



**Simulations on the European Unemployment Benefit  
Scheme for the 1999-2015 period**

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## Simulations on the European Unemployment Benefit Scheme for the 1999-2015 period

The results of several simulations are presented below with respect to the European Unemployment Benefit Scheme (EUBS), assuming the scheme was active during the 1999-2015 period. A number of assumptions were made about specific variables to be used and the related threshold values in order to render the EUBS operative. The assumptions should be considered as purely illustrative.

### *Assumptions*

The **transfer of the resources from the Fund** would occur:

- a1) In the event of an employment trend in the country worse than the area average by at least one percentage point in the same year (component  $\alpha$ , which approximates an asymmetric shock); the existence of such condition would trigger a disbursement of between 0.5 percent and 1.0 percent of the Member State's GDP, proportional to the intensity of the shift from the average trend in the area;
- a2) eventually, the scheme being designed also to tackle symmetric shocks, in the event of a decrease in employment in the country compared with the previous year with an intensity above 1.0 percent (component  $\beta$ , which approximates a symmetric shock); the existence of such condition would trigger a disbursement equal to 0.5 percent of the Member States' GDP.

For the purposes of these simulations, a decision was made to use the stock of the employed rather than the unemployed, the former variable being statistically more robust than the latter. It is noted nonetheless that, with both indicators, the simulations produce similar results in the distribution of resources among countries and in the Fund's balance.

In fact, assuming the transfer of resources in the presence of an unemployed growth in excess of 10 percent of the Euro Area average over the previous year, the Fund would have transferred resources 43 times in the period considered versus the 47 recorded when considering the stock of the employed. The distribution of the disbursements by country would also not be significantly different.

Tables 1 and 2 report the changes in employment in the various countries that would have led to the transfer of Fund's resources during the 1999-2015 period, in the presence of asymmetric and symmetric shocks, respectively.

In any event, the **overall ceiling on disbursements** remains at 1.0 percent of GDP for an individual country during one year; once such threshold is reached, the beneficiary country must wait at least five years to be able to access the Fund's resources again.

In each of the years following the disbursement, the beneficiary country is to repay one-fifth of the resources received, until the entire sum has been repaid, with an increase in employment having been verified. In essence, the repayment period may extend beyond five years if the country were to be affected by new shocks; before the entire sum is repaid to the Fund, the benefited country cannot receive any new disbursements, even in the presence of significant shocks.

Each of the Member States will annually contribute to the Fund a sum equal to 0.5 percent of the its GDP growth rate.

The figures below report the results of the simulations run assuming that the EUBS is activated:

- a) only in the presence of asymmetric shocks (component  $\alpha$ );
- b) in the presence of asymmetric and symmetric shocks (component  $\alpha$  and/or component  $\beta$ );

In both cases, the disbursements between 1999 and 2015 are sufficiently evenly distributed among the countries of the Euro Area; obviously, the funds transferred are in larger amounts for the larger countries, which, in turn, are the main contributors (Figures 1 and 2).

Considering the net balance between the disbursements received, the repayments made, and the annual contributions to the Fund – as a percentage of GDP – the disparities between the countries are limited (Figures 3a and 4a). In reality, such disparities only highlight the fact that some of the participating countries, by virtue of the distribution of the shocks over time, will need to finalise the repayment of portions of the transfers received after the year in which the series ends; each country operates in a state of financial equilibrium over the long term, considering the requirement for the full repayment of the transfer. Considering, for example, the operation of the Fund through the year of 2010, the net

balances will change significantly among the Member States with respect to the entire 1999-2015 period (Figures 3b and 4b).

With reference to the Fund's financial resources, the configuration assumed would lead to a slight deficit only in the years of 2005 and 2006, thereby requiring, at the most, bond issues equal to 2 percent of the Fund's initial balance (Figure 5).

It is noted that the simulations do not incorporate:

- 1) the stabilisation effect produced by the operation of the Fund, which probably would have generated a more favourable trend in the Euro Area as a whole, and in all of the Member States; it is therefore possible to assume a smaller number of significant shocks vis-à-vis those indicated in Tables 1 and 2;
- 2) the reduction of the systemic uncertainty in the Euro Area connected with the introduction of the Fund, which would also support demand and growth in the region.

Table 1

### Trend of employment versus the average for the area (asymmetric shocks)

(Difference from the Euroarea mean, the table presents only variations of intensity above 1.0 percent)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium			-2.6					-1.2									
Germany		-1.4	-1.3	-1.8	-1.9	-1.3											
Estonia	-5.9	-1.8		-1.2					-1.3		-6.9	-3.3					
Ireland										-1.3	-5.2	-2.8	-1.8				
Greece									-1.2			-2.5	-7.6	-8.0	-4.2		
Spain										-1.3	-4.4		-1.6	-3.5	-2.6		
France							-1.6	-1.3									-1.8
Italy							-1.4		-1.3						-1.2		
Cyprus	n.a.	n.a.	n.a.											-2.2	-4.2	-2.0	-2.3
Latvia	-3.7	-3.9	-2.2			-1.2					-1.9	-4.2				-1.3	
Lithuania	-3.5	-6.0	-4.1			-1.5		-2.6		-2.8	-5.7	-4.3					
Luxembourg								-1.4		-1.5							
Malta	-2.0	-2.0															
Netherlands					-1.6		-1.6					-1.1				-1.4	
Austria	-1.6	-1.4	-1.1	-1.5		-3.7											
Portugal					-1.5		-1.7	-1.3	-1.7				-2.6	-3.7	-1.7		
Slovenia	-2.6			-1.5	-1.8								-2.7		-1.7		
Slovakia	-4.3	-3.0										-1.5					
Finland					-1.2											-1.2	-1.5

### Trend of employment compared with previous year (symmetric shocks)

(The table presents only the data in which intensity decreases by more than 1.0 percent)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium																	
Germany																	
Estonia	-4.0										-8.7	-4.2					
Ireland											-7.4	-3.7	-1.7				
Greece											-1.1	-3.5	-7.5	-8.6	-4.8		
Spain											-6.2	-1.8	-1.5	-4.2	-2.7		
France																	
Italy											-1.4				-1.6		
Cyprus	n.a.	n.a.	n.a.											-2.9	-4.8		-1.4
Latvia	-1.8	-2.0									-12.7	-5.2					
Lithuania	-1.7	-4.0	-2.5							-1.8	-7.5	-5.0					
Luxembourg																	
Malta																	
Netherlands												-2.7					
Austria						-2.9											
Portugal											-2.8	-1.2	-2.5	-4.3	-2.3		
Slovenia											-1.8	-1.4	-2.6		-2.2		
Slovakia	-2.5										-2.5	-2.4					
Finland											-2.7				-1.1		

Figure 1

Disbursements per year and country (asymmetric shocks)  
(€ mn)

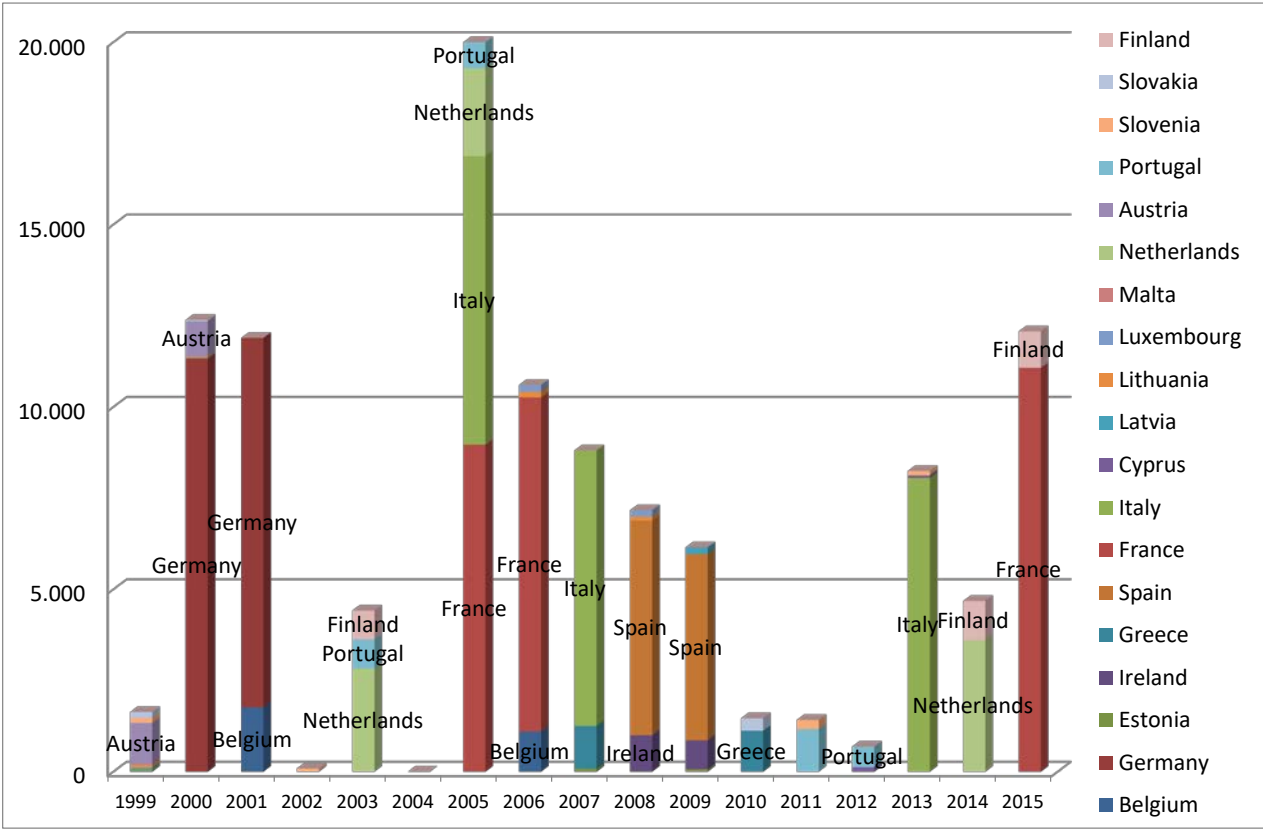
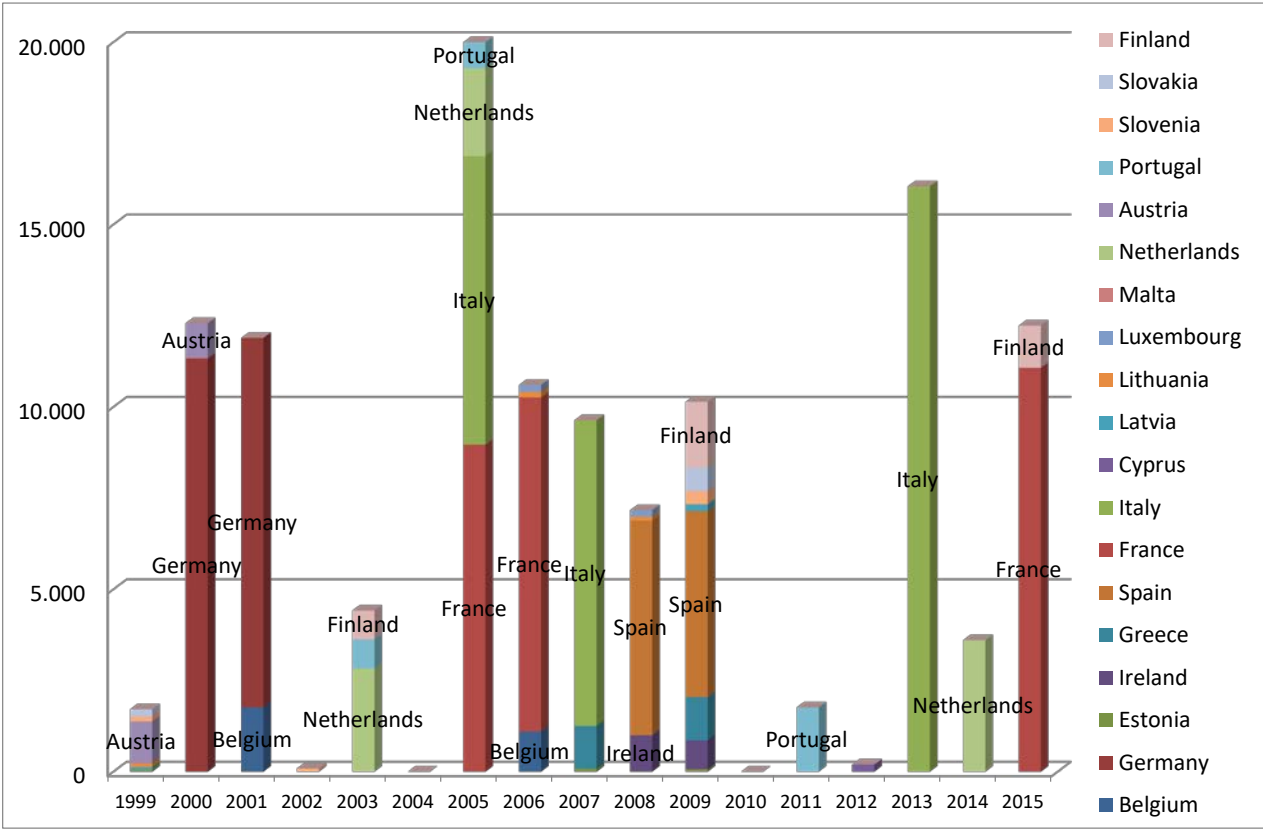


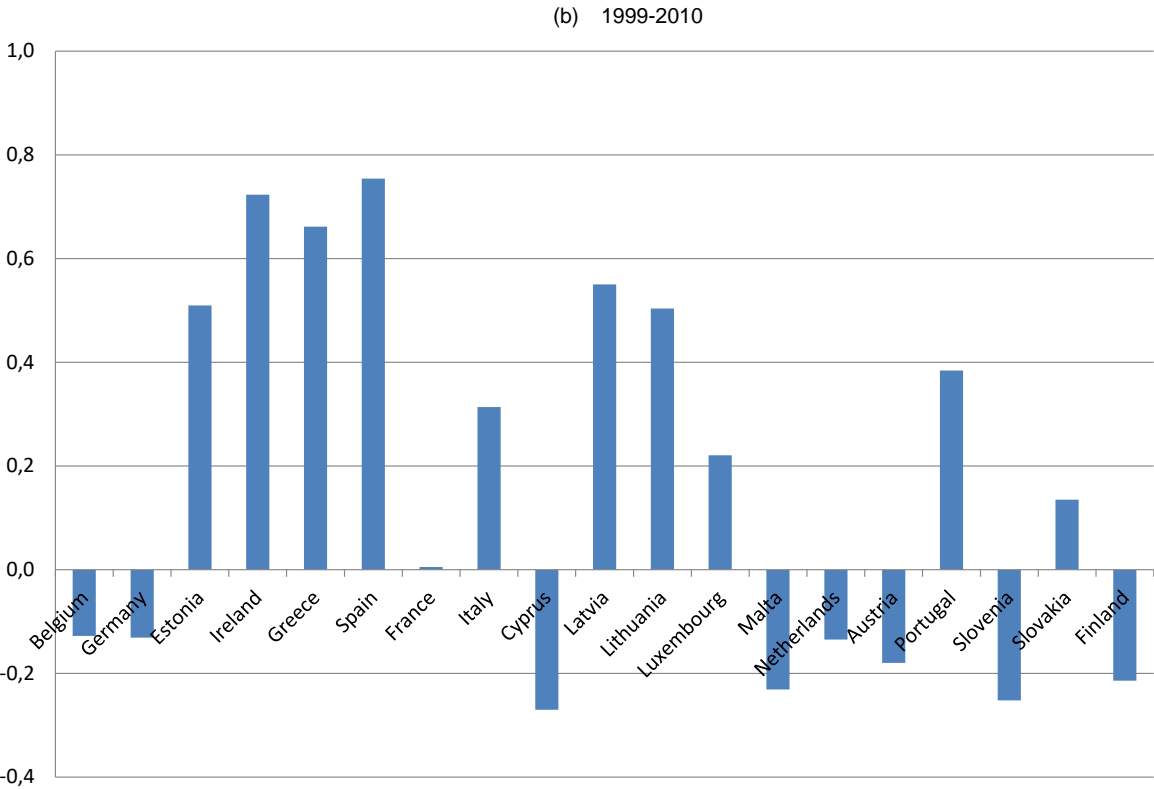
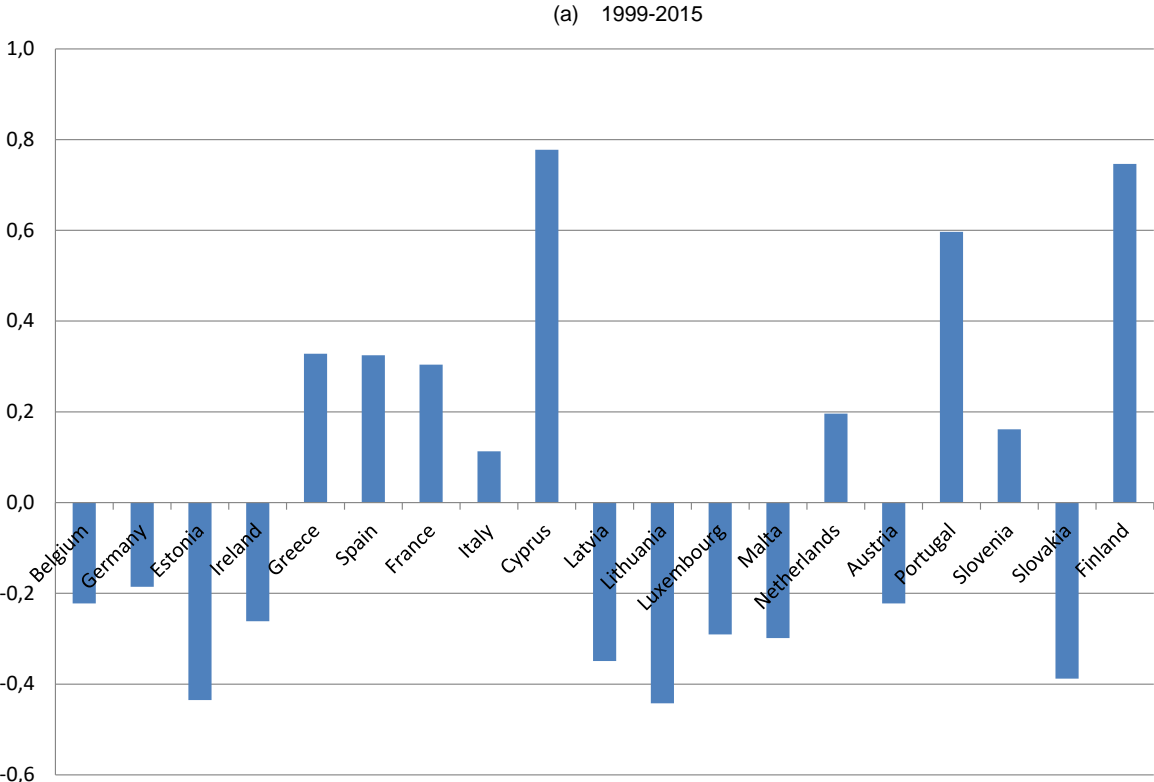
Figure 2

**Disbursements per year and country (symmetric and asymmetric shocks)**  
(€ mn)





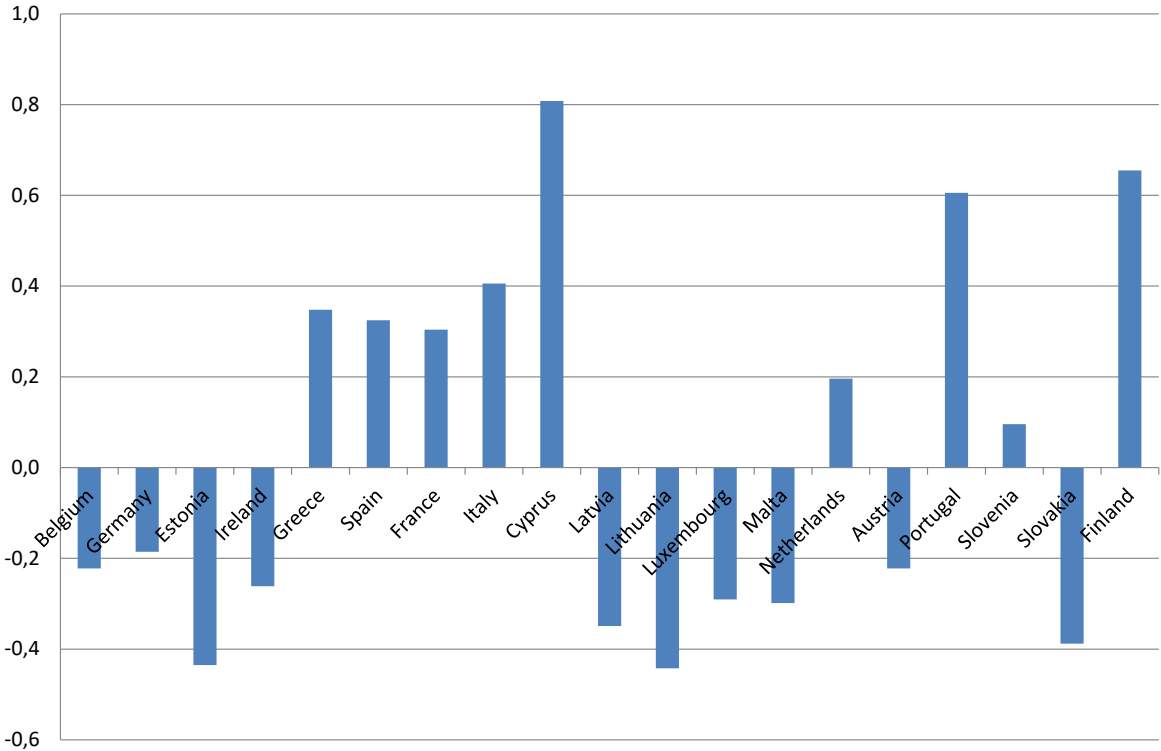
**Balance between transfers received, repayments and annual contributions  
(asymmetric shocks)**  
(% of GDP)



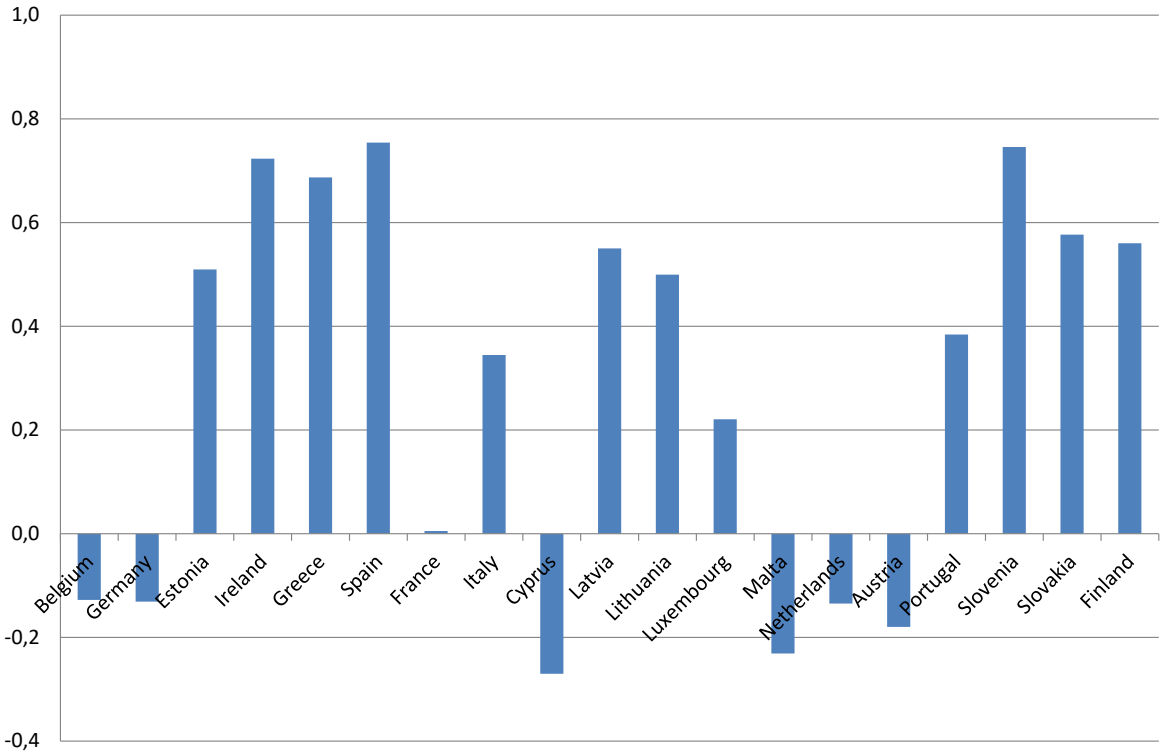
**Balance between transfers received, repayments and annual contributions  
(symmetric and asymmetric shocks)**

(% of GDP)

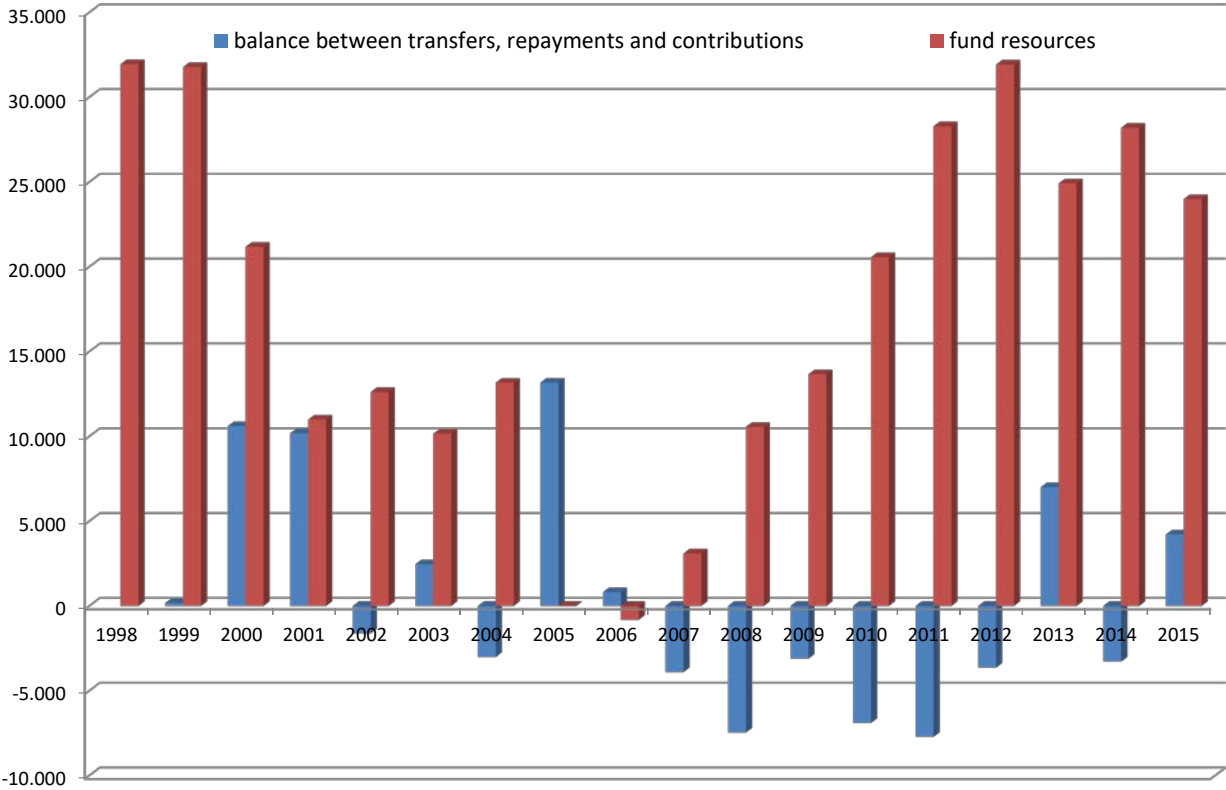
(a) 1999-2015



(b) 1999-2010



### Fund's resources (asymmetric shocks) (€ mn)



**Fund's resources (symmetric and asymmetric shocks)**  
(€ mn)

