



A European unemployment insurance as a stabilization device – Selected issues

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1 Introduction

While for a long time, economic divergences and cyclical fluctuations have not been seen as a reason for grave concern (Lucas 2003), this view has changed with the onset of the euro-crisis. As had been argued by Dullien/Schwarzer (2009), excessive fluctuation in output and employment can have detrimental effects on the long-term growth path. First, unemployed workers might over time lose basic skills and see their specific human capital deteriorate. Second, in the wake of incomplete financial markets, firms can be expected to cut back on research and development in recessions, thus slowing technological progress (Aghion/Howitt 2006). Third, the dramatic increase of unemployment in some of the European countries such as Greece, Spain, Ireland or Portugal has led to fears of a destabilization not only of the social fabric, but also of the political systems of the countries in question.

On a European level, the sovereign debt crisis in the euro area has called into question the traditional argument according to which nation states within a monetary union can use their fiscal policy and especially debt-financed expenditures or transfers as an instrument to stabilize the national business cycle. Instead of being able to use national budgets as stabilizing instruments, in the recent crisis many countries saw themselves forced to further cut expenditures or increase taxes in the downturn in an attempt to restore market confidence in their ability to continue servicing public debt. The experience of the past years have thus shown that especially after real estate booms the following downturns can be so severe that the fear of insolvency itself might limit the national government's room for fiscal manoeuvre.

As a consequence, a renewed debate has emerged on how to move fiscal stabilization policies to the European level, especially in the form of automatic or quasi-automatic stabilizers. Against this background, this paper will present a proposal for a European unemployment insurance which could help stabilize the business cycle in Europe. In a first section, it will describe the basic characteristics of such an unemployment insurance. A second section will deal with the potential size and stabilization impact of a European unemployment insurance. In the following section, implementation problems such as potential moral hazard will be covered. It follows a discussion of the value of inter-regional transfer schemes in the wake of different types of economic divergences.

2 A European Unemployment Insurance: Basics

This paper is based on the proposals made in Dullien (2007) and Dullien (2008).¹ While Dullien (2007) takes a look at the US system of unemployment insurance (which is a rather complicated federal system), both papers present ways how a potential European unemployment insurance with the aim to stabilize macroeconomic fluctuations could be constructed, taking into account the lessons from the United States.

The underlying idea is to implement a "basic unemployment insurance" in Europe with transfers to short-term unemployed. These transfers would be paid for a limited time (12 months) and the absolute amount would be linked to wage income prior to the beginning of the period of unemployment. Moreover, only those who have been in

¹ Another, in many points similar, proposal for a European unemployment insurance was actually made earlier by Deinzer (2004) which unfortunately was not known to the author when writing Dullien (2007, 2008).

dependent employment prior to being unemployed would be eligible. A sensible proposal would be that transfers of 50 percent of average monthly wage income over the past 24 months are paid the unemployed, up to 50 percent of a country's median income. These transfers could be financed by a contribution from employees and/or employers on gross wages (up to a certain threshold). Such a financing of the unemployment insurance is already standard in most European countries.

This basic unemployment insurance would substitute part of the national unemployment insurance scheme. However, each participating country could decide to top up the European transfers. Figure 1 illustrates this for the case in which the national scheme pays a replacement payment of 65 percent of the last wage income for the first 12 months of unemployment and 60 percent thereafter. The darker shaded area in this case is funded for by the European unemployment scheme, while the lighter area would be paid for by a national system. The European unemployment insurance would thus provide a basic social security net for the unemployed, while each country could chose a higher total level of replacement payment for its unemployed.

Figure 1: Interaction of European and national unemployment system



In order to minimize additional European bureaucracy needed for the scheme, the collection of contributions to the insurance system as well as actual disbursements would run through the national unemployment insurances already in place.

As these flows are part of a European unemployment fund and not of national budgets, there would be a smaller burden from the impact of a deep recession on national budgets. This would have two main effects: In as far as European rules such as the "Six Pack", the to-be-ratified fiscal compact or the Stability and Growth Pact are binding for national budgets, this gives national governments more leeway in recessions and lowers the probability of pro-cyclical fiscal policy. Moreover, as far as

solvency issues have become a concern and financial markets are watching national budgets closely, such financial flows would limit the reported deficits and thus national financing needs. This might help stabilize market confidence and hence financing costs of governments in recessions.

In principle, the unemployment insurance could be introduced to any set of countries. There is no need to introduce it in all euro-area countries, and in principle also countries whose currency is not the euro could participate. However, the benefits arising from such a scheme can be expected to be largest for countries in EMU and the benefits for EMU as a whole can be expected to be largest if at least all important countries join: Countries with their own currencies usually have more freedom to use their own monetary policy and their exchange rate to react to adverse shocks; moreover, the problem of self-fulfilling fiscal crisis and hence financing problems for government budget deficits can be expected to be much smaller for countries with their own central bank.

This basic set-up could be enhanced by additional mechanisms to ensure higher transfers in times of deep economic downturns and hence a larger stabilization impact. Following the example of the US-system of unemployment insurances, one could introduce "extended benefits" and "emergency benefits".² In both cases, the duration of unemployment payments from the EU level insurance would be prolonged. Extended benefits would be triggered automatically in cases of strong increases in the number of unemployed. Emergency benefits could be enacted by decision of either the EU Commission or the EU Parliament in times as a discretionary measure.

The unemployment insurance could be constructed either in a way to only stabilize cross-country differences in unemployment or to provide also a stabilization for business cycle in the euro-area as a whole. In the first case, the unemployment insurance would adjust contribution rates each year so that current outlays can be financed at the given contribution rate. Here, no large stock of reserves would be necessary. However, the stabilization impact then would be limited to cases in which a single country or a sub-set of countries is hit by an asymmetric shock, but would not provide much stabilization in cases of a synchronized downturn. In the second case, the contribution to the unemployment insurance would be set at a level that it runs surpluses in times of above-average employment and spends these reserves in times of downturns. A further improvement of the stabilization properties could be reached if the unemployment insurance were allowed to borrow funds in the capital market in times of especially strong recessions.

3 Financial Flows and Stabilization Impact

The financial flows induced through such a scheme as well as the stabilization impact are difficult to access. First, of course, the size of the flows critically depends on the specific details of the implementation. Second, data on the number of eligible unemployed is not readily available. While Eurostat provides harmonized data by duration of unemployment, it does not provide more detailed data i.e. on the employment history of the unemployed or on former wage incomes of this group. Moreover, even among the short-term unemployed, there is no way to distinguish between new entrants to the labor market and those who have lost their jobs. Nor is there any distinction possible between seasonal and cyclical unemployment (which might be treated differently in the unemployment insurance, see below). Any estimate of current flows thus needs to be very rough.

² See for details Department of Labor (2011).

In order to estimate the stabilization effect of such a transfer scheme, there are additional complications. First, one has to make some assumptions on how these transfers impact on GDP growth. At the root of this assumption is the question of the size of fiscal multipliers, which is strongly disputed. While some authors claim multipliers close to 0 (Barro 2009), others claim multipliers in recessions in the vicinity of 3 (Auerbach/Gorodnichenko 2012). For inter-regional transfers, one probably can make the argument that the multiplier for the receiving country is safely above 0 and rather on the upper end of the estimates as some of the negative effects sometimes empirically observed from fiscal stabilization stems from negative solvency effects of increased debt level, an issue which does not play a role for inter-regional stabilization. The second issue is the question how big a multiplier on this specific type of transfer is. Here again, large controversies loom: While some of the literature like Alesina/Ardagna (2009) sees little positive effect of transfer, the IMF (Freedman et al. 2009) argues that targeted transfers such as those from an unemployment insurance have especially large multipliers. Another question is whether multipliers are uniform across EMU countries as they differ strongly in their degree of openness and openness is an important criteria for the effectiveness of fiscal stabilization (Spilimbergo et al. 2009).

Thirdly, another important, but difficult to predict, element in assessing stabilization impact is the behavior of national governments. The proposed unemployment insurance would substitute part of the national unemployment insurance systems, hence freeing funds for national budgets. For assessing the stabilization impact, it would be necessary to make assumptions on how national governments will use these funds (which might actually even depend on the political leaning of the government in power). If they use the funds not needed for financing unemployment benefits in a downturn for budget consolidation, this would mean that there is no change relative to the existing system of automatic stabilizers even if a European unemployment insurance is introduced. In contrast, if governments use the funds for additional transfers or spending, there would clearly be some positive impact, the actual size however would depend on the specific nature of the use of funds.

There are also issues on how to measure the stabilization impact: Von Hagen (1992) for example finds that on average over a cycle net transfers between regions in the US unemployment insurance are relatively low and hence argues that, the average stabilization impact of the unemployment insurance is slow. However, the question is whether the average degree of transfers and stabilization over the cycle is the right measure to draw conclusions for the effectiveness of a stabilization instrument. After all, a large part of the fluctuations in normal years of a business cycle are not necessarily of a size that needs stabilization. Instead, stabilization is more urgently needed in times of recessions. Thus, it seems that the marginal stabilization contribution in years of deep deviations of current output from potential output are more interesting. This point becomes especially important when analyzing the US unemployment insurance and hence the set-up of a potential European unemployment insurance. In the US, a large share of the stabilization in a severe downturn takes place through the extended or emergency benefits of the unemployment insurance (both explicitly neglected in the analysis by von Hagen). Hence, it might be of larger interest to look at the *marginal* degree of stabilization in a downturn than at the size of the *average* stabilization over the cycle.

Dullien (2007, 2008) presents some different scenarios for different institutional characteristics of a European unemployment insurance and calculates payment flows for the years 1999 to 2005. All of the scenarios assume participation of all euro-zone countries (at that time 12). Moreover, it is assumed that half of the short-term unemployed actually meet the eligibility criteria, that the insured wage of the unemployed has been 80 percent of their countries' average wage and that 50 percent

of this wage is paid out as unemployment benefits. In a baseline scenario without any extended benefits in terms of downturns, the average annual financing volume of the unemployment insurance would be €54 bn (or 0.75 percent of GDP) which could have been financed with a payroll tax of 1.75 percent. The two other scenarios allowed for “extended benefits”, an increase of the duration of unemployment benefits in times of a severe downturn. If these extended benefits are triggered individually by single countries, the financing volume would have been €62 bn (0.85 percent of GDP) and the necessary payroll tax would have amounted to 2.02 percent. If the extended benefits are triggered for the EMU as a whole, the financing volume is slightly higher at €64 bn (0.87 percent of GDP), with a payroll tax 2.04 percent.

For the stabilization impact, Dullien (2007, 2008) assumes a multiplier of 1 and correlates the changes in transfer flows from the unemployment insurance with changes in the output gap. He finds that the proposed unemployment insurance would have been able to stabilize up to 16 percent of downturn after 2001, with a significant increase of the stabilization impact through extended benefits (a basic unemployment insurance without extended benefits could have only stabilized about 5 percent).

However, given the large downturn after the onset of the US subprime crisis in 2008/9, it would be interesting to see how an unemployment insurance would have worked including this period. To this end, another simulation was run for this paper, based on the baseline scenario of Dullien (2008, 2009). The basic results for financial flows over the time are presented in table 2 in the appendix. Interestingly, the unemployment scheme would not have needed more revenue over the cycle than anticipated in the first original estimate. Average annual financing volume would have been €41 bn, which could have been financed with a payroll tax rate of 1.25 percent.³ Table 1 presents the hypothetical stabilization impact on some selected countries which were especially hard hit by the crisis of 2008/9 or its aftermath.⁴ Again, a multiplier of 1 has been assumed which is probably a conservative estimate here. As one can see, especially in the case of Spain, the unemployment insurance could have significantly contributed to economic stabilization with up to almost 20 percent of the downturn mitigated. In Greece and Ireland, the stabilization impact would have been lower, but still sizable. While no separate new simulation was run for a set-up with extended benefits, based on the results from Dullien (2008, 2009) one could expect a significantly improved stabilization function by such an improved unemployment insurance.

Table 1: Stabilization impact of unemployment insurance for selected countries in 2008/9 crisis

Country and period of severe downturn (as measured by strong increase in short-term unemployment (1))	Change in the output gap over downturn period (in percentage points) (2)	Change in balance of net payments to/out of the unemployment insurance (3)	Stabilization impact measured as (3) as a share of (2)
Spain 2007-2009	-6.15	-1.10	17.8 %
Greece 2008-2011	-10.45	-0.57	5.4 %

³ The first published draft of this paper reported a slightly higher financing volume and stabilization impact due to a double-counting of some unemployed in the simulation.

⁴ As the new downturn in crisis countries such as Spain or Italy has only started in 2011, there is not adequate data available to include this period into the analysis.

Ireland 2007-2009	-9.76	-0.68	7.0 %
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Whether these stabilization figures do not seem overly impressive at first sight, one needs to take in mind several qualifications. First, a multiplier of 1 might be very conservative in the context of the crisis countries. Assuming a multiplier of 2, in contrast, would already double the stabilization estimates. Second, an unemployment insurance as proposed in this paper does not carry any real economic costs. It does not necessitate new government revenues or new government expenditures and does not change the incentives of economic agents. Achieving a stabilization of even only 10 percent in crisis countries (with significantly higher values for single countries) in this manner comes close to the proverbial free lunch.

4 Practical Problems with the Implementation

When it comes to unemployment insurance, there is always the question of incentives and moral hazard. A basic question of any unemployment insurance, be it European or national, is the question is in how far the insurance might provide an incentive for the unemployed not to seek new employment but rather to enjoy the transfers. For the case of a European unemployment insurance, another dimension of moral hazard might enter the picture: The moral hazard of national policy makers. As part of the costs of unemployment is borne by the European level, the scheme could in principle reduce incentives for national policy makers not to implement reforms lowering national unemployment.

Both problems can be tackled by the right definition of the criteria for receiving unemployment benefits, especially the amount of the replacement payment and the eligibility criteria. As the replacement payment envisioned in this scheme is less generous than the payments in almost all current national unemployment schemes, the individual incentives for remaining unemployed do not change and hence one should not expect any problems of increasing individual moral hazard.

For the incentives of policy makers, it is important that the unemployment insurance only covers short-term unemployment. From a national perspective, the largest costs of unemployment are those for long-term unemployment. Moreover, sensible reforms tackling structural employment by definition aim at reducing long-term unemployment. As long as the unemployment insurance hence do not bear the costs of long-term unemployment, it should not create moral hazard for national policy makers.

Another related issue is that of potential free-riding of the unemployment insurance. Some countries and regions have a very high share of seasonal unemployment as some regional economies still depend to a large extent on agriculture and tourism. If this unemployment is covered by the unemployment insurance, it would constitute a permanent transfer from countries with low seasonal unemployment to those with high seasonal unemployment. If the scheme is thus intended to be a macroeconomic stabilization device rather than an instrument of permanent redistribution between more and less affluent regions, one should try not to pay benefits out of the scheme for seasonal unemployment. One approach here would be to require continuous contributions to the system prior to unemployment (i.e. 22 out of 24 months).

5 The Unemployment Insurance and Structural Imbalances

Given that structural imbalances in the euro-area have gained prominence lately, an important question is in how far the proposed European unemployment insurance can help to prevent or even help cure such structural imbalances. Before answering this question, it is useful to classify possible types of divergences in a currency union. Divergences here are defined as price and wage deviations from a long-term equilibrium which usually coincide with imbalances in current accounts. There are basically three potential types of these divergences:⁵

1. **One-off divergences:** These are caused by a one-off asymmetric shock to the demand side of one country. These are the types of divergences mainly focused on in the literature on optimum currency areas as published prior to the crisis (see i.e. de Grauwe 2003).
2. **Cyclical divergences:** These divergences stem from the fact that in a currency union, there is only one nominal interest rate which might have a different impact in countries in different stages of the economic cycle. For example, a country in recession and with very low inflation might find a given nominal interest rate restrictive and might hence experience further weak output growth (the case of Germany in the early 2000s) while a booming country with high inflation might find the same interest rate expansionary (the case of Spain in the early 2000s). Thus, both booms as well as recessions or periods of stagnation can become self-amplifying, at least for some time. Only over time, the real exchange rate channel will correct these divergences: In the booming country, wages can be expected to grow more briskly while they will lag behind in the country in stagnation. Thus, the booming country will over time lose competitiveness and ultimately shrinking export market shares which will bring down growth again, while the opposite mechanism is at work in the stagnating country.
Hence, one can expect that because of this mechanism, national business cycle become longer and more protracted in a currency union (Dullien/Schwarzer 2005).
3. **Structural divergences:** These divergences stem from underlying structural factors i.e. differences in social norms and standards or institutions. One example would be if wage bargainers in one country see a 3 percent annual increase in nominal wages as the lower limit while wage bargainers in other countries aim at stable unit labor costs and hence much lower wage increases. While structural divergences have been largely ignored for a long time in the literature and are difficult to model in rational-expectations models used for a long time to analyze wage and price behavior (i.e. Barro/Gordon 1992), the wage developments in some countries (where wages continued to increase briskly despite a protracted rise in unemployment) gives reason at least to fear that such structural divergences exist in the European Monetary Union.

Of these three types of divergences, transfer mechanisms (and thus also the proposed unemployment insurance) might help overcome or mitigate effects only from the first two. The logic is especially simple for a classic asymmetric shock which has been analyzed by the first wave of literature on potential stabilization schemes (Majocchi/Rey 1993; Pisani-Ferry et al. 1993, von Hagen 1992). If an economy is hit by an asymmetric demand shock, transfers can make up for the shortfall in demand. If transfers are paid permanently, one does not even need to distinguish for cases of

⁵ This classification builds on Dullien/Fritsche (2009).

transitory or permanent shocks: The transfers then are a way to prevent the need for adjustment, even if the shock has been permanent. For the proposed unemployment insurance, things are different as only short-term unemployment is insured and hence transfers are only paid for a limited time. Still, the transfers are constructive: In the case of a transitory demand shock, these payments can help bridge the shortfall in demand. In the case of a permanent demand shock, its payments can help buffering the adjustment somewhat by providing payments over part of the adjustment period.

For cyclical divergences, transfers linked to economic activity in general (and the unemployment insurance specifically) might be able to reign in partly an excessive regional boom and might limit regional downturns, thus contribute towards less strong cyclical divergences. During a boom, such a transfer system would siphon purchasing power away from the booming country and might hence limit inflationary pressure. This in turn mitigates the real interest rate channel and might thus lead to a dampening of the boom. During a downturn, the unemployment insurance would stabilize purchasing power and hence aggregate demand and would thus also limit the amplifying effects through the real interest rate channel. This might prevent strong undershooting of output and employment below its normal level.

Introducing transfer systems linked to economic activity (such as the unemployment insurance) *after* countries have already cyclically diverged, however, entails the risk of slowing adjustment. If wages in a country are already excessive due to a former boom, introducing additional transfer payments might stabilize aggregate demand and hence employment and might lead to a slower reaction of wages.

A similar argument holds when it comes to structural divergences. Once prices and labour costs have diverged significantly, transfers linked to economic activity can do nothing to correct this problem. Instead, one could even argue that the support of the domestic economy to a certain extent might delay adjustment because the overall output gap and the overall unemployment rate will increase more slowly and hence wage reactions might be delayed.

However, this problem applies to all attempts of stabilizing aggregate demand when there have been structural divergences in the past. The solution would be an intelligent combination of elements of demand stabilization (such as the unemployment insurance) with deliberate income policies to improve competitiveness (say a tri-partite agreement to cut nominal wages). Moreover, for the unemployment insurance as proposed in this paper, the danger of preventing adjustment would be limited as only short-term unemployment is insured and in the case of structural divergences, long-term unemployment will in due time become the larger share of unemployment.

Finally, it is open to debate in how far the divergences observed in the euro-area in the past are really structural divergences according to the above classification or whether they are cyclical divergences in a very long and protracted business cycle. To diagnose structural divergences, one would expect to only see extremely slow adjustment even when unemployment increases. However, in many countries which have experienced strong increases in unemployment, there has also been a strong reaction of nominal wages. In some of the other countries, the period of time since the onset of the crisis has not been long enough to distinguish with certainty whether really structural divergences have been at play.

6 Conclusion

In conclusion, one can say that a European unemployment insurance certainly is not a panacea for stabilizing divergences in the euro-area. However, having such an

insurance in place could have dampened the boom and bust cycle in a number of euro-area countries such as Spain or Ireland over the past decade and might hence have made the adjustment requirements much smaller the countries are faced with today. Moreover, in the downturn after the US subprime crisis of 2008/9, it could have contributed significantly to stabilization at least in some of the countries hardest hit by the economic crisis.

In contrast to transfer proposals based on complicated econometric calculations such as the scheme proposed by Hammond/von Hagen (1995), the unemployment insurance presented has the advantage that it is easily to be understood by citizens and policy makers. As it includes transfers only for short-term unemployed, it can be rationalized with the insurance argument and does not institute permanent redistributive transfers between countries. Therefore, it calls upon a type of solidarity which can be easily explained to European citizens, even in countries such as Germany. Therefore, such a European unemployment insurance would be a useful element of an improved economic governance structure of European monetary union.

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8 Appendix

Table 3: Simulated overall financial flows of euro-area unemployment insurance, 1998-2011

	Payouts					Revenue			(5) – (8)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Short-Term Unemployed (Thousand)	Assumed Insured Unemployed (Thousand)	Nominal Compensation per Employee (in 1000 € per year)	Assumed Average Benefits (in 1000 € per year)	Total Payouts (in Mio. €)	Employees (Thousand)	Assumed Average Tax Base (in percent)	Total Revenue (in Mio. €)	Total Balance (in Mio. €)
1998	6167	3084	29,1	11,6	35849	106882	23,3	31018	-4831
1999	5839	2920	29,8	11,9	34816	109536	23,9	32607	-2209
2000	5212	2606	30,6	12,2	31856	112396	24,4	34299	2443
2001	4724	2362	31,4	12,5	29634	114194	25,1	35763	6129
2002	5561	2781	32,2	12,9	35800	115490	25,8	37119	1319
2003	5902	2951	33,0	13,2	38975	116304	26,4	38342	-633
2004	6069	3035	33,7	13,5	40939	117094	27,0	39434	-1506
2005	5788	2894	34,4	13,8	39822	118362	27,5	40655	834
2006	5294	2647	35,2	14,1	37306	120382	28,2	42354	5049
2007	4901	2451	36,1	14,4	35393	122743	28,9	44253	8860
2008	5476	2738	37,3	14,9	40854	123853	29,8	46131	5278
2009	7604	3802	37,9	15,2	57688	121802	30,3	46134	-11554
2010	7165	3583	38,6	15,4	55247	121286	30,8	46689	-8557
2011	6763	3382	39,4	15,8	53323	121618	31,5	47871	-5452

Source: Own computations, based on data from Eurostat and EU Commission

Computations are based on the assumption of an unemployment insurance for the Euro-12 countries.