mills and Präg, 2014; EIGE, 2020). The results of an EU project called STYLE corroborate that gender gaps open up early in working careers and that young women – as well as different ethnic groups – are often at a disadvantage (Zuccotti and O’Reilly, 2019). It is again important to bear in mind intersecting inequalities, for instance in the case of migrant, Roma, lesbian or trans women (EIGE, 2020).

Differences across countries are apparent in indicators such as the gender pay gap (Figure 5). By 2018, the average gross hourly earnings of men exceeded those of women by more than 20% in Estonia, Austria, Germany and the Czech Republic, and by less than 6% in Belgium, Romania and Luxembourg. Notably, high values can be found in various regions of Europe and seem to cut across welfare regimes, reflecting the complexity of the phenomenon.

Figure 5: Gender pay gap in unadjusted form (in % of average gross hourly earnings of men), 2018. Source: Eurostat, online data code: SDG_05_20, last update: 23/10/2020. Data for Greece, Ireland and Italy not available.



4.14.2 Ethnicity

In Section 6.2.1 of the conceptual report (D1.2) we discuss how ethnicity is part and parcel of segregation dynamics and what have been discussed as vicious circles of segregation. Ethnicity as such is, however, not a driver of inequality but, via mechanisms of racialization and discrimination, it can have a profound impact on people's lives and, in that sense, become a forceful inequality driver. In most countries, the concept of *ethnic hierarchy* is highly relevant, and it is often used to describe the relative positions of different ethnic groups in the labour and housing market, where, in particular, people of colour and visible minorities in Europe fair much worse than white people. Employment frequencies, incomes, educational outcomes, housing quality and segregation have all been found to co-vary by ethnic group. In the most recent times, such inequalities have been well documented in the relation to Covid-19 and its

effects on hospitalization and death rates. It is also worth stressing that past ethnic and racial discrimination can impact on future generations and thus feed the dynamics of inequality.

Although discrimination is illegal in the EU and inscribed in Article 21 of the Charter of Fundamental Rights, de facto discrimination in institutions, in work-hiring practices and in housing allocation is well documented, as is the frequent occurrence of everyday racism in a range of human-to-human interaction settings, such as restaurants and night clubs. Discrimination affects people's self-esteem – not least the self-confidence of the young. It blocks people from entering pathways leading to more successful lives and it comes with a societal cost in terms of increasing risks of conflicts and violence and, via misallocation of human capital resources, also to a less productive economy.

Ethnicity in its cultural meaning can certainly also bring about a sense of belonging and offer a group identity that matters for wellbeing and accumulation of social capital. Although a contested concept, ethnic entrepreneurialism has often been viewed as a positive economic feature in many countries, creating opportunities for ethnic minorities, not least for new immigrants entering the labour market who have little or no knowledge of the language of the host society. Some, however, argue that many ethnic businesses exist because other options are closed, more or less forcing minorities into low-paid and precarious self-employment.

Like many other group and personal attributes, ethnicity gets its meaning in its societal and historical context. Currently, and in relation to the inequality issue, the discrimination aspect is of prime concern.

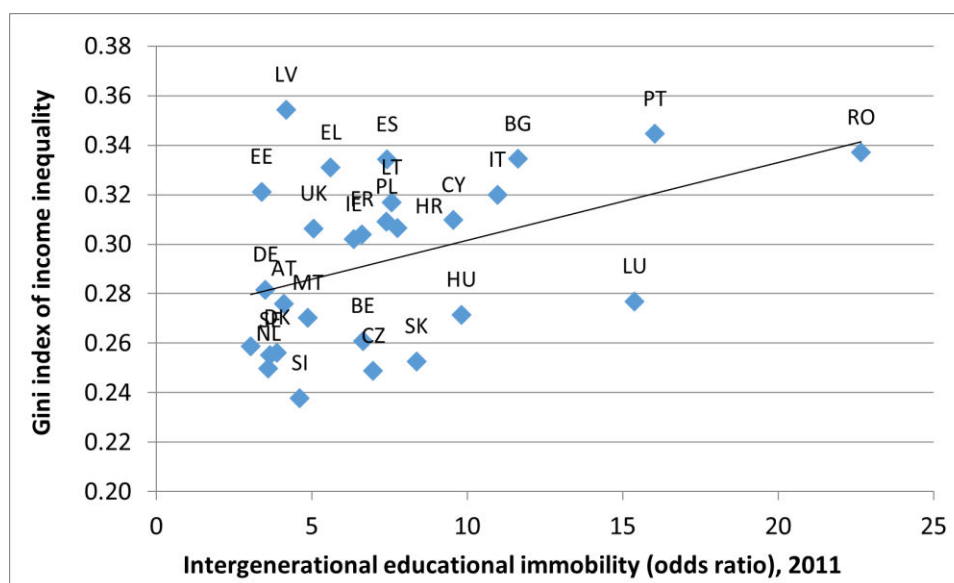
4.14.3 Family background and socioeconomic status

There is worldwide evidence of a statistical correlation between the social status of parents and their children: higher-status parents more often have higher-status children than underprivileged parents. There are a multitude of mechanisms which can lead to this phenomenon: the transmission of abilities and personality traits within the family, income-related inequalities in families' educational investment, direct transfers of wealth and transfers of social connections might all play a role in the transmission of the social status of parents to their children.

Family background may influence the educational attainment of children for several reasons. According to the human capital theory, children from low-status families will have lower educational attainment if they achieve lower returns on the investment in education or if they have higher costs of education. Lower returns among low-status families may result from attending lower-quality educational institutions or from the social connections of families being less helpful in the labour market (Behrman and Knowles, 1997). High costs of education mean that low-income families have to trade-off spending on necessities and education; consequently, they have less to spend on human capital investment (tuition fees, equipment, private lessons, etc.). Studies on educational mobility conducted in European countries reveal that Mediterranean and Eastern European countries have low educational mobility, while

Nordic countries have a high level and Western European countries have a medium level of mobility (e.g., Hertz et al., 2007; Schneebaum et al., 2015). Also, there is a slight positive correlation between income inequality and intergenerational educational immobility (see Figure 6).

Figure 6: Association between intergenerational educational immobility and income inequality in 2011.



Family background also has an impact on labour market chances after leaving school. Families may financially support young people to become entrepreneurs in the case of unemployment. In addition, families may provide information and connections for young people in a difficult labour market situation (see, for example, Montgomery, 1991). The indirect effect of family background includes passing down skills and attitudes that have an impact on labour market success. Filandri et al. (2018) evaluated the effect of family background on labour market success five years after the completion of studies. Based on data from EU-SILC 2011, they found that if educational attainment is equal, the children of better-educated parents were more likely to be successful in the labour market and were less likely to become unemployed.

As well as offering support in education and labour market progress, families may also provide direct financial or in-kind assistance to their adult children. One example is the possibility of returning to the parental home in case of unemployment or divorce (Swartz et al., 2011), which might protect young people from falling into poverty (Aassve et al., 2007). Besides cohabiting, parents may assist with material transfers to mitigate the consequences of their children's unemployment. However, the occurrence of financial transfers within families is largely dependent on the income and wealth of the parents. Children in high-income families are much more likely to receive financial assistance if they are in difficulty. Papuchon (2014) reports that, while the proportion of young adults living together with their parents increased during the crisis, there was no rise in the frequency with which they received financial assistance from their parents. This might be due to the strong association between transfers and parental

income: the parents of young unemployed are often not able to provide financial assistance to their children.

4.14.4 Disability status

Persons with disabilities are likely to experience disadvantage in various spheres of life. Quantitative analyses expose their substantial presence among the young population not in employment, education or training (Eurofound, 2012), as well as among the population in a situation of poverty or social exclusion (Eurostat, 2019). While persons with chronic disabilities report the lowest subjective well-being in many countries, their disadvantage is not the same in all countries and national policies are largely the explanation for this (van Campen and van Santvoort, 2013). Public care systems across countries have very different levels of coverage and forms of operation, influencing the extent to which the support required by persons with disabilities is taken as a public/collective or a private/individual issue, as well as the capacity of persons with disabilities to undertake their daily activities and fulfil their potential (ILO, 2018). It is important to examine the availability of facilities to support persons with physical or mental disabilities and how they operate regarding quality, conditions and costs, among other things, to fully understand how much individual effort – be it financial, time or energy – needs to be expended in paid and unpaid care, sometimes leading carers in the family to give up on their jobs and careers.

The very development of disabilities is influenced by inequalities. While poor health conditions can affect all persons, socioeconomic disadvantage has been shown to increase the likelihood of developing disabilities, which is partially explained by a greater exposition to determinants of disability, including those related with behaviour (e.g., smoking, alcohol consumption, lack of physical activity, etc.), work (e.g., material and ergonomic hazards) and living conditions (e.g., problems with housing and conflicts in the household while growing up) (Pérez-Hernández et al., 2019). Public and private investment to tackle these factors is therefore expected to reduce disabilities as well as inequalities in their prevalence across income and educational levels. Healthcare policies are especially important as they can prevent the development or aggravation of disabilities and improve the quality of life of the persons affected (van Campen and van Santvoort, 2013, see also Sections 4.8.1 and 4.13.1).

Young persons with disabilities may find additional obstacles as they struggle to make their way through school and the labour market. Due to either health limitations or direct and indirect forms of discrimination, disability may affect the capabilities to transform one's resources and formal rights into valuable opportunities (Volkert and Schneider, 2012). It is one of the factors to which particular attention must be paid in educational settings, similarly to inequalities based on gender, birthplace, ethnicity, religion, language, income or wealth (UNESCO, 2018). While inclusive education is supported today by official institutions around the globe, the concept of '(dis)ability' remains ambiguous in theoretical frameworks and difficult to integrate in practical contexts, and a life-course perspective exposes the importance of investing in better strategies to prevent risks in education (Powell and Pfahl, 2019).

Based on data from the European Social Survey, van Campen and van Santvoort (2013) conclude that the gaps in subjective well-being between disabled and non-disabled persons are smaller in the Northern countries than in Eastern European countries. Their analysis also shows that, in all countries, inequality is explained mostly by personal resources: that is, variables such as supportive relationships, social cohesion, vitality, optimism and resilience, as well as perceived autonomy, accomplishment, capacity, engagement, meaning and purpose. In turn, the level of disability, socioeconomic status or the level of participation in work are less determinant. Empirical research should delve into the distinct variables to understand their impact on both subjective and material aspects of well-being. It is also relevant to question the extent to which institutions in the areas of education, employment and housing (schools, companies, municipalities, etc.) are equipped and qualified to effectively prevent any form of inequality that may cause or result from disabilities.

4.14.5 Immigrant status

While immigrant status in the 1960s and 1970s was primarily discussed in relation to labour migrants it is now almost entirely discussed as an aspect of refugee migration. As we will touch upon below, “immigrants” is and has always been a very heterogeneous category, implying that their status also varies according to a range of individual, group and contextual characteristics.

The importance of immigrant status partly depends on national legislation, for example, to what extent a non-citizen has civil rights, can vote in local and regional elections, take a mortgage, etc. And as was highlighted during the 2015 ‘refugee crisis’, country-level variations in admission rules, level of protection, and rules concerning permission to stay and to bring close family to the new country, led to dramatic differences in the number of refugees arriving in EU member states. Since then, top receiving countries like Germany and Sweden have altered their migration regimes making it less attractive to seek refuge. Absent a common European refugee policy, there seems to be a “convergence at the bottom” in the sense that no country now wants to signal a more positive view on refugee arrivals and settlement. This has resulted in the issuing of temporary settlement visas, which in itself makes integration more problematic. Insecurity and uncertainty are not fuelling a sense of belonging and integration efforts on behalf of the newly arrived can be hypothesized to having become weaker. This illustrates a dilemma.

Many immigrants can certainly face discrimination in work and housing despite their formal citizenship status, but absent full citizen rights, yet further obstacles might arise, such as reduced entitlements to different social services, healthcare and public support systems, restricted movement within the EU and the possibility to acquire a mortgage when wanting to purchase a home.

It is well documented how immigrant status affects different outcomes. Immigrants are typically over-represented in rental housing, live more often in substandard housing and in poor neighbourhoods. This affects the possibilities for the young minority population who typically end up in less-well-functioning schools. As discussed in sections 6.3.3 and 6.3.4 of the

conceptual report, workplaces and the labour market frequently exhibit segregation. Different sociodemographic groups have been found to cluster in particular industrial sectors and at different levels in the labour market. Different industrial sectors and niches can be segmented according to ethnicity, socioeconomic background, level of education, gender and migration status. All in all, immigrant status is one key factor that systematically affects opportunity for residents and not least for the children and the young. It is generally the case that children of immigrants – often labelled second generation immigrants – achieve a standard of living more similar to that of native citizens, but discrimination based on physical attributes and clothing typically affect many minority citizens irrespective of time spent in the new country.

It is important to recognize that the importance of immigrant status typically depends on the social position of the immigrant and the immigrant group. Highly-educated, skilled professionals and top executives seldom face the same problems as those with less education. Certain minority languages are highly regarded (such as English) while Arabic or Farsi seldom open doors. This heterogeneity of the immigrant experience must not be forgotten.

4.14.6 LGBT+ status

Particular risks of exclusion are experienced by persons discriminated on the basis of their sexual orientation, gender identity, gender expression or sex characteristics. Various obstacles over the life course have been identified, especially in education, transition into employment, mental health, and participation in social, economic and cultural life (Takacs, 2006). The persisting forms of discrimination against lesbian, gay, bisexual, trans, intersex and other minority sexual orientation or gender identity (LGBT+) persons are quite broad and vary in intensity across country and social context, ranging from physical assault to unfair treatment in circumstances like applying for a job or renting a flat (European Union Agency for Fundamental Rights (FRA), 2020).

Despite important contributions to establish international standards in this regard, namely the Recommendation of the Committee of Ministers on LGBT rights approved at the Council of Europe in 2010 and the LGBTIQ Equality Strategy presented by the European Commission in 2020, national legal frameworks are still very different, even concerning the most general issues such as the right of same-sex couples to marry or to adopt a child. Restrictive laws are especially troublesome as they prevent access to basic rights and legitimize prejudice by individuals or organisations. In addition, some countries have specific legislation against discrimination based on gender identity, which is entirely absent in others, resulting in inaction by the entities responsible for equality; and potential discrimination in areas such as housing, education and social protection remains largely unregulated in many EU member states (FRA, 2015).

Such inequalities can be apparent to all of the persons involved or remain unnoticed and even unconscious by those acting in a discriminatory manner, because they are often reproducing attitudes learnt through socialization. In the particular area of health, a recent review of studies uncovers significant health inequalities, which are distinct depending on gender, age, income

and disability, as well as between LGBT+ groupings (Zeeman et al., 2019). Trans and intersex people are especially at risk of facing violence and discrimination, as the little progress achieved regarding sexual orientation has not been accompanied by a similar advancement regarding gender identity and sex characteristics (FRA, 2020).

These inequalities have been found to affect young people in very strong manners, due to the combination of a high incidence of bullying, lack of family support and little qualification of professionals in key sectors to detect and act upon situations of risk (Council of Europe and UNESCO, 2018). Pain and exclusion suffered by young persons are also a source of concern for their impact on personal development, which can underpin inequalities in later periods of life. Schools are a major setting where these inequalities materialize, often in violent forms, as well as a strategic context where young persons at risk can be protected and all students educated on the principles of equality (Saleiro, 2017).

Although positive developments related to LGBT+ rights have occurred in several EU member states, others show few changes or even setbacks, requiring better coordination at the EU level to mobilize legislative, financial and policy tools, and thereby achieving results in a long-term perspective (FRA, 2015). The resources in place, either through public policy or private and third-sector initiatives, remain quite different across countries. A recent report by the FRA (2020) confirms that improvements in some countries have been simultaneous with increasing discrimination and violence in others. This is also observed in the special Eurobarometer (2019) on the social acceptance and perceptions on LGBT+ equality. The same sources of evidence indicate substantial gaps between agreeing with the 'idea' of equality and the actual ability of societies and institutions to prevent and intervene upon situations of inequality. Public services can play a key role in this matter, provided they are equipped with adequate knowledge and skills to ensure full inclusion and equal access in their daily operation (Zeeman et al., 2019).

5 Typology of inequalities in European metropolitan areas

In this part of the framework study, a typology of European metropolitan areas is developed according to variables connected to competitiveness and social cohesion. The role of different drivers and combinations of drivers will be discussed in relation to each group or cluster in the typology. As well as providing a useful tool for classifying different cities and metropolitan areas based on competitiveness and social cohesion, the typology will be used specifically to classify each of the 16 FUAs in UPLIFT Work Package 2, providing important contextual information for the development of the Reflexive Policy Agenda. The local policy analysis undertaken during Work Package 2 will be used to assess the accuracy of the typology and adjust it if required.

The typology developed by d'Ovidio and Ranci (2014) has been used as the basis for this typology. The main goal of d'Ovidio and Ranci's typology was to evaluate if there are connections between the competitiveness level of metropolitan areas and their social cohesion. Their conclusion was that the relationship was 'not of the same direction and intensity in all European cities'. Instead, they managed to identify six homogeneous groups of cities: Unequal cities; Second-tier global cities; Innovative-synergetic cities; In-locked equal cities; Global, synergetic cities; and Depressed cities.

5.1 Methodology

The clustering was based on data from the Eurostat Regions and Cities (Urban Audit) database. The clustering was carried out at the level of metropolitan regions, which are individual NUTS 3 regions or aggregates of NUTS 3 regions covering agglomerations (built-up areas) of at least 250,000 inhabitants. The database includes data on more than 300 metropolitan regions in Europe, but due to the large number of missing data – especially regarding the variables related to specific economic sectors – the clustering was carried out for 110 metropolitan regions.

Cluster analysis was carried out largely following the methodology of d'Ovidio and Ranci (2014). The first five dimensions of the clustering are the same as was used by Ranci, although the underlying basic variables had to be adapted to the available data. We also added the population dimension which was not included in the d'Ovidio and Ranci clustering. Therefore, in our case there are six dimensions included in the clustering. These dimensions are measured in some cases with single variables and in other cases with composite indexes, which were built from the original basic indicators (composite indices were created using averages of z-scores of the original variable).

The variables used to develop the typology are as follows:⁵

Social cohesion:

- Equity index: composite index constructed as the average of the following two variables:
 - activity rate among women relative to that of men: mean value over years 2016-2018, z-score
 - access to tertiary education of the working age population (15–64 years old): mean value over years 2016-2018, z-score

⁵ It is important to note that the data used for this typology is from Eurostat's Metropolitan Region Database, where data is provided for a metropolitan area at NUTS 3 level – or a combination of NUTS 3 level data to exceed a minimum of 250,000 inhabitants. Consequently, the data describe the socio-economic trends well for a functional urban area (FUA) when it is large enough and corresponds well to a NUTS 3 level unit. On the other hand, in case of smaller cities, the NUTS 3 level data may have somewhat different characteristics than the city and its FUA. Another limitation of using this database is that many metropolitan areas do not have proper datasets for our indicators and, as a result, data for all metropolitan areas in Germany, France, Poland and Spain are absent from the typology.

- Labour market exclusion index: composite index constructed as the average of the
 - unemployment rate: mean value over years 2016-2018, z-score.
 - inactivity rates of working-age population: mean value over years 2016-2018, z-score

Economic competitiveness:

- Innovation index: composite index constructed as the average of the following two variables:
 - patents per inhabitant: data from year 2012, z-score
 - percentage of scientific and technical employees: mean value over years 2016-2018, z-score
- Productivity:
 - GDP per capita: mean value over years 2016-2018, z-score
- Globalization:
 - share of value added due to financial activities: mean value over years 2016-2018, z-score
- Population change:
 - five-year population change relative to national population change: mean value over years 2016-2018, z-score.

The clustering method used to obtain the groupings was hierarchical clustering with Ward linkage. Ward's method minimizes the total within-cluster variance. At each step, the clustering algorithm merges the pair of clusters that leads to minimum increase in total within-cluster variance after merging.

5.2 Typology

The seven groupings that resulted from the cluster analysis are described as follows:

1. Poorer, less dynamic secondary metropolitan areas in Northern and Western Europe.
2. Poorer, less dynamic secondary metropolitan areas in Eastern and Southern Europe.
3. Richer, more dynamic secondary metropolitan areas in Eastern and Southern Europe.
4. Central and Eastern European capitals.
5. Depressed Southern Italian metropolitan areas.
6. Richer, more dynamic secondary metropolitan areas in Northern and Western Europe.
7. Northern and Western European capitals and satellite metropolitan areas.

The mean values for each of the six main variables for the seven groups are shown in Table 3.

Table 3: Mean values for the variables used in the cluster analysis for each of the seven groups.

Group	Standardized five-year population change relative to country	Standardized share of value added due to financial activities	Standardized GDP per capita	Equity index	Labour market exclusion index	Innovation index
1	-.871	-.112	-.119	.419	-.297	-.141
2	-.786	-.678	-1.022	-.635	.501	-.647
3	.833	-.225	-.348	-.644	-.016	-.408
4	1.679	.353	-.461	.751	-.615	-.055
5	-.174	-.466	-.862	-2.145	2.758	-.755
6	.099	-.355	.909	.460	-.369	1.053
7	.242	2.295	1.508	.881	-.472	.488

It can be observed from these groups that there is a general split between cities situated in the East and South of Europe and cities situated in the North and West of Europe. This is perhaps not surprising considering that Northern and Western European countries tend to be richer than Southern and Eastern ones. Also, this divergence along geographical lines could also be attributed in part to differences between welfare regimes (see Section 4.5.1) and, at least for those cities in Eastern Europe, the legacy of being part of the communist bloc.

The following sections describe each of the groups, as well as listing the cities which comprise them.

5.2.1 Poorer, less dynamic secondary metropolitan areas in Northern and Western Europe

Table 4: Metropolitan areas in Group 1: Poorer, less dynamic secondary metropolitan areas in Northern and Western Europe

City	Country	City	Country
Aalborg	Denmark	Lefkosia	Cyprus
Belfast	UK	Leicester	UK
Cardiff	UK	Liverpool	UK
Cheshire West and Chester	UK	Manchester	UK
Coimbra	Portugal	Middlesbrough	UK
Derby	UK	Newcastle upon Tyne	UK
Doncaster	UK	Odense	Denmark
Enschede	Netherlands	Portsmouth	UK
Exeter	UK	Sheffield	UK
Glasgow	UK	Southampton	UK
Kaunas	Lithuania	Stoke-on-Trent	UK
Kingston upon Hull	UK	Sunderland	UK

Kirklees	UK	Swansea	UK
Leeds	UK		

This grouping mainly comprises medium-sized Northern and Western European cities and metropolitan areas. The majority are located in the UK, with the exception of two Danish cities and one each from Portugal, the Netherlands, Cyprus and Lithuania. These cities are characterized by slightly lower-than-average values of the innovation index, GDP per capita and share of value added due to financial activities, negative values for five-year population change relative to their countries, below average values for the labour market exclusion index, and higher-than-average values for the equity index. The below average social exclusion is due to generally low rates of unemployment and inactivity of the working age population. The higher-than-average equity is due to generally high proportions of the population with tertiary education and small gender gaps in activity. Compared to the two other primarily Western and Northern European groups, the cities and metropolitan areas in this group have much more negative five-year population changes relative to their countries, lower GDP per capita, slightly lower equity index values, slightly higher values of labour market exclusion index values, and lower innovation index values. Of the Northern and Western European cities, these are generally the poorest, least innovative, least equitable and have the greatest labour market exclusion. However, compared to many Southern and Eastern European cities, they are more equitable, more innovative and have lower labour market exclusion.

The concentration of UK cities in this group is interesting, but not necessarily surprising. These cities will most likely have been subject to the same or similar economic policies, had similar experiences during and after the 2008-09 financial crisis, and operate within the same welfare regimes. The lack of cities from other countries indicates that this group is defined by characteristics that are most abundant in UK cities; possibly their peripheral relationship to the capital London and/or the liberal welfare system that exists within them. Another important factor may be that most of these cities are in transition, moving from manufacturing and other industrial sectors to knowledge-based and other service sectors. This may also explain why some of the non-UK cities have been included in this group: Aalborg, Odense and Enschede are also experiencing a transition away from manufacturing and other heavy industries towards service and knowledge-based sectors. Coimbra's inclusion may stem from its comparatively well-established knowledge economy – a consequence of the University of Coimbra – which is much larger than cities of comparable size. The reasons for Kaunas's inclusion are less clear, but the high value for the equity index and low value for the social exclusion index suggest that, despite the very different context, it has produced similar labour market outcomes to many secondary UK and Northern European cities.

5.2.2 Poorer, less dynamic secondary metropolitan areas in Eastern and Southern Europe

Table 5: Metropolitan areas in Group 2: Poorer, less dynamic secondary metropolitan areas in Eastern and Southern Europe

City	Country	City	Country
Athens	Greece	Liège	Belgium
Bradford	UK	Miskolc	Hungary
Brasov	Romania	Ostrava	Czech Republic
Charleroi	Belgium	Pécs	Hungary
Craiova	Romania	Székesfehérvár	Hungary
Debrecen	Hungary	Thessaloniki	Greece
Genoa	Italy	Valletta	Malta
Košice	Slovakia		

This group consists mainly of secondary cities and metropolitan areas in central, Eastern and Southern Europe. However, there are a few notable exceptions: Bradford (UK) and Charleroi and Liège (Belgium). These cities are generally characterized by negative five-year population change relative to their country, below average share of value added due to financial activities, significantly below average GDP per capita, below average equity index values, below average innovativeness and above average scores for the labour market exclusion index. These cities have generally seen declines in their population that are greater or rises that are smaller than has been observed across their countries over the last five years. The below average equity index values are due to slightly larger activity rate gender gaps (all ratios <0.9) and slightly lower proportions with tertiary education. The higher-than-average labour market exclusion index values are mainly because of higher inactivity rates, although in some cities, such as Athens and Thessaloniki, it is also driven by high unemployment rates. The below average values in the innovation index stem from lower-than-average proportions working in scientific or technical employment and very low numbers of patents per inhabitant. Compared to the other groups comprising mainly Eastern and Southern European cities and metropolitan areas, the cities and metropolitan areas in this group tend to have more negative five-year population change relative to their countries, lower shares of value added due to financial activities, lower GDP per capita, average equity index scores, slightly higher labour market exclusion scores, and lower innovation index scores.

The cities in this group are mainly industrial cities or cities that have deindustrialized but have yet to successfully transition towards the service economy. The current or historic reliance on manufacturing and other heavy industries many explain the lower shares of value added due to financial activities and lower scores on the innovation index, as these cities have much smaller financial sectors and fewer advanced scientific or technology companies. The importance of manufacturing and similar industries may also explain the greater gender gap in activity rate, as employment in such sectors is more segmented by gender, and the lower proportion with tertiary education, as the local economy has comparatively more jobs that do not require tertiary education and fewer that do. Unlike those in Groups 3 and 4, the central and Eastern European cities within this group seem to have gained somewhat less from the post-communist liberalization of their countries' economies. Their industrial heritage may

explain this, as these cities have been unable to grow increasingly more-profitable service sectors to help transition away from heavy industry and were hit hard by the economic recession after the fall of communism in the 1990s. The inclusion of the two Greek cities, Athens and Thessaloniki, appears to be less connected to industrial reliance or decline and more to do with the severe economic impact of the 2008-09 recession and the subsequent European debt crisis. Their high unemployment rates have resulted in high values for the social exclusion index, while the severe economic contraction has likely restrained GDP per capita, number of patents per inhabitant and share of value added due to financial activities. It is also interesting to note that in d'Ovidio and Ranci's typology, Thessaloniki is categorized as a "depressed city". Its movement into a group which does not contain the most depressed cities suggests that its competitiveness and social cohesion have improved since 2006, despite the 2008-09 recession. The presence of Valletta is less obvious; however, its values for the labour market exclusion index and share of value added due to financial activities deviate from most other group members, suggesting that it is situated on the periphery of this group. Also, Valletta's highly negative value for the equity index is a consequence of its comparatively high gender gap in activity rate. Meanwhile, the remaining four cities in this group – Genoa, Bradford, Liège and Charleroi – are all current or previously industrial cities. However, unlike the cities in Groups 1, 3 and 6, these cities have, so far it seems, been unable to successfully transition away from industrial sectors towards a service and knowledge-based economy.

5.2.3 Richer, more dynamic secondary metropolitan areas in Eastern and Southern Europe

Table 6: Metropolitan areas in typology Group 3: Richer, more dynamic secondary metropolitan areas in Eastern and Southern Europe

City	Country	City	Country
Bologna	Italy	Plovdiv	Bulgaria
Brescia	Italy	Plzeň	Czech Republic
Brno	Czech Republic	Porto	Portugal
Cluj-Napoca	Romania	Prato	Italy
Florence	Italy	Rome	Italy
Iasi	Romania	Timisoara	Romania
Maribor	Slovenia	Turin	Italy
Milan	Italy	Venice	Italy
Padua	Italy	Verona	Italy
Parma	Italy	West Midlands urban area	UK

The cities within this grouping are mostly secondary cities in central, Eastern and Southern Europe. The one city not located in either central, Eastern or Southern Europe is the West Midlands urban area in the UK. This group is characterized by generally positive five-year population change relative to their countries, slightly below average shares of value added

due to financial activities, slightly lower-than-average GDP per capita, lower-than-average equity index values, average labour market exclusion index values, and lower-than-average innovation index values. The lower-than-average equity index values are primarily a result of comparatively lower proportions of people with tertiary education, although for some cities a relatively high activity rate gender gap is also a factor. The relatively low values for the innovation index are generally due to both relatively low number of patents per inhabitant and proportion in scientific and technical employment, though some cities, such as Bologna, Parma and Milan, are outliers in this regard. Compared to other Southern and Eastern European cities and metropolitan areas, those in this group generally have a more positive five-year population change relative to their countries, average shares of value added due to financial activities, higher GDP per capita, average equity index scores, lower-than-average labour market exclusion index scores, and average innovation index scores. However, compared to most Northern and Western European cities and metropolitan areas, they are less equitable, less innovative and have higher labour market exclusion.

This group is a combination of smaller, but comparatively high-performing Eastern and central European cities and most Northern Italian cities, along with Porto and the West Midlands urban area. The Eastern and central European cities in this group appear to sit above the Eastern and central European cities in Group 2 in terms of wealth and economic performance, but below the Eastern and central European capitals in Group 4. This is likely because these cities have more diverse economies and are more integrated into the global economy than those in Group 2, but not as much as those in Group 4. The Northern Italian cities, despite a very different context, produce surprisingly similar values for the cluster analysis variables. In particular, they have similar five-year population changes relative to their countries (all with either larger population increases or smaller decreases than their respective countries) and have lower-than-average scores on the equity index. For the Eastern and central European cities and metropolitan areas, the positive five-year population change compared with their countries is likely due to migration from rural areas to the cities, whereas for the Northern Italian cities, it is more likely due to migration from poorer Southern Italy and immigration. The equity index values indicate that, in general, the Northern Italian cities lag behind most Western and Northern European cities and metropolitan areas in terms of either activity rate gender gap, the percentage population with tertiary education, or both, and that many Eastern and central European cities have caught up. Of the Northern Italian cities, Milan, Parma and Bologna appear to be slight outliers, on the periphery of Group 3, as they have relatively high values for the innovation index and GDP per capita. It is interesting that Rome, Italy's capital, is in this group rather than with other capital cities. This may be due to the unusual distribution of economic activity in Italy, with comparatively less being concentrated in the capital Rome and more in other Northern Italian cities, especially Milan. Porto also appears to be somewhat an outlier: it has similar GDP per capital and share of value added due to financial activities values to other cities in the group but has a more negative five-year population change relative to its country and higher equity index value than most other group members. It is interesting to note that, in d'Ovidio and Ranci's typology, Porto was classified as a "depressed city". Like

Thessaloniki, its movement out of the “depressed cities” group may indicate that, despite the 2008-09 economic crisis, Porto has improved in terms of its social cohesion and competitiveness. The inclusion of the West Midlands urban area in this group appears to be mainly due to its relatively low score on the equity index and relatively high score on the social exclusion index. Considering its similarities to most other UK cities, it is not obvious as to why the West Midlands urban area has such different variable values.

5.2.4 Central and Eastern European capitals

Table 7: Metropolitan areas in Group 4: Central and Eastern European capitals

City	Country	City	Country
Bratislava	Slovakia	Prague	Czech Republic
Bucharest	Romania	Riga	Latvia
Budapest	Hungary	Tallinn	Estonia
Lisbon	Portugal	Vilnius	Lithuania
Ljubljana	Slovenia		

This group is almost exclusively central and Eastern European capital cities. The one exception is the Portuguese capital Lisbon. The cities and metropolitan areas in this group are characterized by more positive five-year population change relative to their countries, slightly higher-than-average share of value added due to financial activities, lower-than-average GDP per capita, higher-than-average equity index values, lower-than-average labour market exclusion index values, and average innovation index values. Most cities in this group have growing populations, and all are either growing faster than the country in which they are located or shrinking at a slower rate. The higher-than-average equity index scores are generally due to both comparatively small activity rate gender gaps and higher proportions with tertiary education. The higher-than-average share of value added due to financial activities is probably due to the presence of national and region bank headquarters and national stock exchanges. However, there are a few exceptions: Prague, Budapest and Tallinn have higher activity rate gender gaps, while Prague and Lisbon have lower proportions with tertiary education. The below average labour market exclusion index values are generally due to both low unemployment rates (Lisbon is an exception) and slightly lower inactivity rates. Compared to other Eastern European cities and metropolitan areas, those in this group tend to more positive five-year population change relative to their countries, much higher shares of value added due to financial activities, higher GDP per capita (although slightly lower than Group 3), higher equity index values, lower labour market exclusion index values, and higher innovation index scores. Although they are less wealthy than the Western and Northern European cities in Group 1, they are more equitable and have lower labour market exclusion.

It is interesting that all of the cities in this group are capital cities and, apart from one, Lisbon, all are central or Eastern European capitals. This group appears to comprise the most successful cities of the former communist East. Their position as capital cities is likely an

important factor in this success, as many transnational companies have set up national or regional headquarters in these cities, these cities are home to some of the most prestigious higher education institutions in their respective countries, and the presence of the seat of government creates a significant number of well-paid administrative jobs. Lisbon's placement in this group is interesting considering its different economic, social and cultural context. However, the fact that Portugal is relatively poor compared to Western and Northern European countries, has a smaller economy, and was heavily hit by the 2008-09 crisis may explain why it has similar values for the cluster analysis variables as the central and Eastern European capital cities.

5.2.5 Depressed Southern Italian metropolitan areas

Table 8: Metropolitan areas in Group 5: Depressed Southern Italian metropolitan areas

City	Country	City	Country
Bari	Italy	Naples	Italy
Cagliari	Italy	Palermo	Italy
Catania	Italy	Taranto	Italy
Messina	Italy		

All seven cities in this group are located either in Southern mainland Italy or on the islands of Sardinia and Sicily. These cities are characterized as being highly unequal and uncompetitive. This is the most homogeneous of the seven groups and the only group that has an equivalent in the d'Ovidio and Ranci typology. They all have below average shares of value added due to financial activities, below average GDP per capita, significantly lower-than-average values for the equity index, significantly higher-than-average values for the labour market exclusion index and below average scores for the innovation index. While the mean five-year population change relative to their country is slightly negative, some of the cities have negative relative changes and others have positive relative changes. They have high unemployment rates, low percentages with tertiary education, relatively low percentages employed in scientific or technical occupations, very high gender gaps in activity rate and very high inactivity rates (>0.4). Compared to other Southern and Eastern European cities and metropolitan areas, they slightly lower-than-average shares of value added due to financial activities, lower GDP per capita, significantly lower equity index scores, significantly higher labour market exclusion scores, and lower innovation index scores. While they may be wealthier than some Southern and Eastern European cities, they are much less equitable and have much greater labour market exclusion.

While the clustering of Southern and insular Italian cities in the same group is not surprising, it is perhaps unexpected that they form one which is so distinct from all the others. However, this is in line with the findings of d'Ovidio and Ranci (2014). This is driven by the equity and labour market exclusion index scores, which are respectively much lower and higher than the other six groups. It is also very clear that there is a steep divide between Northern and

Southern Italy, although this unsurprising as the economic disadvantage of the *Mezzogiorno* is well-documented. Furthermore, Southern Italy experiences much higher inequality of opportunity than Northern Italy (Checchi and Peragine, 2010), and women experience significantly higher inequality of opportunity than men in the south. This gulf in equality and opportunity between not only Northern Italy, but also the rest of Europe, is likely the result of a comparatively under-developed economy, with lower levels of industrialization and fewer people employed in scientific and technical occupations. Another possible factor is the high importance of family and friendship networks in securing employment, meaning that those with the best networks among employers have better employment prospects. As wealthier families have stronger links with potential employers, those from wealthier backgrounds tend to succeed more in the opaque Southern Italian economy.

5.2.6 Richer, more dynamic secondary metropolitan areas in Northern and Western Europe

Table 9: Metropolitan areas in Group 6: Richer, more dynamic secondary metropolitan areas in Northern and Western Europe

City	Country	City	Country
Aberdeen	UK	Groningen	Netherlands
Antwerp	Belgium	Helsinki	Finland
Aarhus	Denmark	Malmö	Sweden
Arnhem-Nijmegen	Netherlands	Nottingham	UK
Breda	Netherlands	Rotterdam	Netherlands
Bristol	UK	The Hague	Netherlands
Cambridge	UK	Tampere	Finland
Coventry	UK	Tilburg	Netherlands
Eindhoven	Netherlands	Turku	Finland
Ghent	Belgium	Uppsala	Sweden
Gothenburg	Sweden		

This group contains secondary cities in Northern and Western Europe. They are characterized by slightly positive five-year population change relative to their countries, slightly below average shares of value added due to financial activities, higher-than-average GDP per capita, above average values of the equity index, below average values of the labour market exclusion index, and significantly above average values of the innovation index. The high values for the equity index are due to both high proportions of inhabitants with tertiary education and, in most cases, comparatively low gender gaps in the activity rate. The relatively low values for the labour market exclusion index are because of both comparatively low unemployment and inactivity rates. The above average scores for the innovation index are driven by both high proportions working in scientific or technical employment and a high number of patents per inhabitant. Compared to other Northern and Western European cities and metropolitan areas,

they have lower shares of value added due to financial activities, higher GDP per capita, lower equity index scores, average labour market index scores, and much higher innovation index values. These cities are wealthier than those in Southern and Eastern Europe, but they are less equitable and have higher labour market exclusion compared to the central and Eastern European capitals.

These cities can be regarded as well-connected cities with diverse, knowledge-based economies: more competitive and equitable than those in Group 1, but less so than those in Group 7. In most cases, these are the wealthiest cities in Northern and Western Europe apart from the capitals, which make up Group 7.

5.2.7 Northern and Western European capitals and satellite metropolitan areas

Table 10: Metropolitan areas in Group 7: Northern and Western European capitals and satellite metropolitan areas

City	Country	City	Country
Amsterdam	Netherlands	Copenhagen	Denmark
Bournemouth	UK	London	UK
Brighton and Hove	UK	Norwich	UK
Brussels	Belgium	Stockholm	Sweden
Dublin	Ireland	Utrecht	Netherlands
Edinburgh	UK		

This group contains Northern and Western European metropolitan areas. Six of the cities are national capitals (Amsterdam, Brussels, Dublin, London, Copenhagen and Stockholm), one is the capital of a constituent country of the UK (Edinburgh), and the remaining four are smaller satellite cities (Bournemouth, Brighton and Hove, Norwich and Utrecht). These cities generally have slightly positive five-year population growth relative to their countries, much higher-than-average values of the share of value added due to financial activities variable, much higher-than-average values for GDP per capita, above average equity index scores, below average labour market exclusion scores, and above average innovation index scores. The high equity index scores are due to both high percentages with tertiary education and a relatively low activity rate gender gap. The low labour market exclusion index values are due to both low inactivity rates and low unemployment rates. The high innovation index values are due to high patents per inhabitant and high percentages in scientific or technical employment. Compared to all the other cities analyzed, these cities are wealthier, more equitable, have among the lowest labour market exclusion, and are some of the most innovative. The fact that these cities have generally slightly higher labour market exclusion than central and Eastern European capital cities (Group 4) may be because Group 7 cities' economies are more education- and skill-biased than those in Group 4, with fewer opportunities in the labour market for those with lower skills and educational qualifications. It is also interesting that Group 6 cities generally have higher innovation index values than Group 7 cities, although this

may be because the patents per inhabitant and proportion in scientific or technical employment values for the four satellite cities are lower than the others in Group 7.

The inclusion of the Northern and Western European capital cities is unsurprising, as these cities are relatively rich, have strong service sectors and knowledge economies, and are well-integrated into the global economy. The inclusion of the non-capital cities is less obvious at first. However, these cities do have much higher values for the share of value added due to financial activities than other cities of comparable size, both in terms of population and economy. This suggests that finance, and potentially other high value-added sectors, form a much greater proportion of these cities' economies in relation to cities of comparable size. Also, most of these cities have excellent transport links to one of the capital cities in this group: Utrecht to Amsterdam and Bournemouth, Brighton and Hove and Norwich to London.

5.3 Discussion

The cluster analysis has produced some interesting findings. It is interesting to see a general, if imperfect, separation of cities in Northern and Western Europe and cities in Southern and Eastern Europe, with groups 1, 6 and 7 mainly comprising Northern and Western European cities and groups 2, 3, 4 and 5 mainly comprising Southern and Eastern European cities. This broad geographical distinction may be the result of several factors. The general grouping of Eastern European cities is not surprising due to their similar historical contexts and economic trajectories – approximately 50 years of communist government followed by rapid economic liberalization since the early 1990s – resulting in comparable values for GDP per capita, equity, innovation and social exclusion. The presence of Southern European cities alongside Eastern European ones in the same groups may be due to the effects of the 2008-09 economic crisis: values of GDP per capita, equity and innovation have declined and values of exclusion have increased such that Southern and Eastern European cities now have comparable values for most or all of the variables used in the cluster analysis. Another factor which may be significant is that welfare systems in Southern and Eastern Europe tend to be less generous than cities in Northern and Western Europe, which would explain lower scores for the equity index and higher scores for the exclusion index.

Group 5 is especially geographically distinct, containing seven cities either in Southern Italy or on the islands of Sicily and Sardinia. These cities appear to be experiencing a particular set of circumstances unique to Southern Italy. Indeed, they are all experiencing long-term economic depressions which pre-date the 2008-09 crisis. This chronic economic depression is likely due to a combination of high inequality of opportunity, relatively low levels of industrialization and the importance of family and friendship networks in securing employment.

The general grouping of Northern and Western European cities among Groups 1, 6 and 7 is likely because of several factors. Many of these cities have comparatively diverse and high-skill economies, with a relatively high degree of competitiveness, innovation, share of employees in scientific or technical jobs and GDP per capita. Also, welfare systems in Northern and Western Europe, particularly in Scandinavia, tend to be more generous than those in Southern

and Eastern Europe, which would explain the generally higher equity index scores and lower exclusion index scores.

There also appears to be a sorting of cities according to their relative importance within a country's economy. In particular, capital cities tend to be clustered in the better-performing groups: 4, 6 and 7, while smaller cities with less diverse economies located in less-developed regions tend to be clustered in the worse-performing groups: 1, 2 and 5. This is potentially driven by regional economic imbalances, with capital cities better able to develop diverse, well-connected, knowledge-based economies, in part at the expense of more isolated cities dependent on a small number of declining employment sectors. The greater ability of capital cities to develop diverse, high-skill economies is also likely to be a factor.

Comparing the typology set out above with that developed by d'Ovidio and Ranci (2014, p. 52), it is clear that there are many differences between them. The most obvious difference is that our new typology has an additional group to d'Ovidio and Ranci's. Possibly as a result, many of the groups in our new typology do not correspond well to those in d'Ovidio and Ranci's typology. Also, there are substantial differences in the cities that comprise most of the groups. Our new typology appears to show a slightly stronger correlation between competitiveness and social cohesion than in d'Ovidio and Ranci, especially at the extreme ends, with the most competitive metropolitan areas also being the most socially cohesive (Cluster 7) and the least competitive being the least cohesive (Cluster 5).

Figure 7: Visual connection between competitiveness and cohesion with regard to urban clusters

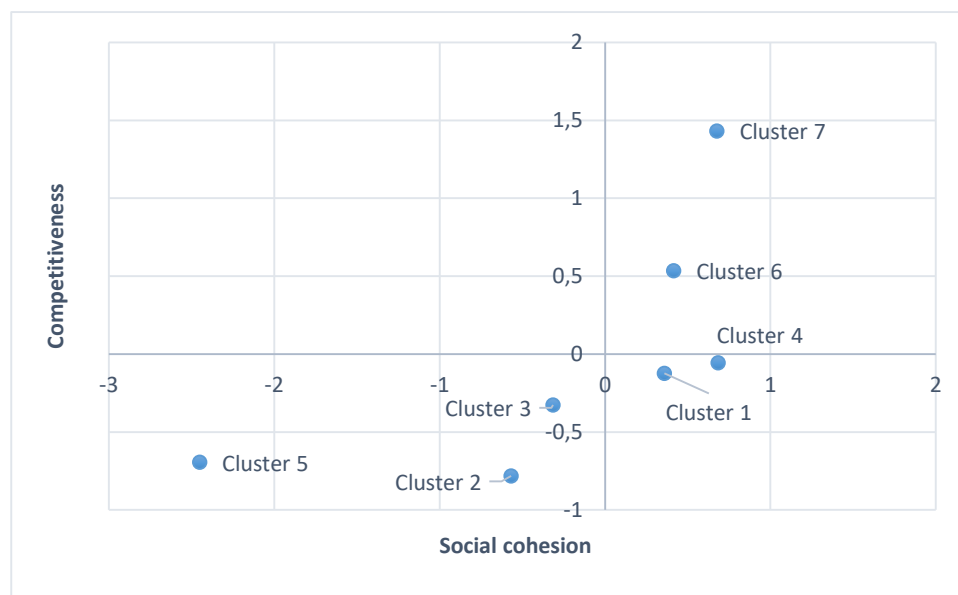


Figure 7 displays an interesting strong connection between the competitiveness situation of a metropolitan area and its state in social cohesion. This results may have some possible explanation, like:

- One possible explanation is that the 2008-09 economic crisis precipitated greater stratification among cities in terms of competitiveness and social cohesion, further sorting them in “winners” and “losers”. One similarity between our typology and that of d’Ovidio and Ranci is the presence of a group of “depressed cities” (Group 5 in our typology, Group 6 in d’Ovidio and Ranci). While Porto and Thessaloniki are no longer considered as “depressed”, our typology still categorizes the Southern Italian cities of Naples, Cagliari, Palermo and Taranto as being such.
- A methodological explanation is that social cohesion is metered by indicators strongly related to the labour market due to the availability of data. Consequently links between competitiveness and labour market opportunities are overweighted.

While the results of the cluster analysis are interesting, it must be acknowledged that there are limitations. The absence of recent data for at least one variable from metropolitan regions in France, Germany, Poland and Spain reduces the diversity of metropolitan regions in the analysis and deprives the analysis of a large number of metropolitan areas located in four of the largest economies in Europe. In particular, all four countries would have contributed a significant number of medium-sized metropolitan areas which would potentially affect the nature and characteristics of Groups 1, 2, 3, 4 and 6. Another limitation is the set of variables used in the analysis. While they closely match those used by d’Ovidio and Ranci (2014), the variables, like those in d’Ovidio and Ranci’s, only cover a narrow definition of inequality; one that is most focused on competitiveness and social cohesion. Variables that would measure inequalities in housing, health and the type of work contracts are not used in the cluster analysis as sufficiently recent data are not available. Also, the metropolitan regions are grouped based on outcomes alone, without reference to context. Therefore, metropolitan regions undergoing different processes and subject to different drivers may coincidentally exhibit the same outcomes in terms of the variables and be clustered together. This may explain some of the outliers in the groups, e.g., Kaunas in Group 1, Athens and Bradford in Group 2, West Midlands Urban Area in Group 3, Lisbon in Group 4 and Bournemouth, Brighton and Hove, Norwich and Utrecht in Group 7.

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