

Enrico Marelli and Marcello Signorelli Young People in Crisis Times: Comparative Evidence and Policies

INTRODUCTION

Youth unemployment is a pathology that bears heavy economic, social and even political consequences. We can here recall three key empirical features: (i) youth unemployment rates (YUR) are generally higher than adult or total unemployment rates (UR); (ii) YUR are more sensitive than UR both to the business cycle, in particular to recessions, and to crisis episodes; (iii) there is great variation across European countries, in terms of both levels and dynamics of YUR.

A first evidence is that, also in normal times, YUR are much higher than UR in many countries. This fact has attracted a number of empirical investigations.¹ A key reason contributing to explain why YUR is higher than UR is that young people, despite possessing, on average, higher educational levels, are endowed with fewer skills, and are less experienced than their older peers. It seems that a key role is played by the educational systems, and the countries (like Germany and Austria) adopting a 'dual system' are able to favour a better school-to-work transition and lower YUR with respect to countries characterised by 'sequential systems' (Caroleo and Pastore 2007; Pastore 2015a).

The second empirical evidence is that, in the past decades, young people have been negatively affected, to a much greater extent, by financial and economic crises. This was found for many countries in the world but the crises' impact seems greater for developed countries; in the last decade it chiefly concerned several Eurozone countries. This is also related to the greater sensitivity of youth unemployment to cyclical conditions. In particular, according to recent empirical studies, there are two characteristics of the Great Recession that have been particularly detrimental to young people: the financial origin of the crisis² and the protracted recessions or stagnation, especially in Europe (e.g. Bruno *et al.* 2014a; Marelli *et al.* 2013; Marelli and Signorelli 2017). In fact, deep or repeated recessions followed by a long stagnation (or insufficient GDP growth) determine a lower average labour demand, particularly detrimental for young people, and favour a higher permanent unemployment as a

result of a gradual transformation of a part of the cyclical unemployment into structural unemployment. So, in the first decade since the beginning of the financial crisis, youth unemployment has rapidly become a major concern of European policymakers.

YOUNG PEOPLE AND THE LABOUR MARKET: COMPARATIVE EMPIRICAL EVIDENCE

First of all, it should be noted that in most countries, youth unemployment refers to individuals aged 15–24 years, although other ages are sometimes considered. In addition, other indicators are often used; for example, the size of the group of youth left behind can be also proxied by the number of young people who are 'neither employed nor in education or training' (NEET).³

In the EU, particularly high YUR have been recorded in different regions: some Mediterranean countries (Spain, Italy, Greece), certain new EU member states (Hungary and Slovakia), but also some Northern countries (where YUR are not very high, but are much higher than UR). After the 2007–2008 financial crisis and the following recessions, the increase in the YUR has generally been larger than the rise in UR, confirming the greater sensitivity to the cycle; furthermore, the average duration of unemployment is also increasing.

Let us look at some recent data concerning youth unemployment and other labour market indicators for all individual EU countries. We now consider both youth unemployment rates and the ratios between such rates (YUR) and total unemployment rates (UR). In 2016 top YUR values (see Table 1) are recorded in Greece (47.3 percent), Spain (44.4 percent), Italy (40.3 percent in 2015), Croatia (31.1 percent), Cyprus (29.1 percent) and Portugal (28.2 percent). The only country exhibiting a YUR well below 10 percent is Germany (7.0 percent).⁴

The worst increases of YUR (in percentage points, p.p.), after the beginning of the crisis (2007) till the last available year (2016), were recorded in Spain (+ 26.3 p.p.),⁵ Greece (+ 24.6 p.p.), Cyprus (+ 18.9 p.p.) and Italy (+ 14.9 p.p.), while the situation further improved in Germany (- 4.8 p.p.). In the last decade, due to the asymmetric effect of the crisis interacting with partly different policies, empirical estimations reveal in the case of YUR both sigma divergence (the degree of dispersion increased) and beta divergence (countries with the worst initial performance further worsened, in general, their outcomes).

³ See O'Higgins (2012) and Scarpetta *et al.* (2010).

⁴ It should be noted that the unemployment rate indicator has some shortcomings, especially due to the difficulty to properly define 'active search for a job' as a necessary condition to be unemployed (versus inactivity or non-participation to the labour market). Another way to measure the weight of youth unemployment is to calculate it for the overall 15–24 population (in substitution of 15–24 labour force); in this case, for example, the rates in 2016 are 7.7 percent as for the EU as a whole and 14.7 percent for Spain, 11.7 percent for Greece and 10.6 percent (2015) for Italy.

⁵ The increase of the YUR in Spain was much larger from 2007 (18.1 percent) to 2013 (55.5 percent), that is 37.4 p.p., in other words the YUR more than tripled in six years; then, the situation improved in the last three years. Notice that 2013 was the worst year – with top YUR values – for many EU countries, subsequently declining at different paces.

¹ See Freeman and Wise (1982); Blanchflower and Freeman (2000); Ryan (2001); O'Higgins (2001); Hammer (2003); Quintini *et al.* (2007); Caroleo and Pastore (2007); Brada *et al.* (2014); Caroleo *et al.* (2017).

² Choudhry *et al.* (2012) showed that financial crises may continue to affect youth unemployment up to five years after their onset.



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Table 1

Total 15–24 Youth Unemployment Rates (on Labour Force)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
European Union (28)	15.9	15.9	20.3	21.4	21.7	23.3	23.7	22.2	20.3	18.7
Euro area	15.6	16.1	20.5	21.1	21.2	23.5	24.4	23.8	22.4	20.9
Belgium	18.8	18.0	21.9	22.4	18.7	19.8	23.7	23.2	22.1	20.1
Bulgaria	14.1	11.9	15.1	21.9	25.0	28.1	28.4	23.8	21.6	17.2
Czech Republic	10.7	9.9	16.6	18.3	18.1	19.5	18.9	15.9	12.6	10.5
Denmark	7.5	8.0	11.8	13.9	14.2	14.1	13.0	12.6	10.8	12.0
Germany	11.8	10.4	11.1	9.8	8.5	8.0	7.8	7.7	7.2	7.0
Estonia	10.1	12.0	27.4	32.9	22.4	20.9	18.7	15.0	13.1	13.4
Ireland	9.1	13.3	24.0	27.6	29.1	30.4	26.8	23.9	20.9	17.2
Greece	22.7	21.9	25.7	33.0	44.7	55.3	58.3	52.4	49.8	47.3
Spain	18.1	24.5	37.7	41.5	46.2	52.9	55.5	53.2	48.3	44.4
France	19.5	19.0	23.6	23.3	22.7	24.4	24.9	24.2	24.7	24.6
Croatia	25.4	23.6	25.4	32.3	36.6	42.2	49.9	44.9	42.3	31.1
Italy	20.4	21.2	25.3	27.9	29.2	35.3	40.0	42.7	40.3	–
Cyprus	10.2	9.0	13.8	16.6	22.4	27.7	38.9	36.0	32.8	29.1
Latvia	10.6	13.6	33.3	36.2	31.0	28.5	23.2	19.6	16.3	17.3
Lithuania	8.4	13.3	29.6	35.7	32.6	26.7	21.9	19.3	16.3	14.5
Luxembourg	15.6	17.3	16.5	15.8	16.4	18.0	16.9	22.3	16.6	19.2
Hungary	18.1	19.5	26.4	26.4	26.0	28.2	26.6	20.4	17.3	12.9
Malta	13.5	11.7	14.5	13.2	13.3	14.1	13.0	11.7	11.8	11.1
Netherlands	9.4	8.6	10.2	11.1	10.0	11.7	13.2	12.7	11.3	10.8
Austria	9.4	8.5	10.7	9.5	8.9	9.4	9.7	10.3	10.6	11.2
Poland	21.6	17.2	20.6	23.7	25.8	26.5	27.3	23.9	20.8	17.7
Portugal	21.4	21.6	25.3	28.2	30.2	38.0	38.1	34.7	32.0	28.2
Romania	19.3	17.6	20.0	22.1	23.9	22.6	23.7	24.0	21.7	20.6
Slovenia	10.1	10.4	13.6	14.7	15.7	20.6	21.6	20.2	16.3	15.2
Slovakia	20.6	19.3	27.6	33.9	33.7	34.0	33.7	29.7	26.5	22.2
Finland	16.5	16.5	21.5	21.4	20.1	19.0	19.9	20.5	22.4	20.1
Sweden	19.2	20.2	25.0	24.8	22.8	23.7	23.6	22.9	20.4	18.9
United Kingdom	14.3	15.0	19.1	19.9	21.3	21.2	20.7	17.0	14.6	13.0
United States	10.5	12.8	17.6	18.4	17.3	16.2	15.5	13.4	11.6	10.4
Japan	7.7	7.3	9.3	9.5	8.3	8.2	6.8	6.2	5.5	5.1

Source: Eurostat.

The relative disadvantage of young people compared to the total population slightly increased in many of the mentioned countries (with high YUR) in the period 2007–2016, as shown by the ratios between YUR and UR (see Table 2). However, in the EU as a whole the ratio remained quite stable, near 2.2. A dire position for young people can be detected, just looking at the final values (2016), in countries such as Romania (3.5), Italy (3.4 in 2015), Poland (2.9), but also Sweden and the United Kingdom (2.7) and Belgium and Czech Republic (2.6).

Thus, a first conclusion is that the relative position of young people is bad in two types of countries: (i) countries where mostly adverse economic (both structural and cyclical) conditions, especially after the recent crises, are reflected in high unemployment rates, UR and even more YUR (countries like Greece, Spain, Italy, etc.); (ii) countries that, despite the generally better economic conditions, are characterised by institutional features that are not particularly favourable to young people (countries like Britain, Sweden, Belgium, Poland, etc.).

It is also interesting to note that, while before the crisis, in 2007–2008, in the EU as a whole the female YUR was slightly higher than the male one,⁶ the crisis mainly reduced the labour demand in sectors with a

traditionally higher presence of male employment (e.g. manufacturing and construction); hence in 2016 YUR of males (19.4 percent) was greater than that for females (17.9 percent). The higher YUR for males is a widespread phenomenon, common to most EU countries (and also to the United States and Japan). The largest difference is recorded in Latvia: 21.4 percent for males vs. 12.1 percent for females. Only in seven EU countries is the female rate appreciably higher than the male one (Croatia, Cyprus, Czech Republic, Greece, Italy, Romania, Slovakia); in two countries the male rate is marginally higher (Poland and Spain) and in Hungary the two rates are the same.

In addition to unemployment, another important labour market indicator is the employment rate. In fact, the EU institutions have included the employment rate in the policy agenda, initially in the Lisbon Strategy of 2000 and more recently in the ‘Europe 2020’ plan, launched in 2010: 75 percent of employment is the target for people of 20–64 years; there is no specific target for young people. Despite huge variations across the EU countries, the employment rates were generally increasing and converging before the crisis (until 2007–2008). Since then there has been a widespread reduction and a new divergence. The variation within the EU is large for youth employment rates (Table 3).

In 2015, the total rate for the 15–24 years age cohort was 33.0 percent in the EU and 30.7 percent in the Euro-

⁶ Detailed tables by gender and short comments are available upon request.

Table 2

Ratios between YUR (15–24) and UR (15–74)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
European Union (28)	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Euro area	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.1
Belgium	2.5	2.6	2.8	2.7	2.6	2.6	2.8	2.7	2.6	2.6
Bulgaria	2.0	2.1	2.2	2.1	2.2	2.3	2.2	2.1	2.3	2.3
Czech Republic	2.0	2.3	2.5	2.5	2.7	2.8	2.7	2.6	2.5	2.6
Denmark	2.0	2.4	2.0	1.9	1.9	1.9	1.9	1.9	1.7	1.9
Germany	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.5	1.6	1.7
Estonia	2.2	2.2	2.0	2.0	1.8	2.1	2.2	2.0	2.1	2.0
Ireland	1.9	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.2	2.2
Greece	2.7	2.8	2.7	2.6	2.5	2.3	2.1	2.0	2.0	2.0
Spain	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.3
France	2.4	2.6	2.6	2.5	2.5	2.5	2.4	2.3	2.4	2.4
Croatia	2.6	2.7	2.7	2.7	2.7	2.7	2.9	2.6	2.6	2.3
Italy	3.3	3.2	3.3	3.3	3.5	3.3	3.3	3.4	3.4	–
Cyprus	2.6	2.4	2.6	2.6	2.8	2.3	2.4	2.2	2.2	2.2
Latvia	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.6	1.8
Lithuania	2.0	2.3	2.1	2.0	2.1	2.0	1.9	1.8	1.8	1.8
Luxembourg	3.7	3.5	3.2	3.4	3.4	3.5	2.9	3.7	2.6	3.0
Hungary	2.4	2.5	2.6	2.4	2.4	2.6	2.6	2.6	2.5	2.5
Malta	2.1	2.0	2.1	1.9	2.1	2.2	2.0	2.0	2.2	2.4
Netherlands	2.2	2.3	2.3	2.2	2.0	2.0	1.8	1.7	1.6	1.8
Austria	1.9	2.1	2.0	2.0	1.9	1.9	1.8	1.8	1.9	1.9
Poland	2.3	2.4	2.5	2.4	2.7	2.6	2.7	2.7	2.8	2.9
Portugal	2.4	2.5	2.4	2.4	2.3	2.4	2.3	2.5	2.5	2.5
Romania	3.0	3.1	3.1	3.2	3.3	3.3	3.3	3.5	3.2	3.5
Slovenia	2.1	2.4	2.3	2.0	1.9	2.3	2.1	2.1	1.8	1.9
Slovakia	1.8	2.0	2.3	2.3	2.5	2.4	2.4	2.3	2.3	2.3
Finland	2.4	2.6	2.6	2.5	2.6	2.5	2.4	2.4	2.4	2.3
Sweden	3.1	3.3	3.0	2.9	2.9	3.0	3.0	2.9	2.8	2.7
United Kingdom	2.7	2.7	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.7
United States	2.3	2.2	1.9	1.9	1.9	2.0	2.1	2.2	2.2	2.1
Japan	2.0	1.8	1.8	1.9	1.8	1.9	1.7	1.7	1.6	1.6

Source: Eurostat.

zone. Much higher values are found in Northern and Central Europe countries: the Netherlands (60.8 percent),⁷ Denmark (55.4 percent), Austria (51.3 percent); in contrast, the lowest figures are recorded in Greece (13.0 percent), Italy (15.6 percent), Spain (17.9 percent), Croatia (19.1 percent). Notice that the average EU youth employment rate in 2015 was more than 4 percentage points (p.p.) below the pre-crisis level. The reduction (2015 vs. 2007) has been huge in Ireland (– 22 p.p.), Spain (– 21 p.p.), Greece (– 11 p.p.), Italy (– 9 p.p.). With reference to NEET rates (Table 4), for the 15–24 cohort the average rate increased slightly from 2007 to 2015 in the EU (from 11.0 percent to 12.0 percent).⁸

In 2015 the best performance is shown by countries such as the Netherlands (4.7 percent), Denmark, Luxembourg and Germany (6.2 percent), while high values are recorded in Italy (21.4 percent), Bulgaria (19.3 percent), Croatia (18.5 percent), Romania (18.1 percent), Greece (17.2 percent) and Spain (15.6 percent); in almost all countries, but Germany, the NEET rates increased with respect to pre-crisis levels. In the age class 25–29 years (not shown in the table), the

NEET rates in 2015 reach top figures as high as 36.2 percent in Greece, 33.5 percent in Italy, 26.5 percent in Bulgaria, 26.0 percent in Spain, 23.2 percent in Croatia and 22.8 percent in Slovakia. These figures testify the waste of human resources that has become a big social problem, especially after the last crises.

A major problem with YUR is that they tend to persist over time. The social implication is dreadful: many studies have shown that the risk of poverty is high when one of the parents is unemployed, and such risk increases with the length of unemployment conditions.

Considering long-term unemployment (longer than 12 months) as a percentage of the labour force (LTYUR), we find very high values for the young cohorts (15–24 and 25–29) and a significant increase during the crisis years (Table 5). In 2015, LTYUR was particularly high in Greece (28.0 percent the total rate for 15–24 years), Italy (22.0 percent), Croatia (20.2 percent), Spain (16.9 percent), Slovakia (14.4 percent) as compared to the average EU figures (6.5 percent). Very low LTYUR for young people are recorded in Denmark (0.9 percent), Sweden (1.2 percent), Germany (1.6 percent), Finland and Austria (1.7 percent each).

Finally, we observe that also when the youth are able to find a job, in many cases this is a temporary, low-quality, poorly remunerated and – in general –

⁷ In this country (and to a smaller extent in some others) the high incidence of part-time work favours the high employment of young people, who frequently are students and workers at the same time.

⁸ A much higher increase was recorded for the age class 25–29 (from 17.2 percent to 19.7 percent).

Table 3

Total Youth Employment Rate (15–24 Years)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
European Union (28)	37.2	37.3	34.8	33.8	33.3	32.5	32.1	32.4	33.0
Euro area (19)	37.5	37.3	34.7	33.3	32.9	31.6	30.9	30.6	30.7
Belgium	27.5	27.4	25.3	25.2	26.0	25.3	23.6	23.2	23.4
Bulgaria	24.5	26.3	24.8	24.3	22.1	21.9	21.2	20.7	20.3
Czech Republic	28.5	28.1	26.5	25.2	24.5	25.2	25.6	27.1	28.4
Denmark	65.3	66.4	62.5	58.1	57.5	55.0	53.7	53.7	55.4
Germany	45.4	46.6	46.0	46.2	47.9	46.6	46.9	46.1	45.3
Estonia	34.1	35.9	28.3	25.3	31.1	32.3	32.4	33.3	36.3
Ireland	51.0	46.2	36.9	31.5	29.5	28.2	29.0	28.4	28.7
Greece	24.0	23.5	22.8	20.1	16.1	13.0	11.8	13.3	13.0
Spain	39.2	36.0	28.0	25.0	22.0	18.4	16.8	16.7	17.9
France	31.2	31.4	30.5	30.1	29.6	28.6	28.4	28.0	27.9
Croatia	27.4	28.0	27.1	24.2	20.6	17.4	14.9	18.3	19.1
Italy	24.5	24.2	21.5	20.2	19.2	18.5	16.3	15.6	15.6
Cyprus	37.4	38.0	34.8	33.8	30.1	28.1	23.5	25.8	25.5
Latvia	38.1	37.0	27.5	25.4	25.8	28.7	30.2	32.5	34.5
Lithuania	24.8	26.0	20.6	18.3	19.0	21.5	24.6	27.6	28.3
Luxembourg	22.5	23.8	26.7	21.2	20.7	21.7	21.9	20.4	29.1
Hungary	21.1	20.2	18.1	18.3	18.0	18.4	20.1	23.5	25.7
Malta	46.8	46.6	44.1	44.2	45.0	43.8	46.0	46.2	45.5
Netherlands	68.4	69.3	68.0	63.0	61.3	61.1	60.1	58.8	60.8
Austria	53.8	54.4	53.1	52.8	53.9	53.7	53.1	52.1	51.3
Poland	25.8	27.3	26.8	26.4	24.9	24.7	24.2	25.8	26.0
Portugal	34.4	34.1	30.8	27.9	26.6	23.0	21.7	22.4	22.8
Romania	24.4	24.8	24.5	24.3	23.4	23.7	22.9	22.5	24.5
Slovenia	37.6	38.4	35.3	34.1	31.5	27.3	26.5	26.8	29.6
Slovakia	27.6	26.2	22.8	20.6	20.0	20.1	20.4	21.8	23.3
Finland	44.6	44.7	39.6	38.8	40.4	41.8	41.5	41.4	40.5
Sweden	42.2	42.2	38.3	38.8	40.9	40.2	41.7	42.8	43.9
United Kingdom	52.6	52.0	47.9	46.8	45.8	46.2	46.3	48.0	50.1

Source: Eurostat.

‘precarious’ job. Despite generally high education levels, social mobility is impaired by the difficulty in finding stable jobs (see Marelli and Signorelli 2016).⁹

YOUTH UNEMPLOYMENT: KEY DETERMINANTS AND FEATURES

The theories concerning youth unemployment are part of the broader theories explaining unemployment in general (see Marelli *et al.* 2013). A first group of causes includes macroeconomic cyclical conditions. Most empirical studies have confirmed the greater cyclical sensitivity of YUR compared to UR,¹⁰ the reasons may be different (lower qualifications, less experience, etc.) but the weaker work contracts, more dominant among young workers than among older workers, are a key explanation. The relative position of young people is worse also with reference to other labour market indicators; Bruno *et al.* (2014b) found that not only the YUR but also the NEET rates are highly sensitive to the cycle.

⁹ Restraints to social mobility also matches with low geographical mobility. It is true that labour mobility of educated people has recently increased across European countries (e.g. young graduates of Southern Europe moving to Germany or Northern countries), but this corresponds to a waste of resources for the sending country.

¹⁰ In fact, in most empirical studies, Okun’s coefficients are found to be higher for young people. See for example Hutengs and Stadtmann (2014) who compute age-cohort and gender-specific Okun coefficients. The absolute value of the Okun coefficient decreases with age, and the highest impact of GDP is detected for the youngest cohort (15–24 years). Furthermore, the YUR of men react more strongly to changes in GDP, because males are predominantly employed in more cyclical sectors than are females.

Also notice that during bad cyclical conditions, the ‘discouraged worker hypothesis’ explains why YUR may not increase immediately, mainly because of temporarily falling participation rates;¹¹ thus they tend to increase only when the recession endures and subsequently they remain high for a long time. In many empirical investigations, YUR turn out to be more persistent (than UR) over time. For example, Caporale and Gil-Alana (2014) found that youth unemployment is highly persistent in all the 15 European countries examined from 1980 to 2005. High persistence of YUR has been discovered also by Bruno *et al.* (2017). Persistence has been found also for other indicators, such as the NEET; however it varies across countries and over time. Bruno *et al.* (2014b) detected, in a disaggregate analysis at the regional level, an increased persistence over the crisis period (2009–2010) but jointly with a lower sensitivity to GDP during the same period; the latter result is driven by the predominance of Continental, mainly German, regions (out of the five regional groups considered) in the estimation sample.

Cultural, social and institutional variables comprise a second group of determinants of YUR. Social variables include the role of the family, ties with parents and barriers to regional mobility. A point to be stressed, however, is that although it is true that in some cases in Mediterranean countries youngsters

¹¹ Young people, in particular, may decide to remain in, or even return to, education during recessions (Kelly *et al.* 2014).

Table 4

NEET Rates (15–24)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
European Union (28)	11.0	10.9	12.4	12.8	12.9	13.2	13.0	12.5	12.0
Euro area	10.8	11.0	12.6	12.8	12.7	13.1	12.9	12.6	12.2
Belgium	11.2	10.1	11.1	10.9	11.8	12.3	12.7	12.0	12.2
Bulgaria	19.1	17.4	19.5	21.0	21.8	21.5	21.6	20.2	19.3
Czech Republic	6.9	6.7	8.5	8.8	8.3	8.9	9.1	8.1	7.5
Denmark	4.3	4.3	5.4	6.0	6.3	6.6	6.0	5.8	6.2
Germany	8.9	8.4	8.8	8.3	7.5	7.1	6.3	6.4	6.2
Estonia	8.9	8.7	14.5	14.0	11.6	12.2	11.3	11.7	10.8
Ireland	10.8	15.0	18.6	19.2	18.8	18.7	16.1	15.2	14.3
Greece	11.3	11.4	12.4	14.8	17.4	20.2	20.4	19.1	17.2
Spain	12.0	14.3	18.1	17.8	18.2	18.6	18.6	17.1	15.6
France	10.7	10.5	12.7	12.7	12.3	12.5	11.2	11.4	12.0
Croatia	12.9	11.6	13.4	15.7	16.2	16.6	19.6	19.3	18.5
Italy	16.1	16.6	17.6	19.0	19.7	21.0	22.2	22.1	21.4
Cyprus	9.0	9.7	9.9	11.7	14.6	16.0	18.7	17.0	15.3
Latvia	11.9	11.8	17.5	17.8	16.0	14.9	13.0	12.0	10.5
Lithuania	7.1	8.8	12.1	13.2	11.8	11.2	11.1	9.9	9.2
Luxembourg	5.7	6.2	5.8	5.1	4.7	5.9	5.0	6.3	6.2
Hungary	11.5	11.5	13.6	12.6	13.2	14.8	15.5	13.6	11.6
Malta	11.5	8.3	9.9	9.5	10.2	10.6	9.9	10.5	10.4
Netherlands	3.5	3.4	4.1	4.3	4.3	4.9	5.6	5.5	4.7
Austria	7.4	7.4	8.2	7.4	7.3	6.8	7.3	7.7	7.5
Poland	10.6	9.0	10.1	10.8	11.5	11.8	12.2	12.0	11.0
Portugal	11.2	10.2	11.2	11.4	12.6	13.9	14.1	12.3	11.3
Romania	13.3	11.6	13.9	16.6	17.5	16.8	17.0	17.0	18.1
Slovenia	6.7	6.5	7.5	7.1	7.1	9.3	9.2	9.4	9.5
Slovakia	12.5	11.1	12.5	14.1	13.8	13.8	13.7	12.8	13.7
Finland	7.0	7.8	9.9	9.0	8.4	8.6	9.3	10.2	10.6
Sweden	7.5	7.8	9.6	7.7	7.5	7.8	7.5	7.2	6.7
United Kingdom	11.9	12.1	13.2	13.6	14.2	13.9	13.2	11.9	11.1

Source: Eurostat.

and even young adults prefer to live with their parents, thus perhaps not actively searching for a job, in many real world situations the opposite is true: it is the impossibility or the low probability of finding a (stable) job that compels young people to live with their parents for a long time.¹²

As for the institutional determinants with particular reference to the labour market institutions, they are relevant for both youth unemployment and unemployment in general.¹³ The common result of empirical studies is that employment protection legislation affects worker turnover and duration of unemployment more than they do the unemployment level; consequently such regulations are more significant for younger than for older people. Nevertheless, some other institutions are relevant for youth unemployment, for instance the education system and the school-to-work transition (STWT) processes (Quintini *et al.* 2007). We have already mentioned the German and Austrian cases regarding the importance of the dual educational system; in fact, a well-organized apprenticeship is probably the best way to reduce the youth experience gap and improve the employability of young people. Another possible

cause of high youth unemployment and low quality employment is the mismatch between the knowledge acquired through formal education and the skills required by the labour market.

At any rate, long unemployment periods are a serious problem, since they not only erode human capital, but also prevent the accumulation of work experience, producing negative effects on lifetime income and career possibilities. Even more worrying, they raise the risk of young people being excluded from the labour market for the long term (Bell and Blanchflower 2011), leading to a ‘lost generation’ of people who never enter the labour market (Scarpetta *et al.* 2010).

CONCLUSIONS AND POLICY IMPLICATIONS

A first consideration is that, in Europe, labour markets have become increasingly ‘flexible’ in the last quarter century, but this was not enough to significantly reduce the unemployment rate that has soared after the severe economic crises. This is worrying, since not only is unemployment a waste of productive resources but, through the loss of human capital, it also dampens long-run growth and also threatens social cohesion. Within the labour market, young workers especially have been injured and the unemployment risk – as we have seen – is persistently higher among the young cohorts.

¹² The decision of unemployed young people to progressively postpone marriage or the decision to leave the parents’ home – not only until the age of 24 but in many cases up to 29 or even 34 years – has negative effects on birth rates too.

¹³ According to OECD (2006), almost two-thirds of non-cyclical unemployment changes over time are explained by changes in such variables.

Table 5

Youth Long Term Unemployment Rates (15–24)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
European Union (28)	4.0	3.5	4.6	6.0	6.5	7.5	8.0	7.8	6.5
Euro area	3.9	3.6	5.0	6.5	6.8	8.0	8.8	9.2	7.9
Belgium	5.6	4.9	5.7	6.7	6.0	5.8	7.3	8.0	7.9
Bulgaria	6.3	5.0	5.2	8.9	12.1	13.8	13.2	11.7	11.1
Czech Republic	3.5	3.1	3.3	5.8	5.3	6.5	6.2	4.4	3.8
Denmark	–	–	–	0.9	1.4	1.3	1.3	1.1	0.9
Germany	3.7	3.0	3.0	2.6	2.0	1.9	1.8	1.8	1.6
Estonia	3.1	2.9	7.0	12.2	8.8	6.2	6.5	4.4	2.0
Ireland	1.9	2.5	6.1	11.5	13.4	14.5	10.9	9.2	7.8
Greece	9.4	7.8	7.9	11.7	18.9	27.1	30.3	31.5	28.0
Spain	1.8	2.5	6.9	12.1	15.0	18.9	21.9	21.5	16.9
France	4.4	4.3	5.8	6.6	6.0	6.5	6.5	7.2	7.0
Croatia	11.6	10.5	11.0	16.0	19.9	23.2	25.3	22.6	20.2
Italy	8.2	8.0	10.1	12.3	13.7	17.3	21.0	25.1	22.0
Cyprus	2.4	–	1.3	2.8	3.9	6.9	12.7	10.7	8.0
Latvia	1.2	1.8	6.9	12.0	10.2	8.9	6.8	4.7	4.4
Lithuania	–	–	5.2	10.8	11.1	6.8	4.4	4.4	–
Luxembourg	–	3.9	–	3.7	3.8	3.6	3.6	–	–
Hungary	6.5	6.2	7.8	10.3	9.3	9.1	8.6	6.7	4.6
Malta	3.7	3.2	4.5	3.9	4.1	4.5	3.2	3.2	3.5
Netherlands	0.7	0.5	0.7	1.0	1.3	1.5	2.2	2.3	2.0
Austria	1.3	1.2	1.4	1.6	1.3	1.4	1.4	1.4	1.7
Poland	7.5	3.8	4.4	4.8	6.8	8.0	8.7	7.4	6.1
Portugal	4.6	4.2	5.4	6.9	8.0	11.7	13.8	12.6	9.9
Romania	9.7	8.1	6.1	7.2	9.5	9.4	9.0	8.7	8.1
Slovenia	3.0	2.1	2.8	4.9	5.5	6.6	8.5	7.6	5.8
Slovakia	11.6	10.0	11.4	18.4	18.2	19.2	20.6	17.0	14.4
Finland	0.9	–	1.0	1.6	1.0	0.9	1.0	1.0	1.7
Sweden	0.7	0.7	1.1	1.7	1.5	1.6	1.5	1.3	1.2
United Kingdom	2.2	2.4	3.6	4.7	5.2	5.8	5.9	4.7	3.2

Source: Eurostat.

To identify appropriate economic policies to deal with this problem, we recall the importance of the linkage between output and unemployment together with the higher sensitivity of youth unemployment to overall macroeconomic conditions. In fact, the great economic shocks occurred in the last decade – the financial crisis with the Great Recession followed by the sovereign debt crisis – as well as the austerity measures imposed by EU institutions, in particular to the Eurozone countries, had a huge impact on youth unemployment. The consequences have been heavier in the peripheral European countries most affected by the crises; those countries had already suffered because of severe structural problems even before, but were disproportionately injured by the crises. The clear conclusion is that, in addition to the needed reforms in the institutional governance of the EU, macroeconomic policies should become more expansionary: not only monetary policy – as already occurred in the most recent years – but also fiscal policies, especially increasing public investment.¹⁴

Provided that YUR have become, over time, persistent, also structural policies are needed, including effective active¹⁵ and passive¹⁶ labour policies. In

addition, adequate school-to-work transition institutions as well as innovative educational, placement and training schemes are fundamental to decrease the number of young people losing effective contact with the labour market, thus permanently damaging their employment prospects. Specific labour market programmes are important to enable youth to acquire the skills and competencies required by the new economic sectors and professional activities. As to the education systems, in addition to a diffusion of the ‘dual system’, policies should facilitate moving students from lower secondary school to intermediate and advanced vocational training and third-level education (while paying attention to the risks of bad matching or over-education).¹⁷

Innovative instruments, suggested by the best European practices, and creative experiments should be adopted by all countries, hopefully with effective support from the EU institutions. These measures could halt the rising ‘intergenerational inequality’ and reduce the large differences in age-specific unemployment rates. In any case, a drop in the huge YUR, especially long term, should be at the first place on the agenda of policymakers, in view of its economic, social and even political costs.

¹⁴ As for the key causes of the Eurozone crisis, the necessary institutional reforms and innovative economic policies, see Marelli and Signorelli (2017).

¹⁵ Whenever possible, active labour market policies should aim at preventing short-term unemployment from becoming structural or long-term. Regarding the recent EU’s experiment with the so-called ‘youth guarantee’, see Pastore (2015b).

¹⁶ Recent proposals have been made to adopt an unemployment insurance scheme at the EU level. This adoption could be a concrete step toward further

integration, precisely to hinder the nationalist and populist movements, partly boosted by the ‘wrong’ economic policies followed by the EU. In any case, the social dimension has been emphasised also in the recent Rome declaration (25 March 2017, the day of the 60th Anniversary of the Treaty of Rome).

¹⁷ See Caroleo and Pastore (2017).

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