



Unemployment Benefits in EU Member States

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Introduction

The background to this report is the growing variation between EU Member States' economic and social situation, which has been reinforced by the economic recession and subsequent fiscal consolidation measures. It is increasingly recognized that economic and social responses to the crisis will require strengthened solidarity between Member States, in the first place within the Eurozone but also beyond. While most decisions about taxes and spending remain at national level within the EU, it can equally be argued that continued successful European integration needs an elaborate risk-sharing system where various forms of automatic fiscal transfer mechanisms may have a key role, particularly in Eurozone countries. One strategy is to set up EU- or Eurozone wide unemployment provisions where resources are transferred to areas particularly hit by asymmetric shocks.

EU or Eurozone automatic stabilisers of this kind may take on several different forms, but the basic idea is that they may serve as an insurance mechanism that help smoothening of fluctuations in real GDP caused by asymmetric shocks in parts of Europe. Potentially they may also involve a stabilisation mechanism when symmetric shocks affect all countries. Unemployment benefits are an obvious candidate for becoming a European automatic stabiliser, not least since economic shocks of the magnitude recently witnessed tend to, among other things, cause an upsurge in unemployment. Unemployment benefits may not only have macroeconomic impacts but are likely to also have positive effects on citizens' living conditions, potentially improving European social integration in the wider sense. Meanwhile, it should be noted that the effects of unemployment benefits on EU economic and social integration may vary greatly depending on the institutional design of unemployment benefits, which currently differ significantly across the Member States.

The purpose of this report is to analyse the basic character of unemployment benefits in all EU Member States and highlight potential institutional barriers to the introduction of an EU wide framework for unemployment benefits. Special emphasis is on unemployment insurance programs and income protection during periods of short term unemployment (less than one year) in Eurozone countries. Drawing on these analyses, we address the question about what the prospects are of introducing a European dimension to unemployment benefits in the Eurozone?

The report is organized in the following way. Next, a taxonomy is outlined identifying key features of unemployment benefit systems in EU Member States. Thereafter, main characteristics of these systems are described along the following institutional dimensions: replacement levels, benefit duration, eligibility conditions and coverage rates. Modes for financing and expenditure levels are described in the following section. The last section includes a discussion of the diversity of unemployment benefit systems in the EU and the Eurozone. Potential barriers for an EU wide framework for unemployment benefits are also addressed. A data and methodological appendix is presented at the end.

A taxonomy of unemployment benefit systems

A fruitful way of delineating various forms of unemployment benefit systems is to focus on institutional characteristics that are central to interest formation and living conditions. Especially, three dimensions appear to be essential in this regard:

- *Eligibility conditions:* What is required to qualify for benefits and how many persons are covered by the program?

- *Principles for determining entitlement levels*: How much is paid to an unemployed, and for how long?
- *Administration*: Which actors carry the costs, in what proportions, and are programs separate across occupational lines?

The earliest forms of unemployment insurance originated from attempts by labour unions and friendly societies to offer mutual benefits within funds financed by membership contributions. Basic elements of these schemes are still found in *voluntary state-subsidized* programs in Denmark, Finland and Sweden, where entitlement is based on voluntary membership, often combined with contributions to an unemployment insurance fund. Historically, benefits were paid in daily flat-rate amounts. Nowadays, earnings-related benefits are also paid, albeit often affected by relatively low earnings ceilings for benefit purposes. The state exercises a regulatory and supervising role, but has also often contributed to financing of benefits through state subsidies, particularly in times of economic downturns and high unemployment.

Entitlement in targeted programs is based on assessed need and benefits are paid at minimum levels, often including long periods of duration. While a number of countries introduced targeted schemes as their first unemployment benefit program, there is no EU country today that appears to rely solely on this model. In the EU Member States, targeted programs are instead used to complement regular unemployment insurance benefits and are normally paid to those who have exhausted their right to first-tier benefits, or have failed to qualify for regular unemployment insurance benefits in the first place, for example due to weak labour market attachment.

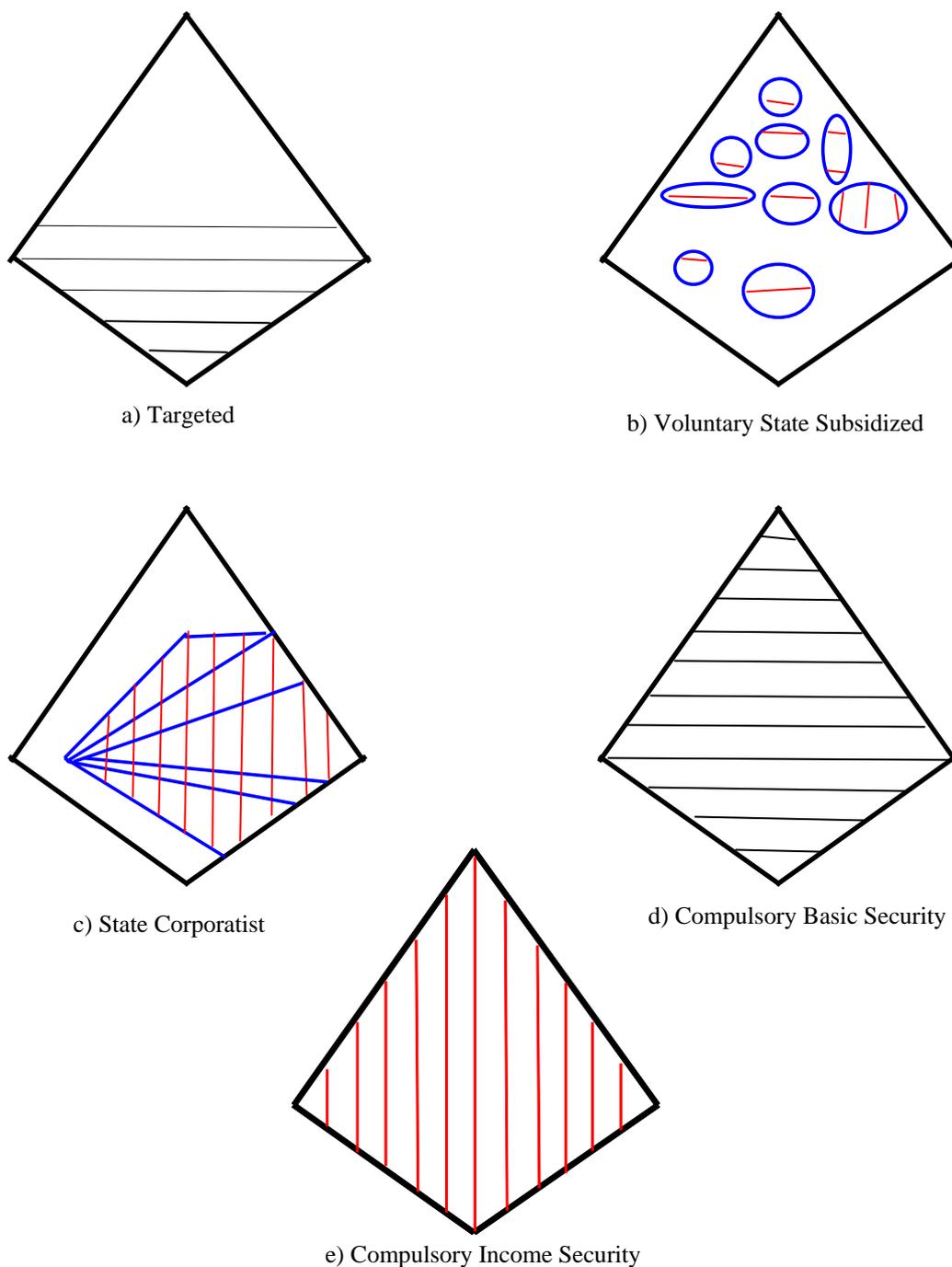
A number of EU countries have compulsory unemployment insurance programs. It is here useful to make a distinction between *state corporatist* and *comprehensive* schemes. Entitlement in comprehensive unemployment insurance is usually based on contributions. In ideal-typical terms we may here distinguish between two types of schemes; *comprehensive basic security* and *comprehensive income security*. The flat-rate unemployment benefits in Ireland, Malta and the United Kingdom are in line with *comprehensive basic security* unemployment insurance. Countries that may be categorized in the *comprehensive income security* group include Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Portugal, Romania, Slovenia and the Slovak Republic. It should be noted that in all these ten countries, except for Slovenia, there are maximum ceilings for benefits purposes that modify the degree of income security in the downward direction for many groups of workers, in some cases even to the extent that benefits are so weakly graduated by earnings that they in practise may appear to be flat-rate.

Many Continental European countries have *state corporatist* unemployment insurance programs, which may be seen as a variant of compulsory insurance. State corporatist systems are characterized by statutory income protection that is separated along occupational lines. State corporatist unemployment insurance programs are administered jointly by employer and employee representatives. Over the years, occupational segregation in these programs has often been reduced, either through harmonisation of eligibility conditions and entitlements levels, or by abolition of segmented structures altogether. Contribution rates are the same for all groups of employees in most state corporatist unemployment insurance programs, although some countries differ from this general pattern.

Figure 1 illustrates the taxonomy of unemployment benefit systems outlined above. The diamond-shaped figures symbolize the social structure – with high-income earners at the top and low-income earners at the bottom. The broad middle-class is located in between, but closer to the bottom than to the top. Horizontal lines indicate flat-rate benefits independent of earnings levels or the size of contributions paid into the

scheme. Vertical lines symbolize earnings-related benefits, providing higher entitlement levels for people with higher salaries. Bold lines indicate occupational or corporatist segmentation of unemployment insurance benefits.

Figure 1: Taxonomy of Unemployment Insurance Programs



In relation to the presented taxonomy, we can outline expectations on relationships between models of unemployment insurance, coverage and entitlement levels. Here

we disregard any effects of labour market attachment on benefit eligibility. The comprehensive basic security model can be expected to generate broad coverage due to inclusion of all kinds of employees, although eligibility sometimes depends on contribution period and other qualifying conditions. The comprehensive income security model is likely to generate similar levels of coverage, whereas entitlement levels are expected to be higher because of the earnings-related principle. However, there is an exception for low-income earners who may end up with benefits that are below the level of flat-rate benefits in corresponding unemployment insurance programs in other countries. The extent to which such scenarios apply is of course linked to wage-setting principles and minimum wage regulation.

The state corporatist systems are also compulsory, suggesting that coverage should approximate those of compulsory insurance. Yet, there has been a tradition in state corporatist systems to exclude not only groups with weak labour market attachment, such as seasonal workers and domestic employees, but sometimes also high income earners. Although many of these exclusions have disappeared, some still remain and influence coverage in the downward direction. In terms of entitlement levels, benefits are likely to be on par with those in compulsory income security programs.

Coverage in voluntary state subsidized systems is lower than in compulsory insurance. The gradual shift to earnings-related benefits suggests that entitlement levels are higher than in comprehensive basic security insurance.

Finally, targeted models are expected to produce fairly modest entitlement levels. It is difficult to apply the concept of coverage to these programs since eligibility is determined on the basis of means-tests. However, targeted benefits typically suffer from incomplete take-up due to stigma or lack of information.

The taxonomy above has obvious values for understanding the historical development of unemployment insurance programs and it is still of relevance for the analysis of similarities and differences in European unemployment benefit systems. However, we should not expect that countries cluster neatly according to the taxonomy when different dimensions of unemployment benefit systems are assessed empirically. Social protection programs in general and unemployment benefits in particular are complex entities where numerous factors in program regulation affect the generosity and inclusiveness of benefits. Some of these factors do not necessarily follow from the taxonomy above. A few examples are contribution periods, benefit duration, generosity of earnings-relatedness, and so forth. A more systematic empirical investigation of central dimensions in European unemployment benefit systems is therefore motivated. As we now turn to the empirical analysis of replacement levels, duration, contribution conditions, coverage and financing of the unemployment insurance programs in the EU Member States, the taxonomy above will not be the main guiding principle for empirical analyses, instead the different models of unemployment benefit systems will be referred to when motivated.

Dimensions of unemployment benefits in European countries

In this section we empirically analyse cross-national variation in basic dimensions of unemployment benefits. The data in this section is from the Social Policy Indicator Database (SPIN), which is under construction at the Swedish Institute for Social Research (SOFI), Stockholm University. For information about this database see *Data and Methodological Appendix*. We begin to address benefit levels, subsequently focusing on eligibility and financing.

Before turning to the cross-national comparisons, we wish to highlight some specifics about our comparative approach (further elaborated in the appendix). Other comparisons are based on 'income packaging', where different types of benefits are stacked and measured on a single scale, including a diverse set of programs such as unemployment insurance, child benefits, social assistance and housing allowances. This is relevant when the research objective is to evaluate the overall income position of particular population categories (cf. OECD 2009). In analyses of specific types of benefits programs, such as unemployment insurance, the income packaging approach becomes less fruitful. Our approach of focusing on unemployment insurance programs as such is to avoid analytical confusion, which appears when different kinds of benefits are lumped together (Ferrarini et al. 2013). Selective forms of unemployment benefits are therefore analysed separately in the section on unemployment assistance.

Benefit entitlements

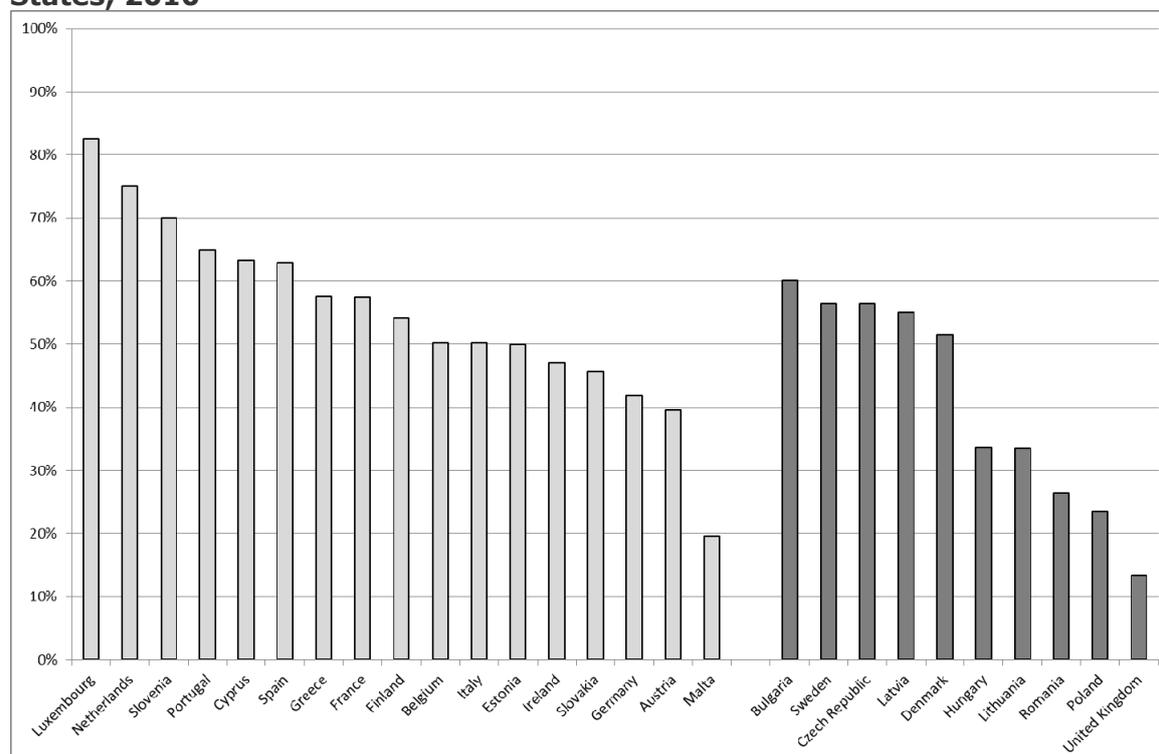
Here we direct attention to replacement rates and benefit duration. We begin with unemployment insurance, followed by unemployment assistance.

Replacement rates and duration

Figure 2 shows unemployment insurance replacement rates *gross* of income tax in 27 EU Member States in 2010. Countries are categorized into two groups based on their belongingness to the Eurozone and ranked by benefit generosity. Replacement rates are expressed in per cent of an average production worker's wage for a single person model family. Gross replacement rates vary greatly between 80 per cent in Luxembourg and 13 per cent in the United Kingdom. Gross replacement rates are on average somewhat higher in Eurozone countries, around 50 per cent, as compared to slightly below 40 per cent in countries outside the common currency.

Gross replacement rates are useful because they are more clearly directly linked to program regulation. An important characteristic in this regard is the determining principle discussed in the taxonomy above, showing whether benefits are earnings-related or provided in the form of flat-rate amounts. Another distinguishing feature is earnings-ceilings for benefit purposes, above which no benefits are paid. Earnings-ceilings for benefit purposes thus determine the maximum entitlement level of unemployment insurance. To recapitulate, Slovenia is the only EU Member States that lacks earnings-ceilings in unemployment insurance. Benefit determining formulas have remained fairly stable over recent decades, whereas earnings-ceilings have substantially lagged behind wage increases. One example is Sweden, where the formal replacement rate has remained at the level of 80 per cent of wages (for the first 200 days), while effective replacement rates taking earnings-ceilings into account have decreased by as much as 13 percentage points only between 2005 and 2010. Some countries have experienced developments in the other direction. Belgium is a notable example, where earnings-ceilings were substantially raised, resulting in a ten percentage point increase of the effective replacement rate in unemployment insurance between 2005 and 2010 (Ferrarini *et al.* 2012). However, it should be noted that 2010 replacement rate data for Belgium should be interpreted with caution due to complex program regulation.

Figure 2: Unemployment insurance gross replacement rates in 27 EU Member States, 2010

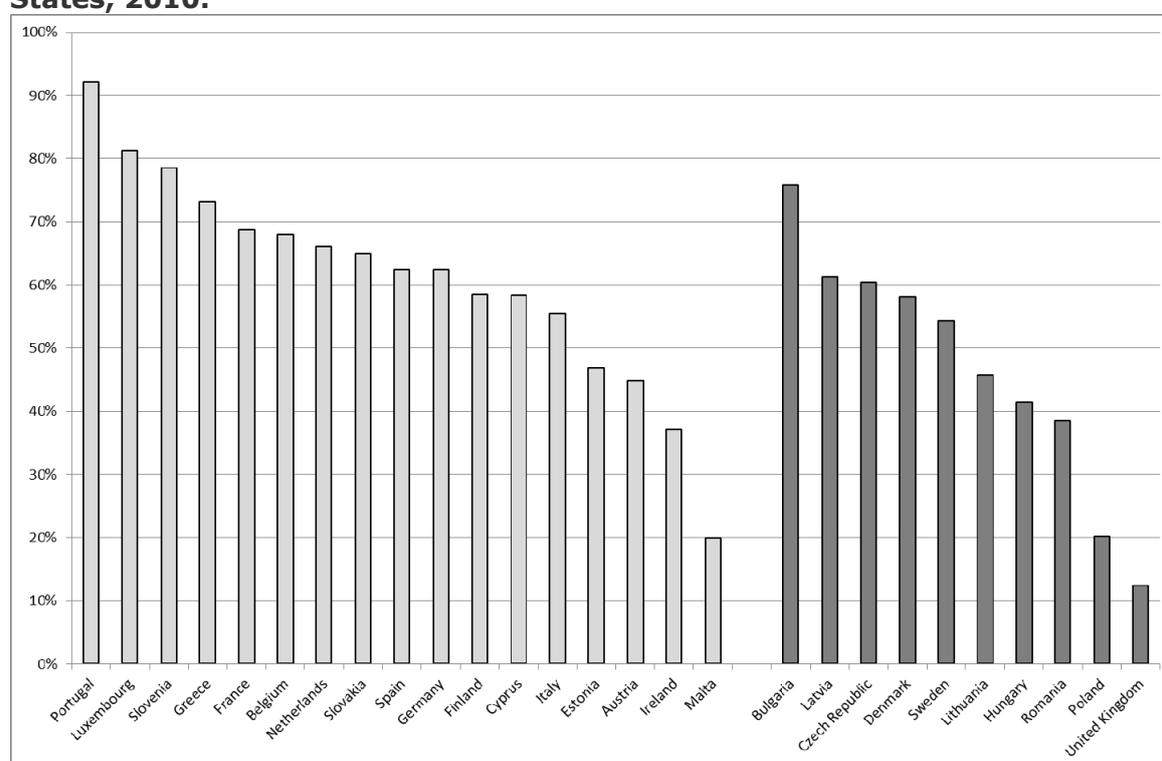


Source: Social Policy Indicator Database (SPIN).

Although gross replacement rates are closely related to program regulation, in terms of income protection, important effects of income taxation need also to be considered, wherefore it is highly relevant to analyse net replacement rates. *Figure 3* shows unemployment insurance *net* replacement rates in 27 EU Member States in 2010. Similar to the preceding analysis, countries are categorized into two groups based on their belongingness to the Eurozone and ranked by benefit generosity. Net replacement rates are usually higher than gross replacement rates due to the progressivity of income taxes. In some countries this difference between gross and net replacement rates is particularly large. In twelve countries, Belgium, Bulgaria, Cyprus, France, Germany, Greece, Latvia, Lithuania, Portugal, Romania, Slovakia and Slovenia, the difference between gross and net replacement rates are over 10 percentage points. Typically, unemployment insurance benefits are non-taxable or exempt from social security contributions in these countries, something that substantially boosts net replacement rates.

Cross-national variation increases when net replacement rates are analysed, ranging from 92 per cent in Portugal to 12 per cent in the United Kingdom. Net replacement rates are on average somewhat higher in Eurozone countries, where all but four countries (Austria, Estonia, Ireland and Malta) have net replacement rates close to or above 60 per cent. Only Portugal has a net replacement rate above 80 per cent in unemployment insurance. It is obvious that the differences in tax rules are an important source for cross-national variation in unemployment insurance net replacement rates among the Member States, also among the Eurozone countries. An EU framework for unemployment benefits thus requires that cross-country differences in income taxation of benefits are taken into consideration.

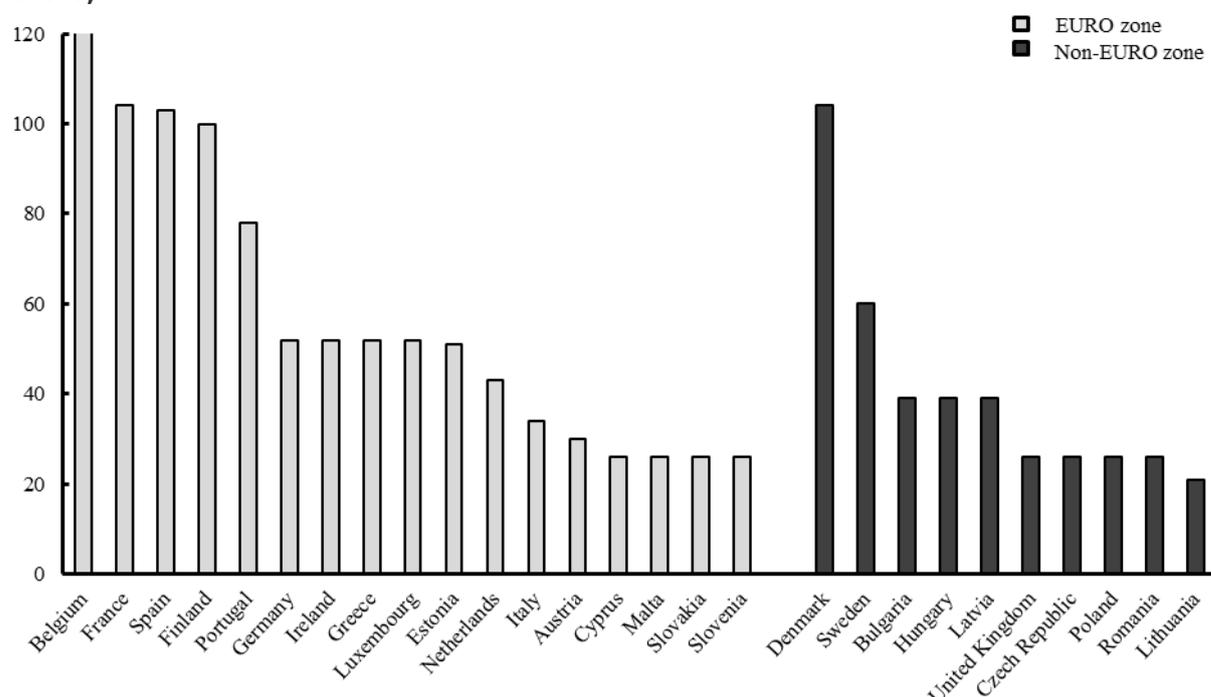
Figure 3: Unemployment insurance net replacement rates in 27 EU Member States, 2010.



Source: Social Policy Indicator Database (SPIN).

Another central dimension of social insurance is the duration of benefits. Duration is the time span during which legislated benefits are paid. Historically, duration of unemployment insurance benefits has ranged between a few weeks and a nearly unlimited benefit period, sometimes only restricted by the legal pension age (Palme *et al.* 2009). *Figure 4* shows the duration of unemployment insurance in weeks for a typical worker in 27 EU Member States in 2010. Countries are categorized and ranked in the same way as in the analysis above. Cross-national variation in benefit duration is substantial, ranging from 21 weeks in Lithuania to an unlimited period in Belgium. In several European countries, further extensions of benefit duration may be granted depending on age and previous employment record of the insured (Palme *et al.* 2009). Moreover, in some instances such as Sweden it was previously possible for the unemployed to requalify for a new unemployment benefit period through participation in active labour market programs (Ferrarini *et al.* 2012). This implies that the cross-national differences in reality are larger should we consider also the minimum and maximum duration that applies for specific groups with contribution records that deviates from the 'typical'.

Figure 4: Duration of unemployment insurance benefits in 27 EU Member States, 2010



Source: Social Policy Indicator Database (SPIN).

Between-country variation in duration is quite similar among Eurozone and non-Eurozone countries. However, the average length of duration is considerably higher among Eurozone countries, also when Belgium with principally unlimited duration is excluded from analysis. Average duration among Eurozone countries is well above two years, while corresponding length of duration for countries outside the Eurozone is around 30 weeks. It may be worth pointing out that all countries have a duration of unemployment insurance benefits that corresponds to at least 26 weeks, which suggests that the introduction of an EU framework for unemployment benefits including duration of half a year would appear to be less problematic. Yet, if such an ambition is raised to longer periods of duration, either some kind of adjustment would be necessary for a number of countries or it would require a stronger EU involvement.

Unemployment assistance replacement rates and duration

The preceding analysis has been restricted to first-tier unemployment insurance schemes. Several EU countries have alternative unemployment assistance benefits for individuals without access to unemployment insurance. The organization of unemployment assistance differs markedly across countries and it is not possible here to provide any detailed information concerning the transition process during which beneficiaries are transferred from unemployment insurance to assistance. One reason is that unemployment assistance may be organized separately from unemployment insurance or integrated into the general framework for unemployment benefits, with very different rules concerning eligibility and formal application procedures. Table 1 shows how unemployment assistance is organized in 27 EU countries in 2010. As can be seen, fifteen countries provide specific unemployment assistance. In ten of these it

is income-tested – Austria, Czech Republic, Finland, France, Germany, Ireland, Malta, Portugal, Spain and the United Kingdom, whereas benefits are flat-rate in Estonia, Greece, Hungary, the Netherlands and Sweden. Some EU countries make no distinction between social assistance and unemployment assistance. In the analysis below we have thus used social assistance where applicable.

Table 1: Type of unemployment assistance in 27 EU Member States, 2010.

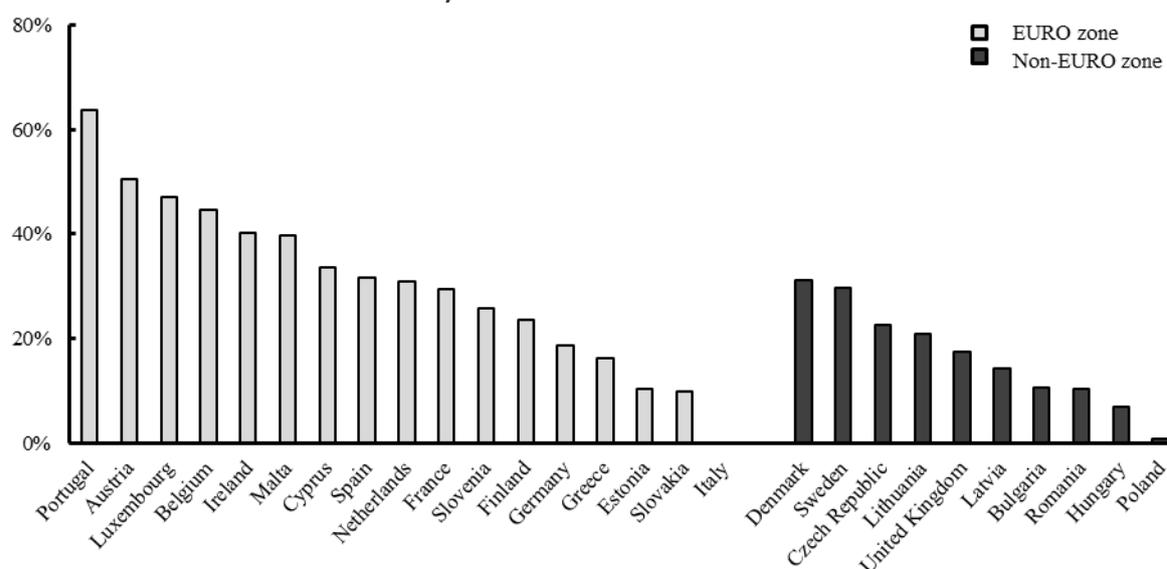
	Unemployment assistance		Social assistance
	<i>Means-tested</i>	<i>Flat-rate</i>	
Austria	X		
Belgium			X
Bulgaria			X
Cyprus			X
Czech Republic	X		
Denmark			X
Estonia		X	
Finland	X		
France	X		
Germany	X		
Greece		X	
Hungary		X	
Ireland	X		
Italy			
Latvia			X
Lithuania			X
Luxembourg			X
Malta	X		
Netherlands		X	
Norway			X
Poland			X
Portugal	X		
Romania			X
Slovakia			X
Slovenia			X
Spain	X		
Sweden		X	
Switzerland			X
UK	X		

Source: MISSOC/European Commission.

Figure 5 shows unemployment/social assistance net replacement rates in 27 EU Member States in 2010. No additional benefits, such as housing allowances, are included in the analysis. This unemployment/assistance net replacement rate data is not strictly comparable to that of unemployment insurance above. It should be recapitulated that the data refers to different kinds of programs depending on what country we look at, including flat-rate benefits, means-tested unemployment assistance benefits and regular social assistance benefits. In the analysis below we have assumed that the single person model family is unemployed for a whole year, with no work income and no access to contributory unemployment benefits. Italy is the only EU Member State that lacks a national framework for unemployment

assistance or social assistance. In most other countries, unemployment/social assistance benefit rates are typically lower than unemployment insurance benefits. The only exception to this pattern is Malta, where scale rates for unemployment assistance are above those of unemployment insurance.

Figure 5: Unemployment assistance and social assistance net replacement rates in 27 EU Member States, 2010.



Source: Social Policy Indicator Database (SPIN).

The generosity of net unemployment/social assistance differs quite substantially across EU Member States, ranging from a net replacement rate of about 60 per cent in Portugal and 7 per cent in Slovakia. The rates for Estonia, Hungary and Slovenia are heavily influenced by limited duration below one year. Duration is formally below one year also in Latvia and Lithuania, but due to possibilities of renewal we have here assumed that the single person model family receives benefits for a whole year. Unemployment/social assistance net replacement rates are on average higher among Eurozone countries, but cross-national dispersion is also more substantial. The Central and Eastern European countries tend to cluster at the lower end of the distribution when countries are ranked according to unemployment/social assistance net replacement rates. An EU- or Eurozone-wide unemployment provision may in countries with short duration of the insurance programs come to replace or complement assistance type benefits. Note however that Italy has a modest duration of the core insurance program and no nationwide assistance program.

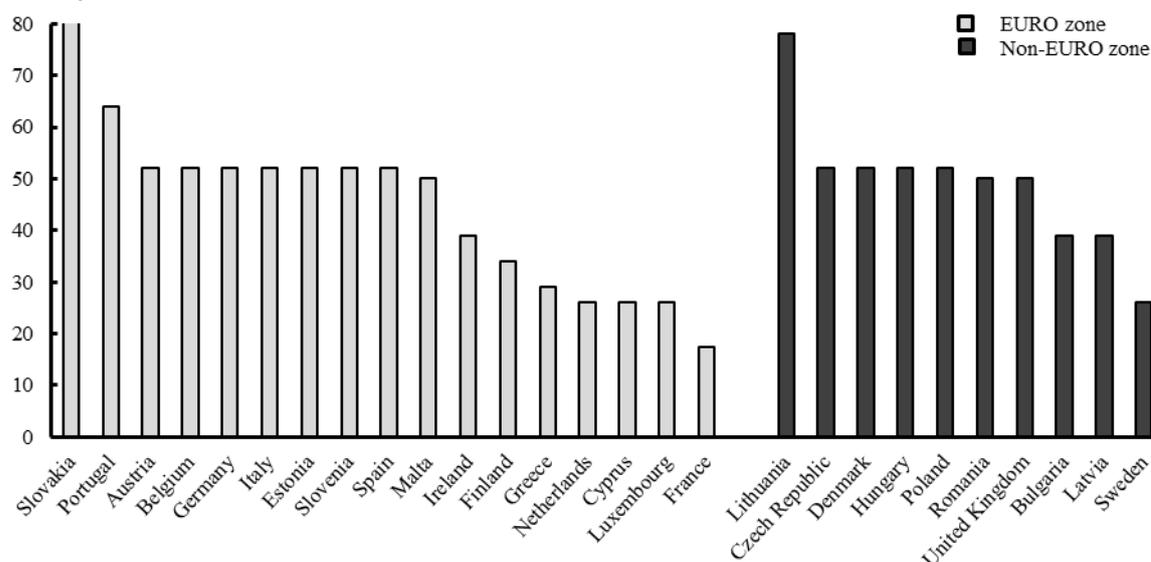
Eligibility and coverage

We now turn our attention to unemployment insurance eligibility and coverage. Eligibility is analysed in terms of qualifying period, which shows the minimum required contribution or work record in weeks that are needed in order to become eligible for insurance benefits. This criterion is not only a good approximation of the conditions surrounding eligibility of unemployment benefits in EU Member States (Palme *et al.* 2009), but also central for program coverage. Stricter qualifying periods during periods of high unemployment may substantially decrease the proportion of labour

force actually qualifying for and receiving benefits. It should be noted that countries vary in terms of the length of the *reference period* that countries allow the contributions (work periods) to be made under, for the sake of simplicity we do not show the data here.

Figure 6 shows the qualifying period for unemployment insurance in weeks across 27 EU Member States in 2010. Countries are grouped according to Eurozone participation, and ranked by length of the qualifying period. Although there is a large difference between the shortest and longest qualifying periods - less than 20 weeks in France versus 156 weeks in Slovakia – cross-national variation is relatively modest. Neither are there any substantial differences in relation to Eurozone membership nor between EU15 and Central/Eastern European countries. About half of the countries use qualifying periods between 50 and 52 weeks. Lithuania, Portugal and Slovakia have qualifying periods of 64 weeks or longer. Remaining countries have qualifying periods in the range between seventeen weeks (France) and 39 weeks (Bulgaria, Latvia and Ireland). Thus, the typical qualifying period is around 52 weeks in the Eurozone. Countries that depart from this general pattern typically have shorter qualifying periods, something that would require some adjustment in the context of a common Eurozone unemployment benefit program.

Figure 6: Qualifying period for unemployment insurance in 27 EU Member States, 2010.

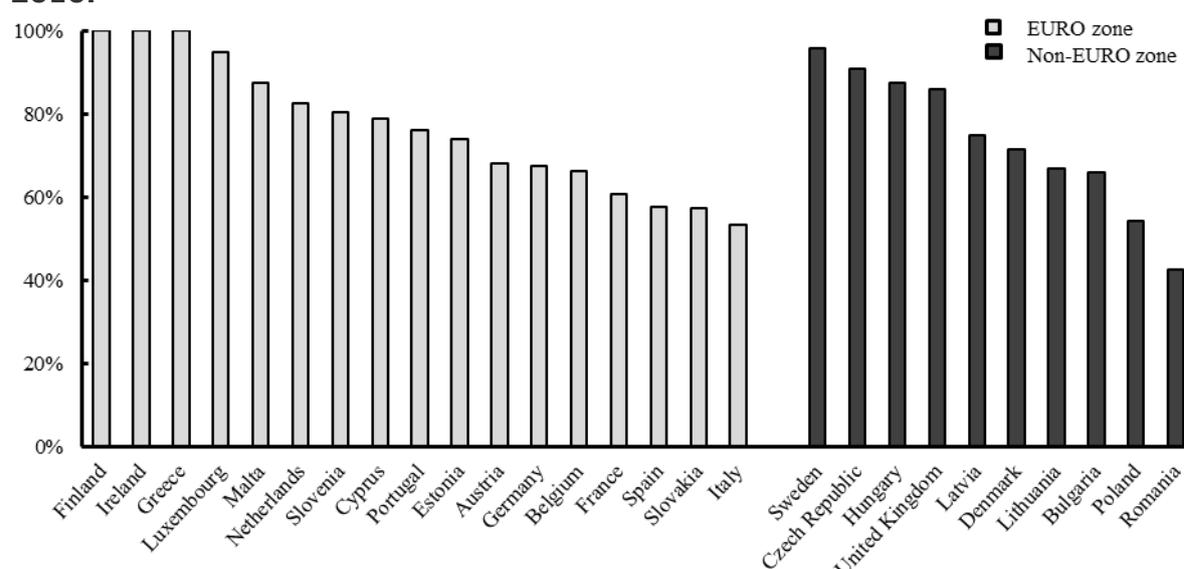


Source: Social Policy Indicator Database (SPIN).

Figure 7 shows unemployment insurance coverage rates in 27 EU Member States in 2010. In this report we define the *coverage rate* as the number of insured persons as percentage of the labour force. This indicates the proportion of the labour force that is covered under an unemployment insurance that would entitle them to a future insurance benefit should they become unemployed. It is enough to be covered by a basic benefit to be included as long as the basic benefit is paid without means- or income-testing. Our *coverage rate* is different from the so called *pseudo-coverage rates* that measure the proportion of those who are unemployed who actually receive an unemployment benefit. Such pseudo-coverage rates have been estimated using both administrative and survey data and the estimated level vary substantially due differences in measurement of both numerators and denominators. In state

corporatist programs, the number of insured persons is summed across all relevant population categories. It should be noted that the choice of reference population may influence the coverage estimate to a large extent. For a European comparison, labour force adjusted coverage rates offer a more complete representation in all countries. By comparison, the number of employees differs substantially across countries. In Romania, for example, the number of employees represents only about half of the labour force.

Figure 7: Unemployment insurance coverage rates in 27 EU Member States, 2010.



Source: Social Policy Indicator Database (SPIN).

Unemployment insurance coverage rates vary quite substantially across EU Member States. Coverage is on average 73 per cent, with no major differences by Eurozone belongingness. Five countries have full coverage (over 95 per cent), including Finland, Ireland, Greece and Luxembourg among Eurozone countries and Sweden in the non-Eurozone. Finland and Sweden both provide basic benefits (without means-testing) in addition to voluntary state subsidised unemployment benefits, something that results in very high coverage rates. At the lower end, Romania's unemployment insurance covers less than half of the labour force. Unemployment insurance coverage is fairly low also in Italy, Slovakia, Spain, and Poland. We can also see that five out of the six countries with the highest coverage rates (above 90 per cent) belong to the Old Member States (EU15).

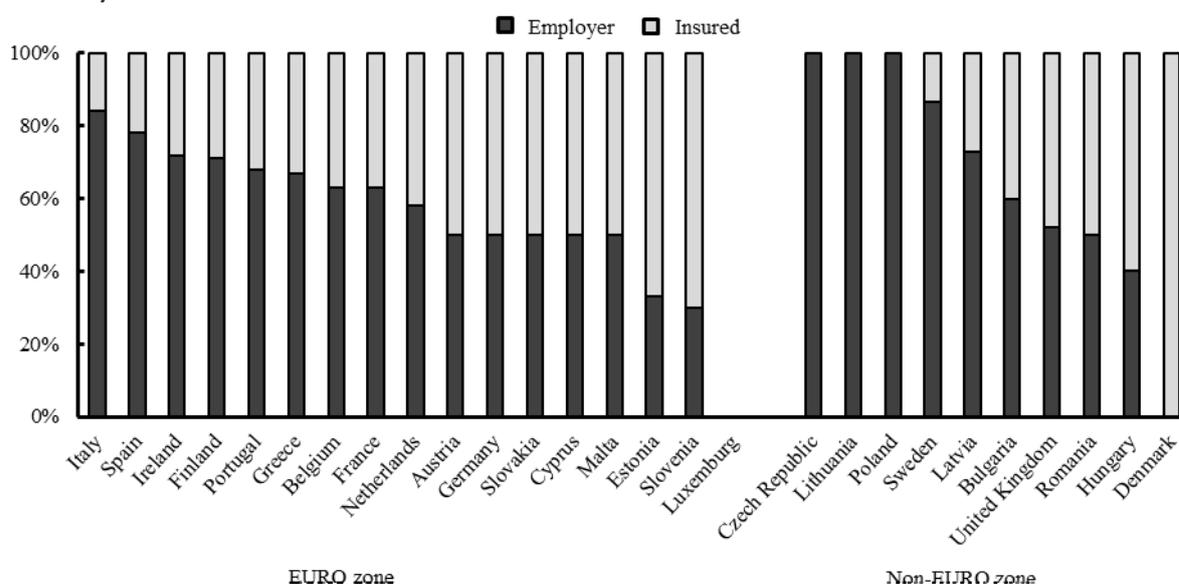
The large variation in unemployment insurance coverage rates among Eurozone countries cannot be neglected and it is not possible to determine a typical coverage rate that seems to apply throughout Europe. In any case, lack of coverage is a problem in most European unemployment insurance schemes and represents a formidable challenge for policy reform. Notably, the presented coverage rates disregard any further effects or limitations imposed by eligibility conditions. In addition, the large variation in pseudo-coverage rates among Member States shown elsewhere should be a further reason for concern, showing that it is not always enough to examine solely formal rules. It is necessary to also reflect on how the rules are implemented.

Financing and expenditures

Cross-national patterns in financing and expenditures of unemployment benefits are complex and it is beyond this report to explore this issue in full detail (including assessments of program revenues). In the following, focus is on formal financing structures of the core unemployment insurance program in the different countries. Here we will examine the relative importance of contributions from insured persons and employers, and we will also outline the role of the state. In terms of expenditures, available data allow us to evaluate aggregate spending at system level. A detailed separation of expenditure by benefit type within the overall organization of unemployment benefits has not been possible.

Figure 8 shows the relative contributions of insured persons and employers to the financing of unemployment insurance in 27 EU Member States, 2010. Whereas there are no such contributions in Luxembourg, it is the responsibility of the insured persons to pay all contributions in Denmark. Among the remaining countries there is a mix of contributions from insured persons and employers with no clear grouping of countries. However, we can note that employer participation in financing of unemployment insurance tends to be stronger among non-Eurozone countries.

Figure 8: Sources of funding for unemployment insurance in 27 EU Member States, 2010.



Source: Social Security Programs Throughout the World, SSPTW (2010).

Table 2 illustrates the relative importance of state funding in unemployment insurance in 27 EU Member States, 2010. Luxembourg, Malta and Cyprus have fixed contributions from the state (ranging from 100 per cent, 33 per cent and 24 per cent, respectively). In Austria, Belgium, Finland, Ireland, and Slovakia among Eurozone countries, the state covers deficits. The same applies in the Czech Republic, Lithuania, Poland and Romania among non-Eurozone countries. In Germany, Greece, Italy, Slovenia and Spain the state is providing a subsidy to unemployment insurance. This applies to some non-Eurozone countries as well, including Denmark, Latvia, Sweden and the United Kingdom. There is no formal participation of the state in remaining countries.

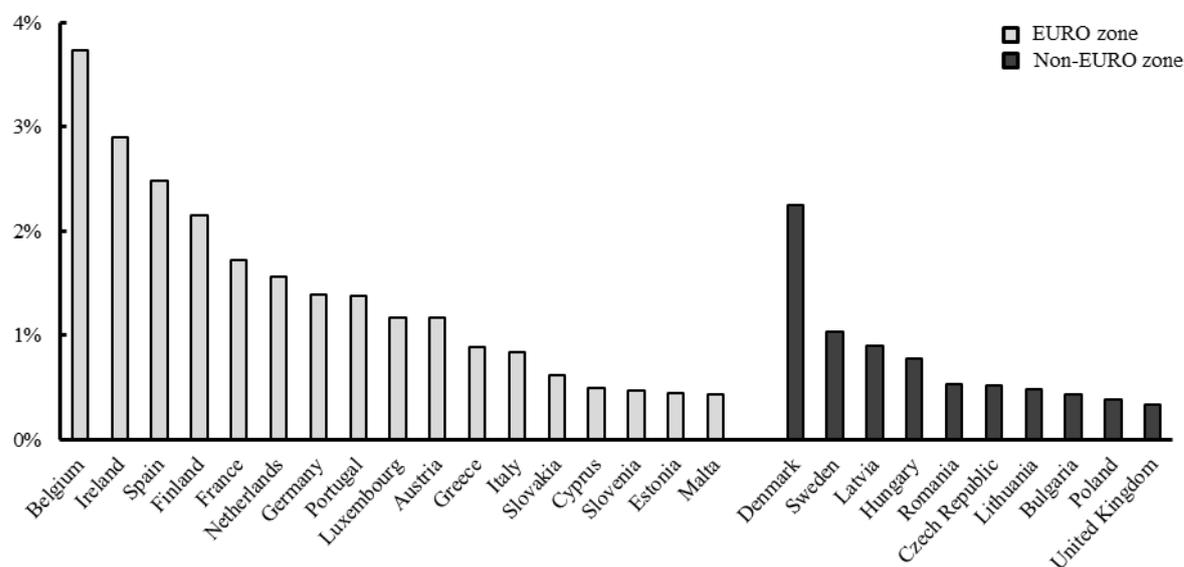
Table 2: Forms of state participation in financing of unemployment insurance in 27 EU Member States, 2010

Form of participation	Eurozone countries	Non-Eurozone countries
<i>Fixed contribution</i>	Luxembourg, Cyprus, Malta	
<i>State covers deficit</i>	Austria, Belgium, Finland, Ireland, Slovakia	Czech Republic, Lithuania, Poland, Romania,
<i>State provides subsidy</i>	Germany, Greece, Italy, Slovenia, Spain	Denmark, Latvia, Sweden, the United Kingdom,
<i>State does not contribute</i>	Estonia, France, the Netherlands, Portugal	Bulgaria, Hungary

Source: Social Security Programs throughout the World, SSPTW (2010).

When we now turn our attention to unemployment benefit expenditure a central note of caution is warranted. It has not been possible to present data where comparability is guaranteed in terms of unemployment benefits outside the core insurance scheme, even if Eurostat data refer to periodic unemployment benefits and thus should exclude, for example, unemployment pensions. Figure 9 shows unemployment benefit expenditure as percentage of GDP in 27 EU Member States in 2010. Expenditure levels range from a few low spending countries allocating less than half a per cent of GDP to Belgium that spends almost four per cent of GDP. Benefit duration seems to be the only basic characteristic of unemployment insurance that correlates strongly with program expenditure. Belgium has longest duration by far and highest expenditures. France, Spain and Finland, among the Eurozone countries, as well as Denmark in the non-Eurozone, have long periods of duration. Germany has high expenditure levels relative to the length of benefit duration. Portugal shows the reverse pattern where the high replacement levels are not reflected in levels of unemployment benefit expenditures. Note, however, that the favourable tax treatment of unemployment benefits in Portugal and other countries involves substantial tax expenditures (not shown).

Figure 9: Unemployment benefit expenditures as percentage of GDP in 27 EU Member States, 2010.



Source: Eurostat, [spr_exp_fun].

Discussion

If the EU Member States in central ways would have identical or very similar unemployment insurance programs, it would be comparatively easy to develop a common element that could function as an insurance and/or stabilization mechanism in Europe. Even though variation among Eurozone countries is slightly lower as compared to the entire EU, cross-national differences are evident enough to warrant further reflections. The discussion below is primarily focused on Eurozone countries but most of the reflections are valid also for the wider EU. In all events, the underlying objective, as we interpret the underlying ambition to promote a European stabilisation/insurance mechanism, is about making provision of unemployment compensation more generous, or at least avoiding cutbacks in unemployment insurance schemes that are running deficits, by offering a European redistributive mechanism to compensate countries for involuntary unemployment.

With this objective, one option would be to ignore cross-national institutional differences and more directly provide EU participation in the funding of unemployment insurance benefits. In this context, we have shown that nine Eurozone countries have flexible state funding in their schemes, either by covering deficits or by providing some kind of subsidy to unemployment insurance. Three Eurozone countries have fixed formal participation of the state towards funding of unemployment insurance, while Estonia, France, the Netherlands and Portugal have no state participation. Yet, most countries also provide complementary means-tested or flat-rate unemployment assistance benefits that are entirely funded by the state. To achieve a common mechanism, countries would have to agree on some kind of symmetric participation of the state and the EU (Eurozone) in funding an unemployment insurance element, designed to share common European standards, possibly including also second-tier assistance or flat-rate unemployment benefit programs. While this would require certain degrees of country level adjustments, institutional changes to present systems of unemployment benefits in the EU Member States do not appear to be insurmountable.

In terms of harmonizing other dimensions of unemployment benefit systems different strategies can be used. One option is to identify countries that deviate markedly from broader European patterns, indicating where special adjustments are most immediate in Europe. Another strategy is to identify common denominators for key aspects of the systems. In both respects, it appears warranted to promote increased generosity as to improve both the insurance and the stabilization capacity of the system.

Considering the first strategy of identifying deviating countries, both Portugal and Slovakia appear to differ substantially from other EU Member States. Portugal is an exceptional case in several ways, having not only longer contribution periods than most EU countries, but also very high net replacement rates in both unemployment insurance and assistance due to favourable tax treatment of benefits. Despite the generosity of the system, unemployment benefit expenditures in Portugal are modest. Slovakia combines long contribution periods, modest replacement rates and short duration with comparatively low expenditure levels.

As a second strategy, a central and fruitful harmonization consideration for a European unemployment insurance provision would be to include a contribution period of 26 weeks. This would most likely increase unemployment insurance coverage in all countries, except France where the result would be a slight increase in the contribution period. In the case of employing the currently common denominator of a 52 weeks qualifying period, the actual unemployment insurance coverage would most likely decrease in seven Eurozone countries, something that appears problematic. Among non-Eurozone countries, only Sweden has a 26 weeks contribution period. Denmark is here special case with a much longer contribution period, but also much longer duration of benefits.

Another central consideration would thus be to harmonize the benefit period by extending it to 52 weeks in seven Eurozone countries. Equally, it can be argued that EU should not subsidize benefit periods beyond one year, which today exist only in five Eurozone countries and Denmark.

Finally, with regards to the replacement rate of unemployment benefits, most Eurozone countries have replacement rates between 60 and 80 per cent. Estonia, Austria, Ireland and Malta have lower replacement levels. Would it here be possible to adjust benefits levels upwards? Would this be facilitated by financial incentives from the EU? These are two issues that warrant further discussion at EU-level and in the various Member States.

Data and methodological appendix

Comparative datasets on the institutional structure of social benefit programs differ in conceptual framework for policy analysis. To characterize the institutional structure of unemployment benefits in the EU this report relies heavily on data from the *Social Policy Indicator Database (SPIN)*, which is under construction at the Swedish Institute for Social Research (SOFI), Stockholm University (see <http://www.sofi.su.se/spin>). SPIN is designed to capture essential dimensions of social citizenship, broadly interpreted as bundles of specific rights and duties associated with the welfare state (Marshall 1950). The database includes detailed information on financing, eligibility and entitlement of major social benefit programs, including unemployment insurance and unemployment assistance. In addition we use data expenditure data from Eurostat and information on funding principles in unemployment insurance from Social Protection Programs Throughout the World (SSPTW).

Financing is in this report analysed in terms of shares of unemployment insurance funding coming from injured persons and employers. In addition forms for state participation in funding of unemployment insurance are analysed. This analysis is based on information in SPPTW. *Eligibility* is here analysed in terms of unemployment insurance qualifying periods. The *qualifying period* is the minimum required contribution or work record in weeks that are needed in order to become eligible for unemployment insurance benefits. The *coverage* rate is the number of insured persons as percentage of total labour force 15-64 years. The coverage indicator should not be confused with various enrolment based measures on the inclusiveness of social benefits, such as beneficiary ratios or benefit take-up rates. In order to analyse entitlement levels we use two indicators: net replacement rates and duration. The *duration* of unemployment insurance is equal to the number of weeks during which a recipient has the right to benefits. Data on unemployment benefit *expenditure* is from Eurostat, expressed as percentages of GDP.

Because *replacement rates* are tricky to compare empirically we rely on a model family approach, where benefit levels for a single person household have been calculated based on national legislation at average wages. As duration of unemployment insurance in some countries is less than one year, we have assumed that the model family has 26 weeks of benefits and 26 weeks of earnings. Unemployment insurance replacement rates are here reported net of taxes. For taxable unemployment insurance benefits we have calculated the yearly tax liability for the total income of the model family. The effects of waiting days are considered and duration less than 26 weeks also reduces total benefit amounts. In order to avoid seriously inflated replacement rates due to the inclusion of half a year of regular earnings in model family yearly income we apply the following formula:

$$NR = [(a-c)/(b-c)]*100;$$
 where NR = net replacement rate, a = net income from up to 26 weeks of only social insurance benefits and 26 weeks of earnings, b = net income from 52 weeks of earnings, and c = net income from 26 weeks of earnings.

It should be noted that there are other approaches for establishing replacement rate data. One common procedure is to stack different types of benefits on a single scale, including a diverse set of programs such as unemployment insurance, child benefits, social assistance and housing allowances. Income packaging of this type may be

relevant when the main research objective is to evaluate the overall income position of particular population categories and variants of this approach to establish replacement rate data have been used by the OECD (2009). In analyses of specific types of benefits programs and linkages between the different dimensions of social rights the income packaging approach becomes less fruitful (Ferrarini et al. 2013). Our choice to use a single person model family in the calculation of unemployment insurance replacement rates is related to this observation, thus analytically avoiding confusion of social insurance and family policy in the empirical analysis of entitlement levels. Similarly, we have not included any means- or income-tested benefits in the calculation of unemployment insurance replacement rates. These selective forms of unemployment benefits are instead analysed separately in the section on unemployment assistance.

More generally, data included in SPIN is based on a large number of different sources. The average production workers' wage is based on information provided by the US Bureau of Labour Statistics, which is the same source used for the Social Citizenship Indicator Program, SCIP (Korpi and Palme, 2003). SPIN have been established in close correspondence with the following publications: The Tax/Benefit Position of Production Workers (OECD, various years); Taxing Wages (OECD, various years); The Tax/Benefit Position of Employees (OECD, various years); The Tax/Benefit Position of Selected Income Groups in OECD Member Countries (OECD, 1978); Personal Income Tax Systems Under Changing Economic Conditions (OECD, 1986); Social Protection in the Member States of the European Union (European Commission, various years); Social Security Programs Throughout the World (U.S. Department of Health and Human Services, various years); European Tax Handbook (International Bureau of Fiscal Documentation, various years); and Social Protection in the Nordic Countries (Nordic Social-Statistical Committee, various years). Besides the above mentioned more general comparative sources, the following national sources on unemployment benefits and tax legislation have been used.

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