



Competitiveness And Innovation: Challenges for The Czech Republic in Global World

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OECD Innovation Strategy: Fostering the Cooperation Between the Public and Private Sector in R&D and Innovation
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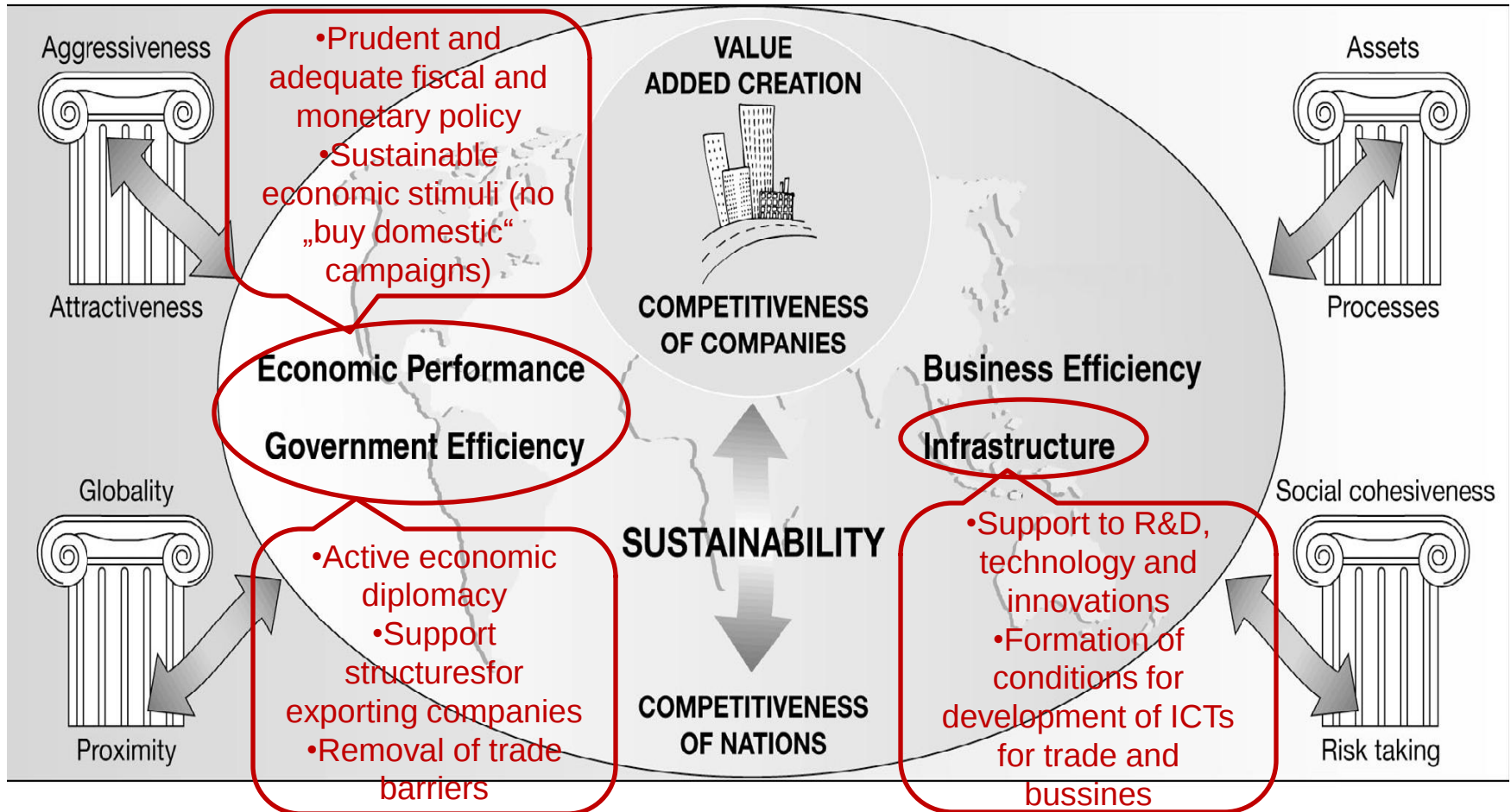


- 1. Introduction – Schumpeterian approach**
- 2. First leg - macroeconomic impacts of the crisis on peripheral EU member states**
- 3. Second leg - Competitiveness supported by the innovation**
- 4. Conclusion**



1. Intro

Global framework and „creative destruction“



In all of these areas, civic engagement may lead to substantial improvements



1. Intro

Two legs for country survival – macro and micro

- Different development & crisis in peripheral EU member states/Southern E (PIGS) vs. Northern E (USA no exception)

- Future strategy of the CR

- ✓ “PIGS” country

- ✓ “Finnish-type” country



- How to do it?

- ✓ Fiscal sustainability in the ST, MT and LT
 - ✓ Competitiveness

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1. Introduction

2. First leg - macroeconomic impacts of the crisis on peripheral EU member states

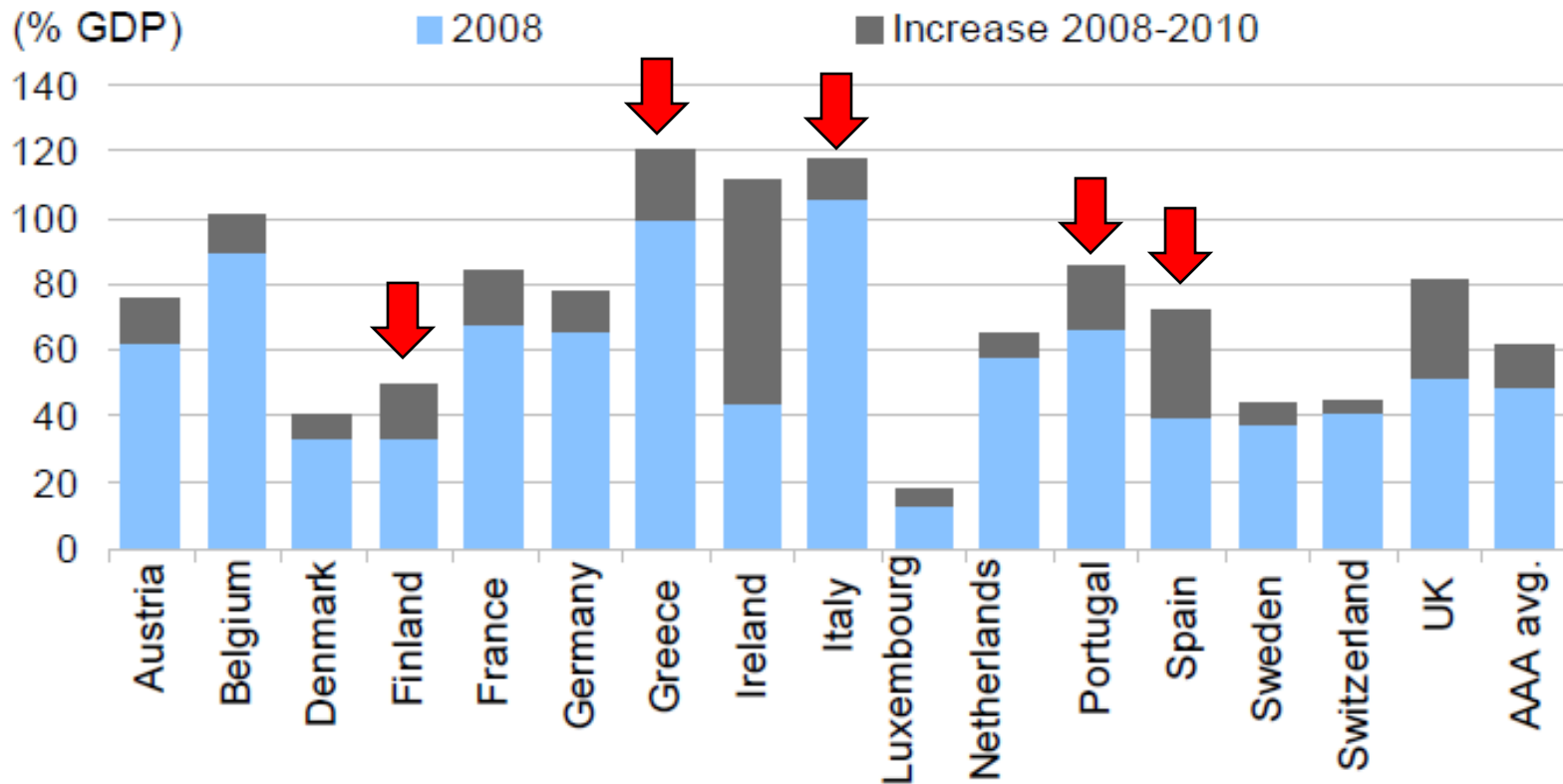
3. Second leg - Competitiveness supported by the innovation

4. Conclusion



2. First leg - macroeconomic impacts of the crisis on peripheral EU member states

Gross Government Debt – 2008 and 2010



➤ High debt/HDP ratio of PIGS

2. First leg macroeconomic impacts of the crisis on peripheral EU member states

PIGS countries credit risk reflected by the market (CDS)

Greece

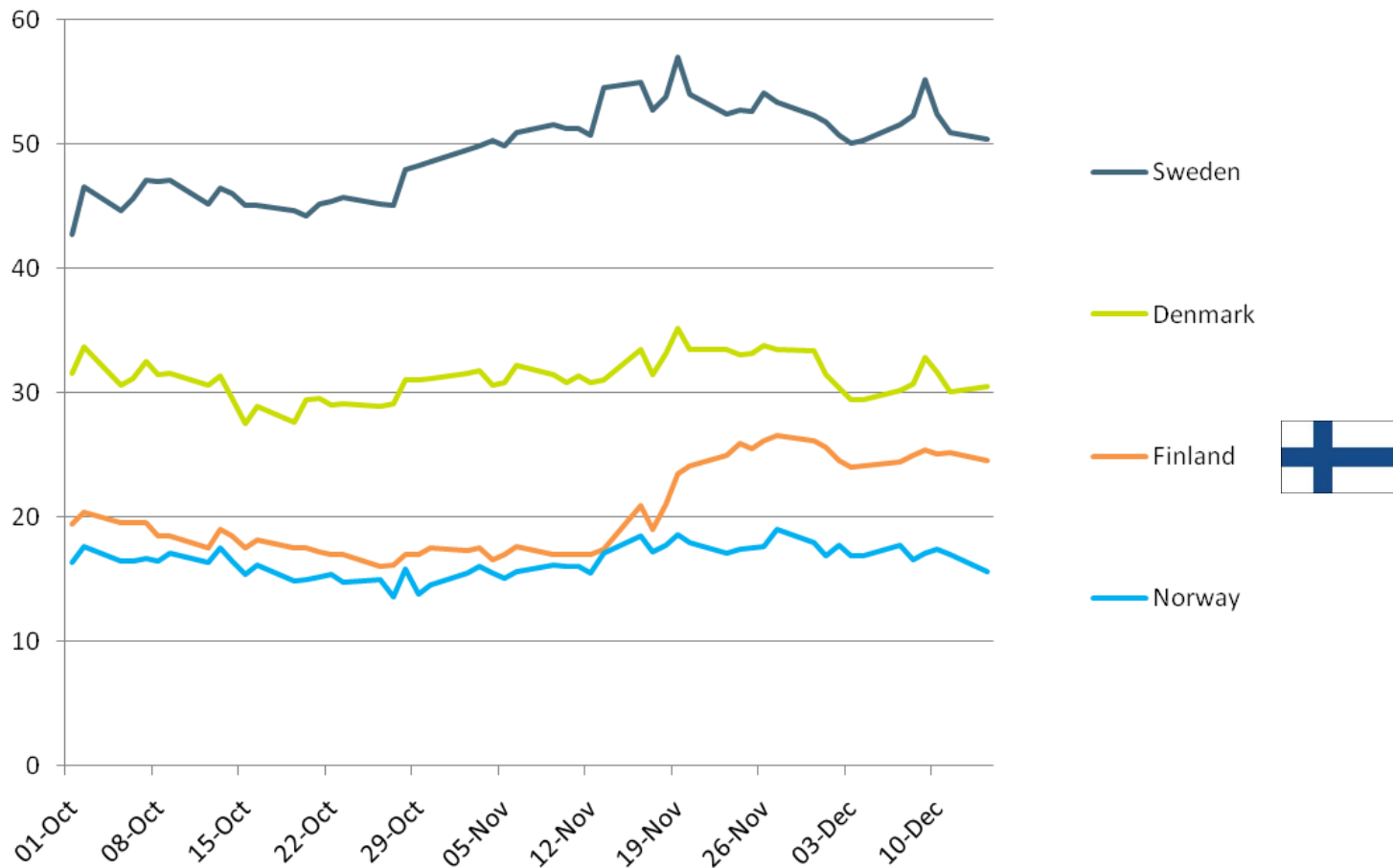


Spain

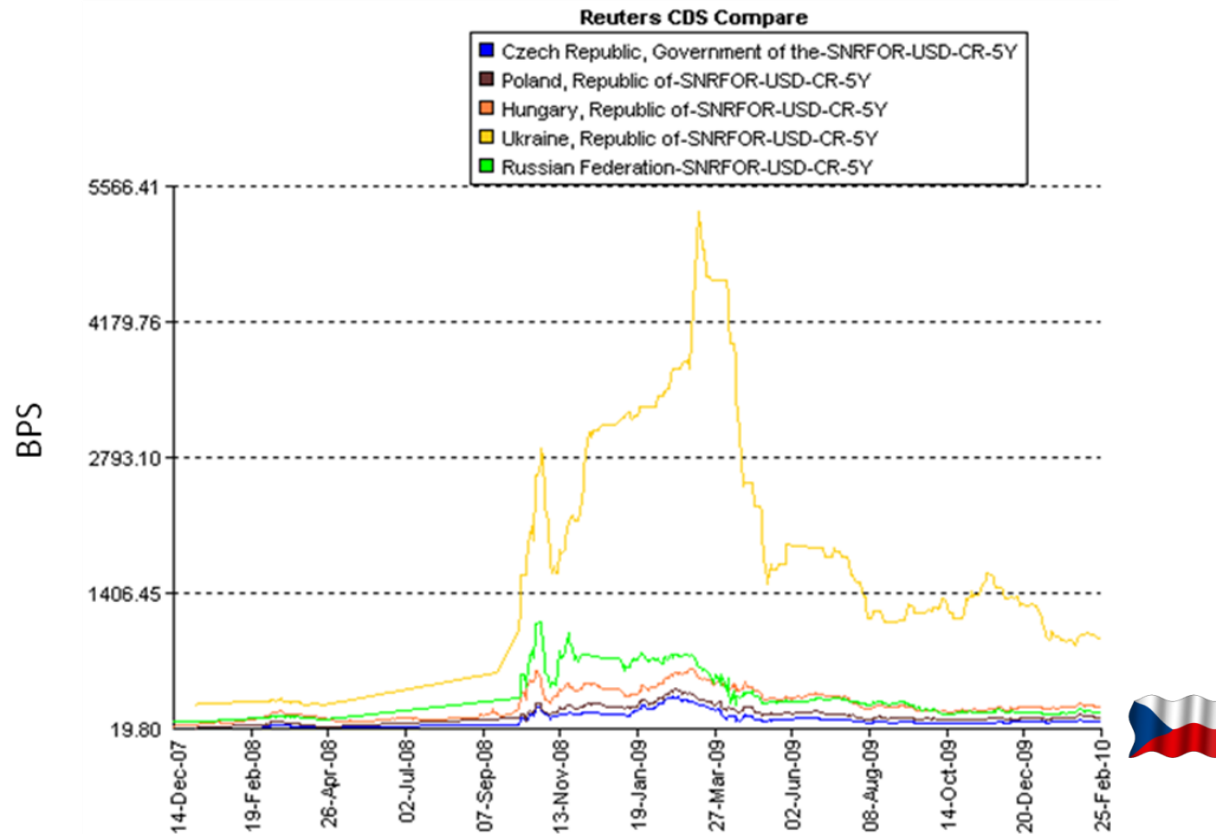


1. First leg macroeconomic impacts of the crisis on peripheral EU member states

Low CDS spread in Finland



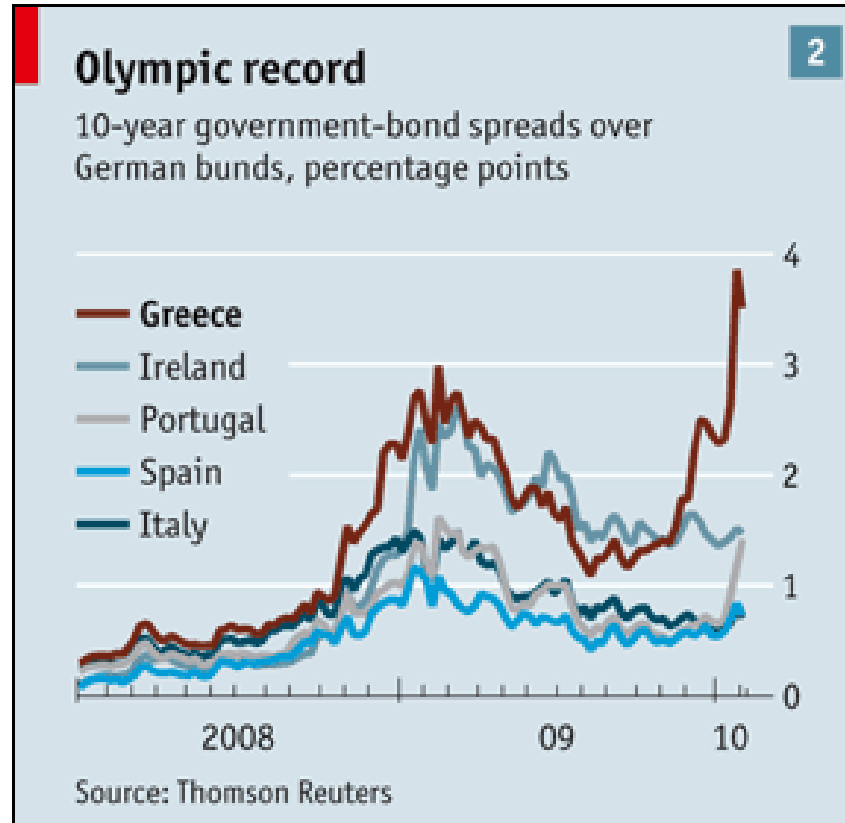
1. First leg macroeconomic impacts of the crisis on peripheral EU member states



- Currently CDS spread is relatively low in the CR compared to CEE countries

2. First leg macroeconomic impacts of the crisis on peripheral EU member states

Higher credit risk -> Higher bond spread

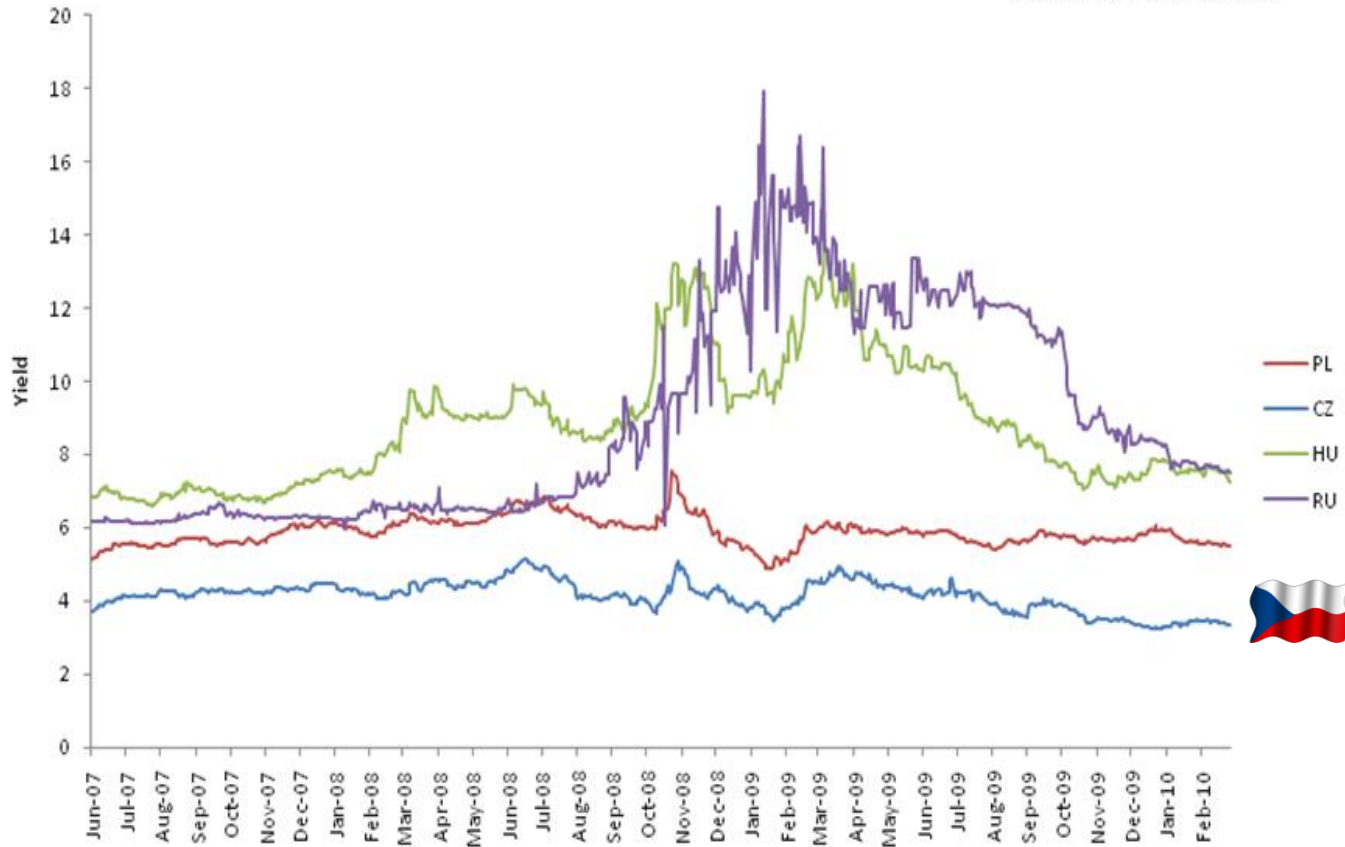


➤ Higher CDS spread = penalty from the market

1. First leg macroeconomic impacts of the crisis on peripheral EU member states

Reuters 5Y T-Bond Yields

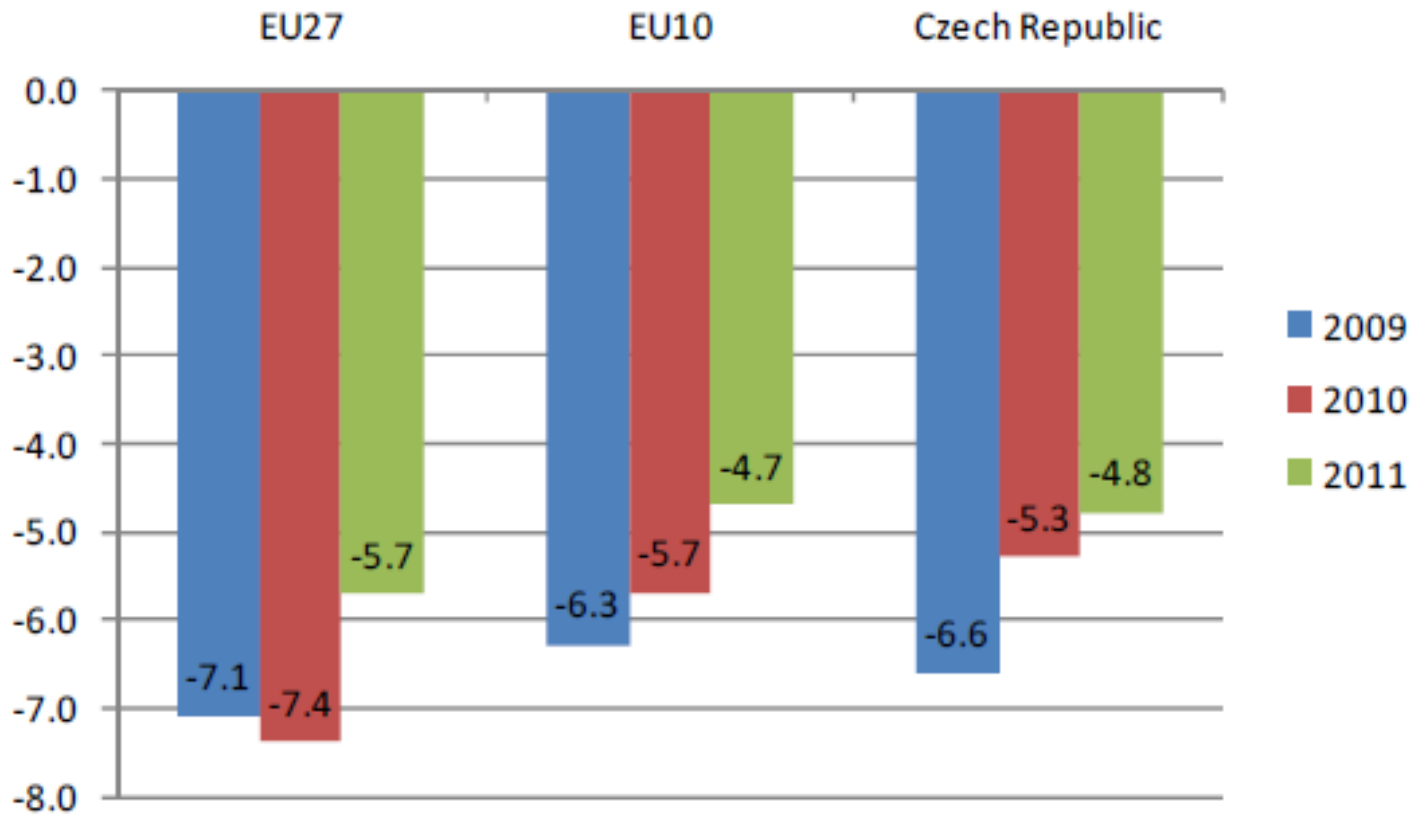
01/06/2007-26/02/2010



- ..relatively low CDS spread implies relatively low Treasury bond yields in the CR, but sustainable???

1. Fiscal sustainability

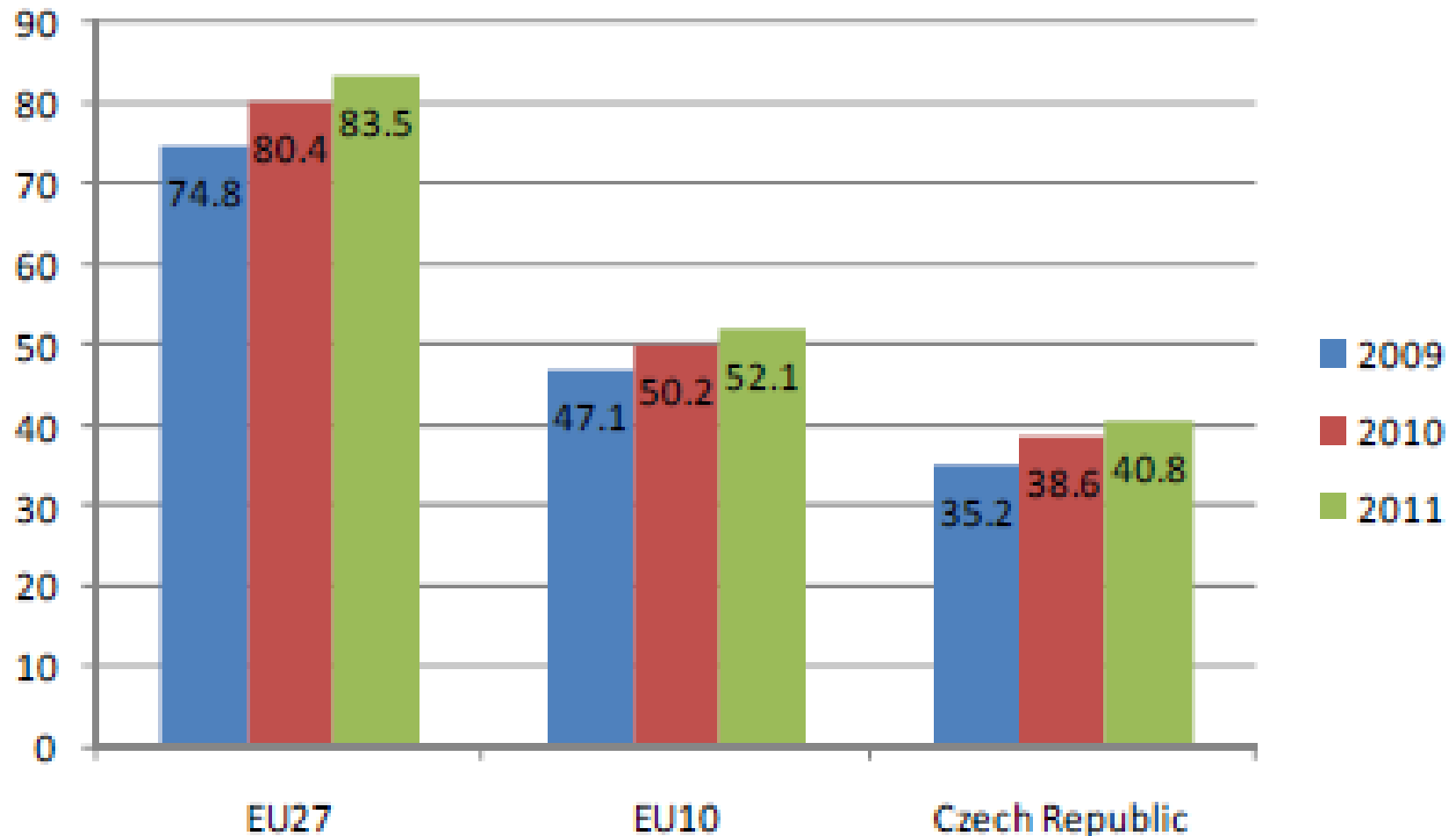
...planned decreasing fiscal deficits in the CR (% GDP)



- Implying relatively low Treasury bond yields in the CR
- But sustainable?

1. Fiscal sustainability

...but increasing public debt/GDP ratio (%)



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Two types of competitiveness

➤ Price competitiveness

- ✓ Higher prices/salaries (EU zone members – ESP, GRE etc.)

➤ Non-price competitiveness

- ✓ effective state administration
- ✓ indices of competitiveness include innovation
 - World Bank/Doing Business
 - World Economic Forum/The Global Competitiveness Report 2009–2010
 - The EIU - IT industry competitiveness index
 - The IMD in Lausanne etc.

2. Second leg - Competitiveness supported by the innovation

Price (un)competitiveness – Spanish case

Table 1: Indicators of the competitiveness of the Spanish economy

	Relative labour costs *	Relative wage costs in manufacturing **	Manufacturing/total employment (%)	Construction/total employment (%)	Current account balance (% of GDP)
1998	100.0	100.0	18.6	9.8	-1.1
1999	100.7	97.4	18.4	10.4	-2.7
2000	102.2	100.0	18.1	11.1	-4.0
2001	102.9	100.9	17.8	11.6	-4.3
2002	103.3	101.6	17.6	11.7	-3.8
2003	104.0	104.9	17.1	11.8	-4.0
2004	105.7	107.6	16.7	12.1	-5.9
2005	107.9	111.9	16.1	12.5	-7.5
2006	110.5	115.6	15.5	12.8	-9.0
2007	113.0	118.3	14.9	13.1	-10.0

Source: Bruegel calculations based on AMECO and Price and Cost Competitiveness Databases. Note: * REER vs EU16 based on unit labour costs, total economy. Normalised as 1998=100; ** REER vs EU16 based on unit wage costs, manufacturing. Normalised as 1998=100

3. Second leg - Competitiveness supported by the innovation

The EU is still lagging behind the US

	Average annual labour productivity growth per person employed			GDP ppe 2007 (EU-27=100)	GDP phw 2007 (EU-25=100) (*)	GDP pc 2007 (EU-27=100)
	1996-2001	2001-2006	2007			
Austria	1,6	1,4	1,4	120,4	107,9	127,7
Belgium	1,3	1,4	1,1	131,2	133,8	118,9
Bulgaria	2,4	3,3	3,3	35,6	34,6	37,9
Cyprus	2,6	0,2	1,1	84,7	73,9	91,6
Czech Republic	2,0	4,1	4,6	73,1	59,7	81,0
Denmark	1,4	1,7	0,0	107,1	112,3	124,0
Estonia	8,5	6,9	6,6	67,5	54,2	71,4
Finland	2,2	2,0	2,1	113,4	107,1	118,3
France	1,2	1,2	0,8	123,6	129,4	110,6
Germany	2,0	1,6	1,0	106,6	119,3	114,0
Greece	3,1	2,5	2,7	105,4	77,9	98,2
Hungary	3,2	4,0	1,5	74,8	60,3	64,1
Ireland	3,2	2,2	1,6	135,4	115,9	145,9
Italy	0,9	0,0	0,5	108,0	94,9	101,3
Latvia	6,0	6,7	6,6	53,6	45,3	57,9
Lithuania	7,2	5,9	6,7	60,2	51,5	59,8
Luxembourg	1,5	1,6	0,2	182,3	180,8	279,2
Malta	2,6	1,1	1,1	90,1	85,0	77,1
Netherlands	1,4	1,6	1,1	113,1	130,4	131,2
Poland	5,5	3,6	1,9	61,4	49,7	54,4
Portugal	1,8	0,6	1,7	68,4	62,2	73,6
Romania	0,9	6,9	4,7	40,5	N/A	40,2
Slovakia	3,8	5,0	8,1	76,6	69,1	68,3
Slovenia	4,0	3,6	3,3	85,7	79,3	90,1
Spain	0,2	0,5	0,8	102,5	99,6	104,1
Sweden	1,8	3,0	0,5	113,0	112,2	123,6
United Kingdom	1,9	1,6	2,3	110,8	107,4	117,8
EU-25	1,7	1,4	1,3	103,9	100,0	100,0
EU-27	1,7	1,4	1,3	100,0	N/A	N/A
US	1,8	2,1	1,0	142,0	128,4	154,3



Note: The relative levels of GDP per person employed, per hour worked and per capita have been calculated on the base of purchasing power standards.

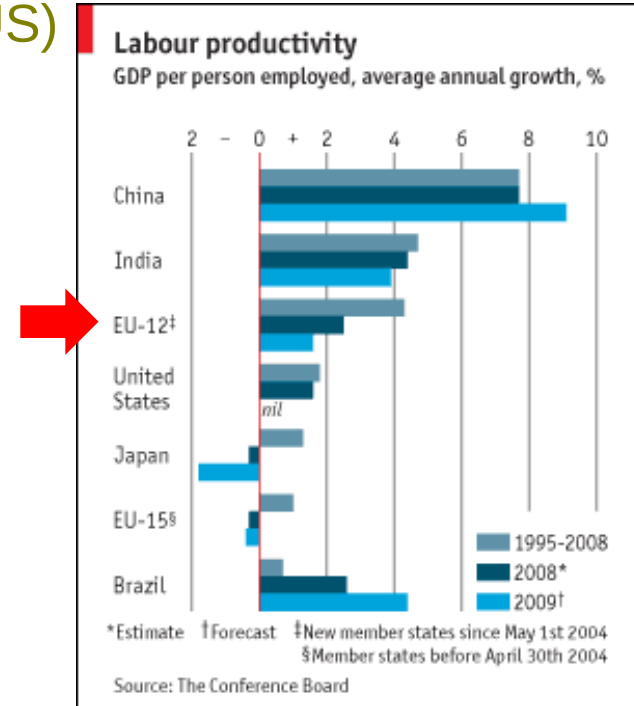
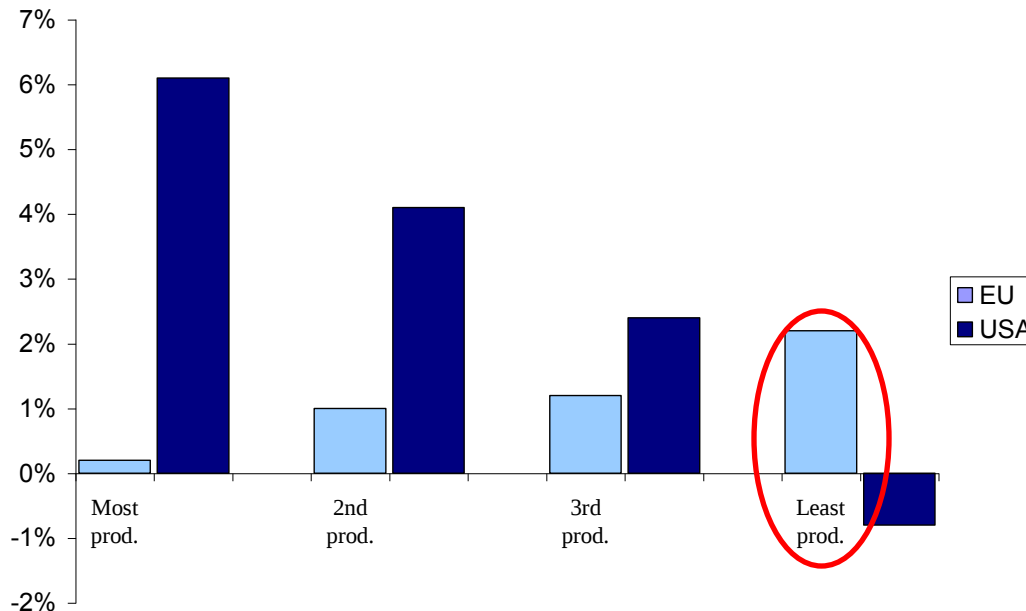
(*) Data for Romania and EU-27 are not available (N/A), and number for the US refers to 2006

Source: AMECO (Annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs), June 2008

3. Second leg - Competitiveness supported by the innovation

Different levels of productivity – support of zombies !

- Growth of Employment by Productivity Quartiles is a Long-Term Signal (China and CEE show a similar pattern as the US)



- Some un-wise bail-outs and state subsidies might block necessary structural/ innovation changes and fix old problems
- Old EU member states might lag behind China and US in terms of productivity...CEE growth might not !

3. Second leg - Competitiveness supported by the innovation

The Lisbon league table: Overall Lisbon performance



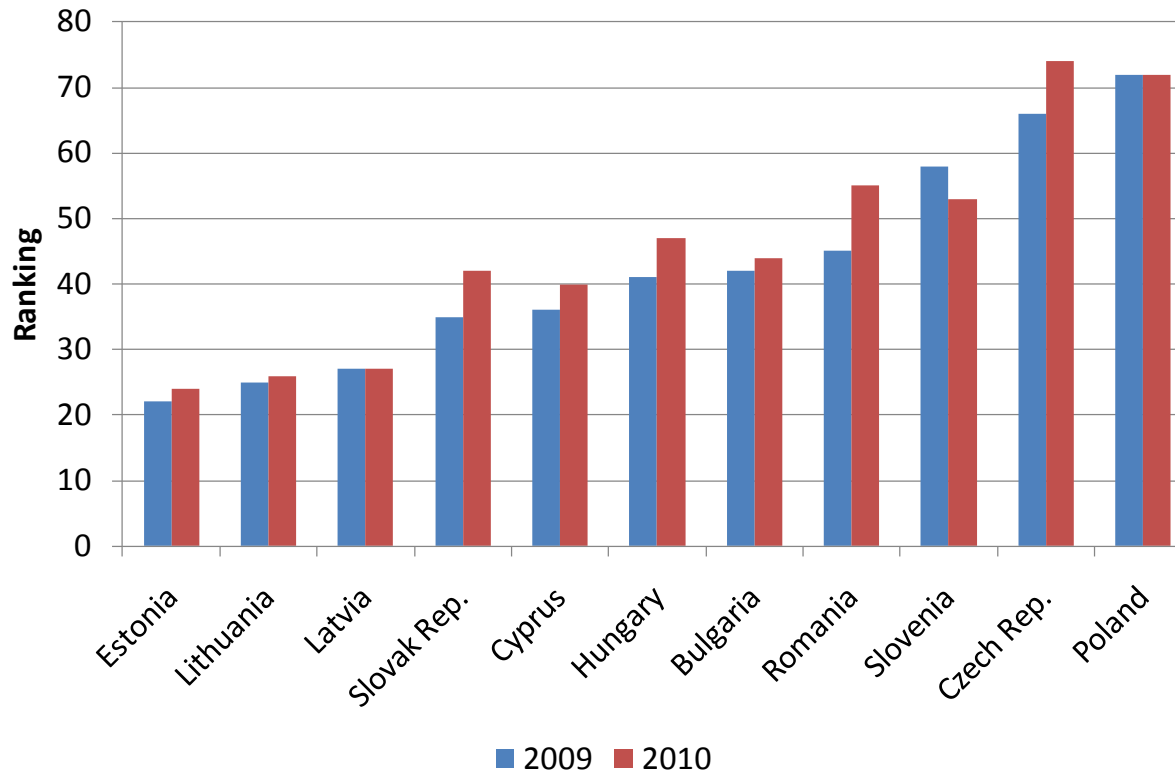
	Rank 2008	Rank 2007
Sweden	1	2
Denmark	2	1
The Netherlands	3	4
Austria	4	3
Finland	5	5
Ireland	6	6
UK	7	7
Germany	8	8
Czech Republic	9	14
France	10	9
Estonia	11	11
Luxembourg	12	12
Belgium	13	13
Slovenia	14	10
Cyprus	15	15
Latvia	16	17
Lithuania	17	18
Slovakia	18	20
Spain	19	16
Greece	20	19
Portugal	21	21
Italy	22	23
Hungary	23	22
Poland	24	26
Bulgaria	25	25
Romania	26	24
Malta	27	27

- Innovation
- Liberalisation
- Enterprise
- Employment and social inclusion
- Sustainable development and the environment

- What about the post-Lisboan world?

3. Second leg - Competitiveness supported by the innovation

World Bank – Doing Business 2009 (10 criteria)



- TOP countries – Estonia, Latvia and Lithuania, but low macro economic performance!!!
- Two “worst” countries – Czech Rep. and Poland, but expected GDP growth in 2009!

3. Second leg - Competitiveness supported by the innovation

World Bank – Doing Business 2009 (10 criteria)

	Bulgaria	Cyprus	Czech Rep.	Estonia	Hungary	Latvia	Lithuania	Poland	Romania	Slovak Rep.	Slovenia
Ease of Doing Business Rank	44	40	74	24	47	27	26	72	55	42	53
Starting a Business	50	25	113	37	39	51	99	117	42	66	26
Dealing with Construction Permits	119	77	76	20	88	78	64	164	91	56	59
Employing Workers	53	93	25	161	77	128	119	76	113	81	162
Registering Property	56	64	62	13	61	58	4	88	92	11	108
Getting Credit	4	71	43	43	30	4	43	15	15	15	87
Protecting Investors	41	93	93	57	119	57	93	41	41	109	20
Paying Taxes	95	37	121	38	122	45	51	151	149	119	84
Trading Across Borders	106	15	53	3	70	22	28	42	46	113	84
Enforcing Contracts	87	107	82	49	14	15	17	75	55	61	60
Closing a Business	78	21	116	61	58	88	36	85	91	39	40

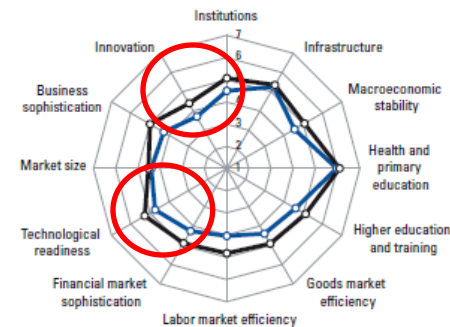
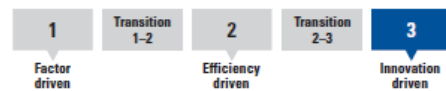
- Starting business – best countries – Cyprus and Slovenia vs. worst countries CR and Poland
- Protecting investors – Bulgaria, Romania and Poland vs. SR and Hungary
- Paying taxes – Cyprus and Latvia vs. Romania and Poland

3. Second leg - Competitiveness supported by the innovation

Southern European peripherals - PIGS

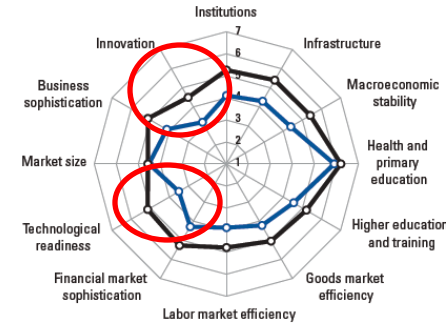
MT& LT similarities besides weak macro :
Substandard competitiveness including substandard innovation,
technological readiness and higher education and training

Stage of development



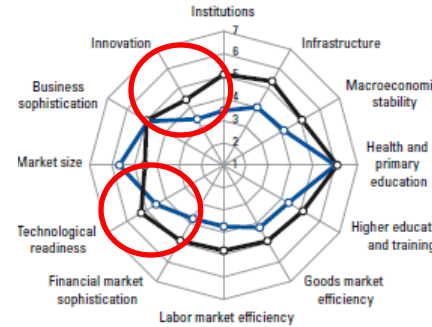
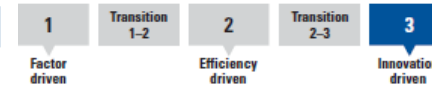
— Portugal — Innovation-driven economies

Stage of development



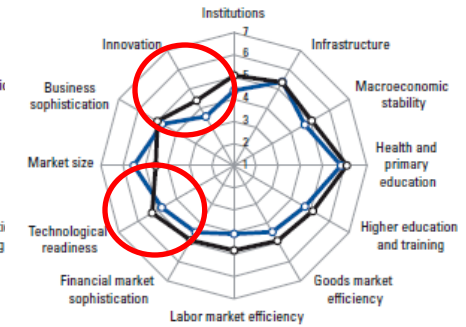
— Greece — Innovation-driven economies

Stage of development



— Italy — Innovation-driven economies

Stage of development

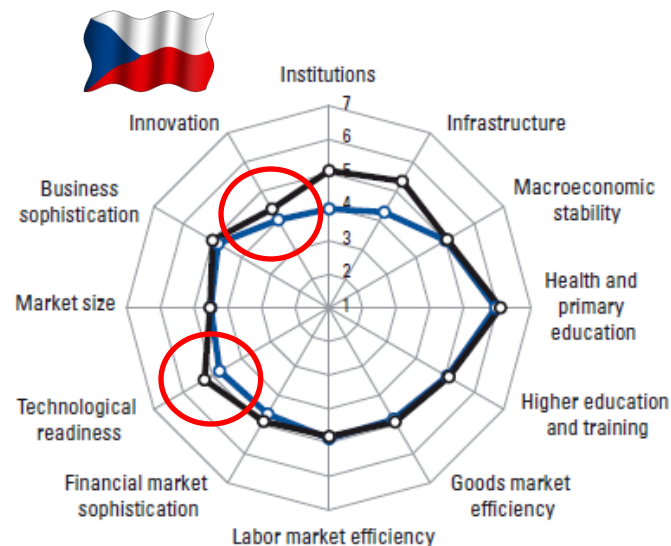


— Spain — Innovation-driven economies

3. Second leg - Competitiveness supported by the innovation

Czech Republic vs. Finland

Stage of development



— Czech Republic — Innovation-driven economies

Stage of development



— Finland — Innovation-driven economies

- CR follows innovation-driven economies in most of pillars
- CR lags in terms of Infrastructure, Institutions but also in **Innovation and Technological readiness, Finland is the leader**

3. Second leg - Competitiveness supported by the innovation

Future of innovation

- Importance of ideas
- The need of the foundation of a **technological agency** (similar to the National Technology Agency in Finland)
- Besides basic research also **applied research** -> practical results
- „Taxation of innovation“ - missing effective single Eu patent (van Pottelsberghe 2010)
- Importance of materialized outputs – better protection against “theft of ideas” (e.g. “built-in-box ideas” by Nokia, Nokian tyres, Linet smart hospital beds)



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4. Conclusion

- Number of issues addressed by Final Report of National Economic Council of Government (NERV), September 2009
- Importance of policy action after never ending discussions of sophisticated background materials...
- Well demonstrated by delays of Czech EU structural funds for Research and Development
- Still Low confidence to Policy Institutions (Ministry, Technological Agency, scientometrics and „coffee-mill selection tool“)

Discussion

'Innovation-based growth requires a coherence that is lacking in Europe. This is the main problem to address.'(Aghion 2006)

Support of Impact assessment : „...structural reforms need careful agenda-setting and prioritisation, based on a comparative cost-benefit analysis where the value of each reform would be measured by the ratio of its contribution to the overall growth potential of the country over the (social) cost of implementing the reform. This in turn would enable us to "rank" the reforms; that is, to get a more precise view as to what should be undertaken first, or as to which reforms should be implemented jointly because of complementarities in their growth impacts.(Aghion 2006)

Thanks for your attention.

Lets discuss it now!

Useful sources

- Aghion P., (2006), Innovation Primer, Bruegel Policy brief
- Danguy, van Pottelsberghe (2009) Cost-Benefit Analysis of Community patent , Bruegel, working paper 8
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