



# **Transition and Current Trends: The Czech Republic – An Economic Overview**

**Lubomír Lízal, PhD.  
CERGE-EI Director**

**October, 2007**

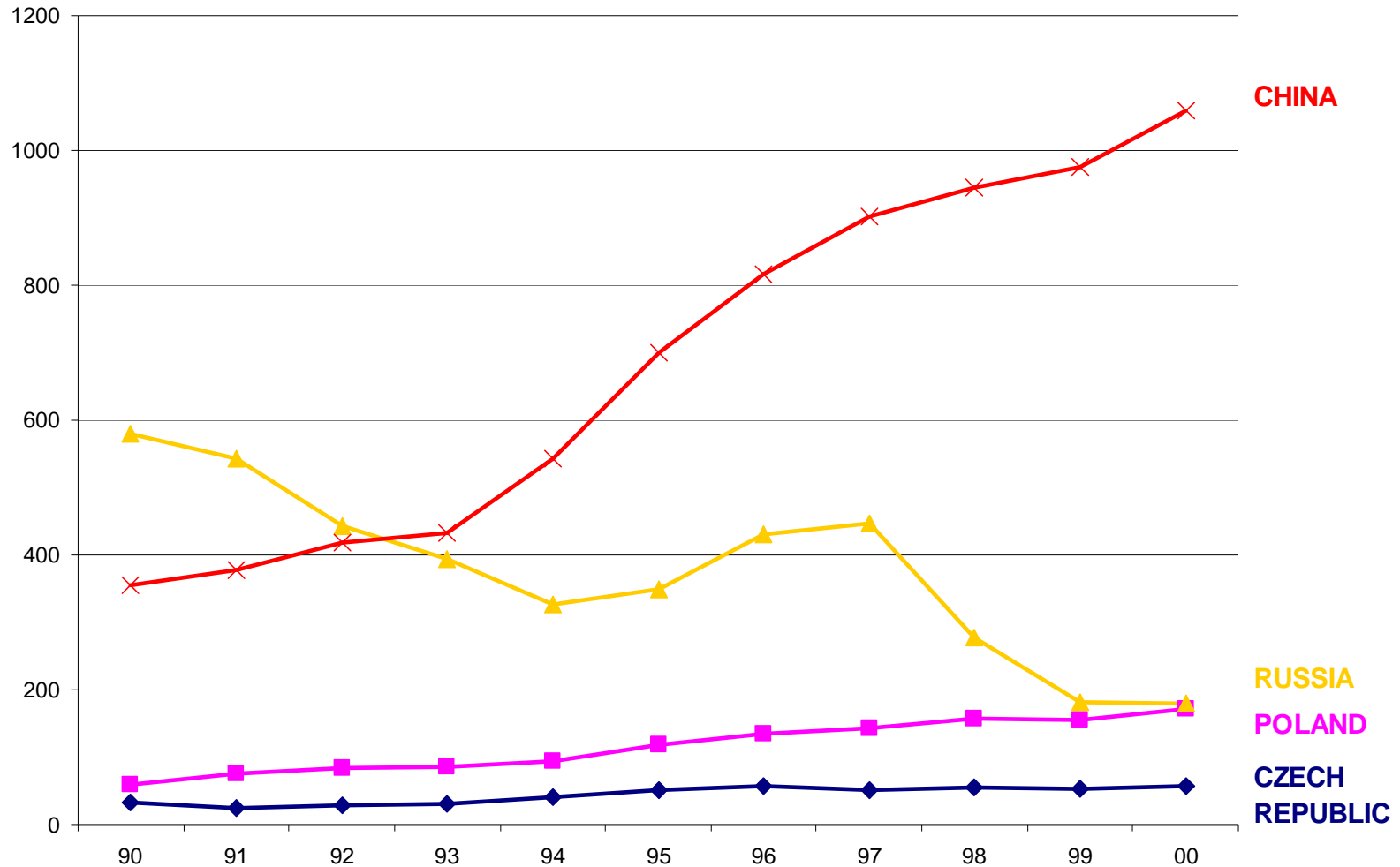
# Starting Comparison

Indicator	TRANSITION ECONOMIES					COMPARATORS			
	CEE	Russia	Other NIS & Mongolia	China	Vietnam	Low income	India	Middle- income	OECD
Population, 1989 (millions)	122	149	139	1,102	64	1,002	850	1,105	773
GNP per capita, 1990	4,110	2,268	2,141	404	188	320	380	2,220	20,170
At PPP	6,440	4,647	4,660	1,000	..	1,086	1,090	4,289	15,615
Growth rate before transition	1.9	1.5	2.3	4.9	..	3.4	5.8	2.9	3
Urban population as share of total population, 1991	61	74	58	18	19	28	27	62	77
Investment share of GDP, 1989	34	34	31	35	16	21	24	25	22
Industry share of GDP, 1989	51	50	40	48	23	28	29	36	31
Energy use (kilograms of oil equivalent per dollar of GDP)	0.81	0.91	0.71	0.38	..	0.14	0.21	0.41	0.31
Gini coefficient, 1989	26	24	24	30	36	46	34	45	33
Life expectancy at birth, 1989 (years)	71	69	70	70	66	56	60	68	77
Illiteracy rate, 1991	3	2	2	31	12	41	52	17	<5

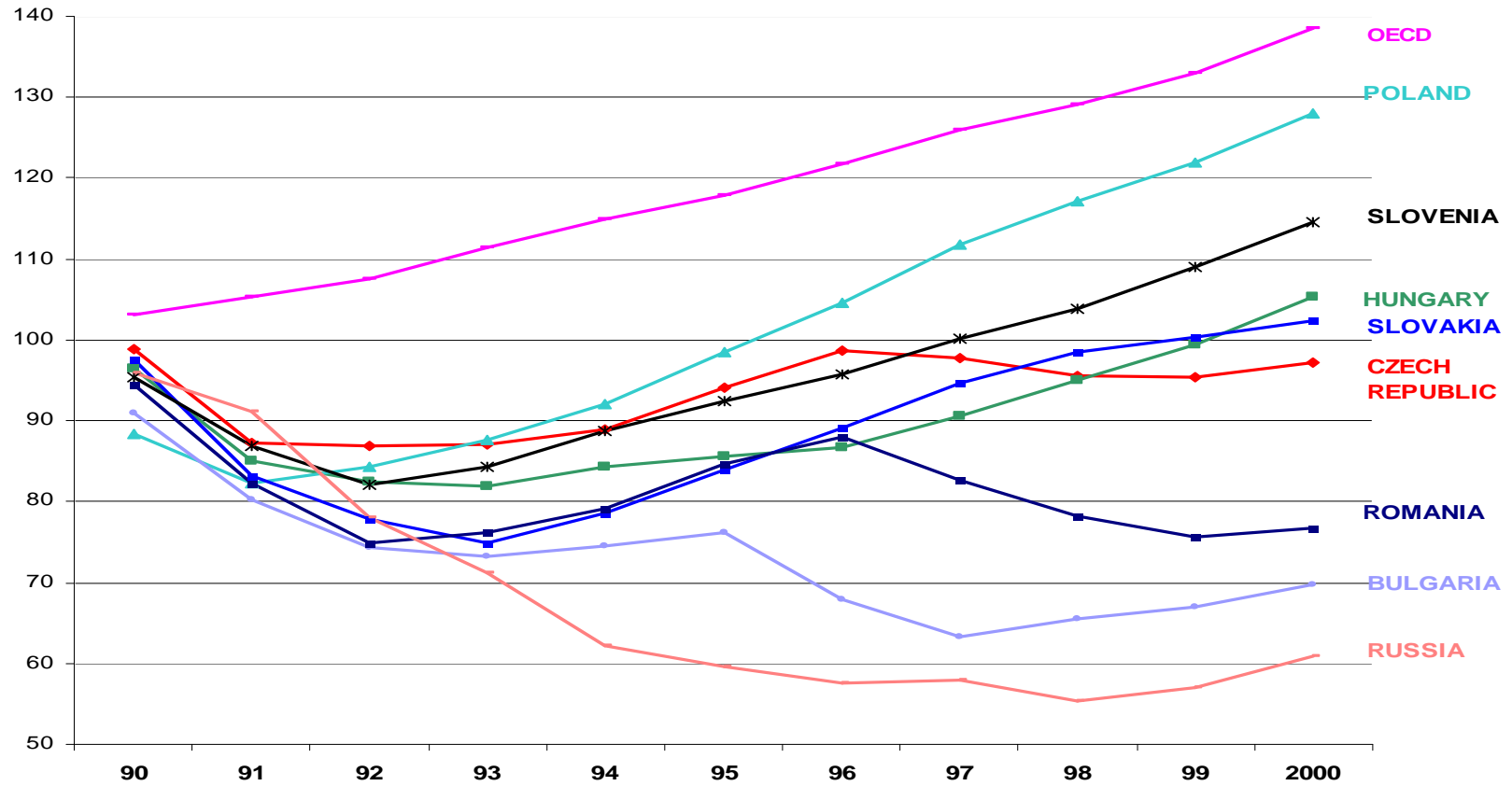
# It started ...and ended

Country	Beginning of socialist system	End of regime
<b>USSR(Russia)</b>	October 1917 Revolution; nationalizations, 1917-18; launching of mass collectivisations 1927-9; introduction of 5-year planning 1928 on	December 91: founding of the Commonwealth of Independent States. January 92: beginning of the transition to market economy in Russia; 1991: beginning of multipartism and of transition to market
<b>Yugoslavia</b>	1945: The People's front wins the elections; a soviet type economic system is announced. 1946-8 mass nationalization and collectivization	1948: Tito breaks with Stalin. 1950: self-management becomes the basis of the Yugoslav system. 1965: instruments of a market economy are introduced. 1991: break-up of Yugoslavia
<b>Eastern Europe</b>	Between the end of 1945 and 48: the communists win the elections. Feb.48: Communists coup in Prague. Between 1946-9: mass nationalizations, introduction of central planning. 1948: collectivization begins; stopped 1956 in Poland.	Poland: first anticommunist govt. in Sept. 89 Hungary: beginning of multipartism in 1990 Czechoslovakia: velvet revolution in Nov. 89 Romania: end of Ceausescu regime in Dec. 89 Bulgaria: free elections in 91. 1990-2: beginning of transition
<b>East Germany</b>	Oct.49: the Soviet zone becomes a people's democracy, the German Democratic Republic; 1950-52: large scale nationalizations and collectivization. Aug. 61: Berlin wall is erected.	9 <sup>th</sup> Nov. 89: the Berlin Wall is breached. July 90: monetary and political union with Federal Germany; Oct.90: Germany is unified

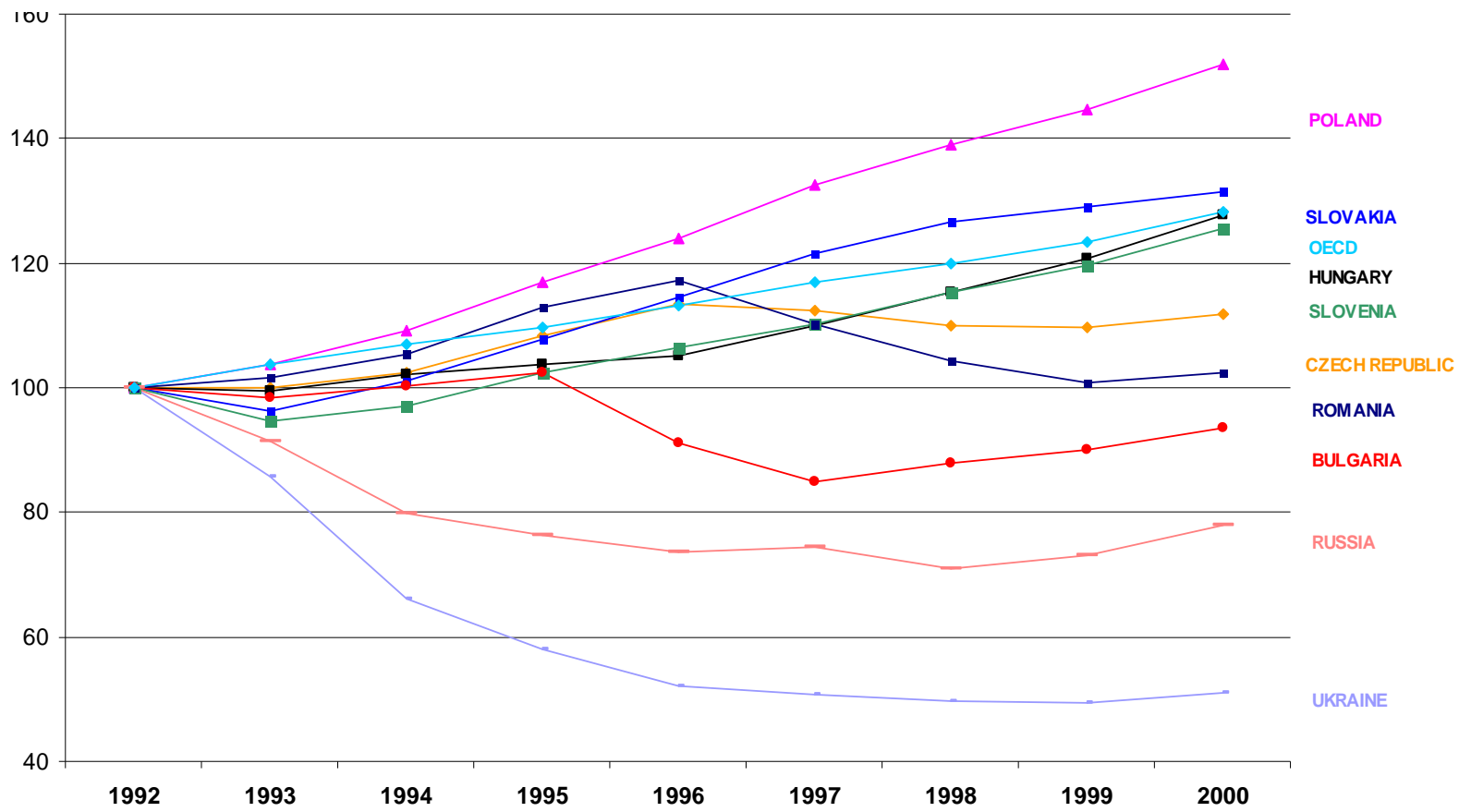
# Nominal GDP, World Economic Power (Billions of US\$ using Annual Average Exchange Rates)



# Real GDP Index (1989=100)

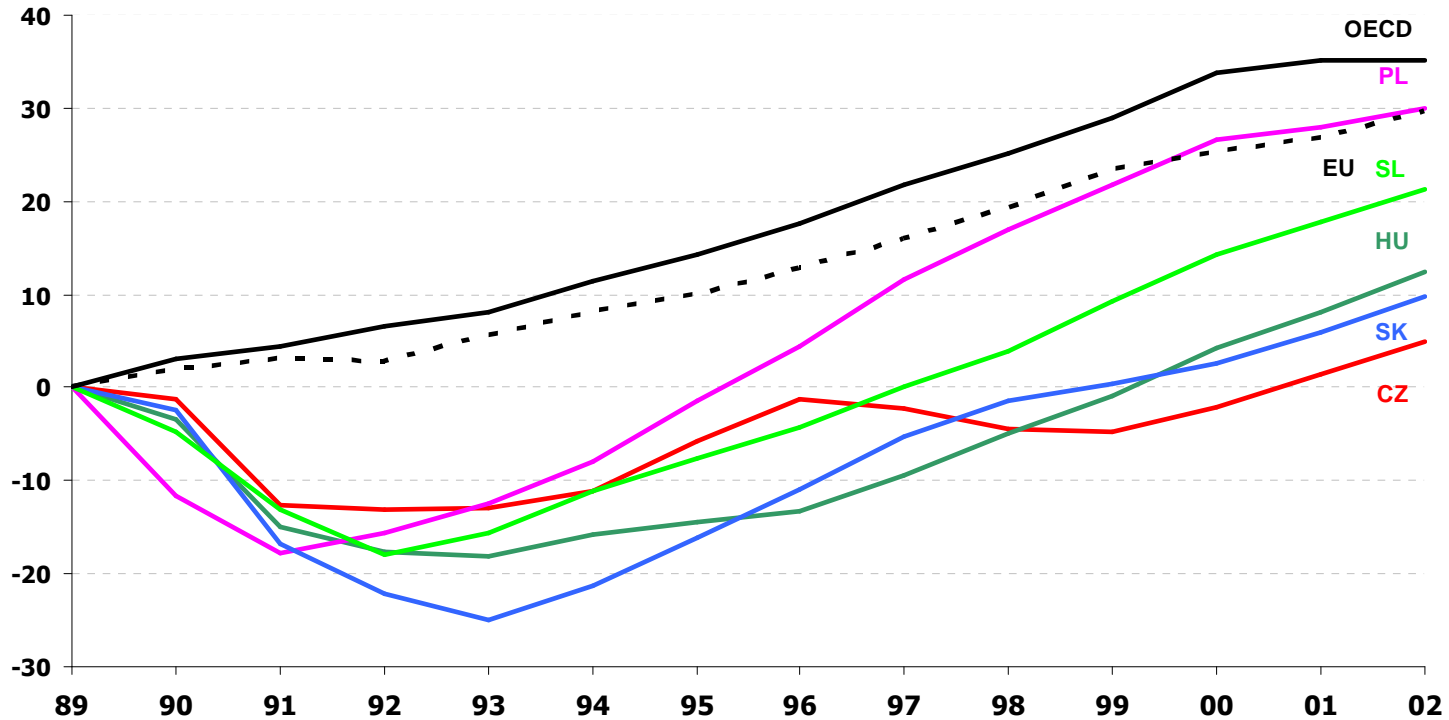


# Real GDP Index (1992=100)



# The Big Fall

## Real GDP Growth in the Region, %



## Consumer Prices: Distortion of Prices Due to Administrative Setting

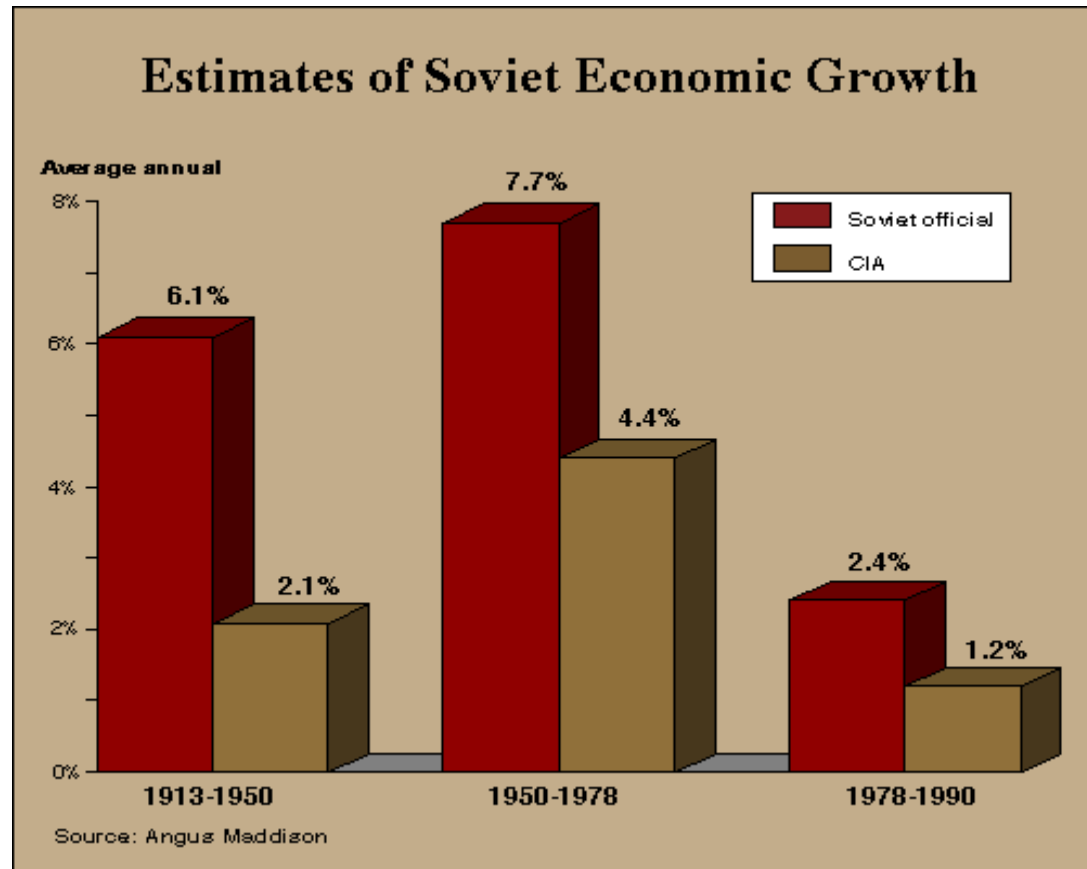
1 kg (numeraire 1 kg of wheat flour)	East Germany	West Germany
1 kWh electricity	0,06	0,25
potatoes	0,13	0,85
1 public transport ticket	0,15	1,69
1 egg	0,26	0,2
black bread	0,39	2,63
milk	0,51	1,01
rent per m2	0,6	3,22
white bread	0,75	2,61
<b>wheat flour</b>	<b>1</b>	<b>1</b>
sugar	1,17	1,54
1 ton brown coal	2,66	16,57
beef	4,39	8,04
gouda cheese	5,45	10,2
pork chop	6,06	9,02
butter	7,27	7,03
1 ladies pantyhose	10,6	4,23
kindergarten	11,3	72,6
coffee	53,03	7,23
1 refrigerator	1079	450
1 washing machine	1742	719
1 color TV	3712	1241

Source:<sup>8</sup>  
Kornai,  
p. 157



# Measurement Problems or Creative Statistics...

But, the progress was significant, anyway.



# Socialism and Its Economic Results

Table: Structure of GDP (in % of GDP)

	Agriculture		Industry		Construction and services	
	1938	1988	1938	1988	1938	1988
<i>Czechoslovakia</i>	23	6	53	57	24	37
<i>Hungary</i>	37	14	36	36	27	50
<i>Poland</i>	39	13	32	52	29	35
<i>Romania</i>	53	13	28	61	19	26
<i>Yugoslavia</i>	54	13	22	49	24	38
<i>Bulgaria</i>	63	11	18	58	19	31

## Consumer Satisfaction? How off we are?

	Consumption of East relative to West (%)
TV	93
Color TV (1973)	7
Refrigerator	66
Freezer (1973)	14
Washing machine	89
Automatic washing machine (1973)	3
Meat	86
Milk	105
Cheese	46
Potato	149
Vegetables	134
Fruit	44
Tea	59
Coffee	51
Wine, champagne	29
Beer	68



# Do you want a car?

## ▪Waiting for cars: comparison, 1989

Waiting period in years

	Lada	Skoda	Moskvich	Wartburg	Trabant	Dacia
Bulgaria	10-12	5	2	2	1	1
Czechoslovakia	3-4	-	-	-	-	-
East Germany	17	16	-	14-16	14	15
Hungary	4-6	6	-	1	0	-
Poland	5-6	6-8	-	3-4	2-3	-
Romania	-	-	-	-	-	4-6

# Historical Development of Socialism: Catching up?

Levels of GDP in Central and Western Europe (in 1990\$ per capita)

	1935	1955	1970	1992	1998
<b>Poland</b>	1597	2788	4428	5038	6774
<b>Spain</b>	2792	3995	7291	14767	16412
<b>Ratio: Poland/Spain</b>	<b>0,57</b>	<b>0,7</b>	<b>0,61</b>	<b>0,34</b>	<b>0,41</b>
<b>Hungary</b>	2471	2480	5028	6636	7450
<b>Greece</b>	2526	2560	6327	12607	13504
<b>Ratio: Hungary/Greece</b>	<b>0,98</b>	<b>0,97</b>	<b>0,79</b>	<b>0,53</b>	<b>0,55</b>
<b>Czech Rep.</b>	2410	3922	6460	10220	10820
<b>Austria</b>	2926	5087	9813	21029	22896
<b>Ratio: Czech/Austria</b>	<b>0,82</b>	<b>0,77</b>	<b>0,66</b>	<b>0,49</b>	<b>0,47</b>

# Reform = Transition: When?

	Political Reform	Liberalization	Stabilization	Tax Reform	Privatization start	Enterprise Restructuring	Bankruptcy Reform	Banking Reform
Hungary	1989	1968, 1990 (gradual)	1995	1988	1990	1992	1992	1991
Vietnam	-	1989	1989	1990	1989	1989	1993	1991
Poland	1989	1990	1990	1992	1990	1993	1992	1993
Czech Rep.*	1989	1991	Not needed	1993	1992 (mass)	1993	1993 (gradual)	1991
Slovakia *	1989	1991	Not needed	1993	1992 (mass/gradual)	1993	1993	1991
Slovenia	1989	1965, 1990 (gradual)	1990	1990	1993	1989	1989	1993
Russia	1991	1992	1995	1995	1993 (mass)	1992	1993	1992
Ukraine	1991	1994	1995	1992	1994	1995	-	1995
Romania	1989	1990	1994	1993	1991	1993	1995	-
Bulgaria	1989	1991	1991	1994	1994	1991	1994	1997

\* Until 1993 single state - Czechoslovakia

# Transition is over, right?

## Do we recognize the end?

- **Jan Svejnar (2002):**

- When transition economies replace central planning by a functioning market system and when they generate rapid and sustainable rates of economic growth

- **Janos Kornai (1999):**

- When the communist part lost monopoly political power
- The private sector accounts for the majority of GDP
- The market is the dominant coordinator of economic activity

## ***Private Sector Share of GDP***

	<b>1990</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Czech Republic</b>	5	65	70	75	75	75	80	80
<b>Croatia</b>	10	40	45	50	55	55	60	60
<b>Hungary</b>	20	55	60	70	75	80	80	80
<b>Poland</b>	25	55	60	60	65	65	65	70
<b>Slovak Republic</b>	5	55	60	70	75	75	75	75
<b>Slovenia</b>	10	30	45	45	50	55	55	55
<b>Estonia</b>	10	55	65	70	70	70	75	75
<b>Latvia</b>	10	55	60	60	60	60	65	65
<b>Lithuania</b>	10	50	55	65	70	70	70	70
<b>Albania</b>	5	50	60	75	75	75	75	75
<b>Bulgaria</b>	10	40	45	45	50	50	60	70
<b>Romania</b>	15	35	40	60	60	60	60	60
<b>Russia</b>	5	50	55	60	70	70	70	70
<b>Ukraine</b>	10	30	35	40	50	55	55	60

## ***External Debt as % of GDP***

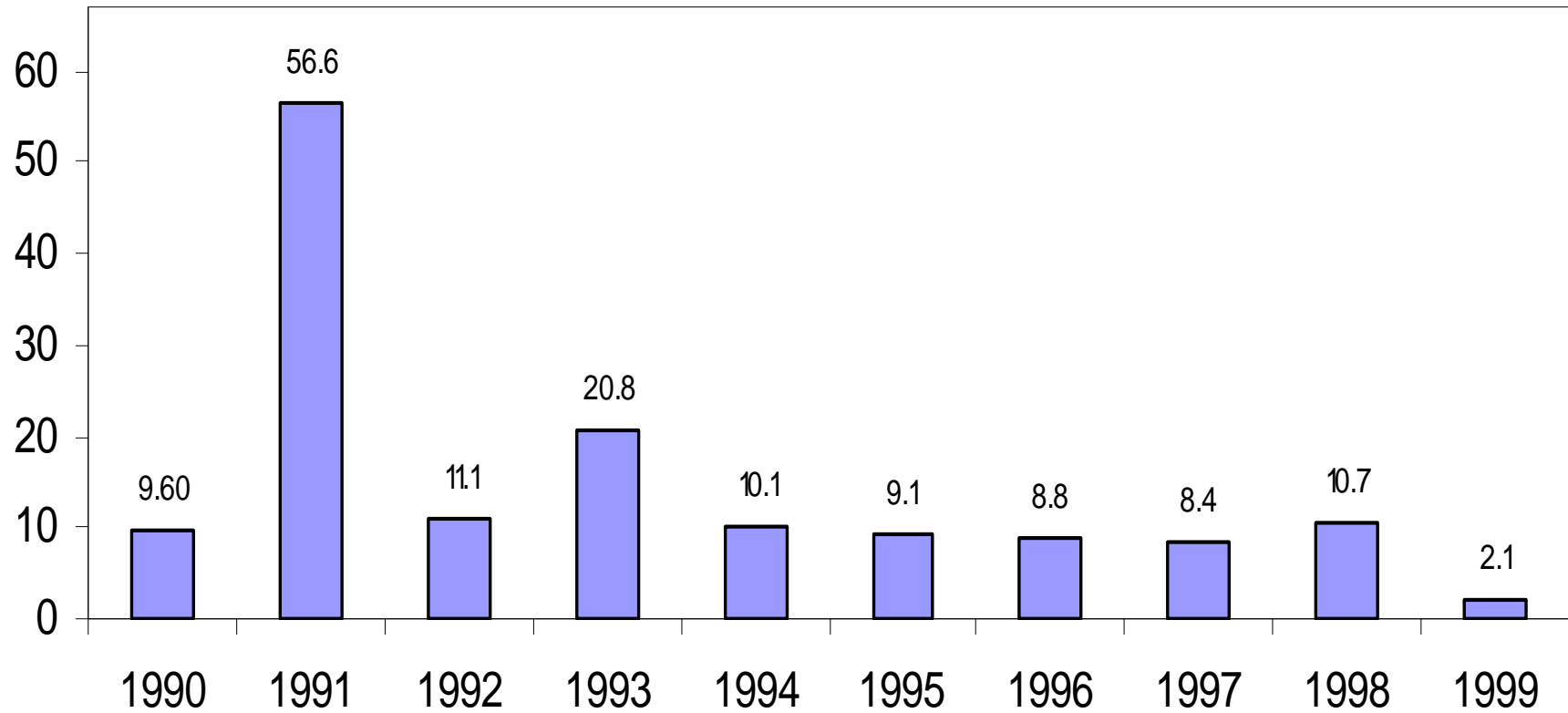
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999

Czech Republic	20.3	33.1	23.7	24.7	26.0	31.8	36.0	40.6	43.1	42.3
Hungary	64.4	67.7	58.1	63.7	68.7	70.4	61.1	51.9	56.9	59.9
Poland	83.7	69.9	56.4	54.9	47.1	38.0	35.2	36.0	36.2	38.3
Slovak Republic	13.0	24.5	24.1	26.6	32.0	30.9	38.8	48.5	55.9	53.1
Slovenia	11.2	14.7	13.9	14.8	15.7	15.8	21.2	22.9	25.3	27.4
Bulgaria	52.5	159.2	160.4	127.7	116.8	77.4	97.7	95.8	83.7	80.5
Romania	3.0	7.4	16.5	16.1	18.3	24.1	29.5	30.1	24.0	27.1
Albania	na	na	130.1	78.9	52.4	27.6	27.3	33.1	28.7	26.5
Russia	148.5	106.6	90.7	60.7	43.6	36.6	31.5	29.8	58.6	87.1
Ukraine	na	na	0.6	11.8	19.1	22.0	20.6	23.5	28.0	37.3
Kazakhstan	na	na	24.5	33.4	28.0	21.0	21.3	28.6	37.3	50.1

# CPI, %

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Czech Republic</b>	9.6	56.6	11.1	20.8	10.0	9.1	8.8	8.5	10.7	2.1	3.9
<b>Hungary</b>	33.4	32.2	21.6	21.1	21.2	28.3	23.6	18.3	14.3	10.1	9.5
<b>Poland</b>	555.4	76.7	45.3	37.6	29.5	27.8	19.9	14.9	11.8	7.3	9.9
<b>Slovak Republic</b>	18.4	58.3	9.1	25.1	11.7	7.2	5.4	6.4	5.6	14.0	12.1
<b>Slovenia</b>	104.6	247.1	92.9	22.8	21.0	13.5	9.9	8.4	8.0	6.1	8.6
<b>Bulgaria</b>	26.3	334.0	82.0	73.0	96.3	62.0	123.0	1,082.0	22.2	0.7	7.0
<b>Romania</b>	37.7	222.8	199.2	295.5	137.0	32.3	38.8	154.0	59.1	45.8	45.0
<b>Russia</b>	5.6	161.0	2,506.0	840.0	204.4	128.6	47.8	14.7	27.6	86.1	20.7
<b>Ukraine</b>	4.2	161.0	2,730.0	10,155.0	401.0	181.7	39.7	15.9	10.6	22.7	28.0
<b>China</b>	3.1	3.5	6.3	14.6	24.2	16.9	8.3	2.8	-0.8	-1.4	0.7
<b>Vietnam</b>	36.4	82.7	37.7	8.4	9.3	16.8	5.6	3.1	8.7	5.4	na
<b>South Africa</b>	14.4	15.2	13.9	9.7	9.0	8.6	7.4	8.5	7.0	6.5	5.5
<b>United States</b>	5.4	4.2	3.0	3.0	2.6	2.8	2.9	2.3	1.6	2.2	3.2
<b>EU15</b>	5.5	5.2	4.4	3.6	2.9	2.7	2.4	1.9	1.5	1.4	1.9

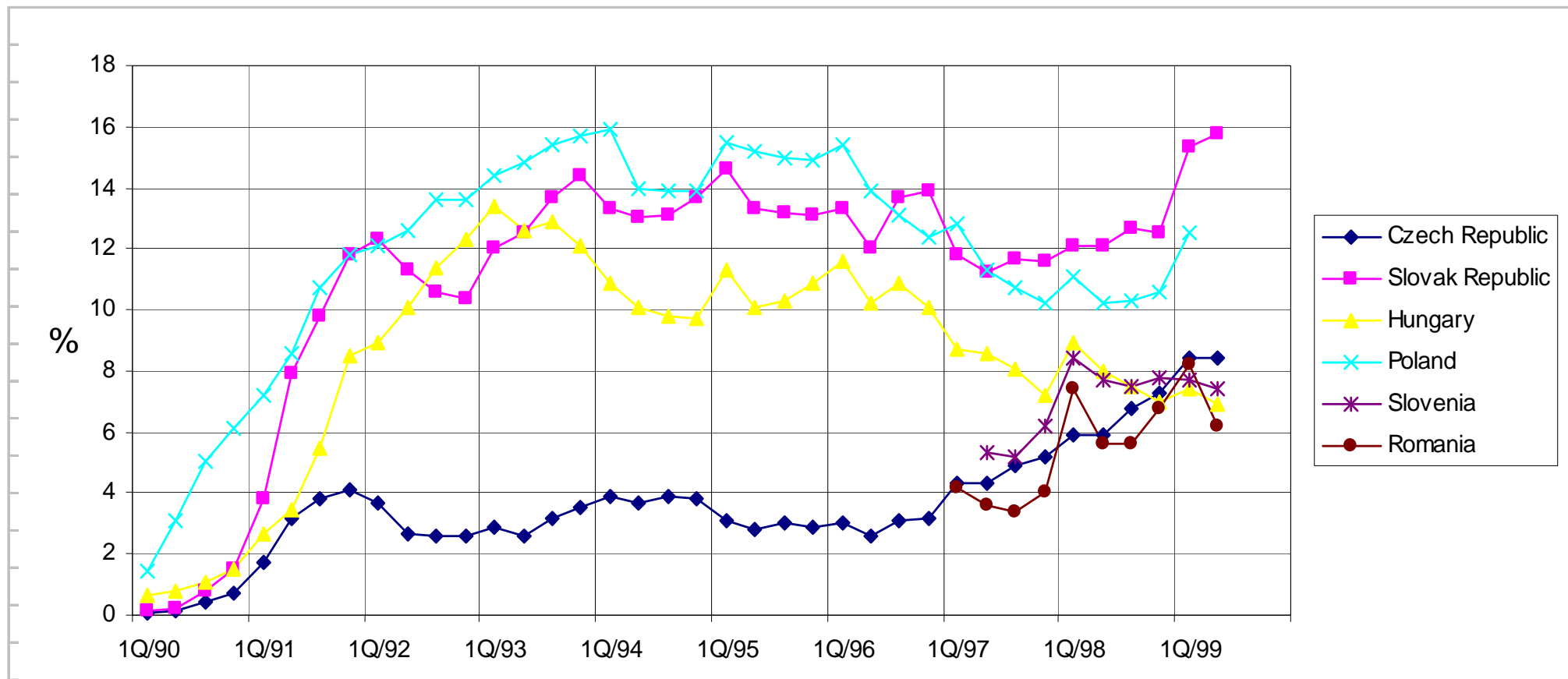
# ***Inflation***



# Unemployment

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Czech Republic</b>	0.7	4.1	2.6	3.5	3.2	2.9	3.5	5.2	7.5	9.4	8.8
<b>Croatia</b>	9.3	13.2	13.2	14.8	14.5	14.5	10.0	9.9	11.4	13.6	20.8
<b>Hungary</b>	1.9	7.4	12.3	12.1	10.4	10.4	10.5	8.7	9.1	7.1	6.6
<b>Poland</b>	6.3	11.8	13.6	16.4	16.0	14.9	13.2	10.5	10.4	13.0	14.0
<b>Slovak Republic</b>	1.5	11.8	10.3	12.2	13.7	13.1	11.1	11.6	11.9	19.2	17.4
<b>Slovenia</b>	4.7	7.3	8.3	9.1	9.0	7.4	7.3	7.4	7.9	7.5	11.7
<b>Estonia</b>	na	na	na	6.5	7.6	9.7	10.0	9.7	9.6	12.3	4.9
<b>Latvia</b>	na	0.6	3.9	8.7	16.7	18.1	19.4	14.8	13.8	14.4	7.9
<b>Albania</b>	9.5	8.3	27.9	29.0	19.6	16.9	12.4	14.9	17.7	18.0	17.1
<b>Bulgaria</b>	1.5	11.1	15.3	16.4	12.8	11.1	12.5	13.7	12.2	16.0	18.0
<b>Romania</b>	na	3.0	8.2	10.4	10.9	9.5	6.6	8.8	10.3	11.5	10.1
<b>Russia</b>	0.0	0.0	4.8	5.3	7.1	8.3	9.2	10.9	12.4	11.7	9.9
<b>Ukraine</b>	0.0	0.0	0.3	0.4	0.4	0.5	1.1	2.3	3.7	4.3	4.3
<b>European Union</b>	7.5	8.2	9.2	10.7	11.1	10.5	10.6	10.3	9.5	8.8	8.0

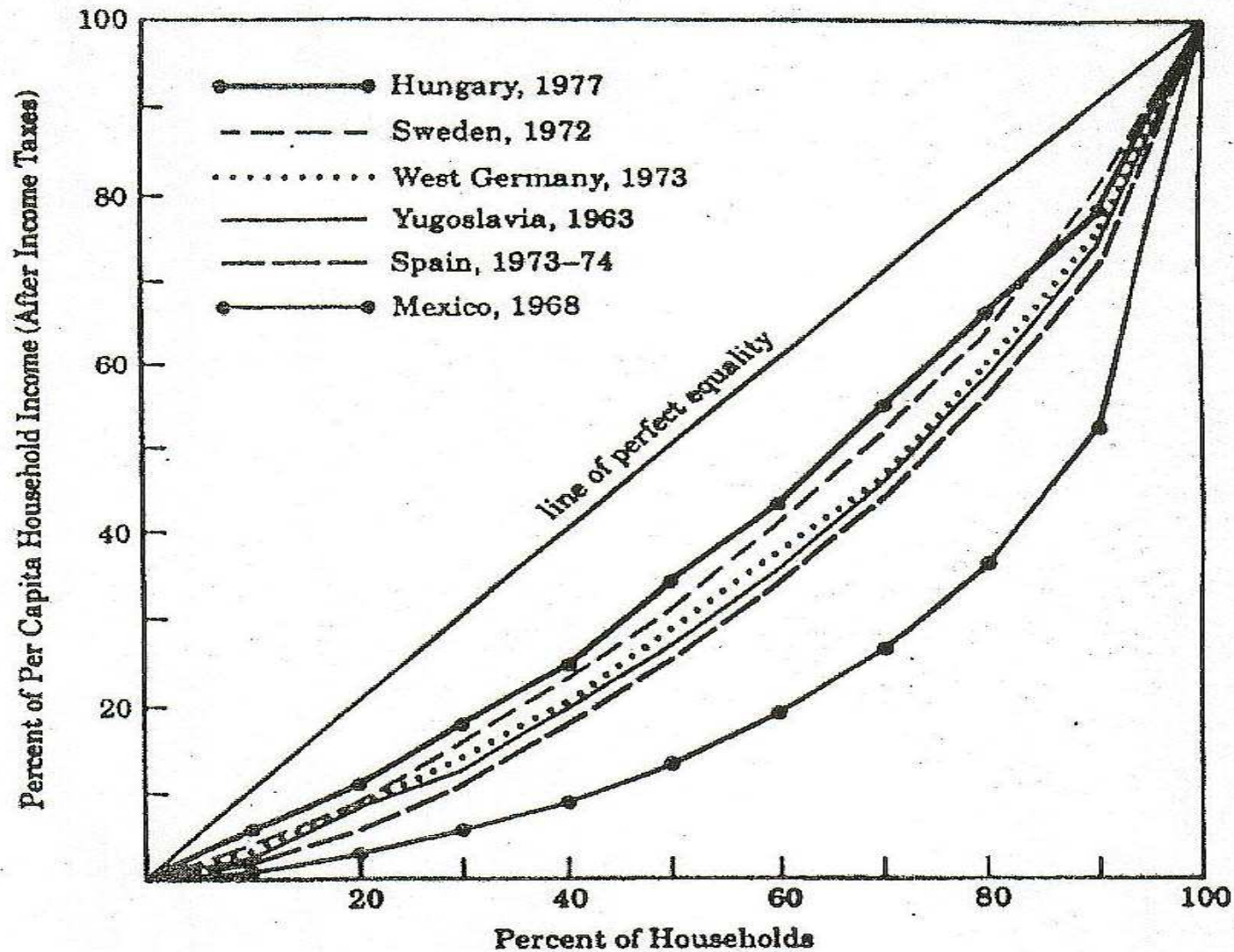
# Unemployment



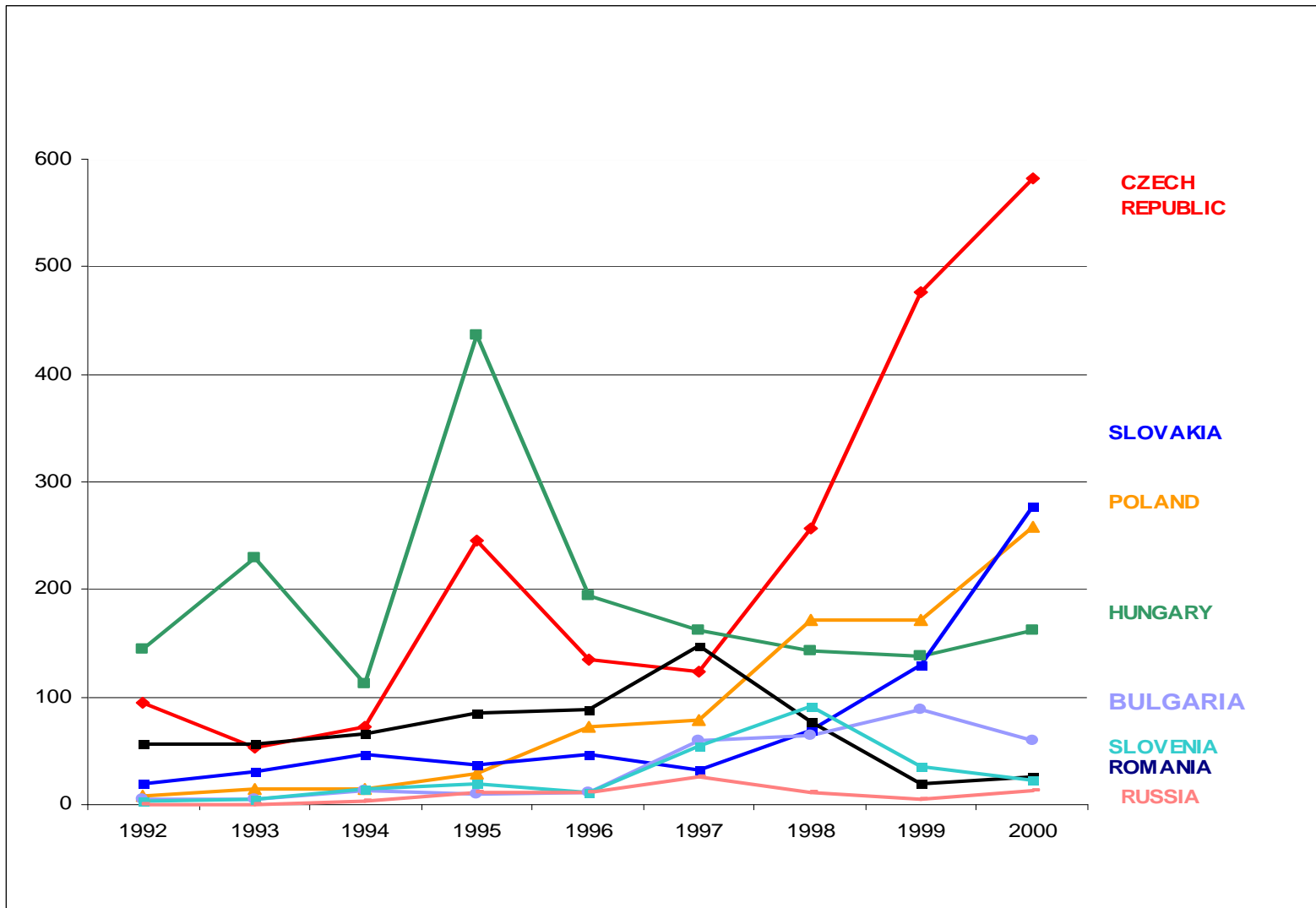
# ***Income Inequality***

	<i>Late 1980s</i>		<i>Early 1990s</i>		<i>Late 1990s</i>	
	<i>Year</i>	<i>Gini</i>	<i>Year</i>	<i>Gini</i>	<i>Year</i>	<i>Gini</i>
<b>Czech Republic</b>	1989	18.3	1993	18.7	1997	25.9
<b>Hungary</b>	1987	21.0	1993	22.6	1998	25.3
<b>Poland</b>	1987	25.6	1993	28.4	1998	32.7
<b>Slovak Republic</b>	1989	17.6	1993	18.5	1996	26.3
<b>Slovenia</b>	1987	21.5	1993	25.1	1998	32.1
<b>Bulgaria</b>	1989	23.3	1993	34.3	1997	34.1
<b>Romania</b>	1989	23.3	1994	28.6	1997	42.2
<b>Russia</b>	1988	23.8	1993	43.0	1998	48.0
<b>Ukraine</b>	1988	23.3	1995	47.4	1997	na

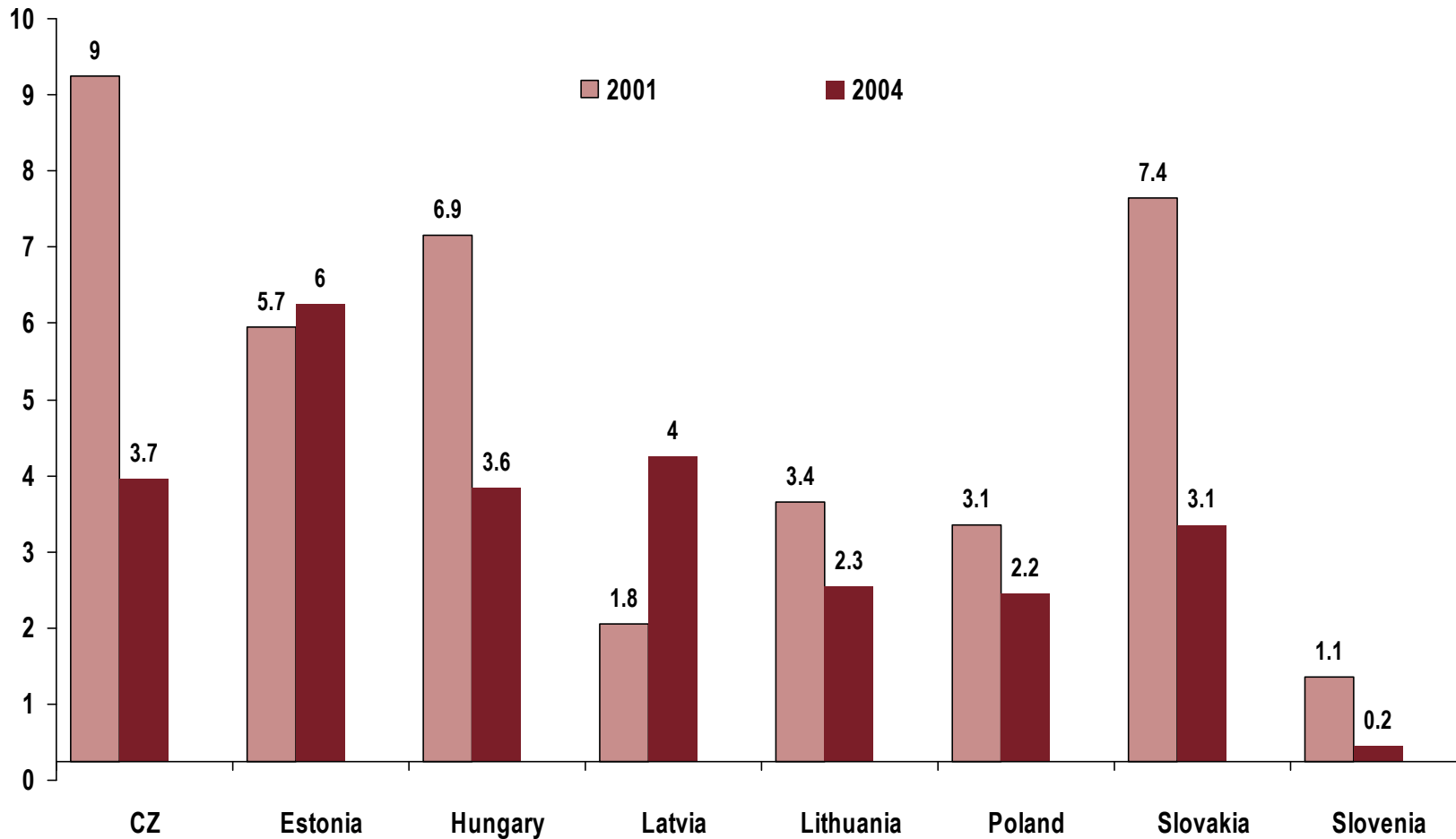
# Income Inequality and Lorenz Curve



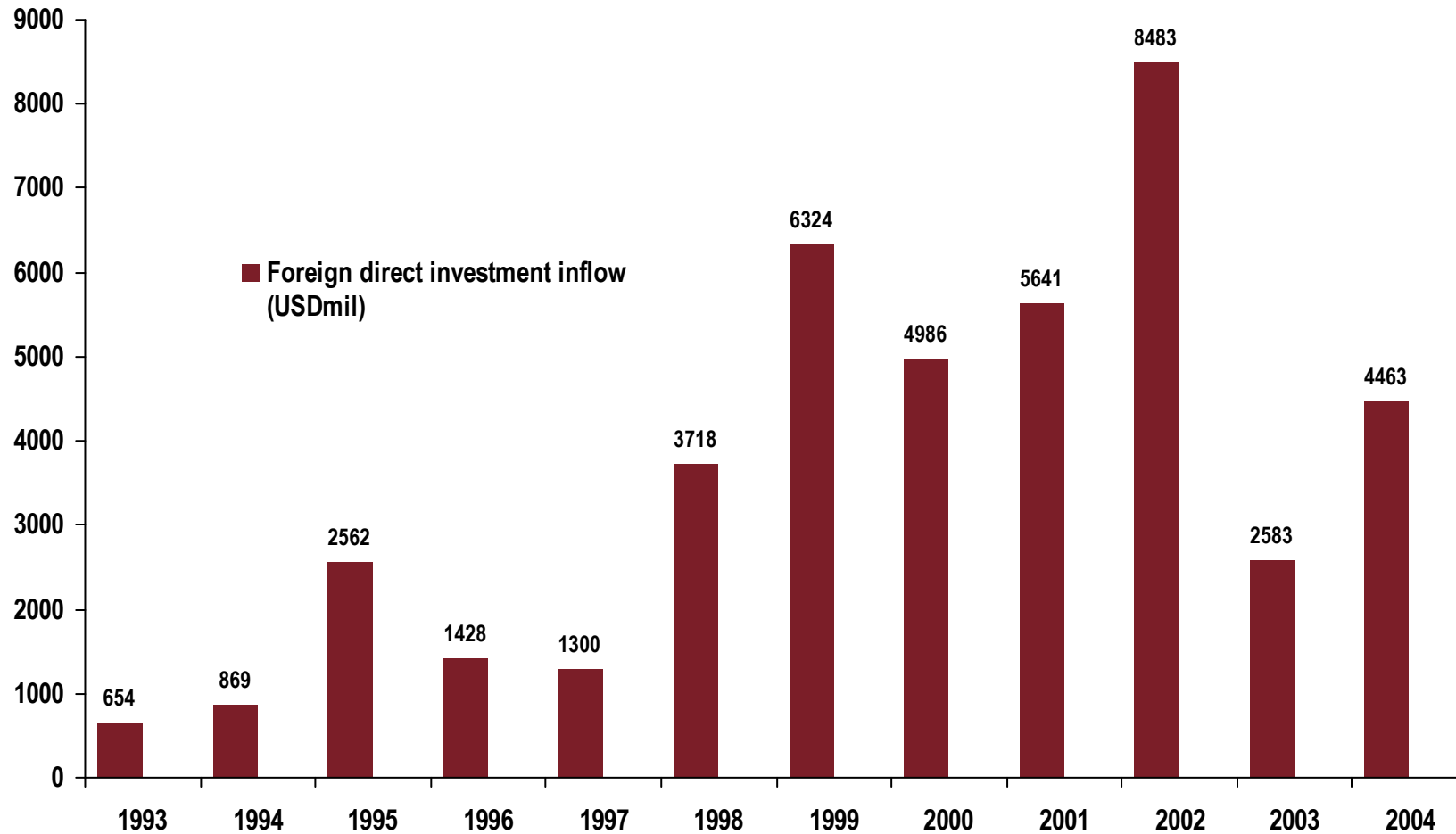
# Foreign Direct Investment Per Capita



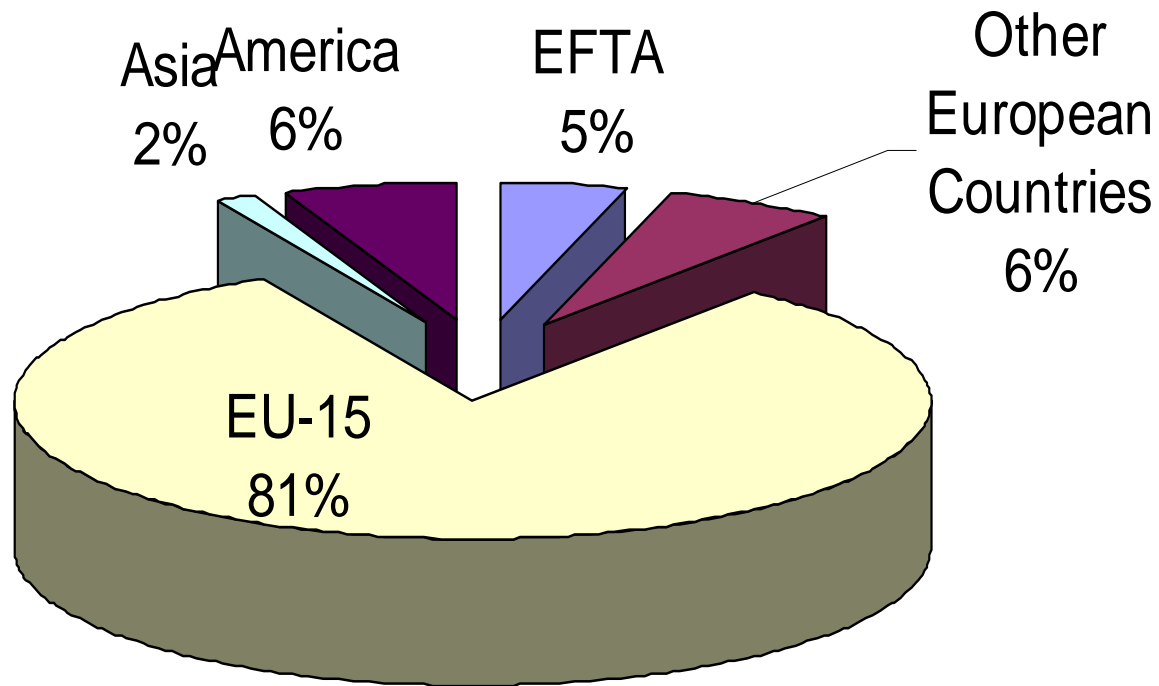
# FDI, % GDP



# Foreign Direct Investment Inflow



## Source Countries, FDI Inward Flows in 2000, %



# ***What Is Competitiveness?***

- Classical Approach:
  - Relative price advantage or Cost advantage
  
- Current Interpretation
  - Everything = any aspect of market performance
    - both at the level of the firm and
    - at the level of a country
  - Product quality,
  - Ability to innovate,
  - Capacity to adjust rapidly to changing market conditions
  - Corporate and public governance
  - Availability of infrastructure
  - and many other indicators.....
  - => a global indicator for 'competitiveness' of an economy.

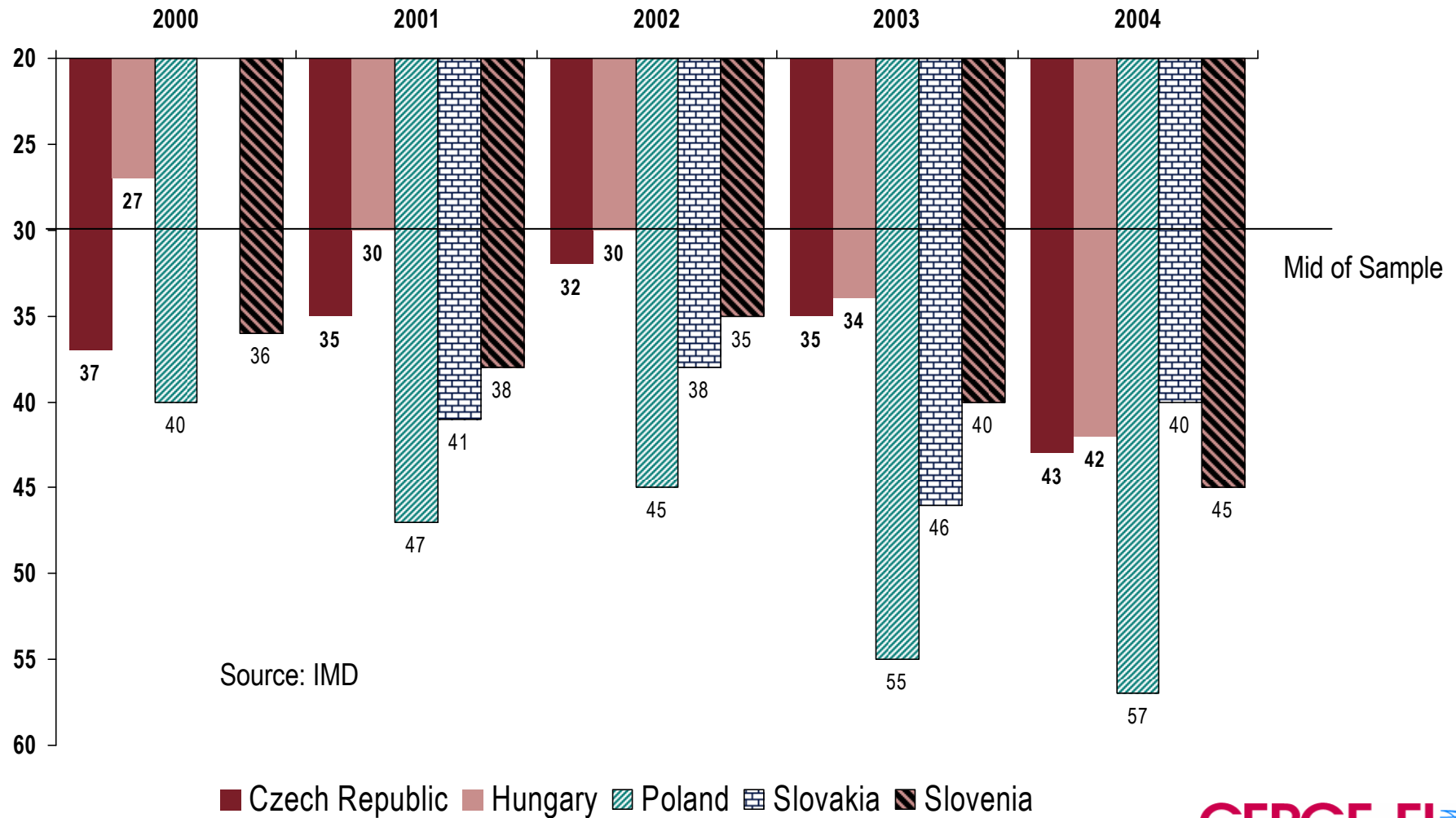
## ***Why Dual Track Economy?***

- Top ranked in FDI attractiveness
- Slowly growing economy (by CEECs standards)
- Fiscal problems
- Doing business
- EU accession changes the picture
- Will Euro (or “Constitution”) be the fixed points to move the Earth?

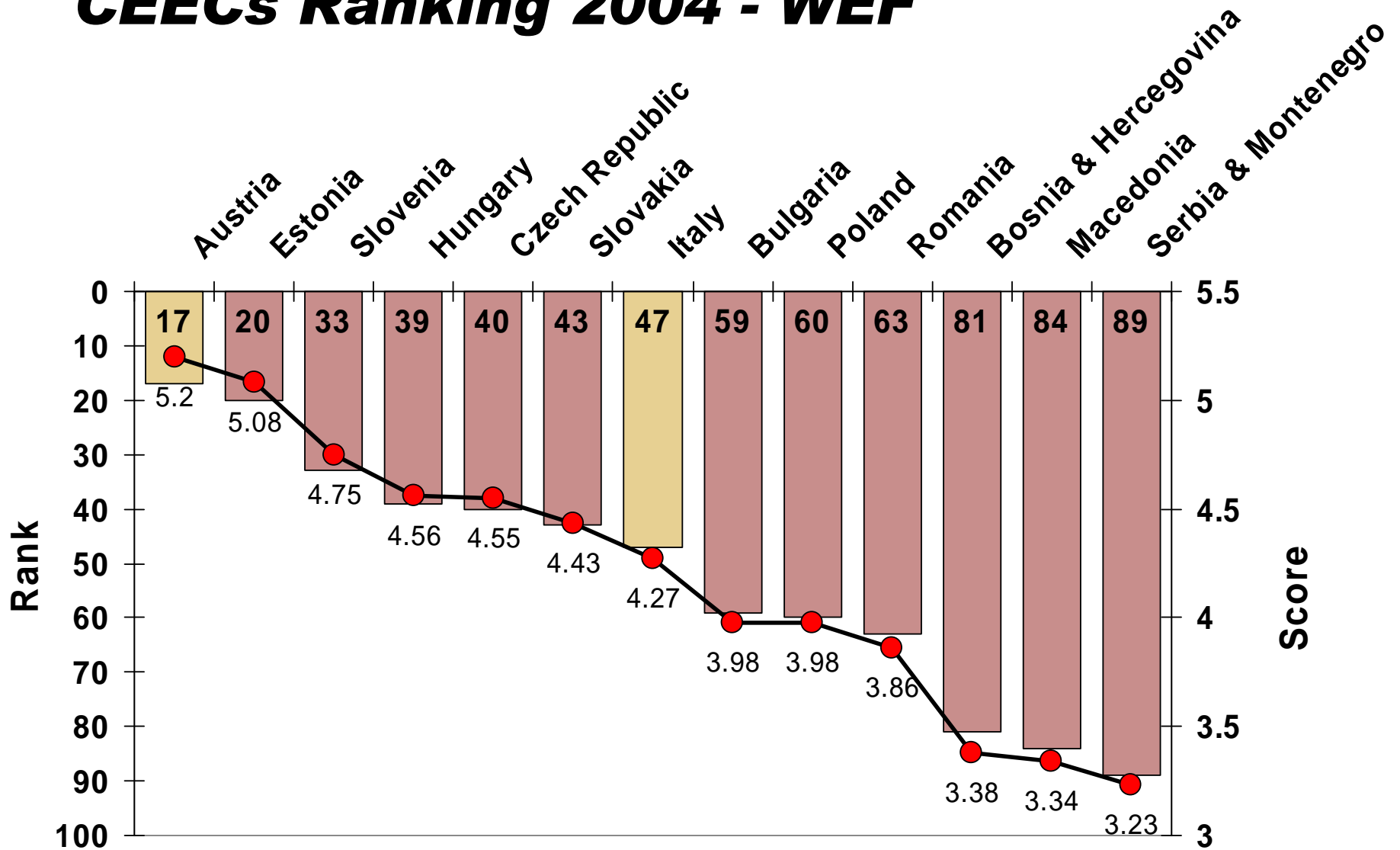
# ***Competitiveness Ranking (IMD)***

- 60 countries in total
- Mid of Sample = Rank 30
- Scoreboard Ranking (No. of criteria = 241)
  - **Economic Performance (83)**
  - **Government Efficiency (77)**
  - **Business Efficiency (69)**
  - **Infrastructure (94)**
- Criteria
  - **Hard Data (129)**
  - **Survey (112)**

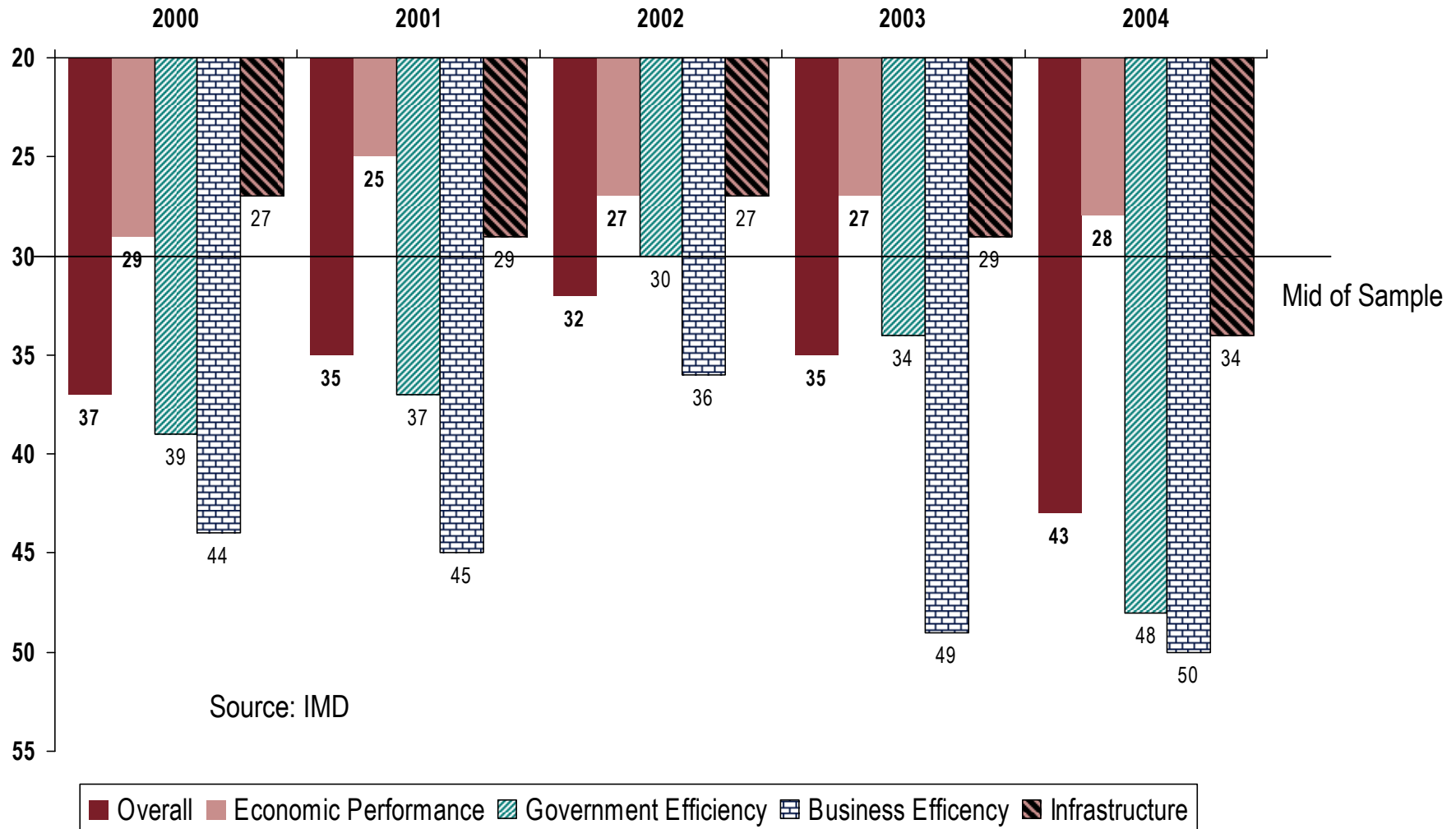
# CEECs Ranking - IMD



# CEECs Ranking 2004 - WEF



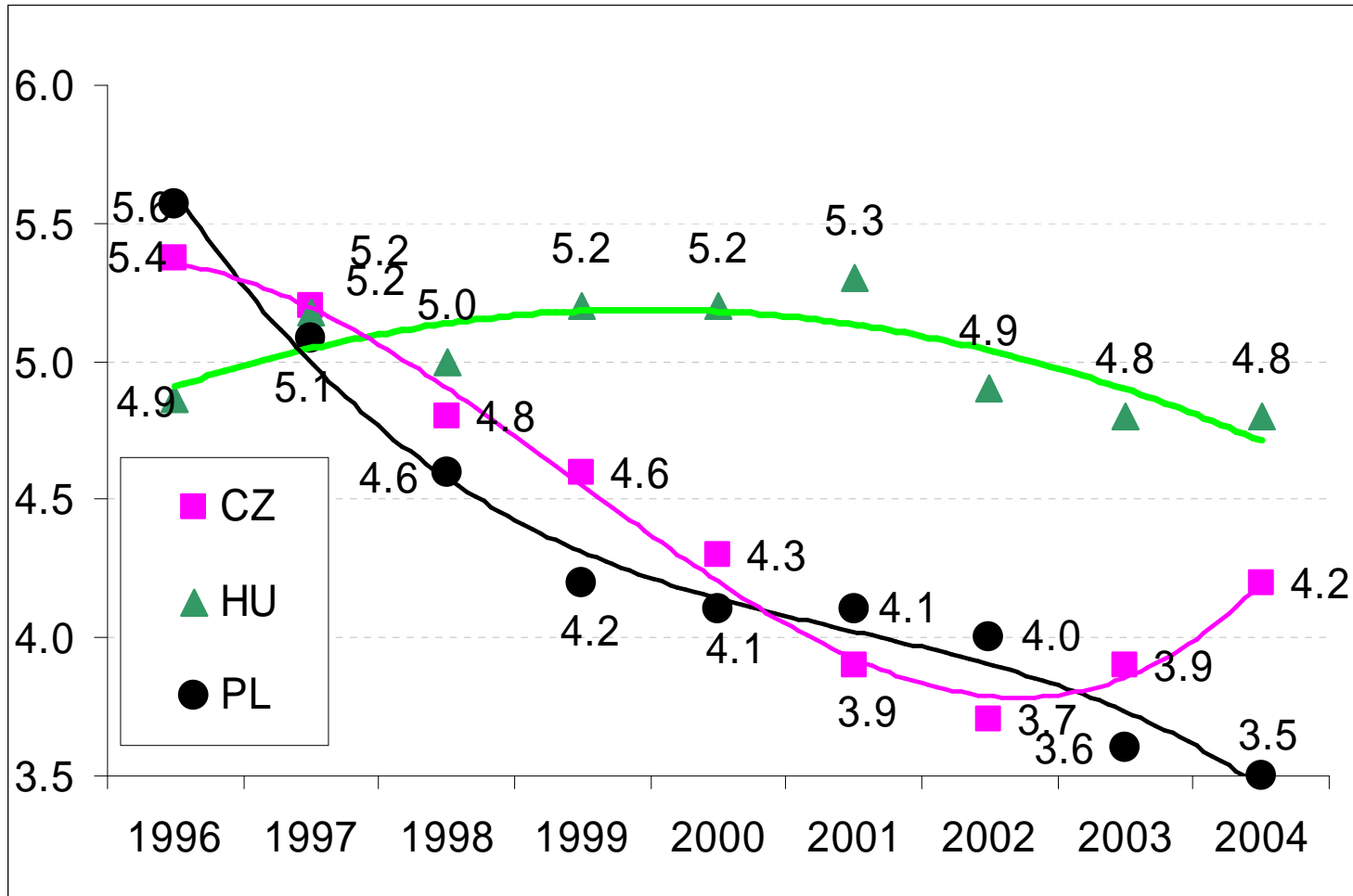
# Czech Republic Ranking



# ***Competitiveness Hampered:***

- Problems in Plain Language
  - **Small Share of Labor with High Education, Low Flexibility**
  - **Wrong Labor Skill Structure for Modern Economy**
  - **Red Tape and Regulation, Transparency**
  - **High Taxes, especially on Labor**
  - **Generous Welfare**
  - **Wrong Incentive Security Scheme**
  - **Fiscal Deficits**
  - **Unsustainable Social Security (Demography)**
  - **Banking and Stock Market**

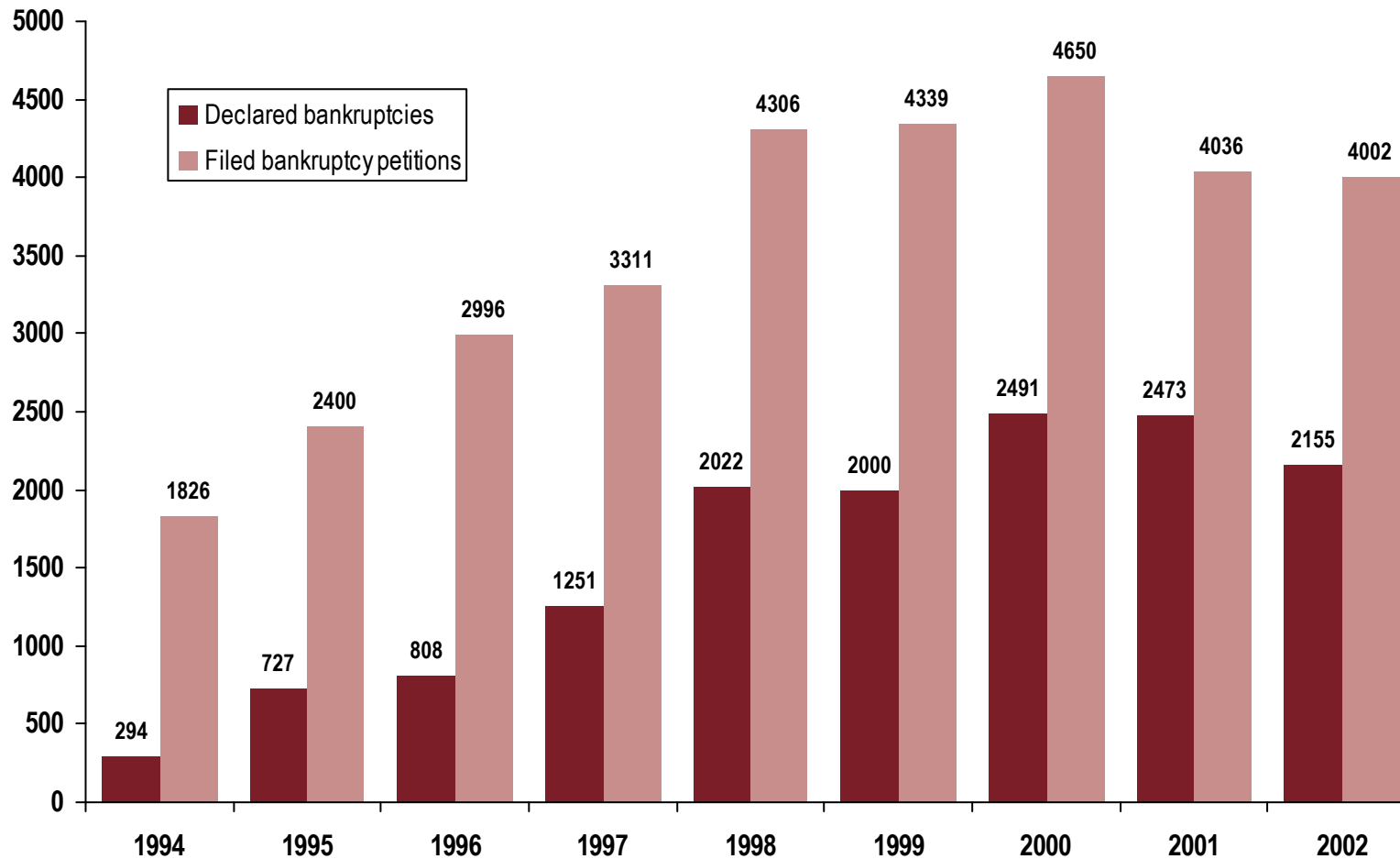
# Corruption Perception Index



# ***Business Environment***

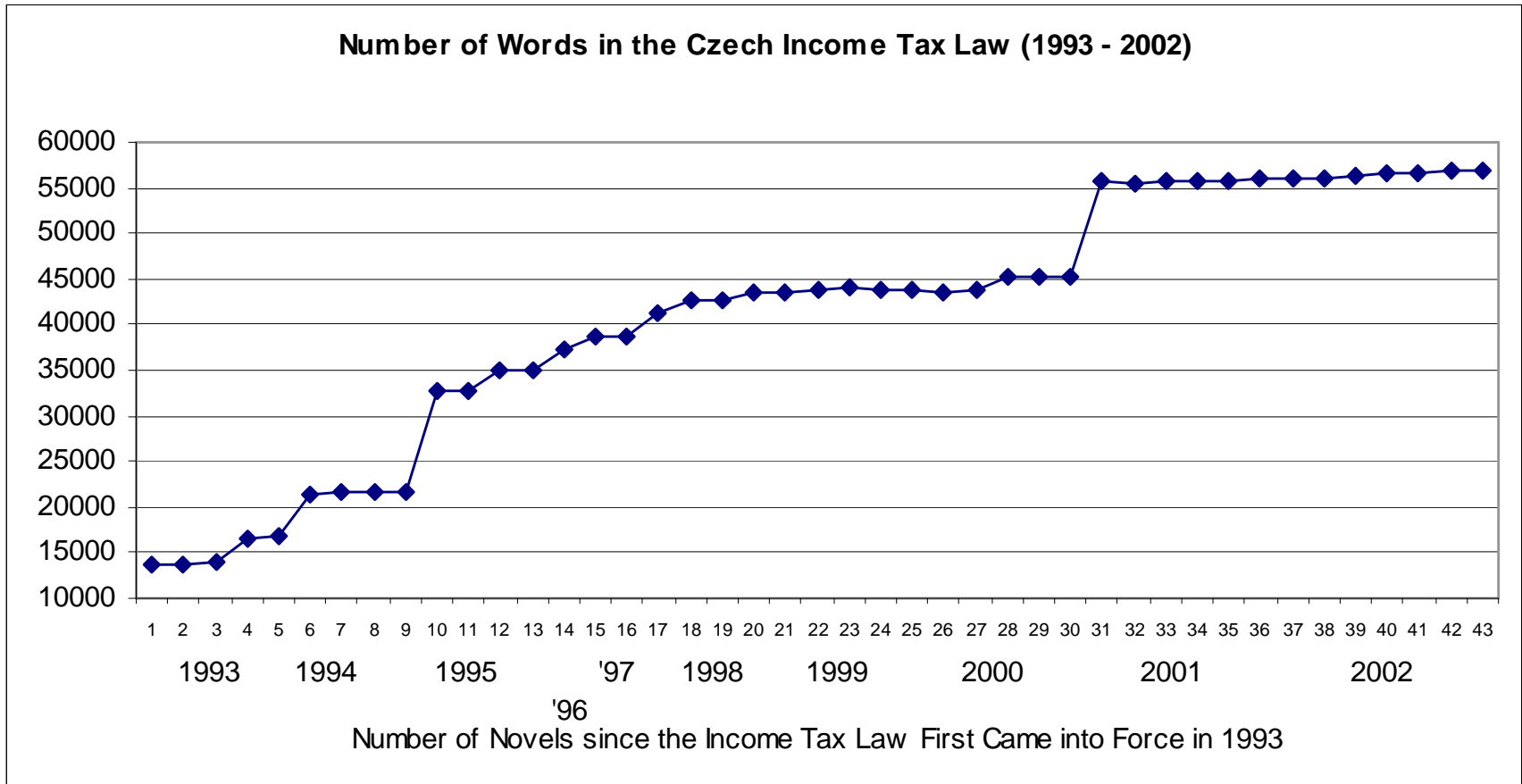
- Early Czech transition has been characterized with problems in
  - **ensuring the rule of law,**
  - **extensive credit fraud,**
  - **an ineffective judicatory system,**
  - **insider dealing,**
  - **insufficient use of public tenders, and**
  - **a general spread of corruption in public administration and commercial courts**
  
- Is the Czech Republic is comparable to other Central European economies?
  - **Yes... but others imply legal enforcement and bankruptcy procedures are weaker**

# Bankruptcies in the Czech Republic

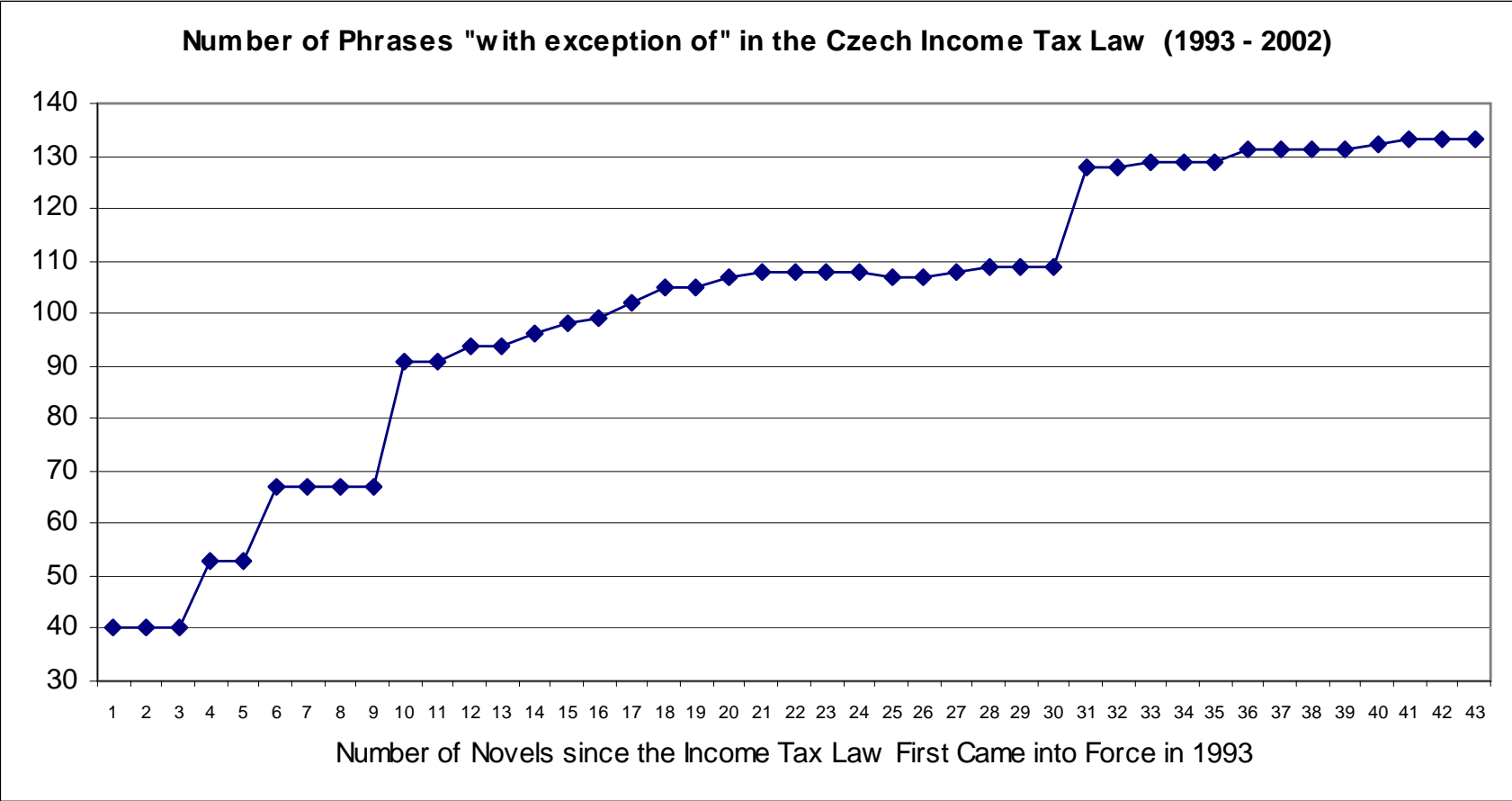


Source: Ministry of Justice, Ministry of Industry and Trade

# Too Simple Laws?



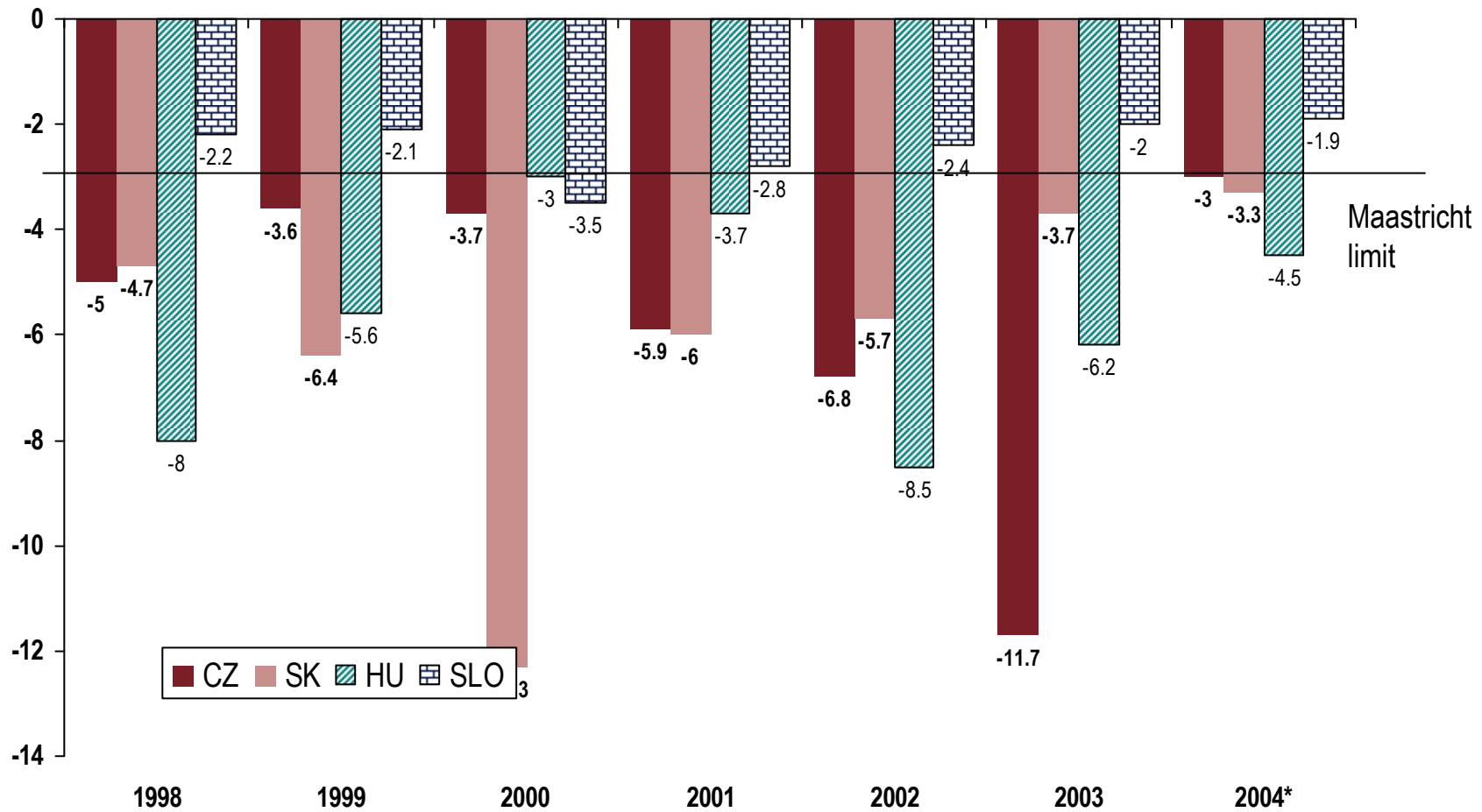
# Use Exceptions to Improve...



# ***Deregulate ... Or Unregulated Market?***

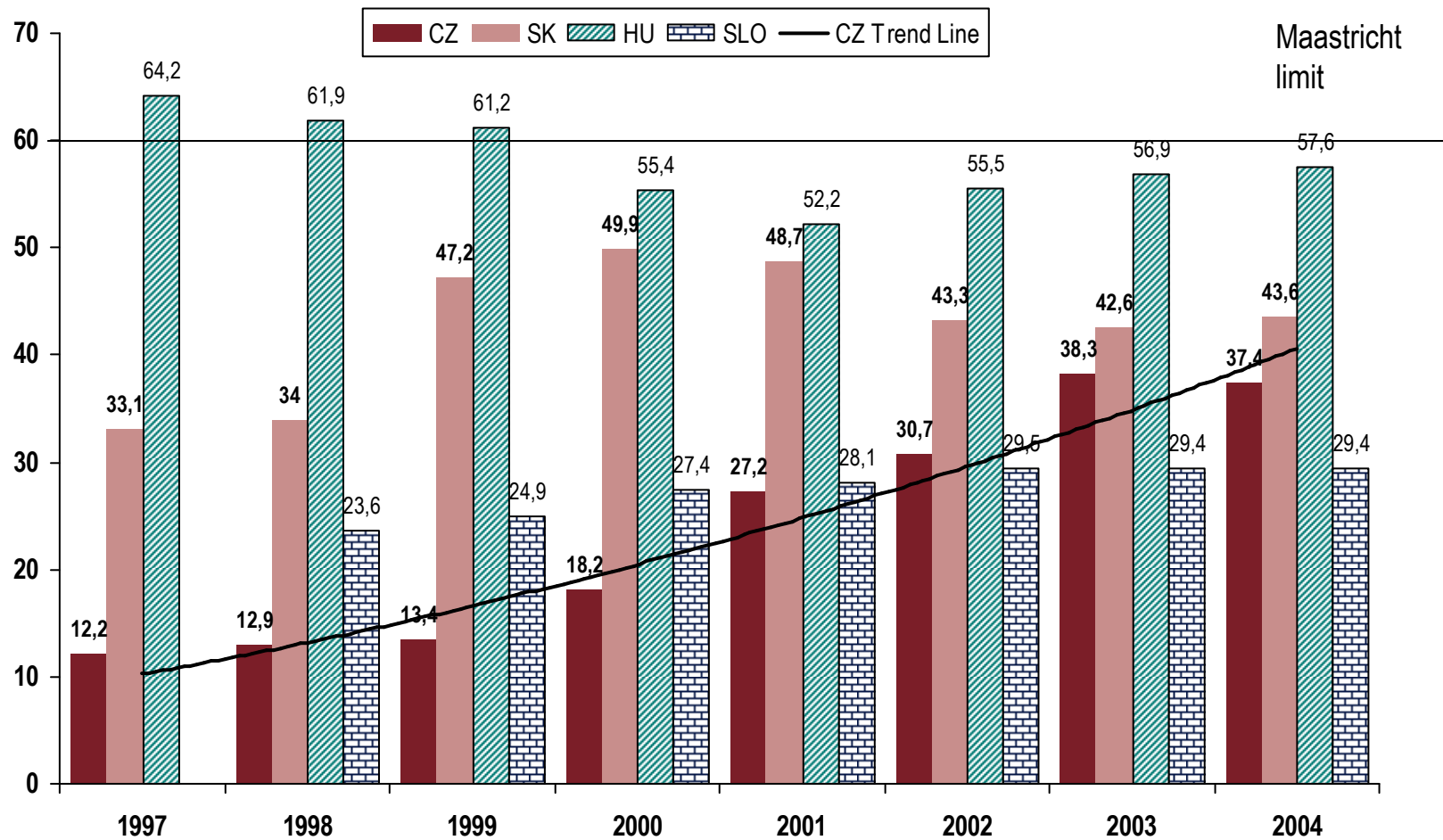
- The voucher privatization drove the design of the Czech equity markets
  - **It was very rapid establishment**
  - **about 1,700 companies within two years**
  
- The regulation of the market lagged
  - **insider trading,**
  - **price manipulation,**
  - **fraud in the investment funds industry, and**
  - **abuses of minority shareholder rights**
  
- Erosion of investors' confidence

# Public Fiscal Deficits, %GDP



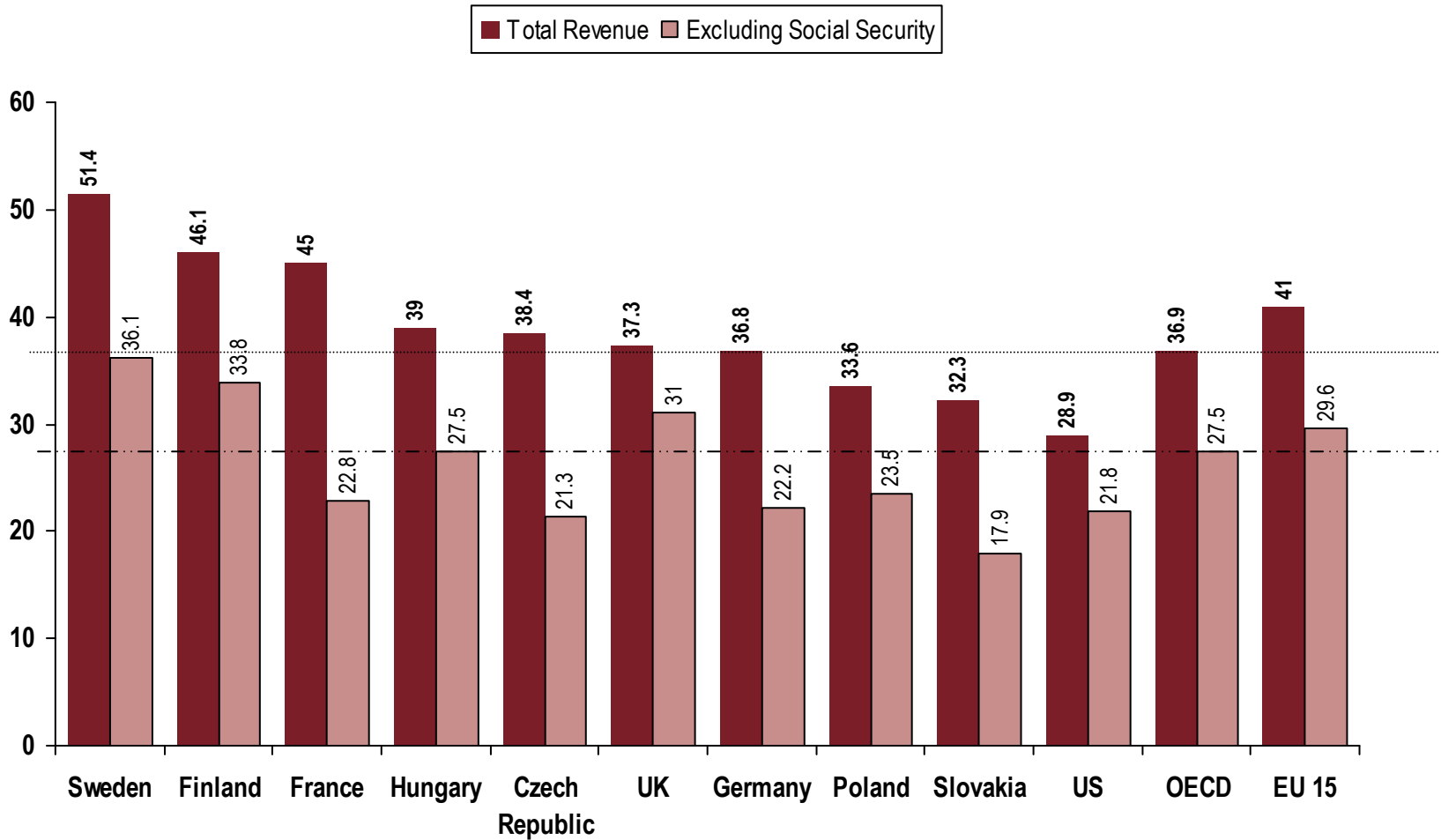
Source: Eurostat

# General Governmental Debt, %GDP



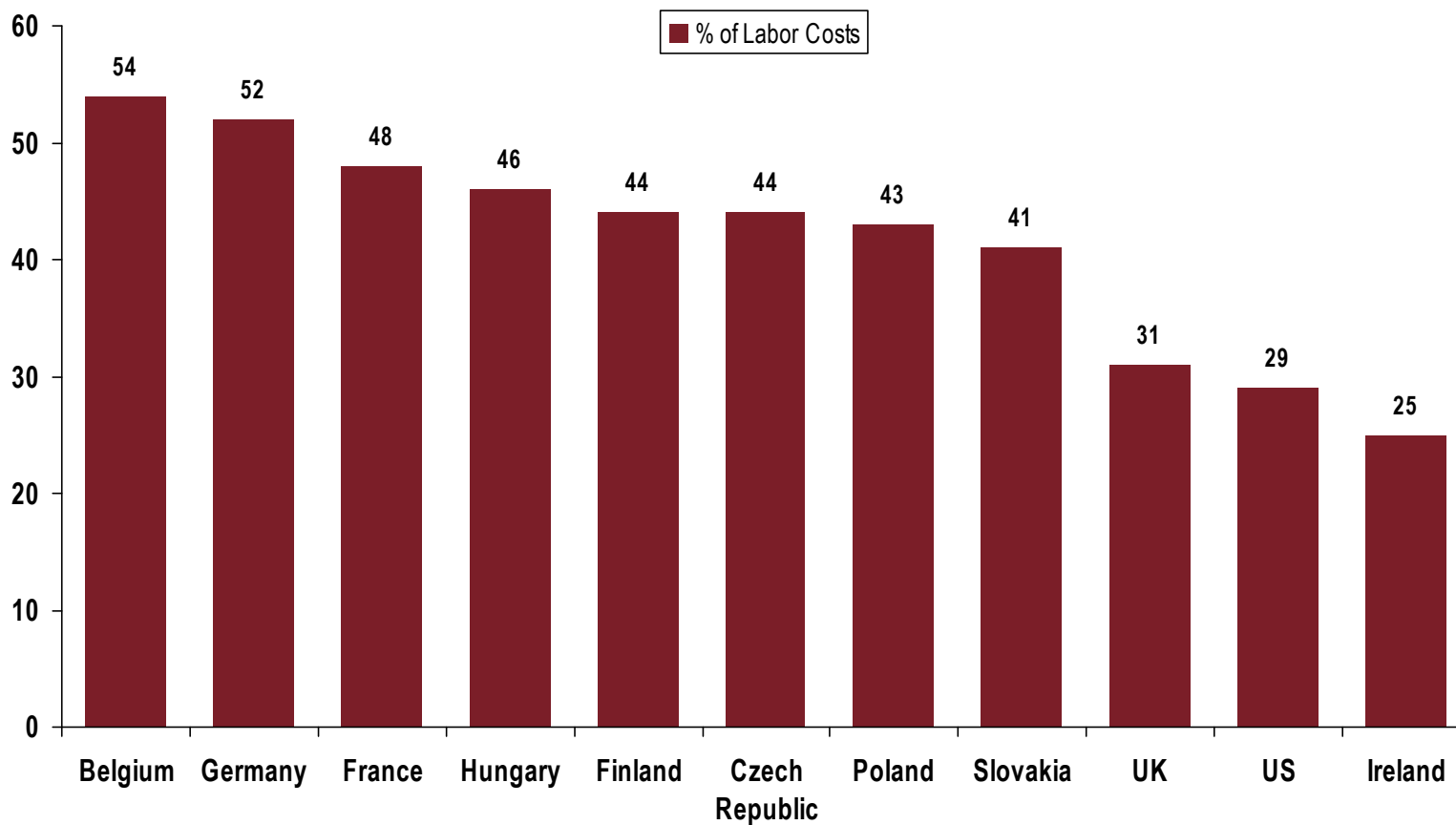
Source: Eurostat

# Tax Revenue as % of GDP, 2001, OECD



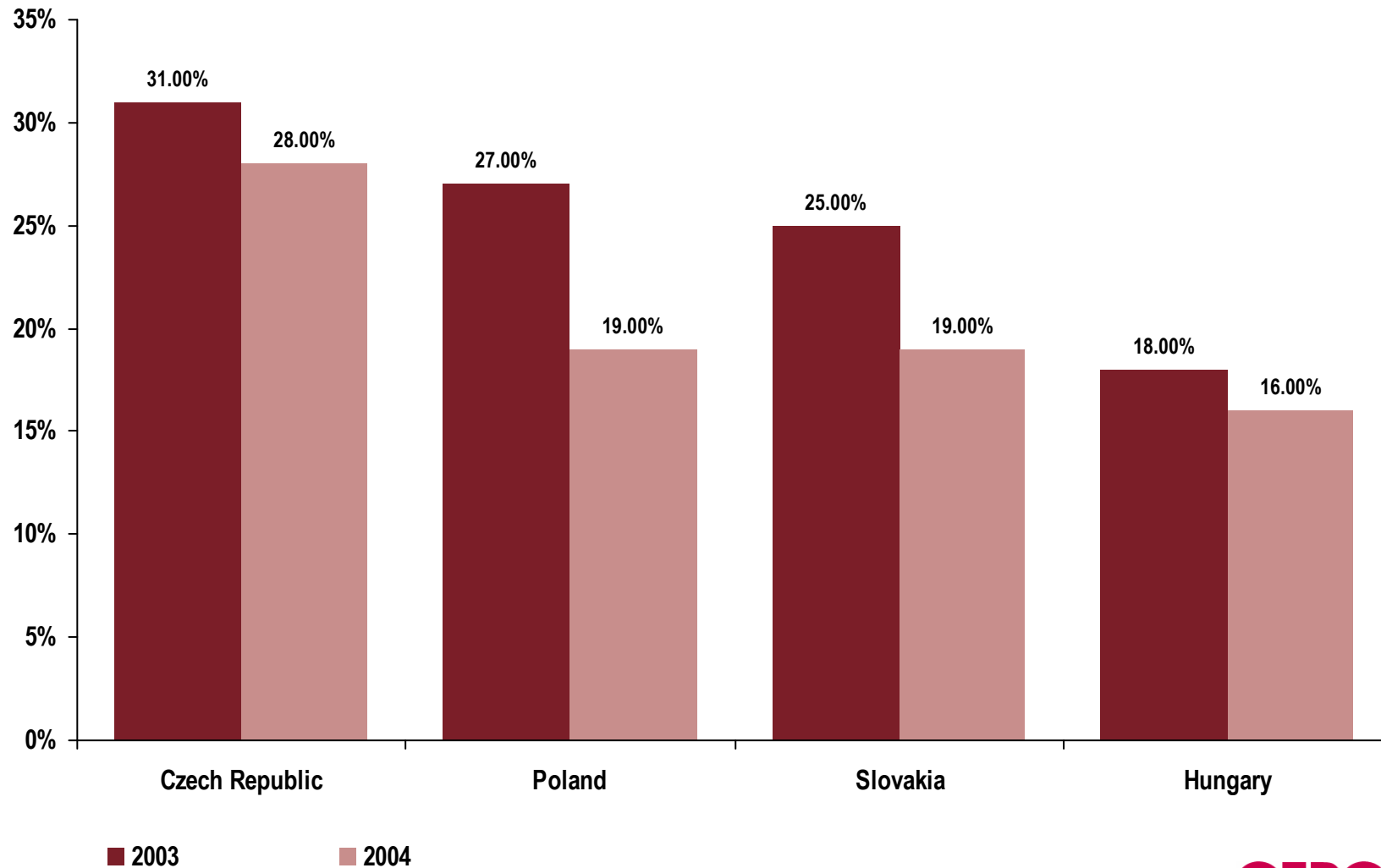
Source: OECD

# ***Income Tax and Social Security Contributions, 2003***

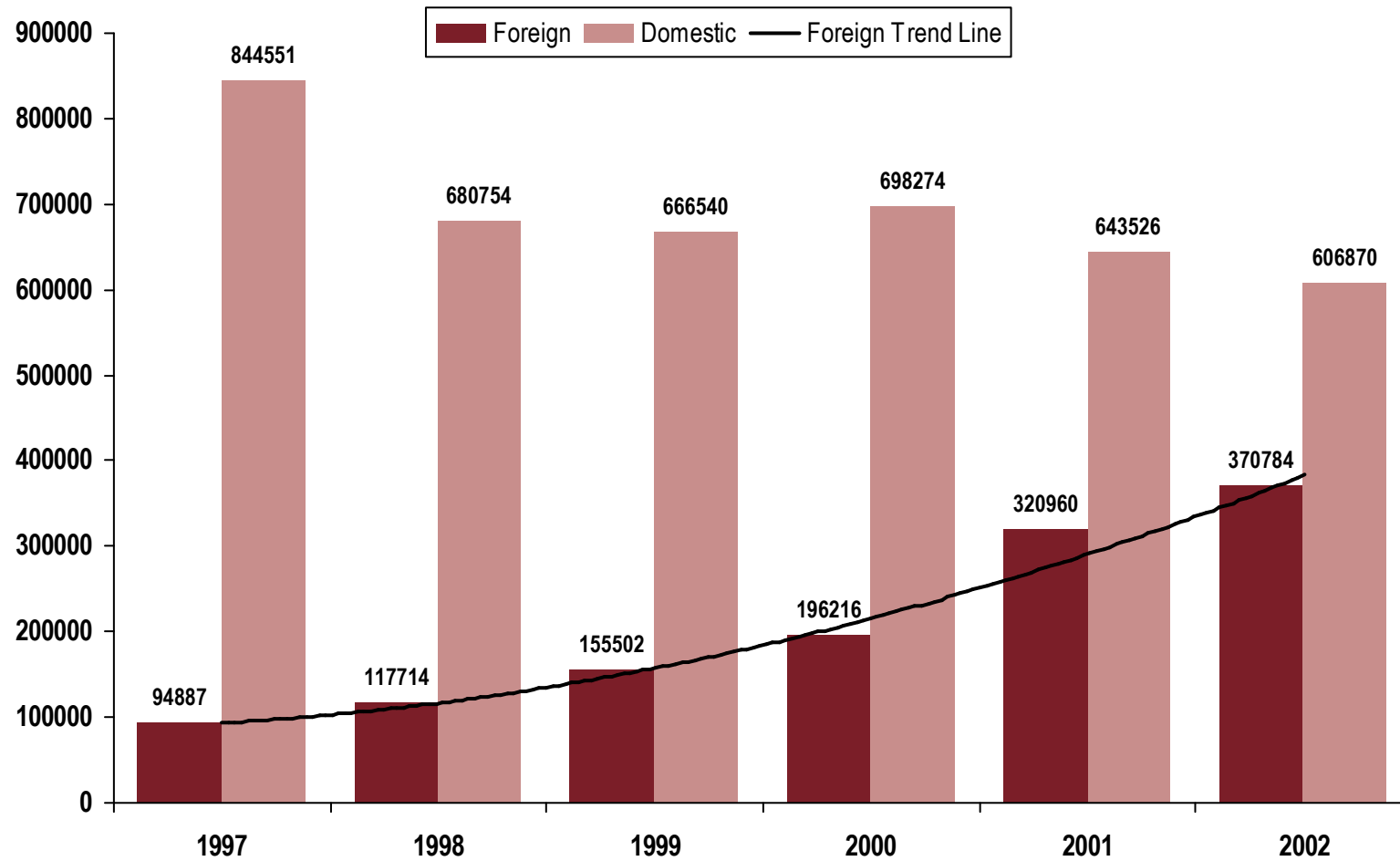


Source: OECD

# Changes in Corporate Income Tax Rate



# Value Added Creation, mil. CZK



Source: CZSO

# ***Value Added Creation***

- In 2002 the annual value added per employee was
  - **CZK 683 000 in firms under foreign control,**
  - **CZK 408 000 in domestic firms.**
- => foreign firms have productivity higher by 2/3.
- Increasing value added in companies under foreign control is due to
  - **acquisitions**
  - **higher productivity**

# Doing Business (2003/4)

Country Country	Starting a Business			Hiring and Firing Workers				Enforcing Contracts			Closing a Business		
	# of Procedures	Duration (days)	Cost (% GNI per capita)	Flexibility of Hiring Ind.	Conditions of Employment Ind.	Flexibility of Firing Ind.	Employment Laws Ind.	# of Procedures	Duration (days)	Cost (% GNI per capita)	Procedural Complexity Ind.	Actual Time (in years)	Actual Cost (% of estate)
Czech R	10	88	11.7	17	63	27	36	16	270	18.5	64.6	9.2	38
Czech R	10	40	10.8	17	63	27	36	22	300	9.6	64.6	9.2	18
France	9	49	1.4	63	61	26	50	21	210	3.8	79.2	2.4	18
France	7	8	1.1	63	61	26	50	21	75	11.7	79.2	1.9	8
Germany	9	45	5.9	63	46	45	51	26	154	6.0	61.1	1.2	8
Germany	9	45	5.9	63	46	45	51	26	184	10.5	61.1	1.2	8
Hungary	5	65	64.3	46	92	23	54	17	365	5.4	56.9	2.0	38
Hungary	6	52	22.9	46	92	23	54	21	365	8.1	56.9	2.0	28
Poland	10	31	21.2	33	92	39	55	18	1,000	11.2	65.3	1.5	18
Poland	10	31	21.2	33	92	39	55	41	1,000	8.7	65.3	1.4	18
Slovak R	10	98	10.2	34	89	60	61	26	420	13.3	40.3	4.8	18
Slovak R	9	52	5.7	34	89	60	61	27	565	15.0	40.3	4.7	18
Slovenia	10	61	15.5	53	84	41	59	22	1,003	3.6	65.3	3.7	18
Slovenia	10	61	12.3	53	84	41	59	25	1,003	16.3	65.3	3.6	18
United K.	6	18	1.0	33	42	9	28	12	101	0.5	36.2	1.0	8
United K.	6	18	0.9	33	42	9	28	14	288	15.7	36.2	1.0	6
United States	5	4	0.6	33	29	5	22	17	365	0.4	45.8	3.0	4
United States	5	5	0.6	33	29	5	22	17	250	7.5	45.8	3.0	8

## ***Educating Future Labor...***

- Educational attainment of the 25-64 year-old (2002)
  - **Slovak Republic**                      **11.0**
  - **Czech Republic**                      **11.9**
  - **Poland**                                      **12.1**
  - **Hungary**                                    **14.2**
  - **OECD country mean**                  **23.0**
  - **Germany**                                 **23.4**
  - **France**                                    **24.0**
  - **United Kingdom**                      **26.9**
  - **Finland**                                  **32.6**
  - **United States**                         **38.1**

# ***Educating Future Labor...***

- Percentage of 20 to 24-year-olds in education (2002)
  - **Slovak Republic**                      **22.1**
  - **Czech Republic**                        **25.7**
  - **United Kingdom**                      **30.8**
  - **United States**                         **33.9**
  - **OECD country mean**                 **37.5**
  - **Hungary**                                 **37.7**
  - **Germany**                                **38.0**
  - **France**                                  **53.2**
  - **Poland**                                  **53.8**
  - **Finland**                                 **56.1**

## ***After EU Entry...***

- Effects on Czech Republic, Slovakia, Hungary, Slovenia
  - **No visible change in unemployment**
  - **No visible change in inflation**
    - Note: CZ had major VAT legislative change
  
- Analysis of trade for CZ:
  - **Visible increase in the percentage of the total EU trade turnover**
  - **Visible increase in the percentage of the total EU share on imports**
  - **No significant change in the percentage of exports to EU**

# **Dual Track Economy - Summary**

- Slowly growing economy
  - with a potential well above 5%
- Breaking hard but which break is the main one?
  - Inadequate social security system
  - Relatively high taxes and overall state influence
  - Future of human capital is gloomy
  - Business environment
- Top ranked in FDI attractiveness
  - but walking like John Silver
    - as foreign firms seem to be superior
    - not much hi-tech (requiring highly skilled labor), just assembly lines
    - and education does not seem ready to provide skilled labor in the future

# Pollution

