



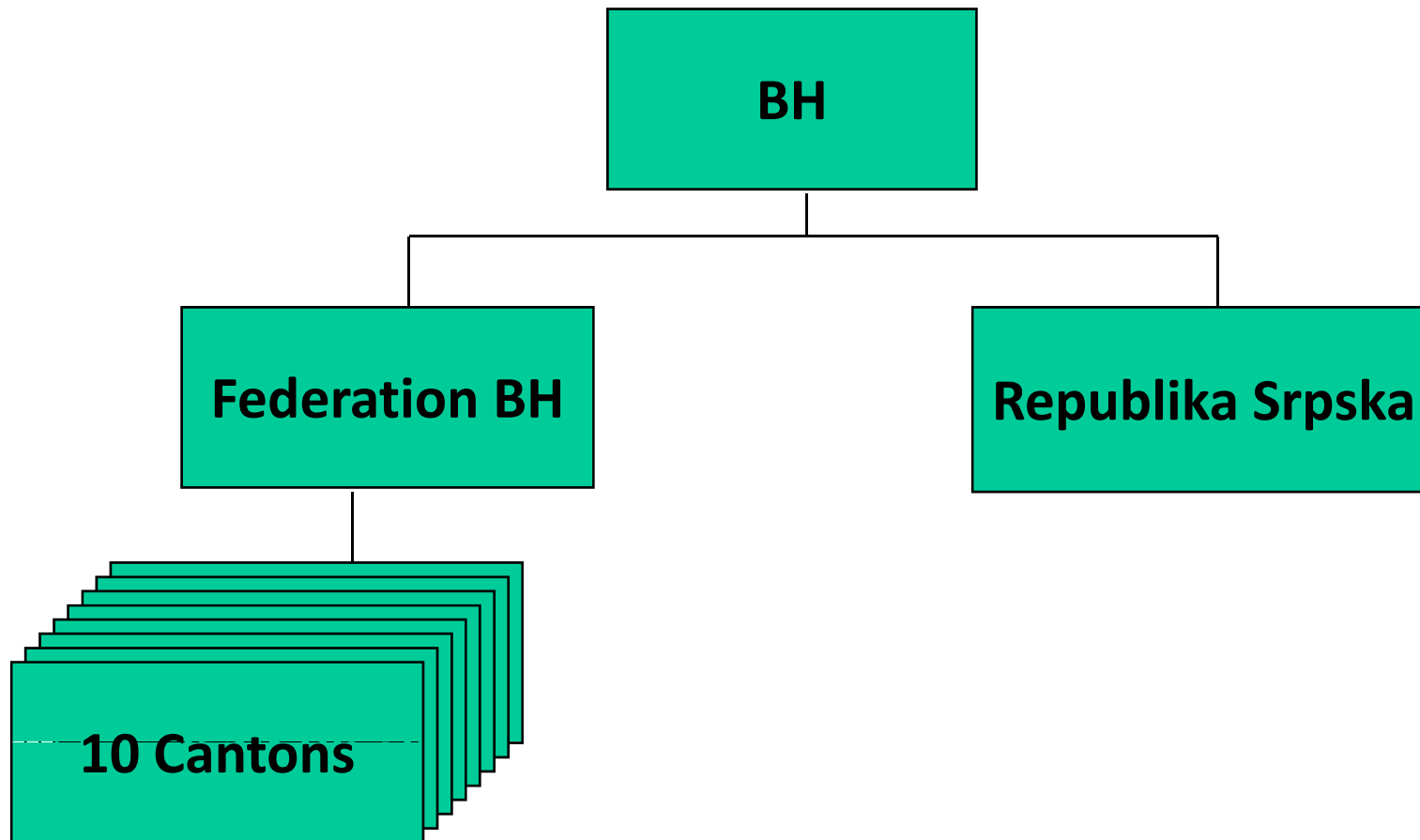
EKONOMSKI INSTITUT SARAJEVO

Project “Innovation Policy Learning from Norway in Western Balkans (WBinNO)”

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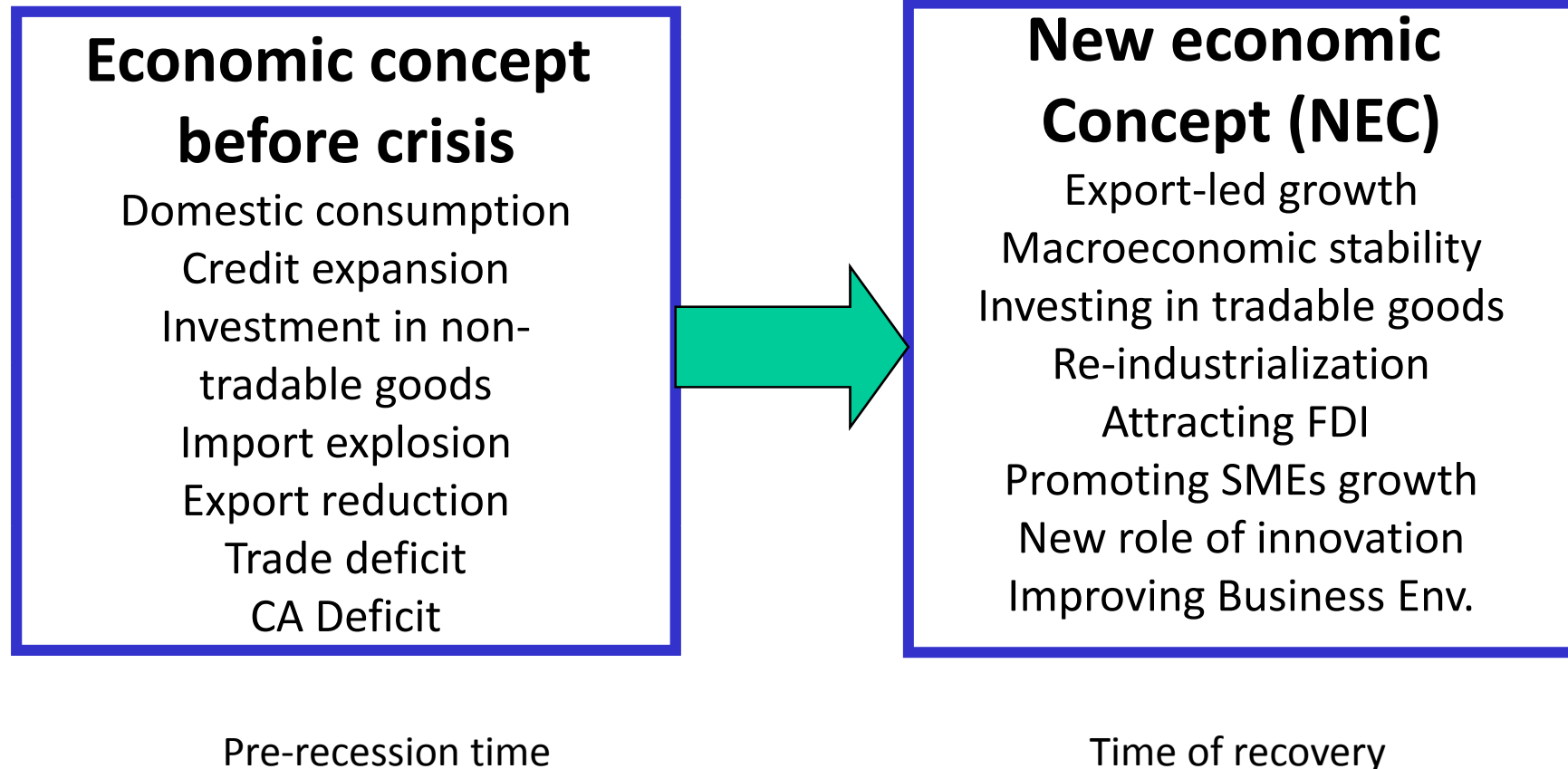
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Complex Dayton's institutional structure of BH (single economic space?)

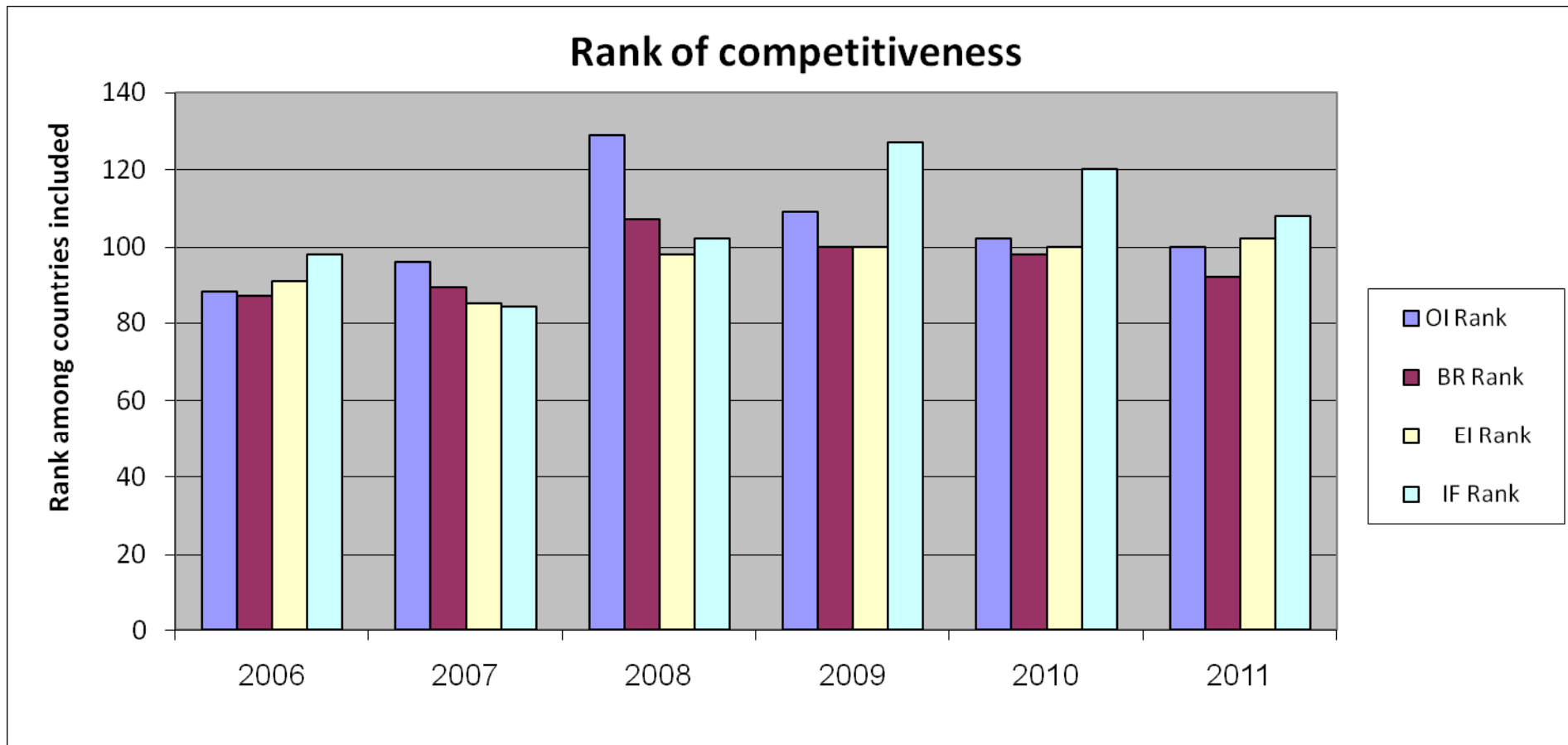


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The needs for big transition of country in order to built -up new growth concept



WEF Competitiveness indicators: BH on the bottom (lower third)



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BH economy in regional framework

	Annual average growth rate, 2002-2008 (%)	GDP per capita, (current \$PPP 2008 International)	Unemployed labour force (% of 2008)	Employment in industry (% of total employment) 2008	Gross fixed capital formation (% of GDP) 2008	Trade (% of GDP) 2008	Exports of goods and services (% of GDP) 2008	Domestic credit to private sector (% of GDP) 2008	Rule of law*, 2006	FDI net inflows (% of GDP) 2008
Albania	5.7	7 293	22.7 ⁻⁷	13.5 ⁻²	32.4	90.5	31.2	36.0	-0.70	7.6
Bosnia and Herzegovina	5.6	8 095	29.0 ⁻¹	-	24.4	73.6	36.8	57.8	-0.52	5.7
Croatia	4.3	17 663	8.4	30.6 ⁻¹	27.6	92.2	41.9	64.9	0.03	6.9
Rep. of Moldova	6.1	2 979	4.0	18.7 ⁻¹	34.1	132.3	40.7	36.5	-0.66	11.7
Serbia	5.2 10	544	13.6	26.2	20.4	82.1	29.7	38.4	-0.57	6.0
Montenegro	6.4	13 385	30.3 ⁻³	19.2 ⁻³	27.7	115.0	40.3	80.4	-	19.2
Romania	6.8	13 449	5.8	31.4	31.1	70.3	29.9	38.5	-0.17	6.9
Slovenia	4.6	27 866	4.4	34.2 ⁻¹	27.5 ⁻¹	141.6	70.2 ⁻¹	85.6	0.84	3.5
Bulgaria	6.1	11 792	5.7	35.5 ⁻¹	33.4	143.7	60.5	74.5	-0.14	18.4
Greece	4.1	29 356	7.7	16.4	19.3	55.0	23.1	93.5	0.65	1.5
FYR Macedonia	4.3	9 337	33.8	31.3 ⁻¹	23.9	131.1	52.6	43.8	-0.47	6.3

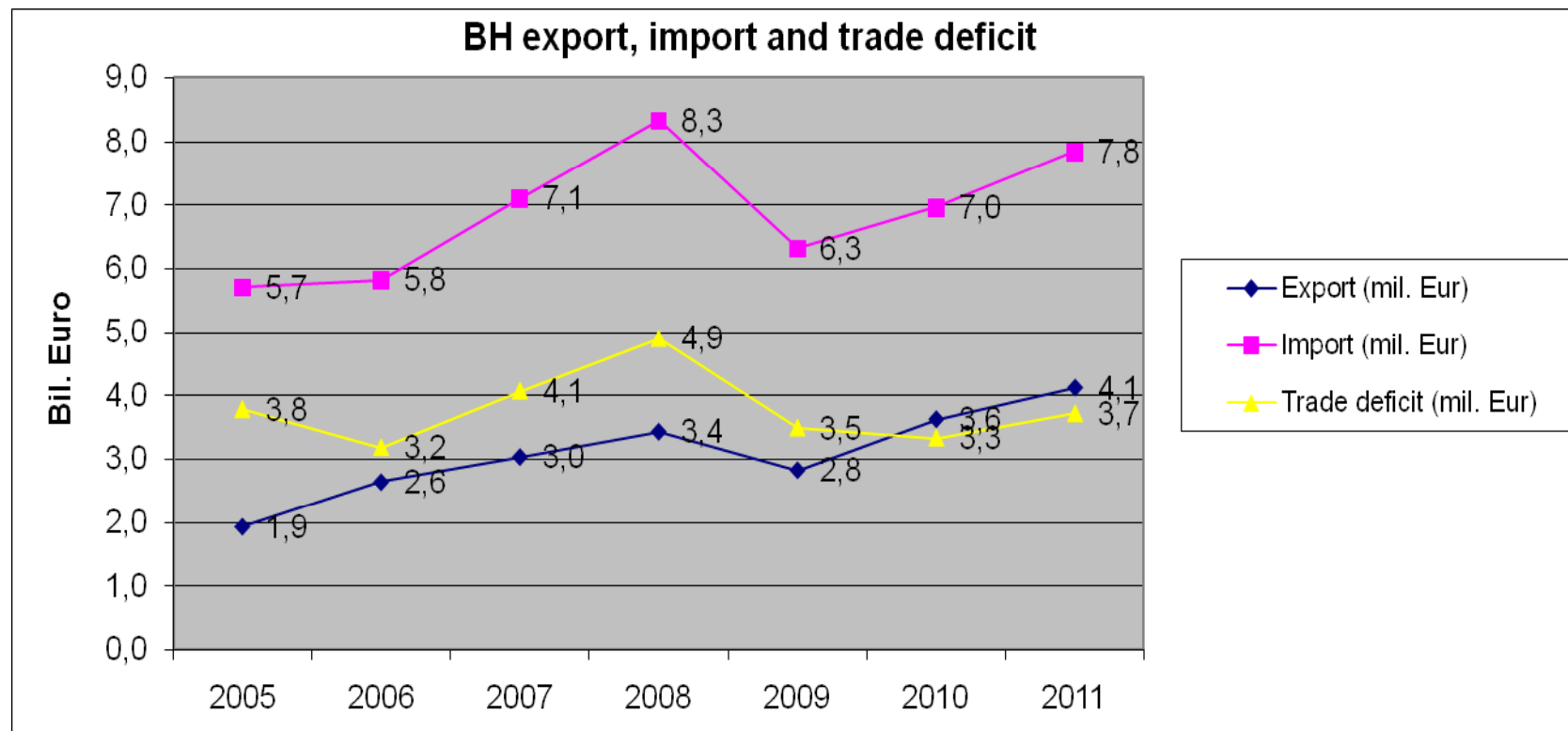
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Bosnia and Herzegovina: Basic macroeconomic data

	2005	2006	2007	2008	2009	2010
GDP (Bil. Euro)	8,8	9,9	11,1	12,6	12,3	12,5
GDP pc (Thous. Euro)	2,2	2,5	2,8	3,2	3,1	3,2
Population (Mil.)	3,92	3,92	3,92	3,91	3,90	3,90
GDP growth (ann)	3,87	5,97	6,19	5,71	-2,9	0,70
Unemployment rate	31,1	31,1	29,1	23,4	24,1	27,2
CA deficit as % GDP	17,1	7,96	10,7	14,3	6,2	5,6
Public sector balance	0,76	2,17	0,17	-3,8	- 5,6	-4,5
Public debt as % GDP	18,9	13,5	18,4	21,7	27,3	32,6

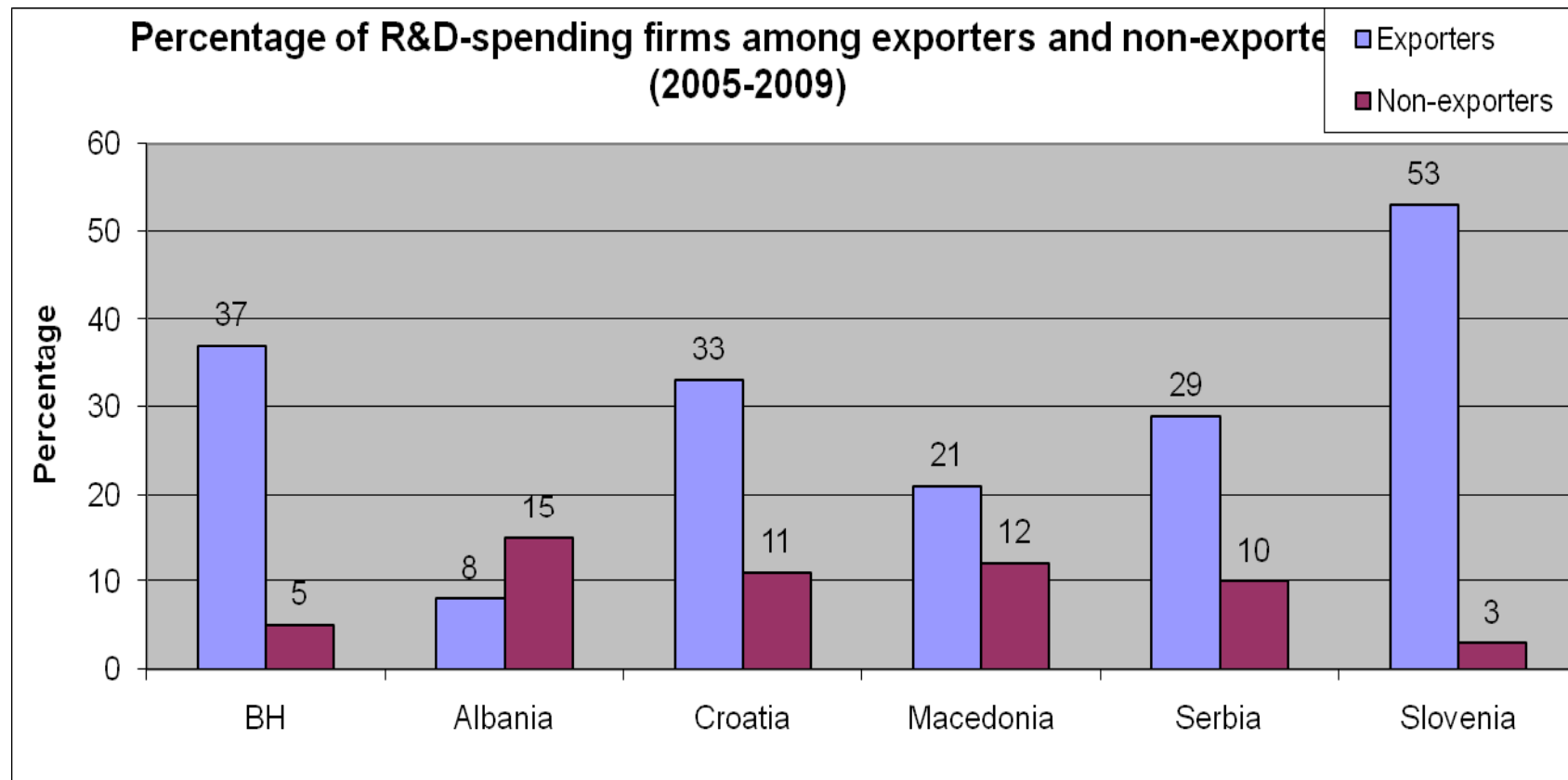
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Foreign trade: trade deficit increasing, export and import increasing



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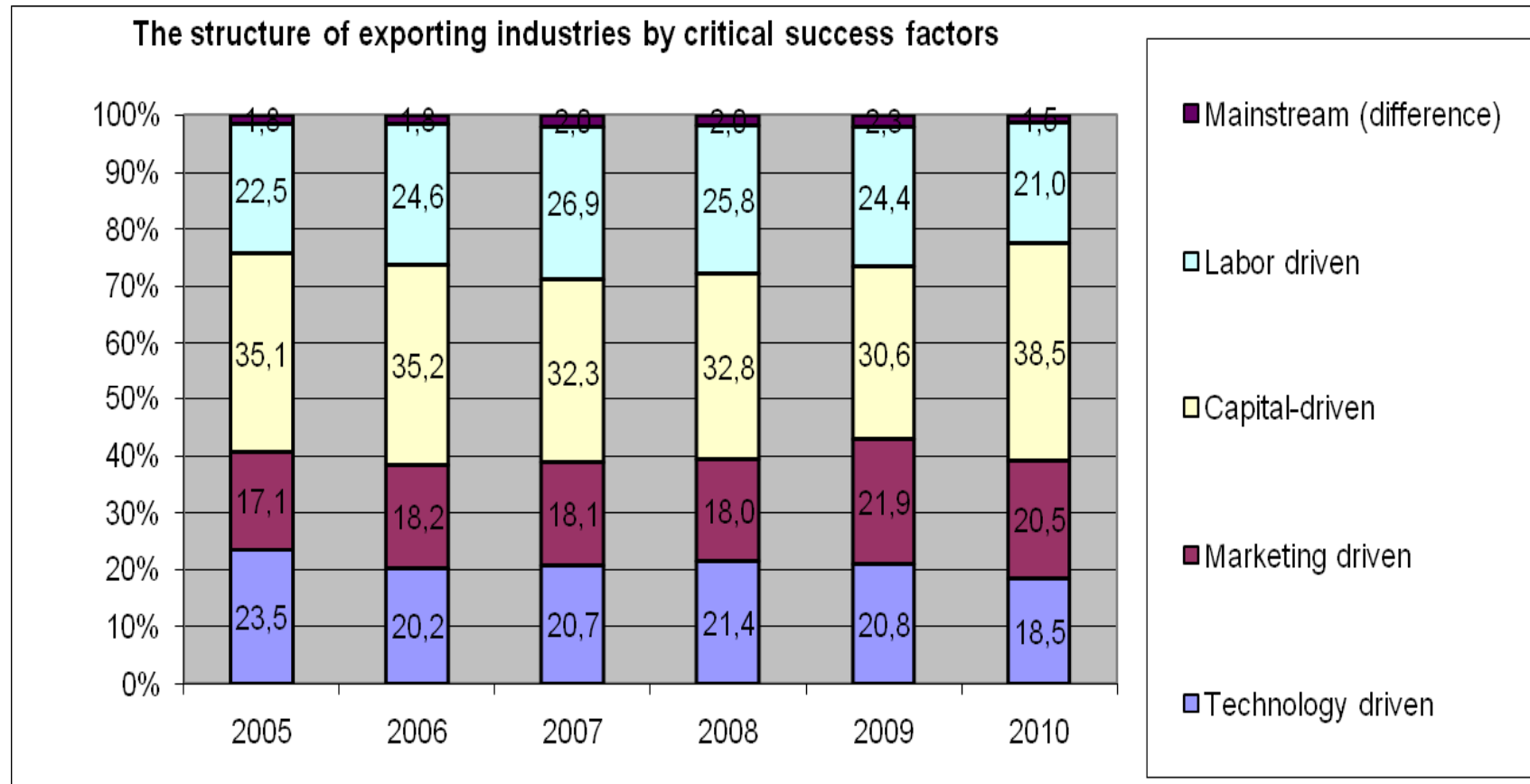
Export is good source to improve productivity and creating innovation



Source; Transition Report, 2010

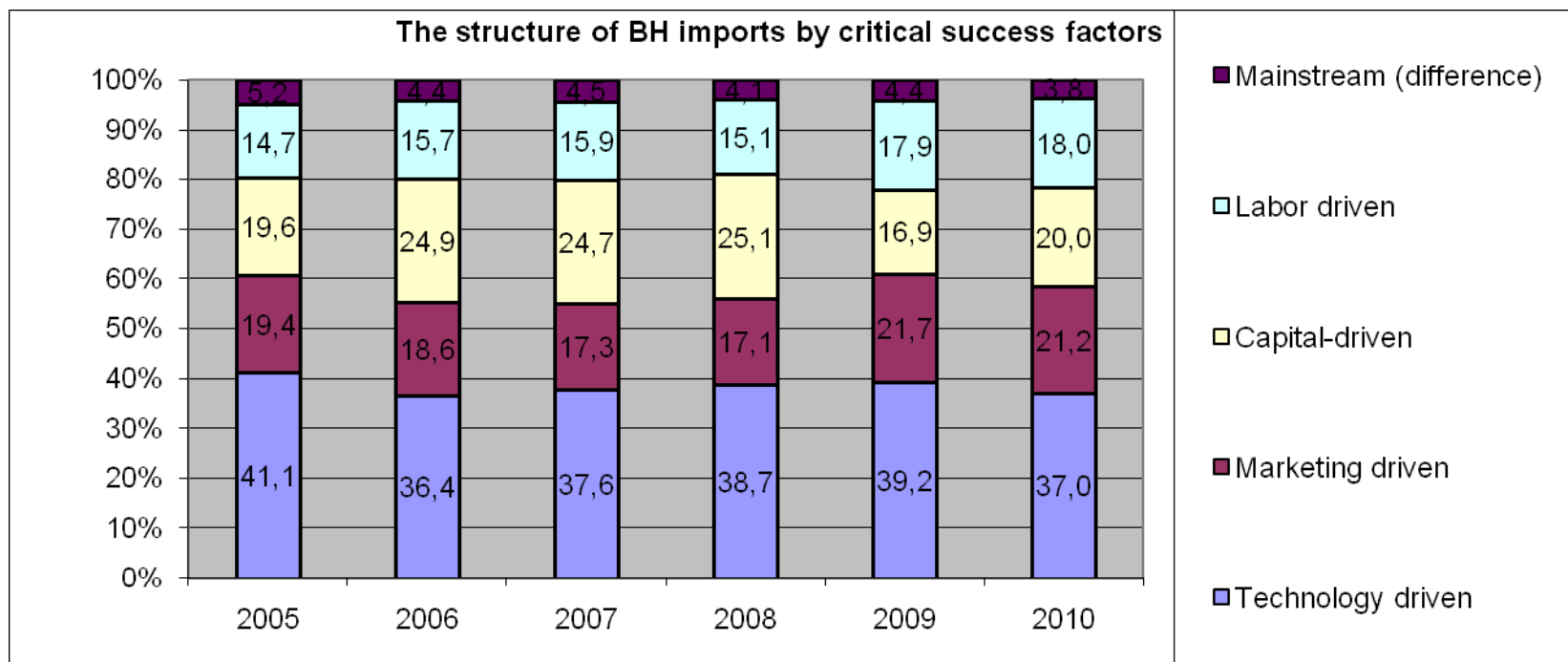
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Bur, export industries are mainly capital and labour driven ...



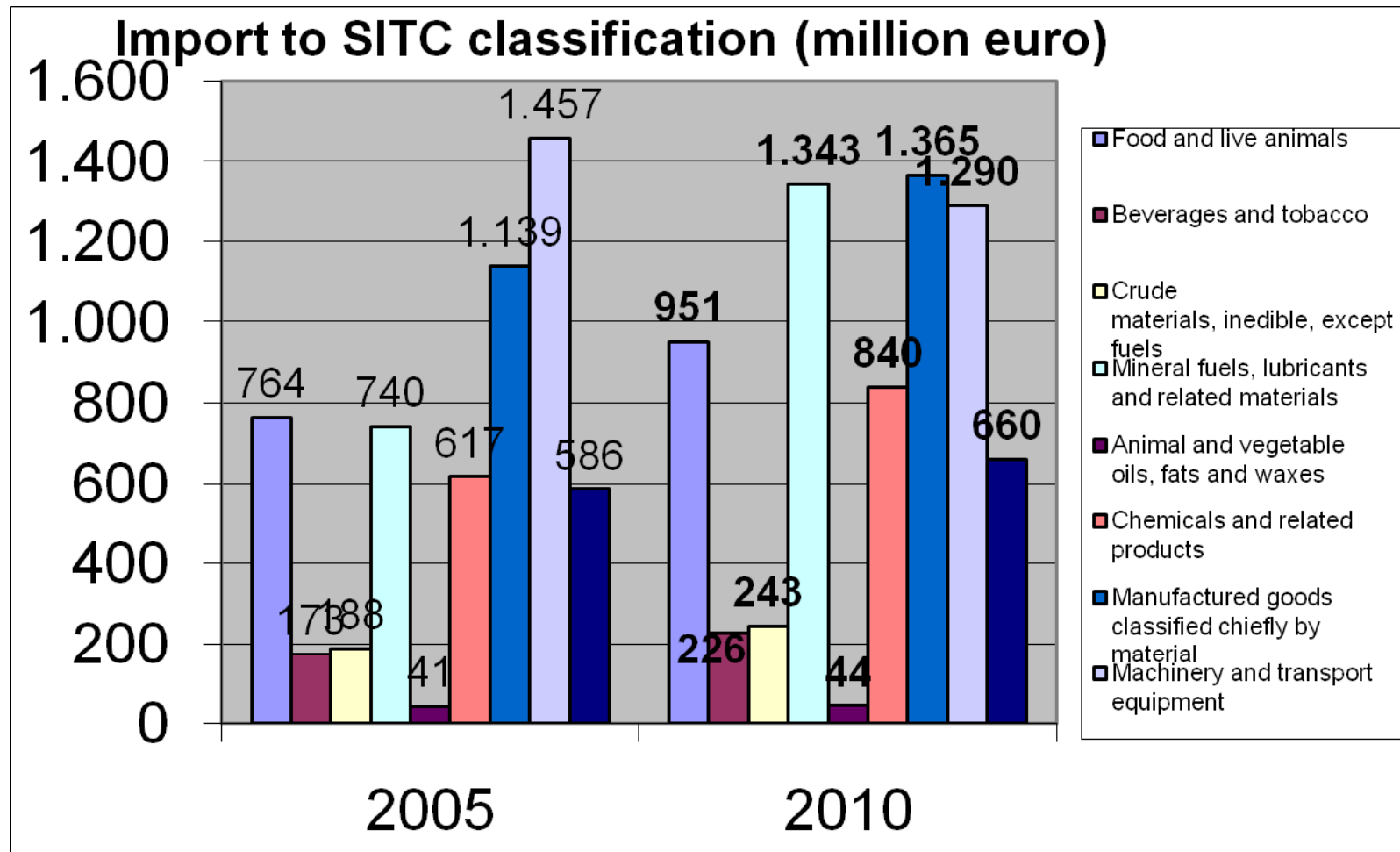
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And imports are mainly based on technology and labor-driven industries



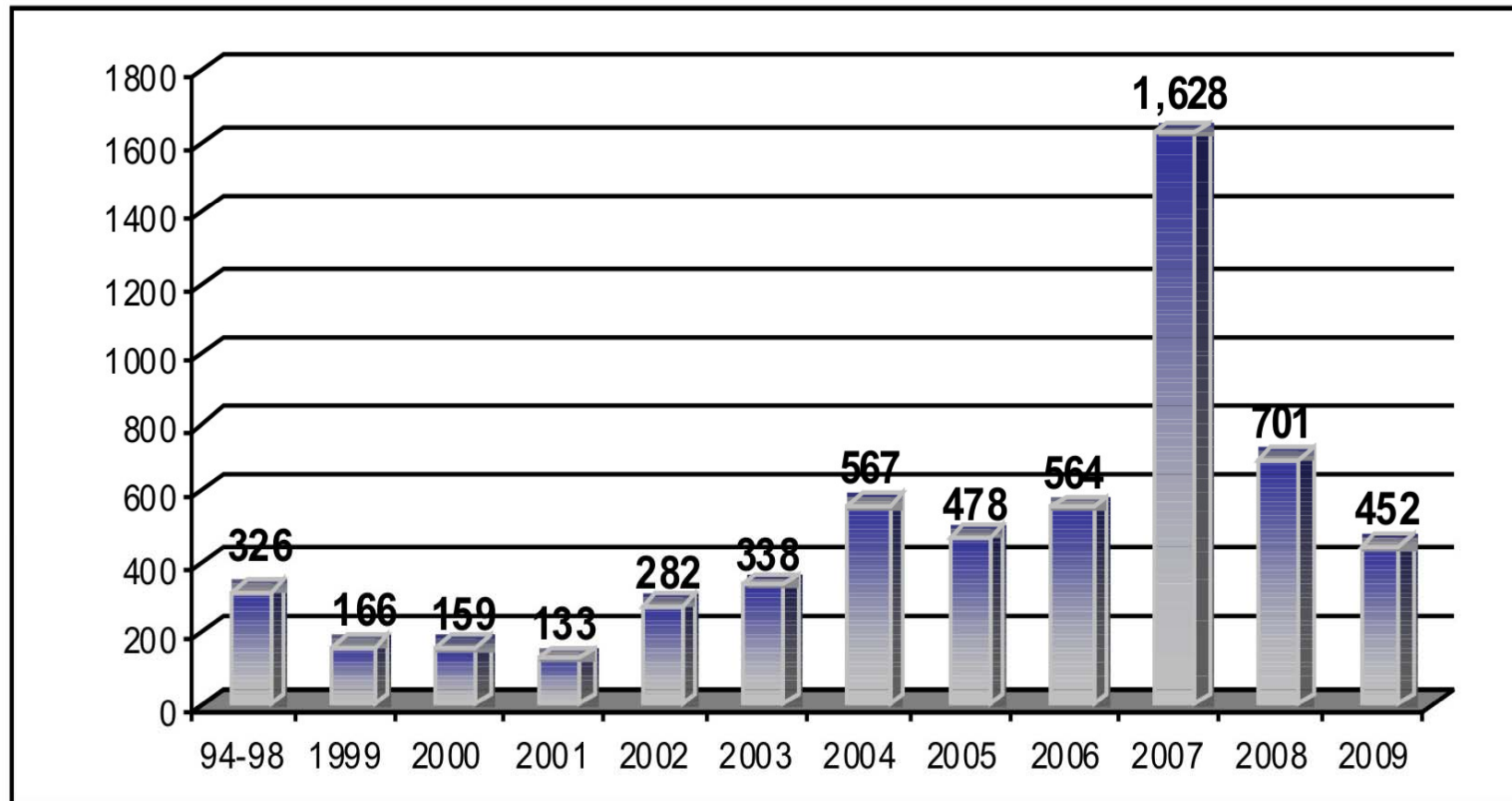
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High technology goods: decreasing imports in total amount



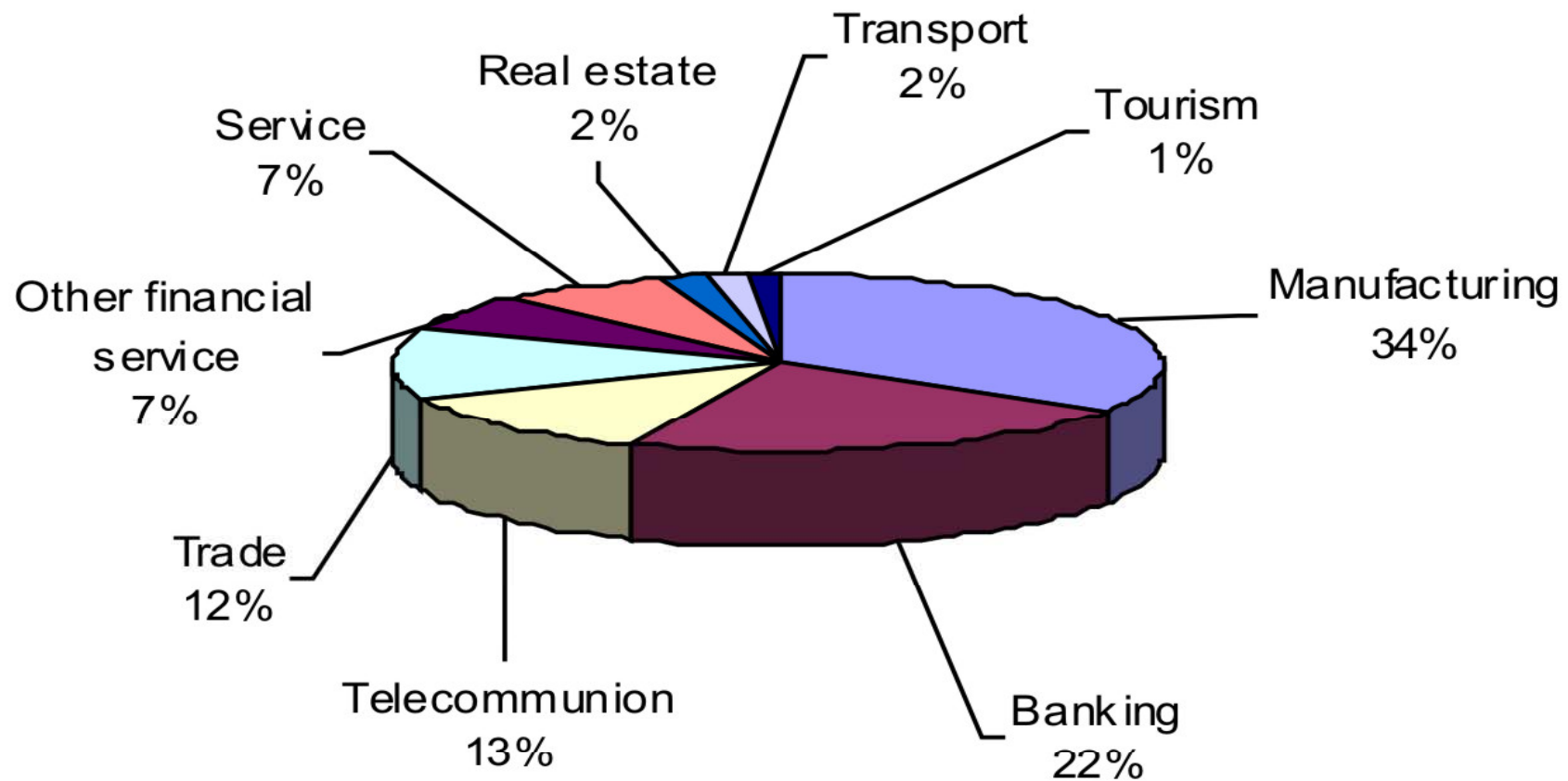
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Privatization: are the main channel of FDI inflow and greenfield FDI?

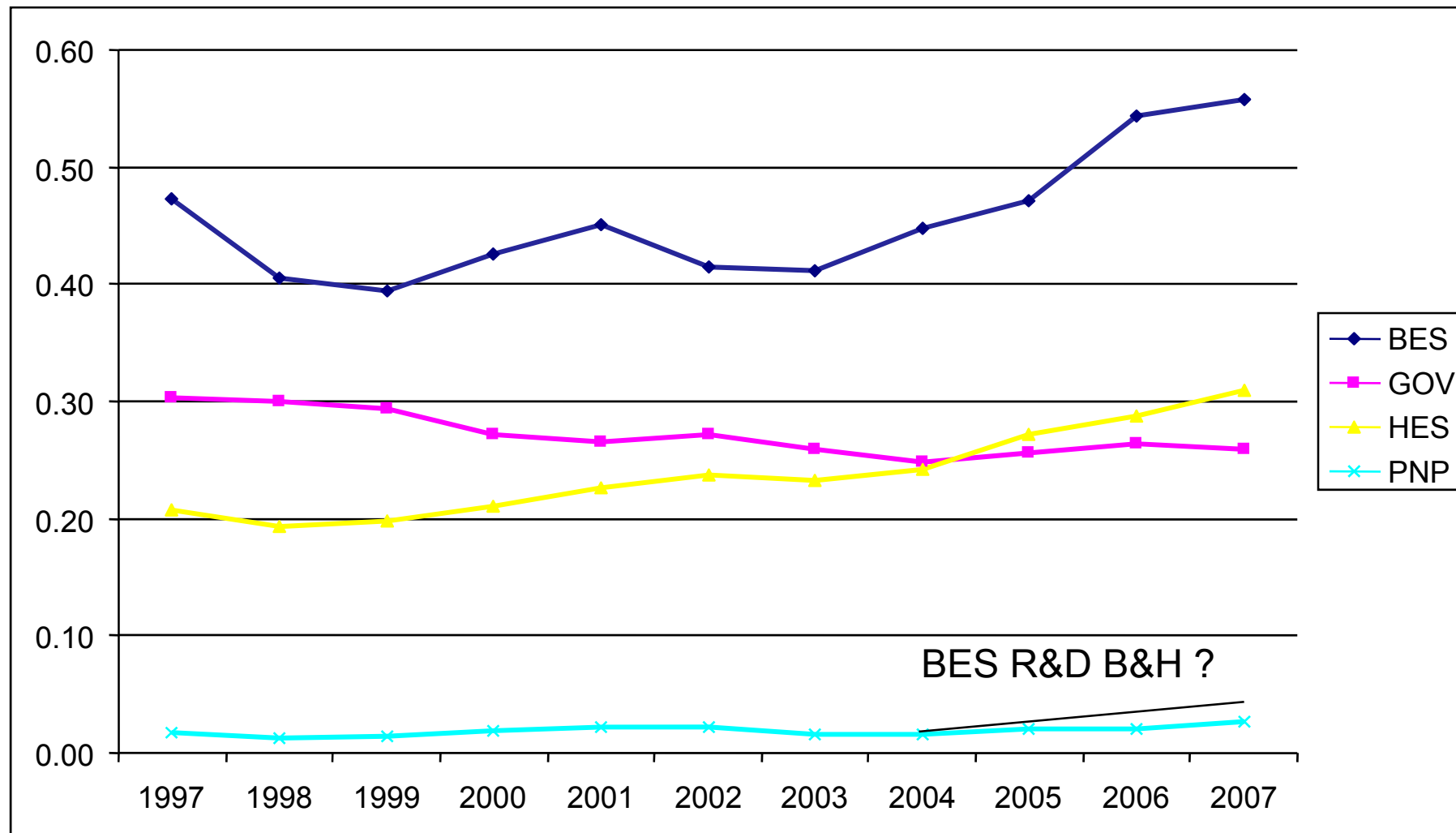


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FDI and innovation spill-overs? (Manufacturing's share in total FDI)

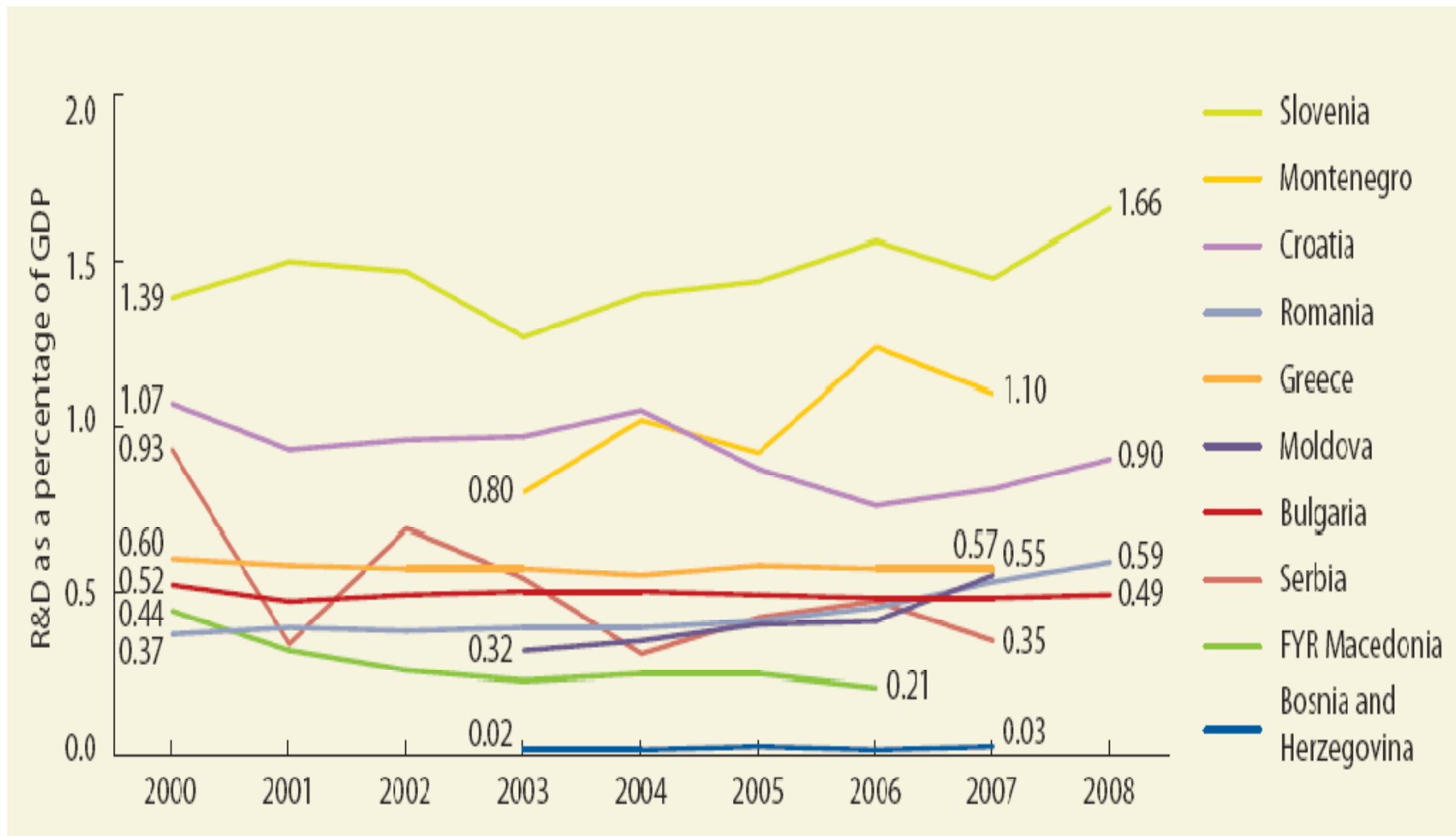


Share of GERD in GDP, different sectors, 20 EEE countries, 1997-2007



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GERD/GDP ratio in SEE, 2000–2008 (%)



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Innovation, research and technology: BiH sad story ...

- **Huge structural gap between BiH and other SEE countries.**
- **BiH did not react effectively to narrowing this gap with implementation of the Lisbon Strategy and the Bologna Process.**
- **Dissolution and war led to the fragmentation of the prewar successful university&research sector.**

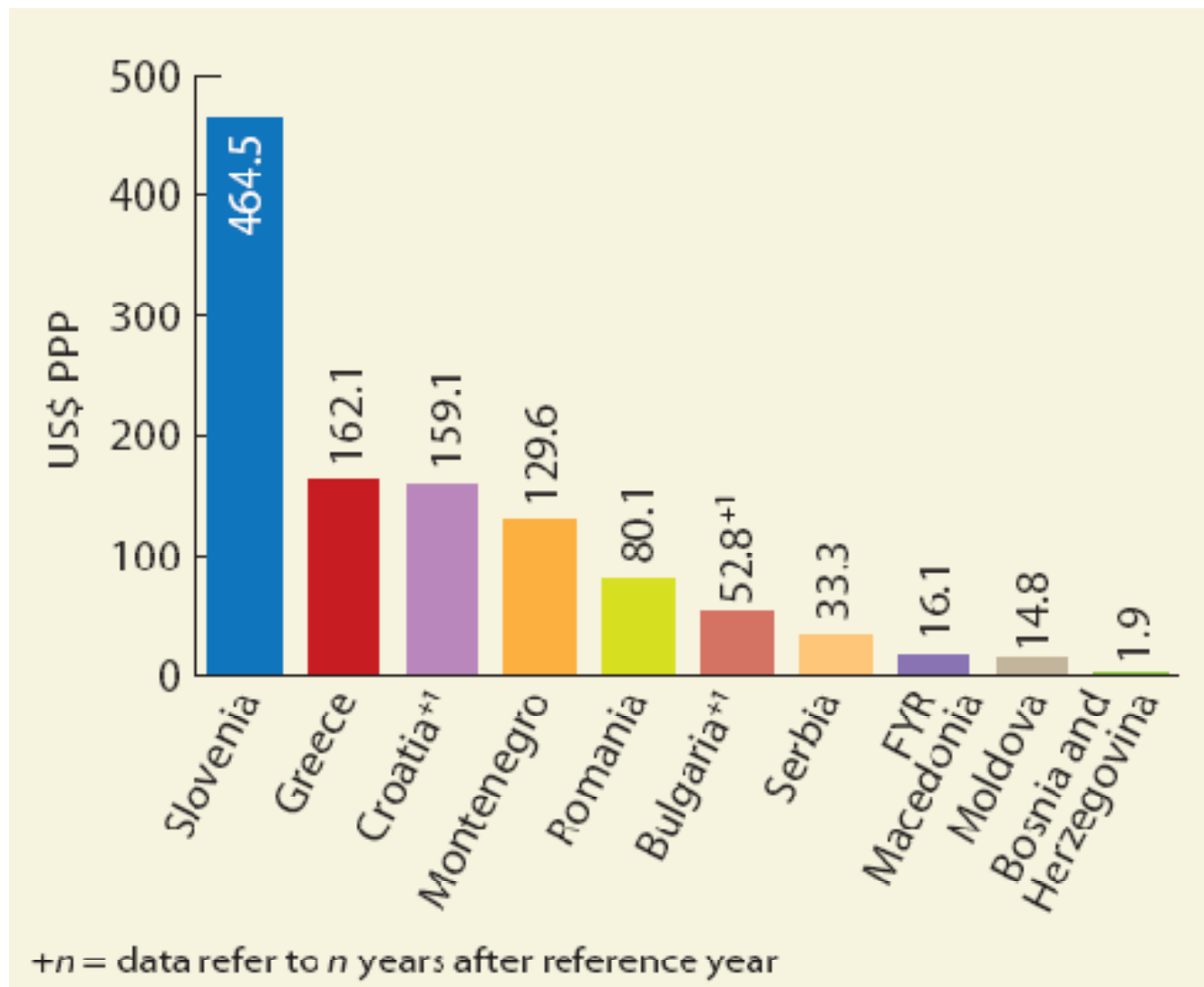
BiH story ...

- **After war - highly fragmented education system consisting of several education management subsystems (RS, the ten Cantons of FBiH, the level of FBiH, Brcko District, inter-Entity level and BiH level).**
- **The main question is how to coordinate such complex system in small and pure country.**

B&H sad story: R&D expenditure

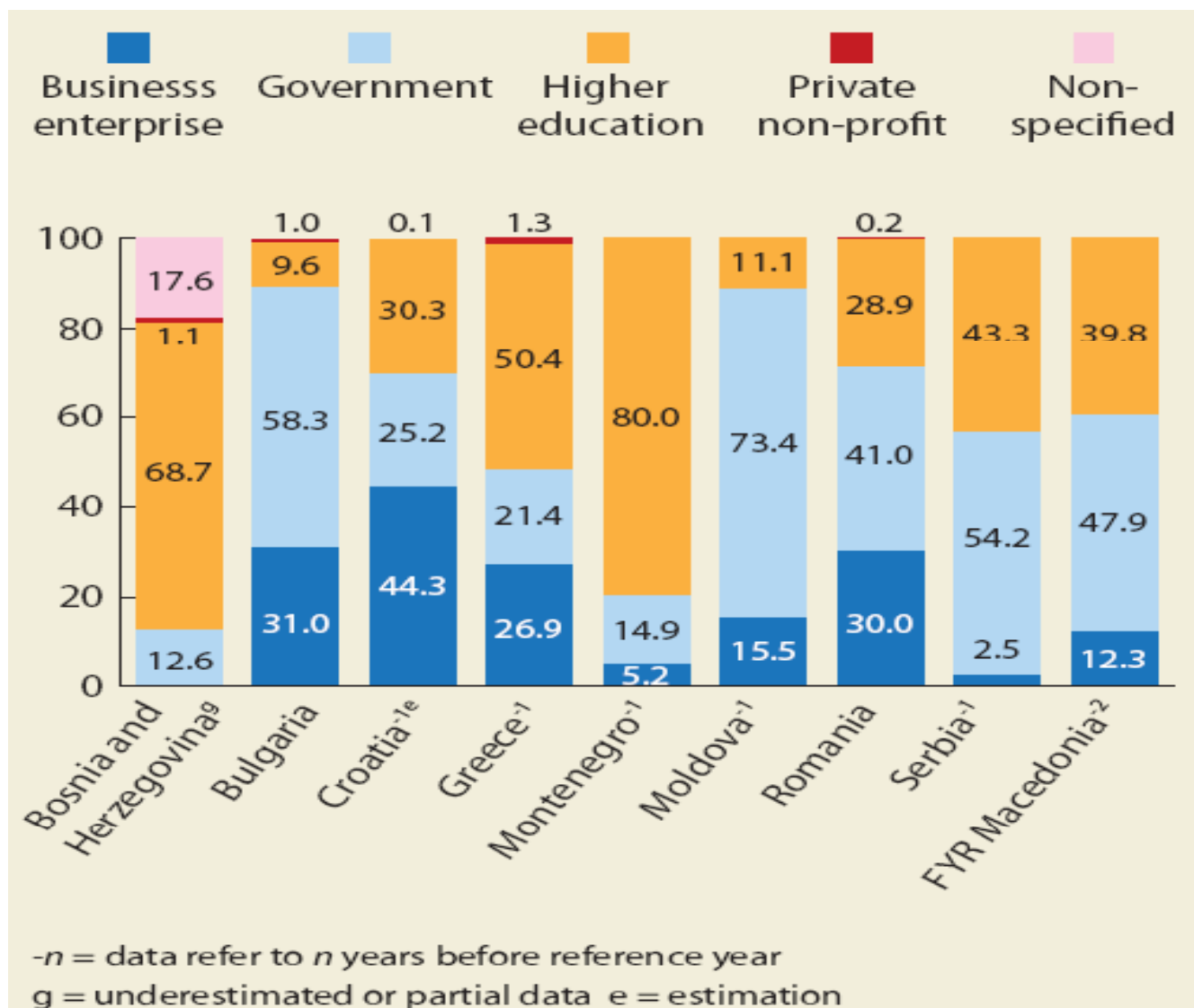
- **The ratio of BiH R&D expenditure to GDP (0.15-0.3 per cent), as compared with 1.5 per cent in 1990**
- **Slovenian R&D investment per capita is 2.421 times that of BiH, Croatian investment per capita in R&D activities is 83,7 times that of BiH and Serbian investment per capita in R&D activities is 17,5 times that of BiH**

GERD per capita in Southeast Europe, 2007



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GERD in SEE by performing sector, 2008 (%)



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Productivity of science in SEE countries...

R&D output in Southeast Europe, 2006 In terms of patents, publications and royalty payments			
	Total royalty payments and receipts (US\$ per capita) 2006	University– company research collaboration (scale of 1–7) 2007	Patents granted by USPTO (per million population) annual average 2002–2006
Albania	2.39	1.7	0
Bulgaria	10.38	2.7	0.74
Bosnia& Herzegovina	–	2.4	0.10
Croatia	50.02	3.6	2.45
Greece	42.53	2.9	1.87
FYR Macedonia	6.64	2.9	0.10
Moldova	1.48	2.3	0.33
Romania	10.22	2.7	0.34
Serbia	–	3.1	–
Slovenia	85.62	3.8	9.40
Source: UNESCO 2010.			

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Scientific publications in SEE, 2002 and 2008

	2002	2008	Change (%)
Albania	35	52	48.6
Bosnia and Herzegovina	35	287	720.0
Bulgaria	1 528	2 227	45.7
Croatia	1 254	2 348	87.2
Greece	5 588	9 296	66.4
FYR Macedonia	104	197	89.4
Moldova	160	223	39.4
Montenegro	–	93	–
Romania	2 127	4 975	133.9
Serbia*	1 003	2 729	172.1
Slovenia	1 609	2 766	71.9
* Serbia includes Montenegro for 2002.			

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SEE country citation data, 1996-2010

	Country	Documents	Citable documents	Citations	Self-Citations	Citations per Document	H index
6	Romania	62.187	61.403	256.274	64.963	5,66	111
8	Croatia	41.547	40.239	196.151	48.258	5,6	110
9	Slovenia	38.030	37.127	258.700	55.854	8	121
10	Bulgaria	36.824	36.119	226.417	42.727	6,72	116
12	Lithuania	17.606	17.310	100.247	24.059	7,77	93
13	Serbia	14.553	14.217	23.699	7.607	2,52	37
19	Moldova	3.642	3.605	18.448	3.854	5,29	47
20	Macedonia	3.110	3.018	15.760	2.659	6,65	46
21	B&H	2.597	2.529	7.771	1.335	6,42	34
22	Albania	965	936	5.021	540	6,9	32
23	Montenegro	406	402	374	87	1,34	7

Retrieved from: <http://www.scimagojr.com>.

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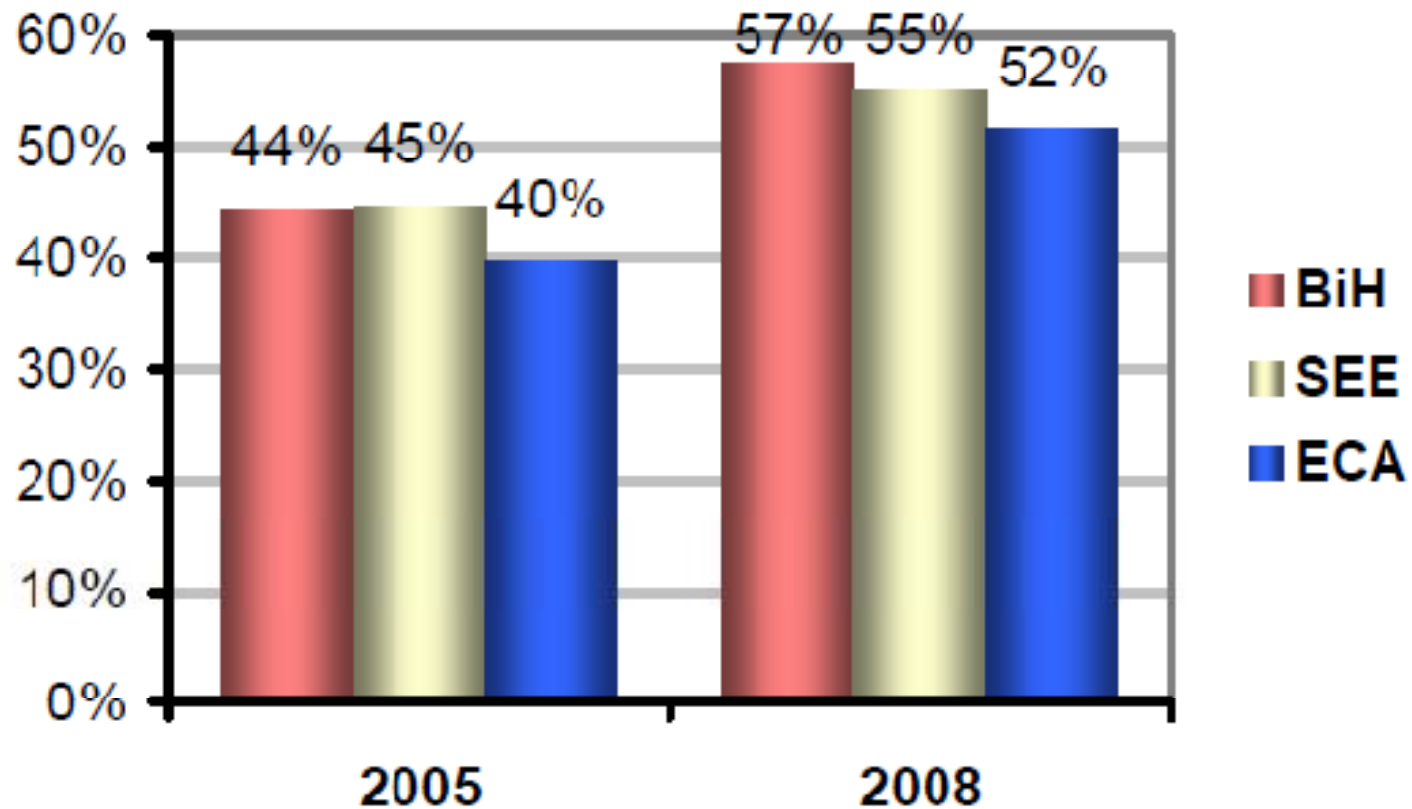
Innovation, R&D: Firm level

- **There is extremely limited private sector efforts to undertake R&D.**
- **Adopting standards of QMS are one of the most popular activities demanded by the SMEs**
- **SMEs in B&H have:**
 - **Insufficient internal capacities for innovation and technology development,**
 - **Poor links with the scientific and research institutions,**
 - **No locally available laboratory capacities for tests and research projects,**
 - **Lack of financial resources for research projects.**

Firm level: R&D expenditure (% of annual income)

Type of expenditure	Expenditure by small innovative enterprise (percentage of total annual income)	Expenditure by medium sized innovative enterprise (percentage of total annual income)
Internal R&D	0,31 %	0,63 %
External R&D	0,03 %	0,09 %
Acquisition of machinery, equipment and software	3,41 %	3,17 %
Acquisition of other external knowledge	0,01 %	0,01 %
Education and training for innovation activities	0,09 %	0,09 %
All forms of design	0,02 %	0,03 %
Marketing expenditure	0,14 %	0,34 %
Total	4,01 %	4,35 %

Firm level: % of firms that developed new products



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Donor works on development of innovation infrastructure

- **Development of innovative infrastructure in B&H is supported through different donor programmes:**
 - **Business Innovation Programme (bilateral programme),**
 - **Competitive Regional Economic Development (CREDO),**
 - **Enhancing Small and Medium Enterprise (SME) Access to Finance Project of the World Bank,**
 - **Open Regional Fund for Foreign Trade Promotion in SEE (ORF),**
 - **Turn-around Management and Business Advisory Services Programme B&H (TAM/BAS),**
 - **USAID Enterprise Energy Efficiency (3E),**
 - **USAID Excellence in Innovation Project (EI),**
 - **USAID Development Credit Authority (DCA) Loan Portfolio Guarantee (LPG),**
 - **USAID Fostering Interventions for Rapid Market Advancement (FIRMA),**
 - **Western Balkans Investment Framework (WBIF),**
 - **7th Framework Programme for R&D Development (FP7)**
 - **IPA funds (in line with Lisbon and Gothenburg priorities).**

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