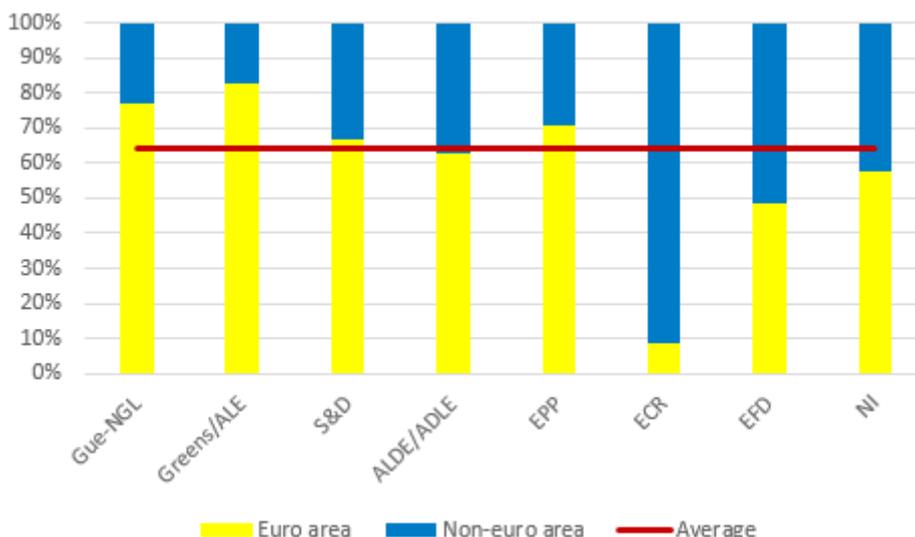# APPENDICES

Note: votewatch.eu database

1. Distribution of MEPs within groups according to their membership of the euro area, 7th legislature

Note on the following calculations: since the population is not a sample, the indicator of significance is not taken into account.

2. Parliamentary groups: cohesion, composition (on both mandates simultaneously)

Search for a linear relationship between cohesion of the parliamentary group and its members' membership of the euro area:

```
. regress cohesion_gp_all partzoneeuro_gp
```

Source	SS	df	MS		
Model	254.238626	1	254.238626		
Residual	3078.03574	13	236.77198		
Total	3332.27436	14	238.019597		

	Number of obs =	15
	F(1, 13) =	1.07
	Prob > F =	0.3190
	R-squared =	0.0763
	Adj R-squared =	0.0052
	Root MSE =	15.387

cohesion_g~l	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
partzoneeu~p	.1953333	.188504	1.04	0.319	−.2119049	.6025714
_cons	69.80934	12.55933	5.56	0.000	42.67656	96.94211

Reading: The correlation coefficient of 0.19 indicates only a feeble relationship, although one that is positive, between cohesion of the group and the share of group MEPs from the euro area.

Search for a non-linear relationship between cohesion of the group and its members' membership of the euro area:

```
. ktau cohesion_gp_all partzoneeuro_gp

  Number of obs =        15
Kendall's tau-a =         0.2381
Kendall's tau-b =         0.2381
Kendall's score =        25
     SE of score =        20.207

Test of Ho: cohesion_gp_all and partzoneeuro_gp are independent
        Prob > |z| =         0.2350  (continuity corrected)
```

Reading: the limit for dismissing a hypothesis that is nil (0.05) is not reached, which does not enable us to conclude that there is a non-linear relationship between the variables.

Search for a linear relationship between cohesion of the parliamentary group and its members' membership of the euro area in the field of economic and monetary affairs:

```
. regress cohesion_gp_AEM partzoneeuro_gp
```

Source	SS	df	MS		Number of obs =	15
					F(1, 13) =	0.52
Model	142.424824	1	142.424824		Prob > F =	0.4837
Residual	3562.10105	13	274.007773		R-squared =	0.0384
					Adj R-squared =	−0.0355
Total	3704.52587	14	264.608991		Root MSE =	16.553

cohesion_g~M	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
partzoneeu~p	.1462003	.2027855	0.72	0.484	−.2918911	.5842917
_cons	73.70011	13.51085	5.45	0.000	44.5117	102.8885

Reading: R^2 indicates that only a tiny part of the model is explained by the relationship presented. Also, the coefficient is low, which indicates a relationship of low intensity.

Search for a non-linear relationship between cohesion of the parliamentary group and its members' membership of the euro area in the field of economic and monetary affairs:

```
. ktau  cohesion_gp_AEM partzoneeuro_gp

  Number of obs =        15
Kendall's tau-a =         0.0667
Kendall's tau-b =         0.0667
Kendall's score =         7
     SE of score =        20.207

Test of Ho: cohesion_gp_AEM and partzoneeuro_gp are independent
        Prob > |z| =         0.7665  (continuity corrected)
```

Reading: the limit for dismissing a hypothesis that is nil is not crossed, it is not therefore pertinent to conclude that there is a non-linear relationship between the variables.

List of votes observed

Vote 1: 07/07/2010, Macroprudential oversight of the financial system and establishment of a European systemic risk board.
Rapporteur: Sylvie Goulard
http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2010-0271&language=FR&ring=A7-2010-0168

Vote 2: 07/07/2010, European financial stability facility the European financial stabilisation mechanism and future actions
Rapporteur: Sharon Bowles
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP7-TA-2010-0277%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

Vote 3: 23/06/2011, Requirements for budgetary frameworks of Member States
Rapporteur: Vicky Ford
http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2011-0289&language=FR&ring=A7-2011-0184

Vote 4 : 07/02/2013, Governance of the single market
Rapporteur: Andreas Schwab
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP7-TA-2013-0054%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

Vote 5 : 13/06/2013, Financial services: lack of progress in Council and Commission's delay in the adoption of certain proposals
Rapporteur: Sharon Bowles
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP7-TA-2013-0276%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

Vote 6 : 12/09/2013, Proposal for a European Parliament and Council regulation modifying regulation (EU) n° 1093/2010 setting up a European supervision authority (European Banking Authority)

with regard to its interaction with the Council rule entrusting the European Central Bank with specific tasks dealing with policies in terms of the prudential control of credit institutions.
Rapporteur: Sven Giegold
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP7-TA-2013-0371%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

Vote 7 : 12/12/2013, Constitutional problems of a multitier governance in the European Union.
Rapporteurs: Roberto Gualtieri, Rafał Trzaskowski
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP7-TA-2013-0598%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

Vote 8 : 11/03/2014, European Parliament resolution dated 11th March 2014 with recommendations to the Commission on the European System for Financial Supervision (ESFS) review
Rapporteur: Sven Giegold
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP7-TA-2014-0202%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

Vote 9 : 15/04/2014, Resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Bank Resolution Fund.
Rapporteur: Elisa Ferreira
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP7-TA-2014-0341%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

Vote 10 : 29/10/2015, Reporting and transparency of securities financing transactions
Rapporteur: Renato Soru
http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fTEXT%2bTA%2bP8-TA-2015-0387%2b0%2bDOC%2bXML%2bV0%2f%2fFR&language=FR

04

4. Observations at individual level:

Search for a linear relationship between loyalty to the parliamentary group, membership of the euro area and loyalty to the national party (7th and then 8th mandate):

```
. pwcorr  t7loyalty_group t7zoneeuro t7loyalty_nationalparty

              |  t7loya~p t7zone~o t7loya~y
 -------------+---------------------------------
 t7loyalty_~p |   1.0000
    t7zoneeuro|   0.0963   1.0000
 t7loyalty_~y |   0.1870  -0.0360   1.0000


. pwcorr  t8loyalty_group t8_zoneeuro t8loyalty_nationalparty

              |  t8loya~p t8_zon~o t8loya~y
 -------------+---------------------------------
 t8loyalty_~p |   1.0000
   t8_zoneeuro|  -0.0491   1.0000
 t8loyalty_~y |   0.1337  -0.0178   1.0000
```

Reading: in both cases coefficients marking the impact of membership of the euro area on the MEP's behaviour are not very high, showing an absence of any relationship between the loyalty variables and membership of the euro area.

Search for a non-linear relationship between loyalty to the parliamentary group, membership of the euro area and loyalty to the national party (7th and then 8th mandate):

```
. spearman  t7loyalty_group t7zoneeuro

 Number of obs =       764
 Spearman's rho =        0.0883

 Test of Ho: t7loyalty_group and t7zoneeuro are independent
      Prob > |t| =        0.0147


. spearman t7loyalty_nationalparty t7zoneeuro

 Number of obs =       764
 Spearman's rho =        0.0204

 Test of Ho: t7loyalty_national~y and t7zoneeuro are independent
      Prob > |t| =        0.5737


. spearman  t8loyalty_group t8_zoneeuro

 Number of obs =       750
 Spearman's rho =       -0.0478

 Test of Ho: t8loyalty_group and t8_zoneeuro are independent
      Prob > |t| =        0.1907


. spearman  t8loyalty_nationalparty t8_zoneeuro

 Number of obs =       750
 Spearman's rho =       -0.0557

 Test of Ho: t8loyalty_national~y and t8_zoneeuro are independent
      Prob > |t| =        0.1277
```

Reading: in the above cases the nil hypothesis is rejected only once in the analysis of the impact of membership of the euro area on loyalty to the Parliamentary group in the 7th mandate. However the Spearman rho is too low to conclude on a non-linear relationship, even in this case.

Note: the exercise was repeated in the area of economic and monetary affairs and a similar result from every point of view was obtained.

5. Search for Clusters using the S. Braghiroli protocol

In order to be able to compare our results with those of S. Braghiroli, we applied to the selected votes the formula suggested in his article for classifying delegations (*Davp* for "delegation average voting proximity"), as follows:

$$Davp = \frac{n_P - n_N}{n_P + n_N}$$

where is the number of votes for and the number of votes against.

We firstly applied this formula to all parliamentarians and then made a hierarchical grouping ("clustering") by national delegation. We obtain the following dendrogram:

Figure 1: overview of clusters in the European Parliament.
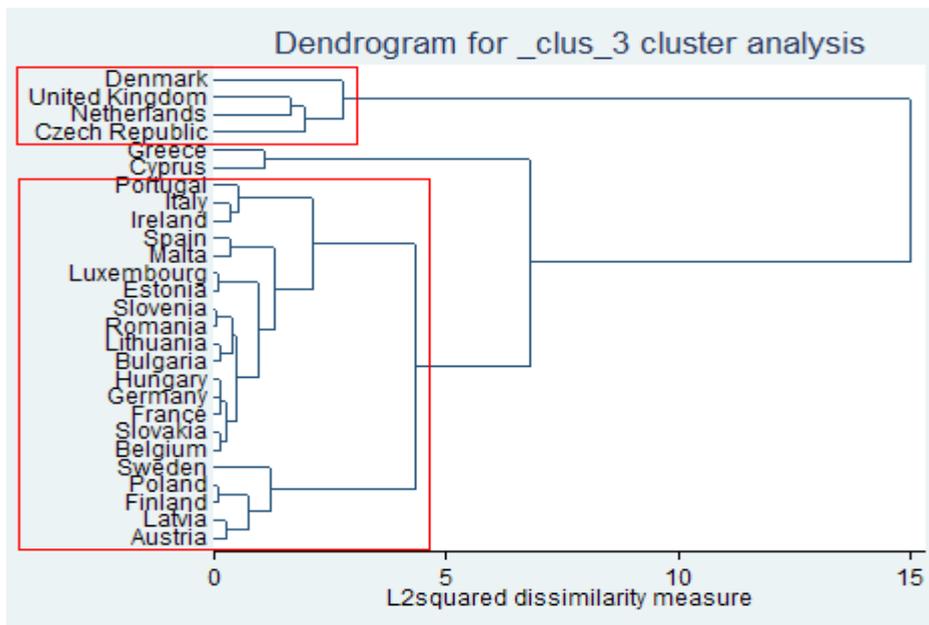
One can see two clusters appear here, the first comprising 3 States that are not members of the euro area, plus the Netherlands. The second cluster includes 5 States that are not members of the euro area and 17 States in the euro area (Greek and Cyprus being slightly to one side). A majority of countries that are not members of the euro area are therefore part of the second cluster. Of these, Poland is closer to Finland, Latvia and Austria than

to Sweden. Romania is close to Slovenia, Bulgaria and Lithuania. Hungary forms a surprising trio with France and Germany. Although these results require greater analysis in order to understand the dynamics, they would not appear to show up any clear division between the euro area and the rest of the Parliament.

Separation by political leaning into two major camps (right and centre-right – ALDE, EPP, ECR, EFDD, ENL and left – S&D, Greens/EFA et GUE/NGL) is used narrow down the analysis and open up areas for interpretation. For the groups on the right the result is as follows:

Figure 2: Clusters on the European parliamentarian right.
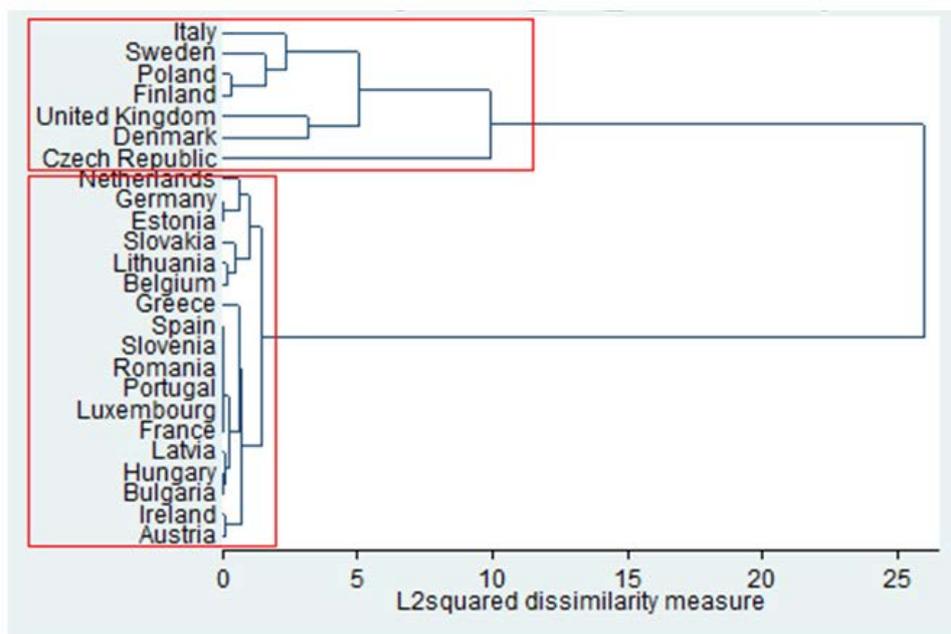
The dendrogram shows two major clusters. The first brings together members of the euro area (Italy and Finland) and 5 non-members of the euro area. Of the latter, 3 countries (Poland, United Kingdom, Czech Republic) form the heart of the ECR group. The presence of Italy in this cluster can probably be explained by the fact that it is currently extensively represented in the European Parliament by Movimento 5 Stelle, a partner of UKIP in the EFDD. Further analyses would be necessary in order to find out what, between non-membership of the euro area or the taking of political positions, can cause this isolation from the heart of the European parliamentarian right.

07

With regard to the left the result is:

Figure 3: Clusters on the European parliamentarian left
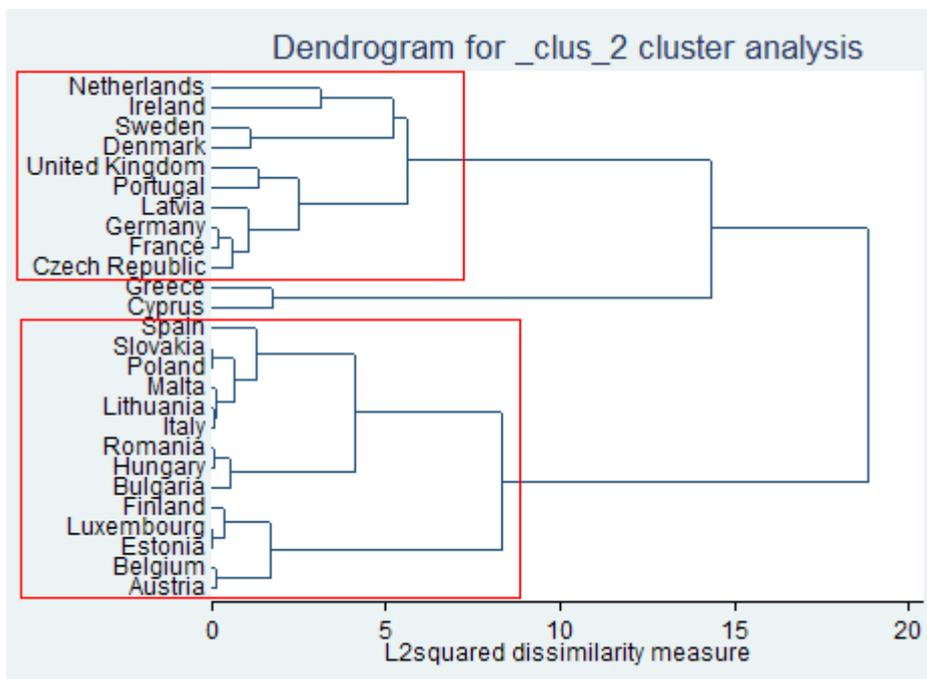
We see here reappear the isolated group formed by Greece and Cyprus, which was observed at overall level – this is coherent with the composition of these delegations, which are rather more present in the left or extreme-left groups. The other two clusters are varied. Delegations from non-euro area countries are distributed within them in symmetrical fashion: four in each of the clusters. Also, they are not necessarily close to each other, with the exception of Sweden and Denmark in the first cluster. The United Kingdom is close to Portugal; the Czech Republic is close to France and Germany (the latter being, moreover, very close, just as they are on the right). In the second cluster, Poland is close to Slovakia, Malta, Lithuania and Italy. On the other hand one can see a certain degree of coherence between Romania, Hungary and Bulgaria, which appear to form a block.

In any case, our analysis by hierarchical grouping does not enable us to state that membership of the euro area is a determining and excluding factor in terms of the other parliamentary delegations.