

# Beáta Farkas: Annex to the Central and Eastern European Model of Capitalism

## Product markets

Dimension 1 (Market liberalization), S-stress: 0.19

Dimension 2 (International integration), S-stress: 0.05

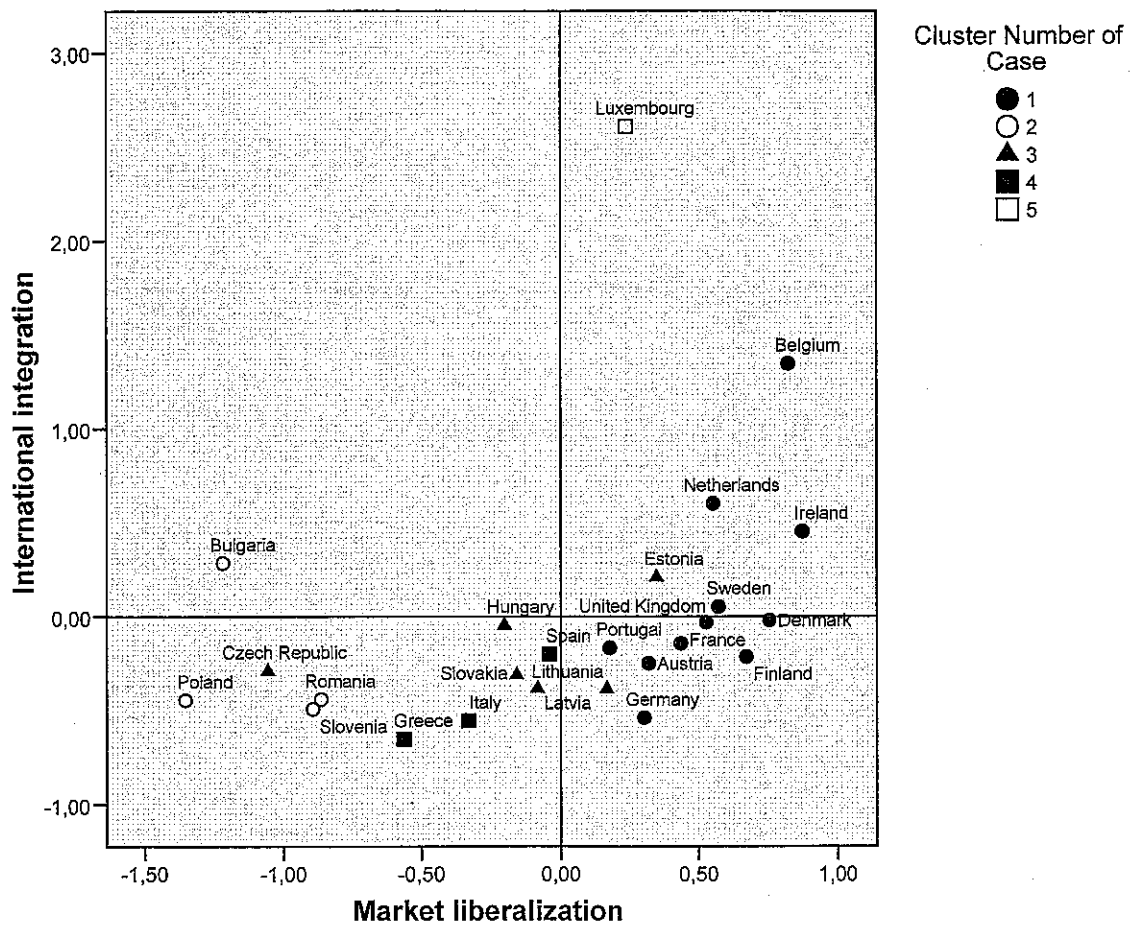


Figure 1. Product markets in three-dimensional configuration

Clusters of product markets		
1.	Significant differences in international integration. Less direct state control, implying higher taxes Low administrative burdens	Austria, Belgium, Denmark, Ireland, Finland, France, Netherlands, Germany, Portugal, Sweden, United Kingdom,
2.	Moderate international integration with significant imbalance in some countries Strong state control, implying low taxes Significant administrative burdens	Bulgaria, Poland, Romania, Slovenia
3.	Higher level of economic openness with significant imbalance in some countries Low level of state control Moderate level of administrative burdens	Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia
4.	Less opened economy, unbalanced foreign trade Relatively strong state control Significant administrative burdens	Greece, Italy, Spain
5.	Extremely opened economy Moderate level of state control Low administrative burdens	Luxembourg

Description of the clusters						
Indicator	1.	2.	3.	4.	5.	Total
	(n=11)	(n=4)	(n=6)	(n=3)	(n=1)	
Dimension 1 Market liberalization						
Price controls (index) <sup>2</sup>						
Mean	4.0909	8.2500	4.5000	6.6667	4.0000	5.1600
Std. Deviation	1.22103	1.25831	0.83666	1.15470	0	1.90788
Government enterprises and investment index <sup>3</sup>						
Mean	1.7879	8.0000	2.5556	1.0000	3.3333	2.9333
Std. Deviation	0.98062	3.46410	2.33492	0	0	2.90274
Highest marginal tax rate, corporate rate (%) <sup>4</sup>						
Mean	26.95	18.75	18.67	32.33	22.88	24.13
Std. Deviation	5.744	4.500	4.033	3.055	0	6.697
Highest marginal tax rate, individual rate (%) <sup>4</sup>						
Mean	43.87	32.50	28.00	37.39	38.00	37.23
Std. Deviation	9.480	15.351	6.633	7.281	0	11.215

Paying taxes, total tax rate (% of profit) <sup>5</sup>						
Mean	47.673	40.300	47.383	62.267	35.300	47.680
Std. Deviation	12.0693	4.5218	7.6607	13.8019	0	11.5513
Starting a business, procedures (number) <sup>5</sup>						
Mean	5.27	8.50	7.00	11.33	6.00	6.96
Std. Deviation	2.102	1.732	2.098	3.215	0	2.850
Starting a business, time (days) <sup>5</sup>						
Mean	12.27	34.25	17.83	32.67	26.00	20.12
Std. Deviation	6.784	19.050	6.969	17.616	0	13.581
Starting a business, cost (% of income per capita) <sup>5</sup>						
Mean	2.691	10.700	6.750	19.033	2.300	6.892
Std. Deviation	2.4688	7.2199	6.1954	4.1102	0	6.9481
Starting a business, minimum capital (% of income per capita) <sup>5</sup>						
Mean	25.955	76.100	38.400	42.533	20.500	38.736
Std. Deviation	21.4279	84.0979	15.3592	53.3539	0	41.0485
Dealing with licenses, procedures (number) <sup>5</sup>						
Mean	13.82	21.00	22.67	13.33	13.00	17.00
Std. Deviation	4.557	6.683	9.771	2.082	0	7.223
Dealing with licenses, time (days) <sup>5</sup>						
Mean	155.36	222.50	189.83	219.67	217.00	184.56
Std. Deviation	79.938	73.741	57.339	45.490	0	70.958
Dealing with licenses, cost (% of income per capita) <sup>5</sup>						
Mean	66.391	224.475	38.750	88.267	19.400	85.796
Std. Deviation	29.9339	184.6651	46.7429	43.2731	0	96.7622
Registering property, procedures (number) <sup>5</sup>						
Mean	4.27	7.25	4.17	8.00	8.00	5.32
Std. Deviation	2.412	1.500	1.941	4.000	0	2.734
Registering property, time (days) <sup>5</sup>						
Mean	44.64	189.25	51.83	22.67	29.00	66.24
Std. Deviation	43.472	154.152	41.935	4.509	0	84.904
Registering property, cost (% of property value) <sup>5</sup>						
Mean	5.818	1.900	2.883	3.900	10.200	4.432
Std. Deviation	3.3591	0.9899	4.1199	3.2512	0	3.6348
Paying taxes, payments (number per year) <sup>5</sup>						
Mean	12.45	44.00	18.00	14.67	22.00	19.48

Std. Deviation	6.773	36.175	9.612	6.506	0	18.221
Paying taxes, time (hours per year) <sup>5</sup>						
Mean	169.91	374.00	346.67	307.33	58.00	257.00
Std. Deviation	73.329	185.365	303.265	48.676	0	188.753
Enforcing contracts, procedures (number) <sup>5</sup>						
Mean	29.36	35.50	30.50	39.67	26.00	31.72
Std. Deviation	4.523	4.123	3.507	1.155	0	5.280
Enforcing contracts, time (days) <sup>5</sup>						
Mean	432.73	820.25	439.00	848.00	321.00	541.60
Std. Deviation	100.451	377.105	223.647	348.406	0	278.001
Enforcing contracts, cost (% of claim) <sup>5</sup>						
Mean	19.627	17.675	20.917	20.500	8.800	19.296
Std. Deviation	6.7222	5.3288	7.9512	8.2601	0	6.8667
Closing a business, time (years) <sup>5</sup>						
Mean	1.236	2.900	3.367	1.600	2.000	2.088
Std. Deviation	0.5143	0.6164	1.7397	0.5292	0	1.3011
Closing a business, cost (% of estate) <sup>5</sup>						
Mean	7.64	12.00	12.83	15.33	15.00	10.80
Std. Deviation	4.130	6.683	4.119	6.506	0	5.377
Closing a business, recovery rate <sup>5</sup>						
Mean	76.455	33.925	37.967	61.167	41.600	57.184
Std. Deviation	14.2016	8.6746	9.6860	16.0594	0	22.3445
Dimension 2 International integration						
Trade integration of goods <sup>1</sup>						
Mean	36.25	43.63	58.46	19.27	44.33	41.05
Std. Deviation	14.18	11.47	10.47	3.48	0	16.47
Trade integration of services <sup>1</sup>						
Mean	12.300	8.683	11.400	7.822	87.667	13.983
Std. Deviation	7.7102	4.4206	3.7620	3.0266	0	16.4175
Balance of international trade in goods (%of GDP) <sup>1</sup>						
Mean	2.773	-8.667	-9.217	-7.100	-10.667	-3.657
Std. Deviation	7.3760	7.7911	8.7967	6.9087	0	9.2056
Balance of international trade in services (% of GDP) <sup>1</sup>						
Mean	0.594	1.558	2.989	3.511	43.433	3.387
Std. Deviation	2.4269	1.9093	2.6164	4.1562	0	8.7619

Inward FDI stock, % of GDP <sup>6</sup>						
Mean	59.7727	46.3250	56.1167	23.8667	60.2000	52.4520
Std. Deviation	39.75890	31.25619	16.24111	11.72192	0	31.40056
Outward FDI stock, % of GDP <sup>6</sup>						
Mean	62.6455	5.0250	8.9833	26.2667	191.9000	41.3520
Std. Deviation	32.52453	5.79044	9.97425	17.30328	0	46.40186

Source:

1 Eurostat, average of the data 2004-2006

2 Economic Freedom of the World, 2008 Annual report, data 2006

3 Economic Freedom of the World, 2008 Annual report, average of the data 2004-2006

4 World Development Indicators, data 2006

5 Doing Business 2007

6 UNCTAD 2008, data 2007

Distances between Cluster Centres					
Cluster	1.	2.	3.	4.	5.
1.		6.766	4.435	5.792	8.425
2.	6.766		4.995	5.852	10.155
3.	4.435	4.995		5.863	8.859
4.	5.792	5.852	5.863		10.016
5.	8.425	10.155	8.859	10.016	

**Research and development, innovation**  
S-stress: 0.02

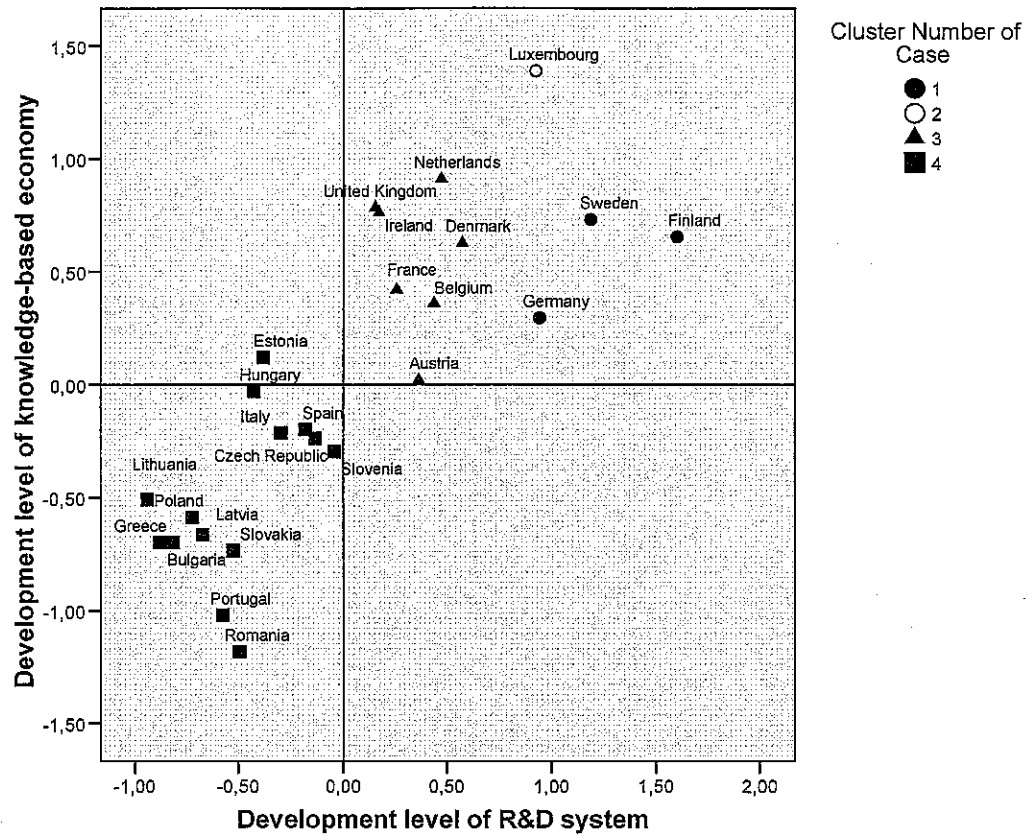


Figure 2. The system of R&D and innovation in two-dimensional MDS configuration

Clusters of research, development and innovation		
1.	High R&D expenditures with significant presence of the business sector High level of employment in the high-technology sector	Finland, Germany, Sweden
2.	Moderate R&D expenditures with significant presence of the business sector Export level of high-technology products is high	Luxembourg
3.	Moderate R&D expenditures with moderate presence of the business sector High levels of employment and export in the high-technology sector	Austria, Belgium, Denmark, United Kingdom, France, Netherlands, Ireland
4.	Low R&D expenditures with low presence of the business sector Export and employment levels are under average in the high-technology sector	Bulgaria, Czech Republic, Estonia, Greece, Poland, Latvia, Lithuania, Hungary, Italy, Portugal, Romania, Slovakia, Slovenia, Spain

Description of the clusters					
Indicator	1.	2.	3.	4.	Total
	(n=3)	(n=1)	(n=7)	(n=14)	
Research and development expenditure, % of GDP <sup>1</sup>					
Mean	3.23	1.56	1.94	0.84	1.46
Std. Deviation	0.64	0	0.41	0.35	0.91
Gross domestic expenditure on R&D (GERD) by source of funds; Business enterprise sector (%) <sup>2</sup>					
Mean	66.88	80.05	52.78	37.81	47.18
Std. Deviation	1.20	0	6.96	9.67	14.72
Gross domestic expenditure on R&D (GERD) by source of funds; Government sector (%) <sup>2</sup>					
Mean	26.48	13.90	31.94	50.21	40.79
Std. Deviation	3.30	0	5.02	9.19	13.54
Human resources in science and technology as a share of labour force (%) <sup>4</sup>					
Mean	46.82	43.35	43.76	33.41	38.32
Std. Deviation	2.96	0	4.59	6.54	7.87
Exports of high technology products as a share of total exports (%) <sup>1</sup>					
Mean	15.99	36.04	17.82	6.78	12.15

Std. Deviation	2.91	0	7.40	4.84	8.88
Employment in high- and medium-high-technology manufacturing sectors, share of total employment (%) <sup>1</sup>					
Mean	40.60	41.49	38.24	24.86	31.16
Std. Deviation	6.90	0	4.61	3.77	8.39
European high-technology patents (per million inhabitants) <sup>2</sup>					
Mean	46.65	10.09	19.85	1.30	12.29
Std. Deviation	25.79	0	8.75	1.59	17.63
Patents granted by the United States Patent and Trademark Office (USPTO), Number of patents per million <sup>3</sup>					
Mean	131.85	112.50	61.97	4.67	40.29
Std. Deviation	6.82	0	13.64	7.59	47.16
Gross domestic expenditure on R&D (GERD) by source of funds; Abroad (%) <sup>2</sup>					
Mean	4.84	5.95	12.66	9.51	9.69
Std. Deviation	2.40	0	4.54	5.73	5.44
Employment in knowledge-intensive service sectors, Share of total employment (%) <sup>1</sup>					
Mean	8.07	1.28	5.75	5.56	5.74
Std. Deviation	2.35	0	1.11	2.71	2.50

Source:

1 Eurostat, average of the data 2004-2006

2 Eurostat, average of the data 2003-2005

3 Eurostat, average of the data 2000-2002

4 Eurostat, average of the data 2005-2007

Cluster	1.	2.	3.	4.
1.		4.711	3.287	6.085
2.	4.711		3.988	6.422
3.	3.287	3.988		3.614
4.	6.085	6.422	3.614	



# Financial system

S-stress: 0.036

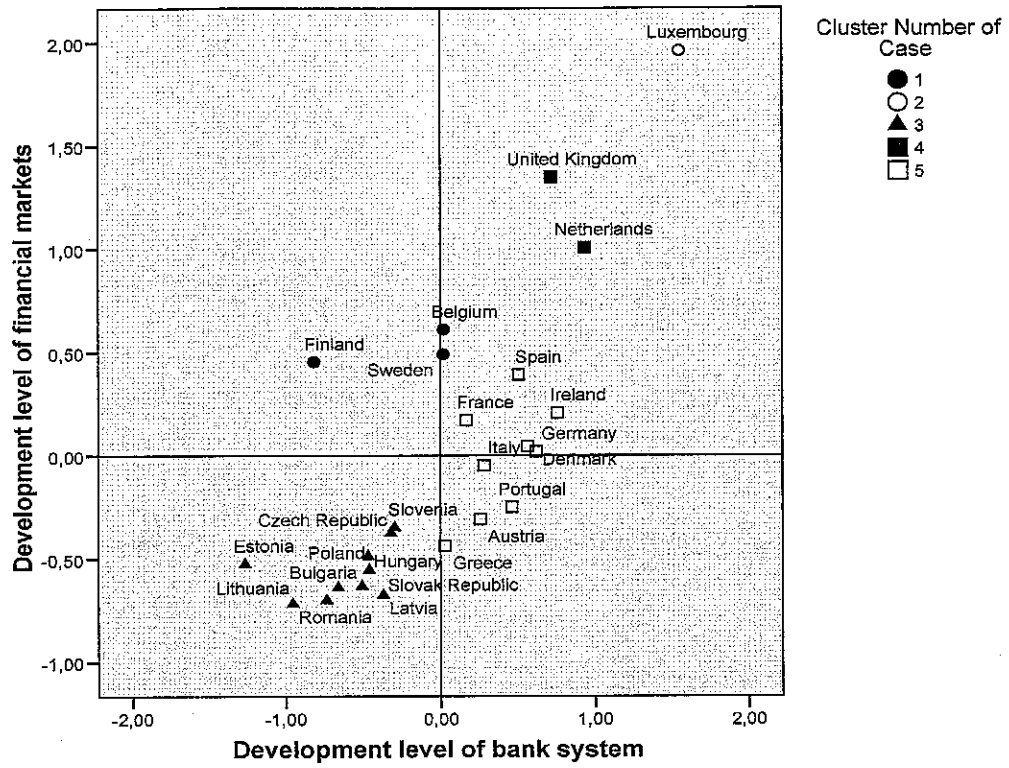


Figure 3. Financial system in two-dimensional MDS configuration

Clusters of financial system		
1.	Middle-developed banking system Insurance companies possess assets at average level, while investment- and pension funds possess assets under average Well-developed stock market with high turnover	Belgium, Finland, Sweden
2.	Developed banking system with particularly high stock of deposit Giant investment funds and insurance companies High level of stock market capitalisation with low turnover	Luxembourg
3.	Underdeveloped banking system with modest stocks of loans and deposits Assets of institutional investors and insurance companies are far beyond average Underdeveloped stock market with low turnover	Bulgaria, Czech Republic, Estonia, Poland, Latvia, Lithuania, Hungary, Romania, Slovakia, Slovenia
4.	Developed banking system with extensive lending Developed insurance companies and pension funds, the properties of investment funds are under average Developed stock market with high turnover	United Kingdom, Netherlands
5.	Developed banking system with stocks of loans and deposits above average Insurance companies, pension- and investment funds possess assets above average but not as much as in cluster 4. Development of the stock market is somewhat above average	Austria, Denmark, France, Greece, Ireland, Germany, Italy, Portugal, Spain

Description of the clusters						
Indicator	1.	2.	3.	4.	5.	Total
	(n=3)	(n=1)	(n=10)	(n=2)	(n=9)	
Bank capital to assets ratio (%) <sup>1</sup>						
Mean	6.04	4.70	8.63	6.35	5.64	6.90
Std. Deviation	3.05	0	1.52	3.32	0.84	2.12
Bank deposits/GDP <sup>2</sup>						
Mean	0.63	3.34	0.39	1.14	0.79	0.74
Std. Deviation	0.29	0	0.12	0.12	0.17	0.61
Bank overhead costs/Total assets <sup>2</sup>						
Mean	0.03	0.01	0.03	0.03	0.03	0.03
Std. Deviation	0.01	0	0.01	0.01	0.01	0.01

Deposit money bank assets/GDP <sup>2</sup>						
Mean	0.98	1.24	0.46	1.64	1.31	0.96
Std. Deviation	0.21	0	0.15	0.12	0.25	0.47
Domestic credit provided by banking sector (% of GDP) <sup>1</sup>						
Mean	97.38	108.66	44.82	165.31	130.46	94.15
Std. Deviation	22.13	0	14.65	9.41	21.76	47.15
Private credit by deposit money banks/GDP <sup>2</sup>						
Mean	0.83	1.19	0.37	1.58	1.17	0.84
Std. Deviation	0.20	0	0.12	0.05	0.29	0.47
Bank concentration (Share of the 5 largest CIs in total assets) <sup>2</sup>						
Mean	0.94	0.29	0.68	0.54	0.68	0.69
Std. Deviation	0.06	0	0.15	0.03	0.16	0.18
Herfindahl index for CIs, (index ranging from 0 to 10,000) <sup>3</sup>						
Mean	1855.22	294.00	1357.63	1131.33	676.70	1111.56
Std. Deviation	886.94	0	885.44	1014.46	363.37	799.75
Share of the 5 largest CIs in total assets in percent <sup>3</sup>						
Mean	75.07	29.23	65.23	61.47	48.10	58.50
Std. Deviation	14.22	0	14.76	33.71	16.52	19.16
Total assets under management by insurance corporations/GDP <sup>3</sup>						
Mean	0.69	1.66	0.06	1.08	0.43	0.42
Std. Deviation	0.33	0	0.04	0.62	0.23	0.45
Total assets under management by investment funds/GDP <sup>3</sup>						
Mean	0.41	50.84	0.04	0.25	0.64	2.35
Std. Deviation	0.21	0	0.03	0.08	0.78	10.12
Life insurance premium volume/GDP <sup>2</sup>						
Mean	0.06	0.30	0.01	0.07	0.04	0.04
Std. Deviation	0.01	0	0.01	0.03	0.03	0.06
Total assets under management by pension funds/GDP <sup>3</sup>						
Mean	0.06	0.00	0.04	1.22	0.08	0.15
Std. Deviation	0.07	0	0.04	0.12	0.09	0.33
Non-life insurance premium volume/GDP <sup>2</sup>						
Mean	0.03	0.04	0.02	0.05	0.03	0.03
Std. Deviation	0.01	0	0.01	0.00	0.01	0.01
Market capitalization of listed companies (% of GDP) <sup>1</sup>						
Mean	109.68	139.53	22.22	119.57	56.28	57.46

Std. Deviation	8.68	0	9.48	22.96	19.05	40.55
Stock market turnover <sup>2</sup>						
Mean	0.87	0.01	0.29	1.18	0.83	0.61
Std. Deviation	0.58	0	0.24	0.14	0.44	0.48
Stock market capitalization/GDP <sup>2</sup>						
Mean	1.01	1.26	0.19	1.11	0.51	0.52
Std. Deviation	0.08	0	0.09	0.22	0.18	0.38
Stock market total value traded/GDP <sup>2</sup>						
Mean	0.84	0.01	0.06	1.32	0.46	0.40
Std. Deviation	0.55	0	0.07	0.42	0.33	0.47

Source:

1 World Development Indicators, average of the data 2003-2005

2 Beck, T. - Demirgüç-Kunt A. - Levine, R. (2000) average of the data 2004-2006

3 European Central Bank (2008), data 2007

Distances between cluster centres					
Cluster	1.	2.	3.	4.	5.
1.		2.311	1.137	1.271	0.859
2.	2.311		3.318	1.063	2.288
3.	1.137	3.318		2.256	1.148
4.	1.271	1.063	2.256		1.273
5.	0.859	2.288	1.148	1.273	

## Labour market and industrial relations

S-stress: 0.066

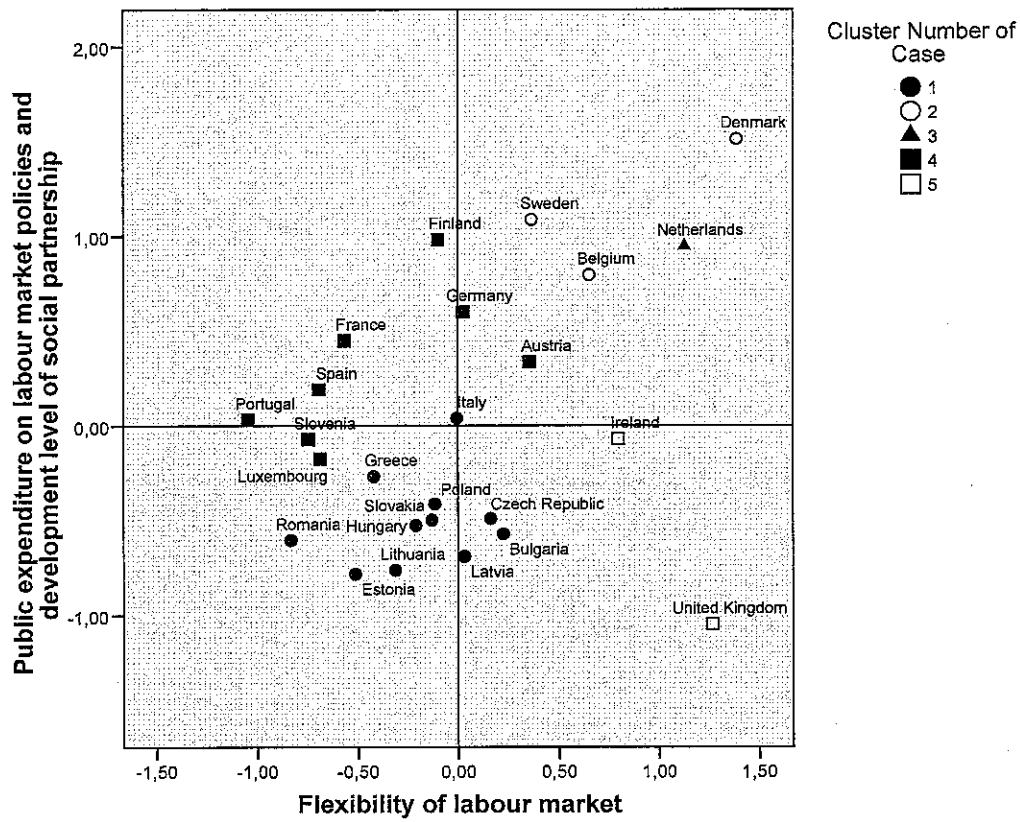


Figure 4. Labour markets and industrial relations in two-dimensional MDS configuration

Clusters of labour market and industrial relations		
1.	Low employment ratio of fixed-time and part-time workers Low ratio of public expenditure on labour market policy Weak collective bargaining on wage, stronger in the two Mediterranean countries Employment rate under the average	Bulgaria, Czech Republic, Estonia, Greece, Poland, Latvia, Lithuania, Hungary, Italy, Romania, Slovakia
2.	High employment ratio of fixed-time and part-time workers High ratio of public expenditures on labour market policy Extensive collective bargaining on wage High level of employment, except for Belgium	Belgium, Denmark, Sweden
3.	Higher employment ratio especially of part-time workers than in cluster 2 Lower rate of public expenditures on active labour policy than in cluster 2, but high ratio of public expenditures on passive labour policy Extensive collective bargaining on wage High level of employment	Netherlands
4.	Moderate employment ratio of fixed-time and part-time workers Public expenditures on active labour policy are moderate, while on passive labour policy public expenditures are high Extensive collective bargaining on wage Average level of employment	Austria, Finland, France, Luxembourg, Germany, Portugal, Spain, Slovenia
5.	Moderate employment ratio of fixed-time and part-time workers Low rate of public expenditures on labour policy, except for labour market services Low level of collective bargaining on wage High level of employment	United Kingdom, Ireland

Description of the cluster						
Indicator	1.	2.	3.	4.	5.	Total
	(n=11)	(n=3)	(n=1)	(n=8)	(n=2)	
Employees with a contract of limited duration (annual average) (% of total number of employees) <sup>1</sup>						
Mean	8.47	11.60	16.73	16.44	5.32	11.47
Std. Deviation	7.00	4.62	0	8.17	0.73	7.64
Persons employed part-time (% of total employment) <sup>1</sup>						

Mean	6.98	23.18	46.15	15.73	21.08	14.42
Std. Deviation	3.45	1.35	0	5.31	6.05	9.80
Public expenditure on labour market policies, by type of action; Total LMP services (category 1), % of GDP <sup>2</sup>						
Mean	0.07	0.19	0.48	0.15	0.30	0.15
Std. Deviation	0.04	0.03	0	0.08	0.12	0.11
Public expenditure on labour market policies, by type of action; Total LMP measures (categories 2-7) <sup>2</sup>						
Mean	0.21	1.16	0.83	0.53	0.26	0.45
Std. Deviation	0.15	0.32	0	0.18	0.30	0.36
Public expenditure on labour market policies, by type of action; Total LMP supports (categories 8-9), % of GDP <sup>2</sup>						
Mean	0.37	1.89	1.85	1.36	0.53	0.94
Std. Deviation	0.23	0.76	0	0.61	0.48	0.75
Trade union density (%) <sup>3</sup>						
Mean	21.40	66.39	21.53	31.22	32.90	30.86
Std. Deviation	7.24	11.51	0	20.56	5.52	18.98
Bargaining coverage % <sup>3</sup>						
Mean	38.50	90.00	82.00	81.25	34.77	59.80
Std. Deviation	23.52	7.21	0	17.27	0.33	29.49
Coordination of wage bargaining (1-5) <sup>3</sup>						
Mean	2.27	3.33	4.00	3.25	3.00	2.84
Std. Deviation	1.27	0.58	0	0.89	2.83	1.25
Difficulty of hiring index <sup>4</sup>						
Mean	31.73	9.33	17.00	51.38	11.00	33.08
Std. Deviation	21.22	8.62	0	24.69	0	24.61
Rigidity of hours index <sup>4</sup>						
Mean	63.64	40.00	40.00	62.50	10.00	55.20
Std. Deviation	17.48	20.00	0	7.07	14.14	21.04
Difficulty of firing index <sup>4</sup>						
Mean	32.73	20.00	70.00	41.25	15.00	34.00
Std. Deviation	14.89	17.32	0	6.41	7.07	16.07
Rigidity of employment index <sup>4</sup>						
Mean	42.82	23.00	42.00	51.75	12.00	40.80
Std. Deviation	12.42	14.73	0	9.05	7.07	16.09
Nonwage labour cost (% of salary) <sup>4</sup>						

Mean	30.18	29.33	18.00	26.50	11.00	26.88
Std. Deviation	5.44	27.10	0	10.58	0	11.67
Firing cost (weeks of salary) <sup>4</sup>						
Mean	18.91	14.00	17.00	44.88	23.00	26.88
Std. Deviation	11.19	13.11	0	28.38	1.41	21.55
Employment rate <sup>1</sup>						
Mean	60.88	70.48	74.50	66.75	70.02	65.19
Std. Deviation	4.09	8.09	0	2.39	2.24	5.71
Unemployment rate <sup>1</sup>						
Mean	8.41	6.37	3.93	7.22	4.83	7.32
Std. Deviation	2.76	2.01	0	1.96	0.47	2.51
Long-term unemployed (12 months and more) as a percentage of the total active population <sup>1</sup>						
Mean	4.56	2.03	1.63	2.73	1.30	3.29
Std. Deviation	2.31	1.82	0	1.43	0.19	2.14
Unemployment rate, by age group; Less than 25 years, % <sup>1</sup>						
Mean	19.27	16.37	6.90	15.60	11.25	16.61
Std. Deviation	5.96	7.19	0	3.74	3.46	5.80

Source:

1 Eurostat, average of the data 2005-2007

2 Eurostat, average of the data 2004-2006

3 The ICTWSS Database 2009, data 2007

4 Doing Business 2007

Distances between cluster centres					
Cluster	1.	2.	3.	4.	5.
1.		5.821	8.044	3.625	5.543
2.	5.821		5.961	4.459	4.922
3.	8.044	5.961		5.893	6.294
4.	3.625	4.459	5.893		5.575
5.	5.543	4.922	6.294	5.575	



**Social protection**  
 S-stress: 0.09

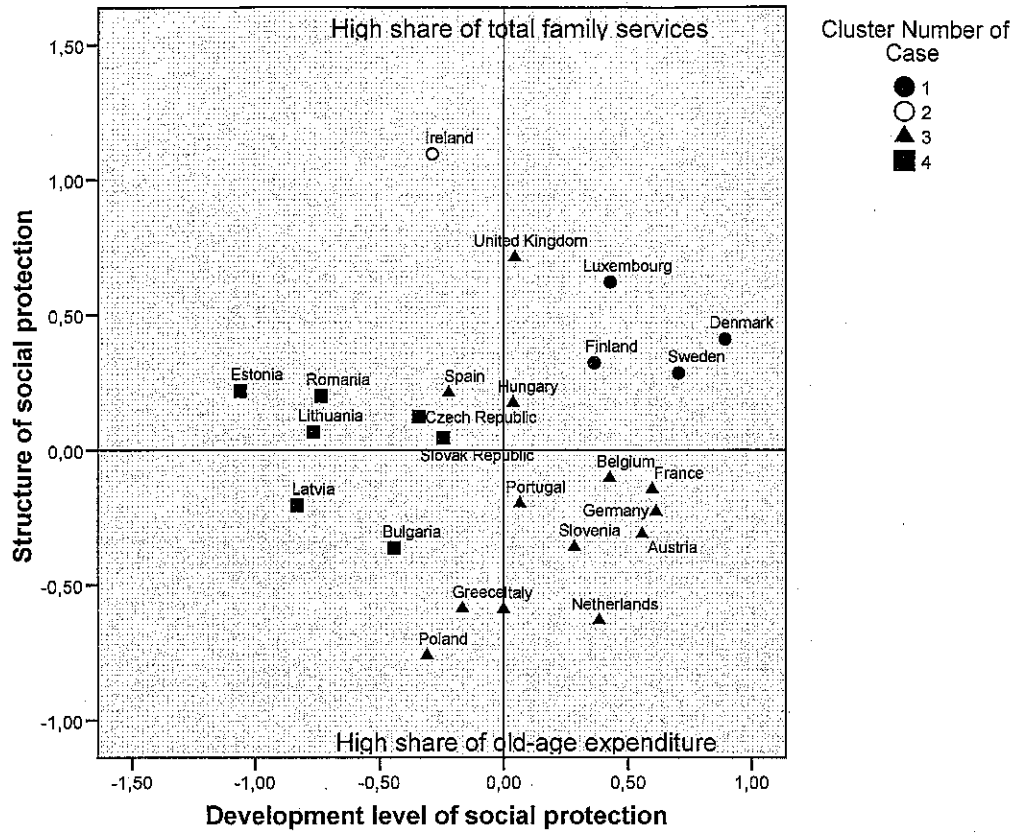


Figure 5. The system of social protection in two-dimensional MDS configuration

Clusters of social protection		
1.	High level of welfare expenditures Low level of income inequalities Allowances for families, children and disabled people represent a high proportion within welfare expenditures	Denmark, Finland, Luxembourg, Sweden
2.	Low level of welfare expenditures High level of poverty risk with moderate level of income inequalities High ratio of family and child allowances within welfare expenditures, but low ratio of pension expenditures	Ireland
3.	High level of welfare expenditures Moderate level of income inequalities Low ratio of family and child allowances within welfare expenditures High ratio of pension expenditures compared to the GDP	Austria, Belgium, United Kingdom, France, Greece, Netherlands, Poland, Hungary, Germany, Italy, Portugal, Spain, Slovenia
4.	Low level of welfare expenditures High level of income inequalities Moderate ratio of family and child allowances within welfare expenditures Low ratio of pension expenditures compared to the GDP	Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Romania, Slovakia

Description of the cluster					
Indicator	1.	2.	3.	4.	Total
	(n=4)	(n=1)	(n=13)	(n=7)	
Health expenditure, total (% of GDP) <sup>1</sup>					
Mean	6.8432	5.5848	6.388735	4.670652	5.948229
Std. Deviation	0.9600797	0	1.2700821	1.1157937	1.3975651
Health expenditure, public (% of GDP) <sup>1</sup>					
Mean	1.323467	1.6152	2.422823	1.853157	2.055114
Std. Deviation	0.4243902	0	0.6458369	0.8936283	0.783023
Health expenditure, private (% of GDP) <sup>1</sup>					
Mean	8.166667	7.2	8.811558	6.52381	8.003344
Std. Deviation	0.929755	0	1.2643372	0.9804977	1.473532

Inequality of income distribution <sup>2</sup>					
Mean	3.6125	4.95	4.865385	5.128571	4.742
Std. Deviation	0.2719528	0	1.0951379	1.4904857	1.1960595
Expenditure on pensions Current prices (% of GDP) <sup>3</sup>					
Mean	11.183332	4.833333	12.034605	7.090464	10.225991
Std. Deviation	1.1070483	0	1.7627332	0.9292843	2.8154073
At-risk-of-poverty rate before social transfers (%) <sup>2</sup>					
Mean	27.5	32.5	25.692308	23.071429	25.52
Std. Deviation	2.6770631	0	2.7578559	3.5050983	3.4954733
At-risk-of-poverty rate after social transfers (%) <sup>2</sup>					
Mean	12.125	19.0	15.961538	16.357143	15.58
Std. Deviation	1.25	0	3.6825124	4.2201332	3.7629775
Total expenditure on social protection, Current prices (% of GDP) <sup>3</sup>					
Mean	27.99999	18.06666	25.705116	15.171407	22.817319
Std. Deviation	4.6468567	0	3.6966545	2.5942669	6.1805638
Social benefits (other than social transfers in kind) paid by general government (% of GDP) <sup>4</sup>					
Mean	15.300278	9.5	15.274443	10.138095	13.609421
Std. Deviation	1.10794	0	2.4240031	1.8450563	3.1841497
Social benefits by function; Sickness/Health care (% of total benefits) <sup>3</sup>					
Mean	24.149983	40.3	28.143577	30.609516	28.681322
Std. Deviation	2.3705657	0	3.2993092	3.4186122	4.3994131
Social benefits by function; Family/Children (% of total benefits) <sup>3</sup>					
Mean	12.89164	14.86	7.466658	9.495223	9.198387
Std. Deviation	3.2135685	0	2.5975068	1.7578745	3.2704672
Social benefits by function; Old age (% of total benefits) <sup>3</sup>					
Mean	33.74165	21.8666	42.587933	43.642829	40.639045
Std. Deviation	5.5001084	0	5.8989525	3.2571744	7.1508054
Social benefits by function; Disability (% of total benefits) <sup>3</sup>					
Mean	13.799908	5.0333	8.311501	8.880941	9.217961
Std. Deviation	0.7701313	0	2.0417815	0.8059578	2.6510083
Social benefits by function; Housing (% of total benefits) <sup>3</sup>					
Mean	1.491665	3.03333	1.366655	0.259514	1.143324
Std. Deviation	0.7395543	0	1.5649555	0.2683598	1.3171256
Social benefits by function; Unemployment (% of total benefits) <sup>3</sup>					

Mean	7.43315	7.8	5.997386	3.066643	5.478605
Std. Deviation	2.449457	0	3.4484222	1.4114657	3.1460547
Social protection receipts by type; General government contributions (% of total receipts) <sup>5</sup>					
Mean	50.15833	53.1666	34.705114	27.99047	36.035988
Std. Deviation	8.9120113	0	7.7179291	9.633218	11.323318
Social protection receipts by type; Employers' social contribution (% of total receipts) <sup>5</sup>					
Mean	29.24165	26.0666	37.379442	53.433327	40.11997
Std. Deviation	13.903469	0	7.4449831	12.326072	13.174863
Social protection receipts by type; Social contribution paid by the protected persons (% of total receipts) <sup>5</sup>					
Mean	15.91665	15.8333	22.646851	15.416643	19.273018
Std. Deviation	7.1765964	0	8.1947136	8.9841386	8.5479254

Source:

1 World Development Indicators, average of the data 2002-2004

2 Eurostat, average of the data 2005-2006

3 Eurostat, average of the data 2003-2005

4 Eurostat, average of the data 2005-2007

5 Eurostat, average of the data 2004-2006

Distances between cluster centres				
Cluster	1.	2.	3.	4.
1.		6.932	4.168	6.021
2.	6.932		6.858	6.656
3.	4.168	6.858		4.308
4.	6.021	6.656	4.308	

# Education

S-stress: 0.068

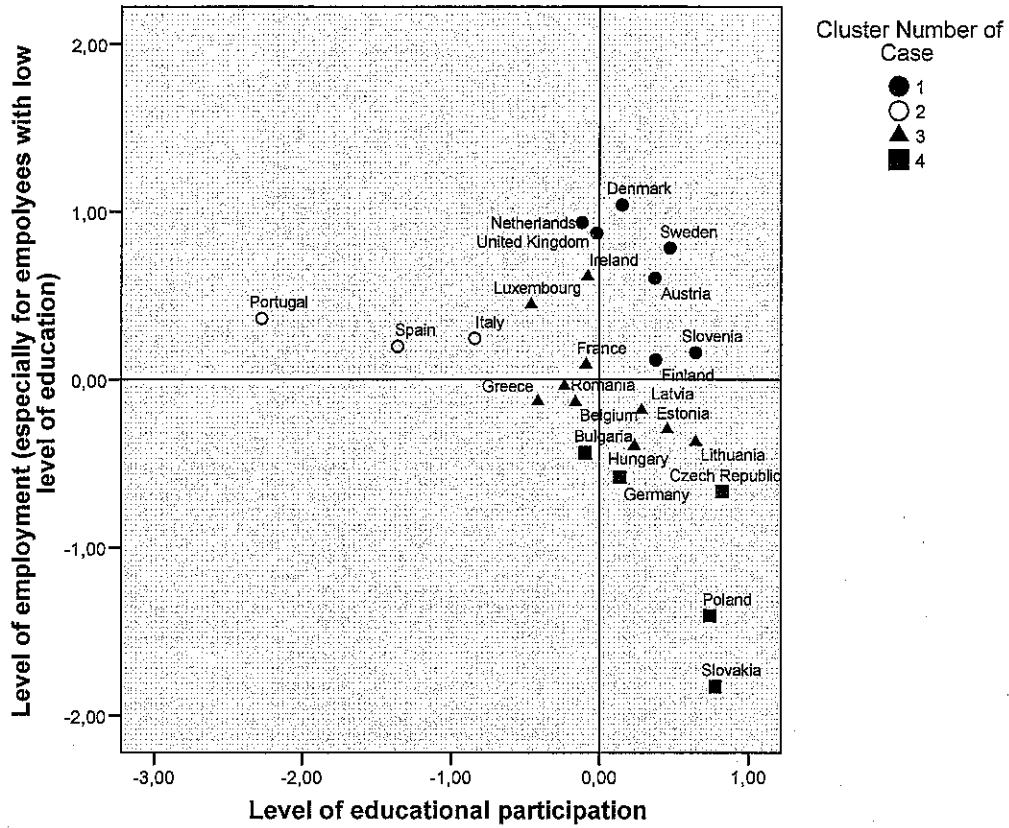


Figure 6. The system of education and training in two-dimensional MDS configuration

Clusters of education		
1.	Ratio of low-skilled groups and early school-leavers is under average Exceptionally high number of participants in adult education Highest ratio of education expenditures compared to the GDP Employment and/or unemployment data are the most favourable	Austria, Denmark, United Kingdom, Finland, Netherlands, Sweden, Slovenia
2.	Ratio of low-skilled groups and early school-leavers is very high Low number of participants in adult education Ratio of education expenditures is under average High employment ratio of low-skilled workers Unemployment rate of highly-skilled persons is average or above average	Italy, Portugal, Spain
3.	Ratio of low-skilled groups and early school-leavers is around average Low number of participants in adult education Education expenditures are under average according to all indicators examined Employment rates are under average at every educational level	Belgium, Estonia, France, Greece, Ireland, Latvia, Lithuania, Luxembourg, Hungary, Romania
4.	Lowest ratio of low-skilled groups, low ratio of early school-leavers Lowest number of participants in adult education Lowest ratio of public expenditures on education compared to the GDP, highest ratio of private expenditures Most unfavourable employment and unemployment rates among low-skilled groups	Bulgaria, Czech Republic, Poland, Germany, Slovakia

Description of the clusters					
Indicator	1.	2.	3.	4.	Total
	(n=7)	(n=3)	(n=10)	(n=5)	
Percentage of the population aged 25 to 64 having completed at most lower secondary education <sup>1</sup>					
Mean	21.47619	57.344444	25.98	15.366667	26.36
Std. Deviation	4.4012504	13.418575	10.422094	5.9051296	14.784824
Early school-leavers - Percentage of the population aged 18-24 with at most lower secondary education and not in further education or training <sup>1</sup>					
Mean	10.245238	29.755556	13.73	9.89	13.909333
Std. Deviation	3.0297707	8.7116992	2.7949889	5.6910456	7.4585197
Total population having completed at least upper secondary education, Population aged 25 to 64 (%) <sup>1</sup>					

Mean	78.52381	42.655556	74.02	84.633333	73.64
Std. Deviation	4.4012504	13.418575	10.422094	5.9051296	14.784824
Youth education attainment level - Percentage of the population aged 20 to 24 having completed at least upper secondary education <sup>1</sup>					
Mean	82.37619	62.433333	81.5	85.313333	80.22
Std. Deviation	6.032066	12.260007	4.9471528	9.0009135	9.5546673
Pupils in upper secondary education enrolled in vocational stream; Males, (%) <sup>2</sup>					
Mean	66.095238	50.788889	48.583333	69.886667	58.012
Std. Deviation	10.191362	18.962253	16.934866	11.498324	16.658578
Pupils in upper secondary education enrolled in vocational stream; Females, (%) <sup>2</sup>					
Mean	59.719048	38.144444	38.016667	55.406667	47.586667
Std. Deviation	10.623783	12.622834	18.451419	16.501084	17.87519
School enrolment, tertiary (% gross) <sup>4</sup>					
Mean	67.813429	59.259307	54.740595	43.987995	56.792714
Std. Deviation	13.078821	4.1891358	18.417984	9.8943815	16.119847
Life-long learning (adult participation in education and training) - Percentage of the population aged 25-64 participating in education and training over the four weeks prior to the survey <sup>1</sup>					
Mean	22.192857	6.9	5.6666667	4.74	10.256667
Std. Deviation	7.6445203	3.1895663	2.446817	2.3191713	8.7567461
Science and technology graduates (ISCED 5-6) in mathematics, science and technology per 1 000 of population aged 20-29 <sup>2</sup>					
Mean	12.78214	10.46667	11.59083	8.815	11.23433
Std. Deviation	4.104817	0.962527	6.83083	0.957144	4.897412
Annual expenditure on public and private educational institutions compared to GDP per capita; All levels of education, (% - based on full-time equivalents) <sup>3</sup>					
Mean	26.542857	25.711111	22.4	23.593333	24.196
Std. Deviation	2.5513768	1.3355537	2.9773113	2.203835	3.0368885
Annual expenditure on public and private educational institutions compared to GDP per capita; Tertiary level of education (ISCED 5-6), (% - based on full-time equivalents) <sup>3</sup>					
Mean	42.452381	32.233333	32.243333	40.246667	36.701333
Std. Deviation	4.9995873	3.6703012	6.1347382	5.764913	7.0756771
Public expenditure on education, % of GDP <sup>3</sup>					
Mean	6.2433	4.7522	4.8317	4.5847	5.168
Std. Deviation	1.15525	0.60139	0.89502	0.49379	1.08707
Private expenditure on education as % of GDP <sup>3</sup>					
Mean	0.4961905	0.4022222	0.4013333	0.662	0.4801333
Std. Deviation	0.3353905	0.1754149	0.2153103	0.1508237	0.2493463
Employment rate, by highest level of education attained; Pre-primary, primary and lower secondary education - levels 0-2 (ISCED), % of age group 25-64 years <sup>1</sup>					

Mean	53.271429	56.255556	39.773333	26.893333	42.954667
Std. Deviation	7.6306747	9.7409407	9.6255678	10.990334	13.727982
Employment rate, by highest level of education attained; Upper secondary and post-secondary non-tertiary education - levels 3-4 (ISCED), % of age group 25-64 years <sup>1</sup>					
Mean	76.148	66.3	67.767	67.62	69.908
Std. Deviation	3.7393	1.8824	4.1009	5.4264	5.5668
Employment rate, by highest level of education attained; Tertiary education - levels 5-6 (ISCED), % of age group 25-64 years <sup>1</sup>					
Mean	86.386	81.4	83.857	83.293	84.157
Std. Deviation	0.9703	3.3178	2.6717	1.1948	2.5805
Unemployment rates of the population aged 25-64 by level of education; Pre-primary, primary and lower secondary education - levels 0-2 (ISCED), Annual average <sup>1</sup>					
Mean	7.15714	8.05	10.0825	25.68	12.139
Std. Deviation	1.840047	1.387669	3.551781	11.397634	8.756673
Unemployment rates of the population aged 25-64 by level of education; Upper secondary and post-secondary non-tertiary education - levels 3-4 (ISCED), Annual average <sup>1</sup>					
Mean	4.4	6.155556	6.003333	8.966667	6.165333
Std. Deviation	1.3602832	1.319231	1.643502	2.9525883	2.3724007
Unemployment rates of the population aged 25-64 by level of education; Tertiary education - levels 5-6 (ISCED), Annual average <sup>1</sup>					
Mean	3.029	5.389	3.56	3.647	3.648
Std. Deviation	0.757	0.455	1.3364	1.1777	1.2471

Source:

1 Eurostat, average of the data 2005-2007

2 Eurostat, average of the data 2004-2006

3 Eurostat, average of the data 2003-2005

4 World Development Indicators 2007, average of the data 2002-2004

Distances between cluster centres				
Cluster	1.	2.	3.	4.
1.		6.638	4.241	5.203
2.	6.638		4.857	6.908
3.	4.241	4.857		3.614
4.	5.203	6.908	3.614	