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**Research Report**

## Chances and risks of a European unemployment benefit scheme

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# ZEW policy brief

by Mathias Dolls, Centre for European Economic Research (ZEW)

## Chances and Risks of a European Unemployment Benefit Scheme

### Introduction

The Eurozone debt crisis has revived the debate about deeper fiscal integration in the European Economic and Monetary Union (EMU). Some observers argue that fiscal risk sharing is necessary to make the Eurozone more resilient to macroeconomic shocks and to avoid its break-up. However, the main concerns relate to the issues of permanent transfers across Member States and moral hazard. The 2012 Four Presidents' Report suggested that fiscal integration could include a common unemployment insurance system. A White Paper outlining further steps necessary to complete EMU is to be released by the European Commission in the spring of 2017. This ZEW policy brief presents new research findings on the stabilizing and redistributive effects of a common unemployment insurance scheme for the euro area (henceforth EMU-UI).<sup>1</sup> It provides insights regarding its potential added value and discusses moral hazard issues.

### Research Question and Relevance

We argue that the added value of common unemployment insurance as a fiscal risk sharing device hinges on its ability to provide interregional smoothing. Other potential stabilization effects of EMU-UI, such as improved counter-cyclicality or intertemporal smoothing, can be achieved, in principle, by countries acting alone, for example by introducing minimum conditions for national UI schemes or by national debt issuance. We develop a decomposition framework that assesses the effectiveness of different EMU-UI schemes to act as an automatic stabilizer. Running counterfactual simulations based on micro data for the years 2000-13, we find that 10 per cent of the income fluctuations caused by workers' transitions into and out of unemployment would have been cushioned through interregional smoothing at euro area level. However, smoothing gains are unevenly distributed across countries, ranging from -5 per cent in Malta to 22 per cent in Latvia. Our results suggest that during 2000-13 the interregional smoothing potential has been as important as intertemporal smoothing through debt. Our simulations also reveal that four Member States would have been either a permanent net contributor or net recipient. Experience rating or contingent benefits could limit the degree of cross-country redistribution, but might reduce desired insurance effects.

### Key Messages

<sup>1</sup> The ZEW policy brief is a short version of Dolls et al. (2016a).

**EMU-UI Should Neither  
Lead to Permanent  
Transfers nor Undermine  
Incentives**

**Contingent vs.  
Non-Contingent EMU-UI**

## Possible Characteristics of an EMU-UI System

### Guiding Principles and Concerns About Introducing an EMU-UI System

The Four and Five Presidents' Report (Van Rompuy 2012, Juncker 2015), and the European Commission's blueprint for a deep and genuine economic and monetary union (European Commission 2012), have formulated guiding principles that any euro area fiscal stabilization mechanism should fulfil. Specifically, it should neither lead to permanent transfers nor undermine incentives for national governments to address structural weaknesses in the labour market. There are concerns, however, that an EMU-UI system might do exactly that, resulting in permanent transfers between euro area Member States, a result that would meet strong resistance from net contributor countries. Further arguments are related to moral hazard issues such as administrative manipulation and adverse incentives for national governments. It is also discussed whether the EMU-UI should be allowed to issue debt. There is a concern that political pressures would prevent the accumulation of surpluses and would instead cause the EMU-UI to increasing amounts of debt until a 'bail out' by the Member States became necessary.

### Design Options

A common unemployment insurance system for the euro area could be designed in several ways. Two principal options have been discussed in both the academic literature and in policy debates so far (see Andor 2014, Brandolini et al. 2016, Dullien 2014). A first option would be a common EMU-UI system that covers short-term unemployment and provides a basic level of insurance by partly replacing national UI systems. To limit the risk of permanent redistribution, and to preserve incentives for national policy-makers, long-term unemployment would not be covered. Benefits from the EMU-UI system could be supplemented by additional payments from national UI systems. This would allow for diversity across Member States so that existing differences in replacement rates and benefit duration could be maintained. Importantly, such a scheme would provide direct transfers to the short-term unemployed regardless of the size of the unemployment shock in a given Member State. As an alternative, a common scheme could kick-in only following large unemployment shocks. Such a contingent EMU-UI system could also be designed as a reinsurance scheme where national UI systems stay in place and there are no direct transfers from the EMU-UI system to the short-term unemployed, but financial flows between the European fund and national UI systems (Gros 2014, Dolls et al. 2016b). A further design question relevant for both alternatives is whether the EMU-UI should be allowed to issue debt. If debt issuance is ruled out, one option could be to build up reserves during economic upswings that could then provide a buffer during recessions.

## Empirical Approach

In our simulation experiment, we introduce an unemployment insurance scheme for the EA18 Member States and ask what would have happened if such a scheme had been introduced at the beginning of the euro in 1999. Linking micro data from the EU Statistics on Income and Living Conditions (EU-SILC) and EU Labour Force Survey (EU-LFS), we construct a series of reweighted cross-sections for the simulation period which replicates changes in labour market conditions (such as the unemployment rate, share of short- and long-term unemployed, and the size and composition of the labour force) in each Member State. Critically, our approach can account for heterogeneity in various characteristics of different countries' populations which macro data approaches cannot capture. We simulate the financial flows of different variants of an EMU-UI, which will be discussed below.

Our analysis is based on the following assumptions: First, we do not take into account general equilibrium effects of an EMU-UI system, i.e. our analysis remains in a partial equilibrium context. Accounting for these macroeconomic feedback effects would require linking our micro data to a macro-econometric simulation model, which is done in a follow-up paper (Dolls and Lewney 2016).<sup>2</sup> Second, we do not simulate changes in government behaviour or individual behavioural responses. In the light of these assumptions, our results should be interpreted as analysing the ‘first-round’ effects of an EMU-UI system. If EMU-UI had the desired stabilizing effects, the financial flows in the system would differ from those calculated here; the redistributive effects would probably be smaller. However, if the moral hazard effects dominated, the financial flows from contributors to recipients could also be larger.

## Results and Discussion

### Stabilizing Effects

**Decomposition.** We decompose the effect of introducing an EMU-UI system into three steps. The first is to harmonize national systems, that is all Member States introduce an unemployment insurance scheme with common features. The second step is to introduce a common EMU-UI scheme by pooling the contributions from all Member States in every year and to finance unemployment benefits from this pool using the same contribution rates in all countries. This leads to interregional smoothing of unemployment shocks. The third step is to allow the EMU-UI system to run deficits or surpluses. This leads to intertemporal smoothing.

We simulate four UI schemes, shown in Table 1, in order to isolate and quantify the importance of different stabilization channels of an EMU-UI. Stabilization is measured as the fraction of the income change due to employment changes within a given year that is absorbed by the UI system. We estimate the impact of harmonization by comparing the stabilization potential of actual national UI schemes (scheme 1) and harmonized UI schemes that fulfil certain minimum standards (scheme 2). As minimum conditions, we choose a replacement rate of 50 per cent, which roughly corresponds to the average replacement rate in Eurozone countries, a benefit duration of 12 months, and a broad coverage of all short-term unemployment with previous earnings. The simulated EMU-UI schemes (schemes 3 and 4) have the same payout rules, but a (geographical-

**Decomposition Framework  
Provides Insights on  
Potential Added Value of  
EMU-UI**

**Table 1: Simulated UI Schemes**

Simulated UI schemes	Minimum conditions?	Pooling of contributions?	Debt issuance?
1. Actual national UI schemes	no	no	no
2. Harmonized national UI schemes	yes	no	no
3. EMU-UI (balanced budget in every year)	yes	yes	no
4. EMU-UI (balanced budget over the period 2000-13)	yes	yes	yes

Notes: Actual national UI schemes (1.) as observed over the period 2000-13. We use a national UI calculator that incorporates all relevant policy rules of national UI systems. Harmonized national UI schemes (2.) need to fulfil certain minimum conditions, in particular a replacement rate of 50 per cent and a maximum benefit duration of 12 months. Schemes 3 and 4 have the same generosity as scheme 2, but contributions are pooled at euro area level.

<sup>2</sup> Dolls and Lewney (2016) is part of the project “Feasibility and Added Value of a European Unemployment Benefit Scheme”, which was initiated by the European Parliament and commissioned by DG EMPL. Their paper’s key finding is that the macroeconomic stabilization impact depends on the design of the EMU-UI scheme, i.e. whether benefits are contingent or non-contingent, whether it is allowed to issue debt, and the generosity of the benefits.

ly) widened budget. Differences in stabilization effects between harmonized national UI schemes and the centralized EMU-UI scheme (scheme 3) are due to interregional smoothing, while intertemporal smoothing effects are identified by comparing EMU-UI schemes with and without debt issuance (scheme 4).

**Harmonization gains.** We find substantial heterogeneity between national UI schemes regarding the degree of income insurance in case of unemployment. Consequently, the stabilization gain for the short-term unemployed through harmonizing unemployment benefits varies across Member States and over time. However, the combined stabilization effect of harmonized benefits and adjusted contributions is neutral in our analysis as more generous benefits lead to higher social insurance contributions.

**Smoothing gains.** Table 2 presents smoothing results. We find that the simulated EMU-UI scheme would have provided interregional smoothing gains by cushioning 10 per cent of income fluctuations that are due to transitions into and out of unemployment at euro area level. Interregional smoothing effects are unevenly distributed across Member States, ranging from -5 per cent in Malta to 22 per cent in Latvia. Overall, 17 out of 18 Member States would have been stabilized through interregional smoothing. At the same time we find procyclical effects in some years for most countries. Our results suggest that the interregional smoothing channel is as important as intertemporal smoothing through debt. The latter provides an additional cushioning effect of 9 per cent at euro area level.

#### EMU-UI Could Make Fiscal Policy in the Euro Area More Countercyclical

#### Interregional Smoothing Channel as Effective as Intertemporal Smoothing Through Debt; Smoothing Gains Unevenly Distributed Across Member States

Table 2: Smoothing Effects of Simulated EMU-UI

	Interregional	Intertemporal	Overall
AT	5.8	18.2	24.0
BE	3.0	14.5	17.5
CY	17.7	7.3	25.0
EE	19.4	0.8	20.2
FI	2.4	22.5	25.0
FR	7.7	12.8	20.5
GE	11.0	5.8	16.8
GR	12.0	4.8	16.9
IE	15.7	5.9	21.6
LU	7.1	18.0	25.1
LV	21.6	1.2	22.8
MT	-4.6	24.9	20.3
NL	8.3	13.9	22.2
PT	13.4	5.8	19.2
SI	5.6	13.5	19.1
SK	9.6	5.6	15.2
SP	17.8	5.3	23.0
EA18	9.9	9.3	19.2

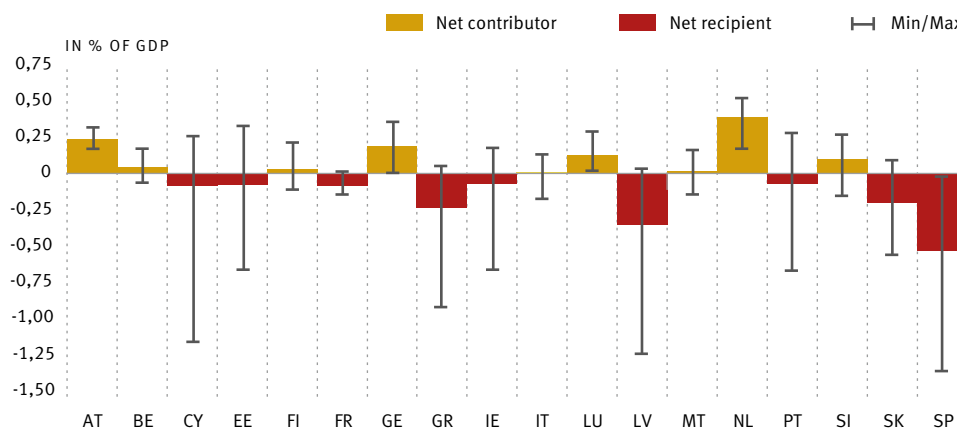
Notes: Stabilization coefficients for interregional and intertemporal smoothing weighted by shock size over the period 2000-13. Smoothing coefficients at EA-18 level calculated as population-weighted average of Member State's smoothing coefficients. The unweighted smoothing coefficients at EA-18 level are 10.0 for interregional smoothing and 10.7 for intertemporal smoothing. Source: Dolls et al. (2016a).

### Budgetary and Redistributive Effects

The simulated EMU-UI scheme could be implemented with a relatively small annual budget. Over the period 2000-13, average benefits would have amounted to roughly 47 billion euros per year. If it were calibrated to be revenue-neutral (at euro area level) over the period 2000-13, the uniform contribution rate would have amounted to 1.56 per cent on employment income. The scheme is not designed to cause permanent redistribution across countries ex-ante because only short-term (rather than structural) unemployment is insured. Nevertheless our simulations reveal that a small number of Member States would have been net contributors or net recipients in each year of our simulation period. Figure 1 shows that Austria, Germany and the Netherlands would have been the largest net contributors with average yearly net contributions of 0.19-0.39 per cent of GDP. Latvia and Spain are the largest net recipients (average yearly net benefits of 0.36 and 0.54 per cent of GDP). In a companion paper, Dolls and Lewney (2016) show that a corrective measure such as experience rating would make permanent transfers less likely. Experience rating implies that contribution rates rise (fall) over time in countries that receive (contribute) more than they contribute (receive) to the EMU-UI system. Experience rating could also be an effective tool to attenuate the risk of moral hazard, but might reduce desired insurance effects.

**Majority of Member States Net Contributor in Some Years and Net Recipient in Other Years, but Some Exceptions**

**Figure 1: Average Yearly Net Contributions, 2000-13**



Note: Net contribution = social insurance contributions – benefits. Contribution rate is uniform across Member States. Scheme is revenue-neutral over the simulation period. Source: Dolls et al. (2016a).

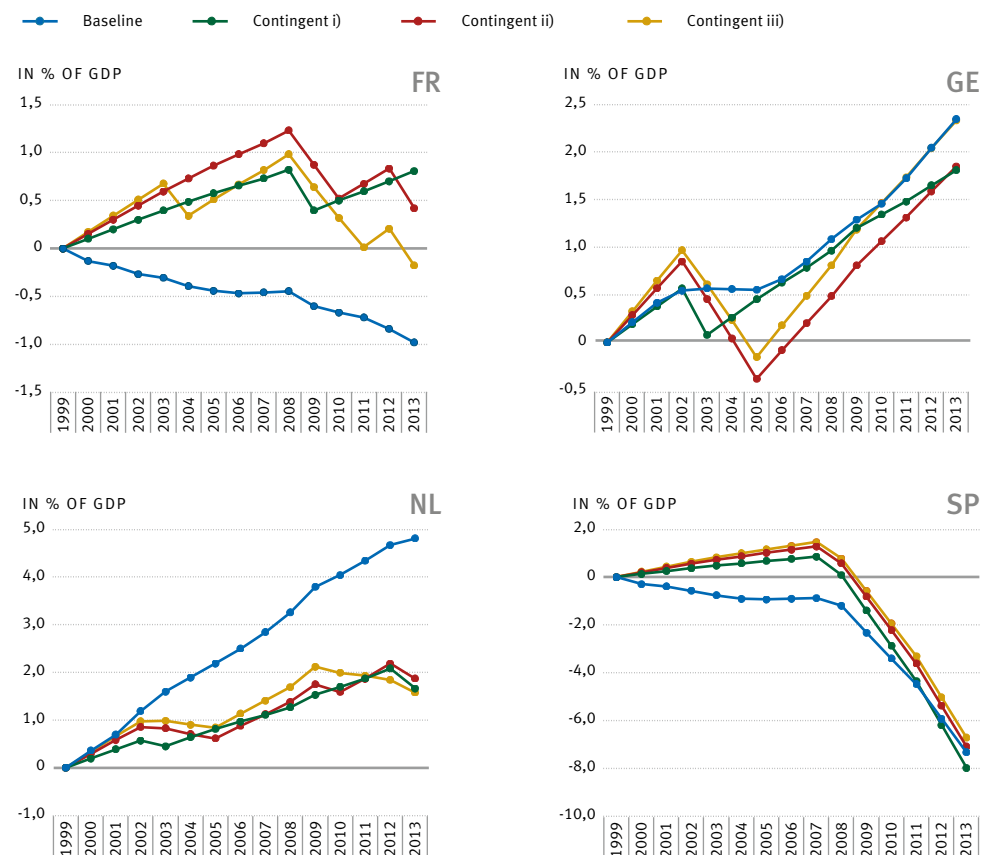
**Experience Rating Effective Tool to Avoid Permanent Redistribution and to Address Moral Hazard Issues**

### Contingent EMU-UI Scheme

The rationale for a contingent EMU-UI scheme is that Member States can deal with normal business cycle fluctuations, whereas large shocks may jeopardize social cohesion and overstrain public finances. Contingent benefits from the EMU-UI that only kick-in during severe recessions could also alleviate the risk of permanent and unidirectional transfers. We simulate an EMU-UI scheme with contingent benefits that is activated if the unemployment rate in year  $t$  is at least 1 percentage point higher than the unemployment rate in i) year  $t-1$ , ii) years  $t-1$  or  $t-2$ , iii) years  $t-1$  or  $t-2$  or  $t-3$ .<sup>3</sup> Longer look-back periods ensure that EMU-UI benefits can remain activated in sustained periods of high unemployment. In all other dimensions, such as payout rules and revenue-

<sup>3</sup> Other potential triggers could be based on changes in short-term unemployed or in the insured unemployment rate. Dolls and Lewney (2016) show that results from such changes are similar to those presented here.

Figure 2: Cumulative Net Contributions – Contingent Benefits



Note: Baseline and contingent benefits. Contingent scheme i): Benefits are paid if unemployment rate in year  $t$  is at least 1 percentage point higher than in  $t-1$  (one-year look-back period). Contingent scheme ii): 2-year look-back period. Contingent scheme iii): 3-year look-back period. Source: Dolls et al. (2016a).

### EMU-UI with Contingent Benefits Would Provide More Target Transfers, but Might Reduce Desired Insurance Effects

neutrality at euro area level, the contingent benefit schemes are identical to the baseline EMU-UI scheme (scheme 4 in Table 1).

We find that with a three-year look-back period, contingent benefits would have been triggered in all Member States at least once and no country would have been a permanent net contributor or net recipient. With average yearly benefits of 13, 19 and 22 billion euros at the Eurozone level, the overall budget of the three contingent EMU-UI schemes is significantly smaller compared to the non-contingent EMU-UI scheme (47 billion euros per year). Figure 2 shows selected countries' cumulative net contributions to the baseline and to the three contingent EMU-UI schemes. France, a net recipient at the end of the simulation period in the baseline, becomes a net contributor under contingent benefit schemes ii) and iii). In the Netherlands, accumulated net contributions are reduced by more than 50 per cent by the end of the simulation period relative to the baseline. Spain, a net recipient in the baseline throughout the simulation period, becomes a net contributor until 2007 and a net recipient in the remaining years. These results show that an EMU-UI system with contingent benefits could indeed provide more targeted transfers to Member States which see their labour market conditions significantly deteriorating.

## Conclusion

The Eurozone's economic crisis has revived debates about deeper fiscal integration and has elevated this topic to the top of the European policy agenda. A common unemployment insurance system is one widely discussed reform proposal. Supporters argue that a centralized EMU-UI system would cushion asymmetric shocks in the Eurozone and provide income insurance to the most vulnerable households. It would thus not only improve the economic resilience of the EMU and make its institutional architecture more sustainable, but it would also strengthen the social dimension of European policy-making. However, main concerns include the risk of permanent transfer flows across Member States and moral hazard for national economic policies, administrations, and individuals. These moral hazard effects would lead to more, rather than less unemployment. Our paper has analysed the potential added value of an EMU-UI which hinges on its ability to provide interregional smoothing. We have shown that during the time period under examination the interregional smoothing potential has been as large as the intertemporal smoothing effect. While the simulated EMU-UI schemes are not designed to give rise to permanent redistribution across countries, our results suggest that permanent transfers cannot be ruled out if no correcting measure, such as experience rating, is implemented. Experience rating might also be an effective tool to address moral hazard issues. Finally, our analysis shows that EMU-UI with contingent benefits would lead to less cross-country redistribution as it would provide more targeted transfers to Member States with deteriorating labour market conditions.

## Further Information

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