LEM
LILLE ECONOMICS MANAGEMENT

Université de Lille 1 SCIENCES ET TECHNOLOGIES

# Drowned by Numbers? Issues in Designing an EU-wide Unemployment Insurance

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# 1. Introduction: a topical question…

- The crisis has revived a question addressed in the McDougall (1977) and Delors (1986) reports

- Three reports in 2012 about a stabilisation scheme at the European level

  - **Van Rompuy Report** (*"Towards a genuine economic and monetary union"*):
    a fiscal capacity at the EMU level, either a federal budget *or* an unemployment insurance mechanism

  - **Tommaso Padoa-Schioppa group** (*"Completing the Euro. A road map towards fiscal union in Europe"*):
    a cyclical automatic stabilization insurance fund

  - **European Commission** (*"A blueprint for a deep and genuine economic and monetary union. Launching a European debate"*):
    a EA budget with a stabilization function

# 1. Introduction: … attracting contributors

- Properties of a common stabilization fund for the Eurozone:
  - Carnot et al. (2015, EC Econ. papers), Delbecque (2013, ), Enderlein et al. (2013), Furceri & Zdzienicka (2015, Open Econ. Rev)
- Simulations of the redistribution and stabilization effects:
  - Bargain et al. (2013,Econ. Policy ), Dolls et al. (2013)

- Unemployment benefits in the Eurozone
- advocated by Commissioner Andor (2014)
- Brandolini et al. (2016, JCMS), Dolls et al. (2014), Dullien (2014, InterEcon.), Fichtner & Haan (2014, DIW Econ. Bull.), Lellouche & Sode (2014, Tresor-Econ.)
- Unemployment benefits in the EU
  - Beblávy & Maselli (2014), Maselli & Beblávy (2015)

# 1. Introduction: our contributions

- Provide a theoretical context
- Our simulations cover 27 EU countries, 2005-2014…
- … under a large set of parameters
- Give a focus on stabilization
- Review implementation issues and a “bullet-proof” test
- Provide an “Easy-to-use” replication file

# 2. Theoretical background

- Optimum currency areas (OCA):
  - Desirability of a system insuring against idiosyncratic shocks
    - Ingram (1959, QJE), Kenen (1969)
    - Kindleberger (1986, AER), Aglietta (1986): on the similarity of preferences

- Fiscal federalism:
  - Persson & Tabellini (1996a, Econ.): trade-off between risk-sharing and moral hazard
  - Persson & Tabellini (1996b, JPolE): trade-off between efficiency and redistribution

- Macroeconomic stabilization:
  - Engler & Voigts (2013): larger Keynesian multiplier (lower Ricardian response)

# 2. Theoretical background

- Political Economy
  - Persson & Tabellini (1996b, JPolE):
    - collective bargaining (between states) -> underinsurance
    - majority voting (by individuals) -> over-insurance

  - Luque et al. (2014, JPubE):

    scope for bargaining increases with expected volatility of income

    Larger / Richer / Lower-risk countries will request larger political/ voting weights

  - Guiso et al. (2016, JIE):

    Cultural clashes can be circumvented by centralization

Take-away lesson:

the further form an OCA, the more desirable an insurance system, but the harder the bargaining on tax rates

# 3. Existing proposals / schemes

## Prelim.: Where are we coming from?

## The EU budget transfers

- Permanent recipients / receivers
- For sizeable amounts

**Table 1. Net payments from the EU budget (% of GDP)**

| | *2000-2014* | | | | *2005-2014 (our sample)* |
|---|---|---|---|---|---|
| **EU Member States** | **Accumulated net position** | **Yearly average** | **Permanent net position** | **During the 2009 recession** | **Accumulated net position** |
| Belgium (BE) | -3.8 | -0.3 | yes | -0.5 | -3.0 |
| Bulgaria (BG) | 22.4 | 1.8 | yes | 1.7 | 20.4 |
| Czech Republic (CZ) | 11.6 | 0.8 | yes | 1.1 | 11.0 |
| Denmark (DK) | -3.1 | -0.2 | no | -0.4 | -2.9 |
| Germany (DE) | -4.7 | -0.3 | yes | -0.3 | -3.3 |
| Estonia (EE) | 24.3 | 2.1 | yes | 4.1 | 22.6 |
| Ireland (IE) | 18.4 | 1.5 | no | 0.0 | 6.7 |
| Greece (EL) | 50.7 | 3.1 | yes | 1.3 | 26.8 |
| Spain (ES) | 1.4 | 0.0 | no | 0.1 | 1.6 |
| France (FR) | -1.8 | -0.1 | no | -0.3 | -2.2 |
| Italy (IT) | -2.9 | -0.2 | no | -0.3 | -2.4 |
| Cyprus (CY) | 2.4 | 0.2 | no | 0.0 | 1.8 |
| Latvia (LV) | 26.2 | 2.2 | yes | 2.7 | 24.4 |
| Lithuania (LT) | 34.1 | 2.9 | yes | 5.5 | 31.7 |
| Luxembourg (LU) | -2.3 | -0.2 | no | -0.3 | -1.3 |
| Hungary (HU) | 28.2 | 2.0 | yes | 2.9 | 27.3 |
| Malta (MT) | 9.9 | 0.8 | yes | 0.1 | 9.0 |
| Netherlands (NL) | -5.5 | -0.4 | no | 0.0 | -3.7 |
| Austria (AT) | -2.9 | -0.2 | yes | -0.1 | -2.1 |
| Poland (PL) | 19.7 | 1.5 | yes | 2.0 | 18.9 |
| Portugal (PT) | 26.7 | 1.8 | yes | 1.2 | 17.5 |
| Romania (RO) | 13.4 | 1.1 | yes | 1.4 | 12.4 |
| Slovenia (SI) | 10.0 | 0.7 | yes | 0.7 | 9.1 |
| Slovakia (SK) | 12.5 | 1.0 | yes | 0.8 | 11.8 |
| Finland (FI) | -2.2 | -0.1 | no | -0.3 | -2.1 |
| Sweden (SE) | -4.4 | -0.3 | yes | 0.0 | -3.1 |
| United Kingdom (UK) | -2.5 | -0.2 | no | -0.1 | -1.9 |

# 3. Existing proposals / schemes

## 3.1. Basic formulas

From Lellouche and Sode (2014):

1. Benefits

$$(1)\ B_{i,t} = RR \times \alpha \times w_{i,t} \times CR \times U_{i,t}$$

1. Contributions

$$(2)\ C_{i,t} = \tau_{i,t} \times w_{i,t} \times E_{i,t}$$

2. Net Transfers

$$(3)\ T_{i,t} = B_{i,t} - C_{i,t}$$

3. Defining the “right” contribution rate,

balancing at the system level or at each country’s ?

$$(4)\ \tau_t = \frac{\sum_{j=t-3}^{t-1} \sum_i B_{i,j}}{\sum_{j=t-3}^{t-1} \sum_i w_{i,j} \times E}$$

$$(5)\ \tau_{i,t} = \frac{\sum_{j=t-3}^{t-1} B_{i,j}}{\sum_{j=t-3}^{t-1} w_{i,j} \times E_{i,j}}$$

# 3.2. Choice of parameters: a tricky issue …

**Table 2. Conditions of unemployment insurance benefits in the EU countries (2010)**

| *Countries* | *Gross replacement rate (%)* | *Net replacement rate (%)* | *Statutory coverage ratio (%)* | *Effective coverage ratio (%)* | *Maximum duration of benefits (months)* |
|---|---|---|---|---|---|
| BE | 37 | 64 | 66 | 83 | unlimited |
| BG | 60 | 76 | 66 | 31 | 12 |
| CZ | 50 | 65 | 91 | 31 | 5 |
| DK | 52 | 57 | 72 | 71 | 24 |
| DE | 36 | 59 | 67 | 88 | 12 |
| EE | 50 | 54 | 74 | 35 | 12 |
| IE | 32 | 38 | 100 | 87 | 12 |
| EL | 23 | 29 | 100 | 40 | 12 |
| ES | 53 | 60 | 58 | 63 | 24 |
| FR | 57 | 66 | 61 | 62 | 24 |
| IT | 46 | 56 | 53 | 56 | 8 |
| CY | n.a. | n.a. | 79 | 79 | n.a. |
| LV | 60 | 87 | 75 | 28 | 9 |
| LT | 34 | 43 | 67 | 20 | 9 |
| LU | 80 | 84 | 95 | 51 | 12 |
| HU | 42 | 53 | 87 | 40 | 9 |
| MT | 25 | 30 | 88 | 84 | 5 |
| NL | 75 | 75 | 83 | 65 | 22 |
| AT | 37 | 55 | 68 | 91 | 9 |
| PL | 29 | 36 | 54 | 17 | 12 |
| PT | 58 | 75 | 76 | 57 | 24 |
| RO | 32 | 45 | 43 | 55 | 12 |
| SI | 70 | 73 | 80 | 34 | 9 |
| SK | 50 | 64 | 57 | 11 | 6 |
| FI | 48 | 53 | 100 | 52 | 23 |
| SE | 48 | 47 | 96 | 34 | 35 |
| UK | 10 | 13 | 86 | 62 | 6 |
| Average | 46 | 56 | 76 | 53 | 14 |

The gross replacement rate (RR) is computed using the OECD tax-benefit calculator. It is based on the average wage of a single person without any children. The net RR (after tax) is taken from tables of OECD (where data for 2010 are available) and also applies to a single person with no children and earning the average wage  The statutory coverage ratio refers to people eligible under legislation for unemployment benefits as a proportion of total labour force. The effective coverage ratio refers to unemployed who actually receive benefits as a proportion of those currently unemployed.

Sources: OECD (Tax and benefit indicators. Benefits and wages statistics) for replacement rates and duration of benefits. Social Policy Indicator Database (in Beblávy and Maselli. 2014. table 10) for statutory coverage ratios. ILO (World Social Protection Report 2014/15, table B.3) for effective coverage ratios

# 3.2. Choice of parameters: … for difficult comparisons

| Authors | Trigger | Eligibility | Qualifying period (months) | Duration of benefits (months) | Coverage ratio | Alpha | Replacement rate | Contribution rate |
|---|---|---|---|---|---|---|---|---|
| Andor (2014) | all time | short-term unemployed | | 6 | | | 0.4 | |
| Artus et al. (2013) | all time | unemployed | | | | 1 | 0.2 | 0.20*wage bill*structural unemployement rate |
| Beblávy & Maselli (2014) | level of unemployment | short-term unemployed | | 6 | 0.75 | 1 | 0.4 | 0.005 or experience rating |
| Beblávy et al. (2015) | level of unemployment | short-term unemployed | | 12 | 0.8 | 1 | 0.4 with a deductible | 0.1% of GDP and experience rating |
| Brandolini et al. (2014) | change in unemployment | unemployed | | 3 or 8 | | 1 | 0.5 or 0.35 | experience rating or rate balancing the fund |
| Clayes et al. (2014b) | all time or change in unemployment | short-term unemployed | | | 0.4 | 0.8 | 0.5 or 0.6 or 0.7 or 0.8 | rate balancing the fund or experience rating |
| Dolls et al. (2014) | all time or level of unemployment | short-term unemployed | | 12 | | 0.5 or 0.7 | 0.5 | 0.0157 or experience rating |
| Dullien (2013) | change in unemployment | short-term unemployed | | 12 | 1 | 0.8 | 0.5 | 0.0166 or 0.0065 |
| Dullien (2014) | all time or change in unemployment | short-term unemployed | | 12 | 0.5 | 0.8 | 0.5 | 0.013 or 0.007 |
| Dullien & Fichtner (2013) | all time | short-term unemployed | | 12 | 0.5 | 0.8 | 0.5 | 0.017 (rate balancing the fund) |
| Dullien & Schwarzer (2009) | all time | unemployed | 12 | 6 to 12 | 1 | 0.5 | 0.5 | 0.02 |
| Epaulard (2014) | level of unemployment | 3-13 months unemployed | | 9 from the 3rd | 0.8 | 0.5 | 0.5 | rate balancing the fund |
| Fichtner & Haan (2014) | all time | national criteria | | 12 or 6 | | | 0.7 or 0.3 | 0.013 or 0.004 |
| Jara & Sutherland (2014) | all time | unemployed | 3 | 8 from the 4th | | 1 | 0.33 | |
| Lellouche and Sode (2014) | all time | short-term unemployed | 9 or 12 | 12 | national CR minus half the difference between national CR and EA average | 1 | 0.50 | rate balancing the fund or experience rating |
| OFCE (2013) | level or change in unemployment | unemployed | 9 | 3 to 12 | | | 0.5 | experience rating or rate balancing the fund |

# 3.3. Net transfers: results from the literature

| Study | Sample | Period | Net position of the fund | Main net recipients | Main net contributors | Permanent net recipients | Permanent net contributors |
|---|---|---|---|---|---|---|---|
| Artus et al. (2013) | 12 EA countries | 2012 | 0.2 | ES (1.3)<br>EL (1.1) | DE (-0.2)<br>FI, BE (-0.1) | | |
| Beblavý and Maselli (2014) | 28 EU countries | 1999-2012 | 0.2 | ES (5.3)<br>LV, PL (1.7) | NL (-2.3)<br>AT (1.1) | : | : |
| Brandolini et al. (2014) | 10 EA countries | 2002-2008 | 0.0 | FI (0.07)<br>ES (0.06) | BE, FR, EL, IT, LU (-0.03) | : | : |
| Dolls et al. (2014) | 18 EA countries | 2000-2013 | -0.06 | ES (7.4)<br>LV (4.6) | NL (-5.8)<br>AT (-3.5) | FR, LV, ES | AT, BE, LU, NL |
| Dullien (2013) | 12 EA countries | 1995-2011 | -4.2 | FI (1.8)<br>ES (1.6) | IT (-0.6)<br>DE, FR, NL (-0.5) | none | none |
| Epaulard (2104) | 12 EA countries | 2000-2015 | surplus | ES, EL, IE | DE, AT, BE | none | BE, DE, FR, IT, AT, FI |
| Fichtner and Haan (2014) | 12 EA countries | 1999-2012 | : | FR (4.1)<br>EL (3.9), ES (3.8) | FI (-5.7)<br>SK (-4.2) | FR, EL, ES | AT, BE, FI, IT, NL, SK |
| Lellouche and Sode (2014) | 12 EA countries | 2000-2012 | (-4 €bn) | ES (3.3), PT (2.3),<br>EL (2.2) | FI (-3.1)<br>AT (-0.8) | none | none |
| OFCE (2013) | 16 EA countries | 2000-2013 | 0.3 | EL (6.0)<br>IE (3.1) | DE (-1.2)<br>EE (-0.7) | none | none |

*The net position of the fund corresponds to cumulated net flows. A positive sign denotes a deficit and a minus sign a surplus. For net recipients and contributors, the cumulated flows over the whole period are also considered. In some studies, detailed results are lacking.*

However comparisons are hard to make: methods, measurements, underlying models differ.
Multiplier often considered equal to 1.

# 4. Our proposal(s)

- All EU countries (except Croatia)
- 2005-2014 (allows for a larger coverage)
- Data:
  - Eurostat: unemployment rate, short-term unemployed
  - AMECO: GDP, compensation per employee

# 4. Our proposal(s)

**Baseline scenario**:

α = 0.8; EU average Replacement rate = 0.46; Coverage ratio = 100%

Contribution rate = common, updated / year to balance the fund over past 3 years

Permanent system (no specific trigger)

- Variant 1: Replacement Rate = 0.56
- Variant 2:  National Replacement Rate if RR < EU average
- Variants 3 & 5: Coverage ratio = 80%
- Variant 4: Replacement rate = 0.56
- Variants 4, 5, 7, 9: Country-specific contribution rate, updated / year to balance countries' shares of the fund over past 3 years
- Variants 6 & 7: Trigger = $\Delta u > 10$ %
- Variant 8 & 9: Trigger = $u > 5$ % AND 20 % above the past two years' level
- Variant 10: without Denmark & UK

# 4. Our proposal(s)

**Table 5. Alternative scenarios – Accumulated net position over 2005-2014 (% of 2014 GDP)**

| Scenario | Baseline | Variant 1 | Variant 2 | Variant 3 | Variant 4 | Variant 5 | Variant 6 | Variant 7 | Variant 8 | Variant 9 | Variant 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RR | 0.46 | 0.56 | 0.46 or less | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 |
| CR | 1 | 1 | 1 | 0.80 | 1 | 0.80 | 1 | 1 | 1 | 1 | 1 |
| Tau | Single | Single | Single | Single | Specific | Specific | Single | Specific | Single | Specific | Single |
| Trigger | All time | All time | All time | All time | All time | All time | Bad times | Bad times | US | US | All time |
| BE | -1,8 | -2,2 | -1,6 | -1,4 | 0,3 | 0,2 | 0,5 | 0,2 | -2,0 | 0,0 | -0,1 |
| BG | -0,7 | -0,8 | 0,7 | -0,5 | 0,2 | 0,1 | 0,1 | 0,1 | 0,2 | -0,2 | 0,5 |
| CZ | -2,7 | -3,3 | -1,1 | -2,2 | 0,0 | 0,0 | -2,0 | -0,4 | -0,1 | -0,1 | -1,2 |
| DK | -2,1 | -2,5 | 0,0 | -1,7 | 0,4 | 0,4 | -2,4 | -0,5 | 0,3 | -0,1 | 0,0 |
| DE | -3,7 | -4,5 | -3,3 | -3,0 | -0,7 | -0,6 | -1,5 | -0,9 | -1,9 | 0,0 | -2,0 |
| EE | 0,0 | 0,0 | 1,6 | 0,0 | -0,2 | -0,2 | -0,3 | -0,5 | 1,7 | -0,2 | 1,4 |
| IE | 0,8 | 1,0 | -0,5 | 0,7 | 1,0 | 0,8 | 0,6 | 0,1 | 2,6 | 0,2 | 2,3 |
| EL | 6,8 | 8,3 | 0,5 | 5,5 | 2,3 | 1,9 | 2,9 | -0,4 | 7,2 | 3,2 | 8,4 |
| ES | 17,3 | 21,0 | 19,3 | 13,8 | 3,9 | 3,1 | 6,6 | 1,1 | 11,6 | 1,7 | 19,1 |
| FR | 0,6 | 0,8 | 2,7 | 0,5 | 0,3 | 0,2 | -0,8 | 0,4 | -2,0 | 0,0 | 2,4 |
| IT | -0,1 | -0,1 | 1,6 | -0,1 | 0,7 | 0,5 | 0,0 | 0,4 | 1,6 | 1,2 | 1,4 |
| CY | 2,1 | 2,6 | 3,9 | 1,7 | 2,8 | 2,3 | 4,1 | 2,0 | 6,4 | 2,3 | 3,7 |
| LV | 3,8 | 4,7 | 5,4 | 3,1 | 0,1 | 0,1 | 1,1 | 0,2 | 2,6 | 0,2 | 5,2 |
| LT | 2,2 | 2,7 | 1,0 | 1,8 | 0,1 | 0,1 | 0,1 | -0,5 | 1,9 | -0,1 | 3,5 |
| LU | -5,9 | -7,2 | -4,2 | -4,7 | 0,2 | 0,1 | -1,4 | -0,3 | -1,8 | 0,0 | -4,4 |
| HU | -0,9 | -1,2 | 0,1 | -0,8 | 0,6 | 0,5 | -1,3 | -0,1 | 1,0 | -0,1 | 0,7 |
| MT | -2,8 | -3,4 | -3,8 | -2,2 | -0,3 | -0,2 | -0,8 | -0,1 | -1,6 | 0,0 | -1,4 |
| NL | -3,3 | -4,0 | -1,3 | -2,6 | 0,8 | 0,7 | 0,3 | -0,1 | -0,8 | 0,1 | -1,5 |
| AT | -1,8 | -2,2 | -1,6 | -1,4 | 0,1 | 0,1 | -1,2 | -0,4 | -1,8 | 0,0 | -0,2 |
| PL | 2,4 | 2,9 | 0,1 | 1,9 | -1,3 | -1,0 | -0,2 | -0,1 | -0,2 | -0,1 | 3,5 |
| PT | 1,7 | 2,0 | 3,6 | 1,3 | 1,5 | 1,2 | 3,2 | -0,1 | 1,2 | 0,0 | 3,4 |
| RO | -0,4 | -0,5 | -1,1 | -0,3 | 0,3 | 0,2 | -1,2 | -0,4 | -1,2 | 0,0 | 0,7 |
| SI | -2,2 | -2,7 | -0,1 | -1,8 | 0,9 | 0,7 | -1,8 | -0,6 | 1,1 | 0,0 | -0,4 |
| SK | -0,4 | -0,4 | 1,0 | -0,3 | -0,4 | -0,4 | -1,3 | -0,9 | -0,5 | -0,1 | 0,8 |
| FI | 1,8 | 2,2 | 3,7 | 1,4 | -0,5 | -0,4 | -1,9 | -0,1 | -0,6 | -0,1 | 3,5 |
| SE | 1,4 | 1,6 | 3,1 | 1,1 | 0,5 | 0,4 | -0,9 | -1,5 | -0,7 | -0,2 | 2,9 |
| UK | -1,2 | -1,4 | -6,7 | -0,9 | 0,3 | 0,2 | -1,3 | -0,3 | -0,8 | 0,0 | 0,0 |
| TOTAL | 0,4 | 0,4 | 0,4 | 0,3 | 0,4 | 0,3 | -0,2 | -0,1 | 0,2 | 0,3 | 1,9 |

*Alpha = 0.80 in all scenarios. Bad times = short term unemployment rises more than 10 percentage points. US trigger = unemployment rate exceeds 5 percent and is 20 percent above the level of the past two years. Net transfers or net position = benefits minus contributions. At the country level, a positive number means that the country is a net recipient of the fund and a negative number means that it is a net contributor. At the aggregate level (i.e., the global cash position of the fund given by the sum of all national net positions), a positive number means that the fund is in deficit and a negative number that it is in surplus. All detailed results are in the appendix.*

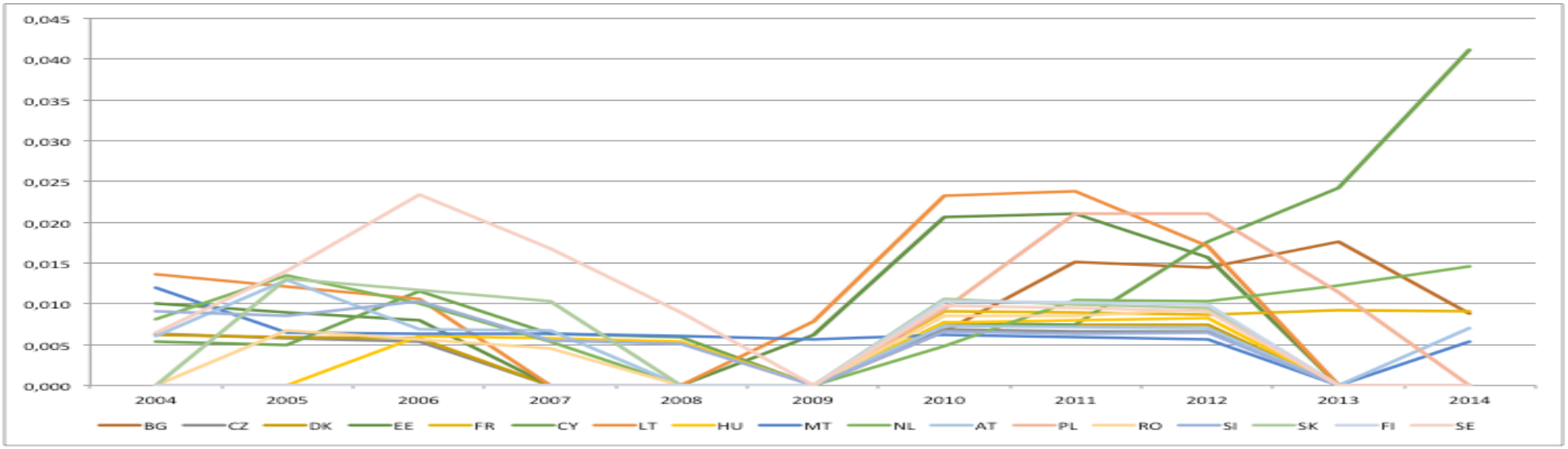
# 4. Our proposal(s)

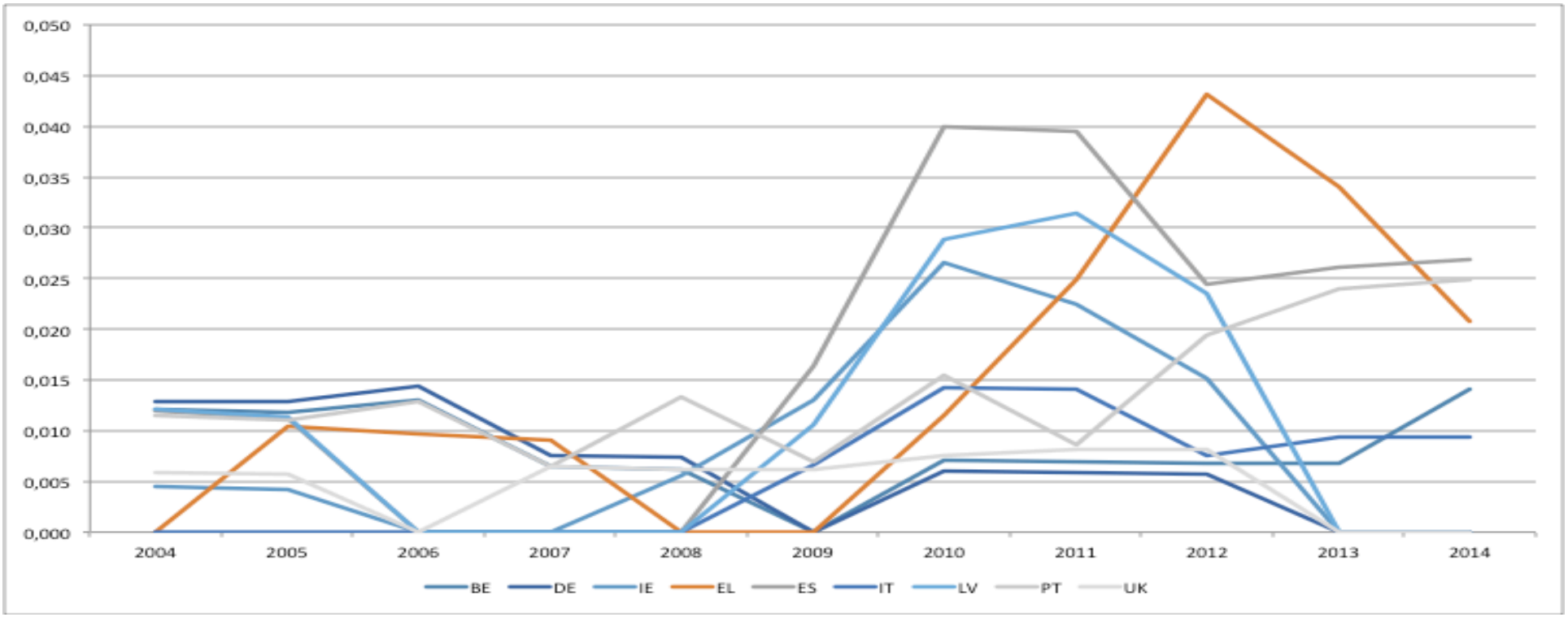
**Table 6. Relative variability of GDP under alternative scenario (2005-2014)**

| Scenario | Baseline | Variant 1 | Variant 2 | Variant 3 | Variant 4 | Variant 5 | Variant 6 | Variant 7 | Variant 8 | Variant 9 | Variant 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RR | 0.46 | 0.56 | 0.46 or less | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 |
| CR | 1 | 1 | 1 | 0.80 | 1 | 0.80 | 1 | 1 | 1 | 1 | 1 |
| Tau | Single | Single | Single | Single | Specific | Specific | Single | Specific | Single | Specific | Single |
| Trigger | All time | All time | All time | All time | All time | All time | Bad times | Bad times | US | US | All time |
| BE | 0,99 | 0,99 | 0,99 | 0,99 | 1,00 | 1,00 | 1,00 | 1,00 | 0,98 | 1,00 | 0,99 |
| BG | 1,00 | 1,00 | 1,00 | 1,00 | 1,01 | 1,00 | 1,00 | 0,99 | 1,00 | 0,99 | 1,00 |
| CZ | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 0,99 | 1,00 |
| DK | 1,00 | 1,01 | 1,01 | 1,00 | 1,00 | 1,00 | 0,98 | 0,99 | 0,97 | 0,96 | 1,00 |
| DE | 0,96 | 0,95 | 0,97 | 0,97 | 0,99 | 1,00 | 0,96 | 0,99 | 0,98 | 1,00 | 0,96 |
| EE | 0,99 | 0,98 | 0,99 | 0,99 | 0,98 | 0,99 | 0,99 | 1,00 | 0,97 | 0,97 | 0,99 |
| IE | 0,96 | 0,95 | 0,97 | 0,97 | 0,99 | 0,99 | 1,03 | 1,07 | 0,97 | 1,02 | 0,96 |
| EL | 0,97 | 0,97 | 0,99 | 0,98 | 1,00 | 1,00 | 1,02 | 1,05 | 0,97 | 1,02 | 0,97 |
| ES | 1,08 | 1,10 | 1,08 | 1,07 | 1,07 | 1,05 | 1,15 | 1,15 | 1,18 | 1,16 | 1,09 |
| FR | 0,99 | 0,99 | 0,99 | 0,99 | 1,00 | 1,00 | 1,01 | 0,98 | 0,98 | 1,00 | 1,00 |
| IT | 1,00 | 1,00 | 1,01 | 1,00 | 1,01 | 1,01 | 1,03 | 1,01 | 1,00 | 1,00 | 1,01 |
| CY | 1,02 | 1,02 | 1,02 | 1,01 | 1,01 | 1,01 | 1,02 | 1,03 | 1,03 | 1,03 | 1,02 |
| LV | 0,99 | 0,99 | 0,99 | 0,99 | 0,99 | 0,99 | 1,00 | 1,01 | 0,98 | 0,98 | 0,99 |
| LT | 1,00 | 1,00 | 1,00 | 1,00 | 0,99 | 0,99 | 0,99 | 1,00 | 0,98 | 0,97 | 1,00 |
| LU | 0,99 | 0,99 | 0,99 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 0,99 | 1,00 | 1,00 |
| HU | 0,99 | 0,99 | 0,99 | 0,99 | 0,98 | 0,99 | 0,96 | 0,95 | 0,95 | 0,95 | 0,99 |
| MT | 0,99 | 0,99 | 0,99 | 0,99 | 1,00 | 1,00 | 0,99 | 1,00 | 0,99 | 1,00 | 0,99 |
| NL | 1,01 | 1,01 | 1,01 | 1,00 | 1,01 | 1,01 | 1,02 | 1,04 | 1,00 | 1,03 | 1,01 |
| AT | 0,99 | 0,98 | 0,99 | 0,99 | 1,00 | 1,00 | 1,00 | 1,02 | 0,98 | 1,00 | 0,99 |
| PL | 0,99 | 0,99 | 0,99 | 0,99 | 1,01 | 1,01 | 0,99 | 0,99 | 1,00 | 1,00 | 0,99 |
| PT | 1,01 | 1,01 | 1,01 | 1,01 | 1,00 | 1,00 | 0,99 | 1,01 | 1,01 | 1,08 | 1,01 |
| RO | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |
| SI | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 0,98 | 1,00 | 1,01 | 1,00 | 1,00 |
| SK | 1,00 | 1,00 | 1,00 | 1,00 | 1,01 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 |
| FI | 0,99 | 0,99 | 0,99 | 0,99 | 1,02 | 1,01 | 0,98 | 0,98 | 0,97 | 0,98 | 0,99 |
| SE | 0,99 | 0,99 | 0,99 | 0,99 | 0,99 | 0,99 | 0,97 | 0,99 | 0,97 | 0,98 | 0,99 |
| UK | 0,98 | 0,97 | 0,99 | 0,98 | 0,98 | 0,99 | 0,98 | 0,99 | 0,97 | 0,98 | 1,00 |
| TOTAL | 0,99 | 0,99 | 0,99 | 0,99 | 0,99 | 0,99 | 0,97 | 0,97 | 0,98 | 0,98 | 0,99 |

*Relative variability is computed as the ratio of the coefficient of variation of GDP with transfers (EU unemployment benefits) to the coefficient of variation of GDP without transfers over the period considered. A value higher than one means that the insurance scheme increases economic variability while a value below one means that the scheme reduces variability.*

# 4. Our proposal(s): where does variability comes from?



# 4. Our proposal(s)

**Table 7. Would have net transfers relieved national budgets in 2009?**

| | Unemployment benefit expenditure in 2009 (% of GDP) | Simulated net transfers in 2009 | | | | |
|---|---|---|---|---|---|---|
| | | Baseline | Differentiated rates (Variant 4) | Bad times (Variant 6) | US system (Variant 8) | EU25 (Variant 10) |
| BE | 3,8 | 0,1 | 0,2 | 0,9 | -0,1 | 0,2 |
| BG | 0,5 | -0,1 | 0,1 | 0,5 | -0,1 | 0,1 |
| CZ | 1,0 | 0,0 | 0,4 | 0,7 | 0,8 | 0,2 |
| DK | 1,6 | 0,1 | 0,6 | 1,0 | 1,2 | 0,0 |
| DE | 1,9 | -0,1 | 0,1 | 0,7 | -0,1 | 0,1 |
| EE | 1,2 | 1,4 | 1,7 | 2,2 | 2,3 | 1,6 |
| IE | 3,0 | 1,0 | 1,2 | 1,8 | 1,9 | 1,2 |
| EL | 1,6 | 0,5 | 0,3 | 1,1 | -0,1 | 0,6 |
| ES | 3,6 | 2,7 | 1,8 | 3,5 | 3,6 | 2,8 |
| FR | 1,9 | 0,4 | 0,3 | 1,2 | -0,1 | 0,6 |
| IT | 0,8 | 0,1 | 0,2 | 0,8 | 0,9 | 0,3 |
| CY | 1,0 | 0,1 | 0,3 | 0,8 | 0,9 | 0,2 |
| LV | 1,6 | 2,1 | 2,0 | 2,8 | 2,9 | 2,3 |
| LT | 0,9 | 1,4 | 1,5 | 2,1 | 2,2 | 1,5 |
| LU | 1,3 | -0,5 | 0,1 | 0,3 | -0,1 | -0,3 |
| HU | 1,0 | 0,2 | 0,4 | 1,0 | 1,1 | 0,4 |
| MT | 0,6 | -0,1 | 0,1 | 0,6 | -0,1 | 0,1 |
| NL | 1,4 | -0,3 | 0,2 | 0,5 | -0,1 | -0,1 |
| AT | 1,7 | 0,1 | 0,2 | 0,9 | -0,1 | 0,2 |
| PL | 0,4 | 0,4 | 0,1 | 1,0 | -0,1 | 0,5 |
| PT | 1,4 | 0,3 | 0,3 | 1,1 | -0,1 | 0,5 |
| RO | 0,4 | 0,3 | 0,3 | 0,9 | -0,1 | 0,4 |
| SI | 0,6 | 0,0 | 0,3 | 0,8 | 0,9 | 0,2 |
| SK | 1,0 | 0,4 | 0,5 | 1,0 | -0,1 | 0,5 |
| FI | 2,4 | 0,5 | 0,3 | 1,4 | 1,5 | 0,7 |
| SE | 1,3 | 0,5 | 0,4 | 1,3 | 1,4 | 0,7 |
| UK | 0,8 | 0,3 | 0,4 | 1,2 | 1,3 | 0,0 |
| EU27 | 1,7 | 0,4 | 0,4 | 1,2 | 0,7 | 0,5 |

Source: Eurostat for unemployment benefit expenditure and own simulations for net transfers (see appendix).

# 5. Conclusion

- A European insurance scheme for short-term unemployment is probably not suitable in case of a protracted slowdown, because an increasing share of long-term unemployed would not be covered.

- If all countries were severely hit by a protracted crisis at the same time, the European insurance scheme would be in deficit.
  - Borrowing capacity ?
  - Insurance against large shocks only (Gros, 2014)?

- Further research is needed on stabilization effects, as well as on welfare criteria.