

A feasible unemployment-based shock absorber for the Euro Area

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A centralized absorber is needed ([Marjolin, 1975](#); [MacDougall, 1977](#); [Delors, 1989](#); [Four and Five Presidents' Report, 2014-15](#))

- Aim: investigating whether a centralized shock absorber can offer non-negligible stabilization of the business cycle, while being incentive compatible and with limited cross-country redistribution
- How:
 - ① Main guidelines to design a **feasible and incentive compatible** *unemployment-based* shock absorber for the EA
 - ② Simulation of a bunch of schemes, then evaluated on two dimensions: stabilization and redistribution



Compared to previous works:

- 1 Emphasis on the stabilization-redistribution trade-off
- 2 Analysis of a wider variety of schemes (72!), altering both coverage, eligibility and funding
- 3 Simulations under both full take-up (as previous contributions) and actual take-up: in total 144 simulations



- The European debt crisis exposed the limits of the EMU with decentralized fiscal policies
- Countercyclical fiscal policies constrained by:
 - 1 Union fiscal rules
 - 2 Difficult access to capital markets during the crisis
 - **Need for a centralized fiscal tool**, even more than in other confederations (low labour mobility, sticky prices and wages, incomplete financial markets)
- Proposal: unemployment-based scheme ([Andor, 2014](#); [del Monte and Zandstra, 2014](#))



- It works through aggregate periodic transfers to and from supranational fund
- Transfers are parameterised to the expenditure that would be incurred by each country in presence of a common UB

NEUI is notional because it mimics an individual-level insurance scheme but operates with transfers at the macro level





Asymmetric information at several levels

- asymmetric distribution of adverse shocks+lack of commitment → the equilibrium with risk-sharing might not exist ([Persson and Tabellini, JPE1996](#))
- moral hazard (MH) at country level → countries do not implement structural reforms ([Persson and Tabellini, ECTA1996](#))
- decentralized implementation → national authorities might overstate the number of beneficiaries to get more funds ([Vanderbroucke, 2013](#))
- MH at individual level → low incentives to look for a job

Subsidiarity principle: need to avoid overruling countries' specific preferences

Targeted transfers in a second best framework (constrained efficiency)



- Entitlements, replacement rates and duration bounded by national schemes already in place → Subsidiarity principle, individual MH not worse off
- Coverage restricted to individuals that loose their jobs and for a limited period after job termination; long term unemployment is excluded → it controls for MH at both country and individual level and prevents redistribution in the LR
- Scheme activated only for major shocks (trigger) → it controls for MH at country level, smaller financial flows
- Experience rating → it controls for MH at country level, no cross-national redistribution in the medium run. However, it limits risk-sharing



NEUI is micro-based (notional UB transfer)

- incentive compatible for both countries and individuals
- not intrusive of national systems
- easy to be run by existing agencies
- visible risk-sharing mechanism within the EMU


But it works at macro level. It ultimately alleviates countries' fiscal constraints

- **Pros:**

- ① basically a rainy day fund, but not subject to political discretion and targeted to a specific shock (entry into unemployment)
- ② visible to citizens, fostering European solidarity

- EU-LFS data for 10 of EA countries, period: 2002-2012
- Simulations of 72 schemes differing for:

Unemployment benefit

Coverage 	OEC	OEC+FTC
Replacement rate (% average wage)	35	50
Maximum duration	3	8

Common fund

Activation	always	increase in Output Gap >20% of the s.d.	decrease in employment >20% of the s.d.
Funding	Full experience rating $\tau_i = \frac{\sum_{t=1}^T R_{w_{it}} M_{it} U_{it}}{\sum_{t=1}^T c_{it}}$	Partial experience rating, like Full ER with cap= 0.2% of GDP	No experience rating $\tau_i = \frac{\sum_{i=1}^I \sum_{t=1}^T R_{w_{it}} M_{it} U_{it}}{\sum_{i=1}^I \sum_{t=1}^T c_{it}}$

2 different regimes: full and actual take-up rates (in total 144 simulations) 

Impact on GDP of *net transfers*: multipliers used by the EC

- Net contributors: pay % consumption taxes ($\mu_c = 0.4$)
- Net beneficiaries: increase public investment ($\mu_b = 0.9$)

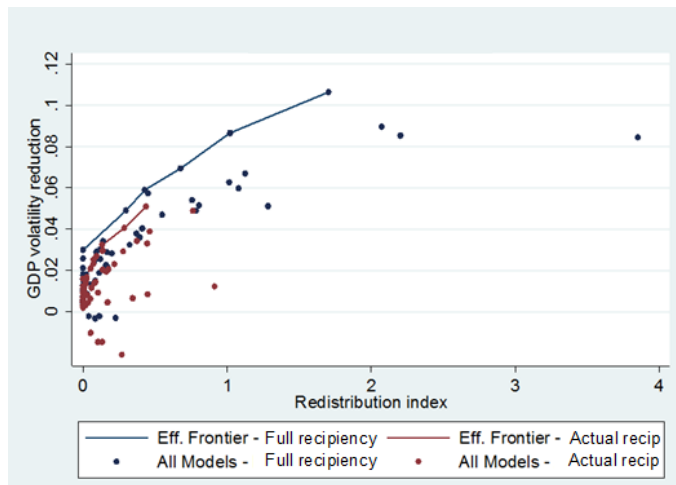
Ranking of the schemes on 2 dimensions:

- 1 Stabilization: % reduction in the Coefficient of Variation of GDP

$$CV = \frac{\sigma}{\mu}$$


- 2 Redistribution:

$$Index = \frac{\sum_{i=1}^n (\tau_i - \tau)^2}{n}$$



Notes: Authors' elaboration on EU-LFS data. Each dot represents the stabilization-redistribution pair of one of the 72 different notional UB schemes simulated in the paper. The GDP volatility reduction is equal to the reduction in the GDP coefficient of variation. The redistribution index is equal to the sum of the squared deviations of the unique contribution rate that balances the system for the area as a whole from the contribution rate that balances the system for each country, multiplied by a million.



- Notional UB: 
 - Coverage: OEC+FTC (all previously employees)
 - RR: 50%
 - Duration: 8 months
- Commun fund:
 - Funding: full or partial ER
 - Activation: triggers, especially the ones based on employment

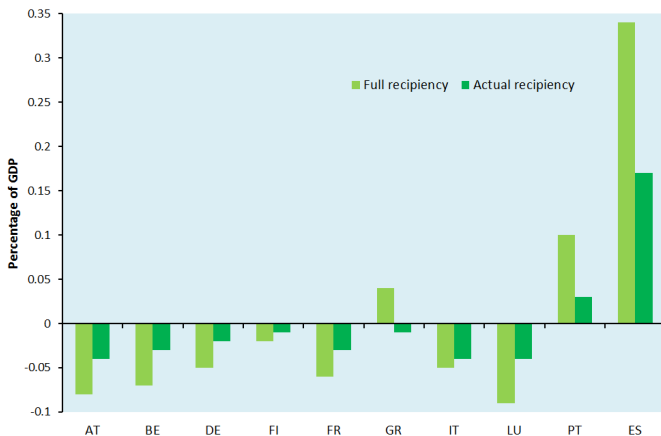
Important: large differences in take-up rates imply large reductions in the maximum achievable level of stabilization

Results are robust to:

- Choice of multipliers:
 - 1 both $\mu_c = \mu_b = 1$
 - 2 $\mu_c = 0.4$ and $\mu_b = 1.5$
- Estimation period:
 - 1 2002-2010
 - 2 2003-2011
 - 3 2001-2012

Out of 1,728 ($=3*4*2*72$) simulations, the scheme with 50% of RR, 8 months duration, covering dismissals and expirations, activated by an employment-based trigger is the preferred model, both with and without ER

Winners and losers under the best model and partial ER (2002-2012)



→ The direction of redistribution depends on the considered period ▶ normal times

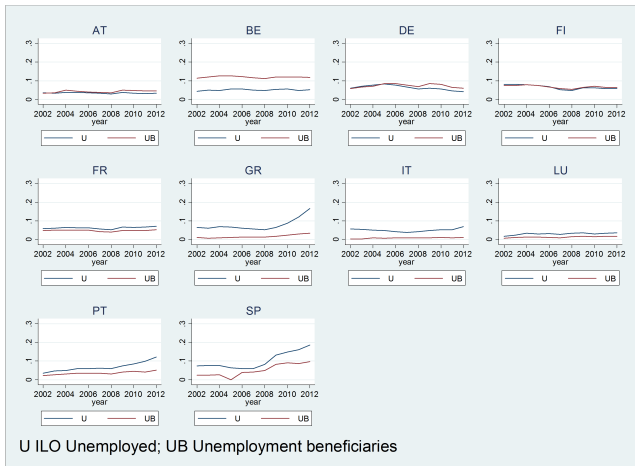


We have shown that carefully designed EA-wide unemployment-based shock absorber can:

- Offer substantial stabilization without implying large and persistent cross-country redistribution (around 7 times smaller stabilization than under current fiscal rules but very limited cross-country financial flows)
- Stimulate convergence in take-up rates and UB systems across countries, with a positive and highly visible impact on citizens

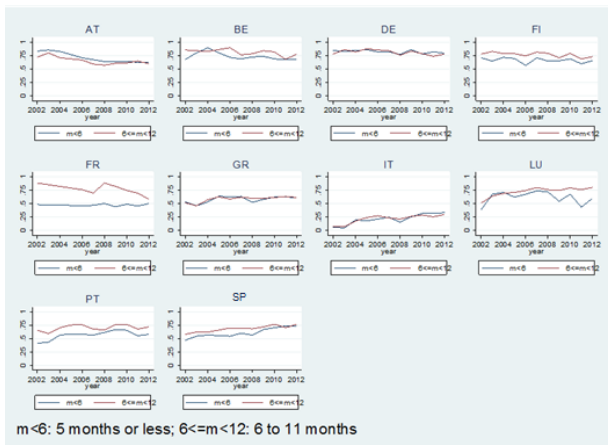
Important issue: NEUI might reduce governments' incentives to adopt welfare programs other than UB, i.e. short time compensation schemes. Mutual interactions between welfare programs should be considered

Shares of ILO unemployed and UB beneficiaries on working age population

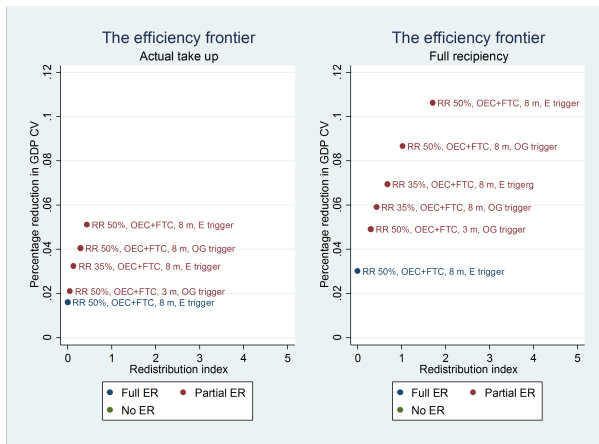


Notes: Authors' elaboration on EU-LFS data.

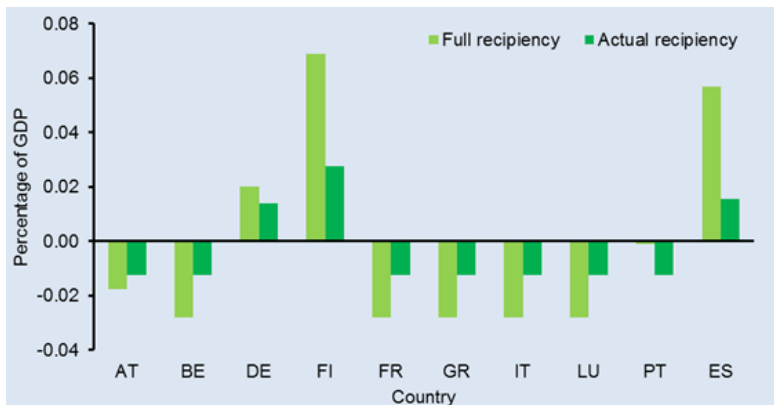
Previously open-ended contracts: UB take-up rates by duration



Notes: Authors' elaboration on EU-LFS data. The graph shows the incidence of individuals receiving UB over the group of individuals who were employed with an open-ended contract a year before.



Notes: Authors' elaboration on EU-LFS data. Values estimated over the 2002-2012 time interval, multiplier equal to 0.4 for outflows and 0.9 for inflows. Legend: benefit replacement rate (RR), labour force coverage (OEC: termination of open-ended contract; FTC: termination of fixed-term contract); months of maximum duration (m); activation trigger variable (E: employment; OG: output gap); experience rating (ER).



Notes: Authors' elaboration on EU-LFS data based on a scheme that has replacement rate of 50%, covers terminations of open-ended and fixed-term contracts; has maximum duration of 8 months and is activated by employment-based trigger. Baseline multipliers are used.