

# A European Unemployment Benefit System

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“Feasibility and Added Value of a European Unemployment Benefit Scheme”  
11 July 2016, Brussels

# Outline

- Backward-looking analysis (M. Dolls, R. Lewney)
- Forward-looking analysis (H. X. Jara, R. Lewney, H. Sutherland, A. Tumino, M. Bryan)

# Our paper

- We study the economic effects of a common European Unemployment Benefit Scheme (EUBS) if such a system had been in operation from 1995-2013
  - 18 alternative variants for the design of the EUBS
  - Simulations cover EA19 / EU27 Member States
- We develop a modelling approach combining micro and macro simulations
  - Based on household micro data we calculate the flows of contributions and benefits given the actual unemployment experience of each country
  - Using the E3ME macroeconometric model, we estimate the macroeconomic stabilization impact

# What is the benchmark?

- Baseline represented by actual legislation of national UI schemes
- Total stabilization effects derived in our paper stem from 3 different channels:
  1. (Potentially) higher countercyclicality of EUBS
  2. *Inter-temporal* smoothing
  3. *Inter-country* smoothing
- 1. could be obtained through harmonization (no centralization required), 2. can be achieved by national schemes (in the absence of financing constraints)
- 3. points to the **added value** of a common EUBS  
(Dolls/Fuest/Peichl/Neumann (2016) provide formal decomposition and find significant inter-country smoothing gains for EA member states over the period 2000-13)

# EUBS variants

## ■ Equivalent systems (variants 1-4)

- Financial transfers between the EUBS fund and government budgets (benefits and contributions)
- Transfers activated once a certain trigger is pulled (contingent benefits, i.e. short-term unemployment rate in country  $i$  and year  $t$  must exceed its 10-year average by 1 / 0.1 / 0.1 / 2 percentage points)

## ■ Genuine systems (variants 5-18)

- Establish direct transfers to unemployed citizens (non-contingent benefits)
- Financed by social insurance contributions of employers and employees
- National UI systems (partly) replaced by EUBS

# Equivalent systems

	V1/18	V2/18	V3/18	V4/18
	Stormy day	Rainy day with debt	Rainy day without debt	Reinsurance of national UBS
Trigger	$UR_{t,i} - \overline{UR}_{i,t-10 \dots t-1} > 1 \text{ pp}$	$UR_{t,i} - \overline{UR}_{i,t-10 \dots t-1} > 0.1 \text{ pp}$	$UR_{t,i} - \overline{UR}_{i,t-10 \dots t-1} > 0.1 \text{ pp}$	$UR_{t,i} - \overline{UR}_{i,t-10, \dots, t-1} > 2 \text{ pp}$
Experience rating	no	yes	yes	yes
Claw-back	yes	yes	yes	no
Debt-issuing possibility	yes	yes	no	no

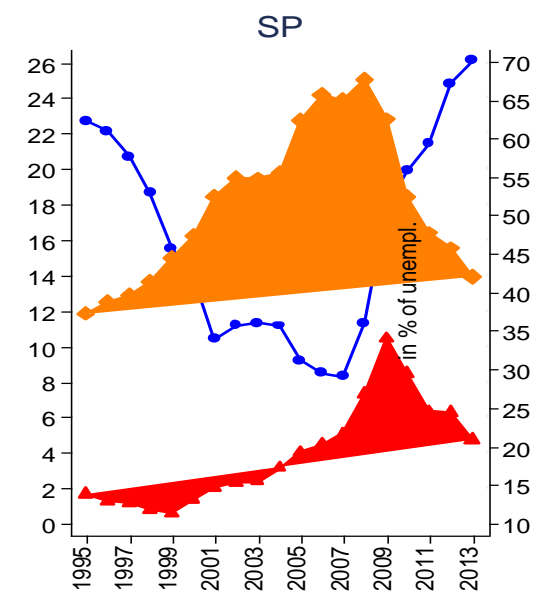
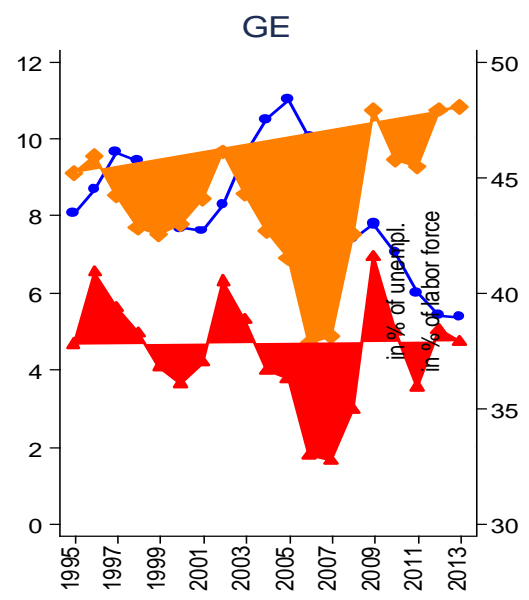
# Genuine systems

	Basic or top-up	Duration	Replacement rate	Eligibility	Capping	Cyclical variability	Experience rating	Claw-back	Debt
V5/18	basic	M3-M12	50%	3M out of 12M	150%	no	yes	yes	yes
V6/18	top-up	M3-M12	50%	3M out of 12M	150%	no	yes	yes	yes
V7/18	basic	M0-M12	50%	3M out of 12M	150%	no	yes	yes	yes
V8/18	basic	M3-M6	50%	3M out of 12M	150%	no	yes	yes	yes
V9/18	basic	M3-M12	35%	3M out of 12M	150%	no	yes	yes	yes
V10/18	basic	M3-M12	60%	3M out of 12M	150%	no	yes	yes	yes
V11/18	basic	M3-M12	50%	6M out of 12M	150%	no	yes	yes	yes
V12/18	basic	M3-M12	50%	9M out of 12M	150%	no	yes	yes	yes
V13/18	basic	M3-M12	50%	3M out of 12M	100%	no	yes	yes	yes
V14/18	basic	M3-M12	50%	3M out of 12M	50%	no	yes	yes	yes
V15/18	basic	M3-M12	50%	3M out of 12M	150%	yes	yes	yes	yes
V16/18	basic	M3-M12	50%	3M out of 12M	150%	no	no	yes	yes
V17/18	basic	M3-M12	50%	3M out of 12M	150%	no	yes	no	yes
V18/18	basic	M3-M12	50%	3M out of 12M	150%	no	yes	yes	no

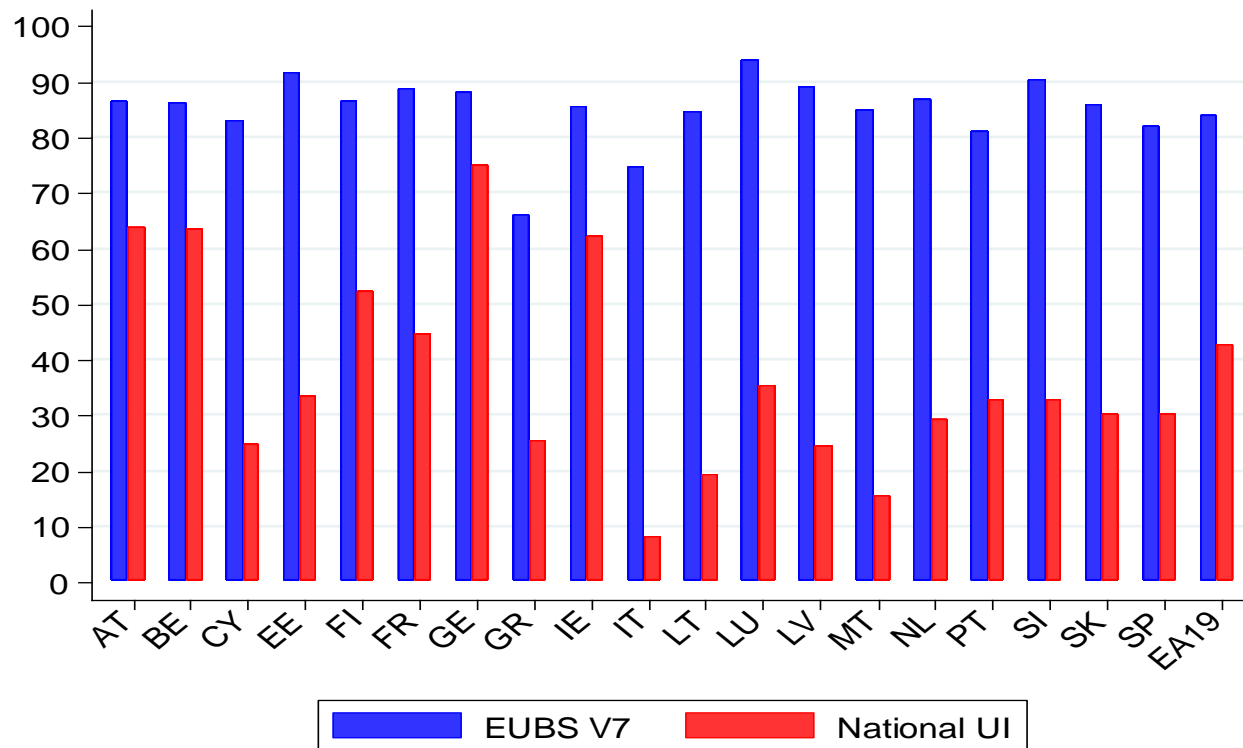
# Empirical approach

- Counterfactual simulations of (un)employment changes over the period 1995-2013 linking EU-SILC and EU-LFS micro data
  - Simulate a sample of repeated cross-sections for each member state reflecting changes in (short-term) unemployment, earnings, size and composition of labor force (re-weighting for 18 socio-demographic groups)
  - Impute information from EU-LFS and AMECO
- Assumptions:
  - Interaction between genuine EUBS and national UI: national UI schemes top-up EUBS if national UI rules more generous
  - No behavioural responses: individual, government+administration

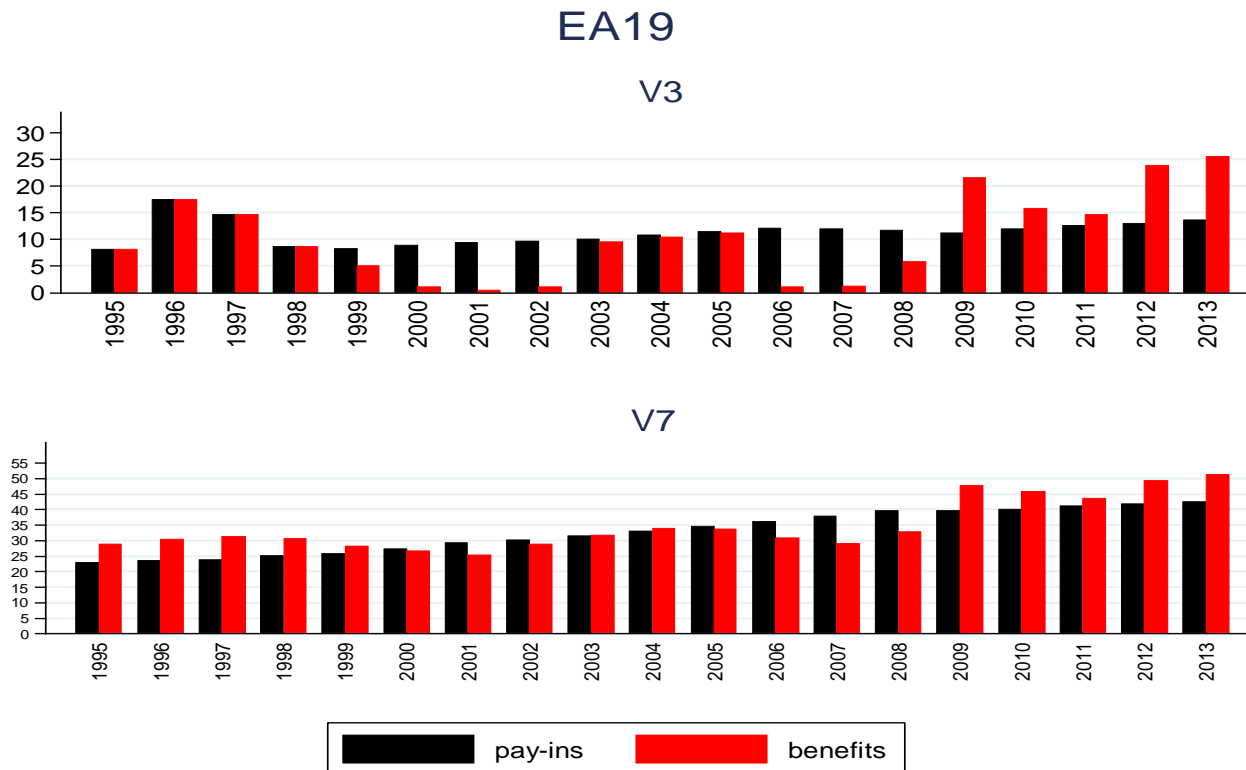
# Coverage



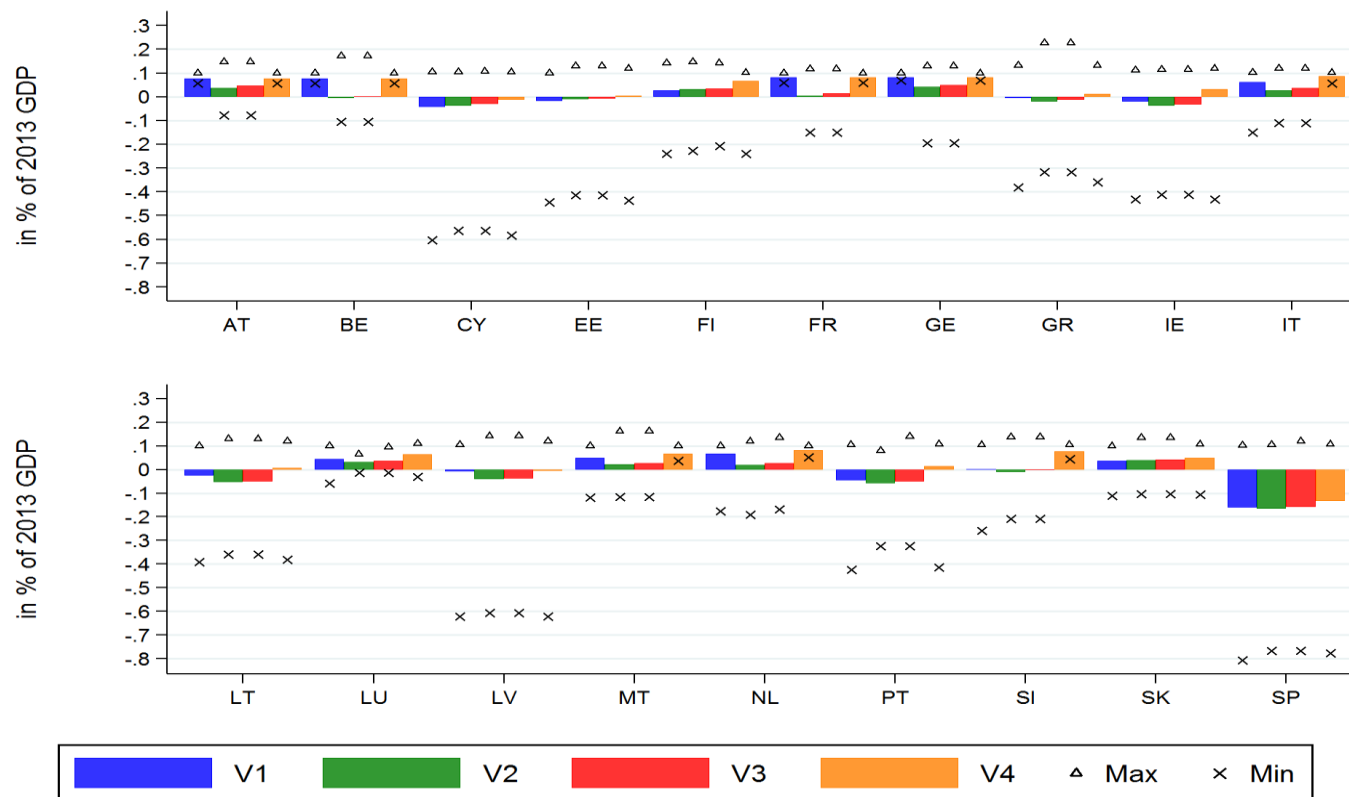
# Average coverage gap



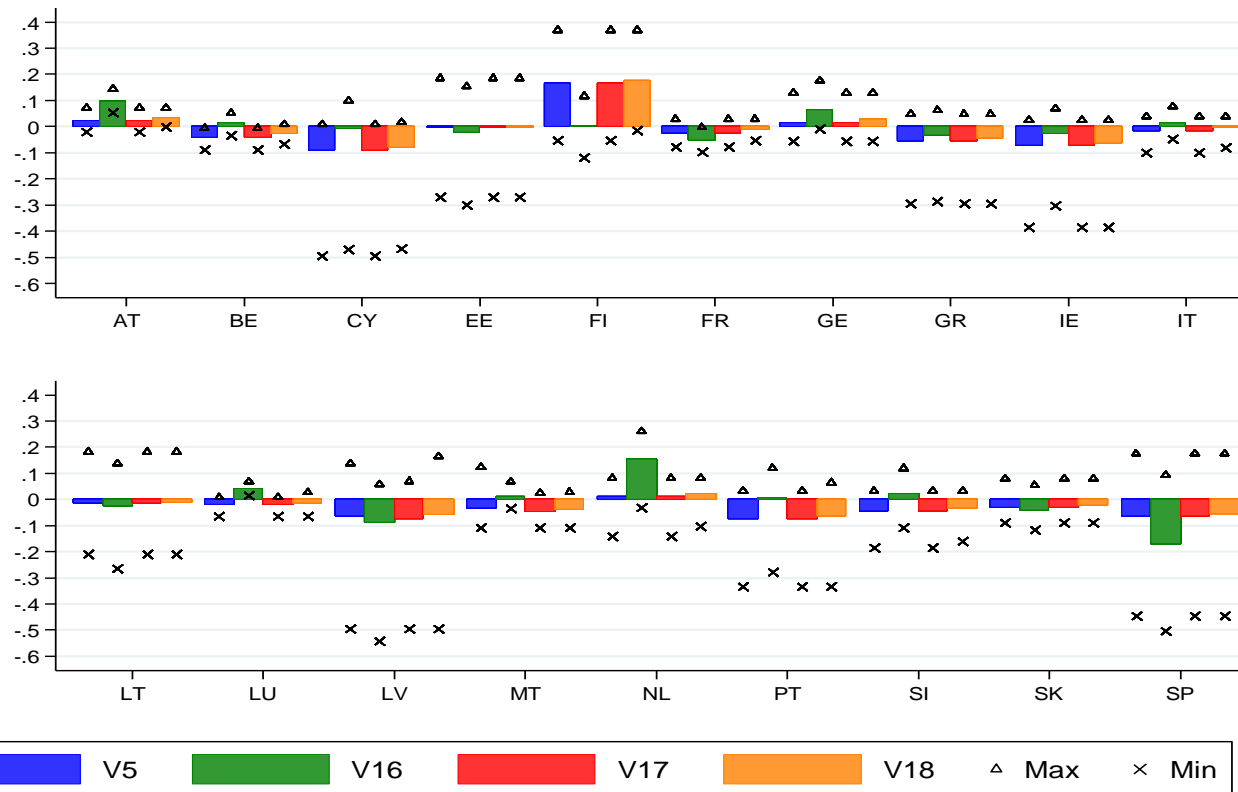
# Overall budget



# Average net contributions (equivalent schemes)



# Average net contributions (selected genuine schemes)





Thank you very much!

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# EUBS variants

## ■ Equivalent systems (variants 1-4)

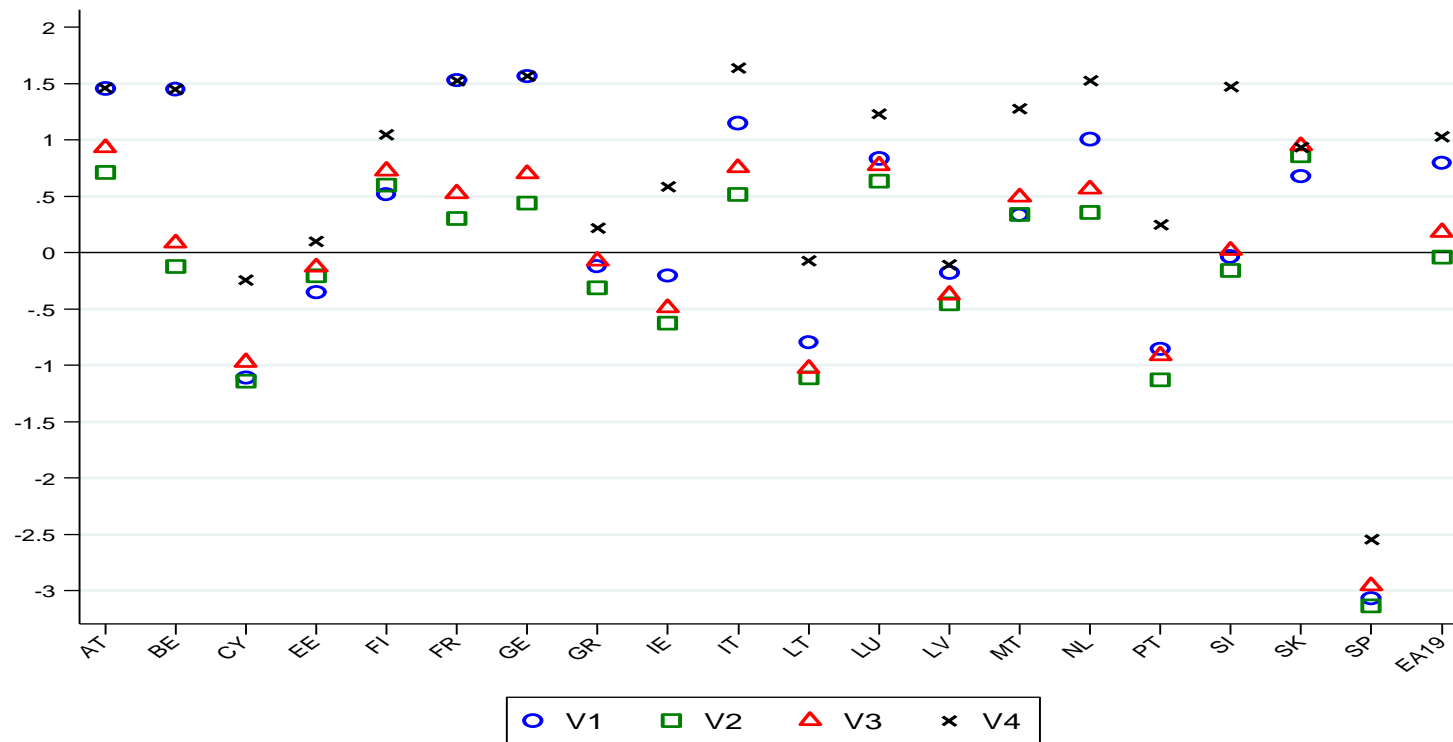
- Once trigger is pulled, country  $i$  receives a transfer that amounts to the sum of benefits that would accrue under variant 5
- $Pay - in = 0.001 * GDP_{i,t} * (1 + 0.1 * F_{i,(t-10,...,t-1)})$
- Countries stop paying contributions when cumulative net contributions exceed 0.5% of EA19/EU27 GDP
- Experience rating: accounts for the number of years the trigger has been pulled in previous 10 years -> coefficient ranges between 1 and 2
- Claw-back: coefficient set to 2 when cumulative net deficit of country  $i$  in year  $t$  vis-à-vis the EUBS larger than 1 per cent of GDP in previous 3 years

# EUBS variants

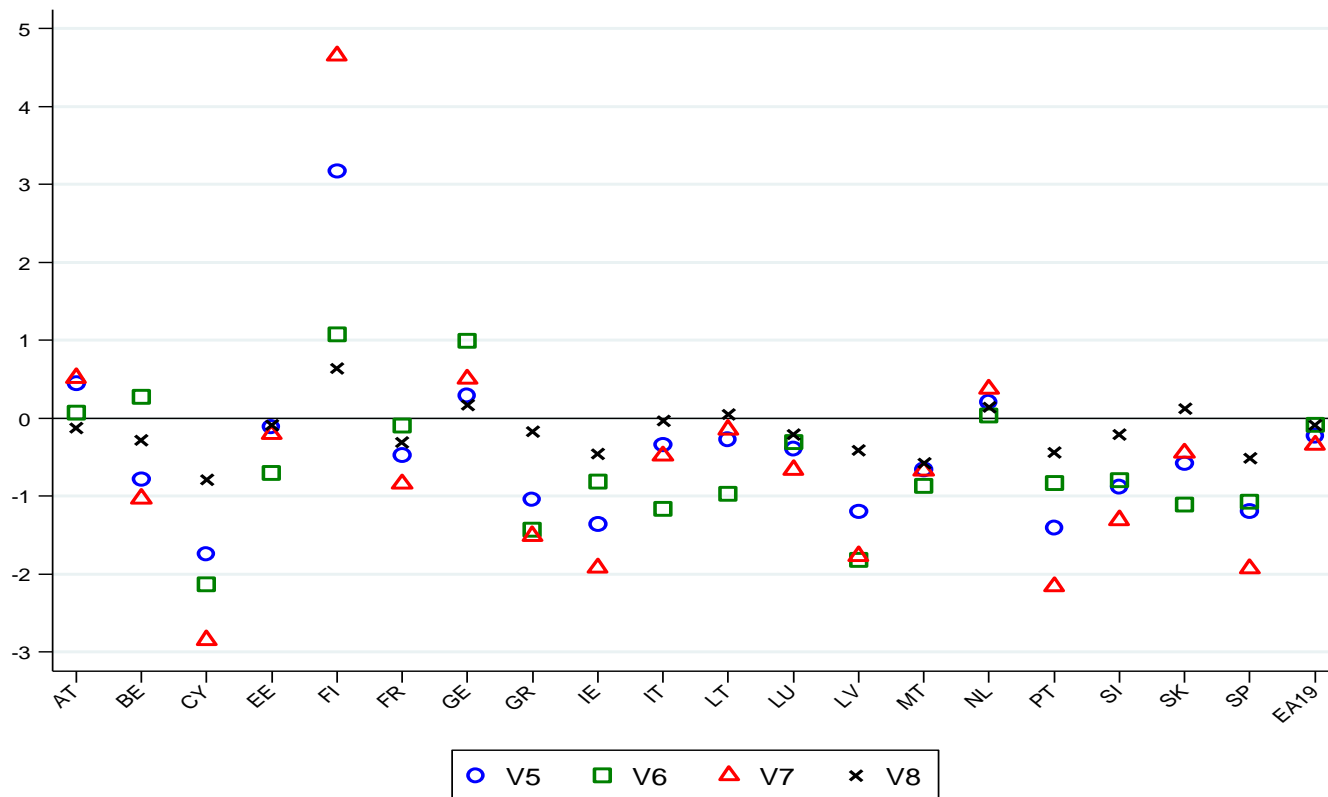
## ■ Genuine systems (variants 5-18)

- $Pay - in = x * gross\ wage * \left( \frac{\overline{UR}_{i_{t-10,...,t-1}}}{\overline{UR}_{EU_{t-10,...,t-1}}} \right)$
- x: revenue-neutral contribution rate balancing the supranational fund
- Experience rating coefficient:  $\left( \frac{\overline{UR}_{i_{t-10,...,t-1}}}{\overline{UR}_{EU_{t-10,...,t-1}}} \right)$
- Claw-back payments:
  - Made by member state governments rather than by employers/employees
  - Amount to an annual contribution of 0.2 per cent of GDP if cumulative net benefits have been above 1 per cent of GDP in 3 consecutive years

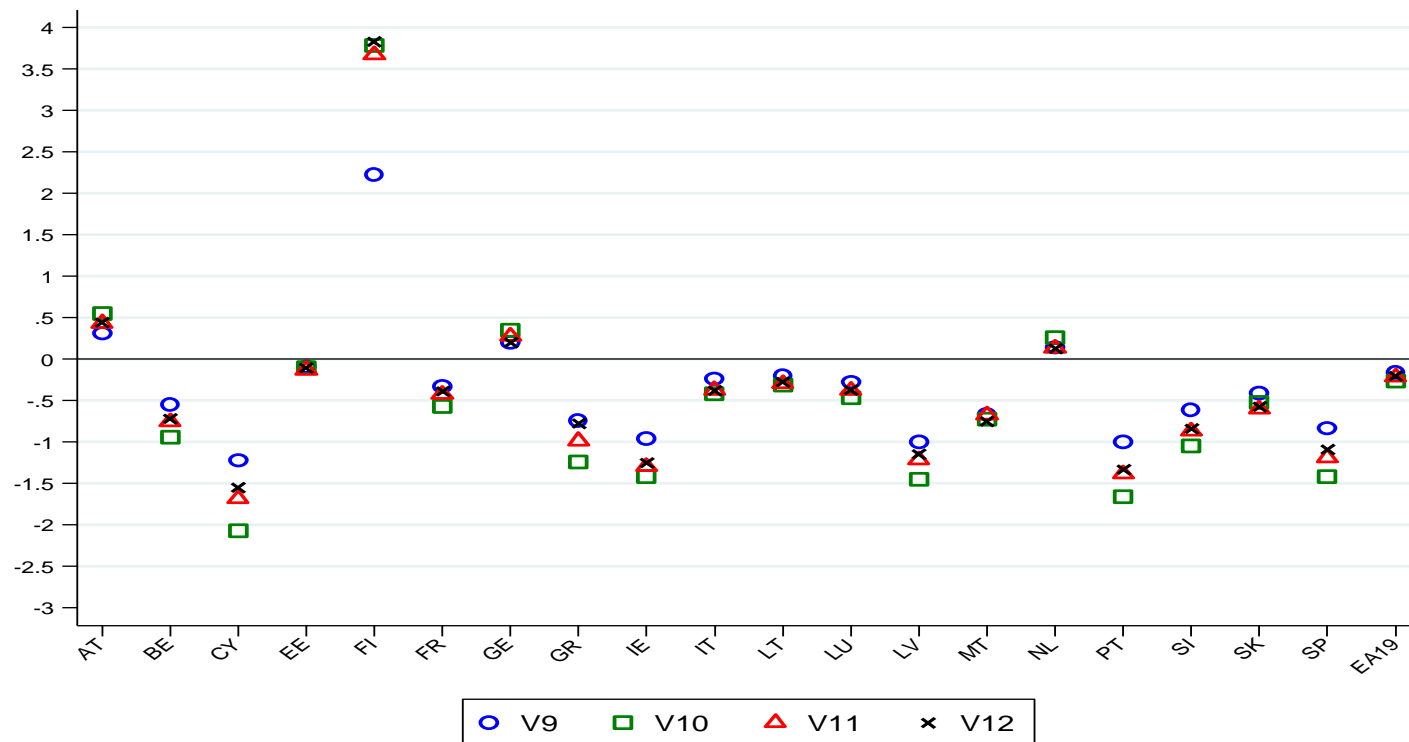
# Accumulated net contributions in 2013 (equiv. schemes)



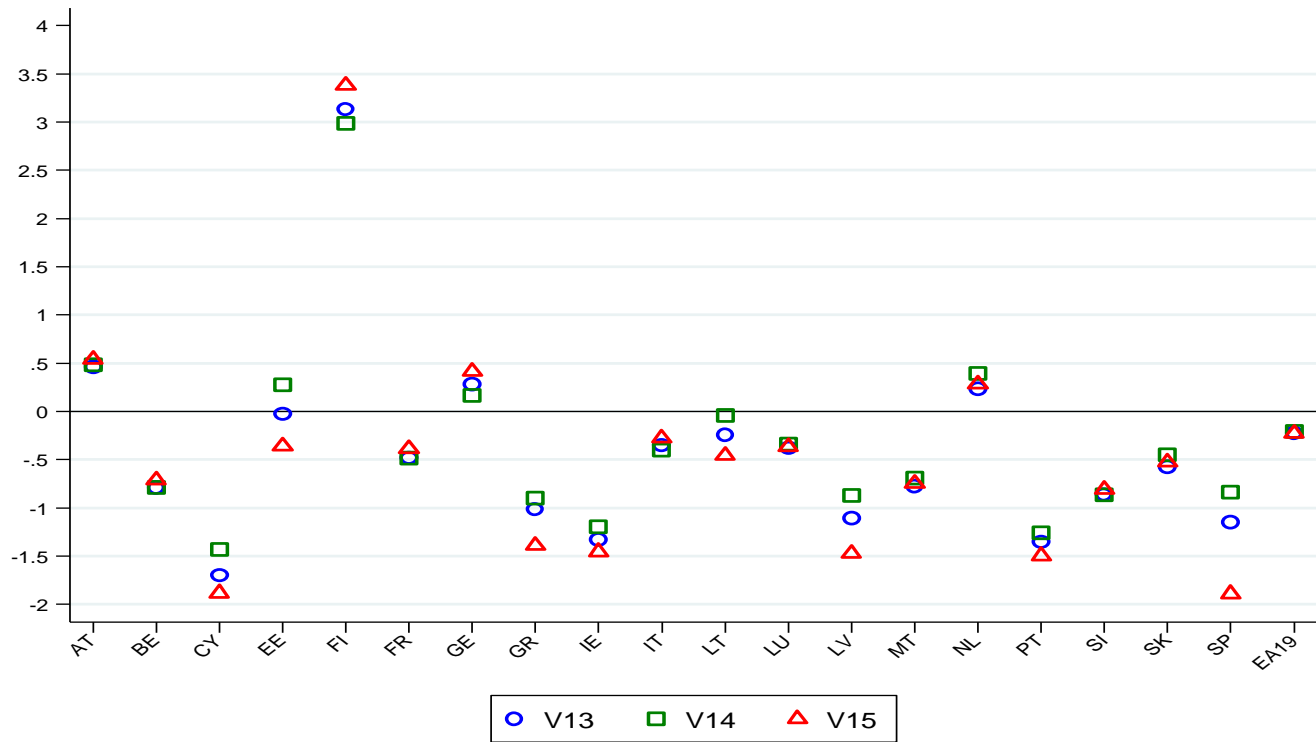
# Accumulated net contributions in 2013 (genuine schemes)



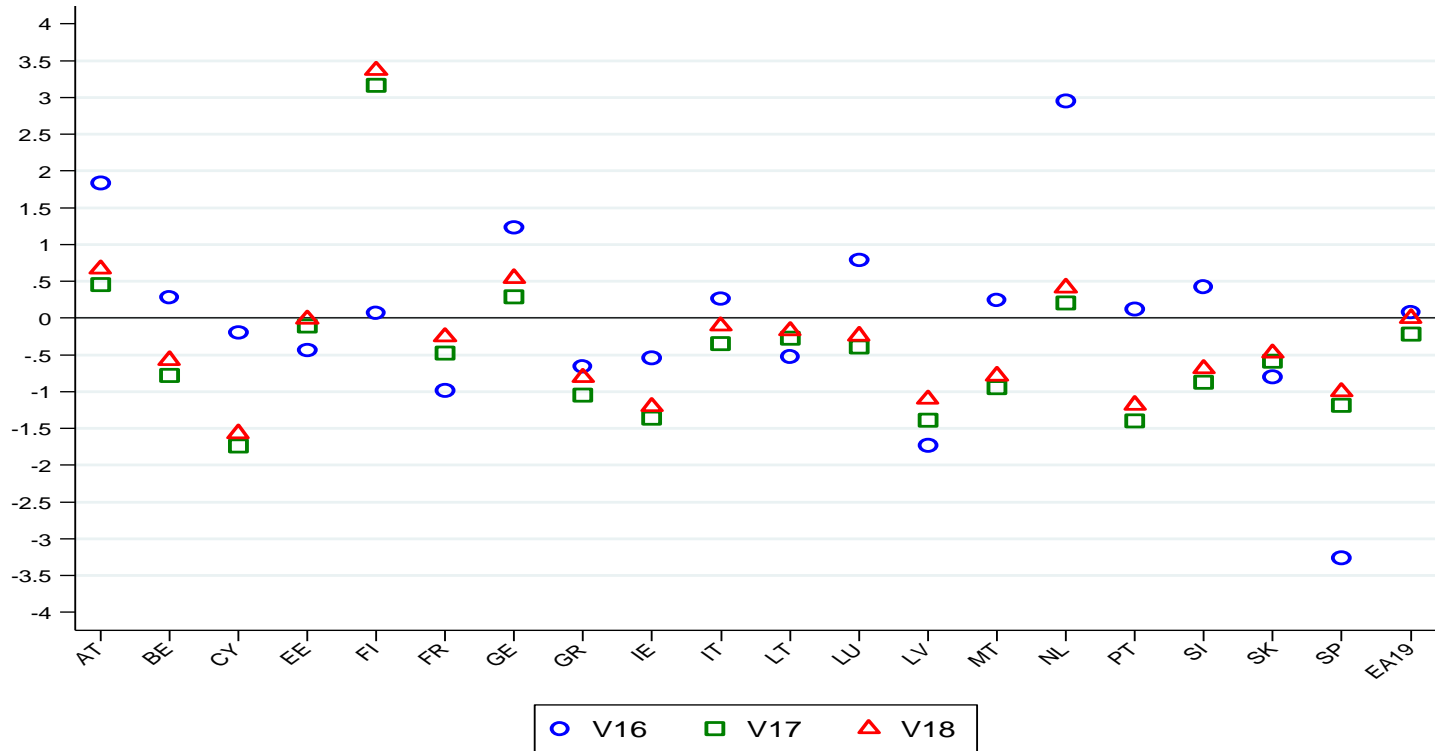
# Accumulated net contributions in 2013 (genuine schemes)



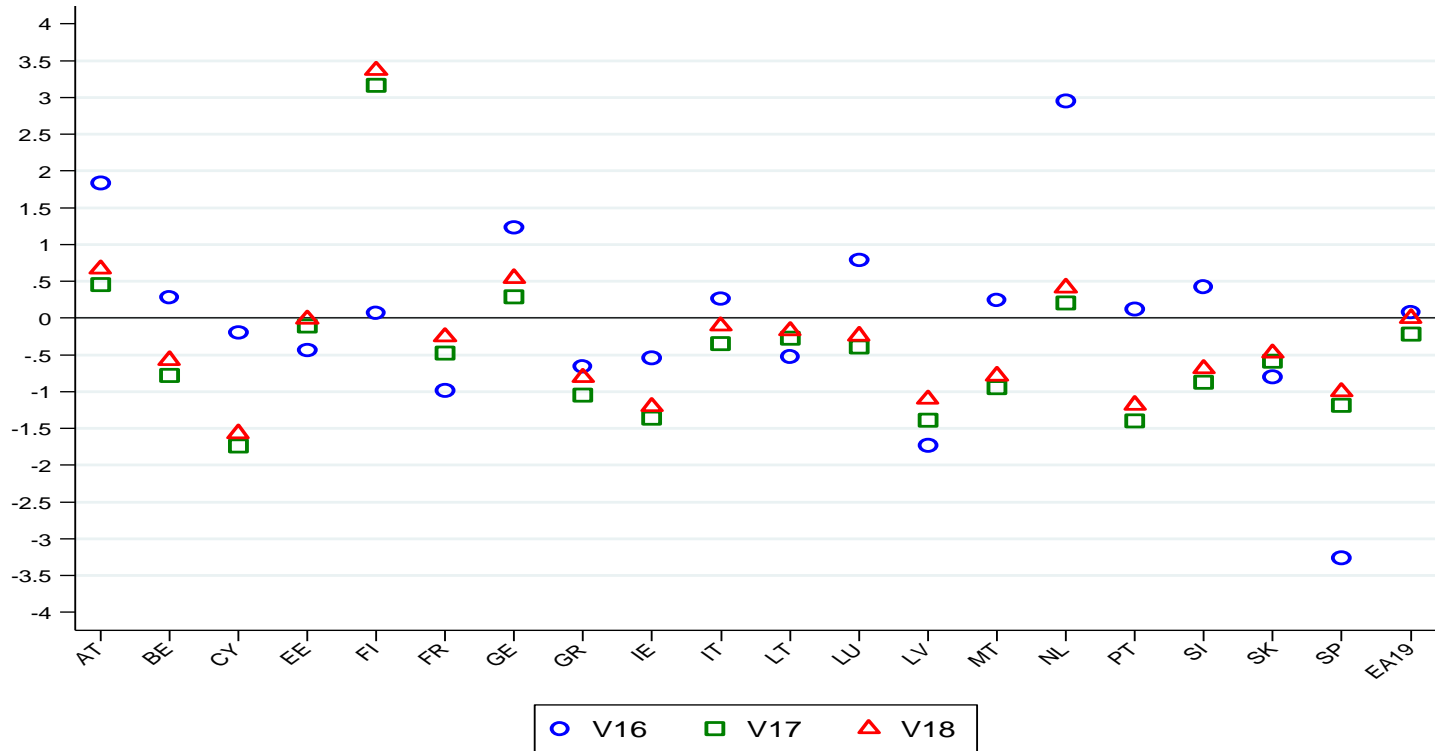
# Accumulated net contributions in 2013 (genuine schemes)



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# Accumulated net contributions in 2013 (genuine schemes)



# Taking into account macroeconomic feedback

