

PAPER ON AUTOMATIC STABILISERS

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This paper was prepared by a working group chaired by Robert Strauss (DG Employment, Social Affairs and Inclusion). Main authors of this paper are Olivier Bontout and Guy Lejeune, with significant input from Magdalena Ciesielska and Roberta Di Girolamo. It also draws on two external studies conducted by professors. S. Dullien and J. Palme.
The paper does not necessarily reflect the opinion of the European Commission.

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A Commission services working group¹ on European automatic stabilisers was set up in order to reflect on three unemployment-linked options for such stabilisers. The first two options considered are (un)conditional transfers to Member States with high and rising unemployment, while the third option is an EMU-wide unemployment benefit system (UBS). The detailed options are:

Option 1) Fiscal transfers only to Member States with high and rising unemployment, as part of a fiscal union triggered by increases in unemployment – could be phased down over time – the MSs would be free how to use the transfer.

Option 2) Fiscal transfer triggered as in option 1, but earmarked for unemployment benefit expenditure on the basis of harmonised provisions, conditionality and minimum standards, e.g. of social protection and labour activation.

Option 3) E(M)U-wide UBS with common financing and common provisions leaving it to Member States to top-up.

This progress report presents first the key findings of the working group, followed by three analytical parts.

Part 1 discusses the three options considered for an automatic stabiliser and focusses on the third option of UBS, presenting estimates of the size of contributions and benefits, stabilisation impact, counterfactual exercises in the past and evolution of net budgetary positions of Member State over time.

Part 2 reviews options for a European UBS and its related links with existing UBS in the EU Member States, notably as regards the necessary balance between a too generous system (which could lead to some moral hazard issues) and a too restrictive system (which could be ineffective in terms of coverage and stabilisation). This chapter also explores how an EMU wide UBS would interact with existing social security EU coordination rules.

Part 3 proposes a framework for reflecting on the possible design of some EMU provisions, and related links with national systems ranging from pure reliance on national systems to the introduction of some common standards.

The paper also builds on two EC commissioned studies by Prof. S. Dullien on the possible design of a 'A euro-area wide unemployment insurance' [Dullien, S. (2013)], and by Prof. J. Palme and colleagues on the analysis of existing Unemployment benefit systems in EU Member States [Palme, J et al. (2013)].

¹ This report was prepared by a working group composed of Commission staff members, chaired by Robert Strauss (DG Employment, Social Affairs and Inclusion). Main authors of this progress report are Olivier Bontout and Guy Lejeune, with significant input from Magdalena Ciesielska and Roberta Di Girolamo. The report does not necessarily reflect the opinion of the European Commission.

Introduction

1) The role of automatic stabilisers in the recent proposals to strengthen the EMU

The Commission 'blueprint for a deep and genuine economic and monetary union: Launching a European Debate' and the related Council report² acknowledge that an EMU-wide shock absorption function is an essential component of a sustainable monetary union.

The Commission blueprint foresees an EMU-level scheme to stabilise asymmetric shocks (or symmetric ones). It should be supportive of structural reforms and subject to strict political conditionality, to avoid the setting up of long-term transfer flows. Payments from the scheme could be earmarked (or not) for a defined purpose, such as unemployment benefits.

The Report of the President of the European Council foresees, post 2014, the creation of a shock-absorption function at EMU level. A built-in incentives-based system would encourage Member States to continue to pursue sound fiscal and structural policies, linking the two objectives of asymmetric shock absorption and the promotion of sound economic policies.

According to the Report of the President of the European Council, the specific design of the asymmetric shock-absorption function could follow two broad approaches. The first would be a macroeconomic approach, where contributions and disbursements would be based on, for example, measures of economic activity. The second could be based on a microeconomic approach, and be more directly linked to a specific public function sensitive to the economic cycle, such as unemployment insurance. Assessing the individual merits of each approach would require a more in-depth analysis.

2) An EMU-wide UBS and other forms of EMU-wide automatic stabilisers

Consensus has grown on the fact that the EMU needs a supranational automatic stabiliser. Such stabilisers smooth cyclical fluctuations, restraining booms and busts and stabilising the social situation in the Member States most affected by crises. Moreover, it helps fiscal policy to focus on structural balances (as a significant cyclical part is taken away) and boosts confidence in individual Member States by moving part of the insurance function to the supranational level.

This paper compares three unemployment-linked options for such stabilisers. The first two options under review are respectively, unconditional and conditional transfers to Member States with high and rising unemployment, while the third option is an EMU-wide unemployment benefit system (UBS).

The paper underlines that an EMU-wide UBS, with its rather timely effects can be efficient for economic stabilisation, provided it concentrates on short-term unemployment (to ensure more efficiency in terms of stabilisation) and can also be accompanied by employment-friendly incentives for Member States. An EMU-wide UBS is also easy to communicate and understand. In this option, unemployed in all Member States can benefit, also increasing the chances of the political acceptance of the stabiliser. The effectiveness of stabilisation is also, by construction, high for unemployment benefits since they target a population with a high consumption propensity and have consequently a large multiplier effect.

The potential stabilisation impact of unconditional and conditional transfers envisaged under the first two options strongly depends on the choice of the trigger, since it can lead to delays in implementation and thereby significantly reduce the efficiency of

² See European Commission (2012b) and Van Rompuy (2012).

stabilisation. It can even lead to inappropriate triggering; for instance, triggers based on the output gap or the unemployment gap can be pro-cyclical due to large, sometimes persistent, revisions in these gaps, while the unemployment rate itself is prone to much smaller revisions, which makes it a better candidate to set the trigger. The report also underlines that transfers earmarked for unemployment benefits are likely to have a stronger stabilisation impact than those not earmarked.

As detailed EMU-wide data on the full employment history of the individual unemployed are unavailable, it is difficult to determine with precision how many unemployed would be eligible for an EMU-wide UBS. As a result, the same applies to the size, stabilisation outcome and net beneficiaries over time of the UBS. Further research is needed to provide for more precise estimates of the number of eligible unemployed of an EMU-wide provision. Nevertheless, results suggest that it is possible to reach large marginal stabilisation in downturns for a reasonable size of the system (0.7% of euro-area GDP).

The working group examined the US unemployment insurance system as a possible source of inspiration for the design of an EMU-wide UBS, since it is highly effective in terms of economic stabilisation. It combines a relatively loose harmonisation of the State UBS, a specific financing structure (States paying for UBS during normal times, with support of federal sources during downturns) and the existence of separate schemes for large downturns. Automatic reduction of deficits of State accounts at the federal level tackles the issue of persistent transfers in the regular unemployment insurance.

While an EMU-wide UBS appears to be an efficient option in terms of stabilisation, implementation implies choices on how the EU wide UBS would interact with the national UBS (on eligibility, contribution size and forms, benefit levels, duration), as well as on the possibility for temporary deficits (in order to increase its stabilisation effectiveness). The current review suggests that the EMU provision should remain complementary to national provisions and should focus on the short term (duration between 3 and 12 months for instance).

There is a risk of moral hazard, in so far as a Member State may be tempted to reduce activation efforts or loosen supervision of eligibility conditions when it receives central funding. The quality of national administrations is crucial here and the introduction of an EMU-wide UBS could be accompanied by standard conditions on activation linked to the EMU provision and efforts to strengthen national administrations, notably public employment services. Member States also have different implicit or explicit taxes on unemployment benefits, which could lead to different levels of transfers to national budgets from an EMU provision.

Likewise, persisting differences in unemployment levels across countries can lead to persistent transfers from countries with lower unemployment rates towards countries with higher unemployment rates. The question therefore is how to ensure that these effects do not translate into unintended permanent transfers. National contribution rates could be regularly reviewed and adjusted in order to reach a balance of Member States' accounts with the EMU-wide UBS over the medium term. The federal US system provides an example of such an approach, with State accounts that need to be balanced over time, with the first adjustments of contribution rates after two years of deficits.

It is usually proposed to base the financing of a potential EMU provision on social contributions, but a broader tax base (such as GDP or consumption) can be considered, or to provide the EMU fund with specific resources. Financing through contributions has the advantage of a clear link to past wages, financing on GDP (or consumption) has the advantage of providing a broader tax base (increasing wage competitiveness of the EMU area) and avoiding potential interferences with the national structure of direct taxation. A system of Member State accounts would avoid the setting up of unintended persistent transfers. As regards eligibility conditions and benefit calculations, having some common standards would allow improving coverage and thus the stabilisation impact.

Part 1: Options for a European automatic stabiliser

This part is structured as follows: Section 1.1 assesses the three options for automatic stabilisers ((un)conditional transfers to Member States and an EMU-wide UBS) in terms of timeliness, aim, duration, communication and incentives to reform. Section 1.2 describes the US UBS, with a specific focus on the interaction between the federal and State level, with an aim to draw lessons for an EMU-wide UBS. Section 1.3 focuses on the characteristics of an EMU-wide UBS: contribution form, contribution size, entitlement conditions, benefit size and duration and the UBS' possibility to borrow. It presents the proposal of Dullien (2007, 2012, 2013) against some alternatives. Section 1.4 concludes. Box 3 lists existing proposals for E(M)U-wide unemployment-linked automatic stabilisers. The relationship between the characteristics of the existing national UBS and a possible common EMU-wide UBS is analysed in Part 2.

1.1. An assessment of the three options for EMU-wide automatic stabilisers linked to unemployment

The timeliness of the stabiliser is hampered by the use of a trigger. While the unemployment rate (the trigger in the first two options) compares favourably to the output gap in terms of revision bias (see Box 2), the Member State's economic and social situation may have already been quite bad before the threshold is reached. Moreover, the trigger does not interact in an optimal way with the infrequent national budget procedures. In general, national policymakers will not be able to easily foresee whether the Member State will qualify for the transfer during the coming budget year.

Table 1: Description and assessment of the three options

	Option 1	Option 2	Option 3
Form	Transfers to and from EU "fund"*	Transfers to and from EU "fund" (1)	EMU-wide UBS
Trigger	Unemployment	Unemployment	None
Earmarking?	No	Yes, for UB	Yes, for UB
Conditionality?	No	Yes, related to UB etc.	Possibly
Assessment of the three options			
Timely	No (trigger; not earmarked)	No (trigger)	Yes
Targeted and effective	No (not earmarked)	Yes	Yes
Temporary effect	Yes	Yes	Yes, if only short-term U
Transparent ²	No (not earmarked)	Yes	Yes
Robust ³	No (no conditionality)	Yes	Possibly
(1) Bilateral transfers between Member States are equivalent to a formal EU fund. (2) Transparent: is it easy to understand? (3) Robust: could it create incentives for employment-friendly reforms by national governments?			

Dullien (2013) shows to which extent the specifications of the unemployment trigger would have affected whether individual Member States had qualified for transfers over

the last 20 years. An evident negative trade-off is observed between the height of the (triggering) threshold and the frequency and length of the benefit recipient situation for individual Member States.

If the transfer is not earmarked, the Member State might simply use it to lower its deficit or debt or even spend it on actions which are not necessarily supportive of economic or social goals. The transfer is, as a result, much more effective when earmarked to UB, because these benefits support a share of the population with a high consumption propensity. UB have, consequently, a large multiplier effect (this is the effect on GDP per unit of UB outlays).

It is obvious that the conditions attached to the transfers in option 2 and 3 would be crucial in determining whether the system would be just a short-term patch or whether it would also help avoiding future disequilibria in the economy, the labour market and the social situation.

Option 3 compares favourably to the alternatives in Table 1, provided the conditions attached are appropriate and transfers are restricted to the short-term. Option 3 is also the easiest to communicate and understand and does not need an agreement on an arbitrary trigger. Finally, in this option, unemployed in all Member States can benefit (increasing the chances of the political acceptance of the stabiliser).

Box 2: Revisions in the unemployment rate and the output gap

All automatic stabilisers considered here are linked to unemployment, which serves as trigger or key variable. On the other hand, there seem to be good reasons to use the output gap as trigger or key variable for such stabilisers (see below). In this box, the revision properties of both variables are compared.

Unemployment is a somewhat lagged indicator compared to the "true" cycle. On the other hand, unemployment data are available quickly and revisions seem to be small. Based on data from the ECB's Real Time Database, the average absolute revision³ to the euro-area unemployment rate can be calculated over the period January 2001 – July 2012. At 0.30 pp, the outcome seems on the high side. However, one has to take into account a minor and a major caveat. The minor caveat is that the "euro area" is a moving concept in the ECB's Real Time Database. This is a minor explanatory factor, in view of the small weights in the euro area of the Member States which have joined the euro area after 1999.

The major caveat is that the revision between the first and the latest estimate is heavily influenced by back-recalculations of time series for individual Member States. As Eurostat aims at publishing time series without breaks, series are recalculated backwards whenever there are methodological changes or when an updated reference population for the EU Labour Force Survey is used. To filter out some of these recalculations, one can calculate the revision between the first estimate and the estimate made twelve months later. When calculated according to this method, the average absolute revision to the euro-area unemployment rate drops to 0.15 pp.

An alternative trigger or key variable would be the output gap, i.e. the deviation between actual and potential output. This choice would have several advantages. It considers developments in the whole economy and its evolution is not directly influenced by the Member State's labour market institutions. However, it has the large drawback that potential output cannot be measured directly and must be estimated through

³ This is the average of the absolute value of differences between the latest available value and the first release for each observation period.

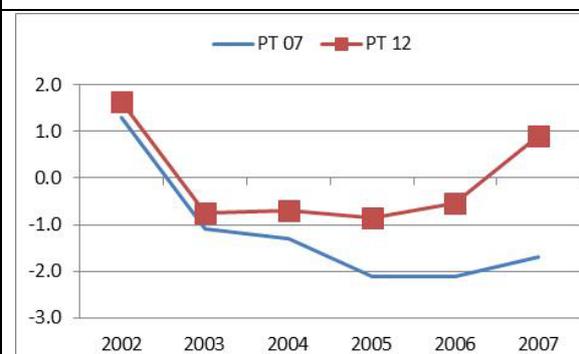
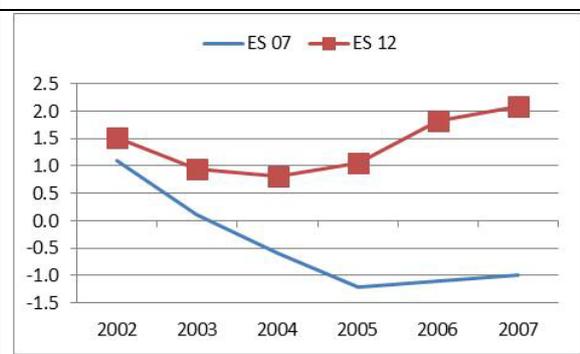
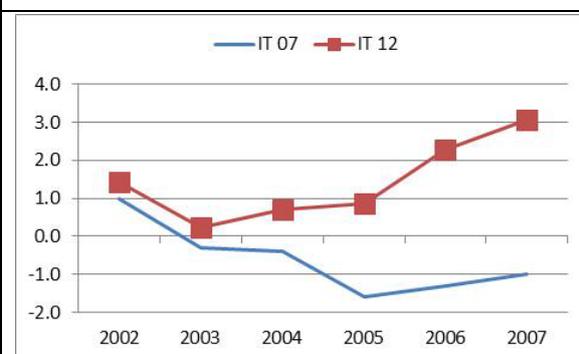
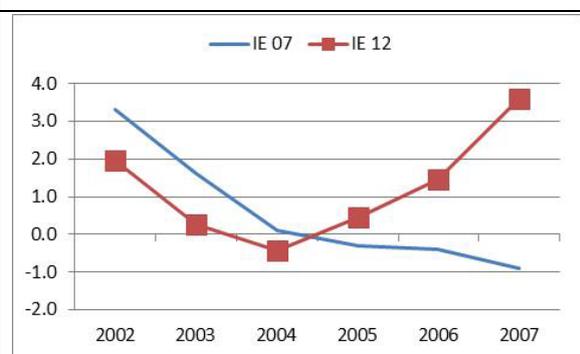
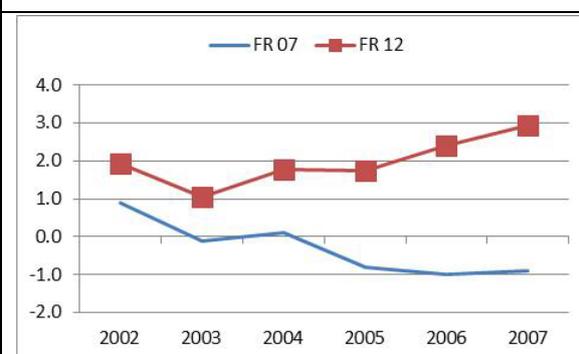
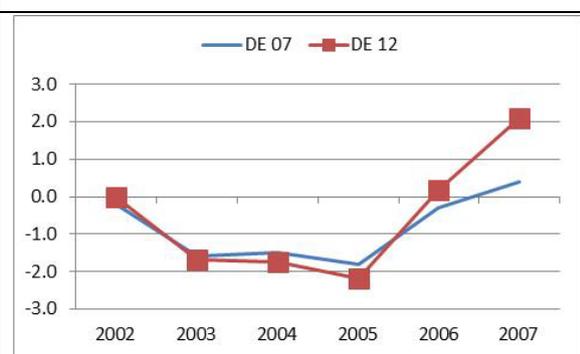
sophisticated methods. As a result, output gap estimations undergo a continuous revision process and the revision bias is considerable, see also Kempkes (2012).

Chart 1 (next page) confirms this in the case of the Commission forecasts made prior to the financial crisis. Transfers made on the basis of the output gap as estimated in spring 2007 (and probably before⁴) would have been pro-cyclical in the case of many euro-area Member States, aggravating the disequilibria which were accumulating at that time and which sowed the seeds for the EMU sovereign crisis, see also Klär (2013).

In order to use a "clean" trigger which makes abstraction of the cross-country differences in the equilibrium unemployment rate, one could think to use the deviation of the Member State's unemployment rate from its NAIRU . This is the so-called "unemployment gap". However, in view of the link between the estimation of the output gap and the NAIRU, such an approach has similar revision problems as the one based on the output gap. One might consider instead to use the deviation of the unemployment rate from its average over a previous long period (10-20 years).

⁴ A more comprehensive and precise comparison would be between the final value for the output gap and the forecast for the year made in the spring exercise of the year after (or in the autumn exercise of the current year).

Chart 1: Output gap relative to potential GDP (in % of potential GDP) in the spring 2007 and autumn 2012 forecasts of the European Commission



Source: Commission forecasts

1.2. Federal and State unemployment insurance: what can we learn from the US?

1.2.a. The unemployment insurance system in the US

The US unemployment insurance (UI) system is a partnership between the federal government and the States. In general, it provides unemployment benefits to workers who are unemployed "through no fault of their own", and meet other eligibility requirements of State law. The benefits are paid weekly. Each State administers its own programme within guidelines established by federal law and kept, within certain bounds, discretion in terms of eligibility, benefit amounts and benefit duration. The current system includes three different kinds of schemes:

1) The **regular Unemployment Compensation (UC)** programme, which was enacted in the Social Security Act of 1935. In most states, workers are eligible for a maximum of 26 weeks. While this regular UC programme is automatically activated by unemployment, this is not the case for the two following programmes;

2) The **Emergency Unemployment Compensation (EUC)** programme, which started in July 2008 and provides special extended benefits in the latest recession. The current EUC programme is an example of Temporal Federal Benefits (TFB). These are paid under conditions set by emergency federal legislation in the case of a recession⁵. Other TFB programmes have been activated in previous recessions, see also Vroman (2010);

3) The **Extended Benefits (EB)** scheme, which has been in effect since 1970 and extends the duration of benefits in periods of economic difficulties. This programme is permanent, but benefits can only be paid if a trigger related to the unemployment rate is "on" in a given State. In these States, only unemployed who have exhausted their (regular) UC and EUC benefits can receive these EB.

Table 2 provides a simplified overview of the main characteristics of the three different types of benefits (making abstraction of small differences between States). Funding comes from payroll taxes (paid mainly by employers⁶), State and federal sources. EUC/TFB is mostly financed from the general federal budget.

⁵ The current EUC program was created on June 30, 2008, and has been modified several times. Most recently, the American Taxpayer Relief Act of 2012 (P.L. 112-240) extended the expiration date of the EUC program to January 1, 2014 (see Department of Labour).

⁶ Employees contribute only in a very limited number of States.

Table 2: Characteristics of the three types of benefits in the US UBS

	Regular (UC)	Emergency (EUC)	Extended (EB)
Administration	States	Federal gov't	Federal gov't and States
Funding	State and federal payroll tax ⁷	Federal general revenues	50/50 by States and federal government ⁸
Eligibility	Unemployed ⁹	Unemployed in States with higher UR	Unemployed in States where IUR ¹⁰ is high and increasing ¹¹
Duration	Up to 26 weeks ¹²	Additional weeks; "four tiers" ¹³ ; up to 53 weeks	13 or 20 additional weeks
Amount	% of prior earnings, up to a maximum	Same as UC	Same as UC
Conditionality	Recipients must search for a job ¹⁴	Same as UC	Same as UC
Automaticity	Yes	No (legislative authorization and specific conditions in recessionary times)	No (triggers)

1.2.b. Size and assessment of stabilising effects, geographical distribution of net benefits

⁷ Benefits are paid from a State UI payroll tax on employers, while a federal UI payroll tax on employers pays for States' administrative costs.

⁸ Currently they are fully funded by the federal government, see Congressional Budget Office (2012).

⁹ These are people who have been laid off or who left the military and have earned a certain amount of income in the recent past (typically, the previous four or five quarters). It is worth to stress the difference between *laid off* and *fired*. Layoffs occur when a company undergoes restructuring or downsizing, or goes out of business. Workers can be fired if their personal performance is not satisfactory. Since people are generally eligible for unemployment benefits if they lost their "through no fault of their own", as defined by State law, fired people are generally *not* eligible, see Congressional Budget Office (2012) and the website of the Department of Labour, Employment and Training Administration.

¹⁰ To calculate the "insured unemployment rate" (IUR), only claimants who qualify for benefits are counted. As a result, the IUR is much lower than the usual unemployment rate.

¹¹ This typically means that the IUR is higher than 5% and 20% higher than it was in the previous 2 years. States may also choose a higher trigger of 6% of IUR, without the second requirement that the rate is increasing with respect to previous years. The recipients are unemployed individuals who have exhausted their regular UI and EUC benefits in States who meet the above mentioned IUR thresholds.

¹² Depending on the State. As of March 2013, only eight States had shorter limits (with a minimum of 19 weeks), while State (Montana) has a 28 weeks limit, see CBPP (2013).

¹³ Workers in every State qualify for 14 weeks of emergency benefits (first tier). The second tier provides 14 additional weeks of benefits to States with 3-month seasonally adjusted total unemployment rate (TUR) of at least 6.0%. Tier 3 means up to 9 weeks of benefits in States with a 3-month seasonally adjusted TUR of at least 7.0%. Tier 4 provides up to 10 weeks of benefits in States with a 3-month seasonally adjusted TUR of at least 9.0%.

¹⁴ In some States they must accept a reasonable job offer.

Table 3 shows US unemployment benefit payments in recession years, expressed as percentage of GDP. In these years, the regular UC had a large weight in the total and, contrary to expectations, 2009 was not an outlier in a long-term perspective.

On stabilisation through the US UBS, many divergent estimates can be found. Two important differences explain the divergence¹⁵. A first difference is whether one estimates average stabilisation over the whole cycle or marginal stabilisation (during downturns, which seems more relevant, see also 1.3.b). A second is whether only the effects of the regular UC are estimated or whether extended and emergency benefits are also included.

Chimerine et al. (1999) as well as Vroman (2010) focus on the impact during a recession which can be seen as an analysis of marginal stabilisation in times when it is most needed. Chimerine et al. (1999) put the stabilisation effect between 15 and 20% of the initial drop in GDP. Vroman (2010) finds a stabilising effect of almost 30% of which up to half can be attributed to extended and emergency unemployment benefits¹⁶ and the rest to the regular UC. The seminal paper by Asdrubali et al. (1996), by contrast, claims that the stabilisation impact is very small. However, Asdrubali et al. (1996), as well as Wolff (2012), focus on average stabilisation.

	% of GDP		total
	regular	other*	
1949	0.65		0.65
1954	0.53		0.53
1958	0.75	0.06	0.82
1961	0.63	0.11	0.74
1971	0.44	0.06	0.49
1975	0.73	0.28	1.01
1980	0.51	0.06	0.57
1982	0.65	0.11	0.77
1992	0.39	0.21	0.60
2002	0.39	0.10	0.50
2009	0.56	0.35	0.90
* extended plus TFB			
Source: Vroman (2010)			

While the above dealt with stabilisation at the national level, estimates of stabilisation at the State level are hard to find. Dullien (2007) points to data issues with States' GDP, in particular several structural breaks in the series, and even questions the relevance of States' GDP (linked to the issue of assigning profit incomes to individual States).

States have an individual State account at the federal unemployment trust fund. States are supposed to levy taxes on (mainly) employers to build up balances in their account during periods of healthy economic growth, and then draw down those balances to provide UB during downturns. States can even draw so much as to go into deficit. However, States are required to fully repay the loans, with

interest, within two years of borrowing the funds. If a state does not repay the full amount, the federal government will recoup its funds by raising the federal payroll tax rate for the State each year until the loan is repaid. This increase is automatically triggered. This mechanism helps avoiding permanent transfers for individual States for the regular (UC) benefits.

As of end-February 2013, 22 States (and the Virgin Islands) still had loans on their accounts, totalling \$28.7 billion (around 0.2% of US GDP). As a result, 18 States (and the Virgin Islands) currently face higher rates for the 2013 year than the standard 0.6% federal rate, with rates typically of 1.2% (generally ranging from 0.9% to 1.5%).¹⁷

¹⁵ A third difference could be in the assumed multiplier of UBS, this is by how much UB expenditure boosts GDP per dollar paid out by the UBS.

¹⁶ Moody's rating agency estimates extended benefits to have a multiplier of 1.64, see Zandi (2008).

¹⁷ See Stone and Chen (2013). Also, detailed levels by States can be found on the DOL website: http://www.oui.doleta.gov/unemploy/docs/reduced_credit_states_2012_final.xls

1.2.c. Conclusion on the US system

The US unemployment insurance system has several features which are of interest for a possible EMU-wide UBS:

1. The relative freedom of States to keep, within certain federal bounds, discretion in terms of eligibility, benefit amounts and benefit duration.
2. The financing structure, with States paying for UBS during normal times, with support of federal sources during downturns.
3. The existence of two schemes for the downturns: one which is automatically triggered and another which requires discretion.
4. The possibility of permanent transfers to individual States for the regular (UC) benefits is tackled by an automatic reduction of deficits of State accounts at the federal level.

The US unemployment insurance system is effective, specifically during downturns. Estimates of marginal stabilisation, including all benefits, reach up to 30% of the initial shock, of which up to half can be attributed to the two specific schemes during downturns.

Dullien (2007) contrasts the effectiveness of the US unemployment insurance system to that of the aggregate of the national UBS in the euro area, of which the impact is reduced by the "collective action" problem: governments of smaller, open economies have less incentive to use fiscal stabilisation policies, because of import leakage.

1.3. A closer look at the characteristics of an EMU-wide unemployment benefit system (Option 3)

Table 4 presents the proposal of Dullien (2007, 2012, 2013) against some alternatives. The relationship between the characteristics of the existing national UBS and a possible common EMU-wide UBS is analysed in Part 2.

Table 4: Characteristics of an EMU-wide UBS

	Dullien (2007, 2012, 2013)	Alternatives
Contribution form	Contribution on wage sum of covered workers	FTT, wealth tax, VAT, property tax, green taxes, ...
Contribution size	Fixed % of the worker's wage level (limited)	Common absolute level
Entitlement conditions	Sufficient (common) period of previous work	Different options*
Benefit size	Fixed % of the worker's wage level ²	Different options ³
Duration	12 months	Longer or shorter period. Link to insurance duration and/or age.
Borrowing possibility	Yes	No
*Sufficient period of previous work according to the national definition or all unemployed		

irrespective of previous work period.

² 50% of the average wage over a recent period of employment (example 12 months).

³ There could also be an upper limit on the size of the benefit. Other options are a fixed percentage of the Member State's average wage level (possibly limited) or a common absolute level (in euro or in purchasing power parity terms).

1.3.a. Size of contributions and benefits

In Dullien's proposal, contributions are set in relative terms and have upper limits (thresholds) linked to the average income in the Member State (as is national practice in most euro-area Member States, see Part 2). The note in Table 4 lists alternatives for the benefit size, which are not further analysed here (see also Part 2).

The EMU-wide benefit could be a comparatively low percentage of (average) previous wages, for example 50%. As a result, it could be topped up by the national insurance system in case of a national preference for a higher benefit in the initial period of unemployment. Part 2 presents alternatives for topping up of national benefits, with a view of reconciling the goals of growth support and re-employment incentive.

An EMU-wide UBS would have a clear insurance character, as workers who have contributed sufficiently would be eligible for the benefit, irrespective of which Member State they live in (while Options 1 and 2 in Table 1 "discriminate" between workers in different Member States). This is also why a standard option for the system would be to be financed through workers' contributions. One could also envisage a supplementary contribution of employers. Other financing sources could also be envisaged (such as consumption or GDP) but are not considered in Dullien's proposals.

Entitlement would depend on the previous work history of the unemployed, as in all Member States, see also Venn (2012). Leaving entitlement conditions at their national values would be seen as unequal treatment of unemployed of different Member States and could lead to permanent transfers. The eligibility conditions should be fine-tuned to exclude seasonal unemployment (for example, requiring a sufficiently long uninterrupted insurance period). Including the latter would risk creating permanent transfers to those Member States with comparatively large activities in agriculture and tourism.

Part of the contribution for the EMU-wide UBS could be seen as an additional burden on labour. As such, it would go against the Commission's view that there is scope to shift the tax burden, away from labour, towards tax bases that are less detrimental to growth (see, for example, European Commission (2012b), p.5). However, the contribution for the EMU-wide UBS will be a partial replacement of the national contribution, as the national system needs less money to pay for the short-term unemployed. National authorities could then choose to lower national contributions or to use the additional funds to make the national provisions more generous.

Moreover, unemployment benefits come with a multiplier effect: the cushion to the purchasing power of the unemployed helps also to support domestic demand¹⁸. Finally, the EU might use the introduction of an EMU-wide UBS system to simultaneously guide Member States to reform their tax systems towards more growth and employment friendly systems (See also European Commission (2013), Chapter 4).

¹⁸ Freedman et al (2009) find that the effects on U.S. GDP from targeted transfers, "aimed directly at liquidity-constrained households, who have a very high marginal propensity to consume out of current income" are almost four times larger than the effects of untargeted general transfers.

1.3.b. Size and stabilisation power of the UBS; geographical distribution of net benefits

The following paragraphs report on the estimation¹⁹ of the possible size and stabilisation properties of the EMU-wide UBS of the Dullien (2013) proposal. Any such estimation runs into several problems.

For a starter, EMU-wide data on the employment history of the individual unemployed are unavailable, making it impossible to determine with precision how many unemployed would be eligible for the EMU-wide UBS²⁰. Dullien (2013) uses two different assumptions to estimate their number. Assumption A assumes that all the increase in short-term unemployment over the past 12 months is covered plus 3 percent of the total employment in a country. Assumption B assumes that all of the increase in the short-term unemployment over the past 12 months is covered plus 40 percent of the remaining short-term unemployment. These are arbitrary settings which get the number of covered unemployed close to the numbers covered in the national unemployment schemes.

Due to the lack of data on their employment history, the previous wages of those presently unemployed are also unknown. Dullien (2013) solves this by assuming that, in every Member State, the average insured wage is 80% of the average wage. The EMU-wide benefit is put at 50% of the insured wage.

In order to increase its stabilisation power, the system is allowed to temporarily run deficits which could be financed by borrowing. This also helps avoiding putting in place a very complicated system of frequent adjustments of contribution rates (and/or benefit rates) in order to reach balance every year. As imbalances should be temporary, the system is constructed to balance revenues and pay-outs over the cycle. As a result, the system can also build up reserves in good times. One could find inspiration in the US co-operation between the federal and the State level, where State have accounts at the federal level. These accounts can show deficits, but the contribution rate to the federal level is automatically raised when deficits are too persistent (see also 1.2.b).

¹⁹ This kind of estimation is sometimes called "simulation". It is a computation of hypothetical payment flows and GDP impacts under certain assumptions but with the input of historical time series. This is different from "simulation" in econometric terms, whereby the effects of the payments are "generated" in a macroeconomic model which would include indirect feed-back effects.

²⁰ The available data also do not allow singling out seasonal unemployment. Simplistic assumptions such as "50 percent of the short-term unemployed would be eligible" – as used in Dullien (2007) - turn out to be unrealistic, see also Part 2 on the differences in coverage between the national UBS.

Table 5: Net payments under the two assumptions			
Number of years in which the Member State would have been net recipient (out of 17 years*)			
assumption		A	B
	BE	3	2
	DE	5	2
	ES	5	16
	FR	3	8
	IE	3	5
	IT	3	7
	LU	5	2
	NL	5	1
	AT	4	1
	PT	5	4
	FI	5	13
	EL	6	12
Number of observations of a large** net payment (out of 216 Member State, year combinations)			
assumption		A	B
	net recipient	14	37
	net contributor	0	34
Note: own calculations based on Dullien (2013)			
Assumptions A and B: see text.			
* Greece: out of 13 years			
** Absolute value larger than			
0.25% of the Member State's GDP			

At first sight, the above assumptions to estimate the number of eligible unemployed do not seem to make much of a difference. Under both assumptions, the EMU-wide system would have had average annual revenues and pay-outs of about 0.7% of euro-area GDP, or around €50bn in nominal terms. The payroll tax required to balance the system over the cycle does not seem to vary much either: it would be 1.73% under assumption A and 1.57% under assumption B.

While total gross payments are fairly similar under both assumptions, this is not the case for individual net payments. Assumption B leads to larger and more persistent net payment flows. The lower panel of Table 5 points to a larger frequency of "high" net payments and net contributions. The upper panel is testament to the persistence of net payment flows under assumption B, with Spain and Greece as net recipients during all years but one. While this comes close to permanent transfers, the results under assumption A are much more in line with the intended structure of such a scheme.

The differences confirm that these assumptions lead to results to be used only for illustrative purposes. Further research is needed in order to assess the options to arrive at a more precise estimate of the number of eligible unemployed of the EMU-wide benefit (and, preferably, also their previous wage which is the base for the calculation of the benefit size). Finally, note that, while the assumptions lead to large differences in net payments, in both cases the by far largest net payment would have been given to Spain in 2009.

In order to estimate the stabilisation effect of the EMU-wide UBS, an assumption is needed on its multiplier, this is by how much GDP is boosted per euro paid out by the UBS. Dullien (2013) assumes a value of only 1 for the multiplier of the EMU-wide UBS, as a compromise between two opposite forces. On the one hand, evidence for the US points to a much larger multiplier of UBS. On the other, national governments have freedom in

spending the funds which are now replaced by the EMU-wide UBS. They may opt for spending with less (or less short-run) growth leverage.

An EMU-wide UBS acting as an automatic stabiliser would be intended to be particularly helpful in deep downturns. As a result, it is more interesting to look at the marginal stabilisation of the system (during downturns) than at the average stabilisation over the whole cycle. A large part of the divergence in results found in the literature for stabilisation by UBS can be reduced to this difference (see also 1.2.b on the US).

Dullien (2013) defines marginal stabilisation over a certain period as a fraction, of which the numerator is the change in the net payment position of the Member State vis-à-vis the EMU-wide system. Under the hypothesis of a multiplier of one, this equals the impact of the EMU-wide benefit on GDP. The denominator is the change in the Member State's output gap over the same period. As a result, marginal stabilisation is the share of the deterioration in the output gap which would have been prevented by the EMU-wide system.

Based on the above outcomes for net payments by Member State, Dullien (2013) finds marginal stabilisation above 10% (under both assumptions) for Spain, France, Ireland and Portugal during the post-2007 downturn. During previous downturns, stabilisation of at least 10% would also have occurred for Belgium, France, the Netherlands, Austria and Portugal. The marginal stabilisation would even reach 30% or more in the case of the recent downturn in Spain and previous downturns²¹ in France, the Netherlands and Austria. While a conservative estimate of the UB multiplier is used here, larger multipliers would evidently lead to larger stabilisation results. Nevertheless, the results seem already comparable to marginal stabilisation results for the US as a whole (see 1.2.b).

1.3.c. Moral hazard and incentives; duration and extensions

After the introduction of an EMU-wide UBS, the incentives for Member States to reform their labour markets and social systems would remain in place, as Member States would still have to pay for UB beyond the period of the EMU-wide benefit. Moreover, the EMU-wide UBS could come with some harmonisation and reform requirements for national labour markets and social systems. In itself, the existence of an EMU-wide UBS with its specific duration and replacement rate will invite Member States to reconsider the characteristics of the national UBS (more on this in Part 2). A relatively moderate replacement rate, short duration and relatively strict eligibility criteria should help avoid increasing individual moral hazard.

The set-up of an EMU-wide UBS could also find inspiration in two specific features of the US system to help avoid moral hazard issues. These are the automatic reduction of deficits of State accounts at the federal level and the co-financing of government levels, with States paying for UBS during normal times, with support of federal sources during downturns. Such US-style systems of "extended" and/or "emergency" benefits (see 1.2.) could be envisaged. These would bring larger stabilisation, but would evidently come with higher financing requirements.

1.4. Conclusion of Part 1

The above shows that transfers based on the output gap or the unemployment gap can be pro-cyclical in certain periods which can last many years, making the case to link transfers to the unemployment rate itself, which is prone to much smaller revisions.

²¹ Although it does not exceed 30% under both assumptions for France and the Netherlands.

Different options for EMU-wide automatic stabilisers linked to unemployment were analysed. A fiscal transfer that is earmarked is likely to be more timely and certainly more effective than if it is not. An EMU-wide UBS, with its timely effects, would be a superior solution, provided it concentrates on short-term unemployment and is accompanied by employment-friendly incentives for Member States.

The latter two options are also very effective, as unemployment benefits support a part of the population with a high consumption propensity and have, consequently, a large multiplier effect (this is the effect on GDP per unit of outlays). An EMU-wide UBS is also the easiest to communicate and understand of these options and does not need an agreement on an arbitrary trigger. Finally, in this option, unemployed in all Member States can benefit (increasing the chances of the political acceptance of the stabiliser).

The US unemployment insurance system has several features which are of interest for a possible EMU-wide UBS. These are: the relatively loose harmonisation of the characteristics of the State UBS, the financing structure (with States paying for UBS during normal times, with support of federal sources during symmetric downturns), and the existence of separate schemes for large symmetric downturns. Finally, the possibility of persistent transfers to individual States for the regular (UC) benefits is tackled by an automatic reduction of deficits of State accounts at the federal level.

The effectiveness of the US unemployment insurance system (marginal stabilisation reaching up to 30% of the initial shock) contrasts to that of the aggregate of the national UBS in the euro area, of which the impact is reduced by the "collective action" problem: governments of smaller, open economies have less incentive to use fiscal stabilisation policies, because of import leakage. Others might simply not be able to afford it in case of a prolonged crisis.

The above focused on the Dullien proposal for an EMU-wide UBS against alternatives by UBS characteristic. Most of these alternatives are analysed in much more detail in Part 2, including the interactions with the different national UBS.

Dullien proposes relative levels of contributions and benefits, due to the large differences in Member States' living standards. The EMU-wide benefit could be a comparatively low percentage of previous wages. As a result, it could be topped up by the national UBS in case of a national preference for a higher benefit.

An EMU-wide UBS would have a clear insurance character, as workers who have contributed sufficiently would be eligible for the benefit. Dullien proposes to finance the UBS through workers' contributions. Entitlement would depend on the previous work history of the unemployed.

An estimation of the possible size and stabilisation properties of an EMU-wide UBS runs into problems, as EMU-wide data on the employment history of the individual unemployed are unavailable, making it impossible to determine with precision how many unemployed would be eligible for the EMU-wide UBS.

Dullien proposes, in order to increase its stabilisation power, to allow the UBS to temporarily run deficits which could be financed by borrowing, but the system is constructed to balance revenues and pay-outs over the cycle.

Dullien uses two different assumptions to estimate the number of eligible unemployed. These assumptions lead to similar outcomes in size of annual revenues and pay-outs (0.7% of euro-area GDP) and of the payroll tax required to balance the system over the cycle (1.6-1.7%). However, the outcomes are quite different for the size and persistency of net payment flows by Member State. This suggests that further research is needed to

arrive at a more precise estimate of the number of eligible unemployed of the EMU-wide benefit.

The EMU-wide UBS would have brought fairly large marginal stabilisation, also in downturns before the last one. The set-up of the EMU-wide UBS could find inspiration in two specific features of the US system to help avoid moral hazard issues. These are the automatic reduction of deficits of State accounts at the federal level and the co-financing by government levels.

Box 3: Which proposals for E(M)U-wide unemployment-linked automatic stabilisers have been made so far?

Proposals for E(M)U-wide automatic stabilisers go all the way back to the so-called McDougall Report in 1977²².

In analysing these proposals, we can distinguish three "types" of unemployment-linked E(M)U-wide automatic stabilisers:

- 1) Fiscal transfer to Member States with high and rising unemployment. Member States would be free how to use the transfer.
- 2) Fiscal transfer triggered as in option 1, but earmarked for unemployment benefit expenditure on the basis of harmonised provisions, conditionality and minimum standards, e.g. of social protection and labour activation.
- 3) EU-wide unemployment insurance with common financing and common provisions leaving it to Member States to top up.

Table 6 below looks at six such proposals of the three different types (in chronological order).

Majocchi and Rey (1993) develop the idea of a "conjunctural convergence facility" which previously appeared in the MacDougall report. In order to cope with country-specific exogenous shocks (or common shocks with asymmetric affects), they propose a "contingency fund", financed *ad hoc* by EMU Member States. The mechanism should be activated in a discretionary form, and only if the shock is not due to policy failures of the applicant Member State. The assistance should consist of grants and loans of up to 1% of GDP of the recipient Member State²³. To overcome time-lags problems associated with discretionary action, a first tranche equal to 25% of the maximum aid should be automatically available for the concerned Member State. The degree of utilisation of this facility could be reduced if the built-in capacity of the budget is increased and the availability of economic instruments for facing the problems of the economically weakest countries is enlarged through the strengthening of Structural Funds.

Italianer and Vanheukelen (1993) propose two variants of a *stabilisation mechanism* based on the yearly change in the unemployment rate of an EMU country relative to the Community average. The system consists of transfers to the Member States' governments, which could then decide how to spend the funds. A *full stabilisation* mechanism would automatically operate for asymmetric shocks of all sizes. The transfer is limited to 2% of the receiving Member State's GDP. A *limited stabilisation* variant would ensure that payments are only made if the asymmetric shock is above a minimum threshold.²⁴ This second version would therefore serve as an *insurance mechanism*, and

²² Commission of the European Committees (1977), "Report of the study group on the role of public finance in European integration".

²³ Also limited to a maximum nominal amount.

²⁴ An unemployment change relative to the average of Community partners equal to 0.3%.

it would be activated either automatically or on a discretionary basis. The maximum estimated cost of the mechanism would equal 0.2% of the Community GDP in order to provide approximately the same degree of stabilisation as in the USA. The overall degree of stabilisation of both versions of the scheme depends on political decisions.²⁵

Bajo-Rubio and Díaz Roldán (2003) propose an *insurance mechanism* against asymmetric shocks. The indicator of a shock is a positive change in the unemployment rate of a country with respect to the same month of the year before. The mechanism will be only activated if at least one country registers a year-on-year decrease in its unemployment rate during the same month. Moreover, the financing method assumes that each country would contribute a percentage of its tax collections into the European insurance fund²⁶. Such a fund would be then redistributed among the countries concerned according to the proportion in which each country was affected by the asymmetric shock. As the receiving Member State should then redistribute the payment among those becoming unemployed during that month, the ultimate beneficiaries would be the unemployed. This also aims at warranting the automaticity of the mechanism. In order to avoid moral hazard problems, it would be possible to introduce a temporal limit beyond which the fund would decrease every month until becoming zero.

The paper by **Sutherland (2012)** proposes the creation of either an EU insurance fund, financed by an EU (employee or employer) contribution, or an EU unemployment benefit which would act as a between-countries stabiliser in times of asymmetric shocks. Automatic benefits could also be supplemented with regulated adjustments such as extending the duration of benefit entitlement in times of higher unemployment. Concerning the design of the system, the most reasonable option would consist of an EU scheme²⁷ that national schemes would need to match in a number of dimensions²⁸, thus introducing the idea of setting a *common standard*. As regards administration issues, the system could be managed as part of the existing national schemes or separately and independently of them. In the latter case additional costs to run an EU parallel system would arise, which should be avoided.²⁹ Finally, although not quantifying financial flows or the overall stabilisation impact, the paper suggests ways of financing the scheme. For instance, the existing system of contributions to the EU budget could be used and simply enlarged, leaving to the Member States to decide how to raise additional revenues to meet the cost.³⁰

Building on the example of the USA, **Dullien (2007, 2012)** proposes a European unemployment insurance scheme aimed at stabilising symmetric or asymmetric macroeconomic fluctuations in the EU.³¹ The European basic unemployment insurance would consist of direct transfers to short-term unemployed and would substitute part of

²⁵ Such as the minimum threshold which qualifies for the transfer, the size of the transfer and the maximum transfer per Member State.

²⁶ Since taxes are pro-cyclical, those countries not suffering an unfavourable shock would contribute more than those negatively affected.

²⁷ The paper also suggests the possibility of adding a EU flat rate payment to national benefits for anyone qualifying as unemployed, whether or not they satisfy national contribution conditions. However, flat rate payments pose the problem of differences in purchasing power between countries.

²⁸ E.g. contribution conditions, earning related or flat rate payments, addition for dependants, duration, minimum and maximum payments, payments taxable or not, payments included as income in the assessment of other benefits or not, etc...

²⁹ See also Dullien on this point.

³⁰ An alternative could be a new EU tax, e.g. an EU-flat tax collected at source or an additional on the social contribution base. These financing options are consistent with the EU-wide extension of the mechanism adopted in the paper, but do not seem feasible if only EMU countries are concerned, which should be the case.

³¹ While recognising that the benefits of the proposed scheme would be higher for countries in the EMU, Dullien asserts that such an unemployment insurance could be introduced to any set of countries, including non-EMU ones.

the national scheme. However, participating countries could decide to top-up the European transfers. In addition to the 12-months basic benefits, "extended benefits" and "emergency benefits" could ensure higher transfers in times of deep economic downturns.³² The system would be financed through an E(M)U-wide payroll tax. Dullien also provides an estimation of the financial flows required in different scenarios. A quantification of the *stabilisation impact* of the mechanism, including its possible effects in the context of the crisis is described as well.³³ In order to avoid additional costs associated with European bureaucracy, the collection of contributions and the payments should run through the national unemployment insurance systems already in place. Another interesting feature of this proposal is the detailed discussion of potential implementation issues (moral hazard, definition of the criteria for receiving benefits, free riding...).

Delpla (2012) suggests an EMU-wide unemployment insurance as part of a more complex inter-governmental mechanism including also a Job Training Scheme and a European Labour Contract. In this framework, unemployed people would receive in any case the existing national unemployment benefit. In addition to that, they might receive an optional European Unemployment Benefit. This would be conditional to previous acceptance of the European Labour Contract and the sum of national and European benefits would be capped, either on a common European basis or by country.³⁴ As far as the financing is concerned, each EMU country would annually contribute 1% of its GDP into the European Unemployment Insurance, shifting part of national spending for unemployment schemes already in place into the contribution to the new European scheme.³⁵

Going back to the above three "types" of unemployment-linked E(M)U-wide automatic stabilisers, the proposals by Italianer and Vanheukelen (1993) and Bajo-Rubio and Díaz Roldán (2003) tend to fit in type 1. An important difference between the two is that in the former the beneficiary Member States can decide how to use the funds, while in the latter they are supposed to redistribute the European funds among the unemployed. On the other hand, the most recent proposals tend to fit in type 3, as they all put forward a form of E(M)U-wide unemployment insurance with common financing and common provisions. Finally, Sutherland (2012), although basically consistent with type 3, also introduces the idea of a common standard, thus presenting an important element of type 2.

³² In order to avoid permanent transfers from any single country to any other single country, a payment duration of up to one year would exclude long-term unemployment, while the eligibility criterion of 12 consecutive months of employment over the last 24 months allows excluding seasonal unemployment.

³³ In the baseline scenario, the system would have had an average annual financial volume over the period 1999 to 2005 of € 54 bn, which would require a payroll tax of 1.75% on the insured wage sum, i.e. 0.75% of EMU GDP. If an option for extended benefits for individual countries was added, the average financial flows would have been of € 61.5 bn with a payroll tax of 2.0%, equal to 0.85% of GDP. Finally, if the trigger was enacted for the EMU as a whole, the average financial volume would have reached € 62.5 bn with a payroll tax of 2.04%, equal to 0.87% of GDP (Dullien 2007, 2008).

³⁴ An amount of 2000 € per month is seen as the maximum EMU-wide, with possibly lower levels in poorer countries.

³⁵ The proposed model presents some important shortcomings. First, the proposed system is intended to promote broader European labour market reforms. In this context, the stabilisation function of the unemployment insurance would only come after the scheme is set up and starts to run. From the point of view of the individual, the European unemployment insurance scheme is optional and conditional to the acceptance of the European Labour Contract. Moreover, the mechanism is intergovernmental, and each single country can decide to become part of or leave the scheme at any moment. Thus, the lack of automaticity and of a clear link with stabilisation purposes invalidates the effectiveness of such an insurance mechanism as a response to asymmetric shocks between EMU countries

Regarding the scope of the unemployment-linked automatic stabilizers, all the studies but Sutherland (2012) refer to EMU countries.³⁶

The dimensions of *duration, type and level* and *eligibility criteria* are related to the idea that the system should not entail permanent redistribution from any group of countries to any other. Both the proposals by Italianer and Vanheukelen (1993) and Bajo-Rubio and Díaz Roldán (2003) are based on transfers from a common fund to single Member States, and the mechanism is activated when asymmetric shocks occur. On the other hand, the models which are closer to type 3 refer to characteristics of the recipient individuals. Normal duration should not exceed 12 months and the level of benefits should be equal to 50-60% of previous earnings.

As regards the quantification of the stabilization impact, only Italianer and Vanheukelen (1993) and Dullien (2007, 2008, 2012) provide estimations. On the other hand, Bajo-Rubio and Díaz Roldán (2003) present an empirical application of the insurance mechanism, measuring the level of coverage considering its insurance function.³⁷

³⁶ Dullien (2007, 2008, 2012) does not exclude the possibility of extending the unemployment insurance scheme to the EU as a whole or to other groups of EU countries.

³⁷ They estimate a degree of coverage between 7 and 13% of the size of the shock. It is specified that the mechanism is only activated in the case of *asymmetric shocks*.

Table 6: Selected proposals for unemployment-linked E(M)U-wide automatic stabilisers

Model	Type	Participating MS	Benefit duration	Benefit/Transfer type and level	Eligibility criteria	Financing		Quantification of the stabilisation impact
						method	Size of financial flows	
Majocchi and Rey (1993)	1	EMU	Not applicable (is transfer to MS)	Conditional transfers to MS, 1% of the applicant MS' GDP	Exogenous ³⁸ asymmetric shock (GDP tendency, UR...)	Discretionary ³⁹ grants and loans to MS from contingency fund ⁴⁰	Maximum 1% of GDP of the biggest MS ⁴¹	NO
Italianer and Vanheukelen (1993)	1	EMU	Not applicable (is transfer to MS)	Transfer to MS ⁴² , maximum of 2% GDP of the MS	Not applicable (is transfer to MS)	Transfer if MS' change in UR is positive and > Community average (2): idem > 0.3%	0.2% of Community GDP	YES (1) 18-19% ⁴³ (2) 27.7% ⁴⁴
Bajo-Rubio and Díaz Roldán (2003)	1	EMU	Not applicable ⁴⁵	Transfer to MS ⁴⁶	Not applicable (is transfer to MS)	% of a country's tax collection ⁴⁷	Estimation of total fund and payments for 1997	NO ⁴⁸

³⁸ In order to avoid perverse incentives, the provision of aid should only take place after a careful examination of whether the shock could be reasonably considered "exogenous", i.e. lying beyond the national government's responsibility.

³⁹ However, in order to avoid time-lags tied to the discretionary mechanism, a first tranche of 25% of the maximum aid available for a MS could be immediately taken up. The MS concerned would only receive the remainder of the aid after a positive Council decision. Conversely, the first tranche would have to be reimbursed in the case of a negative decision.

⁴⁰ The authors suggest that such a fund should be separate from the normal Community budget.

⁴¹ It was Germany at the time. Since smaller MS are more vulnerable to exogenous disturbances, it could be argued that financial assistance should have a favourable small-country bias.

⁴² Positive change in the MS' unemployment rate relative to the Community average.

⁴³ Assuming a payment equal to 1% of GDP on an annual basis.

⁴⁴ Assuming a payment of 1.05% of the MS GDP.

Model	Type	Participating MS	Benefit duration	Benefit/Transfer type and level	Eligibility criteria	Financing		Quantification of the stabilisation impact
						method	Size of financial flows	
Sutherland (2012)	2, 3	EU	12 months	60% of previous earnings	Previous empl. for 12 months out of the last 36	MS contributions or new EU tax		NO
Dullien (2007, 2008, 2012)	3	EMU, possibly EU	12 months ⁴⁹	50% of previous earnings ⁵⁰	Previous empl. for 12 consec. months out of the last 24	E(M)U-wide payroll tax	Max €64bn (0.85% of GDP), with a payroll tax of 2.04% ⁵¹	YES 16% of downturn after 2001 ⁵²
Delpla (2012)	3	EMU		50% of previous wage ⁵³		EU Unemployment Insurance fund	Contribution is 1% of MS' GDP	NO

⁴⁵ As the scheme is not one of direct benefits to the unemployed, the dimension of benefit duration is not applicable. However, a temporal limit to the reception of funds by the Member States is foreseen to avoid moral hazard problems.

⁴⁶ For month *m*, a country's unemployment rate must have increased compared to the same month of the year before. The mechanism is only activated if at least one country is positively affected by the asymmetric shock. Symmetric negative shocks concerning the Emu as a whole would require stabilisation instead of insurance.

⁴⁷ Quantification of the financial flows of 1997 with respect to 1996.

⁴⁸ The annual coverage provided by the insurance mechanism is calculated.

⁴⁹ With the possibility of extended benefits activated by an automatic trigger if unemployment is increased strongly in the E(M)U.

⁵⁰ 50% of the average monthly wage income over the past 24 months, capped at 50% of a country's median income.

⁵¹ Dullien (2007, 2008) presents different scenarios of a European unemployment insurance and calculates payment flows for the years 1999 to 2005. In a *baseline scenario* the average annual financing volume would have been €54bn, (0.75% of GDP), financed with a payroll tax of 1,75%. In the case of *extended benefits triggered by single countries*, the financing volume and the payroll tax would have been €62 bn (0.85% of GDP) and 2.02%. The estimations reported in Table 6 refer to a scenario where *extended benefits* are triggered *for the EMU as a whole*

⁵² Using extended benefits. A basic unemployment insurance could have only stabilised about 5%.

⁵³ The sum of the two benefits would be capped (at EU level or by country)

Part 2: The design of a European UBS and links to national UBS schemes

Part 2 aims at providing a quick review of unemployment provisions in the EU and at identifying important areas for discussion in the design of an EMU-wide unemployment benefit system (UBS) that would act as an efficient EMU-level automatic stabiliser, notably in case of asymmetric shocks.

It proposes an analytical framework to help identify which key dimensions/characteristics of an EMU-wide UBS matter *i)* to avoid moral hazard issues (for countries or unemployed people) and permanent transfers; and *ii)* to find a system that can be realistically financed and is large enough to have a significant stabilizing impact. This implies analysing in depth the possible interactions between some harmonised European provision and the variety of national UBS.

The key dimensions usually considered for a taxonomy of UBS in the EU are the coverage and duration of benefits, eligibility rules (access, qualifying periods), the levels of benefits and financing. The progress report reviews these dimensions and provides a framework for identifying options for implementing an EMU UBS, on a scale going from pure reliance on national rules to the introduction of a separate EU provision, with some intermediate cases that would require that national systems partially converge towards common EU standards.

Several elements need to be taken into account in this respect in order to ensure effective stabilization by any EMU scheme, to avoid permanent transfers, and to avoid increasing too much the administrative burden on existing national systems.

For instance, a main implication for the design of an EMU UBS of the objective to maximise automatic stabilisation, while avoiding permanent transfers, is that benefits would probably need to focus on short term unemployment, avoiding seasonal / frictional unemployment and long term unemployment, thus for instance covering an unemployment duration of between 3 and 12 months.

As a consequence, this part focuses on national unemployment *insurance* systems, as opposed to national unemployment *assistance* systems or (possibly general) minimum income provision available to the unemployed. Indeed, unemployment assistance schemes generally provide benefits to people who are not (any more) eligible for unemployment insurance schemes.

The national UBS are currently coordinated by EU legislation, which ensures that people who make use of the freedom of movement within the EU do not lose their entitlement to unemployment benefits. Although the coordination rules concern only a limited number of unemployed people, it should be considered how an EMU-wide UBS could be integrated into the EU coordination system. A main concern should be to find a solution which is transparent for the citizens and which would not create excessive additional complexity or administrative burdens for national administrations. A short review of the issues to be considered in this respect is included in 2.5.

The structure of Part 2 is the following:

- 2.1 deals with coverage levels and duration of benefits.
- 2.2 deals with eligibility rules.

- 2.3 deals with benefit levels and calculations methods.
- 2.4 deals with financing mechanisms.
- 2.5 reviews issues to be considered in the light of the EU coordination rules.

The main possible options for the design of some EMU provisions, and related links with national systems ranging from pure reliance on national systems to the introduction of some common standards, are discussed in Part 3.

2.1 – Coverage and duration of benefits

This section presents evidence on coverage levels of unemployment provisions (insurance and possibly assistance) in Europe, as well as on the actual duration of insurance benefits in national systems.

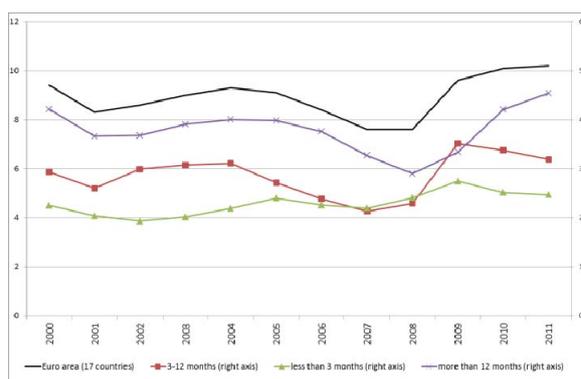
It focuses on the evolution of coverage by duration of unemployment spells during the current crisis and presents evidence on the sensitivity to the economic cycle of unemployment coverage according to various durations. Following from the need to maximise automatic stabilisation and minimise potential permanent transfers, the focus is put on short term unemployment, though avoiding frictional unemployment, for instance between 3 and 12 months.

Unemployment by duration

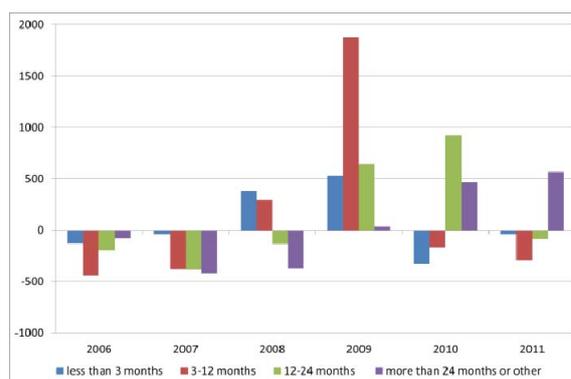
While overall unemployment rates increased sharply in 2009 in the Eurozone (Chart 2a), this was mainly driven by a sharp increase of unemployment of a duration of between 3 and 12 months, while in following years 2010 and 2011 this declined and long term unemployment increased sharply (Chart 2b).

Chart 2 – Unemployment by duration in the Eurozone

(a) Unemployment rate (2000-2011)



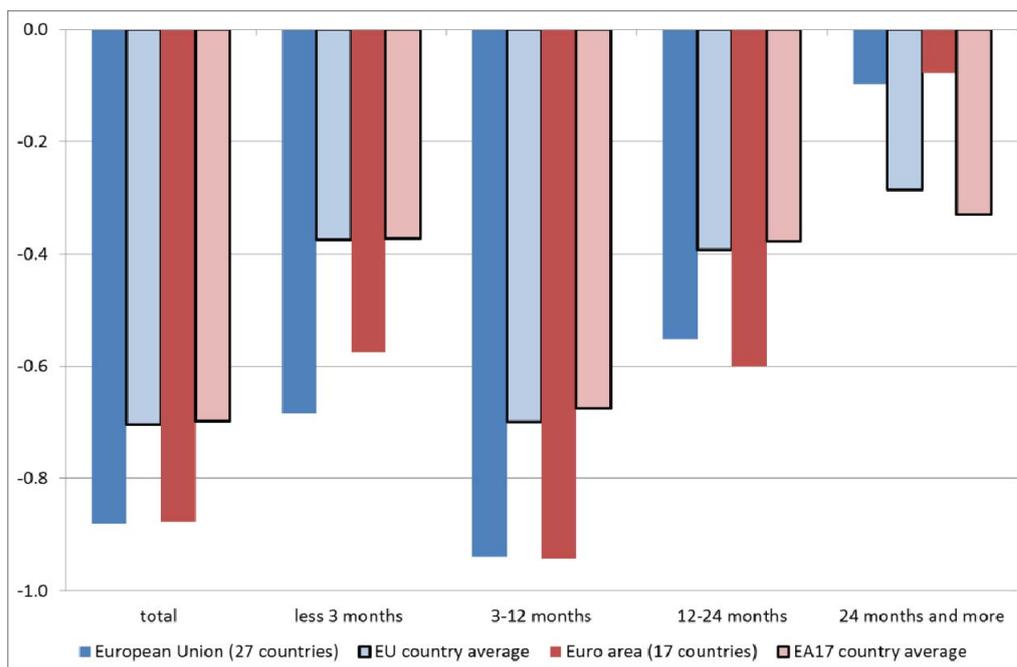
(b) Changes in number unemployed (2006-2011)



Source – LFS. Note – all non-responding categories regrouped with less than 3 months.

The link between unemployment flows and economic activity is indeed particularly timely for unemployment spells shorter than one year. For instance, the correlation between the change of the number of unemployed by duration and GDP growth is higher for duration of 3-12 months and lower for very short term durations (less than 3 months) and longer durations (between 12 and 24 months) and nearly negligible for unemployment spells of more than 24 months (Chart 3).

Chart 3 – Correlation between unemployment and GDP (2000-2011)



Source – LFS. Note – correlation between the annual change in the number of unemployed by duration and annual GDP growth in volumes. DG EMPL calculations. For instance, in the Eurozone and EU27, the correlation between the change of the number of unemployed and GDP growth is -0.88 over the selected period.

Coverage levels

Coverage of unemployment benefits can be defined as the share of the unemployed (according to the ILO definition) who receive some unemployment benefits. Levels of coverage reflect access to some provision of benefits for those in unemployment (potential access and eligibility) and the duration of the benefits. So-called "pseudo-coverage rates" can be estimated based on administrative records or surveys (identifying the unemployed population actually declaring to be receiving benefits), by dividing the number of benefit recipients by the number of unemployed (ILO unemployed, see Box 4).

Levels of unemployment coverage in the Eurozone vary greatly from very low levels (less than 10%) in IT and SK to high levels (more than two thirds) in BE and DE (Table 7). Typical levels of coverage range around 40-50% in the Eurozone.

Table 7: Unemployment insurance pseudo-benefit coverage rates in 2009 in the Euro area

	Administrative sources (UBI)	SILC (UB self-declared)	LFS (UB self-declared)
Austria	0,88	0,74	0,53
Belgium	1,48	0,89	0,67
Estonia	0,33	0,46	0,36
Finland	0,94	0,89	0,59
France	0,88	0,69	0,40
Germany	1,10	0,85	0,75
Greece	1,16	0,30	0,22
Ireland	0,62	0,60	:
Italy	1,03	0,36	0,07
Luxembourg	0,34	0,52	0,30
Netherlands	0,74	0,55	:
Portugal	:	0,43	0,41
Slovakia	0,16	0,30	0,10
Slovenia	0,40	0,31	0,34
Spain	0,39	0,57	0,40
Cyprus	0,61	0,37	0,26
Malta	0,46	0,41	0,25
Euro area	0,79	:	:

Source: EC/OECD database on benefit recipients, SILC and LFS. Estimates from surveys (LFS and SILC) are based on self-declarations; estimates from administrative sources can include people not ILO unemployed (either combining UB with work or not looking for a job).

Box 4: Estimation of benefit coverage of unemployment benefits

Administrative "Pseudo-benefit coverage rates" vary greatly across countries, from less than 20% in Slovakia to more than 100% in some countries. Rates can exceed 100% because there can be some double counting of beneficiaries and some recipients can continue to receive UB when they work a little, or on the contrary if they are not working and declare that they are not available for work or not searching actively for work. While this type of information is very valuable to assess national trends, these specificities make administrative pseudo coverage rates less directly suitable for comparisons of coverage of UB recipients among ILO unemployed.

Pseudo-coverage estimated from surveys are lower than from administrative data and in any case below 100% by construction. Like for administrative records, people who are not receiving benefits include people who are not eligible (e.g. young people, people who have lost their entitlements, people who have not worked long enough to be entitled, etc), as well as some who are not claiming benefits (non take-up). However, these estimates do not include people at work who would continue to receive benefits or people receiving benefits but not unemployed according to ILO definition since these are excluded by construction.

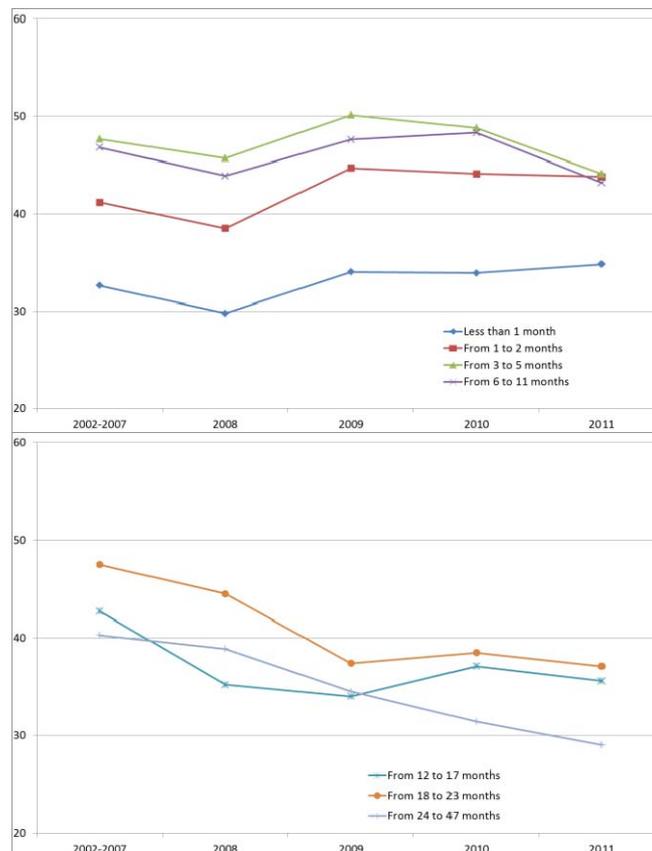
According to the SILC data, which is in principle quite precise on the type of benefit received, but less precise on the definition of ILO unemployment than the LFS, coverage rates are lower than the figures provided by administrative records, but show the same diversity and ranking of countries. According to the LFS data, less than half of the ILO unemployed declare that they receive benefits (unemployment and assistance combined) in the EU. LFS pseudo coverage rates are more timely than SILC ones, but can be less precise on the type of benefits.

The ranking of countries according to survey measures is somewhat consistent with the picture provided by the administrative records. However, levels of estimates differ widely depending on the method of estimation and sources. Estimates from administrative records are overestimated (in particular some are over 100%). It seems that the SILC estimates are also probably somehow over-estimated due to difficulties to identify adequately unemployed people according to the ILO definition, while LFS estimates show levels including UI and UA, but are more timely.

Trends in coverage by duration of unemployment spells

Developments in the coverage of unemployment during the crisis in the Eurozone show good resistance for very short term unemployment (less than 3 months) and signs of weakening for periods between 3 and 12 months in 2011. For longer unemployment periods, coverage eroded as well but shows some stabilisation since 2009, except for very long unemployment (more than 24 months).

Chart 4 – EUROZONE trend in coverage of UB by duration during the crisis

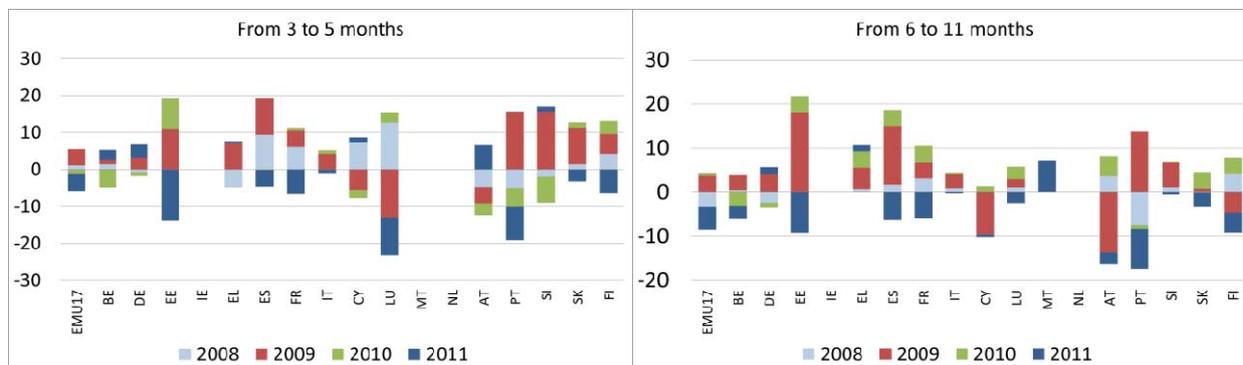


Source – LFS.

This indicates that in the crisis coverage weakened for unemployment spells between 3 and 12 months, which is also typically the most cyclical component of

unemployment (see above). The decline in coverage was particularly significant in EE and PT and to a lesser extent in ES, FI and FR (Chart 5).

Chart 5 – EUROZONE trend in coverage of UB by duration during the crisis – 3 to 12 months



Source – LFS. IE and NL not available.⁵⁴

Duration of unemployment insurance – national provisions vs. an EMU provision

The maximum duration of unemployment benefits varies significantly among Member States in the Eurozone (and seems to show somewhat more diversity within the Eurozone than outside). Within the Eurozone, it is the highest in BE (unlimited) and NL (38 months), followed by FR, ES (24 months) and FI (17 months). It reaches 12 months in EE, DE, LU, SI and is below one year in PT (11), IE and EL (10 months), IT (8), AT and CY (7) and MT and SK (6 months).

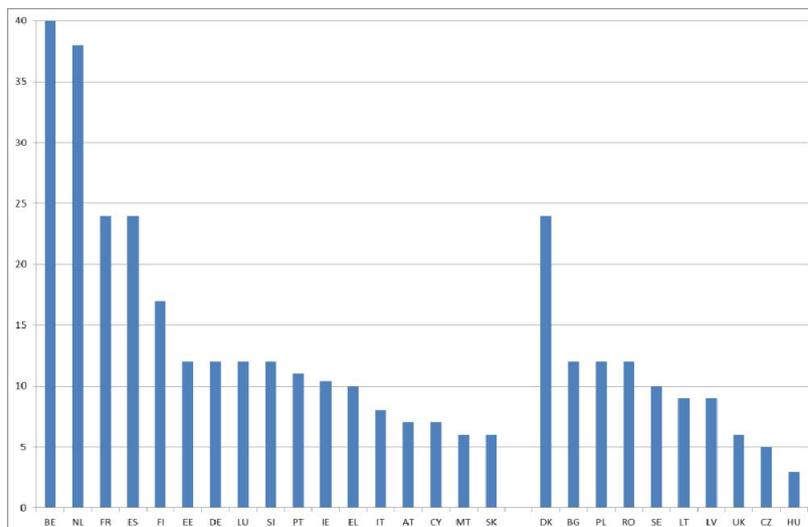
The maximum duration of an EMU provision would probably be lying between 6 months and 12 months, which is both where unemployment is the more correlated with GDP and where most Eurozone duration of unemployment insurance benefits lie. A number of initial months of unemployment could be disregarded, since employment is then less cyclical, for instance the first three months, notably avoiding in this way the coverage of seasonal unemployment. For instance, the EMU provision could cover unemployment spells between 3 and 12 months.

For those Member States with national UBI duration higher than the EMU one (e.g. 12 months), this would imply that UBI beneficiaries exhausting their rights to the EMU provision could then rely on the provision of national unemployment insurance provision before possibly relying on some national unemployment assistance or minimum income provision.

Accordingly, a duration of an EMU provision of between 6 months and (typically) 12 months would imply that the duration of UBI would increase in nearly half of Eurozone Member States (IE, EL, IT, AT, CY, MT and SK). This would imply in practice that the national systems would need to go on providing for some European unemployment insurance provision to people who would have exhausted their rights to national UBI. This would also imply that beneficiaries who would have exhausted their rights for some national and EMU UBI would move from the EMU provision to some national unemployment assistance or minimum income provision.

⁵⁴ Results based on standard available LFS tabulations.

Chart 6 – Maximum duration of unemployment benefits in EU (2012)



Source – MISSOC July 2012. Note: standard maximum duration - not applying special circumstances such as age.

2.2 – Eligibility rules – national arrangements vs. some EMU ones

This section presents information on national eligibility rules for unemployment insurance benefits, focusing on potential access to some unemployment provision (which typically varies by type of employment, with for instance lower access for self-employed) and on qualifying periods (in terms of employment records) for people potentially covered.

Options for some EMU UBI go on a scale from entirely relying on national rules (then only other parameters such as levels of replacement rates and duration of benefits would change with EMU UBS) towards making some steps towards some common rules on eligibility, such as for instance on qualifying periods and the ratio between the length of the qualifying insurance period and the reference period to assess eligibility.

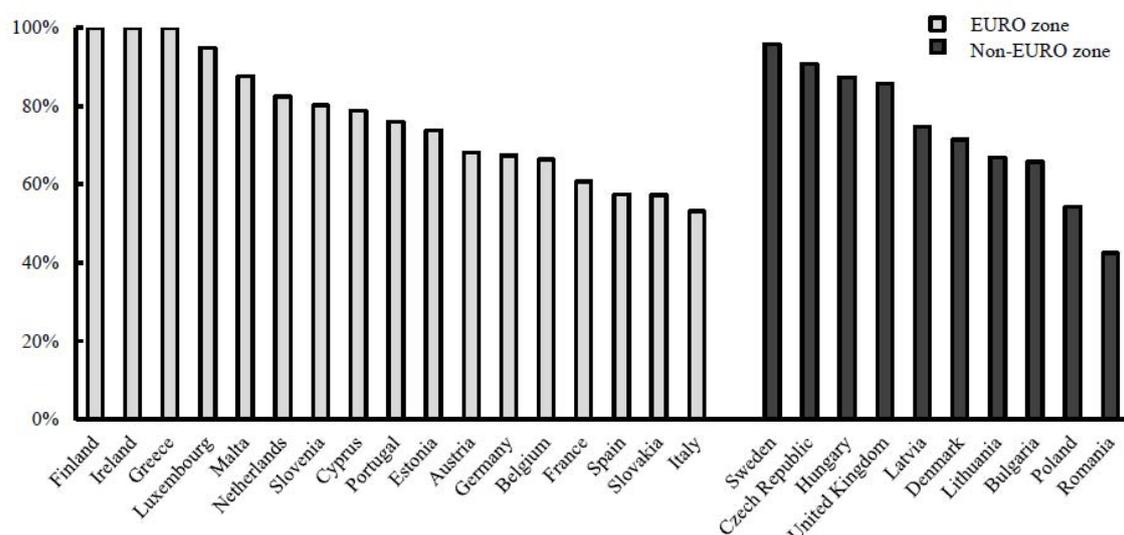
Efficiency and equity concerns seem to argue for some form of (more or less stringent) harmonisation of eligibility rules of any EMU provision. Efficiency arguments in terms of automatic stabilisation favour some harmonisation of eligibility rules, since it allows extending coverage when it is low (put another way, in case of reliance on national rules only, there is no possibility to extend low coverage levels, which represent a barrier to some sizeable stabilisation effect), as well as equity arguments linked to some common features for financing of any EMU provision (if resources are pooled on wages only, same characteristics of contributions should as far as possible provide same coverage, while if they are pooled on some larger tax basis, such as VAT, there is some equity rationale to have as many people covered, since all of them contribute).

Access to some form of unemployment benefit or "potential coverage"

The potential coverage rate can be defined as the number of insured persons in some unemployment scheme as a percentage of the labour force. It should be noted that the choice of the reference population may influence the potential coverage estimate to a large extent (for instance if they cover or not the self-employed) and that figures presented here refer to the whole labour force (for example, the number of employees represents only about half of the labour force in RO).

Potential unemployment coverage rates vary quite substantially across EU Member States. Coverage is on average around 75%, with no major differences whether inside the Eurozone or not. Five countries have full coverage (over 95%), 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. High levels of potential coverage in some MS such as EL can also reflect access to some UBI provision for some categories, such as self-employed, with lower levels of provisions (for instance duration and levels) than for the standard UBI scheme available for standard forms of employment. At the lower end, Italy's unemployment insurance potentially covers around half of the labour force.

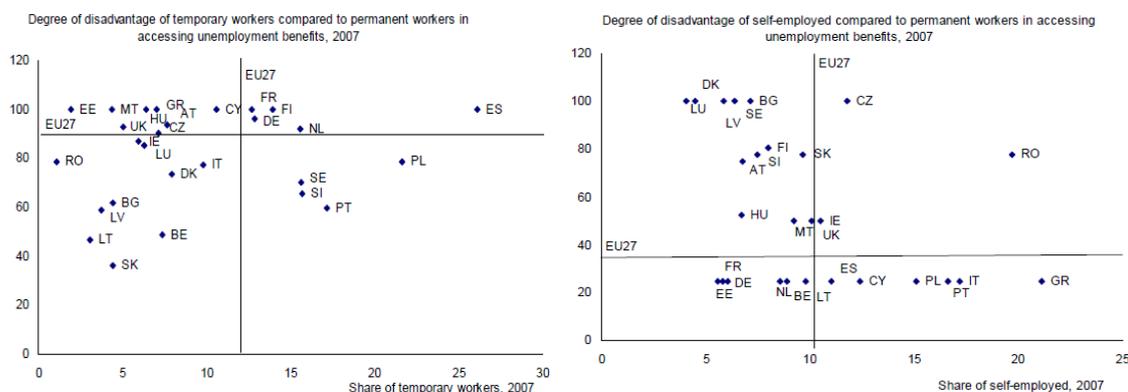
Chart 7 – Percentage of the labour force covered by some unemployment insurance (2010)



Source: Social Policy Indicator Database (SPIN). Palme (2013)

As highlighted in Alphametrics (2009) and European Commission (2011), eligibility conditions for non-standard workers have become increasingly relevant in light of the tendency towards a wider use of fixed-term and atypical contracts. Chart 8 below provides an insight on the degree of disadvantage of temporary and self-employed workers compared to permanent workers in accessing unemployment benefits across EU.

Chart 8 – Access of temporary workers and self-employed to unemployment benefits



Source – European Commission, Labour market developments in Europe, 2011. Note: a degree of 100 implies the same unemployment benefits as permanent workers; a value below 100 indicates disadvantage.

It should however be noted that the possible extension of potential access to UBI for categories not covered seems not easy to achieve since some of the related categories are not necessarily in the main unemployment scheme (such as the self-employed) and have access to different schemes (as a consequence, the main elements needed for the calculation of the benefits may not be available such as former employment records if benefits are currently exclusively flat rate). Alternatively one option is to focus on eligibility criteria to unemployment insurance and in particular to qualifying periods.

Eligibility rules in EU in terms of qualifying period (former employment records)

Eligibility can be analysed in terms of qualifying period, which shows the minimum length of work record needed in order to become eligible for benefits. This criterion is not only a good approximation of the conditions surrounding eligibility of unemployment benefits in EU Member States (Palme and al. 2009), but also central for coverage. Stricter qualifying periods during times of high unemployment may substantially decrease the proportion of labour force actually qualifying for and receiving benefits.

Qualifying conditions vary significantly between Member States (and actually appear often to be stricter for non-Eurozone MS). A number of Eurozone Member States apply relatively strict conditions: either in terms of minimum employment records (at least 12 months in AT, BE, EE, DE, IT, PT and ES) or the implicit ratio of full time equivalent employment needed to be covered over the reference period used for the qualifying test, with at least 50% in half of Eurozone MS. These tests can clearly exclude from eligibility a number of the youth and of workers with low hours of work.

Table 8: Minimum qualifying periods in 2012

	Employment record needed to qualify (months)	Reference period used to assess employment records (months)	Implicit minimum share of months/time worked needed to qualify
BE	12	18	67%
AT	12	24	50%
DE	12	24	50%
IT	12	24	50%
PT	12	24	50%
EE	12	36	33%
ES	12	60	20%
SI	9	24	38%
FI	8	28	28%
NL	6	8	72%
LU	6	12	50%
IE	6	24	25%
CY	6	Not applicable	not applicable
EL	6	14	41%
MT	5	24	19%
FR	4	28	14%
SK	2	3	67%
LT	18	36	50%
CZ	12	24	50%
DK	12	36	33%
HU	12	36	33%
PL	12	18	67%
RO	12	24	50%
BG	9	15	60%
LV	9	12	75%
SE	6	12	50%
UK	6	24	25%

Source – MISSOC July 2012. Note: estimates based on MISSOC with standard rules (values rounded in months) - not applying special circumstances such as age.

In order to achieve a higher stabilisation impact, some (move towards) common standards of eligibility requirements (an EMU provision) aiming at extending coverage, could be introduced since relying on national provisions would have no impact on coverage levels and accordingly no impact (through this channel) on automatic stabilisation. Extending the coverage either by lowering the length of the employment record needed to qualify (qualifying period) and/or by extending the length of the reference period used to assess the qualifying period could be envisaged.

It should however be noted that the link between eligibility conditions and coverage levels (as reported in Table 7) is complex and results from various effects beyond the rules themselves, including the dynamics of the labour markets (who become sunemployed, how long do people stay in employment, etc.). As overall labour market

characteristics also differ widely across Member States, further analysis would be needed to fully understand how to improve coverage where it is low.

2.3 – Levels (replacement rates) and the calculation of benefits

This section presents information on the calculation methods of unemployment benefits (notably on the reference wages used for the calculation of the benefits) and the related replacement rates for periods of unemployment not exceeding 12 months.

For any EMU provision, arguments seem to weigh in favour of some single level of benefits or replacement rate, more than for a top-up to national levels of replacement rates which would lead to some narrowing or equalisation of national replacement rates levels. Indeed, otherwise countries with already relatively higher levels could be financially disadvantaged since they would receive less from the EMU UBS and there would accordingly be high risks of permanent transfers. Furthermore, simplicity, visibility, easy management and transparency (notably difficult to assess and control actual national levels and accordingly levels that would require some complement from any EMU provision) seem to push in the same direction of some basic EMU level that would be complemented by national provisions.

Such a single level of EMU provision can be defined either as a fraction of former earnings or as a flat rate (depending on national specificities and calculated for instance as a share of the average wage in the country). One also needs to discuss the reference wage used for the calculation of the benefit, since it can be different in the various Member States (gross or net wages).⁵⁵

Calculation of benefits: reference wages and reference earnings in national UBI schemes vs. EMU provision

The calculation methods for unemployment insurance benefits can differ in two main aspects, firstly on the type of income considered for replacement (gross or net wages) and secondly on the length of the reference period used for the calculation of benefits. National provisions for the calculation of unemployment benefits vary very significantly for these two dimensions (table):

- Unemployment benefits are calculated on gross wages in most Eurozone countries (11 out of 17), but are calculated on net wages in a few Member States (AT, FI, DE). In three other Member States they are flat rate and not related to previous earnings (IE, MT) or only very broadly related to them in brackets (EL).
- The period used to calculate the earnings reference for the calculation of benefits also varies a lot in the Eurozone, from less than 3 months (NL, BE), to 3 months (IT, LU), 6 months or around (ES, FI), 9 months (EE), 12 months (AT, CY, FR, DE, PT, SI) or 24 months (SK).
- In all Member States but one (FI) a maximum ceiling on benefits is used, while in some there is a minimum floor.

⁵⁵ This also relates to the financing mechanisms (see next section) since if most taxation in a country is based on social contributions notably employers contributions, gross benefits will be relatively lower (but relatively less nationally taxed), while if social contributions are low, benefits could be relatively higher but relatively more taxed.

Table 9: Reference wages and earnings reference and ceiling on benefits

	Earnings base gross or net	Period of reference for average earnings (months)	Ceilings on benefits (min/max as a % of average wage)
Austria	Net	Last 12 months	Ceiling (-- / 42).
Belgium	Gross	Average salary earned in latest position (at least one month)	Ceiling (24 / 38).
Cyprus	Gross	Last 12 months.	Ceiling.
Estonia	Gross	9 months. ⁵⁶	Ceiling (17 / 149).
Finland	Net	34 weeks	No ceiling.
France	Gross	12 months	Ceiling (28 / 228).
Germany	Net	Last 12 months	Ceiling (-- / 92).
Greece	--	UB depending on latest earnings (3 brackets).	Not applicable (flat rate)
Ireland	Not applicable	Benefits not based on earnings.	Not applicable (flat rate)
Italy	Gross	Last 3 months.	Ceiling (-- / 46)
Luxembourg	Gross	Last 3 months.	Not applicable (flat rate)
Malta	Not applicable	Not applicable. Benefits not based on earnings.	
Netherlands	Gross	Last daily wage	Ceiling (28 / 80).
Portugal	Gross	Last 12 months ⁵⁷	Ceiling (29 / 87).
Slovak Republic	Gross	Last 24 months.	Ceiling (-- / 142).
Slovenia	Gross	Average of last 12 months.	Ceiling (24 / 71)
Spain	Gross	Average over last 6 months.	Ceiling (24 / 53)
Latvia	Gross	Last 12 months. ⁵⁸	No ceiling.
Lithuania	Gross	Last 36 months.	Ceiling (18 / 33)
Bulgaria	Gross	Last 24 months.	Ceiling.
Czech Republic	Net	Last 3 months.	Ceiling (-- / 58)
Denmark	Gross (less 8% SSC)	Last 3 months (employees). ⁵⁹	No ceiling.
Hungary	Gross	Last 12 months.	Ceiling (21 / 42)
Poland	Not applicable	Not applicable. Benefits not based on earnings.	
Romania	Gross	Last 12 months.	No ceiling.
Sweden	Gross	Last 12 months. ⁶⁰	Ceiling (23 / 48)
United Kingdom	--	Not applicable. Benefits not based on earnings.	

Source: MISSOC (July 2012), OECD tax benefits database 2010 (ceiling levels).

⁵⁶ Average earnings over the first 9 months out of a period of 12 months preceding registration as unemployed.

⁵⁷ Preceding the 2 months prior to beginning of unemployment.

⁵⁸ Ending two calendar months prior to the month in which the person obtained the status of unemployed person.

⁵⁹ Self-employed: average daily income if the self-employed person has carried out substantial self-employed activities for at least one year in a 3-year-period. The main rule is that a company must have been run by the self-employed person for at least three consecutive years. Thereafter the yearly income is calculated on the basis of the best two years in a 5-year-period.

⁶⁰ For self-employed calculation is based on the latest decision on final tax or, if it is more advantageous, on the average income from operations during the two years preceding the year of income taken into account in the latest decision on final tax.

The great variety of calculation methods suggests that moving away from the national calculation methods could require a significant administrative burden on MS, unless the calculation method for EMU UBS is very simple (such as flat benefits), which would however reduce, potentially significantly, the stabilisation function.

- A difficult point is linked to the very different nature of earnings registered in national systems (gross or net) for the calculation of EMU benefits. It could potentially require to provide for two different calculations methods of benefits (national and EMU) implying also possible revision of information systems for administrative provision of benefits in some Member States.
- A second point arises from the fact that the reference periods used for the calculation of benefits vary from a few months to more than a year. This seems a lesser barrier since nearly all Eurozone Member States use some reference to former earnings (except MT and IE). It could however raise implementation issues when the national length of the reference period would be lower than the EMU one. For instance, relying on a reference period of 3 months may require to expend or duplicate national calculations in BE and NL and relying on a 6 months reference period may additionally do so in IT and LU.
- A less stringent point is linked to the presence of ceilings in national systems, which can be on contributions and/or on benefits. The definition of some EMU ceilings would probably require referring to some national references (such as average national wages, or some flat rate level corrected for PPS). As regards possible ceiling on contributions, this could imply some implementation costs for countries where national ceilings are below an EMU one. This is typically the case for countries with flat rate benefits (EL, IE and MT), but it could be the case in (some) countries with relatively low levels of ceilings (due to the need to register earnings at levels higher than the current national ceilings). On the benefit side, introducing minimum and maximum ceilings for an EMU provision does not seem to raise significant implementation difficulties.
- Relying on flat rate EMU benefits (like in MT, IE and EL) would allow avoiding much of these potential implementation issues, but would reduce the income insurance dimension of some EMU provision and thus potentially the stabilisation function of the EMU provision. Levels of flat rate benefits would need to be defined relatively to income levels in the various Member States, for instance as a share of average wages, such as around 30% (or possibly some flat rate level corrected for differences in relative price levels, PPS). For instance, basic insurance provides a flat rate benefit of around 17% of the average wage in FI, while flat rate levels in EL, MT and IE correspond respectively to 27%, 21% and 32% of the average wage. In order not to induce moral hazard issues, these levels would probably need to remain in a range around 40%-50% of average wages and would typically lead to relatively low levels of replacement for higher levels of previous earnings, which could reduce the effectiveness of the stabilisation effect, unless improvements of coverage levels would otherwise be achieved.

Levels of benefits - replacement rates

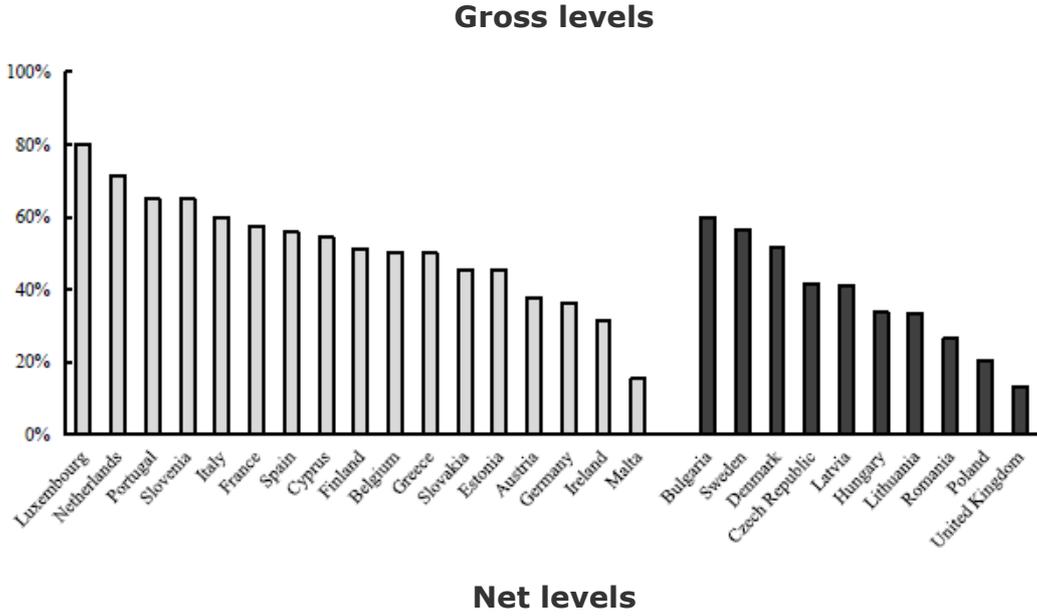
The generosity of unemployment benefit systems can be illustrated by **gross (where gross benefits are expressed as a share of gross wages) and net replacement rates (where net benefit are expressed as a percentage of net wages, after contributions and direct taxes), including or not other types of benefits than unemployment benefits.** A common approach is to consider different types of benefits, including for instance unemployment insurance, child benefits, social

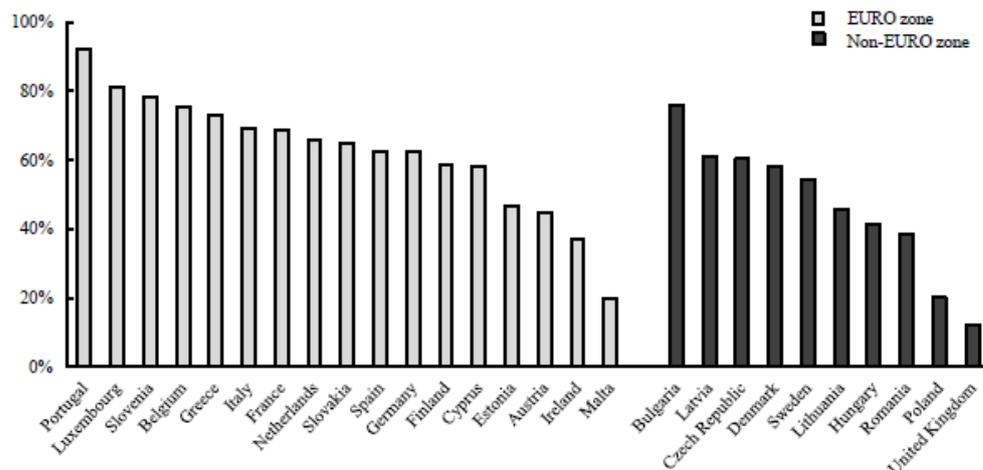
assistance and housing allowances. Income packaging of this type is relevant when the main objective is to assess the overall income position of particular population categories and variants of this approach to establish replacement rate are regularly presented by the OECD. However, for the purpose of the specific analysis of specific types of benefits, such as for unemployment benefits, the income packaging approach seems less fruitful. The emphasis is put here on a **single person model** in the calculation of unemployment insurance replacement rates, thus avoiding confusion of unemployment insurance and family policy in the empirical analysis of entitlement levels. Similarly, results do not relate to 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.

It can be noted that replacement rate levels also typically depend on the levels of wages considered and on the duration of unemployment spells. Results presented here provide elements for a worker earning average wages with a short term unemployment duration (typically 6 months).

As regards gross replacement rates, after 6 months of unemployment, levels of replacement rates vary significantly within the Eurozone, with levels ranging from less than 20% (MT) to nearly 80% (LU), with most Member States ranging from 40% to 60% (Chart 9).

Chart 9 – Gross and net replacement rates in the initial phase of unemployment (6 months) for a single person at average wage (2010)





Source: Social Policy Indicator Database (SPIN). Note: as duration of unemployment insurance in some countries is less than one year, it is assumed that the beneficiary has 26 weeks of benefits and 26 weeks of earnings.

In **net terms (but excluding social benefits other than unemployment benefits)**, the range is somewhat higher, but the order of Member States is significantly different, reflecting different effects such as the progressivity of income taxation in the various Member States, but also specific income tax treatment of unemployment benefits or special treatment for social contributions. Indeed unemployment benefits are sometimes exempted from general taxation rules (AT, CY, DE, PT, SK) and are most often either totally or partially exempted from social security contributions (except in ES, LU and NL, see Table 10).

Table 10: Income tax and social contributions on benefits

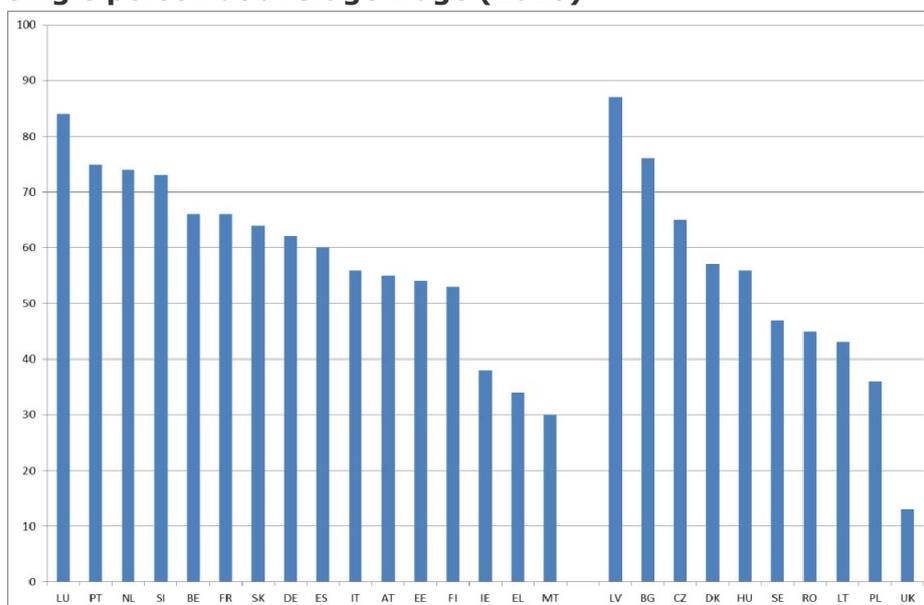
	Income tax relief or tax reduction on benefits	Social security contributions from benefits
Austria	Benefits are not subject to taxation.	No contributions.
Belgium	Tax reduction.	Reduced social security contributions
Cyprus	Benefits are not subject to taxation.	No contributions.
Estonia	General taxation rules.	Reduced social security contributions
Finland	General taxation rules.	Reduced social security contributions
France	General taxation rules.	Reduced social security contributions
Germany	Benefits are not subject to taxation.	No social security contributions.
Greece	General taxation rules.	No contributions.
Ireland	General taxation rules.	No contributions.
Italy	General taxation rules.	No contributions.
Luxembourg	General taxation rules.	Contributions for health care, long-term care insurance and pension insurance.
Malta	General taxation rules.	No contributions.
Portugal	Benefits are not subject to taxation.	No contributions.
Slovakia	Benefits are not subject to taxation.	No contributions.
Slovenia	General taxation rules.	Reduced
Spain	General taxation rules.	Standard social security contributions, except for accidents at work and occupational

		diseases, unemployment, wage guarantee fund and vocational training.
The Netherlands	General taxation rules.	Standard social insurance contributions except for Health (refunded).

Source: MISSOC. Comparative tables (2012-07-01).

Net replacement rates of income with a broader coverage (unemployment benefits or means-tested social assistance, housing benefits) after 6 months of unemployment (2010), varied from less than 30% in Malta and Greece to more than 70% in Slovenia, the Netherlands, Portugal and Luxembourg (chart). The changes in the order of the Member States also reflects the extent to which unemployment benefits are counted in the income basis for the calculation of other types of benefits. Indeed, the potential increase in other means tested benefits following the initial loss of labour market incomes (such as housing benefits, but also other benefits not covered here, such as family ones) is smoothed at different rates in the various Member states following the inclusion of unemployment benefits in the calculation of the related means tests.

Chart 10 – Net replacement rates in the initial phase of unemployment for a single person at average wage (2010)



Source OECD. Note: Initial phase of unemployment but following any waiting period. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (i.e. monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. Where receipt of social assistance or other minimum-income benefits is subject to activity tests (such as active job-search or being "available" for work), these requirements are assumed to be met. After tax and including unemployment benefits and family benefits. No social assistance "top-ups" or cash housing benefits are assumed to be available in either the in-work or out-of-work situation.

As a result, while most studies assume that the levels of some EMU **gross** provision would lie in a typical range of 20%-50% of average wages, either on a proportional basis or on a flat rate basis, the definition of the gross levels is also closely related to the tax-benefit structure of Member States: taxation (benefits based on gross or net wages, but also income taxation of benefits and social contributions raised on benefits), but also benefits structures (related to the taking into account of unemployment benefits in the calculation of means tests of other benefits). The various structures of national tax-benefits systems can translate into different actual

levels of **net** benefits available to the beneficiaries for a given level of gross benefit and raise issues related to the design of financing of some EMU UBI provision.

2.4 – Financing

This section reviews options for the financing of some EMU UBI provision. It presents information on the financing structures of national unemployment benefits focusing on insurance functions and on the overall financing structure of social protection (gross and net) and public expenditures.

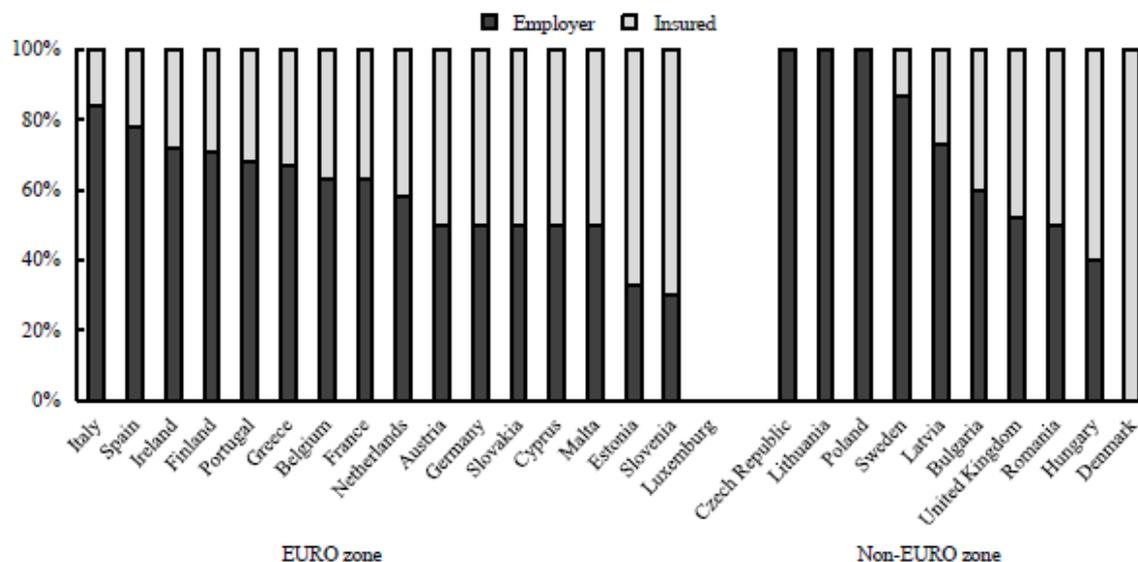
It then discusses options for the financing of some EMU UBI provision aiming at minimising the risk of unintended national permanent transfers (as a result of a net persistent difference between national expenditure levels and national financing levels). The risks for permanent transfers derives both from moral hazard linked to Member states different tax-ben structures (actual differences and possible changes in direct or indirect taxation of benefits or implicit tax rates through the calculation of other benefits), but also from potential different levels of unemployment levels (even if restricted to some short term unemployment).

Diversity of financing structures and expenditures

Cross-national patterns in financing and expenditures of overall unemployment benefits are complex. In the following, the focus is on formal financing structures of the core unemployment insurance programme in the different countries (Palme 2013). The relative importance of contributions from insured persons and employers can be identified as well as the role of the state.

The relative contributions of insured persons and employers to the financing of total social contributions vary significantly among EMU members (Chart 11). The formal employer participation in financing of unemployment insurance tends to be stronger among non-Eurozone countries. Whereas such contributions provide a small part of social contributions in LU and EE, they are the highest in IT and ES. Among the remaining countries there is a mix of contributions from insured persons and employers with no clear grouping of countries.

Chart 11 - Financing structure of unemployment insurance benefits – share of employers and employees in total social contributions (2010).



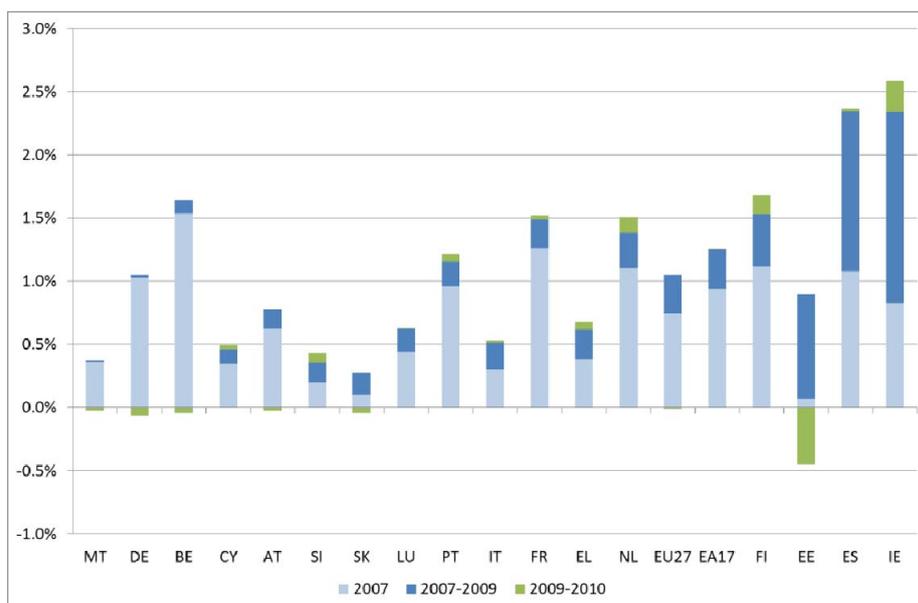
Source: Palme (2013).

The importance of state funding in unemployment insurance varies also significantly. 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 (as well as in Denmark, Latvia, Sweden and the United Kingdom outside EMU). There is no formal participation of the state in remaining EMU countries, namely EE, FR, NL and PT (and outside EMU in BG and HU).

Furthermore, the financing structure of social protection expenditures differs widely among MS, notably as regards the relative shares of social contributions and government contributions (see for instance ESDE 2012), as well as in general the structure of overall public expenditures (see for instance Tax reforms in EU Member States in 2012).

Orders of magnitude of maximum sizes of payments that would be needed for an EMU provision can be derived from actual levels of expenditures before and during the crisis. Before the crisis, unemployment expenditures reached nearly 1% of GDP in the Euro area and varied from very low levels like in SK to a maximum of 1.5% of GDP in BE. Unemployment expenditures increased in the crisis (2007-09) in EMU by around 0.3% of GDP, with much stronger increases in ES and IE (around 1.5% of GDP) and EE (around 1% of GDP) and to a lesser extent FI (0.4%). Increases generally ranged around 0.2-0.3% of GDP, with nearly no increases in MT and DE and small increases in BE and CY (Chart 12).

Chart 12– Expenditures on unemployment benefits in EMU (2007-2010) as a % of GDP



Source – ESSPROS. Note : unemployment benefits include not only unemployment insurance but also unemployment assistance schemes.

Financing of an EMU UBS: social contributions vs. other tax sources

One obvious option is to have some harmonised contribution rates on wages, as is most usually the case in national systems and following the general logic of additional unemployment insurance for workers. This could be calculated on gross wages. However, this can imply actually imposing different levels of contributions - due to the different national composition of employers' contributions and taxes financing social protection - in order to provide in the end the same levels of wage replacement (in net or gross terms), but not of income (see Box 5).

Box 5: Some illustration of the impact of different tax-benefit structures on benefit levels

Take two average (similar) workers getting unemployed in two countries with exact same economic developments (GDP) and level of public expenditures (e.g. 40% of GDP), but different financing structures. Country A finances public expenditures all with taxes, country B finances all through social contributions (50% employers, 50% employees).

- Let's suppose a simple EMU provision financed by 1% contribution on gross wages and providing 10% of replacement rate of gross wages.

- In country A the labour cost is 100 and (gross and net) wages are 100 on which 40 of taxes are paid (60 of disposable income). The contribution to the EMU scheme is 1. When unemployed, he receives 10 (10% of 100 in benefits), which are on average taxed at 40%, so he gets 6 of disposable income in the end. Taxation can be progressive or not, so the net replacement rate will actually depend on income levels.
- In country B if labour cost is 100, the employed receives 80 of gross wage and 60 of net wages and of disposable income (no taxes). He contributes 1% of gross wage, so 0,8. If benefits are expressed in gross terms, he will have 10% of 80, that is 8 of gross benefits which if not taxed will also be 8 in disposable income.
- As a result, in this example, in country A, the employed contributes 1 and gets 10 of gross benefit (and 6 of disposable income), while in country B, the employed contributes 0,8 and receives 8 in gross benefit (and 8 in disposable income). In gross terms, the replacement is equivalent, but in this example if EMU provision is not exempted from taxation, country A public budget receives 2 in the form of income tax on unemployment benefits, while country A does not receive additional taxes).

A different but related point is that benefits can be taxed differently in different MS which could raise difficult issues of equity: for instance, the same contributions and the same benefits in replacement (in gross or net levels), but different disposable income levels because of different tax levels and benefit structures. This could raise the case for non-taxation of EMU unemployment benefits, which would be an improvement since notably changes in other benefit net levels would remain different.

If accordingly EMU benefits were not to be taken in the income base of various national benefits (as national unemployment benefits are), this would require that the design of a number of national benefits would change in order to ensure that the levels of other types of benefits do not change significantly. In other words, following increased EMU unemployment benefits, Member States would (automatically) need to adjust to several degrees the calculation levels of other benefits to ensure these are not affected. Otherwise, the levels of other benefits would probably somehow decline, which would be under the responsibility of Member States following subsidiarity, but could entail some type of hidden permanent transfer, though probably of second order.

Adjusting financing levels to the EMU provision for different tax-benefits rules and structures could be an option but would raise very difficult and lengthy practical implementation questions. Indeed, these issues could probably to some extent be accommodated, since higher gross benefits also imply higher taxes on them and lower gross benefits imply lower taxes, and differences could actually be of second order, but they would probably remain significant and it would be a huge investment to be able to quantify them in such a robust and satisfactory way allowing establishing different levels of national financial contributions to the EMU provision.

An alternative and much simpler option would be to rely only on gross payments made to various Member States and leave open the question of how these payments are allocated in the end between net payments to beneficiaries and additional public resources (through direct or indirect taxation or lower other benefits). Member States would have **a national account where gross payments and gross contributions from and to the supra national scheme would be registered**. Member States would be required to balance this account by changes in contribution rates to adjust for observed imbalances in their account, under rules allowing for automatic stabilisation in the short run (see below). This would avoid reviewing actual differences in tax-ben systems and providing estimates on the impact on contribution rates.

Some **alternative financing options** can probably also be considered (at least partly), given some of these potential drawbacks of social contributions in an EMU context (which however have the clear advantage of being contra-cyclical). Indeed, there is no necessity to have financing contributions related, since the objective is to provide insurance not only between individuals but also between MSs in the EMU. To follow the argument of automatic stabilisation, one would need to keep a financing base declining with economic activity: national basis such as consumption (such as a share of VAT) would be one that would have the advantage of increasing external competitiveness of Eurozone MSs (potentially at the expense of distributional effects). Another financing base could directly be GDP or GNP. Other financing bases could be considered such green taxes or financial transaction taxes.

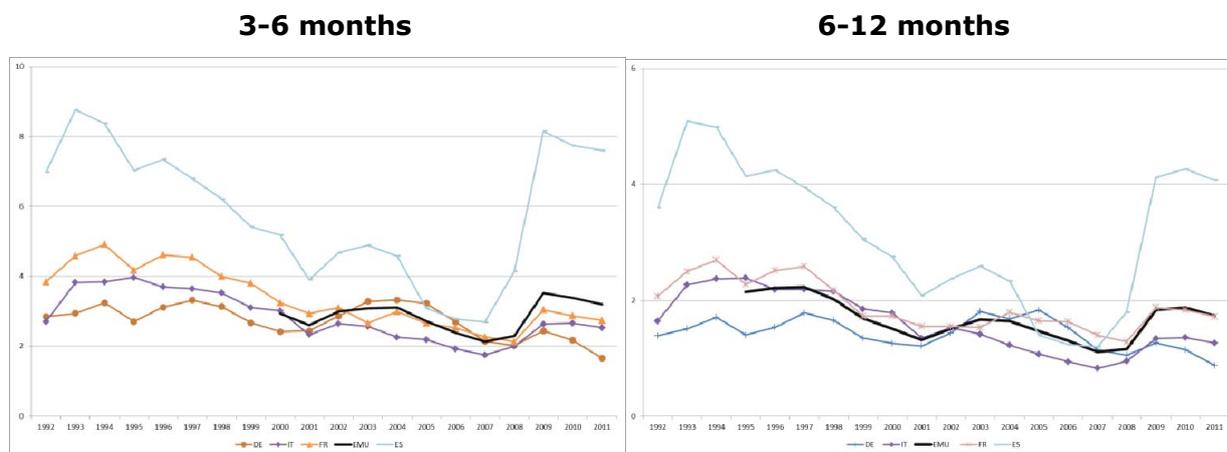
Minimising risks of moral hazard and permanent transfers

The risks of permanent transfers not only derives from moral hazard linked to Member States' tax-benefits structures (adjustments in direct taxation of benefits or in indirect taxation of benefits through indirect taxes or implicit tax rates through the calculation of other benefits), but primarily to potential different levels of unemployment levels, even if benefits are restricted to short term unemployment. Indeed if national contributions are homogeneous (on whichever tax base they are collected) and related average unemployment risks differ, this entails some serious risks of permanent transfers from those with low risks (unemployment rates) towards those with high risks (unemployment rates).

This problem can be compared to a typical insurance issue. When no agent knows about its own risks, it is probably optimal to have uniform premiums, but it is difficult to do so when agents know about their risks (the so called "veil of ignorance"). When agents know their risks, the picture is more complex and even more so when there is some possibility for agents to affect their own risk (moral hazard). Typical design issues imply then the need to introduce some segmentation of the levels of contributions required from agents (typically 'bad' car drivers pay their car insurance at a higher rate) and to introduce incentives to avoid changes in behaviours potentially affecting risks. In this respect, an EMU provision can also be accompanied by the setting of common standards on activation (ALMPs) or employment services, which can contribute to the prevention of moral hazard issues.

Evidence shows that some Member States are structurally above or below EMU unemployment averages, even when only short term unemployment durations are considered (typically ranging between 3 and 12 months). For instance, since the early 90s, levels of unemployment rates (3-6 months and 6-+12 months) seem to have been close to average EMU levels for FR, but generally higher in ES (with the exception of the years 2005-07 where they were close to EMU average) and most often below EMU average for IT (except end 90s when they were close to EMU average), while for DE the evidence is mixed with levels below average in the end 90s and since 2007, but slightly higher than average in the early 2000s (Chart 13).

Chart 13 – Evolution of short term unemployment rates 3-6 months and 6-12 months in selected EMU Member States (1992-2011)



Source: LFS.

In order to avoid unintended permanent transfers related to different levels of unemployment, different options can be considered. A first option could be, like in the USA, that Member States have individual state accounts (at the "federal" level) which they are required to balance over the cycle, with some automatic increases in contribution levels, to ensure that the deficit in the state account disappears (with interests paid to the EMU fund). Another option, which can be seen as an extension of the former, could be to actually **differentiate levels of national contributions rates** depending on historical levels of unemployment benefit expenditure of the scheme (or differences in the tax-benefit system, see above), with a smooth adjustment of contribution rates over the economic cycle in case of short term deviation, **allowing for automatic stabilisation during the initial phase of a downturn.**

For instance, contribution rates could be calculated as a 3 years backwards looking average needed to balance the State account (could be less years or more years than 3). As a result in the first year of a recession, the contribution rate reflecting the 3 former years would result in a negative balance on the account (resulting from more benefits following the increase in unemployment and less contributions resulting from the economic downturn), allowing thus for automatic stabilisation. The contribution rate the year following the recession would increase reflecting the deterioration observed the year of the recession, but this would be averaged over the last 3 years (or less or more). The path of adjustment of the contribution rate could follow different patterns than a simple average, like with for instance more rigidity of the contribution rate the year following the recession, but a more rapid correction afterwards.

The USA federal funding mechanism provides an example of adjustment of contribution rates over the economic cycle (see 1.2). States have accounts which can run deficits even if the system is in principle forward looking (with reserves accumulated for bad years). In case of negative balance, contribution rates adjust with some lag, as States are required to fully repay loans from the federal fund within 2 years.^{61 62}

⁶¹ If a State does not repay the full amount, the federal government will recoup its funds by effectively raising the contribution rate (the federal tax rate) within the given State each year until the loan is repaid. Actually, 35 States (and the Virgin Islands) borrowed during 2008 through 2011.

Such options allow to control in a quite transparent way the size and duration of net flows made to and from individual Member States (resulting from the difference between expenditure and financing flows), while at the same time allowing for the macroeconomic stabilisation function of the EMU provision to play fully or not to be significantly affected. In other words, Member States would have an additional unemployment insurance on top of their national ones, contracted between them to strengthen their own unemployment provisions, which would benefit each of them (additional national stabilisation) and the whole of them (reinforced stabilisation spill over effects).

Solvency issues - securing overall financing of EMU provision over the cycle

Some ex-ante mechanism could ensure that resources are accumulated and disbursed over the economic cycle (forward looking financing), as well as ensuring stabilisation in case of bad times and symmetric shocks. Some ex-post guarantee could be available in case the overall EMU fund runs out of resources in bad times. If such a guarantee is not available, contributions may need to be increased more quickly when Member State get unbalanced, unless sufficient reserves have been overall accumulated by other Member States.

2.5 Potential interactions of an EMU-wide UBS with the EU social security coordination rules ⁶³

The national UBS are currently coordinated by the EU legislation⁶⁴, which ensures that people who make use of the freedom of movement within the EU do not lose their entitlement to the unemployment benefits. Although the coordination rules concern only a limited number of unemployed people⁶⁵, it should be considered how an EMU-wide UBS could be integrated in the EU coordination system. The main concern should be to find a solution which is transparent for the citizens and which would not create excessive additional complexity or administrative burden for national administrations.

The following issues should be considered in this respect:

- Would an **EMU-wide UBS** be an obligatory (statutory) or a voluntary scheme? Would it be considered as part of the 'national scheme' (for the participating countries) as regards EU legislation, or would it stand completely separate from the 'national scheme'?

⁶² Detailed levels by States from DOL

(http://www.oui.doleta.gov/unemploy/docs/reduced_credit_states_2012_final.xls)

⁶³ This section has been drafted by M. Ciesielska (Unit B4).

⁶⁴ Regulation (EC) No 883/2004 of the European Parliament and of the Council of 29 April 2004 on the coordination of social security systems and Regulation (EC) No 987/2009 of the European Parliament and of the Council of 16 September 2009 laying down the procedure for implementing Regulation (EC) No 883/2004 on the coordination of social security systems.

⁶⁵ The labour mobility across MS is rather low - only about 2.8% of the European working age population (between age 15-64) resided in another MS than their own in 2010 (EU Labour force survey, 2010). Number of frontier workers in the EU (persons working in one country, but residing in another Member State) is estimated at around 0.75% of EU population. The scale of commuting workers varies from almost zero in Ireland, Finland and Spain to as much as 4% in Estonia and 5.5% in Slovakia and has generally become more common in the EU-12 countries. Daily commuters are however prevalent in EU-15 countries. From the point of view of destination countries, about 60% of the workforce of Luxembourg lives in another (mostly bordering) Member States. The next in terms of employment occupied by commuters from another Member States are Austria (2%) and Denmark (1.5%) (Mobility in Europe report - 2011).

- If it would stand separately from the national schemes, what would be the **conflict rules** for determining which Member State is competent to collect the contributions (unless this would be done at EU level) and pay the EU part of the UB and the top up? For example, in a cross border situation of a worker who lives in Poland (outside EMU) and daily commutes to his work in Germany (within EMU), which Member State will be competent to pay the UB under the EMU-wide UBS? Under the current EU coordination rules, it would be Poland (the country of residence), which would have to determine the amount of the UB benefits in accordance with its legislation, but taking into account the last salary that the person received in Germany, and which would also have to provide other social security benefits to the person, in accordance with its legislation⁶⁶. It would have to be considered therefore whether and how the EMU-wide UBS would work in the framework of the EU coordination rules. Namely, whether the EMU-wide UBS would be governed by specific conflict rules or not. In this respect, the administrative procedures have to be considered, especially if it would be the national administrations which would have to provide both the national UB and the benefits under the EMU-wide UBS. It seems preferable to minimise as far as possible additional administrative and it should in particular be avoided that the person has to claim unemployment benefits and deal with administrations and employment services in two different Member States (one under the EMU-wide UBS and the other under the EU coordination rules).
- What would be the **qualifying conditions for an EMU-wide UBS**? Would an EMU-wide UBS cover only employed workers or also self-employed people? Would it cover also people who have never worked before (for example students who have just finished their studies)? As reviewed in section 2, most of the current national UBS make the entitlement subject to conditions of fulfilment of periods of employment or insurance within a specific reference period. In some schemes, there are no conditions of previous insurance or employment periods and there are special UBS for young people who finished school. In most Member States, the involuntary character of the end of previous employment impacts on the person's entitlement to UB and in this case national legislation (and often national jurisprudence) determines what "involuntary character" means. These definitions differ from country to country. Would the qualifying conditions for an EMU-wide UBS be unique in the EMU and different from national conditions? In the scenario of a 'top up', would Member States continue to apply their national conditions to decide on the entitlement to their national top up?
- Would an EMU-wide UBS provide for a **possibility to aggregate periods** fulfilled in different Member States for the entitlement to the EMU unemployment benefit? Under the current EU coordination rules when dealing with claims for unemployment benefits, the national institutions must take into account periods of insurance, employment and self-employment completed in other EU countries. In this respect, it would have to be considered whether only the periods acquired under an EMU-wide UBS would count for entitlement or also periods of insurance, employment or self-employment completed in the EU. In other words, would workers build a separate, parallel employment periods history in both systems: EMU-wide UBS and the national systems? This would lead to a huge complexity and difficulties in management, which should as far as possible be avoided, as the aggregation of periods requires the exchange of

⁶⁶ In accordance with the current EU coordination rules, the unemployment benefits are, as a rule, provided by the country where the person has lastly worked and lived, with the exception of former frontier workers who receive unemployment benefits in the country of residence even if they worked in another Member State.

information about the insurance, employment or self-employment periods between the institutions from different Member States.

- What would be the **conditions for maintaining the benefit** provided under the EMU-wide UBS? In most national UBS, the unemployed person has to reside and be present in the Member State paying the unemployment benefit in order to be available to the unemployment services and actively search for work. Some Member States have very restrictive conditions concerning the amount of days of a possible stay abroad. The EU legislation provides for a possibility of export of the unemployment benefits for a limited period of three months if a person goes looking for work in another Member State. The national competent institutions may extend the export period for up to six months⁶⁷. In order to retain entitlement to unemployment benefits, the beneficiary must return before the end of the export period to the competent Member State. Otherwise, any remaining entitlements to unemployment benefits are lost. It would seem logical for an EMU-wide UBS to provide for a possibility to go and look for work in the whole EU. However, would in this case the person lose the national top up, which would remain subject to national conditions of residence (or stay)? With the end of the national unemployment benefits, under current legislation the person would also lose entitlement to other social security benefits (sickness, family benefits). It would also have to be determined whether the receipt of an EMU-wide UBS would be compatible with some other activities (such as part-time work and studies)?

⁶⁷ The coordination rules concerning unemployment benefits are currently subject to evaluation (IA on going). The Commission services are for example assessing whether the current period of export of unemployment benefits is sufficient for allowing people to look for a job abroad.

Part 3: Summary of key issues for the design of an EMU unemployment provision

Based on the previous parts, this part summarises the discussion on key issues to be considered for the design of an EMU UBS. As mentioned earlier, an EMU wide UBS would also have the advantage of facilitating labour mobility and therefore further enhance the response to asymmetric shocks, but this not discussed in this paper and would require further analysis.

- **Duration of benefits:** in order to maximise the stabilisation impact, the EMU scheme should focus on the most cyclical unemployment spells by duration, typically between some minimum duration and maximum one (such as 3 and 12 months).
- **Base vs. top-up and levels:** should it be a base EMU provision topped-up by MS or a top-up EMU provision upon MS provisions to reach for instance a certain level of replacement rate? Most existing proposals leave it for Member States to keep their own additional national provisions separate from the EMU one for the same durations of unemployment, as well as for different durations. In order to maximise the stabilising impact and ensure more transparency and simplicity, a single EMU level could be expressed either as a replacement rate (X% of past wages, or as a flat rate (linked to some national reference such as average wage or a common level expressed in PPS). A replacement rate would be closer to an insurance system and would in principle have a stronger stabilisation impact than a flat rate, but could raise more implementation issues. Further work is needed in this area.
- **Eligibility rules and potential access:** should there be some channels foreseen to extend UB provisions for countries with low coverage levels or should eligibility conditions be EMU defined (harmonised)? Common standards for the EMU provision, in terms of eligibility (qualifying period and reference period) and coverage (not only employed, various types of employment including possibly the issue of self-employed) have the potential to improve stabilisation further. However, cross country comparisons show that strongly segmented labour markets can have a negative impact on coverage. Further research is therefore needed to fully understand how to improve coverage where it is too low.
- For the **financing base**, social contributions (uniform, like in standard national unemployment schemes, possibly with a threshold), as well as other tax bases, for instance consumption (VAT) or GDP (which links to external competitiveness of Eurozone) or others are considered. The option of social contributions can raise complex issues related to the differences in tax-benefit structures, which could be dealt with by elaborating complex adjustments in national contribution levels reflecting differences in tax-benefit levels. A more simple option would be to introduce Member State accounts where all contributions to the EMU provision and benefits from the EMU provision are registered, with rules ensuring that this account is balanced over the medium to long term, but allowing for stabilisation in the short term. This could be simplified and made more transparent by lower reliance on social contributions for the financing and by making EMU benefits non-taxable. Less reliance on social contributions would also be more consistent with the general objective of shifting taxation away from labour onto other tax bases (consumption, GDP, green taxes, financial transactions, wealth, etc.). Further work is needed in this area.

- **Moral hazard and unintended permanent transfers.** Uniform financing levels across Member States could lead to potential unintended permanent transfers resulting from persistent different MS levels of unemployment. This could be dealt with via a system of MS accounts, with average contribution levels reflecting long-term historical expenditure levels. While most national systems foresee a link with employment services and activation policies, an EMU provision could also be accompanied by a commitment on activation (ALMPs) or employment services, which can contribute to the prevention of moral hazard issues.

Table 11: Summary of issues linked to the design of an EMU unemployment provision and indication of the most often proposed options

	Most proposed option	Rationale	Alternatives and complements and further research needs
Base vs. top-up	EMU provision topped up by national provisions	Otherwise very difficult to assess and to understand, reflects subsidiarity and MSs competencies to develop their own UB systems	Complementing national systems would require a detailed and extensive knowledge of the various MSs provisions
Duration	Common duration: between 3 and 12 months	Focus on the most cyclical part of unemployment	More work needed to define duration that would fit best for most EMU MS.
Eligibility	Common standards on qualifying period, reference period and types of labour contract covered	Increase stabilisation by potentially extending coverage and extending to various types of labour contract	Rely on national standards Common requirements on activation and registration in employment services Further research needed
Level	A common share of former average labour market incomes (for instance 40%-50%)	Reflects standard insurance function of smoothing incomes in case of unemployment and increases stabilisation	Share of average wage in the country or common EMU level corrected for PPS
Financing base	Mix of social contributions and GDP (or VAT)	Both an insurance between people and countries; Allows moving part of financing of UB from labour incomes to other bases.	Rely exclusively on contributions or GDP (or consumption) Further research needed
Moral hazard and unintended permanent transfers	Introduce Member State accounts where all contributions to and benefits from EMU provision are registered	Adjust contribution rates over time to allow stabilisation in short term and financial balance over the economic cycle. Further research needed	Ex-post compensation mechanisms and adjustment of contribution rates to reflect potential transfers.

References

- Alphametrics (2009), 'Flexicurity: Indicators on the Coverage of Certain Social Protection Benefits for Persons in Flexible Employment in the European Union', unpublished.
- Asdrubali, P., B.E. Sorensen, and O. Yosha (1996) 'Channels of Interstate Risk Sharing: United States 1963-1990', *The Quarterly Journal of Economics*, Vol. 111(4), 1081-1110.
- Bajo-Rubio, O. and Díaz-Roldán, C. (2003), 'Insurance Mechanisms Against Asymmetric Shocks in a Monetary Union: a Proposal with an Application to EMU', in *Recherches économiques de Louvain*, Vol. 69, 2003/1, pp. 73-96.
- Center on Budget and Policy Priorities (2013), 'How Many Weeks of Unemployment Compensation Are Available?', Updated March 18, 2013, http://www.cbpp.org/files/PolicyBasics_UI_Weeks.pdf
- Chimerine, L., T. Black, and L. Coffey (1999), 'Unemployment Insurance as an Automatic Stabilizer: Evidence of Effectiveness Over Three Decades,' *Unemployment Insurance Occasional Paper 99-8*, (Washington, D.C.: U.S. Department of Labor, Employment and Training Administration).
- Cœuré, B. (2012), 'Completing Europe's Economic and Monetary Union', speech at the Palestinian Public Finance Institute Ramallah, 23 September 2012, <http://www.ecb.int/press/key/date/2012/html/sp120923.en.html>
- Congressional Budget Office (2012), 'Unemployment Insurance in the Wake of the Recent Recession', report prepared at the request of the Chairman of the Senate Committee on Finance, available online at http://www.cbo.gov/sites/default/files/cbofiles/attachments/11-28-UnemploymentInsurance_0.pdf.
- Delpla, J. (2012), 'A Euro-wide Conditional Unemployment Insurance', paper prepared for the Seminar 'EU level economic stabilisers' (2nd July 2012), draft: June 2012.
- Denis, C., D. Grenouilleau, K. Mc Morrow and W. Röger (2006), 'Calculating potential growth rates and output gaps - A revised production function approach', *Economic Paper nr. 247*, Directorate-General ECFIN, European Commission.
- Dullien, S. (2007), 'Improving Economic Stability in Europe. What the Euro Area can learn from the United States' Unemployment Insurance', in Working Paper FG 1, SWP, 2007/11, Berlin, http://www.swp-berlin.org/fileadmin/contents/products/arbeitspapiere/Paper_US_KS_neu_formatiert.pdf
- Dullien, S. (2012), 'A European unemployment insurance as a stabilization device – Selected issues', paper prepared for the Seminar 'EU level economic stabilisers'.
- Dullien, S. (2013), 'A euro-area wide unemployment insurance', paper prepared for the European Commission, Directorate-General Employment, Social Affairs & Inclusion.

European Commission (2011), 'Labour market developments in Europe, 2011', European Economy, nr. 2, August 2011.

European Commission (2012a), 'A blueprint for a deep and genuine economic and monetary union: Launching a European Debate', COM(2012) 777 final/2, http://ec.europa.eu/commission_2010-2014/president/news/archives/2012/11/pdf/blueprint_en.pdf

European Commission (2012b), 'Annual Growth Survey 2013', Communication from the Commission, http://ec.europa.eu/europe2020/pdf/ags2013_en.pdf

European Commission (2012c), Mutual Information System for Social Protection (MISSOC).

European Commission (2012d), 'Tax reforms in EU Member States in 2012', European Economy, nr. 6, October 2012.

European Commission (2013), 'Employment and Social Developments in Europe Review 2012', Directorate-General Employment, Social Affairs & Inclusion.

Freedman Ch., M. Kumhof, D. Laxton, D. Muir, and S. Mursula (2009), 'Fiscal Stimulus to the Rescue? Short-Run Benefits and Potential Long-Run Costs of Fiscal Deficits', IMF Working Paper 09/255, International Monetary Fund.

Italianer, A. and Vanheukelen, M. (1993), 'Proposals for Community Stabilization Mechanisms: Some Historical Applications', in European Economy, Reports and Studies, no. 5, Brussels: European Commission, pp. 493-510.

Kempkes, G. (2012), 'Cyclical adjustment in fiscal rules: some evidence on real-time bias for EU-15 countries', Deutsche Bundesbank, Discussion Paper No 15.

Klär, E. (2013), 'Potential Economic Variables and Actual Economic Policies in Europe', Intereconomics, Volume 48, number 1, 2013, pp. 33 to 40.

Majocchi, A. and Rey, M. (1993), 'A special financial support scheme in economic and monetary union: Need and nature', in European Economy, Reports and Studies no. 5, Brussels: European Commission, pp. 457-480.

Palme, J., K. Nelson, O. Sjöberg, and R. Minas (2009), 'European Social Models, Protection and Inclusion', Research Report, Institute for Future Studies, Stockholm.

Palme J., Esser I., Ferrarini T., Nelson K. and Sjöberg O., (2013), 'Unemployment benefits in EU Member States', paper prepared for the European Commission, Directorate-General Employment, Social Affairs & Inclusion.

Social Policy Indicator Database (2012), 'Social Policy Indicator Database', Swedish Institute for Social Research, University of Stockholm.

Stone C. and W. Chen (2013), 'Introduction to Unemployment Insurance', Center on Budget and Policy Priorities, <http://www.cbpp.org/cms/index.cfm?fa=view&id=1466>

Sutherland, H. (2012), 'Social economic stabilisers in the European Union', paper prepared for the Seminar 'EU level economic stabilisers' (2nd July 2012), draft: 19th June 2012.

US Department of Labor, Employment & Training Administration, 'On Emergency Unemployment Compensation', <http://www.ows.doleta.gov/unemploy/pdf/euc08.pdf>

Van Rompuy, H. (2012), 'Towards a genuine Economic and Monetary Union', Report in collaboration with José Manuel Barroso, Jean-Claude Juncker and Mario Draghi, Brussels, 5 December, http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/134069.pdf

Venn, D. (2012), 'Eligibility Criteria for Unemployment Benefits: Quantitative Indicators for OECD and EU Countries', OECD Social, Employment and Migration Working Papers, No. 131, OECD Publishing, <http://dx.doi.org/10.1787/5k9h43kgkvr4-en>

Vroman, W. (2010), 'The Role of Unemployment Insurance as an Automatic Stabilizer During a Recession', IMPAQ International, LLC, available at: http://wdr.doleta.gov/research/FullText_Documents/ETAOP2010-10.pdf

Wolff G. (2012), 'A Budget for Europe's Monetary Union', Bruegel Policy Contribution Issue 2012/22.

Zandi M. (2008), 'A Second Quick Boost from Government Could Spark Recovery,' edited excerpts from July 24, 2008, testimony by Mark Zandi, chief economist of Moody's Economy.com, before the U.S. House of Representatives Committee on Small Business.