

LUISS 

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# A case for a common European Unemployment Benefit Scheme

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# SUMMARY

<b>1. INTRODUCTION</b> .....	<b>7</b>
<b>2. UNEMPLOYMENT AND UNEMPLOYMENT POLICIES</b> .....	<b>13</b>
2.1 STRUCTURAL VS CYCLICAL UNEMPLOYMENT .....	14
2.2 UNEMPLOYMENT POLICIES .....	23
2.2.1 Demand Side Policies .....	23
2.2.1.1 Monetary Policies.....	24
2.2.1.2 Fiscal Policies .....	26
2.2.2 Supply side policies .....	27
2.2.2.1 Active Labor Market Policies (ALMPs) .....	28
2.2.2.2 Employment subsidies.....	30
2.2.2.3 Improving Geographical Mobility .....	32
2.2.2.4 Labor Markets and Wage Flexibility.....	32
<b>3. HISTORICAL TRENDS OF UNEMPLOYMENT: DIFFERENT APPROACHES FOR DIFFERENT COUNTRIES</b> .....	<b>36</b>
3.1 UNEMPLOYMENT IN THE EU, A BRIEF HISTORY .....	36
3.1.1 1970s: The role of shocks .....	39
3.1.2 1980s: Persistence mechanisms .....	42
3.1.3 1990s: Labor Institutions .....	45
3.2 UNEMPLOYMENT BENEFITS SCHEMES IN EUROPE .....	48
3.2.1 Replacement rates.....	49
3.2.2 Benefit duration.....	52

3.2.3 Eligibility .....	53
3.2.4 Coverage rates .....	54
3.2.5 Financing.....	55
3.2.6 Expenditure .....	57
<b>4. A EUROPEAN UNEMPLOYMENT BENEFIT SCHEME.....</b>	<b>59</b>
4.1 THE EUBS AS A STABILIZATION POLICY: MACROECONOMIC RATIONALE .....	60
4.2 STARTING FROM THE 70s, THE IDEA OF A COMMON FUND AGAINST UNEMPLOYMENT.....	66
4.3 IMPLEMENTATION AND CHALLENGES OF THE EUBS .....	68
4.3.1 Genuine vs Equivalent Schemes .....	70
4.3.2 Financing the scheme .....	72
4.3.3 Regular transfers and moral hazard.....	74
4.3.4 Who and how: should every EU member country enter the EUBS? .....	78
4.3.5 The costs of the EUBS.....	79
4.3.6 Stabilization power of the EUBS .....	80

## SUMMARY OF FIGURES

Figure 1. GDP growth in 2020-Q1 .....	8
Figure 2. Effects of shocks on the labor market .....	17
Figure 3. Beveridge Curves for EU27 and EU19 (2006-2019) .....	18
Figure 4. Job Finding Rate for the EU area (2001-2018) .....	19
Figure 5. Job Separation rate for the EU area (2001-2018) .....	19
Figure 6. Beveridge Curves for Germany, Italy, France (2004-2018).....	20
Figure 7. Unemployment rate by skill level for the EU (2005-2018).....	22
Figure 8. Dispersion of the Unemployment Rate across EU countries (2005-2018) .....	22
Figure 9. Impact of an increase in AD on the economy.....	24
Figure 10. Real Wage Unemployment.....	33
Figure 11. Impact of a negative demand shock on unemployment .....	34
Figure 12. EU15 Unemployment rate, since 1960.....	37
Figure 13. EU15 actual and constructed natural rate .....	38
Figure 14. Nominal and real price of crude oil: 2005 dollars .....	39
Figure 15. Rate of Harrods-neutral technological progress, EU5 (1968 onwards) .....	40
Figure 16. Tax wedge, 2000 vs 1960, by country.....	47
Figure 17. Unemployment rates EU27, EA19, seasonally adjusted (2005-2020).....	48
Figure 18. Unemployment insurance gross replacement rates in EU27 member states (2010).....	50
Figure 19. Unemployment insurance net replacement rates in EU27 member states (2010) .....	51
Figure 20. Duration of unemployment insurance benefits in EU27 member states (2010).....	52
Figure 21. Qualifying period for unemployment insurance in EU27 member states (2010).....	54
Figure 22. Unemployment insurance coverage rates in EU27 member states (2010).....	54
Figure 23. Sources of funding for employment insurance in EU27 member states (2010) .....	56
Figure 24. Continuum of EUBS .....	72

Figure 25. Italy's unemployment rate and short-time unemployment rate (1990-2015) ..... 75

## **SUMMARY OF TABLES**

Table 1. Forms of state participation in financing of unemployment insurance in EU27 member states (2010)..... 57

Table 2. Classification based on distribution of short-term unemployment (1990-2014) ..... 69

Table 3. Classification based on distribution of total unemployment (1980-2014) ..... 69

## **LIST OF COMMONLY USED ABBREVIATIONS**

ALMP: Active Labor Market Policy

EC: European Commission

ECB: European Central Bank

EA: Euro Area

EMU: European Monetary Union

EU: European Union

EUBS: European Unemployment Benefit Scheme

OECD: Organization for Economic Cooperation and Development

NUBS: National Unemployment Benefit Scheme

NAWRU: Non-Accelerating Wage Rate of Unemployment

UI: Unemployment Insurance

UR: Unemployment Rate

*“Unemployment is like a headache or a high temperature, unpleasant and exhausting but not carrying in itself any explanation of its cause.”*

William Henry Beveridge, Causes and Cures of Unemployment

## 1. INTRODUCTION

As a result of the Covid-19 pandemic, and the measures used to contain it, the world suffered the sharpest fall in global output since World War II. In the first quarter of 2020, global output (excluding the EU) has contracted by 3.3%. It is projected to lose an additional 0.6% by the end of the year. European economies have suffered even more, with a projected decrease of 8.3% by the end of the year.

**TABLE 1. REAL GDP GROWTH PROJECTIONS**

	2019	2020	2021
Euro Area	1.3	-8.7	6.1
EU	1.5	-8.3	5.8
World (excl. EU)	3.0	-3.9	4.9

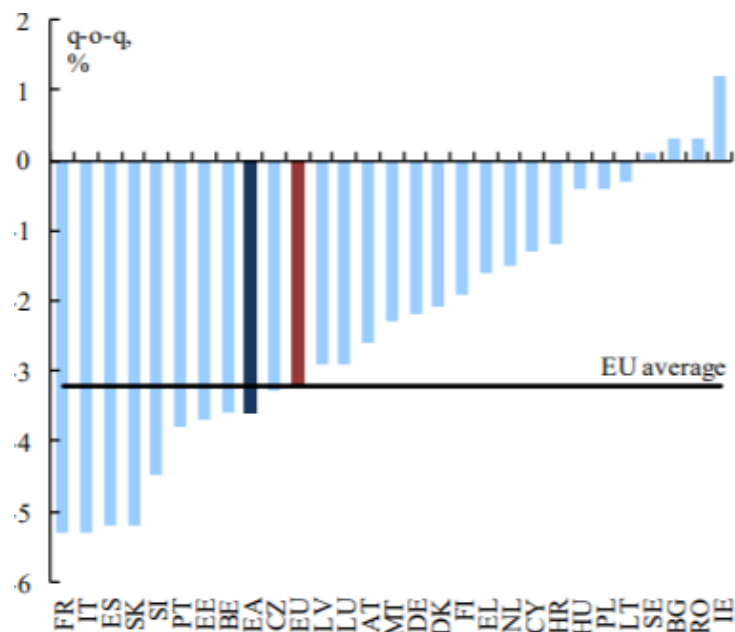
*Source:* European Economic Forecast: Summer 2020 (Interim), re-elaborated

The major containment measures used to fight the virus included voluntarily shutting down large parts of the economy. The European Commission (EC) estimates that the euro area economy has operated between 25% to 30% below its capacity during the stricter confinement periods (from mid-March to the end of May). Just in the first quarter, GDP contracted by 3.6% in the Euro Area (EA) and by 3.2% in the EU. The GDP decline is forecasted to be even more pronounced in the second quarter of the year, at -13.5%. The European economy is projected to start to bounce back in the third quarter of 2020, but the increasing uncertainty about a second wave of the virus makes these predictions highly volatile. In their projections the EC assumed that containment measures will be gradually lifted and that there will be no second wave.

The current pandemic, and the downturn in economic activity that it has caused, puts the economic stability of European countries at great risk. The European economy had just recently started to bounce back from the Great Recession when this new crisis arrived. The previous economic shock had, as widely recognized by the literature, increased the economic imbalances between Member



States. These differences will, with all probability, be widened as a result of the economic effects of the pandemic. This view is shared also by the EC's European Economic Forecast (Summer 2020), which expects the European economy to bounce back, but with bigger and more persistent differences across Member States. In Fig. 1 are presented the GDP growth (negative in this case) rates for EU countries for the first quarter of 2020. While there has been economic disruption almost everywhere, there were significant differences in the magnitude of GDP growth decrease. Among the major economies, Italy, France and Spain suffered above average GDP contractions (around 5%), while Germany (-2.2%) and the Netherlands (-1.5%) suffered smaller hits. The differences in the timing and stringency of lockdown measures adopted in these countries are a contributing factor, as well as the different economic structures and the particular exposure to services reliant on interpersonal contact (i.e. tourism).



**FIGURE 1. GDP GROWTH IN 2020-Q1**

*Source:* European Economic Forecast (Summer 2020), p. 6

The euro area labor market was hit as well by the Covid-19 pandemic, as signaled by the sharp decline in the number of hours worked. Strangely, employment in the EA fell by only 0.2% (0.1% in the EU). This situation is in sharp contrast with the direct link between GDP decline and

employment. However, there are a number of possible explanations for this counterintuitive finding. First of all, extended short-time work schemes (i.e. working remotely) have been put in place to keep employees in their jobs. This did not happen, for example, in the US, which suffered a more substantial drop in employment. However, these schemes will last for a limited time and, despite that they have been extended in many countries, they will not permanently support income and maintain jobs. In the case of a prolonged period of recession, many firms are expected to downsize their activities or even fail, causing a sudden increase in unemployment. Without an increase in demand, which depends also on the easing of the containment measures, it will be hard to sustain an improvement in the labor market. The expected rise in unemployment rates may be particularly difficult to overcome in those states that had a high level of unemployment even before the pandemic hit, where the economic rebound is expected to be sluggish. The EU has implemented a new instrument, the Support to mitigate Unemployment Risk in an Emergency (SURE), to assist Member States in covering the costs directly related to the creation of national short-time work schemes, but its effects are still uncertain.

The second reason why unemployment has not increased substantially in the first quarter might be related to the way in which the unemployment rate is calculated. Many individuals got out of the unemployed number since they stopped actively looking for a job. During the most severe period of the pandemic it was not possible to be available to the labor market. This issue could explain why in some countries, like Italy, the unemployment rate actually decreased between March and April (from 8.0% to 6.3%), before increasing again in May.

The third reason for this behavior is instead related to the legal provisions adopted in many countries. During the pandemic, changes in the legal framework made lay-offs more difficult or impossible. In some cases, companies were explicitly forbidden to lay off employees during the state of emergency, as for example in Italy and Spain.

For all these reasons, a large unemployment shock is expected to happen in the near future. This shock would hit mostly the countries that were already in “bad shape” before the current crisis, widening the imbalances between EU countries.

As for the measures that could be taken to rebalance these differences, there is a growing consensus around the utilization of fiscal stabilizers. This idea was already in the mind of policy makers after the Great Recession, as demonstrated by its inclusion in the Four Presidents’ Report and the Five Presidents’ Report. Now, in the face of this new challenge, many authors urged the highest European spheres to follow through.

As argued by Leipold (2020), the ECB has already explored many of the extraordinary monetary policies options available. Possibly run out of ammunitions to fire, fiscal policies are now the preferred choice. His suggestion is to launch a European unemployment benefit reinsurance scheme, which would help to stimulate flagging economies and provide stability to the whole system. In late 2019, the newly nominated Christine Lagarde addressed this issue in her mission letter to Paolo Gentiloni, the European commissioner for the economy. She wrote: *“You should lead work on the design of a European Unemployment Benefit Reinsurance Scheme to protect our citizens and reduce the pressures on public finances during external shocks [...]”*.

To recap, the European Union (as well as the other parts of the world) has been hit by a major economic shock that could possibly widen the already existent economic imbalances of its members. The unemployment rate is expected to rise in the near future, when the short time working schemes will be lifted and firms will face liquidity problems. Monetary policies are not expected to be powerful enough to offset the negative effects of the crisis, and there is a growing consensus for the need of fiscal automatic stabilizers for the Union. One of the possibilities for the implementation of such mechanism is the creation of a European Unemployment Benefit Scheme. This is the starting point of my work.

My analysis will begin with a brief recollection of the widely recognized components of unemployment, as described by the existent literature. I will present a conceptual framework for dividing unemployment rate moves associated with the fluctuations of economic performances and with inefficiencies in the labor market, the Beveridge Curve. Then, I will present the most adopted policy options used to tackle unemployment, dividing them between policies that deal with the demand for labor and policies that deal with the supply. These will be the topics covered in chapter 1.

In chapter 2 I will try to give a brief recollection of the historical trends of unemployment that happened in the European countries in the last 50 years. This part will be mostly based on the extensive work made by Olivier Blanchard over the years, with the contributions of many other relevant authors. The chapter will be concluded with a summary of the existent unemployment insurance schemes present in Europe at the moment (data vary from 2010 to 2015, but not much has changed). This will open the way for the third chapter, about the creation of a European Unemployment Benefit Scheme.

In the third chapter I will present the extensive work that has been made in recent years by different authors, who simulated various possibilities for a hypothetical EUBS. The different proposals will be classified according to the main characteristic of unemployment benefit schemes: how to finance them, who should be eligible for the benefits, the duration of the benefits and how much would they cost overall. In addition, I will discuss some of the issues specifically related to the EUBS, the difficulties in its harmonization with the existent national unemployment benefit schemes, the possible incentives for moral hazard and for permanent transfers, and the proposed solutions to these problems.

The results of these simulations can be summarized as follows:

- The EUBS can be designed to work as a “genuine” scheme, with a direct relationship between the insured and the fund, or as an “equivalent” scheme, in which case the transfers would be from (and to) the EUBS to (and from) Member States.

- There are several possible sources of revenue to finance the EUBS. Four have been studied by the existent literature. The introduction of a payroll-tax or a corporate tax would be the preferred choices in the case of a genuine scheme. Setting the contributions levels in relation to a percentage of each country GDP would be the option in the case of an equivalent scheme. Financing the EUBS by issuing debt would be more problematic, even if it could increase the stabilization power of the system.
- Harmonization of the national unemployment benefit schemes may be very difficult. The simulations proposed in this analysis vary in the degree of harmonization required. Equivalent schemes would require no harmonization.
- Avoiding permanent transfers and decreasing the risk of moral hazard is one of the crucial aspects to be considered for the EUBS, in order to be politically accepted also by the countries that have low levels of unemployment. The implementation of a trigger, and/or of a claw-back mechanism could do the job. However, this would decrease the stabilization power of the EUBS in case of a prolonged recession.
- The EUBS could involve all EU countries or EA countries. The literature is not clear in this sense, with arguments in favor of both options. Ultimately, the decision may be based on political considerations.
- The EUBS is estimated to cost between 0.3% and 0.85% of EU GDP. This estimation is consistent with the size of other federal unemployment schemes.
- The average stabilization effect of the EUBS is likely to be around 20%. The marginal stabilization effect for countries severely hit by a recession may well over be 20%.

## 2. UNEMPLOYMENT AND UNEMPLOYMENT POLICIES

The aim of the first part of this section is to present and analyze the usual components of unemployment as recognized by the existing literature, in order to give a more exhaustive view on the subject matter. Recognizing the components of unemployment is of crucial importance when designing a policy aimed at diminishing unemployment in a given state.

Separating the cyclical from the structural components of unemployment is the starting point to recognize the supposed magnitude of a given policy, the resistance (or the boost) that a negative (positive) business cycle might have on said policy. A useful tool that is commonly used to discuss the differences between the unemployment caused by a negative business cycle and the one resulting from a poor efficiency of the labor market is the Beveridge Curve. In the first part of this chapter I will use the European Beveridge Curve to further explain the difference between cyclical and structural unemployment, while simultaneously giving some light to the current state of the European job market.

In the second part of this chapter I will then discuss which are the most commonly used forms of social assistance in terms of unemployment, dividing them in two macro-groups (as proposed by the existing literature). In the first group I include the policies that deals with the demand side of the problem, designed to boost demand for jobs by creating more favorable conditions for employers that will thus hire more (working on the cyclical component of unemployment). In the second group, instead, there are the policies that are interested in the supply side, meaning policies that deals with those in search for a job (acting on the structural component).

In the first group we recognize more broadly scoped policies such as:

- Monetary policies: cutting interest rates in order to boost aggregate demand
- Fiscal policies: cutting taxes or higher public spending to boost aggregate demand

Whereas, in the second group, we find more specific policies aimed at increasing the chance of an individual in search of a job to be hired:

- Active Labor Market Policies: Education and Training
- Employment subsidies
- Public sector employment
- Geographical subsidies
- Labor market flexibility (minimum wage and the role of trade unions)

While considering these different policies, it is important to remind that there are often limits to the extent that some of these policies may be implemented by a given state. For example, Euro Area member states are always free to choose which supply side policy they might want, but there are some limitations when we consider demand side policies. Obviously, single states cannot depreciate their exchange rate or use an expansionary monetary policy, being part of a common currency area. Plus, even though fiscal policies (cutting taxes or increasing public spending) can be used by single states, the rules of the game impose more than a few restraints, especially on those states characterized by a high level of public debt.

## 2.1 STRUCTURAL VS CYCLICAL UNEMPLOYMENT

In long-lasting periods of high unemployment, the discussion often concentrates on the differences between the cyclical nature of unemployment and its structural component. Since the cyclical measure is the part that is often identified as the size of potential stimulative policies (Diamond, 2013), the debate revolves around the scope for such policies. An interesting tool, often brought up when discussing the differences between structural and cyclical unemployment, is the Beveridge

Curve. This curve expresses the negative relationship between unemployment and job vacancies as follows (Arpaia et al., 2014):

At any given time, the change in the unemployment rate  $\Delta u_t$  is given by the difference between excessive inflows into unemployment and the outflows out of unemployment (or the inflows into the job force)

$$(1) \Delta u_t = s_t(1 - u_t) - f_t u_t$$

where  $s_t$  represents the job separation rate (inflows into unemployment) and  $f_t$  represents the job-finding rate (outflows out of unemployment). The rate of change of unemployment is zero, meaning that the unemployment rate is steady, when the job separation rate and the job-finding rate are equal. Solving for  $u_t$  we find:

$$(2) u_t^* = s_t / (s_t + f_t)$$

This relationship expressed in (2) is one of the foundations for the Beveridge Curve, expressing the relationship between unemployment, the job separation rate, and the job-finding rate.

The job-finding rate  $f_t$  depends on the existing level of unemployment, the available vacancies, and the efficiency of the matching process. This relationship is often expressed in the literature as a Cobb-Douglas matching function (Blanchard and Diamond, 1989; Petrangolo and Pissarides, 2001):

$$(3) f_t = m(u, v) = \mu_t \theta_t^\alpha$$

where  $\theta_t = v_t / u_t$  is the so called labor market tightness, the ratio between vacancies and unemployment,  $\mu_t$  represents the efficiency of the job matching process and  $0 < \alpha < 1$ . The parameter  $\alpha$  measures how market tightness affects the job-finding rate, i.e. the elasticity of the labor market. Also,  $\mu_t$  expresses the job-finding rate for a given market tightness: the higher the rate at which the unemployed can find a new job for a given market tightness, the higher the “matching efficiency”.

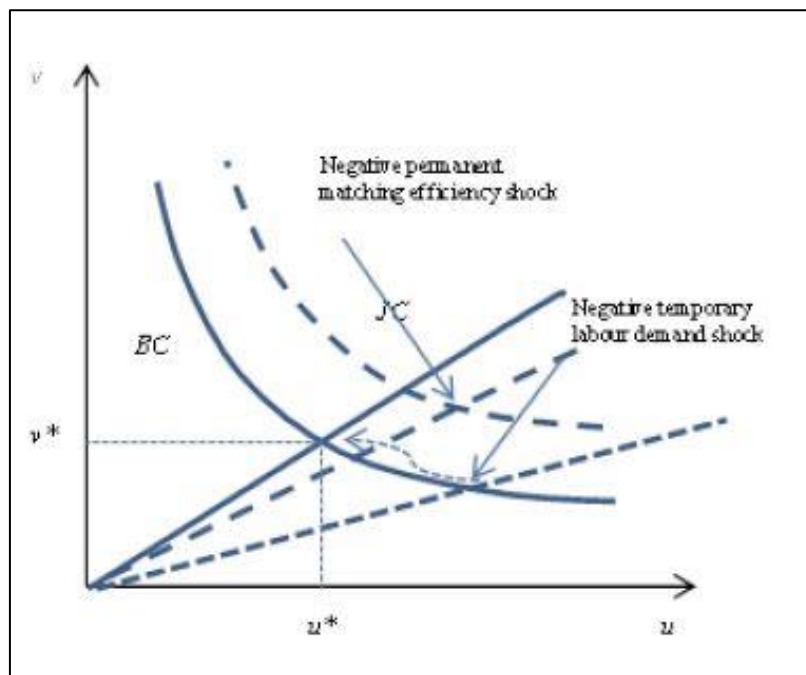


At this stage it is useful to introduce a third component of unemployment, often defined as “frictional unemployment”, which is the temporary unemployment resulting from the imbalances of factors of production or short term lack of mobility preventing continuous employment (Reder, 1969). This concept implies that entering the labor force for the first time, or having to move from a job to another, is not a smooth process but requires time and money spent on job searching. Since this component is neglected in the Beveridge Curve model, it is necessary to consider also that firms have different incentives to post vacancies depending on various factors affecting labor demand. The higher is unemployment, the greater the incentives for firms to post vacancies, as they should be filled in a shorter period of time and at less a cost. Thus, the labor market equilibrium is often described as the intersection between the Beveridge Curve and a positively sloped Job Creation Curve (Fig. 2), that represents the choices made by firms (Arpaia et al., 2014).

Negative (positive) labor supply shocks, lowering (raising) labor demand, shifts the Job Creation Curve downward (upward), thus the unemployment level is higher (lower) and vacancies are lower (higher) along the same Beveridge Curve. These movements along the same curve are related to the fluctuations of the business cycle. In periods of expansion, the job vacancy rate is high and the unemployment rate low. Conversely, in periods of recession, employers are reluctant to hire, thus the job vacancy rate is low and the unemployment rate high. These movements along the Beveridge Curve are linked to the change in incentives for employers to post a vacancy, ultimately related to cyclical fluctuations in the labor demand.

As opposed to movements along the curve, shifts are instead more likely to be linked to a change in the structural nature of the job market, i.e. an increase (decrease) in matching efficiency or in the rate at which existing jobs are destroyed. Take an increase in matching efficiency  $\mu_t$ , this will in turn improve the job finding rate  $f_t$ , as given by the relationship in (2), shifting the Beveridge Curve to the left. A decrease in the job separation rate  $s_t$ , instead, shifts the curve to the right, as for

the same level of vacancies a higher rate of unemployment is needed to equate inflows and outflows.



**FIGURE 2. EFFECTS OF SHOCKS ON THE LABOR MARKET**

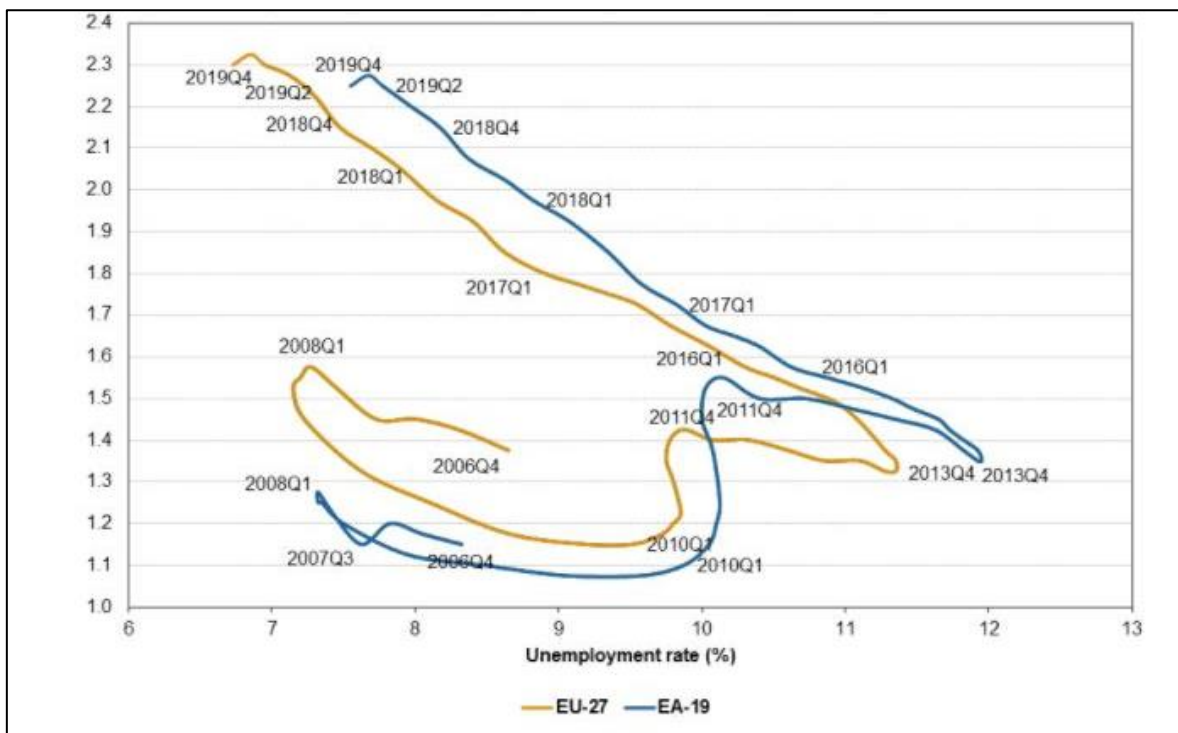
*Source: Arpaia et al., 2014*

Therefore, shifts in the curve are related to changes in matching efficiency and in job separation rates, which depend on the frictions between the compositions of the labor demand and the labor supply, to the institutional and technological aid in matching workers and vacant jobs, and to the institutional and technological changes affecting the rate at which firms lay off workers.

Recognizing a shift in the Beveridge Curve is, however, a difficult task. For example, it is well recognized by the literature that the job vacancies rate reacts faster than the unemployment rate to changes in the economic environment (Blanchard and Diamond, 1989). Also, not all changes in the job separation rate or the job finding rate are structural, some may be the result of some temporary condition, thus dividing temporary shocks from structural movements of the curve may be difficult.

During the economic recession that followed the 2008 financial crisis, a lot of attention have been given by a number of scholars to the relationship between the unemployment rate and the job vacancy rate in the Euro Area (Fig. 3). I will now briefly summarize their findings, both to explain how an analysis starting from a Beveridge Curve can be made, and to introduce an argument which

will be often renewed later in this work, which is the strong differences among the economies that compose the EU.

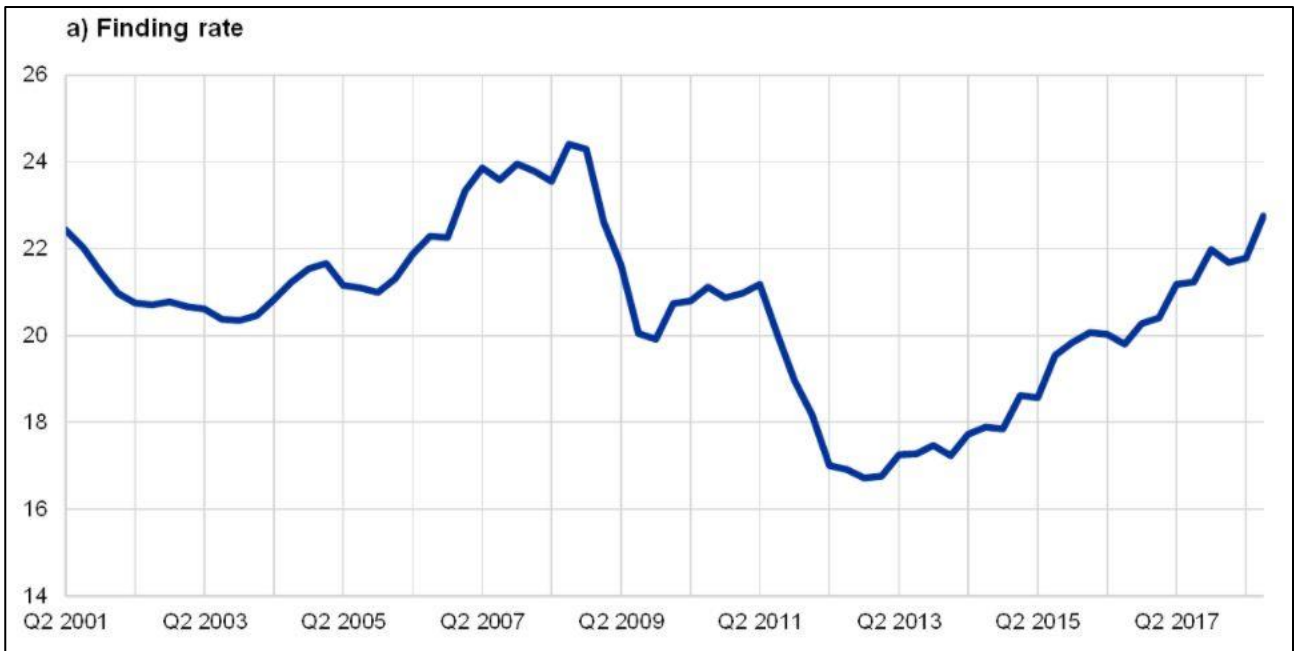


**FIGURE 3. BEVERIDGE CURVES FOR EU27 AND EU19 (2006-2019)**

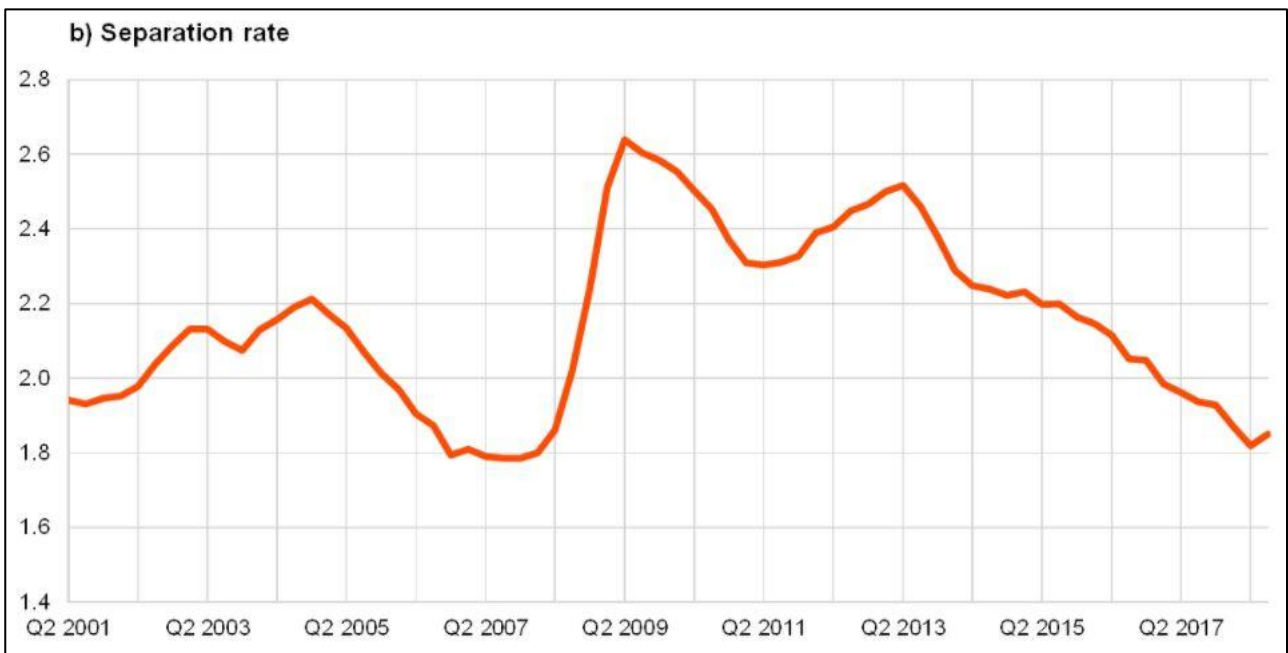
*Source: Eurostat*

The relevant part of this graph is the one from the first quarter of 2010 and the last quarter of 2011. We can see that, starting from 2008, there has been an inversion in the tendency of creating new jobs while reducing unemployment, but as explained before, this could very well be linked to economic fluctuations in the business cycle. In fact, we can see that these movements happened somewhat along the same curve. Starting from 2010, however, it is clearly recognizable a severe shift of the curve to the right, while the job vacancy rate increased the unemployment rate for the Euro Area remained constant around 10%. As stressed before, the underlying motives are hard to grasp, recalling the fact that the job vacancy rate tend to react quicker than the unemployment rate, this shift could be reconciled to this time delay.

In order to investigate the hypothesis of a shift in the European Beveridge Curve, many scholars started to disentangle the components of unemployment that could lead to such a shift, starting from the trends of the job finding and job separation rates (Fig. 4 and Fig. 5) for the EU.



**FIGURE 4. JOB FINDING RATE FOR THE EU AREA (2001-2018)**  
*Source: Eurostat*



**FIGURE 5. JOB SEPARATION RATE FOR THE EU AREA (2001-2018)**  
*Source: Eurostat*

Through this data, we can see that at a European level the job separation rate increased and the job finding rate decreased during the crisis. These findings are consistent with the business cycle fluctuations. However, starting from 2011, at the same time that the Beveridge Curve started to shift, we see that the decrease in the job finding rate was much more pronounced than the increase

in the job separation rate (which even increased during this period). This could very well be one of the main drivers of the shift in the EU Beveridge Curve (Consolo and da Silva, 2019). The weakness in the job finding rate can be explained by lower matching efficiency, less propensity to post vacancies by employers, or both.

The other fundamental dimension to be analyzed in order to investigate the shift in the curve, is the behavior of the single economies that compose the Union. From the data emerges that there has been a strong heterogeneity of responses to the crisis, with some countries that have seen a clear outward shift in their respective Beveridge Curves, and others that remained stable or even had an inward shift, signaling an increased matching efficiency. Here I present the curves for three of the major EU economies: Germany, Italy, and France (Fig. 6).

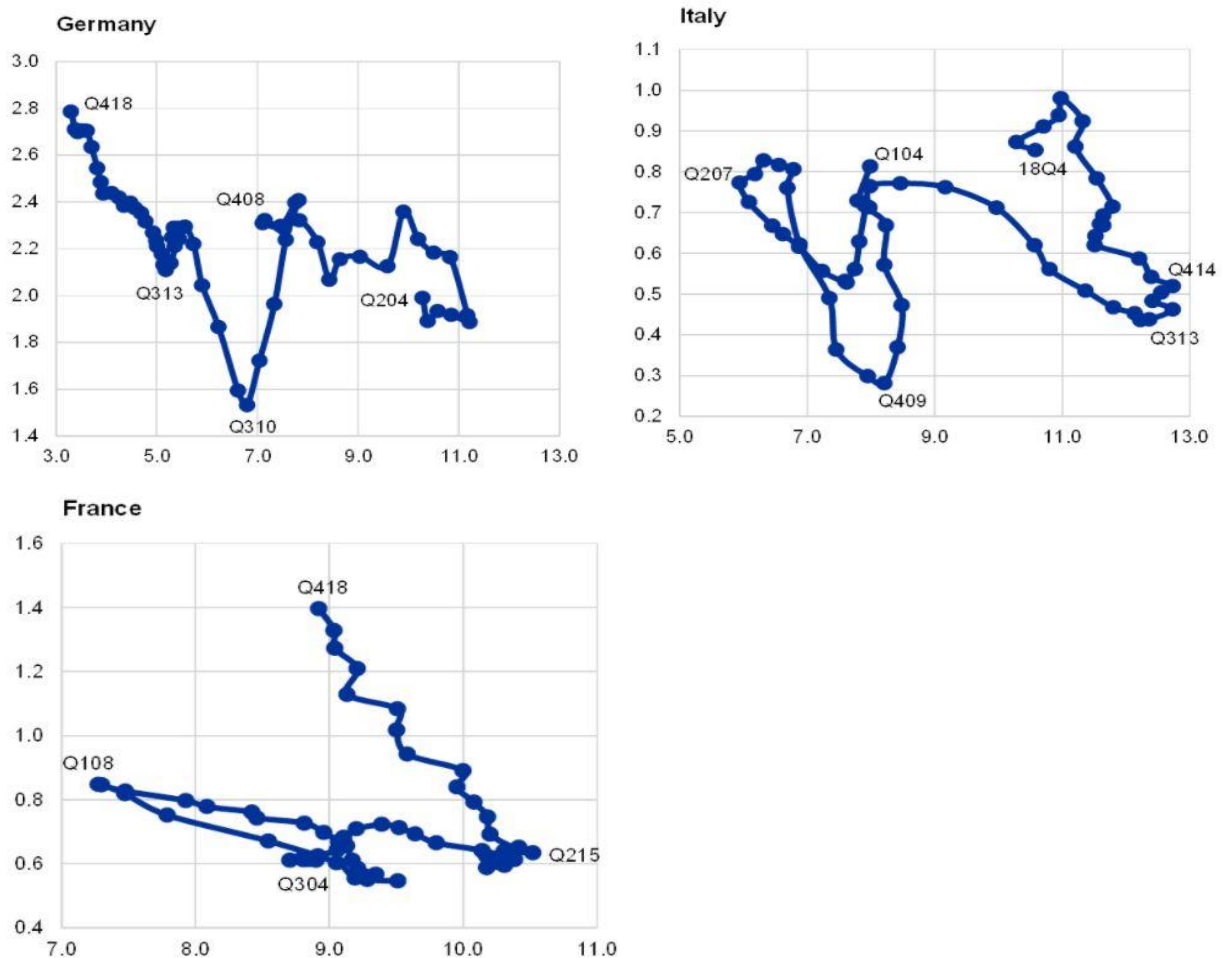


FIGURE 6. BEVERIDGE CURVES FOR GERMANY, ITALY, FRANCE (2004-2018)

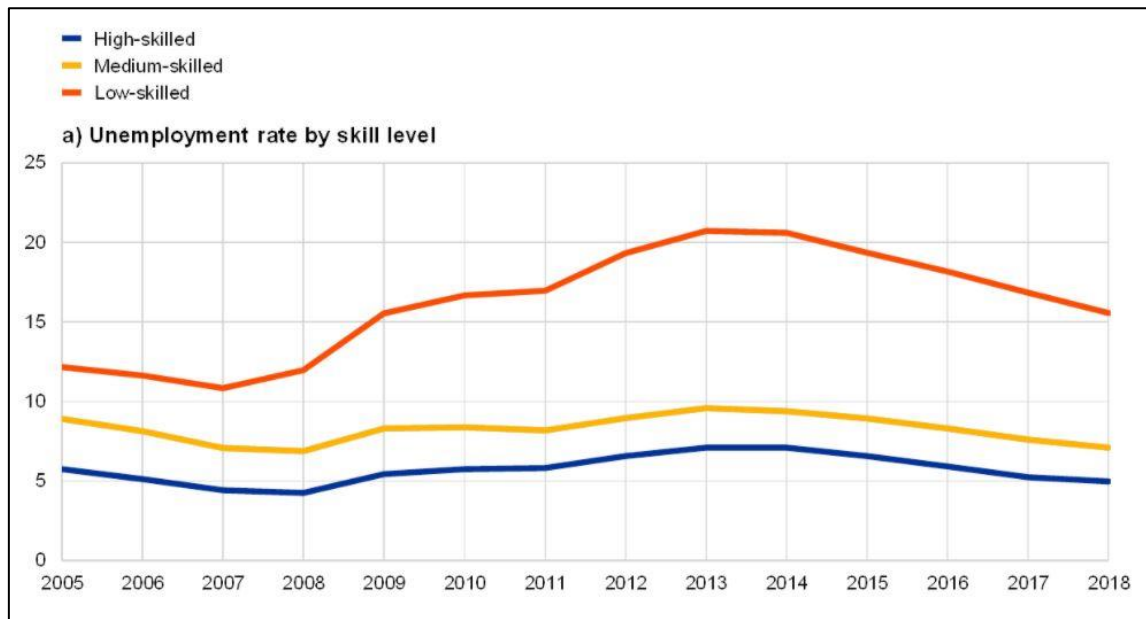
Source: Eurostat

It is quite clear that Germany behaved very differently from the other two countries. These data suggest a considerable degree of heterogeneity in terms of Beveridge curve shifts, supported by recent analysis produced by the European Commission, stating that there are evidence of structural worsening of labor market matching in the euro-area countries mostly hit by the debt crisis, while some others (notably Germany) suggest an improvement in matching efficiency (Arpaia et al., 2014). In order to further investigate the differences in the degree of efficiency of EU countries' labor markets, this analysis move forward to construct various mismatching indicators, to control for mismatches in skill, industry, and regional dimensions. Their findings were:

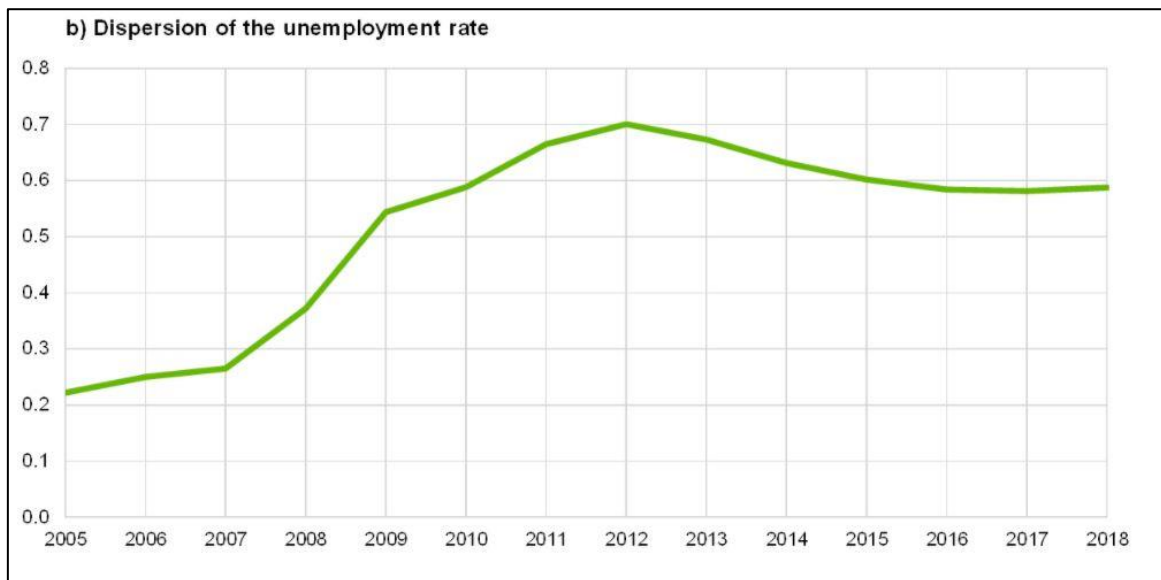
- The skill mismatch worsened in the majority of EU countries with serious unemployment problems. The demand for unskilled labor shrunk further during the crisis, while the labor market for skilled worker became even tighter (with the exception of the Baltics).
- The industry mismatch rose steeply at the outburst of the crisis, with the notable case of construction. However, the degree of mismatch fell quite rapidly after the crisis, corroborating the hypothesis that the changing composition of unemployment in terms of sectors is a largely cyclical and temporary phenomenon.
- The regional mismatch fell in most countries. This behavior has been already observed in previous recessions in advanced economies (Layard et al., 2005), when job losses are more in regions that were providing more jobs and with lower unemployment.

When there is an imbalance between the skill supply and the skill demand of workers (Fig. 7), the unemployment rate and the job vacancy rate tend to rise almost simultaneously, causing an outward shift on the Beveridge curve (Consolo and da Silva, 2019). At the same time, a similar effect on the curve is due to the increase in the dispersion of the unemployment rate across EU countries (see Fig. 8). The situation in the aftermath of the crisis, which was still standing at the outburst of the pandemic, was characterized by areas of high unemployment at the same time as high number of

vacancies in others, which naturally reduces the response of unemployment to an increase in vacancies.



**FIGURE 7. UNEMPLOYMENT RATE BY SKILL LEVEL FOR THE EU (2005-2018)**  
*Source: Eurostat*



**FIGURE 8. DISPERSION OF THE UNEMPLOYMENT RATE ACROSS EU COUNTRIES (2005-2018)**  
*Source: Eurostat*

## 2.2 UNEMPLOYMENT POLICIES

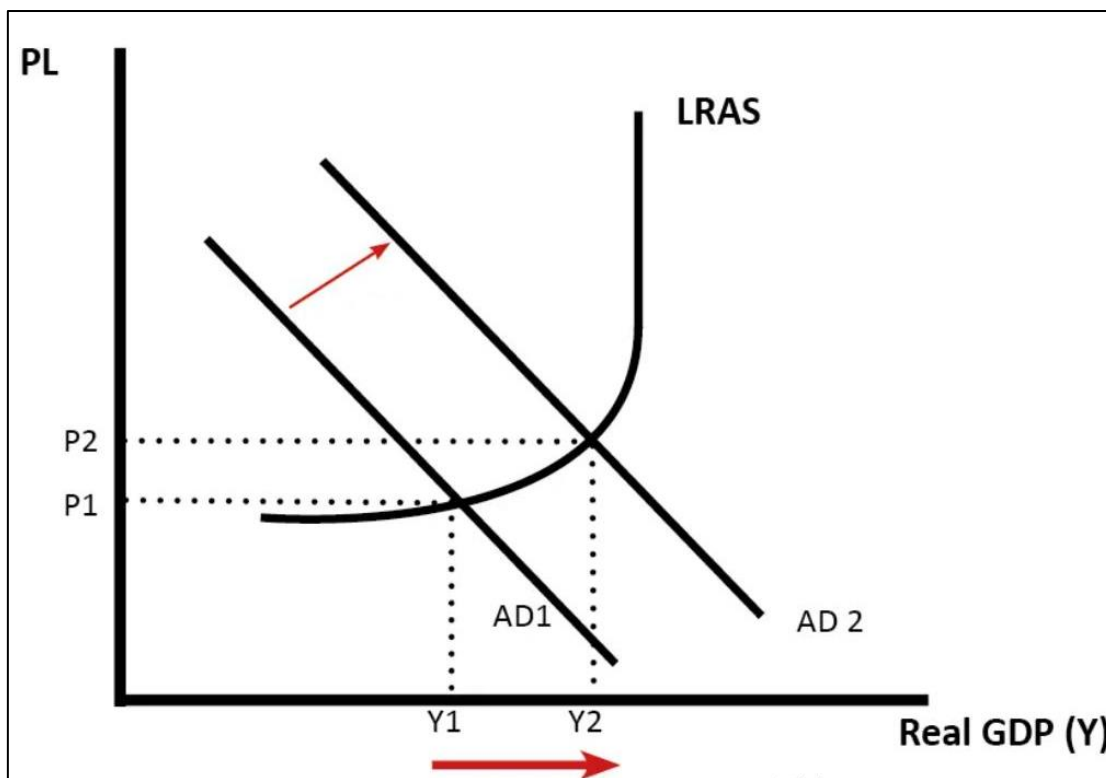
In the final part of this section are presented the pool of unemployment policies that can be chosen by governments, while discussing their differences in terms of focus of the policy, time lag of the response and adaptability, also in relation to the present situation. As mentioned, unemployment policies can be divided into two macro-groups, depending on whether they target the demand or the supply side of the labor market.

### 2.2.1 Demand Side Policies

The first thing about demand side unemployment policies is that they usually imply a considerable change in the economic environment. The Keynesian view is that by changing the underlying macroeconomic conditions, they should be the preferred choice in case of a recession and a consequent rise in cyclical unemployment since they act as a boost for the whole economy. The main objective of this type of policies is to increase aggregate demand (AD), in order to increase productivity, output and, consequently, the need for workers (Fig. 9).

Demand side policies can be divided into monetary policies and fiscal policies. They both work towards an increase in aggregate demand, using different tools. However, they raise some issues, both in the feasibility of the policy depending on the overall macroeconomic situation and in the application and the desired effects.





**FIGURE 9. IMPACT OF AN INCREASE IN AD ON THE ECONOMY**  
*Source: Economicshelp.org*

### 2.2.1.1 Monetary Policies

As mentioned before, the first and foremost effect of an expansionary monetary policy on unemployment is on the actual unemployment, through the mechanism depicted before. Lower interest rates encourage individuals to borrow, to increase their consumption thus increasing aggregate demand. This increase respectively affects output produced, thus requiring firms to hire more workers (if the economy is not at full capacity already).

Interestingly, a stream of literature has been produced suggesting that expansionary monetary policies does not have affect only the actual unemployment rate, but also its natural rate (the long run rate). Real interest rates affect the cost of capital, which in terms affects capital accumulation. The increased in capital stock affects the demand for labor, which ultimately affects unemployment (Blanchard, 2003).

However, the mechanism that leads from lower interest rates to a decrease in unemployment is often complicated and unsure. The increase in aggregate demand, for example, depends on several components other than the interest rate level.

- If confidence in the economy is low, people may very well choose to not borrow money for their investments and keep saving for better times (creating a vicious cycle).
- The time lag in the effect of this type of policy must be considered, some models affirm that the full effect is observable after one year from the introduction of the policy, some after two years, some others go beyond five years.
- If banks are still reluctant to lend, lowering interest rates may be useless in helping an increase in spending.

In some cases, when playing with the interest rate is not enough, central banks can resort to another (extraordinary) monetary tool, which is quantitative easing. This name has been circulating a lot in latest years, as it was implemented massively by the ECB as a response to the economic and financial crisis of 2008. Basically, it aims at increasing economic activity by encouraging bank to lend and fostering investment. The Central Bank introduces large amounts of money in the banking system buying various securities, concentrating on the “risky” ones (often referred as Non-Performing Loans). By doing so, it hopes to encourage banks to lend more easily, stimulate inflation and economic growth.

Monetary policies can, in general, achieve a great impact on unemployment (the cyclical component) by stimulating economic growth. However, their effect can be hindered by other factors, such as individuals’ spending decisions, the time lag needed for the policy to have full effect, the health of the banking system and so on. Furthermore, in the case of Europe, the states that have adopted the single currency cannot adopt monetary policies on their own. The European Central Bank can, and indeed did, intervene on interest rates (the Euro Area interest rate has been lowered to 0 a while ago) but cannot pinpoint the intervention to the specific needs of one state. Quantitative Easing could help a little, by choosing securities concentrated in a specific country,

even though that is not the aim of the program. Interestingly, an optimal monetary policy is often paired in literature with the existence of automatic stabilizers (Blanchard, 2008), that would intervene when in need of a redistributive mechanism across countries, such as Europe. Such automatic stabilizer is, for example, a common European Unemployment Benefit Scheme.

#### *2.2.1.2 Fiscal Policies*

Fiscal policies, as monetary policies, can be used to tackle the cyclical component of unemployment by increasing aggregate demand. As monetary policies, they are often used in times of recession. By lowering taxes (or increasing transfers), the government tries to increase disposable income and therefore consumption, thus increasing aggregate demand. As long as the economy is not at full capacity, the increase in AD causes an increase in real GDP. As firms need to produce more there is a consequent increase in the demand for workers. Using different tools, fiscal policies basically exploit the same mechanism as monetary policies to tackle unemployment. In the same way, they incur in some of the same problems:

- Even if there is a tax-cut, people may prefer to save rather than increase consumer spending if confidence in the economy is low.
- If a tax-cut is perceived just as temporary, with an expected increase in tax, the effect on consumer spending and aggregate demand may be nullified.
- As monetary policies do, fiscal policies may have time lags.
- If the economy is at full capacity, an increase in AD will cause inflation and not affect unemployment.
- Expansionary fiscal policies require higher government spending, which may not be feasible in some cases.

- In the long run, expansionary fiscal policies may cause a “crowding out” effect. The government borrows from the private sector to increase spending, decreasing its ability to invest and canceling the possible effect on aggregate demand.

Fiscal policies cover most of the task performed by monetary policies, however they often result to be much more costly than their counterpart. In the European case they have the advantage that they can be adopted unilaterally by single states, which, however, are often under strict budget rules under the Maastricht Treaty. Countries with high level of debt cannot afford to initiate large expansionary fiscal policies, neither cutting taxes, nor increasing their spending.

### 2.2.2 Supply side policies

With the term supply side policies are intended all those different types of policies that deal with microeconomic issues, seeking to overcome imperfections in the labor market. While demand side policies aim at reducing the cyclical unemployment resulting from a negative business cycle, supply side policies try to act on those components of unemployment related to supply factors. These are usually referred as:

- Structural unemployment, resulting from matching efficiency issues
- Frictional unemployment, resulting from search costs
- Classical (real wage) unemployment, resulting from discrepancies between real wages and the market clearing wage

The advantage of these types of policies is that, when adopted in the right way, they tend to be relatively cheaper and produce long lasting effects. Also, they can be adopted more easily than their demand side counterparts. By seeking to alter a specific microeconomic condition, they can be targeted better and reduce dead weight losses, maximizing the efficiency of the policy and requiring a smaller budget.

In this context, I am going to present the most frequently used types of supply side policies. Technically, every policy that improves the individual eligibility to be employed can be considered a supply side policy for reducing unemployment, but they all roughly fall under these categories:

- Active Labor Market Policies (ALMPs): policies that provide the unemployed the necessary skills to enter the labor force, through education and training
- Employment Subsidies: cash (or in kind) transfers to support the unemployed while he or she is seeking for a job
- Public Sector Employment
- Policies aimed at improving geographical mobility
- Policies aimed at improving the labor market flexibility

The most common issues involved with these types of policies are related to the kind of incentives that they produce for the unemployed. When a policy is too generous in its contributions, they might actually disincentivize the active search of a new job, nullifying its ultimate goal. Fine-tuning a policy to create the right incentives can be a difficult challenge, as it needs to consider various factors, such as the average cost of living, the average wage rate, the existence of a minimum wage and so on. Furthermore, these factors are mostly country specific, which makes the creation of a common policy for a greater area composed of different labor markets, such as Europe, an impossible task.

#### *2.2.2.1 Active Labor Market Policies (ALMPs)*

ALMPs were first introduced in the 1930s, subsequent to the economic and labor market downturn caused by the Great Depression (Nordlund and Greve, 2018). The common belief prior to that was of a self-regulating market that would in time return to normal levels, without the need for public intervention. Appearing at first in the Scandinavian countries, ALMPs were then adopted everywhere in Europe, followed by the US, as a result of the sharp increase in unemployment in

OECD countries, characterized by an increase in long-term unemployment spells (Kluve et al., 2007).

ALMPs are used to counteract labor shortages on a macroeconomic level, while, on an individual level, help the unemployed to maintain or increase their human capital, improving their possibility to enter the labor market. There are several types of ALMPs around the world, shaped by the specific country that adopted them.

Public employment service and administration policies aim at increasing the matching process by offering coaching and other types of job-search activities to the unemployed. They try to smooth the exchange of information between employers and the potential employee. At the same time, in order to incentivize the active search for employment, an administrative body is delegated to oversee the job-search behavior of the unemployed, which can have his or hers benefits taken away if deemed insufficiently active. These types of policies affect the structural component of unemployment, by improving the matching process, but also the frictional component resulting from the costs (both in monetary and time-consuming terms) of job-searching.

Training activities focus on the actual skill development of the participant, through classroom education, training at the workplace and special support for apprenticeships. The ultimate goal is to enhance the human capital of the unemployed, improving their employability and productivity. They are most useful when they focus on the training of the low-skilled, to compensate for the general decrease in low-skill labor demand that is an ongoing process in developed countries. These activities can affect structural unemployment, contributing to match the demand for workers and their supply of skills.

Apart from these types of policies/activities, which focus on an increase in human capital, whether in the actual job-activities or in the job-seeking process, other programs are directed towards employment incentives. They can be policies that give subsidies to regular employment, support job-creation within the public sector or give support to unemployed people in the creation of their

own business. Under this umbrella also fall the measures that support employment and rehabilitation directed at youth and people with disabilities, at risk of marginalization.

Evaluating the impact of ALMPs is naturally important, both for the useful information that can be extracted in order to create more effective policies, and also because they still require a considerable expenditure for the state. First of all, the benefits that ALMPs have on a macro- and on a micro-economic level often overlap, and sometimes can also be conflicting. For example, a training program that pushes individual to accept the first job available reduces the unemployment rate, in a macroeconomic perspective, but increases enormously the risk of individual misplacement on the labor market. An individual might have waited for the first suitable job, the job where the human capital acquired in training could be effectively put into use, rather than the first available job. Also, since participation in these types of programs constitute an alternative way of entering the labor market, there is no actual counterfactual, i.e. had the unemployed tried to enter the labor market alone. The actual effect of the participation in an ALMP is therefore hard to estimate. The dimension in which ALMP create an alternative way of entering the labor market could even create a negative lock-in effect, when participants in the program miss out the opportunities presented by the regular labor market that could be more suitable to them. Lastly, it needs to be considered that the heterogeneity of the participants in the programs affects the heterogeneity in the outcomes. Age, sex, and level of education are all factors that contribute to create different labor market sectors, that might respond differently to the same program (Hammer, 1997).

Overall, when all the issues raised above are taken into consideration, research indicates that ALMPs may possibly delay labor market entry to some extent but have the power to increase human capital and often have positive individual effects.

#### *2.2.2.2 Employment subsidies*

Employment subsidies (or wage subsidies) fall under the broader category of Active Labor Market Programs. However, they work a bit differently, acting also on the demand side of the labor market.

An employment subsidy is defined as any transfer from the government to employers or workers aimed to reduce the cost of labor for employers and increase take-home pay for workers (ILO and World Bank, 2012).

They act on the labor supply by increasing jobs opportunities for those who would have not found a job if “left to the market” and increasing human capital through on-the-job learning. Facilitating the access to jobs to disadvantaged groups of jobseekers (youth, long-term unemployed who have seen their human capital deteriorate, people with disability, older workers) they correct labor supply side market failures. Instead, they act on the labor demand by subsidizing a part of the labor cost for firms. Stimulating labor demand where is slow (an economic sector or a geographic region) and intervening during economic recessions, they can correct market failures on the demand side.

Their main disadvantage is that they create losses due to two particular effects. The so called windfall effect, when part of the subsidies go to workers who would have been hired anyways, and the substitution effect, when subsidized workers replace non-subsidized workers because they become cheaper to employ (Honorati and Posadas, 2019). However, if workers are able to learn from the job and acquire skills that can be used in future employments (these kinds of programs are always transitory policies), the social costs are balanced by the benefits produced.

The subsidy can be paid either to the employer or the worker, depending on factors like elasticities of labor supply and demand. There usually are eligibility criteria, either related to the individual entitled to the employment subsidy (length of unemployment, age, gender, income level, level of education and skills) or related to the firm who employs the subsidized workers (whether it is in financial distress, it is part of a targeted economic sector, its size or if it carries its activities in a selected geographical region). Then, there must be an administrative body in charge of supervising the fairness and transparency of the process, which increases the costs of the program.

Wage subsidies have mixed results. There are many implementational challenges and, by the nature of the programs, the results are often short-term. It is also very difficult to measure substitution effects and death weight losses, which are fundamental to grasp the full magnitude of the possible



positive effect of these programs. The evaluation of several wage subsidies programs in the US tends in this direction, the effects of the program vary according to its recipients, suggesting that the combination of wage subsidies with training and job development are modestly effective in improving the earnings and employment of disadvantaged adults, not so much on the youth (Katz, 1996).

#### *2.2.2.3 Improving Geographical Mobility*

Unemployment is often concentrated in certain regions, due to a lack of vacancies, a workforce mainly composed by unskilled-workers, or other specific reasons. The government could choose to adopt an employment subsidy program that concentrate on these regions, either giving tax breaks to the firms choosing to operate in depressed areas, or providing financial assistance to the unemployed workers of those regions who choose to move towards areas of higher employment (i.e. helping workers move from the countryside to the big cities subsidizing their rents).

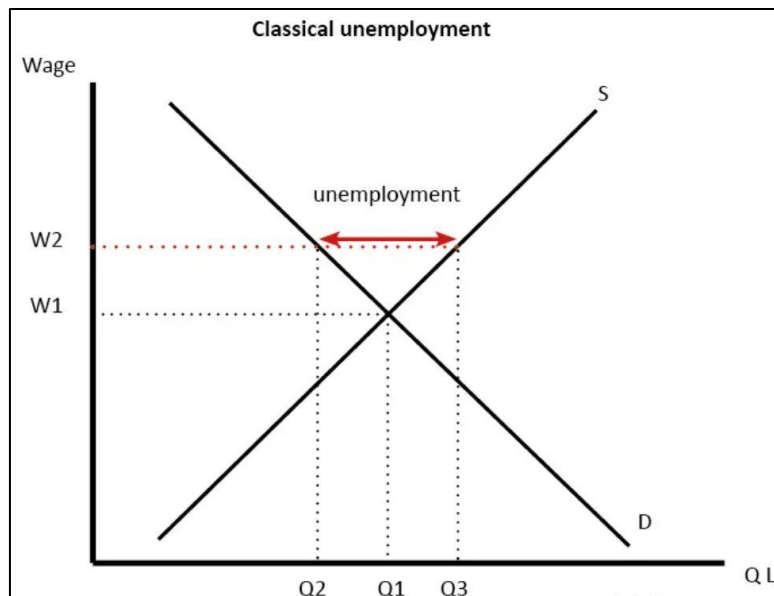
This type of subsidy is particularly relevant in the European case, as workforce mobility is one of the pillars in counteracting negative asymmetric shocks inside a monetary union. Workers move from low-wage towards high-wage areas, pressuring down the wage level until an equilibrium is reached. However, the problems resulting from geographical mobility cannot be solved only through subsidies, especially if the mobility required is between countries with cultural differences important as in the European case. This topic will be analyzed more in depth in the next chapter, together with a brief history of unemployment trends in Europe.

#### *2.2.2.4 Labor Markets and Wage Flexibility*

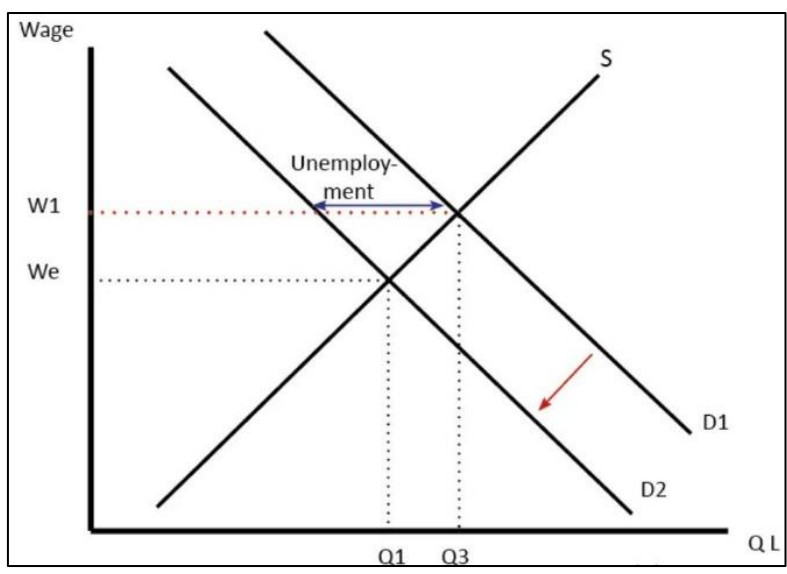
Often, after a recession and a consequent fall in employment levels, questions are raised about the flexibility of the labor market, the firms' ability to substitute workers and the effectiveness of wages

to react to the change in the economic conditions. Many of the answers to these questions depend on the institutional framework in which the labor market operates and on the relative weight of trade unions in the wage bargaining.

In theory, when wages are set above the equilibrium level, they cause the supply of labor to be in excess with respect to the demand (Fig. 10). If unions can bargain for wages above the market clearing level, they will cause real wage (or classical) unemployment. This means that a fall in demand for labor due to a demand-side shock, like the one that hit Europe after the crisis, could cause unemployment if wages are kept at their older level (Fig. 11).



**FIGURE 10. REAL WAGE UNEMPLOYMENT**  
*Source: Economicshelp.org*



**FIGURE 11. IMPACT OF A NEGATIVE DEMAND SHOCK ON UNEMPLOYMENT**  
*Source: Economicshelp.org*

If labor markets are more flexible, wages fall from  $W1$  to  $We$  and equilibrium is restored, still losing some but avoiding a bigger impact on unemployment. However, cutting wages during a recession might have some other negative effects. First of all, a cut in wage has the straightforward effect of a decrease in consumption because of the loss in disposable income. As mentioned before, when demand side policies were being described, during a recession it is useful to try to boost aggregate demand, not to decrease it. Lower AD causes lower economic growth and thus decreases labor demand even further. Secondly, the assumption behind this classical economic theory is that labor markets are perfectly competitive. In the real world, where monopsonist labor markets exist, cutting wages may not boost demand for labor.

The relationship between wages and unemployment and the role of trade unions are especially important in a common currency area like the Euro Area. Since a competitive devaluation (devaluing the currency) is not possible, there are not that many solutions to a negative asymmetric shock. If labor mobility is scarce, wage flexibility is low, and the power to operate large expansionary policies is hindered by high level of debt, the only option is an automatic mechanism of stabilization across member states.

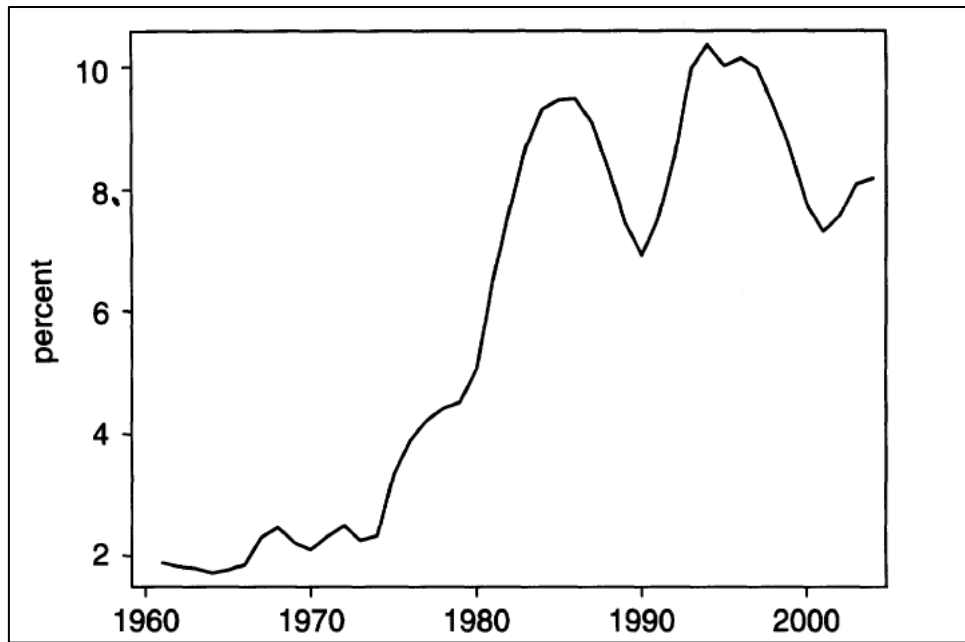
At this point I have presented the most important features in unemployment theory. I have analyzed the possible causes both at the macro- and the micro-level, discussed the different components of unemployment and finally I have reported the most common policies used to tackle these issues. The level of unemployment is affected both by the general state of the economy, negative business cycles decreasing the demand for labor, and by micro-issues that affect individual's possibilities to be hired. The relationship between unemployment and vacancies given by the Beveridge Curve can be used to investigate the healthiness of a given labor market and to infer whether a rise (or a fall) in the unemployment rate is mainly due a turn in the economy (affecting the actual rate of unemployment) or to a decrease in matching efficiency (affecting the natural rate). Thus, different policies are (or should be) designed according to the different component of unemployment to be tackled in the specific situation.

### **3. HISTORICAL TRENDS OF UNEMPLOYMENT: DIFFERENT APPROACHES FOR DIFFERENT COUNTRIES**

While supply side factors always constitute a relevant part of the problem, it is now time to set them aside for a moment. In this chapter I will concentrate on the European history of unemployment, the macro-tendencies underlying it and the different stream of ideas and theories that through the last five or six decades have constituted the unemployment theory's framework. In the first part of the chapter I will focus on the historical tendencies of unemployment in Europe since the 1960s and the evolution of ideas trying to explain those tendencies. This part is mainly based on the works by Olivier Blanchard and Christopher Pissarides, who have studied the notion of European unemployment in great depth. In the second part I will instead focus on the current situation, the issues that separate the European experience from the others, and on the different unemployment benefit schemes put in place by its member states.

#### **3.1 UNEMPLOYMENT IN THE EU, A BRIEF HISTORY**

European economies managed to recover from the destructions of World War II, the need for workers both in the agricultural and in the industrial sectors helped the unemployment rate to remain very low throughout the 1950s and the 1960s. Figure 12 shows the evolution for the unemployment rate in the EU15 countries since the 1960s until 2005. The low level of unemployment that characterized the second postwar period was succeeded by a steady rise in unemployment, started from the end of the 1960s.



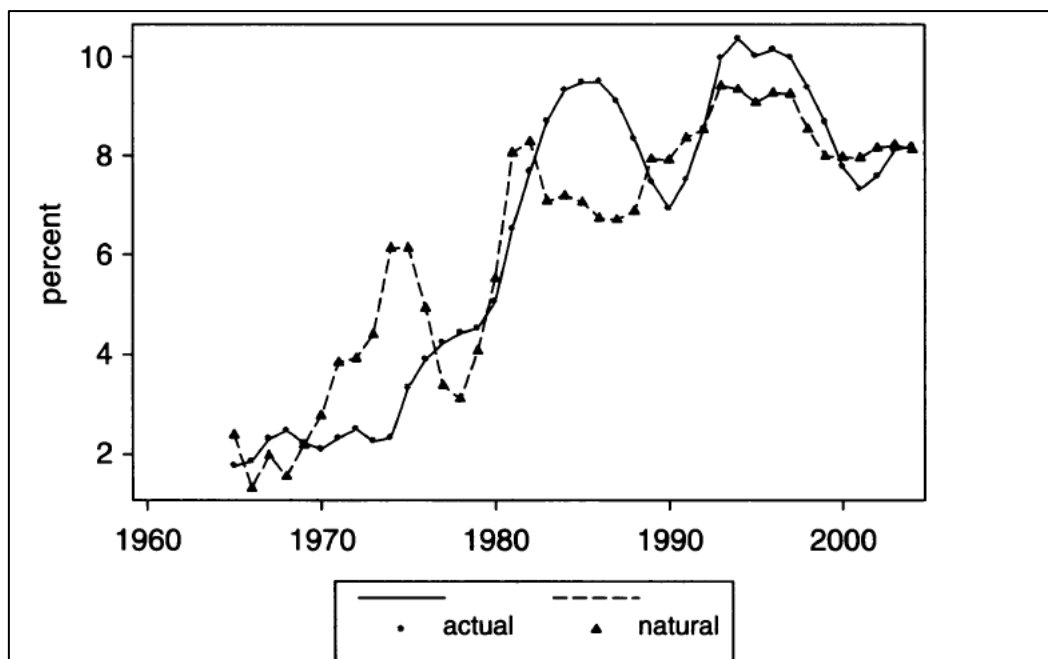
**FIGURE 12. EU15 UNEMPLOYMENT RATE, SINCE 1960**  
*Source: Blanchard, O., Bean C. and Munchau, W. (2006), p.9*

Since the 1980s, when the unemployment rate for EU15 countries went beyond 8% (from the 2% level of the early 1960s) there has been a rough plateau, characterized by cyclical declines and increases. The first relevant question to be asked when presented with this figure, is how much of the sharp increase in the unemployment rate is due to an increase in the natural rate and how much to an increase of the actual rate over the natural rate (meaning how much is due to labor market imperfections and how much to the alternation of positive and negative business cycles).

To try and answer this question it can be useful to resort to one of the most known equations in the macroeconomic field, the one between Unemployment rate and Inflation presented by the Phillips Curve. The basic intuition behind this theory is that unemployment and inflation are in a stable and inverse relationship. Inflation is associated with economic growth, which in turn should lead to more jobs available and less unemployment. This relationship has been challenged in the 1970s, when a moment of so called “stagflation” (high unemployment and high inflation) was observed. Since then, it has been revisited to account for the differences between natural and actual rates of unemployment and it is still very used in macroeconomic policies design.

Returning to my first question, how much of the increase in the unemployment rate was due to an increase in the natural rate, when we consider that inflation has remained fairly stable at 2% from 2000 to the outburst of the economic crisis, we can assume that the EU15 actual unemployment rate in that period was close to the natural rate. It follows that the increase since 1970 reflects mainly an increase in the natural rate (Blanchard, 2006). Furthermore, if we are willing to assume that when unemployment is below the natural rate, inflation will tend to increase and vice versa, then it is possible to obtain a time series for the natural rate using the rate of change in inflation and the actual rate (Fig. 13).

This figure suggests that the natural rate of unemployment increased enormously in the 1970s and then again in the early 1980s, remaining fairly stable ever since. These two spikes coincide with the expansionary monetary policies adopted as a response to the oil crisis of the early 1970s. I will now begin to present the main macroeconomics conditions that shaped this period and the evolution of ideas behind unemployment that followed these events.



**FIGURE 13. EU15 ACTUAL AND CONSTRUCTED NATURAL RATE**

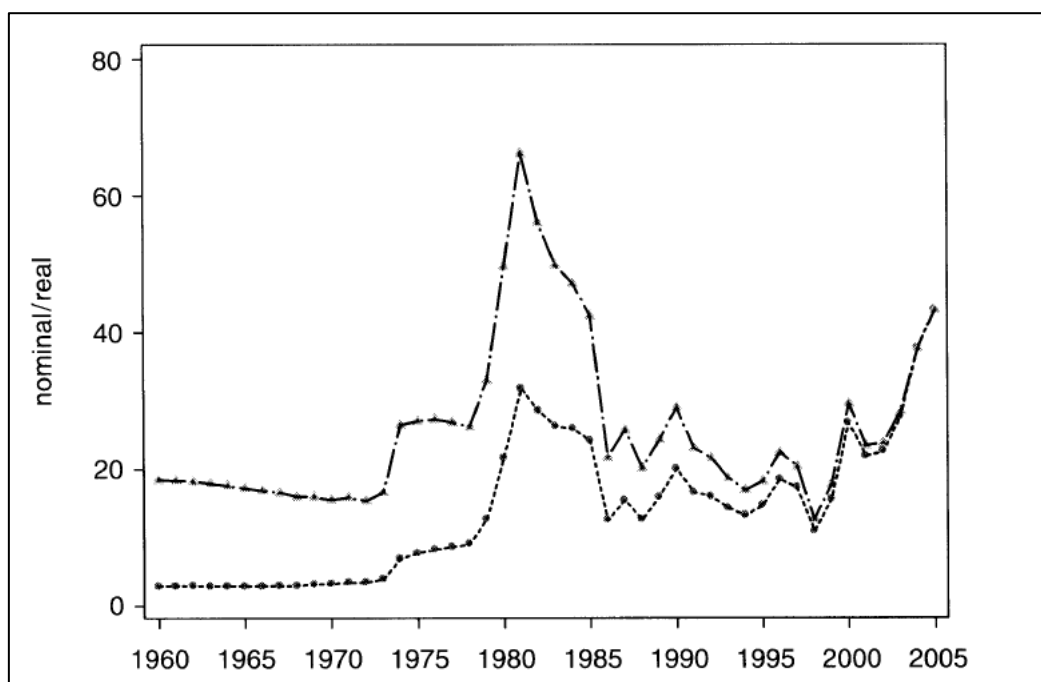
*Source: Blanchard, O., Bean C. and Munchau, W. (2006), p.10*

The first spike of unemployment can be reconducted to the adverse shocks that hit Europe (and the whole world) in the 1970s. To try and understand this phenomenon it is useful to recall a notion

about unemployment that I have already mentioned in the previous chapter, its relationship with the wage level. We call “warranted wage” the wage consistent with stable unemployment and “bargained wage” the one set in the bargaining between unions and employers. The warranted wage, in order to yield stable employment, must follow the rate of technological progress in the economy. If prices of factors of production increases, the wage paid to workers must decrease in order to maintain zero net profits for firms. If the bargained wage increases (decreases) faster (slower) than the warranted wage, equilibrium employment will then be lower, and the natural rate of employment will increase. This notion is crucial to understand what happened to European unemployment in the 1970s, when a series of adverse shocks caused a slowdown in the growth of the warranted wage, which was not accompanied by a decrease in the bargained wage.

### 3.1.1 1970s: The role of shocks

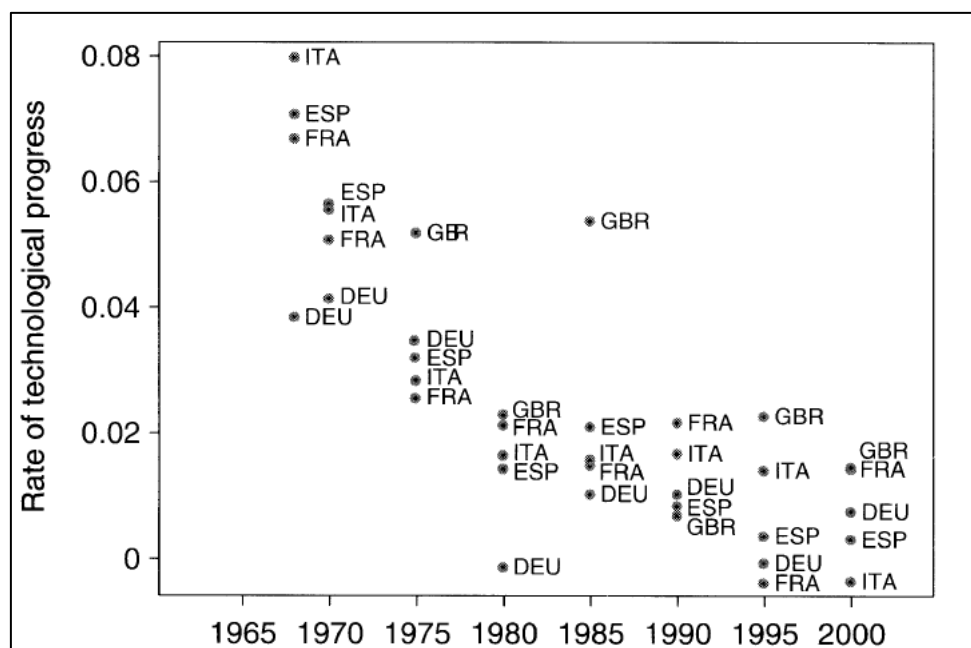
The whole world was hit by two major oil price increases during this decade. The Arab oil embargo of 1973-1974, the Iranian revolution in 1979 and the Iran-Iraq war of 1980 caused the price of oil to skyrocket (Fig. 14).



**FIGURE 14. NOMINAL AND REAL PRICE OF CRUDE OIL: 2005 DOLLARS**  
*Source: Blanchard, O., Bean C. and Munchau, W. (2006), p.15*



At the same time, another phenomenon was in motion. The rate of growth in Total Factor of Productivity (expressed as the rate of Harrod-neutral technological progress) which had been steadily increasing after World War II slowed down (Fig.15). From a rate of growth of over 5% in the 1950s and 1960s it was down to 2% in the 1970s. This means that the rate of growth of warranted wage declined as well (by 3%) in this period. This decline should have been matched by a similar decline in the bargained wage in order to maintain stable employment. In fact, that was not the case. The adverse shocks resulting from the oil crisis followed a period of widespread unrest and workers' strikes in many European countries. It began in France in 1968, continued in Italy in 1969, together with the social unrest resulting from the end of dictatorships in Portugal in 1974 and Spain in 1975. European workers were asking for an increase in wages (together with many other issues that are not relevant for this discussion).



**FIGURE 15. RATE OF HARRODS-NEUTRAL TECHNOLOGICAL PROGRESS, EU5 (1968 ONWARDS)**

*Source: Blanchard, O., Bean C. and Munchau, W. (2006), p.16*

The demand for high wages was not what sparked the rise in European unemployment per se. However, combined with the adverse shocks of the 1970s and the slowdown in TFP growth the result was not surprising. The unemployment rate at the end of the 1970s for the EU15 had

increased to 5%, more than doubling from the start of the decade. Spain's unemployment rate went over 10%, France's and Italy's over 6%.

It was almost natural that, given what happened during this decade, scholars tried to explain movements in the natural rate of unemployment focusing on the effects of adverse shocks (the two oil crises) and their interactions with wages. The conceptual framework for this theory was given by Michael Bruno and Jeffrey Sachs in 1985. They argued that changes in the natural rate of unemployment could be explained by shocks and two types of wage rigidities, real and nominal.

Real wage rigidities reflected the speed at which real wages adjusted to changes in what I called before warranted (real) wages, i.e. the speed of adjustment of real wages to a slowdown in productivity. They argued that the slower the adjustment, the longer and more severe the effects of adverse shocks on unemployment. A permanent decrease in productivity would lead to an increase in equilibrium unemployment (the natural rate of unemployment).

Nominal wage rigidities, instead, reflected the speed at which nominal wages adjusted to changes in prices. The slower the adjustment, the larger the decrease in real wages for an unexpected increase in prices. The implication of this is that the slower the adjustment, the more central banks could use expansionary monetary policies (inflation) to reduce real wages and limit the increase in actual unemployment.

This theory also explained why, even if European countries were hit by more or less similar adverse shocks, they experienced different increases in unemployment. Countries with smaller real wage rigidities could experience a smaller increase in their natural rate of unemployment than countries with higher rigidities. In the same way, countries with higher nominal wage rigidities could use monetary policies more aggressively, leading to their actual unemployment rates to be lower than the supposed natural rate. Of course, the differences in wage rigidities between EU countries were reconducted to the differences in the respective structures of collective bargaining. With regard to real wage rigidities, Calmfors and Driffill (1988) argued that the very structure of collective bargaining influenced the effect of adverse shocks. Countries with either very centralized (Sweden

was the prominent example) or very decentralized bargaining structures would perform far better than mixed systems in facing an adverse shock. They made especially a case for corporatism, as a smaller number of parties at the table could implement the necessary changes in real wages, in order to maintain a stable level of employment, more easily. Collective bargaining was also argued to affect nominal wage rigidities. The degree of indexation (the automatic adjustment of wages to changes in inflation) that was present in many European countries prevented the use of expansionary monetary policies, and thus the use of inflation, to limit the increase in unemployment by decreasing real wages.

This strand of literature constitutes the building block for a comprehensive unemployment theory, bringing to the table new ideas such as the dangers of stagflation and a model for the natural rate of unemployment. It linked adverse shocks to country-specific collective bargaining structures to explain the increase in unemployment of the 1970s. However, it lacked something for a complete explanation, as in the 1980s unemployment continued to increase in spite of no other adverse shock.

### 3.1.2 1980s: Persistence mechanisms

The unemployment rate, that started at 5% for EU15 countries in 1980, grew up until 8% in 1990, peaking in 1986 at 9.5%. The explanations for the increase in the first part of the decade were quite straightforward, and still consistent with the theories of the previous decade. As a response to the oil shocks of the 1970s central banks in Europe decided to use expansionary monetary policies. In 1980, inflation in EU15 countries was at 12.5% (Eurostat). To contain this increase, European governments decided to reverse their objective, and started to pursue tighter monetary policies (beginning with the UK and Mrs. Thatcher in 1979). By 1986 inflation was back to 3% but at the cost of a great increase in the unemployment rate (the actual rate, not the natural rate). However, the unemployment rate remained high also in the second part of the decade. At this point, inflation was stabilized, the increases in oil prices of the 1970s were long gone and, even if productivity growth

kept decreasing, it seemed unlikely that wage settlers around Europe would not have adjusted to the new levels of productivity. This situation led researchers to focus on a new question, could it be possible that the adverse shocks experienced in the previous decade still had some long-lasting effect on unemployment? Their effort was thus redirected towards what were called persistence mechanisms. Capital accumulation and the role of insiders in collective bargaining were now at the center stage.

The reasoning behind the theory of capital accumulation was straightforward. If bargained wages did not respond enough to a decrease in warranted wages (caused by a slowdown in productivity growth or an increase in the prices of non-labor inputs), employment decreased. If employment was decreasing, so was the profit rate. When the profit rate reached a point below the user cost, capital started decreasing over time, leading to another decrease in employment. This vicious cycle could then lead to a long-lasting increase in unemployment, even well after the initial adverse shocks were absorbed.

These effects of capital accumulation not only had enormous relevance on unemployment directly, but also gave a new interpretation to the possible long-run effects of monetary policies on employment. In this framework, an expansionary monetary policy had two distinct effects. The first one, more immediate, was the one already described by Bruno and Sachs. Inflation helped in decreasing real wages and thus limit an increase in unemployment for a given capital stock. The second effect was, instead, avoiding capital deterioration by decreasing real interest rates (and thus user costs). These effects were both at work after the expansionary monetary policies of the second half of the 1970s. Ex-post and ex-ante real interest rates were practically negative after the steady increase in inflation (Blanchard and Summers, 1984).

If those were the effects of an accommodating monetary policy, it is not hard to imagine the effects of the massively contractionary policies of the 1980s. Other than the already mentioned effect on employment of a forced decrease in inflation, the increase in real interest rates was also contributing to increase user costs and capital deterioration (and thus to the decrease in employment).

In conclusion, the alternation between expansionary and contractionary monetary policies of the 1970s and 1980s could explain the persistence of unemployment even after the adverse shocks were surpassed. Assuming this, it is fair to say that a more neutral monetary policy would have probably yielded a higher increase in unemployment, but for a shorter period.

The second line of thought that accompanied this decade was instead related to the role of outsiders (in particular, the unemployed) in the wage bargaining process. Theoretically, the level of unemployment could affect bargaining in two different ways. Firstly, employed workers are conscious of the state of the labor market when they sit at the bargaining table. The more unemployed out there, the more they will be careful in their demands for higher wages. In a difficult labor market, the perspective of losing a job might probably be worse than accepting a pay reduction. Secondly, firms are aware of the level of unemployment too. The higher the unemployment rate, the more credible they can be when they threaten to replace their employees with the unemployed. While saying that the unemployed control the bargaining process might be extreme, the notion that the unemployed played some role was relevant. Layard and Nickell gave further attention to the role of unemployed. Their work brought two new conclusions. First of all, they pointed out that the average duration of an unemployment spell in Europe was much greater than, for example, in the US. The effects of long spells of unemployment, especially for non-skilled workers, are now commonly known. Being unemployed for a long period means a great risk of losing human capital (in terms of job-related skills) and morale (in looking for a new job). This simple conclusion was relevant also for the role of unemployed on wage bargaining. If the unemployed become “unemployable”, there is no pressure on wages. Also, they showed that the relationship given by the Phillips Curve between unemployment level and inflation was relevant for short-term unemployment, not so much for long spells.

The persistence of high unemployment in Europe in the 1980s gave reason to scholars to develop new theories, focusing on the role of capital accumulation and the unemployed themselves. The

same thing happened in the 1990s, when unemployment remained stably high across Europe. The focus of this decade was on the role of institutions.

### 3.1.3 1990s: Labor Institutions

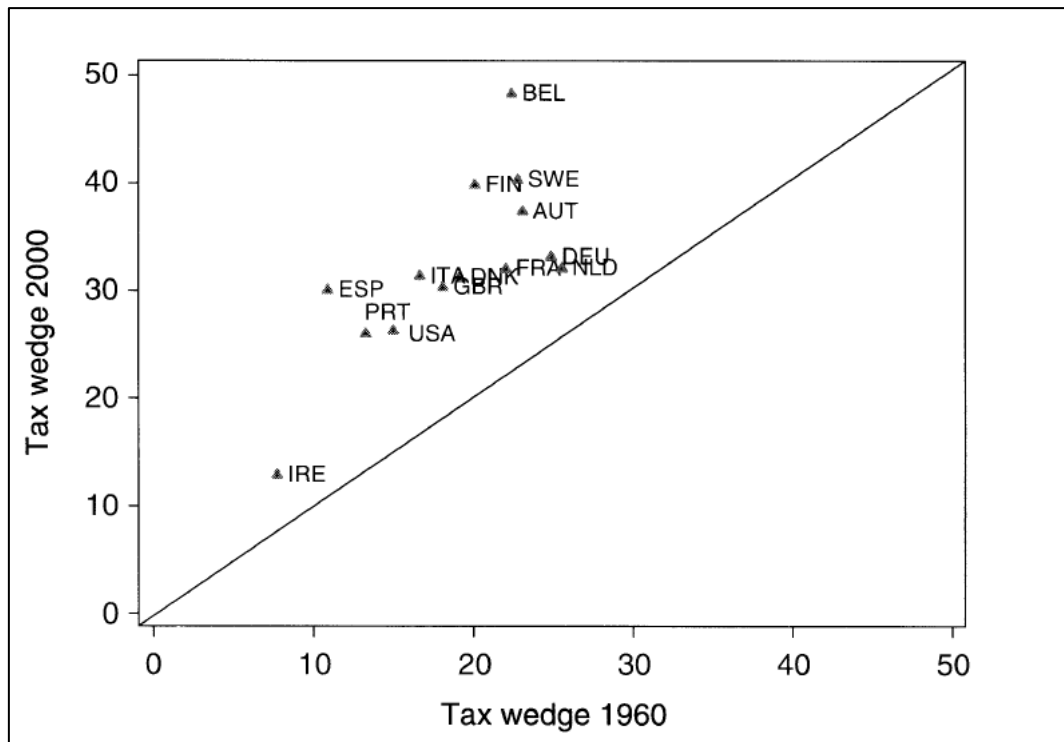
In the 1990s European unemployment remained stubbornly high. In 1993 the average for EU15 countries was 10.4%. In 2000 it decreased to 7.6%, but as it returned to grow in the following years it appeared just as a cyclical decrease. Not only unemployment remained high, the heterogeneity across countries also increased. In continental countries (France, Spain, Italy, Germany) the level was above average. In Austria, Norway, and Portugal, instead, unemployment remained pretty low (around 5%). In the UK, Ireland, and the Netherlands it even decreased from the levels of the 1980s. This situation shifted the focus of researchers towards the differences between European countries. First of all, it seemed implausible that the high levels of unemployment of continental countries was still a residual of the adverse shocks of the 1970s. Then, since shocks were pretty much symmetric across European countries, how could it be possible that the results were so different? The answer pointed towards the difference in the labor institutions present in those states. This line of thought was probably best exemplified by the 1994 OECD “Jobs Study”. This report blamed inefficient institutions for the differences in unemployment. The excessive length of unemployment insurance in some countries, high taxes on labor, reduction of the minimum wage, and the design of new and more efficient active labor market programs were all pieces of the unemployment puzzle. The relevance of this work is impressive still today, many of the suggestions made in the report were brought up again following the 2008 financial and economic crisis.

Christopher Pissarides majorly contributed to this discussion with his work on the flows in and out of the labor market. A better understanding of how the relationship between those looking for a job (unemployed) and those offering jobs (firms) work was crucial. Pissarides argued that the duration of unemployment spells was based on mainly three types of factors, those that relates to the

warranted wage (i.e. productivity growth), those related to the matching function between workers and firms, and those related to the bargaining process. Labor institutions played a central role in wage determination. Assume that there is no collective bargaining, individuals and firms still have some bargaining power. A worker can threaten to walk away from a job, a firm can threaten to fire the worker. If the unemployment rate is high, the search costs for the worker are high as well, favoring firms. If the unemployment rate is low, replacing a worker can be hard (and costly), favoring the worker. Institutions entered this framework by altering the relative power of the two sides. Consider unemployment insurance, the higher the benefits, the lower the costs for the worker to be unemployed. Or employment protection. It is likely to reduce layoffs, as it increases costs for firms. By doing so, and even more importantly strengthening the bargaining power of workers, it is likely to increase the bargained wage, thus leading to an increase in the duration of unemployment. The duration of unemployment benefits was related to the duration of unemployment spells, and the degree of coordination in collective bargaining affected the speed of adjustment of wages, affecting unemployment as well. Even though the differences in institutions explained some of the differences in unemployment levels across Europe, the results were often ambiguous, and they did not explain the differences over time. The “tax-wedge” for example, meaning the difference between take-home pay and the costs of labor. Politicians and firms often argue that it is one of the major factors contributing to unemployment, advocating for a tax-cut on labor. While it is true that the tax-wedge has increased from 1960 to 2000 (Fig. 16) as well as the unemployment rate, it does nothing to explain the differences in trends between countries. Some of the highest increases in the tax-wedge happened in those countries (Austria, Finland, Sweden) that kept the unemployment rate below average.

From the beginning of the 1960s, scholars have added step-by-step many pieces to unemployment theory. The role of shocks, collective bargaining, wage dynamics, capital accumulation, human capital, labor market institutions and so on are now extensively studied and discussed. Researchers have focused more and more on the role of institutions, and that seems like a good starting point for

the next part of this chapter. I will now present the differences in unemployment benefits schemes that are in place in Europe today. The necessity of this section is twofold. Firstly, it gives a nice closure to what I wrote about until now. Then, it gives the opportunity to introduce one of the topics of the next chapter. How, and if, to harmonize many different unemployment schemes is one of the main issues when designing a Common European Benefit Scheme.



**FIGURE 16. TAX WEDGE, 2000 VS 1960, BY COUNTRY**  
*Source: Blanchard, O., Bean C. and Munchau, W. (2006), p.33*



### 3.2 UNEMPLOYMENT BENEFITS SCHEMES IN EUROPE

As the importance of labor institutions' role in unemployment theory rose, Europe was hit (as the rest of the world) by one of the most severe adverse shock since the Great Depression in 1929. Originated in the US as a financial crisis, sparking from the housing market, the interdependence of financial and banking sectors around the world quickly helped its spreading. When the dust settled, the economic growth that characterized Europe in the first part of the 2000s had completely stopped (and reversed). The banking sector was in an awful state, and many small (and big) banks needed some form of bail-out. More importantly for my discussion, unemployment rates across Europe increased dramatically as a result of the crisis (Fig.17)

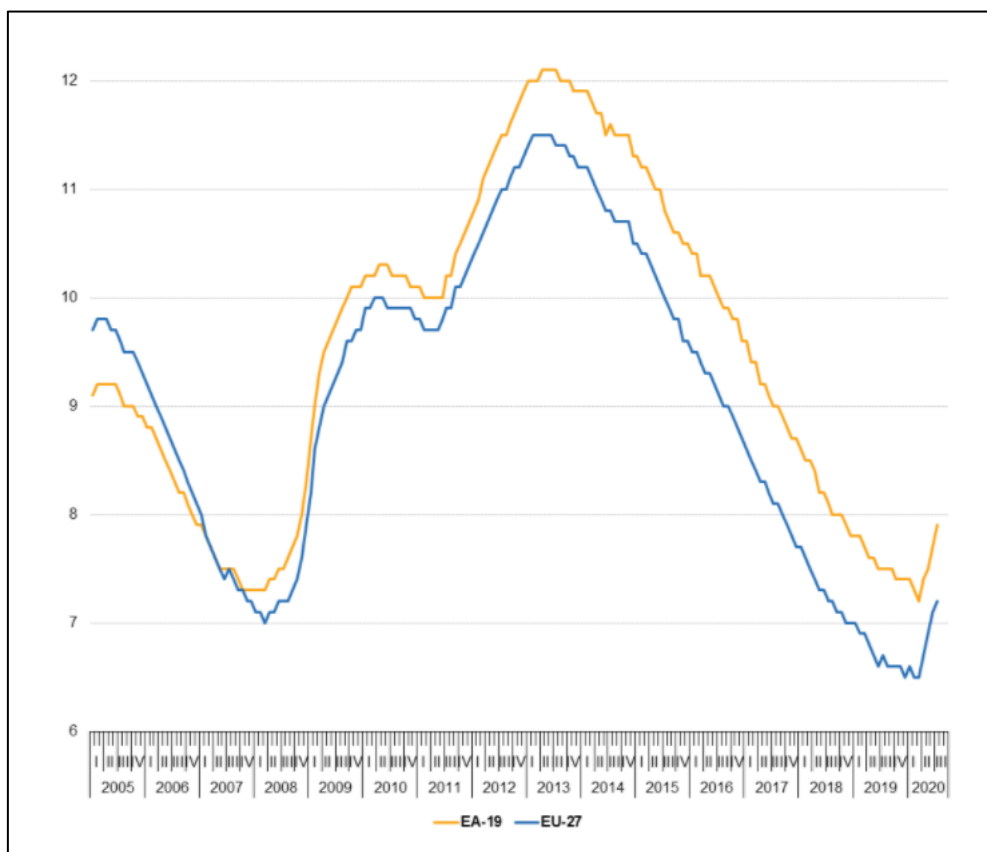


FIGURE 17. UNEMPLOYMENT RATES EU27, EA19, SEASONALLY ADJUSTED (2005-2020)  
Source: Eurostat

As this new challenge emerged, it was increasingly recognized that European countries could not face its burden alone. Now, concepts like “risk sharing” and “solidarity between neighbors” were gaining confidence. The old idea of automatic stabilizers, that was put aside for a long time, started

gaining strength as well. While most decisions about taxes and transfers were still (and rightfully so) taken at the national level, there was still the need for a common risk-sharing mechanism, that allowed automatic fiscal transfers (especially between the common currency countries). One of the most discussed form of automatic stabilizer was the one linked to unemployment. The possible reasons for this choice are several. First of all, unemployment surged enormously following the crisis. Then, concentrating on the unemployment could effectively improve the living conditions for many Europeans left out of the labor market, improving social integration within the union. However, even the challenges that this choice might bring are several. First and foremost, the existence of several different unemployment benefit schemes across Member States. This is the starting point of the analysis. Understanding the differences in these schemes is surely helpful in the creation of a common program. This next section is mainly based on the work made by the European Commission in 2013.

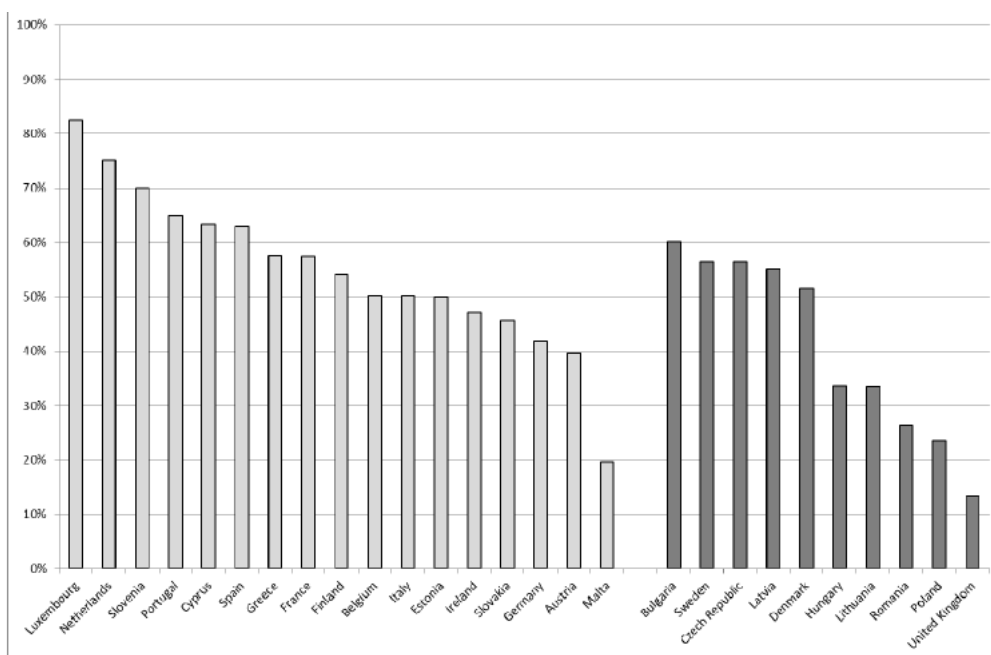
Unemployment benefits schemes are characterized in terms of:

- Replacement rates
- Benefit duration
- Eligibility conditions
- Coverage rates
- Financing
- Expenditure

### 3.2.1 Replacement rates

Replacement rates can be calculated either gross or net of income taxes. The information that these two measures provide differ. Gross replacement rates (Fig. 18) are more clearly lined to the program itself, how it is designed and regulated. One of the main characteristics of such regulation is whether benefits are calculated on the previous earnings of the individual, or instead are

distributed as a flat-rate amount. Another important feature is the earning-ceiling for the benefit, which sets the maximum contribution obtainable.



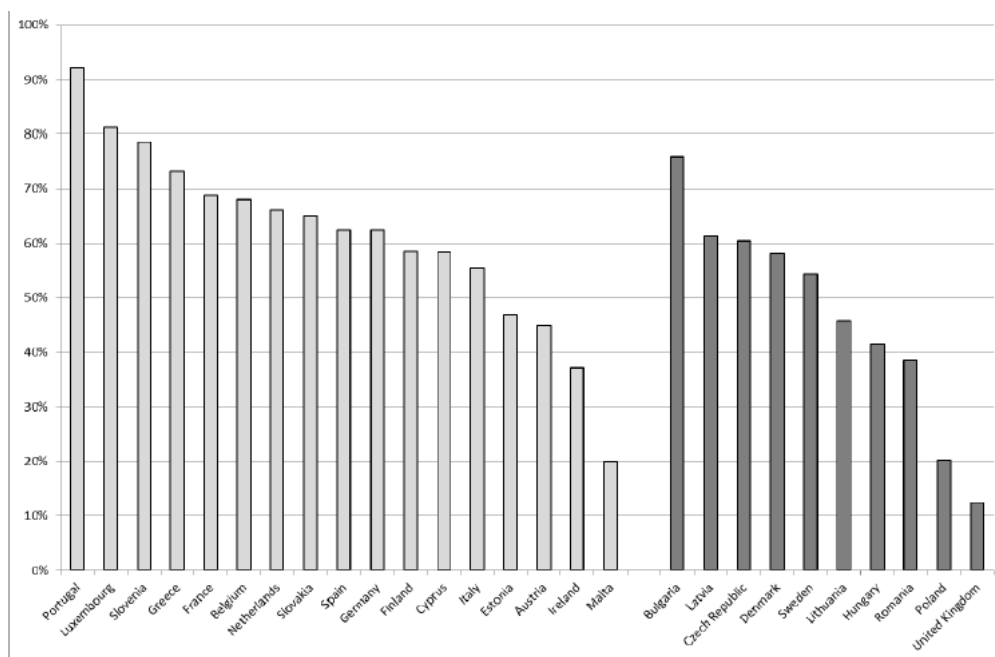
**FIGURE 18. UNEMPLOYMENT INSURANCE GROSS REPLACEMENT RATES IN EU27 MEMBER STATES (2010)**

*Source: Esser et al. (2013), p.10*

In this figure are presented unemployment insurance replacement rates gross of income taxes for EU27 in 2010 (the UK is included as this was pre-Brexit, it could be still interesting in the analysis). Countries are divided between those who have the Euro as their currency (in lighter color) and those who do not (in darker color). Replacement rates are expressed as a percentage of the average worker's wage and ranked by their generosity. Gross replacement rates vary enormously, from over 80% in Luxemburg to less than 15% in the UK. Another information that can be extracted from this figure, is that the average replacement rate for Eurozone countries is higher than for those outside of the single currency union (around 50% versus 40%). Something missing from this figure is the earning ceiling in place in each of these countries (Slovenia is the only European country that does not put a ceiling on unemployment benefits contributions). While replacement rates have remained fairly stable over time (Esser et al., 2013), earning ceilings vary according to

the variations in wages. Sweden, for example, kept the gross replacement rate around 80% of wages since 2005, but in the same period the earning ceiling has decreased by 13%.

Even though gross replacement rates are more easily linked to the program underlying them, it is important to include the effects of income taxation on replacement rates to grasp the real magnitude of the programs. In figure 19 are presented the replacement rates for EU27 countries in 2010, net of income taxes.



**FIGURE 19. UNEMPLOYMENT INSURANCE NET REPLACEMENT RATES IN EU27 MEMBER STATES (2010)**

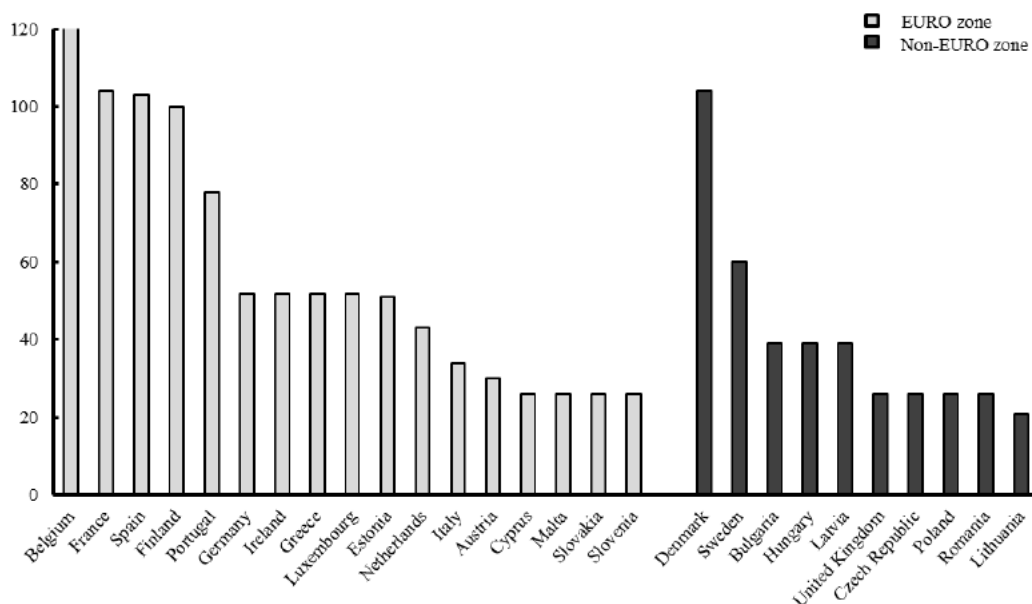
*Source: Esser et al. (2013), p.11*

Countries are presented as before, divided in two groups according to their currency, and ranked from the highest net replacement rate to the lowest. Since income taxes are predominantly progressive, net replacement rates are usually higher than gross replacement rates. The highest differences between net and gross rates are in Belgium, Bulgaria, Cyprus, France, Germany, Greece, Latvia, Lithuania, Portugal, Romania, Slovakia and Slovenia, over 10 percentage points. In these countries unemployment insurance benefits are typically non-taxable, explaining the difference between gross and net rates. The heterogeneity between countries increases even more

when we consider net replacement rates. Portugal has now a rate of over 90%, the UK still a little over 10%. As for gross rates, the contributions are on average more generous in Eurozone countries.

### 3.2.2 Benefit duration

The second dimension to be analyzed is the duration of the benefits received through the programs. It is the time span, set by the law, for which benefits are paid. The differences in duration can be enormous, some programs only last for a few weeks, others have virtually no end (maybe the retirement age). Moreover, some of these programs can be renewed when their natural duration expires. In figure 20 are presented the average durations for a typical European worker in 2010.



**FIGURE 20. DURATION OF UNEMPLOYMENT INSURANCE BENEFITS IN EU27 MEMBER STATES (2010)**

*Source: Esser et al. (2013), p.12*

Countries are divided in the same two groups, ranked from those with the longest duration to the shortest. Duration is expressed in weeks. Although between country variation is similar in Euro zone and non-Euro zone countries, the average duration of the two groups differ. The former has an average duration quite higher than the latter (even excluding Belgium, that have an unlimited duration in principle, from the analysis). In Euro zone countries the average duration is above two

years, in non-Euro zone countries it goes down to around 30 weeks. For the possible creation of a common unemployment benefit scheme, it is important to know that the minimum duration (the one that all countries share) is of 26 weeks. A common benefit scheme lasting for half a year could be a starting point in the harmonization of the different schemes, or it would require some kind of adjustment by many countries.

Before presenting the eligibility conditions and the coverage rates, it is important to point out that in many countries the “main” unemployment benefit scheme is supported by other forms of unemployment and social assistance. The differences between countries could be even greater when those are considered.

### 3.2.3 Eligibility

Eligibility criterion are usually set on the basis of the previous working experience. In some systems there is also a minimum amount of contributions required to be eligible for the programs. In this analysis, the average number of work weeks required to be eligible in European countries is presented. This number not only gives an overview on the differences between Member States, its importance lies also on the fact that in periods of high unemployment, a stricter minimum number could translate into a large portion of the labor force to become ineligible. It is important to know that countries differ also on the basis of the reference period in which the working weeks are calculated. Figure 21 presents the average qualifying periods across European countries. Countries are divided and ranked as before. Cross country variation is relatively lower than the other characteristics analyzed, even though there is a big difference between the maximum (156 weeks in Slovakia) and the minimum (20 weeks in France). Most countries legislated for qualifying periods of around 50 weeks. This symmetry can be a good thing in the creation of a common scheme.

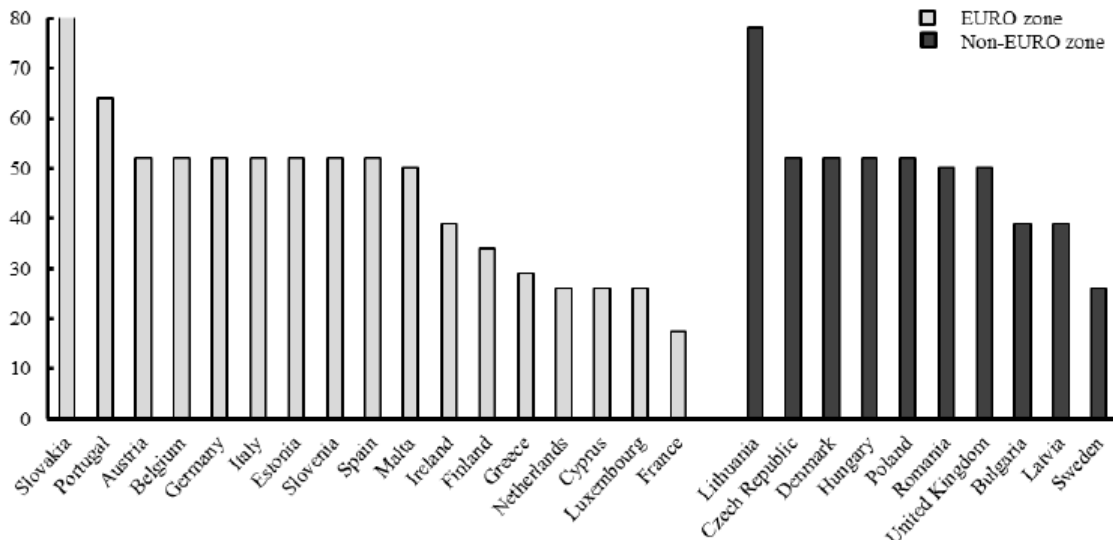


FIGURE 21. QUALIFYING PERIOD FOR UNEMPLOYMENT INSURANCE IN EU27 MEMBER STATES (2010)

Source: Esser et al. (2013), p.15

### 3.2.4 Coverage rates

The coverage rate, in this analysis, is simply intended as the number of persons eligible for a possible unemployment insurance scheme over the entire labor force. They are not those who were actually receiving a benefit in the moment of the survey, but those who are theoretically eligible for it should they become unemployed.

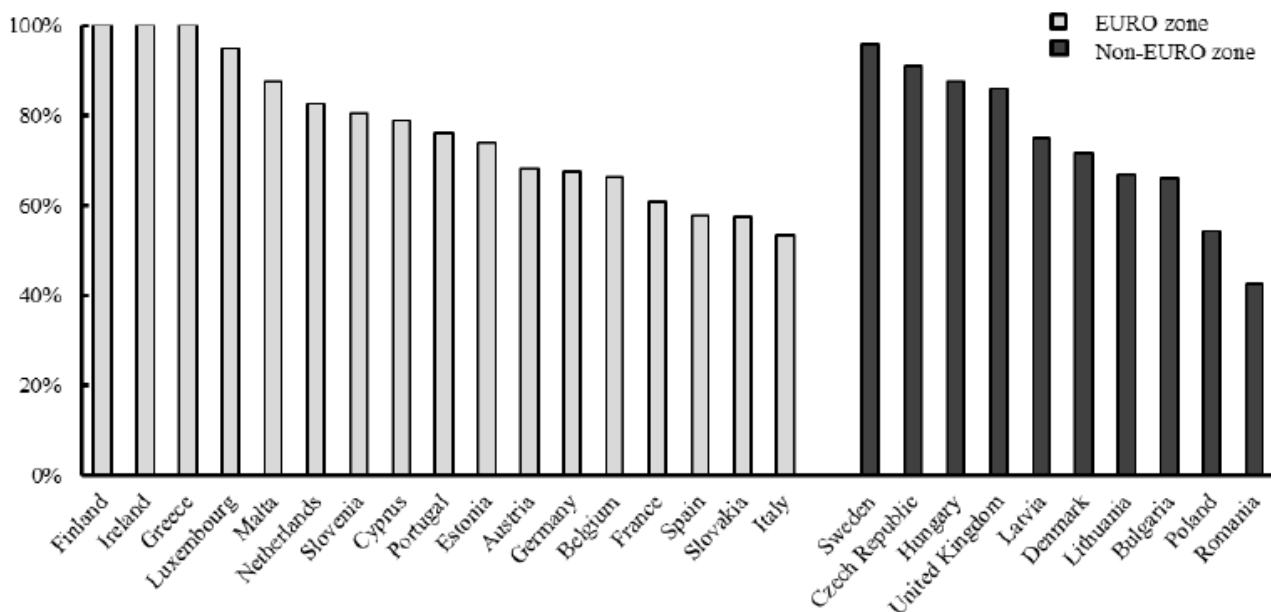


FIGURE 22. UNEMPLOYMENT INSURANCE COVERAGE RATES IN EU27 MEMBER STATES (2010)

Source: Esser et al. (2013), p.16

Figure 22 gives the coverage rates for EU27 countries in 2010. As before, they are divided in the same two groups and ranked in descending order. Before analyzing these data, it should be pointed out that the percentage of employees in the labor force can affect these estimates. Countries with a relatively higher number of self-employed are penalized in this calculation. Nevertheless, it is safe to say that, again, the degree of heterogeneity across countries is quite high. Five countries have full coverage (Finland, Ireland, Greece, Luxembourg and Sweden). Italy, Slovakia, Spain and Poland instead have an unemployment insurance coverage below 60%. Romania below 50%. It is also interesting that there is no clear variation in coverage between Euro and non-Euro zone countries. On average, unemployment insurance coverage is about 75% in European countries.

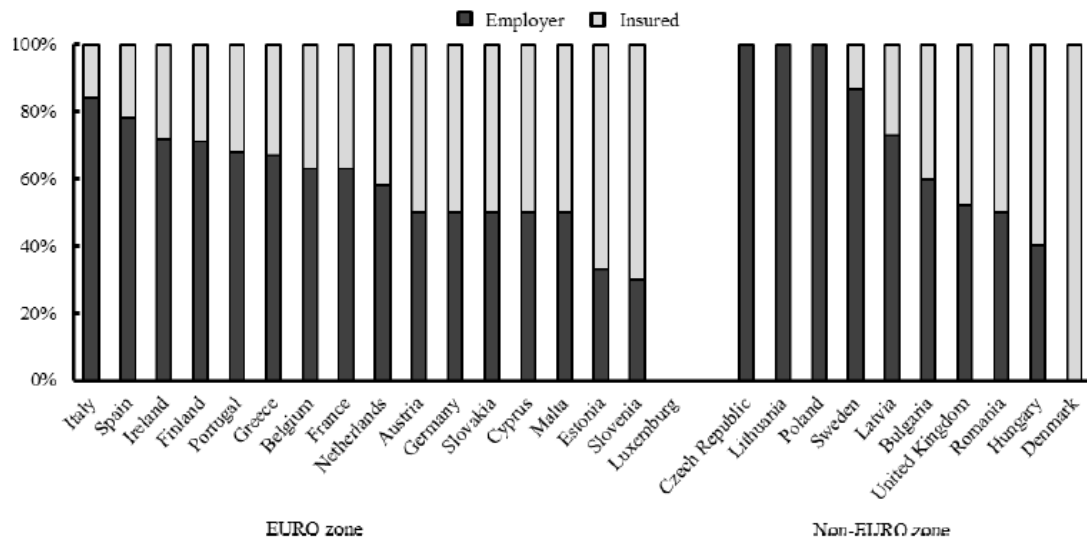
This large heterogeneity in coverage is surely a relevant issue for the creation of a common European unemployment benefit scheme. Either the rules governing unemployment benefits programs are changed, or it can be argued in favor of the creation of an equivalent scheme (rather than one substituting those already in place). This topic, the difference between a “genuine” and an “equivalent” benefit scheme, will be analyzed in the third chapter.

### 3.2.5 Financing

The financing of such schemes is a very delicate matter, quite hard to disentangle in all of its components. For sake of simplicity, in this analysis is considered only the formal financing structure of the main unemployment insurance program in place in a given state. This analysis can be split in two parts. The first is the percentage paid by the employer and the insured in the total. The second is the formal way in which the state participates in the financing of these programs, whether if it does so in full or just for a fraction of the total.

Figure 23 shows the former. States are ranked in order of percentage paid by the employer. The first important feature to be discussed is that there are only a few “pure” systems of financing.





**FIGURE 23. SOURCES OF FUNDING FOR EMPLOYMENT INSURANCE IN EU27 MEMBER STATES (2010)**

*Source: Esser et al. (2013), p.17*

In the Czech Republic, Lithuania and Poland the programs are completely financed by the employer. In Denmark, completely financed by the insured through his or her contributions. In Luxembourg there are no such contributions, as the entirety of the benefits are provided by the state. All other states adopted a mixed system of financing, with both the employer and the insured that contribute. On average, Euro zone countries tend to have a larger part of the contributions paid by the employer than in non-Euro zone countries. There is no clear explanation for this phenomenon.

In the next table, instead, is reviewed the importance of the states in funding unemployment insurance schemes. There are four ways in which the state can contribute to unemployment insurance schemes. It can simply cover the deficits to the required amount when needed. It can subsidize part of the contribution regardless of need. It can participate in fixed amounts in the contribution (in Luxembourg by 100%, in Malta 33% and in Cyprus 24%). Or, obviously, it can choose to not contribute at all in the financing of the programs.

**TABLE 2. FORMS OF STATE PARTICIPATION IN FINANCING OF UNEMPLOYMENT INSURANCE IN EU27 MEMBER STATES (2010)**

FORM OF PARTICIPATION	EUROZONE	NON-EUROZONE
State covers deficit	Austria, Belgium, Finland, Ireland, Slovakia	Czech Republic, Lithuania, Poland, Romania
State provides subsidy	Germany, Greece, Italy, Slovenia, Spain	Denmark, Latvia, Sweden, UK
Fixed contributions	Luxembourg, Cyprus, Malta	-
State does not contribute	Estonia, France, Netherlands, Portugal	Bulgaria, Hungary

*Source:* Esser et al. (2013), p.18 (re-elaborated)

### 3.2.6 Expenditure

The final part of this section is dedicated to unemployment benefit expenditure as a percentage of GDP for each Member State. The expenditure considered is the one made on the core unemployment insurance schemes. Unemployment assistance and social assistance programs are obviously part of the expenditure of the state on the general “unemployment insurance” but since those expenditure are often entangled to bigger programs (that may have a different objective) their inclusion in the analysis is problematic. A comparison that also considers those forms of expenditure would be more explicative, but there are no data available on the matter. Also, those countries that have a favorable (or non-existent) taxation on unemployment benefits basically lose that tax revenue, which is not shown by these data.

The following numbers are taken by the Eurostat datasets, which considers only the core unemployment program. Expenditure for unemployment insurance programs vary greatly across countries. Belgium, the country with the highest expenditure in relation to its GDP, allocates 4% of its resources on unemployment insurance programs. Ireland about 3%, Spain 2.5%. Many others allocate less than 1%. The lowest is the UK with 0.5%.

Other than the duration of the program, there seems to be no clear correlation to the level of expenditure for any of the characteristics previously described. In this regard, Belgium is both the country with the highest expenditure as a percentage of GDP and with the longest duration of the program. Germany, that devotes about 1.5% of its GDP to unemployment insurance, also has one of the shortest durations, which means that the payments are substantially high for a short period of time.

This concludes my analysis of unemployment insurance schemes in European countries.

In this chapter I have presented a brief history of unemployment in Europe, helped by the theories that were developed in response to the new challenges that were presented. I believe that such a recall is important not only from a theoretical standpoint. Understanding the movements of unemployment in response to shocks and other mechanisms is a crucial starting point in the design of a common unemployment benefit scheme. The reaction of unemployment to the adverse shocks of the 1970s, for example, warns us about the existence of persistence mechanism that, if not affected, could lead to a negative vicious cycle. As the future at the moment looks rather grim, understanding which measures help and which are actually detrimental is surely a good thing. Of similar, if not higher, importance is the understanding of the unemployment insurance schemes in place at the moment in Member States. Finding a way to harmonize, or replace, those programs is crucial for the creation of the EUBS.

In the next chapter I will finally discuss the rationale and the challenges of the creation of a European Unemployment Benefit Scheme. I will present its characterization using roughly the same categories that characterized insurance schemes in this chapter, with the addition of other features relevant to its construction.

#### **4. A EUROPEAN UNEMPLOYMENT BENEFIT SCHEME**

In this final chapter I will present a review of the literature existent on the topic of automatic stabilizers and, particularly, the creation of a common unemployment benefit scheme for the European Union. Although these two topics have emerged numerous times since the creation of the Union (even since the thought of its creation actually), the 2010/2012 Sovereign Debt Crisis sparked a new stream of literature on this matter. Not only scholars but also the relevant institution have acknowledged the importance of this topic, as signaled by its inclusion both in the Four Presidents Report (2012) and the Five Presidents Report (2015).

Even though the importance of automatic fiscal stabilizers in a monetary union has now been widely recognized, the challenges for their implementations are several. Furthermore, the proposal of a common unemployment benefit scheme as a stabilization mechanism has been encouraged by many authors, but it has many other challenges in itself.

I will begin my analysis with an overview of the macroeconomics rationale for the implementation of automatic stabilizers and the creation of a European Unemployment Benefit Scheme. Here are discussed the difficulties that holds the Euro Area from becoming an Optimal Currency Area (OCA), according to the Robert Mundell framework, and how an automatic stabilizer could help in overcoming these problems. Then, I will give a brief recollection of the debate around the creation of the EUBS, since its first emergence in the 1977 MacDougall Report. Finally, I will analyze the various proposals that in recent years have been made for the creation of the EUBS: how could it be financed, how should it interact with the existent national schemes, how could it avoid permanent transfers from high performing to low performing states, who should join it and how much could it cost overall.

#### 4.1 THE EUBS AS A STABILIZATION POLICY: MACROECONOMIC RATIONALE

The first and foremost reason for the creation of a European Unemployment Benefit Scheme is, obviously, to provide an alternative source of income to those in need. This service, provided at the European level, should also encourage those who obtain it to feel the presence of those European institutions that many times have been perceived as distant and absent. This would possibly increase the level of trust in these institutions.

Aside from this “political” motive, as worthy as it is, the costs of its implementation would largely outweigh its benefits when only this dimension is considered. All European Member States already have an unemployment benefit scheme in place, so why would the Union actually need the creation of the EUBS (or a similar mechanism of automatic stabilization) for its economic sustainability?

To answer this fundamental question, I would like to begin with a theory that was developed well before the creation of the European Monetary Union, that of Optimal Currency Areas (OCAs henceforth). This theory, formulated in 1961 by Nobel prize winner Robert Mundell, was then further explored by McKinnon (1963) and Kenen (1969), and it was one of the most influential theories for the creation of the European Union. Many authors now argue that the non-fulfillment of the criteria set by this theory is one of the main reasons for its economic problems (O’Rourke, 2013; de Grauwe, 2013). The OCAs theory basically gives the criteria that should be met by a union of states sharing the same currency to be successful. It is based on four main building blocks:

- Member states should have a similar business cycle, meaning that when a country is in an expansionary or a contractionary phase, the others should follow accordingly. This allows the Central Bank, which now holds the monetary power for the union of states, to adopt a common policy for the whole area. Obviously, this means that a monetary response from the Central Bank is useful in dealing with symmetric shocks, but not when some countries are hit most than others.

- Capital mobility and price/wage flexibility across member states. This is to allow an “internal” response of the market to fluctuations in the business cycle, so that the forces of supply and demand automatically redistribute capital and goods to the areas in need. If for example an adverse shock should happen in a given country, prices of goods and labor (thus wages) should go down. This in term should boost the aggregate demand for that country and help the adjustment. This mechanism should help also in the case of asymmetric shocks.
- Labor mobility across different regions. This mechanism works basically as the last point, with the differences that are not the prices of goods and labor that are changing, but labor is moving from a state to another. Suppose that one state is hit by an adverse shock which increases its unemployment whereas the neighboring country is not. Unemployed workers move from the first to the second, smoothing the transition in the country hit by the shock. This mechanism should be effective in the case of asymmetric shocks as well.
- A common risk sharing mechanism in the form of an automatic fiscal stabilizer. The two previous points explain how, in the face of an asymmetric shock, goods and labor should react in order to smoothen the transition. However, the country experiencing the shock would still need resources to absorb said shock, and that is when a system of redistribution of wealth across states would become necessary.

Now on to the analysis of the European situation with regards to these four points:

- Business fluctuations of European countries have been overall fairly similar in response to shocks, especially in the earliest years of the union with the responses to the two oil crises, but also afterwards. Compared to U.S. states for example, there is a higher degree of correlation of GDP growth rate of single states to that of the entire zone (O’Rourke, 2013). This could be possibly due to the higher specialization of US states, whereas European states are more “self-sufficient” because of their history.

However, questions about said homogeneity were raised after the Sovereign Debt Crisis. Although the initial hit, resulting from the financial crisis of 2008, was pretty much similar, the differences in European states' levels of debt have hindered the responses of states with a high debt level. Greece, Portugal, Spain, Italy and, in some way, France have responded far worse than those countries that were in an "healthy" condition before the shock, from projected growth to the level of unemployment. These questions are now once again very relevant, in the aftermath of the Covid-19 pandemic and the toll that it has taken on the European economies that had to be shut down for a few months.

- Using micro data on consumer (Consumer Price Index) and producer (Producer Price Index) prices, Alvarez et al. (2005) concluded that, among other things, prices in the Euro Area are sticky and more so than in the US and that there is evidence of asymmetries in price setting behaviors across member countries. These two findings obviously question the ability of European prices to respond adequately to an adverse shock.
- Labor mobility is possibly the most problematic aspect of the European experience. Although mobility has indeed increased in the latest years, there are still many cultural barriers in the way. The most important of which is probably the absence of a common language. Migration of workers is especially useful in the case of low-skilled workers, which are the one at the highest risk of unemployment, but those are also the same who are held back the most by these cultural barriers. In 2013, 40% of US residents were born outside of the state where they lived at the moment of the survey. In Europe, only 14% (O'Rourke, 2013). Milton Friedman in 1997 said: *"Europe exemplifies a situation unfavorable to a common currency. It is composed of separate nations, speaking different languages, with different customs, and having citizens feeling far greater loyalty and attachment to their own country than to a common*

*market or to the idea of Europe*". Probably these situations will evolve in the future, with younger generations that have possibly been outside their own state at least once, either for study or pleasure, and that have increased their knowledge of the English language. There is still a long way to go, though.

- It is very interesting that the need for automatic fiscal stabilizers was already pointed out in 1961 by Robert Mundell. It is even more interesting why these mechanisms were not adopted then (this will be one of the topics covered in the next section). Stabilizing mechanism are not present at the moment in Europe. During the crisis, the no-bail out clause of the Stability and Growth Pact was lifted, but that can hardly count as an automatic mechanism. In the US, for example, there is mechanism in place for which, when a state is in recession, every 1\$ drop in GDP is compensated by an automatic transfer of 28cents from the central government (O'Rourke, 2013).

Now on to the analysis of why a common fiscal policy, or the creation of an automatic fiscal stabilizer, is needed in the Euro Area/European Union. The rationales for this kind of policy can be divided into three main lines of argument.

The first line of argument is the one concerning spillover effects. The intuition behind this argument is that the impact of an adverse shock on a given region can have negative spillover effects also on the other regions, especially when their economies are highly integrated as in the case of Europe. In turn, this obviously means that the positive effects of a macroeconomic policy in an economically weak region are reaped also by the other regions, increasing economic stability in the Union. Such policies would be more concerned with risk-sharing when there is a prevalence of asymmetric shocks (Kalemli-Ozcan et al., 2001) and with a common budgetary policies of borrowing from the future when the shocks are symmetric (Frankel and Rose, 1998). Whether the previous crisis belonged to the former or the latter type of shock is still debated: on one side GDP fell evenly across Member States, on the other the unemployment rate rose much more in some countries with respect to others. Since in an integrated market national governments cannot adopt optimal fiscal



policies (Majocchi and Rey, 1993), because the increase in demand would be partly due to an increase in imports, coordination of national policies into a supranational one is needed, especially during crises.

The second line of argument deals with the current account imbalances problem. A sustained deficit in one country could signal an expansionary policy adopted by its government, which could be adjusted through the depreciation of its exchange rate. In a monetary union, this process of adjustment is obviously impossible, which means that it is going to happen in the real economies. As noted by Majocchi and Rey (1993), adjustments in a currency union are made easier by the integration of capital markets, but are also more painful as they translate to a probable increase in layoffs, and thus unemployment, in the adjusting country. A common fiscal policy can partly offset the mismatches between countries hit by an asymmetric shock, either by increasing taxes in the surplus country, or by using an automatic stabilizer that redistributes resources towards the deficit country (Guyon, 2007).

The third and last line of argument deals instead with market failures. The intuition behind this is quite simple: market mechanisms, if working properly, would automatically offset any adverse shock without the need for state intervention. The adjustment of prices on goods and labor, together with the migrations of workers from depressed areas to regions with available vacancies would counteract the imbalances caused by asymmetric shocks. However, as mentioned before, European countries perform badly both in terms of prices flexibility and labor mobility. These are both ways in which a union can respond to asymmetric shocks, if these means are not available, the only thing left is a mechanism for fiscal redistribution across regions.

The effectiveness of automatic stabilizers, and in particular of those linked to unemployment insurance, has been widely recognized in the literature. Chimerine et al. (1999) have investigated the effect of the federal-state unemployment insurance (UI) that is in place in the US. Their conclusions were:

- Recessions (their focus was on the one of the 1970s in particular) would have been way worse had not been present the UI program. GDP would have fell by an additional 15%.
- The positive effects of UI are not limited to the benefits emitted by the program. Because of the existence of fiscal multiplier effects (i.e. the ratio of change in output given an exogenous change in fiscal deficit) the benefits of the program reverberate in the whole economy. They estimated that every dollar spent on UI benefits translated into an increase in GDP of \$2.15.
- On average, 131,000 more jobs per year would have been lost during the recession if not for UI.

Acknowledging that the US and the European labor market are quite different, and these findings could not be equally impressive in our case, there is still a large consensus on the positive effects that automatic stabilizers (particularly in the form Unemployment Insurance) have on the economy in times of recessions.

As stated by Beblavy et al. (2017), a common unemployment insurance scheme is the preferred mechanism because unemployment benefits:

- Are an expenditure that is quintessentially anti-cyclical (unemployment rises when a country is in economic difficulty)
- Are a quick way to provide income once a recession hits a particular country
- Support the individuals that bear the largest part of the social cost in a recession, potentially increasing their trust in European institutions
- Are an expenditure with a high multiplier effect, given that most of the benefits received by unemployed individuals will directly increase consumption (rather than savings)

## 4.2 STARTING FROM THE 70s, THE IDEA OF A COMMON FUND AGAINST UNEMPLOYMENT

Having presented the rationales for the implementation of an automatic stabilizer in the form of an unemployment insurance scheme in the EU, the relevant question now is why it was not actually implemented before. One could think that, when designing the Union, the relevant institutions simply did not consider it as important. On the contrary, the relevance of this topic was expressed since the first reports on the creation of the European Monetary Union, in the early 1970s. These first reports (Marjolin et al., 1975 and MacDougall et al., 1977) can be considered the first wave of literature in favor of automatic stabilizers. Particularly, the MacDougall report stated that: “*the means of redressing imbalances between Community countries should be considerably reinforced [...]. The introduction of a community system of unemployment benefit would constitute an effective approach*”. The Marjolin report went even further, trying to imagine a possible unemployment benefit scheme common for the entire Union. The authors believed that an EUBS would be an effective instrument for stabilization and redistribution within the EU. They imagined that it would be managed by an independent administrative body and funded through the contributions of both employers and employee. The benefits received by the unemployed could then be adjusted upwards by national states at their own expenses. They believed that such a scheme would generate transfers from regions with low structural employment to regions with high structural employment, addressing the need for redistribution. It would also work as a stabilization policy, as the transfers granted to a state would increase if its unemployment rate increased, reducing the negative impact of the economic shock. Needless to say, their calls went unanswered.

The second wave of literature in favor of the adoption of an automatic stabilizer mechanism belongs to the 1990s, in the reports by Padoa Schioppa et al. (1987), Majocchi and Rey (1993) and Coucherne et al. (1993). In these reports was yet again stressed the need to cope with the imbalances within European countries. None of their suggestions were put in place.

Some of the explanations to why these mechanisms were not considered are given in a 2017 paper published by the European Commission (Beblavy et al.), in which they interviewed some of the original authors of the 1990s reports. The explanation is basically twofold, an economic motive as well as a political motive. The economic argument can be reconducted to the paper “One market, one money” (Emerson et al., 1990) in which it is argued that, as a result of the integration of national markets, the imbalances would be covered by the freedom of movement of goods and capital. They argued also that wages were likely to become more flexible, since trade unions and governments would have less alternatives to wage flexibility as a result of the stricter rules on public deficit and debt. Labor mobility was also argued to be bound to increase following the creation of the EMU, helping in the absorption of asymmetric shocks, which in turn would be less frequent in an integrated economic area. Their conclusion was that: *“on balance, it can therefore be assumed that the need for fiscal policy adjustments will decrease”*.

The second motive for the exclusion of automatic stabilizers such as the EUBS was more political. Beblavy et al. (2017) argue that, having talked to the authors of the 1990s papers, there was actually a general consensus on the need for a European fiscal capacity, but the topic was not put on the negotiating table because of political reluctance. The Maastricht Treaty negotiating table in 1993 was already full of challenging decisions to be made, and the idea of a fiscal stabilizer, particularly of the size of the EUBS, was put aside in fear of jeopardizing other “more important” issues. As explained by Couchern et al. (1993, p. 24) several countries that entered the 1990s in poor economic conditions were not in favor of an increase in the European budget (that was needed for the implementation of the EUBS), especially after the severe budgetary rules imposed by the Maastricht Treaty.

As a result, policymakers departed from this topic and concentrated their attention on the four building blocks expressed by Delors et al. (1988), which realization was deemed sufficient for a stable economic union:

- A completed single market

- A common competition and market policy
- A common structural and regional policy
- Macroeconomic policy coordination

What appears is that the creation of the EMU had at its backbone a self-fulfilling argument. What de Grauwe (2013) called “design failures of the Eurozone architecture” were neglected because it was thought that the creation of a common market would, in time, get rid itself of the problems it was born with.

The experience of the financial crisis and the following Sovereign Debt crisis in Europe changed the view of policymakers on this topic, even those at the highest level. The need for the creation of an automatic stabilizer was present in the Four Presidents’ Report in 2012 (Von Rumpuy et al., 2012) and the Five Presidents’ Report in 2015 (Juncker et al., 2015). Especially this last report, interestingly named “Completing Europe’s Economic and Monetary Union”, stressed the need of a mechanism designed for the *“cushioning of large macroeconomic shocks and thereby make EMU overall more resilient”*.

#### 4.3 IMPLEMENTATION AND CHALLENGES OF THE EUBS

While the idea of an automatic stabilizer is now broadly accepted even in the highest spheres of the European Union, the main obstacle is to avoid permanent transfers. Countries with a low level of structural unemployment argue that they always be net contributors to the EUBS fund, as the countries with high structural employment will always be at the receiving end. Beblavy and Maselli (2017) gives some context to this notion. Using data on total and short-term unemployment, covering the periods 1980-2014 and 1990-2014, they investigated whether unemployment shocks are evenly distributed across Member States. To have the same probability of an unemployment shocks means to have the same probability to be beneficiary of the EUBS as well. Their findings are summarized in Table 2 (1980-2014) and 3 (1990-2014).

**TABLE 3. CLASSIFICATION BASED ON DISTRIBUTION OF SHORT-TERM UNEMPLOYMENT (1990-2014)**

	SYMMETRIC DIST.	ASYMMETRIC DIST.	
		Left-skewed (neg.)	Right-skewed (pos.)
Normal tails	BE (-0.32/2.74) FR (0.45/2.04) NL (0.56/2.81) FI (0.14/1.92)		
Flatter tails		IT (-0.10/1.71)	LU (0.18/1.69)
Thicker tails			DK (0.93/3.73) LV (1.36/4.52)

*Source:* Beblavy, Lenaerts and Maselli (2017), p. 19 (re-elaborated)

**TABLE 4. CLASSIFICATION BASED ON DISTRIBUTION OF TOTAL UNEMPLOYMENT (1980-2014)**

	SYMMETRIC DIST.	ASYMMETRIC DIST.	
		Left-skewed (neg.)	Right-skewed (pos.)
Normal tails	BE (0.24/2.12) DK (0.11/2.01) DE (-0.10/2.68) ES (0.13/2.27) IT (0.36/2.32) NL (0.56/3.21) AT (-0.05/2.76) FI (0.79/2.99)		
Flatter tails		IE (-0.39/1.61) SE (-0.26/1.66)	LU (0.61/2.08) UK (0.25/1.81)
Thicker tails		FR (-0.74/3.58)	GR (1.96/6.35) PT (1.20/4.05)

*Source:* Beblavy, Lenaerts and Maselli (2017), p. 19 (re-elaborated)

Together with the analysis country by country, they performed the same analysis on the distribution of unemployment shocks also for the Euro Area and the whole EU. Their findings point to the conclusion that in most of the countries, as well as in the Euro Area and in the EU, shocks are evenly distributed. These findings are a strong argument in favor of a risk sharing mechanism across these countries. They also point out that the results for the single countries are strongly affected by the period 2009-2014 (in the case of Greece for example), longer time series smoothen even those distributions to some extent.

In the next sections I am going to summarize the findings of several simulations of European Unemployment Benefit Schemes as proposed by the literature. These simulations are summarized along the main characteristics of an unemployment scheme: how it is financed, how it should interact with the existing national unemployment insurance schemes, how it could avoid regular transfers across Member States and how much it should cost overall.

#### 4.3.1 Genuine vs Equivalent Schemes

The first distinction to be made is the one between genuine and equivalent schemes. Genuine schemes work as the usual unemployment insurance schemes. There is a direct relationship between the insured (the worker) and the insurer (the supranational body administering the EUBS). Workers and employers finance the scheme directly through their contributions. In these types of schemes there is no activation clause, as any eligible worker who becomes unemployed can request the unemployment benefits. However, these types of schemes present the most problems in their harmonization with the existent national unemployment insurances. As mentioned in chapter 2, national schemes of European countries differ enormously in their characteristics, also reflecting the country specific average wage or cost of living. Eligibility requirements are usually linked to the unemployed work history, how many months must he or she have worked in the reference period. Both the period spent working and the reference period vary from state to state. The replacement rate varies across countries, as well as the duration of the unemployment benefits. In many countries the duration of the benefits depends on the insurance record of the unemployed and/or his or her age. Again, these measures are country specific. A genuine scheme valid for the whole European Union has necessarily to treat any worker the same in terms of eligibility requirements, replacement rates and duration of the benefits, regardless of the country in question. Thus, the creation of a genuine system that would replace them is near impossible. An alternative to solve this problem is proposed by Delpa (2012), who considers the possibility of the coexistence between the

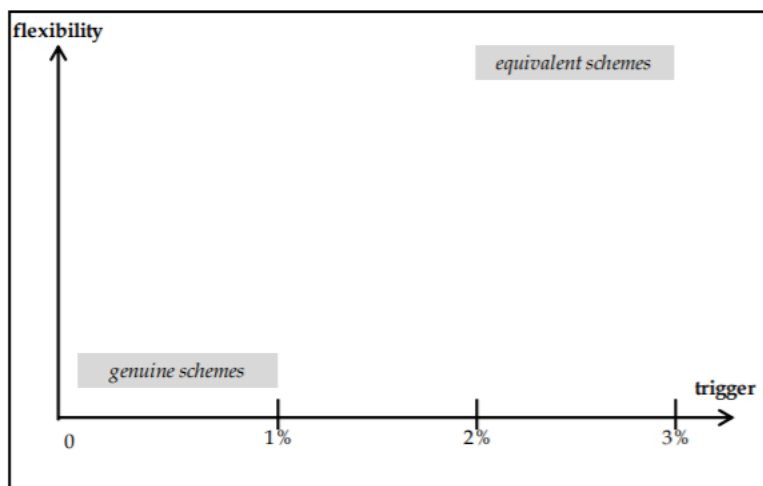
EUBS and national unemployment schemes. Workers could then choose between the national and the European work contract, which would differ in terms of unemployment insurance provision. This would naturally require no harmonization, as the two schemes would function parallel to each other. However, this system still holds his problems. If the benefits of the EUBS were too low, compared to those provided by the national scheme, nobody would choose the European contract. If the benefits were to be too high, nobody would choose the national contract, de facto substituting the EUBS to the national unemployment scheme.

An equivalent system, instead, would require no harmonization whatsoever. In these types of systems, transfers would occur from the supranational body only to and from member states, not directly to the unemployed. These funds can be earmarked for unemployment benefits, but states are free to choose how they wish to distribute them. In principle they could do that according to the national legislation, reducing enormously the amount of harmonization required. Pisani-Ferry et al. (2013) give an example of an extreme system in which the EUBS would pay every country the amount required by the national legislation. This could create incentives to increase the generosity of the unemployment benefits legislation, to obtain more funds from the EUBS. However, it is clear that this system would need no harmonization.

Basically, genuine and equivalent unemployment benefit schemes differ along two dimensions: the existence of a trigger for its activation (present in equivalent schemes, irrelevant for genuine ones) and the way in which funds are collected and distributed (directly from/to the unemployed in genuine schemes and from/to countries for equivalent ones). In reality, analyzing the existent cases, these two dimensions are more blurred than one might think. If we take the US system of “Extended and Emergency Benefits” for example, it can be considered genuine in nature because the benefits are cashed out directly by the unemployed, but its activation is conditioned on certain thresholds to be reached by the selected indicator (the “trigger” mechanism), which would make it an equivalent system. Federal unemployment systems vary according to these two dimensions, which are summarized in Fig. 24. The vertical axis measures the “flexibility” of the scheme, meaning the



degree of harmonization needed for its implementation. Moving towards the 0 means that a higher level of harmonization is required (genuine schemes are at 0). The horizontal axis, instead, measures the values of the trigger. Genuine schemes are at 0 because they require no trigger mechanism. Equivalent schemes, instead, can be placed in this plane according to the degree of flexibility that they have, meaning the level of harmonization required for their implementation, and the value of their triggers. A “pure” genuine scheme would be placed at the point 0. A “pure” equivalent scheme, with a high trigger, would be placed in the upper right corner. Most federal unemployment schemes that have been adopted until now lie in between.



**FIGURE 24. CONTINUUM OF EUBS**  
*Source: Beblavy, Lenaerts and Maselli (2017), p. 6*

#### 4.3.2 Financing the scheme

The existent literature proposes four different ways in which the EUBS could be financed: a payroll tax, a corporate tax, a contribution paid by member countries as a percentage of their GDP and debt. How could it be financed vary also accordingly to the characterization of the scheme, whether it is genuine or equivalent.

Genuine schemes should naturally be financed through taxes paid by the worker and the employer. Dullien (2012) proposes a payroll tax to finance the EUBS. In his proposal, transfers would be financed by a contribution from employees and/or employers on gross wages (up to a certain

threshold), which is a financing mechanism already in place for most of the national unemployment benefit schemes. He argues that to limit the problems in harmonization, the scheme would be designed as to match the minimum requirements common to the existent EU unemployment schemes. His version of the EUBS would partly substitute the national unemployment insurance schemes. Each country, however, could decide to top up the benefits received through the EUBS at his own discretion, accordingly to the replacement rates and duration of the benefits that they prefer. In this way the EUBS would provide a basic social security net for the unemployed, which would remain even if the country in question was obliged to cut their expenditures. Instead, Pisani-Ferry et al. (2013) imagine a genuine scheme financed through a corporate tax.

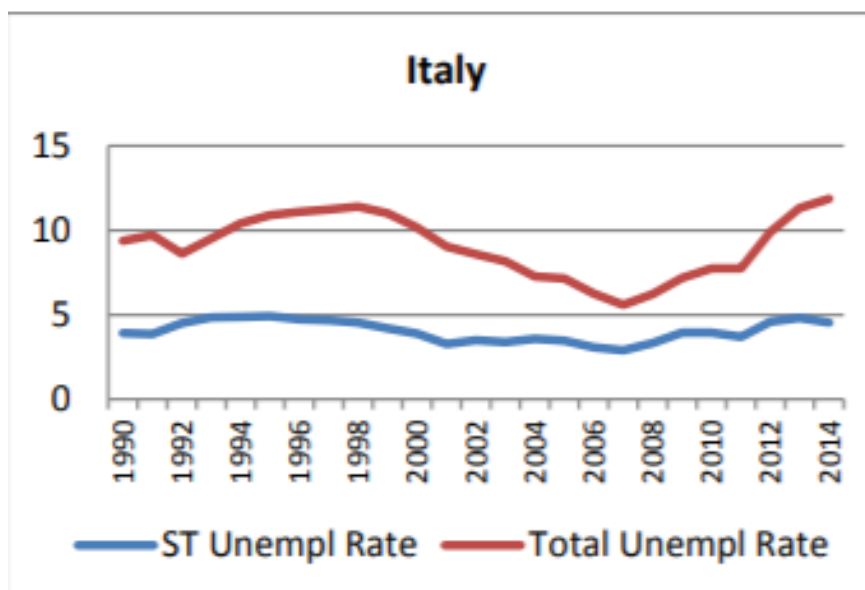
Most studies, instead, choose to model the financing of the EUBS as a percentage of a country GDP's, either fixed or variable. This choice does not mean that these authors are critical of payroll or corporate taxes to finance the EUBS. In fact, defining the contributions as a percentage of a country's GDP is a very general way of defining the country's pay-in, which can coincide with a payroll or corporate tax, if EU countries agree that this is the way the national contribution should be collected. In the absence of such an agreement, defining the contribution level as a percentage of GDP leaves member countries free to decide how to collect their contributions. In the latter case, the EUBS works as a so-called 'equivalent system'.

The last way of financing the EUBS is proposed by Dullien (2013) and it is through debt. This topic is quite controversial, as it would imply that the fund has the ability to issue supranational bonds. Such a mechanism would probably be never politically acceptable, at least in the foreseeable future. However, Dullien argues that the macro-stabilization properties of the EUBS would increase if it were allowed to run surpluses in good times and deficits in bad times.

### 4.3.3 Regular transfers and moral hazard

A mechanism that involves financial transfers between states belonging to a monetary union may generate a risk of moral hazard. As argued by De Grauwe (2003), this risk is even higher if the different states/economic regions have substantial policy powers, as in the case of Europe. The governments of EA countries have submitted their monetary powers to the European Central Bank, but they still hold extensive policy powers in terms of finance, compared to US states for example. Governments could decide to not implement certain (needed) politically unpopular policies, that would increase their countries economic performance, because they rely on the increase in financial support from the supranational level. In order to limit the incentives for these kind of behavior, two mechanisms are proposed by the literature. The first is the introduction of a “trigger” mechanism, which would activate the EUBS only under certain conditions. The trigger is composed by an indicator and a threshold, every time the selected indicator exceeds the threshold the EUBS kicks in. The indicator chosen for the EUBS, naturally, would be the unemployment rate. However, the choice of the unemployment rate, or rather which unemployment rate, to use as an indicator has some issues on its own. While some authors consider the total unemployment rate, others prefer the short-term unemployment rate.

From an economic point of view, the short-term unemployment rate is more sensible to the economic cycle, because the total unemployment rate also includes structural unemployment, which is not cycle related. The example of Italy is given in figure 25. After the crisis, the short-term unemployment rate normalized and started to decrease, while the unemployment rate kept increasing.



**FIGURE 25. ITALY'S UNEMPLOYMENT RATE AND SHORT-TIME UNEMPLOYMENT RATE (1990-2015)**  
*Source: Beblavy, Lenaerts and Maselli (2017), p. 29*

If the EUBS were to be designed to create a shock-absorption mechanism rather than a redistributive mechanism, the short-term unemployment rate would be the preferred choice, also considering its higher volatility with respect to the unemployment rate, that is conditioned by the structural unemployment of the country in question.

Whichever the rate chosen to be the indicator for the activation of the trigger mechanism, permanent transfers can be avoided in two cases. The first one is if the indicator is related to the rate of change of an indicator (in this case, the unemployment rate) of economic activity, rather than on its punctual level. In this way, the indicator would be much more correlated to business fluctuations and permanent transfers would be avoided. Also, a government could not possibly consider policies that would create a permanent and steady increase in the unemployment rate, thus avoiding the risk of moral hazard as well. The second way in which a trigger mechanism could avoid permanent transfers is if the threshold that the indicator would have to exceed in order for the EUBS to kick in is set sufficiently high. In this way, the unemployment benefits would be activated only in the case of a major shock, avoiding permanent transfers. Since the social costs of these shock would be too

high to bear, even considering the compensations given from the fund, this mechanism would avoid the risk of moral hazard as well.

The existent literature considered in this work gives the following examples of trigger mechanisms.

Dullien (2013) imagines three different types of EUBS, each with his own trigger:

- Unemployment rate  $> 7\%$ , with an increase above  $1\%$  in the past 12 months
- Unemployment rate  $> 5\%$ , with an increase above  $1\%$  in the past 12 months
- Unemployment rate  $> 7\%$ , with an increase above  $15\%$  in the past 12 months

The last case is obviously the most extreme, for which the EUBS would kick in only afterwards extremely severe negative shocks.

Italianer and Vanheukelen (1993) suggests a trigger mechanism slightly different:

- Unemployment rate increases over the past 12 months and is greater than the average increase over the same time period in the other member countries

Beblavy and Maselli (2014) propose:

- The difference between the unemployment rate and the non-accelerating wage rate of unemployment (NAWRU) exceeds  $2\%$

Lastly, Beblavy et al. (2015) designed three different EUBSs, each with its own trigger:

- The short-term unemployment rate exceeds the sum of its 10-year average and one-tenth of its 10-year standard deviation
- The short-term unemployment rate exceeds the sum of its 10-year average and its 10-year standard deviation
- The short-term unemployment rate exceeds the sum of its 10-year average and twice its 10-year standard deviation

The advantage of linking the EUBS to the short-term unemployment rate, as done by Beblavy et al. (2015), is that it further decreases the risk of moral hazard. When the overall unemployment rate is

considered, governments could choose to adopt anti-cyclical policies for which they would be compensated by the benefits of the EUBS.

The second way in which permanent transfers (and moral hazard) could be avoided is through the introduction of so called “experience rating” (or “claw-back” mechanism). This is a mechanism that would ensure to get closer to the neutral balance of long-term transfers from member states to the EUBS. The claw-back mechanism implies that the contributions of each country is related to the net balance of the past net contributions of that same country to the EUBS. Dullien (2014), Dolls et al. (2014) and Beblavy and Maselli (2014) all propose this kind of mechanism. Dullien (2014) proposes a system by which if the contributions of a country have been negative for two consecutive years, its contribution rate the following year is increased by 0.3% of GDP. Instead, if the net contributions have been greater than 1% of GDP for the two past years, the contribution rate is decreased by 0.3% of GDP the following year. Dolls et al. (2014) suggest instead a mechanism by which contributions rate are revisited every three years. If a country were to receive the same contributions it had received in the last triennium, the net balance will be reduced by either 50% or 100% for the next three years. Finally, Beblavy and Maselli (2014) propose to increase a country’s contribution when the negative balance with the EUBS exceeds 1% of its GDP.

The choice of which mechanism to adopt to avoid permanent transfers is partly related to the kind of EUBS proposed. A trigger mechanism would work for equivalent scheme, but in genuine scheme is politically (and morally) problematic. Since in genuine scheme the relationship is between the insured and the EUBS, it would seem improbable that this mechanism could be switched on and off depending on the performances of the country in which the insured lives. Experience rating (claw-back) mechanisms can be instead implemented both in genuine and in equivalent schemes. As for the trigger mechanism however, it generates some question with regards to genuine schemes. If individual contributions were to be raised (or reduced) depending on the macroeconomic performance of the country, the same problem would apply.

The last relevant issue to be raised is the trade off that these kinds of mechanisms produce. On one side, they surely limit the possibility of permanent transfers and the risk of moral hazard. Since this is one the main obstacles to the creation of the EUBS the inclusion of a trigger or of a claw-back mechanism is desirable. However, since transfers are neutral in the medium-long period, these mechanisms also reduce the stabilization power of the EUBS, especially in prolonged recessions.

#### 4.3.4 Who and how: should every EU member country enter the EUBS?

Questions about which countries should enter the EUBS arose only in a second moment. The first simulations, as the one by Italianer and Vanheukele (1993), did not make a distinction between countries within the currency union and countries outside of it, simply because at the time it was taught that every member state of the EU would have adopted the single currency. Most simulations nowadays consider only the countries member of the Euro Area, mostly because the fundamental flaws that the EUBS tries to rebalance are a product of the single currency. However, there are convincing arguments for both sides. It is true that the EUBS seeks to offset the imbalances between member states that could not be dealt with by playing with the interest rate. Increasing the size of recipient countries would also increase the administrative costs and the harmonization problems of the EUBS. On the other hand, as noted by Beblavy and Maselli (2014), the basic intuition suggests that a larger pool of countries is more effective in insuring against asymmetric shocks. Also, the adoption of the EUBS in the countries outside of the currency union would also impose some minimal welfare standards, common to each EU member state.

Delpla (2012) suggests that countries, as well as individual citizens, should have the option to opt out of the scheme. This would make the EUBS politically acceptable to everyone. However, this view is contrasted by all the other authors because it would increase the risk of adverse selection. Only countries with an already high level of unemployment would join the EUBS, while the “good” countries would choose to opt out. This would enormously limit the stabilization power of the

common unemployment scheme. In favor of this view is also the experience from other similar programs. In fact, both in the US and in Switzerland participation is mandatory for every state of the federation (Beblavy et al., 2017).

#### 4.3.5 The costs of the EUBS

The size of the EUBS is the last characteristic that I am going to analyze. Before reporting the different findings proposed by the literature, it is important to acknowledge another trade-off. A more consistent EUBS would imply a higher stabilization power, but it would also be less politically acceptable.

The boundaries of the size of the EUBS are roughly given by the existent unemployment benefit schemes. It is hard to imagine that the EUBS would be much more generous, or much more restrictive, than the systems that already in place. Following this logic, the first (very simple) calculations were made by Italianer and Vanheukelen (1993). They simply considered the number of unemployed individuals in the EU and the average European wage. Multiplying the number of unemployed for the replacement rate (they chose 70%) of the average wage they estimated the hypothetical size of the EUBS to be about 0.5% of GDP. This result is within the range of sizes of the EUBS estimated by later literature. The size of the EUBS is also influenced by the presence of a “high” trigger. When such a mechanism is adopted, the size of the EUBS decreases considerably, because it would kick in only in times of severe recession.

Here are summarized the results of the calculations of the literature analyzed:

With no trigger

- Dolls et al. (2014): 0.6% of GDP
- Pisani-Ferry (2013): 1.8% of GDP (of the Euro Area), this is the most generous scheme, assuming that it covers all the unemployment benefit costs incurred by EA countries (average of the 2002-2010 period)



With trigger

- Beblavy and Maselli (2014): 0.07% of GDP (for the highest trigger), 0.3% of GDP (for the lowest trigger)
- Dullien (2007): between 0.75% and 0.85% of GDP
- Dullien (2013): between 0.3% and 0.6% of GDP (only of the Euro Area)

Generally, the size of the EUBS has been estimated to be between 0.3% and 0.85% of EU countries GDP. This finding is consistent with the size of the US unemployment benefit scheme, which has been estimated to cost around \$40.5 billion (in 2014), equivalent to 0.23% of GDP (Whittaker and Isaacs, 2014).

#### 4.3.6 Stabilization power of the EUBS

The stabilization power of each of the simulated EUBSs is naturally dependent on how the scheme is designed. Dullien (2007) imagine that the duration of the benefits would be extended in the case of a severe negative shock. The stabilization effect of the EUBS would increase in these situations. Furthermore, as demonstrated by Brandolini et al. (2014), the introduction of a trigger that would make the EUBS kick in only in the case of severe recessions would increase its stabilization effect. Allowing some degree of redistribution across countries (meaning that permanent transfers would be avoided only in the long period) would also increase the stabilization power of the EUBS. Dullien (2013) calculates that his proposals for the EUBS would have an average stabilization effect of around 11% (the ratio between the country's net balance of payments for a given period and the deviation of the country's GDP from the GDP historical trend). In particular it would have been over 50% for Austria in 2001-2012 and over 20% for Spain in 2008-2009. Italianer and Vanheukelen (1993) estimates an average stabilization effect of around 20%. Another way to measure the stabilization effect of the EUBS is proposed by Brandolini et al. (2014). They

estimated that an unemployment shock absorber would have reduced the variation of GDP by over 0.3% over the period 2002-2012.

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## SUMMARY

As a result of the Covid-19 pandemic, and the measures used to contain it, the world suffered the sharpest fall in global output since World War II. In the first quarter of 2020, global output (excluding the EU) has contracted by 3.3%. It is projected to lose an additional 0.6% by the end of the year. European economies have suffered even more, with a projected decrease of 8.3% by the end of the year.

The major containment measures used to fight the virus included voluntarily shutting down large part of the economy. The European Commission (EC) estimates that the euro area economy has operated between 25% to 30% below its capacity during the stricter confinement periods (from mid-March to the end of May). Just in the first quarter, GDP contracted by 3.6% in the Euro Area (EA) and by 3.2% in the EU. The GDP decline is forecasted to be even more pronounced in the second quarter of the year, at -13.5%. The European economy is projected to start its bounce back in the third quarter of 2020, but the increasing uncertainty about a second wave of the virus makes these predictions highly volatile. In their projections the EC assumed that containment measures will be gradually lifted and that there will be no second wave.

The current pandemic, and the downturn in economic activity that it has caused, puts the economic stability of European countries at great risk. The European economy had just recently started to bounce back from the Great Recession when this new crisis arrived. The previous economic shock had, as widely recognized by the literature, increased the economic imbalances between Member States. These differences will, with all probability, be widened as a result of the economics effect of the pandemic. This view is shared also by the ECs European Economic Forecast (Summer 2020), which expects the European economy to bounce back, but with bigger and more persistent differences across Member States. In Fig. 1 are presented the GDP growth (negative in this case) rates for EU countries for the first quarter of 2020. While there has been economic disruption

almost everywhere, there were significant differences in the magnitude of GDP growth decrease. Among the major economies, Italy, France and Spain suffered above average GDP contractions (around 5%), while Germany (-2.2%) and the Netherlands (-1.5%) suffered smaller hits. The differences in the timing and stringency of lockdown measures adopted in these countries are a contributing factor, as well as the different economic structures and the particular exposure to services reliant on interpersonal contact (i.e. tourism).

The euro area labor market was hit as well by the Covid-19 pandemic, as signaled by the sharp decline in the number of hours worked. Strangely, employment in the EA fell by only 0.2% (0.1% in the EU). This situation is in sharp contrast with the direct link between GDP decline and employment. However, there are a number of possible explanations for this counterintuitive finding. First of all, extended short-time work schemes (i.e. working remotely) have been put in place to keep employees in their jobs. This did not happen, for example, in the US, which suffered a more substantial drop in employment. However, these schemes will last for a limited time and, despite that they have been extended in many countries, they will not permanently support income and maintain jobs. In the case of a prolonged period of recession, many firms are expected to downsize their activities or even fail, causing a sudden increase in unemployment. Without an increase in demand, which depends also on the easing of the containment measures, it will be hard to sustain an improvement in the labor market. The expected rise in unemployment rates may be particularly difficult to overcome in those states that had a high level of unemployment even before the pandemic hit, where the economic rebound is expected to be sluggish. The EU has implemented a new instrument, the Support to mitigate Unemployment Risk in an Emergency (SURE), to assist Member States in covering the costs directly related to the creation of national short-time work schemes, but its effects are still uncertain.

The second reason why unemployment has not increased substantially in the first quarter might be related to the way in which the unemployment rate is calculated. Many persons got out of the unemployed number, since they stopped actively looking for a job. During the most severe period

of the pandemic was not possible to be available to the labor market. This issue could explain why in some countries, like Italy, the unemployment rate actually decreased between March and April (from 8.0% to 6.3%), before increasing again in May.

The third reason for this behavior is instead related to the legal provisions adopted in many countries. During the pandemic, changes in the legal framework made lay-offs more difficult or impossible. In some cases, companies were explicitly forbidden to lay off employees during the state of emergency, as for example in Italy and Spain.

For all these reasons, a large unemployment shock is expected to happen in the near future. This shock would hit mostly the countries that were already in “bad shape” before the current crisis, widening the imbalances between EU countries.

As for the measures that could be taken to rebalance these differences, there is a growing consensus around the utilization of fiscal stabilizers. This idea was already in the mind of policy makers after the Great Recession, as demonstrated by its inclusion in the Four Presidents’ Report and the Five Presidents’ Report. Now, in the face of this new challenge, many authors urged the highest European spheres to follow through.

As argued by Leipold (2020), the ECB has already explored many of the extraordinary monetary policies options available. Possibly run out of ammunitions to fire, fiscal policies are now the preferred choice. His suggestion is to launch a European unemployment benefit reinsurance scheme, which would help to stimulate flagging economies and providing stability to the whole system. In late 2019, the newly nominated Christine Lagarde addressed this issue in her mission letter to Paolo Gentiloni, the European commissioner for the economy. She wrote: *“You should lead work on the design of a European Unemployment Benefit Reinsurance Scheme to protect our citizens and reduce the pressures on public finances during external shocks [...]”*.

To recap, the European Union (as well as the other parts of the world) has been hit by a major economic shock that could possibly widen the already existent economic imbalances of its members. The unemployment rate is expected to rise in the near future, when the short time working schemes will be lifted and firms will face liquidity problems. Monetary policies are not expected to be enough powerful to offset the negative effects of the crisis, and there is a growing consensus for the need of fiscal automatic stabilizers for the Union. One of the possibilities for the implementation of such mechanism is the creation of a European Unemployment Benefit Scheme. This is the starting point of my work.

The first chapter is devoted to the presentation and the analysis of the usual components of unemployment, as recognized by the existing literature, in order to give a more exhaustive view on the subject matter. Recognizing the components of unemployment is of crucial importance when designing a policy aimed at diminishing unemployment in a given state.

Separating the cyclical from the structural components of unemployment is the starting point to recognize the supposed magnitude of a given policy, the resistance (or the boost) that a negative (positive) business cycle might have on said policy. A useful tool that is commonly used to discuss the differences between the unemployment caused by a negative business cycle and the one resulting from a poor efficiency of the labor market is the Beveridge Curve. In the first part of this chapter I will use the European Beveridge Curve to further explain the difference between cyclical and structural unemployment, while simultaneously giving some light to the current state of the European job market.

In the second part of the first chapter I will then discuss which are the most commonly used forms of social assistance in terms of unemployment, dividing them in two macro-groups (as proposed by the existing literature). In the first group I include the policies that deals with the demand side of the problem, designed to boost demand for jobs by creating more favorable conditions for employers that will thus hire more (working on the cyclical component of unemployment). In the second

group, instead, there are the policies that are interested in the supply side, meaning policies that deals with those in search for a job (acting on the structural component).

In the first group we recognize more broadly scoped policies such as:

- Monetary policies: cutting interest rates in order to boost aggregate demand
- Fiscal policies: cutting taxes or higher public spending to boost aggregate demand

Whereas, in the second group, we find more specific policies aimed at increasing the chance of an individual in search of a job to be hired:

- Active Labor Market Policies: Education and Training
- Employment subsidies
- Public sector employment
- Geographical subsidies
- Labor market flexibility (minimum wage and the role of trade unions)

While considering these different policies, it is important to remind that there are often limits to the extent that some of these policies may be implemented by a given state. For example, Euro Area member states are always free to choose which supply side policy they might want, but there are some limitations when we consider demand side policies. Obviously, single states cannot depreciate their exchange rate or use an expansionary monetary policy, being part of a common currency area. Plus, even though fiscal policies (cutting taxes or increasing public spending) can be used by single states, the rules of the game impose more than a few restraints, especially on those states characterized by a high level of public debt.

In the second chapter I will concentrate on the European history of unemployment, the macro-tendencies underlying it and the different stream of ideas and theories that through the last five or six decades have constituted the unemployment theory's framework. In the first part of the chapter I

will focus on the historical tendencies of unemployment in Europe since the 1960s and the evolution of ideas trying to explain those tendencies. This part is mainly based on the works by Olivier Blanchard and Christopher Pissarides, who have studied the notion of European unemployment in great depth.

After the oil shocks of the 1960s and early 1970s, European unemployment, which had remained low after World War II, started to rapidly increase (from 2% in the early 1960s to above 8% at the end of the 1970s). The most relevant theories to explain this behavior concentrated on the role of negative shocks and their interaction with the wage level. Blanchard (2006) argues that the “bargained” wage (the nominal wage) in the 70s increased (also) as a result of the social unrests of the time (in France, Italy, Spain and Portugal most notably). While wages went up, the level of productivity decreased all around Europe. This, together with the adverse economic shocks of the two oil crises, caused the “warranted” wage (the wage that the firms were offering) to decrease. The mismatch in these two wages probably caused the unemployment spike of the 1970s in the EU. Also, member states saw their unemployment rates increase asymmetrically among them. As proposed by Bruno and Sachs (1985), these differences could be explained in the different “rigidities” of wages in the different countries. Real wage rigidities concerned the speed of adjustment of real wages to the changes in the “warranted” wage. Nominal wage rigidities reflected the speed of adjustment of nominal wages to changes in prices.

In the 1980s the unemployment rate remained stubbornly high. The period was characterized by an inversion in the way monetary policies was going in the late 1970s. From an expansionary monetary policy to try and offset the negative economic shocks of the 1970s, central banks started to cut the money supply. The main theories at the time concentrated on persistence mechanisms, and in particular on capital deterioration. It was argued (Pissarides, 1985) that the increase in unemployment of the 1970s had decreased the profit rate for firms, which in turn had to employ less people. The creation of the vicious cycle partly caused the high unemployment rates of the 1980s. These findings also called for a more neutral use of monetary policy. The contractive measures used

to decrease inflation not only contributed to a first unemployment increase, but they also fostered the vicious cycle previously described.

In the 1990s not only the unemployment rate remained high, also the imbalances between EU countries widened. As a result, scholars concentrated on the role of labor institutions. Their differences could partly explain the different paths that unemployment was taking in the European states.

In the second part of the chapter I will partly take on that topic. I will focus on the current situation, the issues that separate the European experience from the others, and on the different unemployment benefit schemes put in place by its member states. This part is mainly based on the works by Esser et al. (2013) and the European Commission. Unemployment insurance schemes are classified according to their eligibility conditions, the replacement rates, the durations of the benefit, the coverage rates, the ways they are financed, and the total expenditures devolved to them by different states. The main differences can be found in the eligibility conditions (principally the number of work hours to obtain the benefits), the replacement rates and the duration of the benefits. These differences are problematic for the design of a common European mechanism because they would require a great deal of harmonization if the EUBS were to substitute them.

In this third and final chapter I present a review of the literature existent on the topic of automatic stabilizers and, particularly, the creation of a common unemployment benefit scheme for the European Union. Although these two topics have emerged numerous times since the creation of the Union (even since the thought of its creation actually), the 2010/2012 Sovereign Debt Crisis sparked a new stream of literature on this matter.

I will begin my analysis with an overview of the macroeconomics rationale for the implementation of automatic stabilizers and the creation of a European Unemployment Benefit Scheme. Here are discussed the difficulties that holds the Euro Area from becoming an Optimal Currency Area (OCA), according to the Robert Mundell framework, and how an automatic stabilizer could help in overcoming these problems. Then, I give a brief recollection of the debate around the creation of the



EUBS, since its first emergence in the 1977 MacDougall Report. Finally, I analyze the various proposals that in recent years have been made for the creation of the EUBS: how could it be financed, how should it interact with the existent national schemes, how could it avoid permanent transfers from high performing to low performing states, who should join it and how much could it cost overall, together with the simulations' results of its possible stabilization power. A lot of work has been dedicated in recent years to the topic of the EUBS, and there are now plenty of sources that try to imagine a hypothetical EUBS. In this work I consider mainly, but not only, the proposals by Dullien (2012; 2013; 2014), Pisani-Ferry et al. (2013), Beblavy and Maselli (2014) and Beblavy et al. (2015)

The results of these simulations can be summarized as follows:

- The EUBS can be designed to work as a “genuine” scheme, with a direct relationship between the insured and the fund, or as an “equivalent” scheme, in which case the transfers would be from (and to) the EUBS to (and from) Member States.
- There are several possible sources of revenue to finance the EUBS. Four have been studied by the existent literature. The introduction of a payroll-tax or a corporate tax would be the preferred choices in the case of a genuine scheme. Setting the contributions levels in relation to a percentage of each country GDP would be the option in the case of an equivalent scheme. Financing the EUBS by issuing debt would be more problematic, even if it could increase the stabilization power of the system.
- Harmonization of the national unemployment benefit schemes may be very difficult. The simulations proposed in this analysis vary in the degree of harmonization required. Equivalent schemes would require no harmonization.
- Avoiding permanent transfers and decreasing the risk of moral hazard is one of the crucial aspects to be considered for the EUBS, in order to be politically accepted also by the countries that have low levels of unemployment. The implementation of a

trigger, and/or of a claw-back mechanism could do the job. However, this would decrease the stabilization power of the EUBS in case of a prolonged recession.

- The EUBS could involve all EU countries or EA countries. The literature is not clear in this sense, with arguments in favor of both options. Ultimately, the decision may be based on political considerations.
- The EUBS is estimated to cost between 0.3% and 0.85% of EU GDP. This estimation is consistent with the size of other federal unemployment schemes.
- The average stabilization effect of the EUBS is likely to be around 20%. The marginal stabilization effect for countries severely hit by a recession may well over be 20%.