

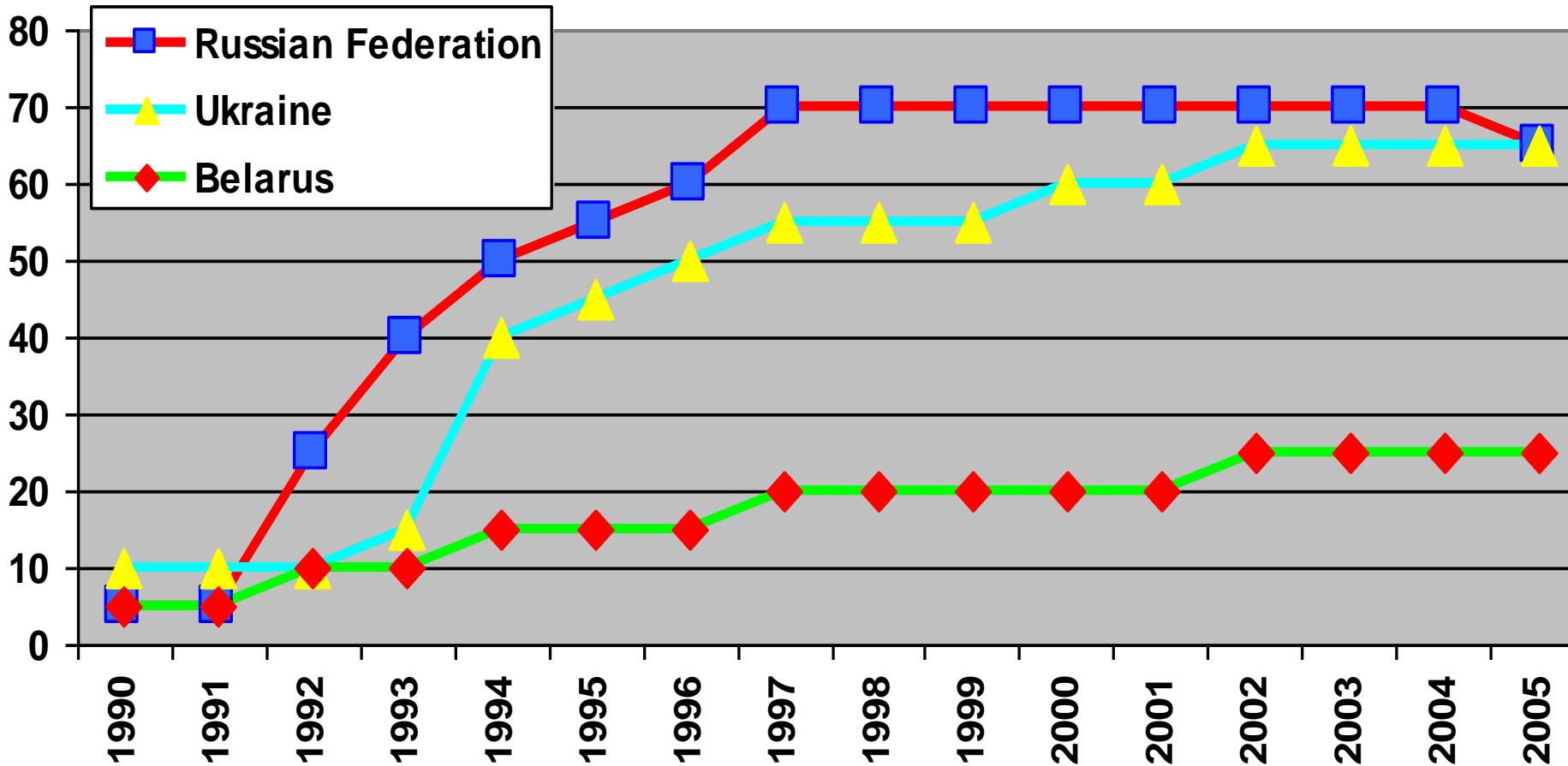
# **The Leaders and Laggards in the Slavic Triangle:**

## **Comparative Economic Performance of Belarus, Russia and Ukraine**

**Vladimir Popov**  
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# Russia was leading in economic liberalization, while Belarus was lagging

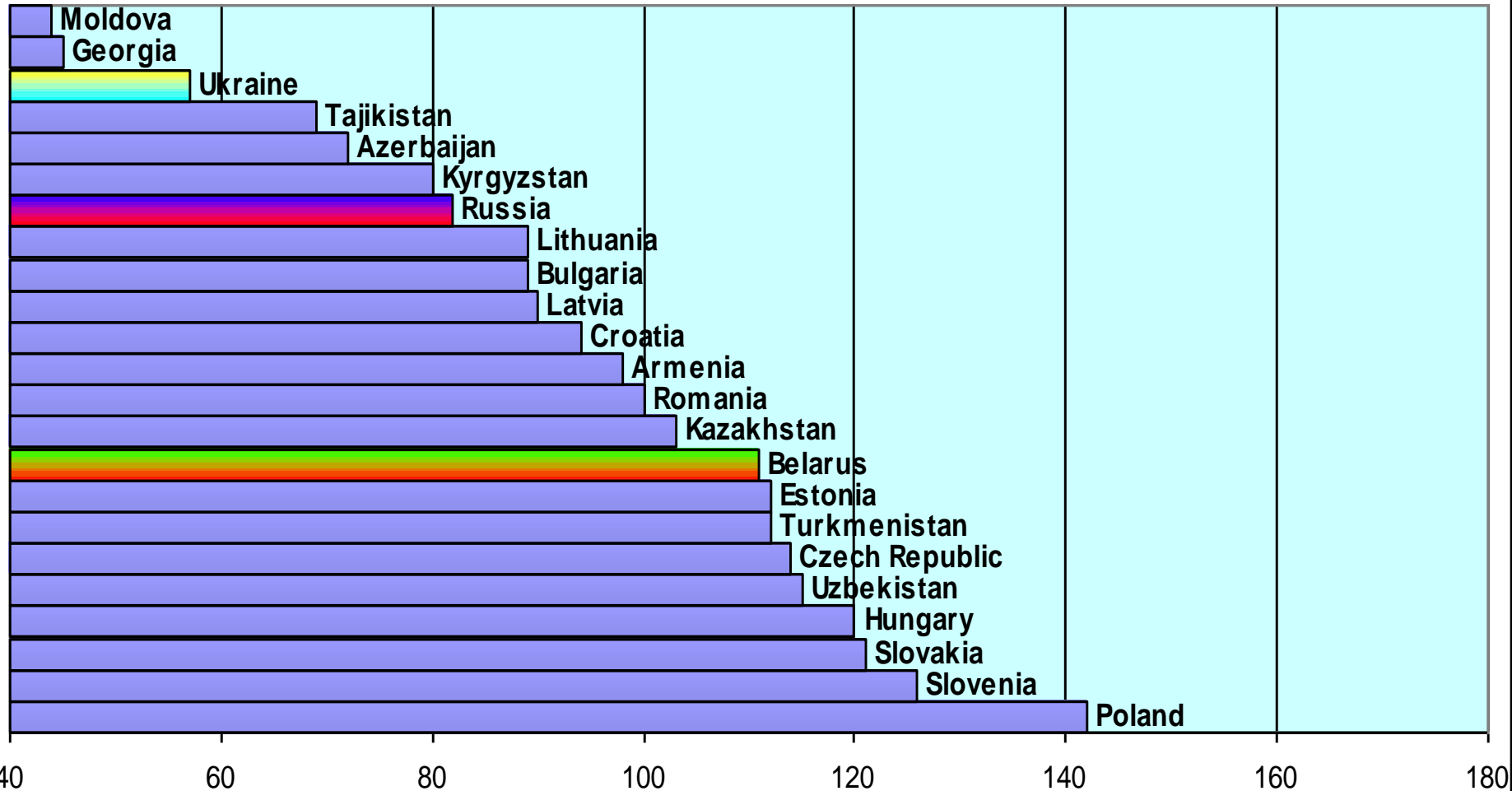
Private sector share in GDP, %





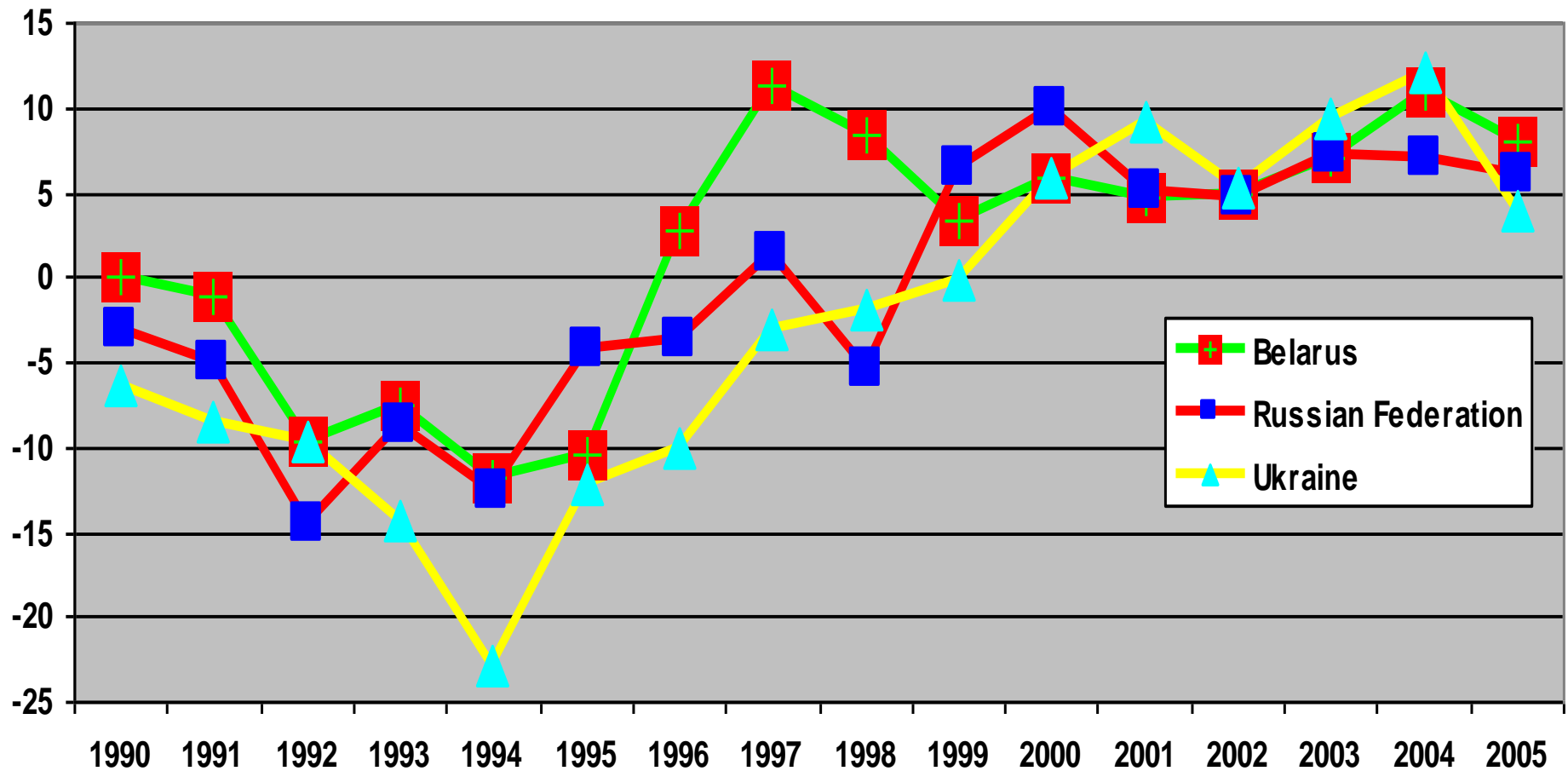
# By 2004 Belarus was among 5 FSU economies that exceeded the pre-recession 1989 level of output

GDP in 2004 as a % of 1989



# In 1989-2005, growth rates in Belarus were higher than in Russia and Ukraine for 10 years out of 16

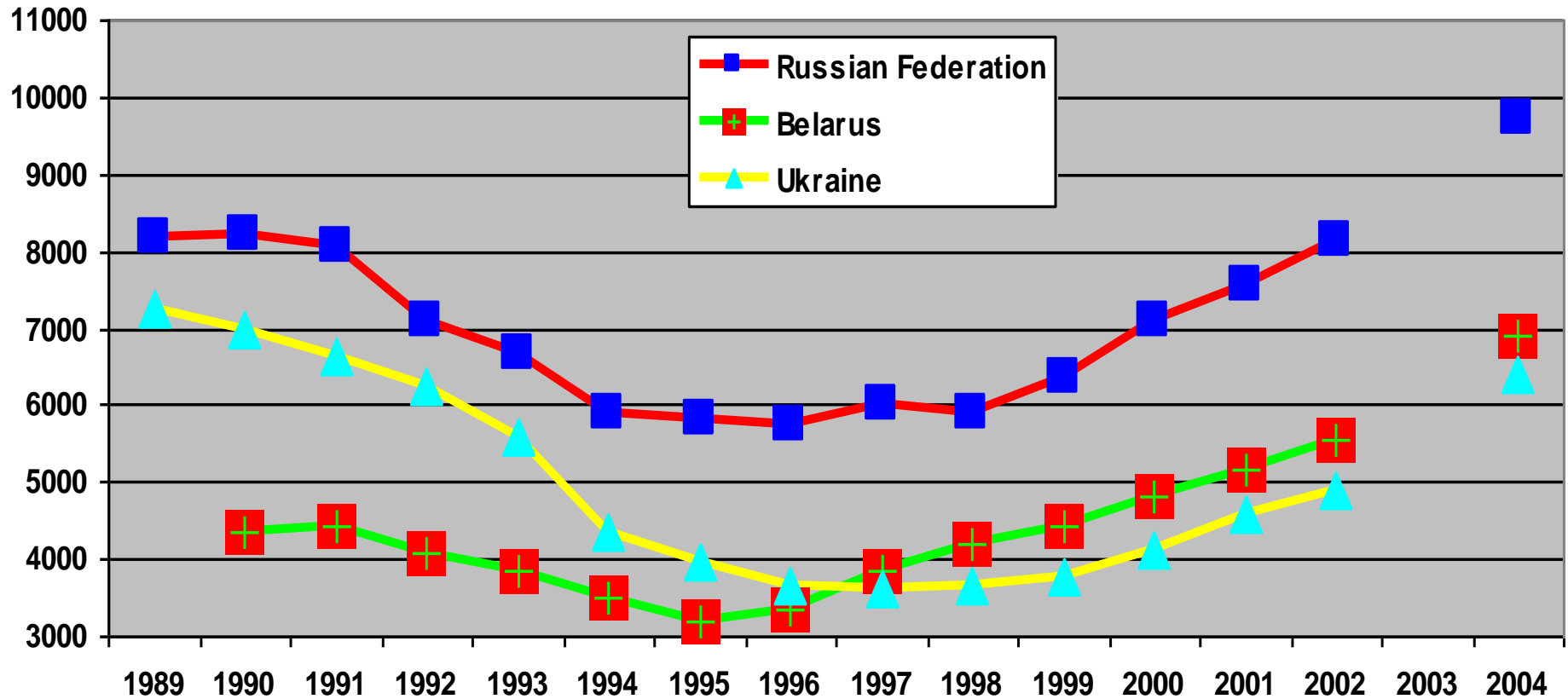
GDP growth rates, %



**In 1990 PPP GDP per capita in Belarus was half of that in Russia and 60% of the level of Ukraine.**

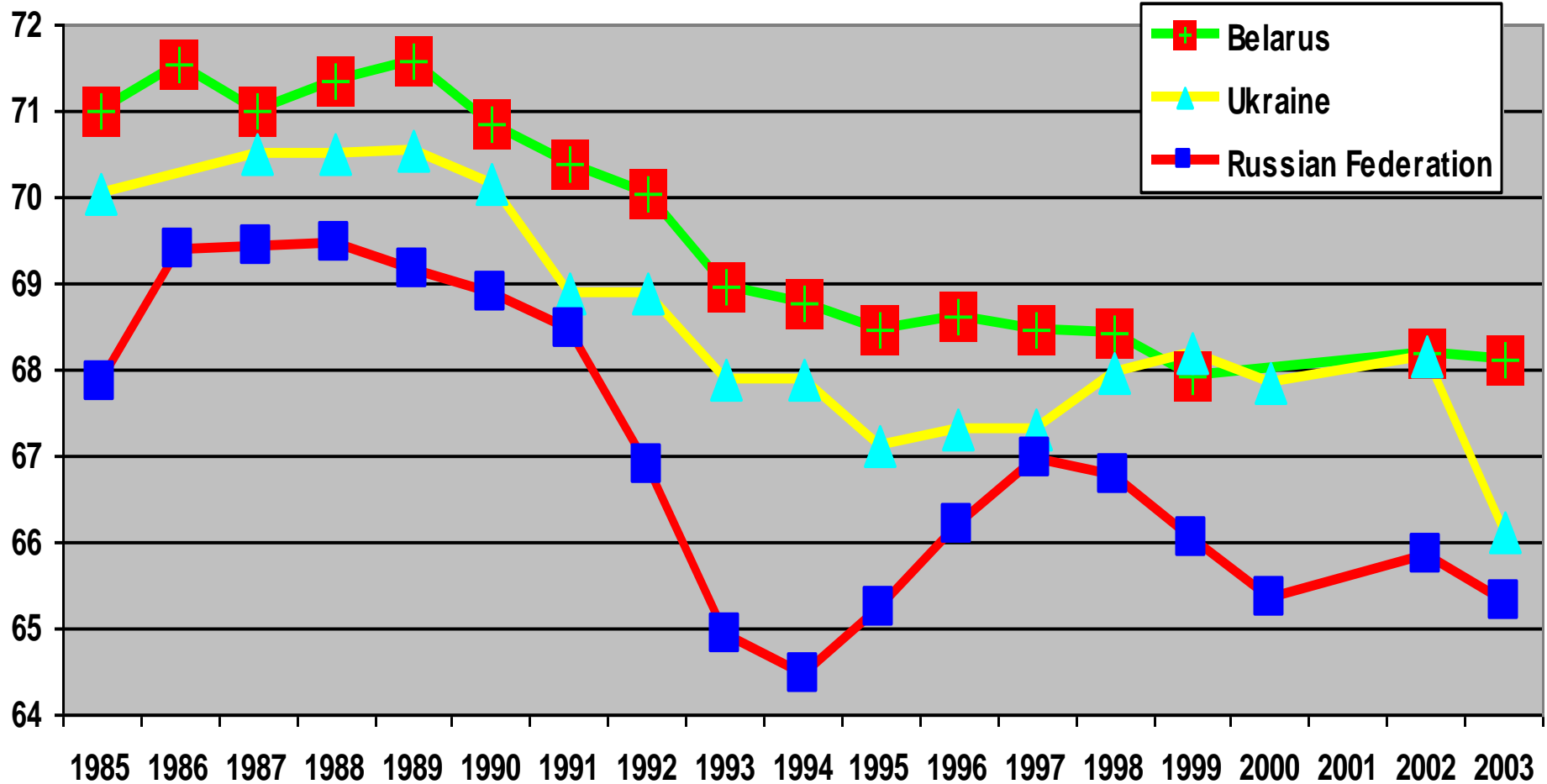
**In 2004 it was higher than in Ukraine and reached 70% of the Russian level**

PPP GDP per capita, current international dollars



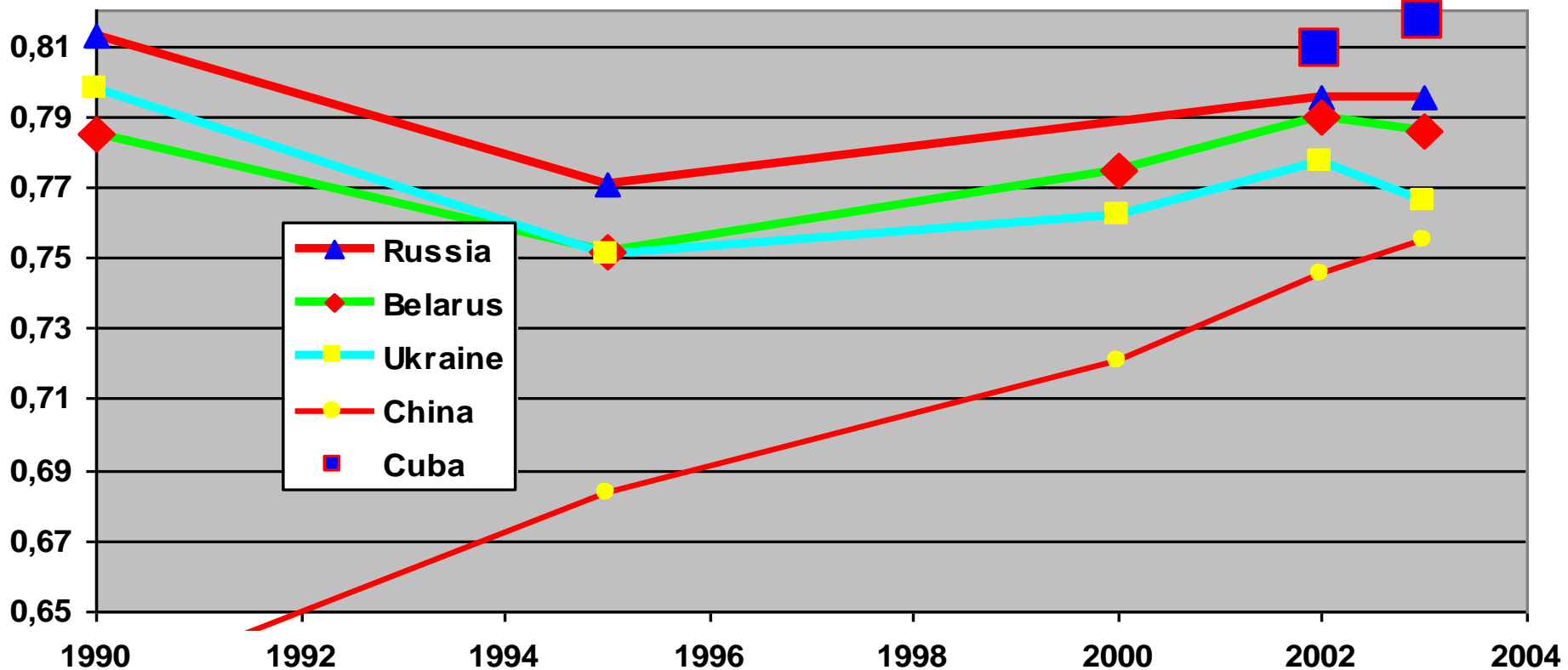
# Life expectancy in Belarus was generally higher than in Ukraine and Russia

Life expectancy at birth, years (1995-2002 - WDI, 2003 - HDR)



**Human Development Index (GDP per capita, life expectancy, education) was lower in Belarus than in Russia and Ukraine in 1990, but now is higher than in Ukraine and is nearly as high as in Russia**

Human Development Index for China, Belarus, Russia and Ukraine



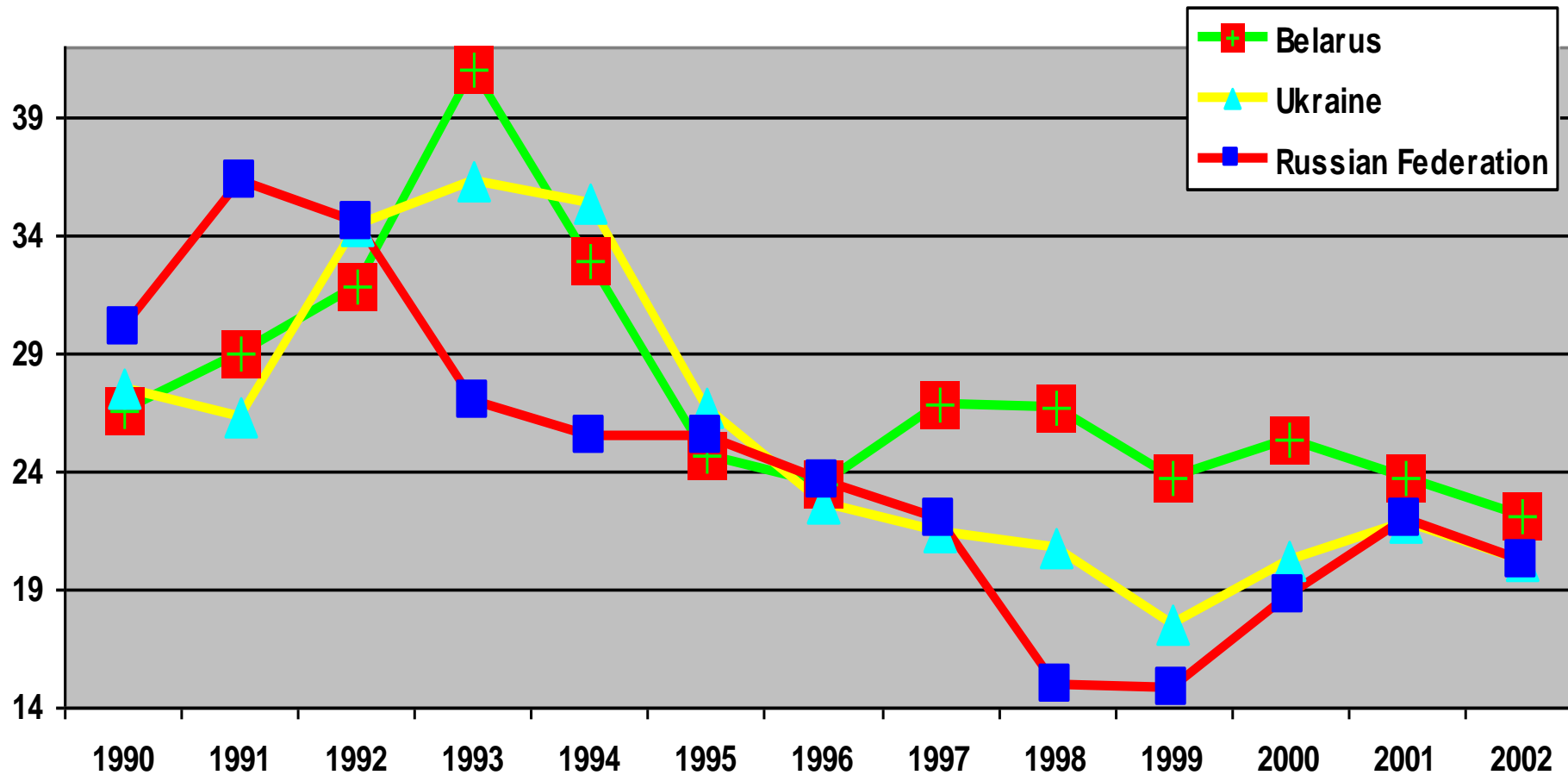


**There is only one former Soviet republic with which Russia has today a negative migration balance (more people leave for B republic than come from B republic to Russia)**

- Yes, it is B e l a r u s

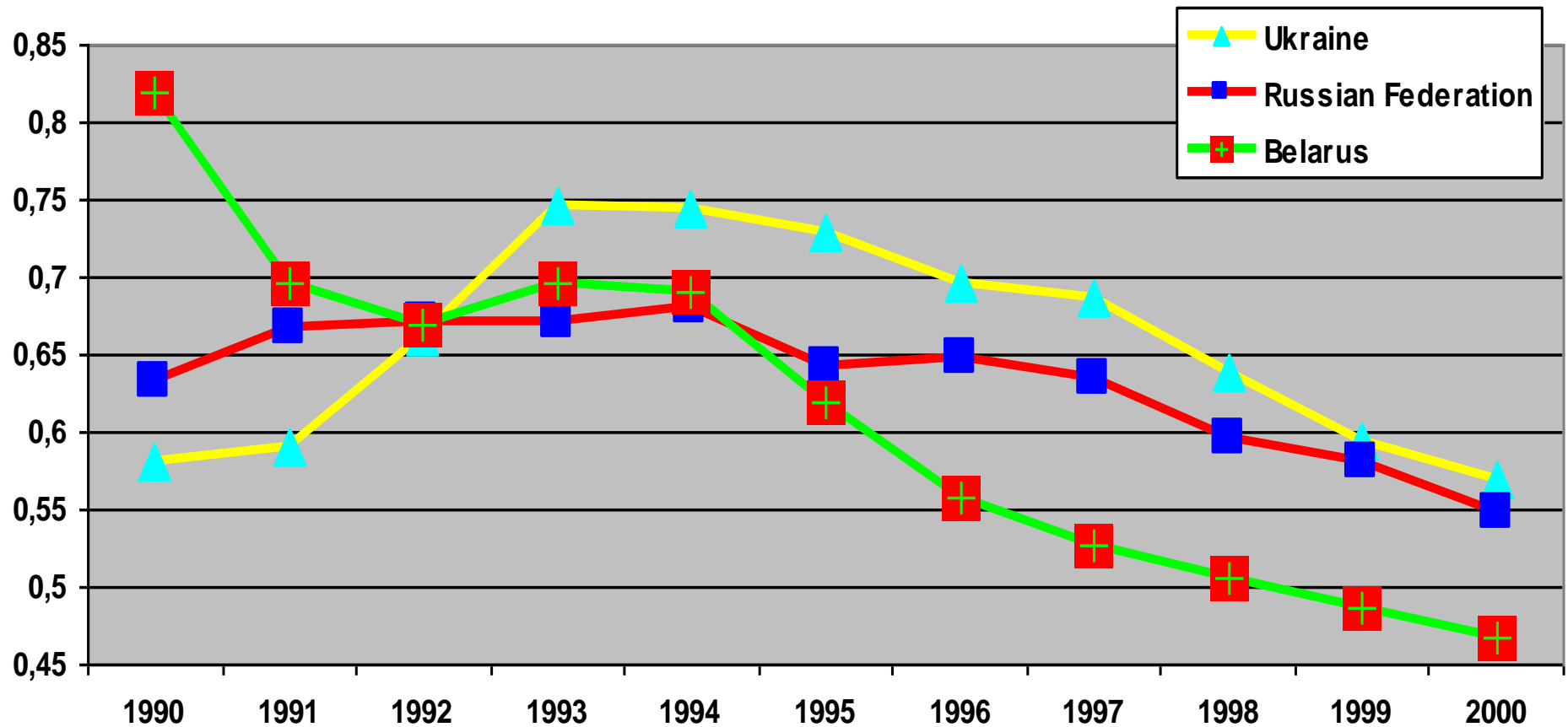
# It was argued that Belorussian economy is not restructuring, but investment is higher in Belarus than in Russia and Ukraine

Investment as a % of GDP



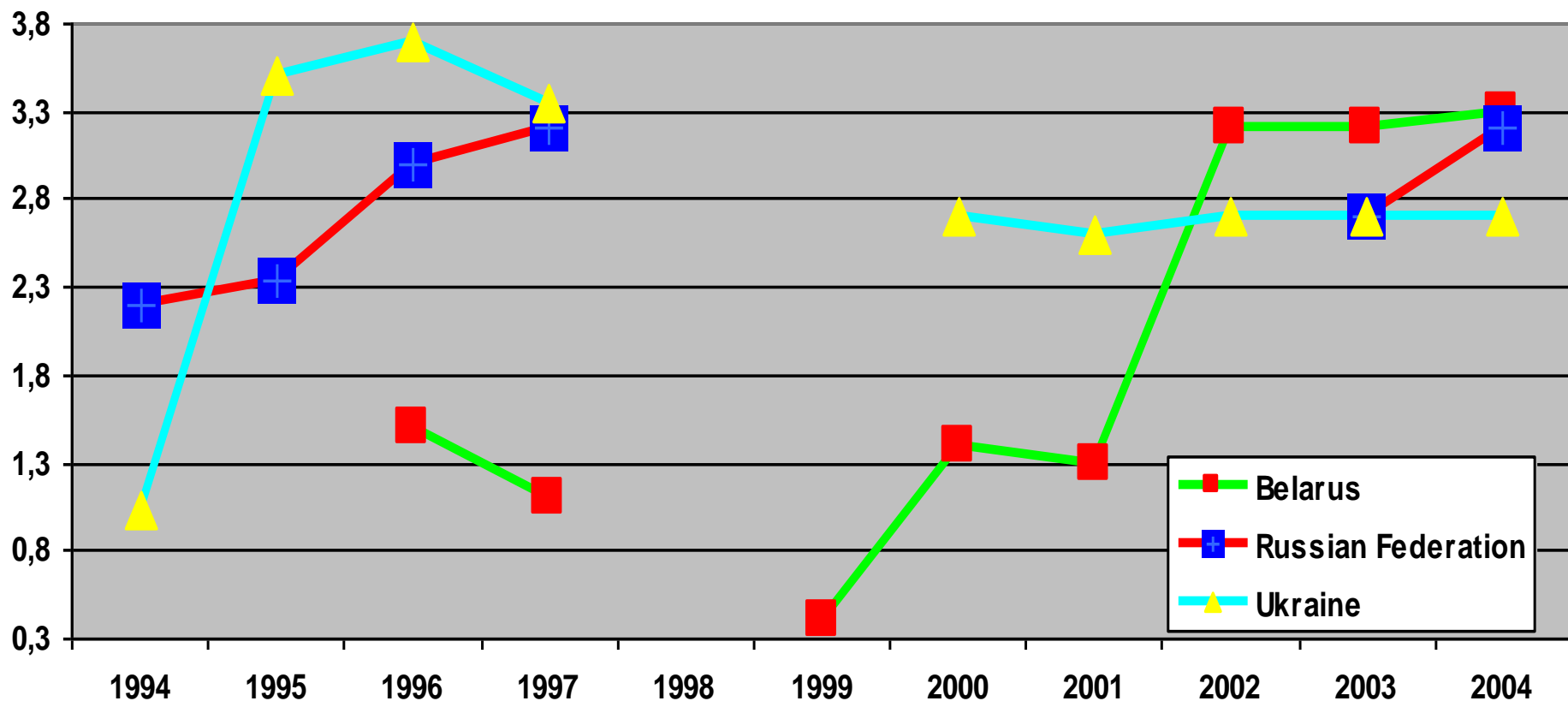
**It was argued that investment are supported by government subsidies and are used to finance inefficient projects, but energy intensity of GDP fell faster than in Russia and Ukraine**

Energy use per PPP GDP (kg of oil equivalent per constant 2000 PPP \$)



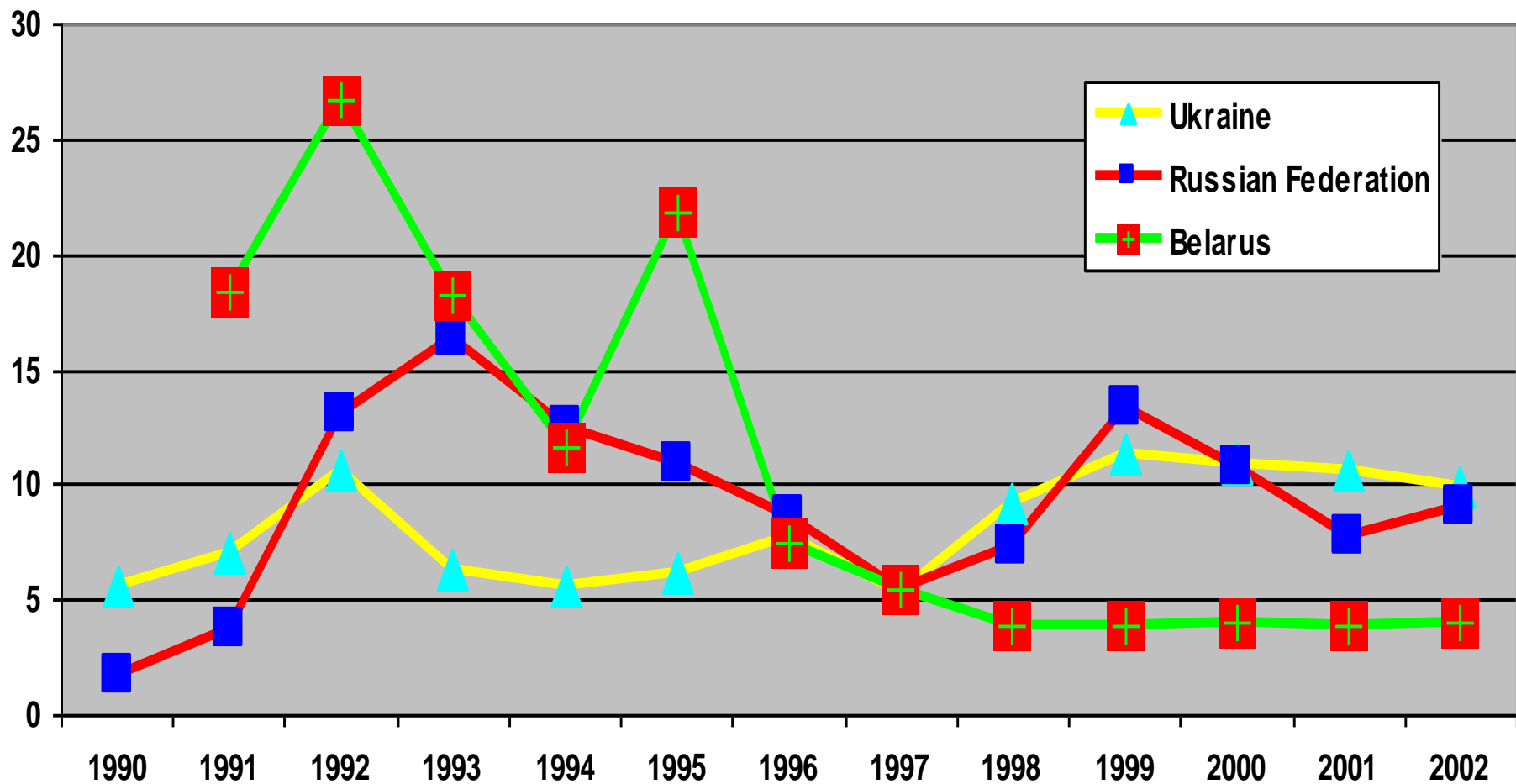
# Belarus is biting the bullet - electric energy tariffs grow fast

Electricity tariffs, US cents per 1 kWh



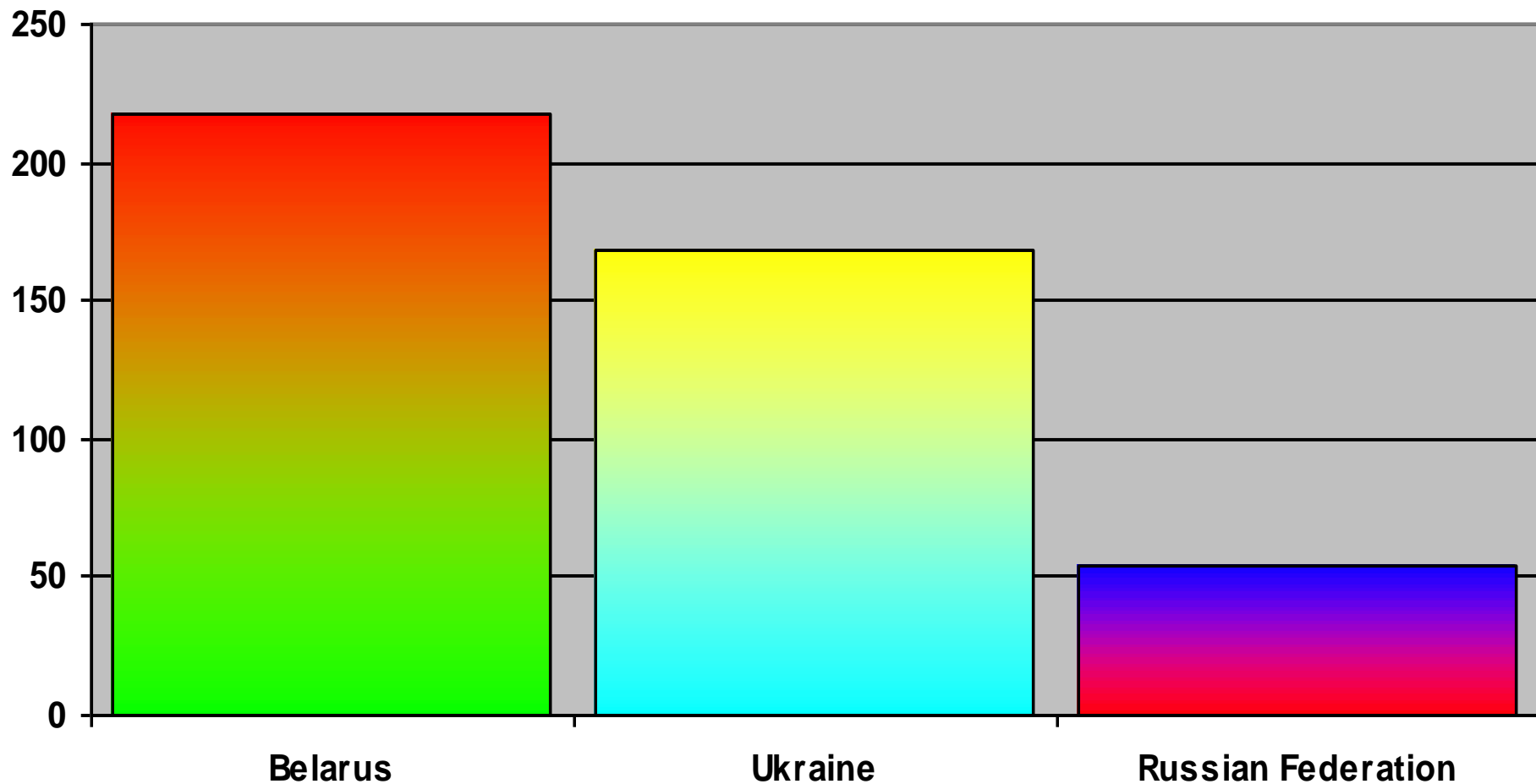
# ODA to Belarus was high, but now is low

Aid per capita (current US\$)



# However, investment climate is good - FDI inflows are higher than in Ukraine and Russia

Cumulative FDI inflows in 1989-2004 per capita, US\$



# Why differences in performance?

Answers are available from [vpopov@nes.ru](mailto:vpopov@nes.ru) on request

- **Shock Therapy versus Gradualism Reconsidered: Lessons from Transition Economies after 15 Years of Reforms.** TIGER Working paper No. 82, 2005
- **Shock Therapy versus Gradualism: The End of the Debate (Explaining the Magnitude of the Transformational Recession).** – *Comparative Economic Studies*, Vol. 42, Spring, 2000, No. 1, pp. 1-57.
- **Reform Strategies and Economic Performance of Russia's Regions.** – *World Development*, Vol. 29, No 5, 2001, pp. 865-86.
- **Democracy and Growth Reconsidered: Why Economic Performance of New Democracies Is Not Encouraging, co-authored with V. Polterovich)**

# Impact of initial conditions, institutions, liberalization:1989-96

**Table 1. Regression of change in GDP in 1989-96 on initial conditions, policy factors, and rule of law and democracy indices, robust estimates**

**Dependent variable = log (1996 GDP as a % of 1989 GDP)**

For China - all indicators are for the period of 1979-86 or similar

Equations, Number of Observations / Variables	1, N=28	2, N=28	3, N=28	4, N=28	5, N=28	6, N=28	7, N=28
Constant	5.3***	5.4***	5.2***	5.4***	5.4***	5.5***	5.7***
Distortions, % of GDP <sup>a</sup>	-.005**	-.005**	-.003	-.006**	-.007***	-.007***	-.007***
1987 PPP GDP per capita, % of the US level	-.009**	-.006*	-.007**	-.007**	-.009***	-.008***	-.008***
War dummy <sup>b</sup>				-.19 <sup>c</sup>	-.36***	-.37***	-.45***
Decline in government revenues as a % of GDP from 1989-91 to 1993-96					-.011***	-.011***	-.011***
Liberalization index			.05			-.02	.03
Log (Inflation, % a year, 1990-95, geometric average)	-.16***	-.20***	-.18***	-.17***	-.13***	-.13***	-.14***
Rule of law index, average for 1989-97, %	.008***						
Democracy index, average for 1990-98, %	-.005***						-.003**
Ratio of the rule of law to democracy index		.07***	.07***	.06***	.05***	.05***	
Adjusted R <sup>2</sup> , %	82	83	83	85	91	91	90

\*, \*\*, \*\*\* - Significant at 1, 5 and 10% level respectively.

<sup>a</sup>Cumulative measure of distortions as a % of GDP equal to the sum of defense expenditure (minus 3% regarded as the 'normal' level), deviations in industrial structure and trade openness from the 'normal' level, the share of heavily distorted trade (among the FSU republics) and lightly distorted trade (with socialist countries) taken with a 33% weight – see (Popov, 2000) for details.

<sup>b</sup>Equals 1 for Armenia, Azerbaijan, Croatia, Georgia, Macedonia, and Tajikistan and 0 for all other countries.

<sup>c</sup> Significant at 13% level.



**Best performance: low distortions, strong institutions**  
**Worst performance: high distortions, weak institutions**

**INITIAL CONDITIONS (DISTORTIONS) AND INSTITUTIONS –  
CLASSIFICATION OF COUNTRIES**

<b>DISTORTIONS</b>	<b>LOW</b>	<b>HIGH</b>
<b>INSTITUTIONAL CAPACITY</b>		
<b>HIGH</b>	<b>CHINA, VIETNAM</b>	<b>EASTERN EUROPE</b>
<b>LOW</b>	<b>ALBANIA, MONGOLIA</b>	<b>FSU</b>

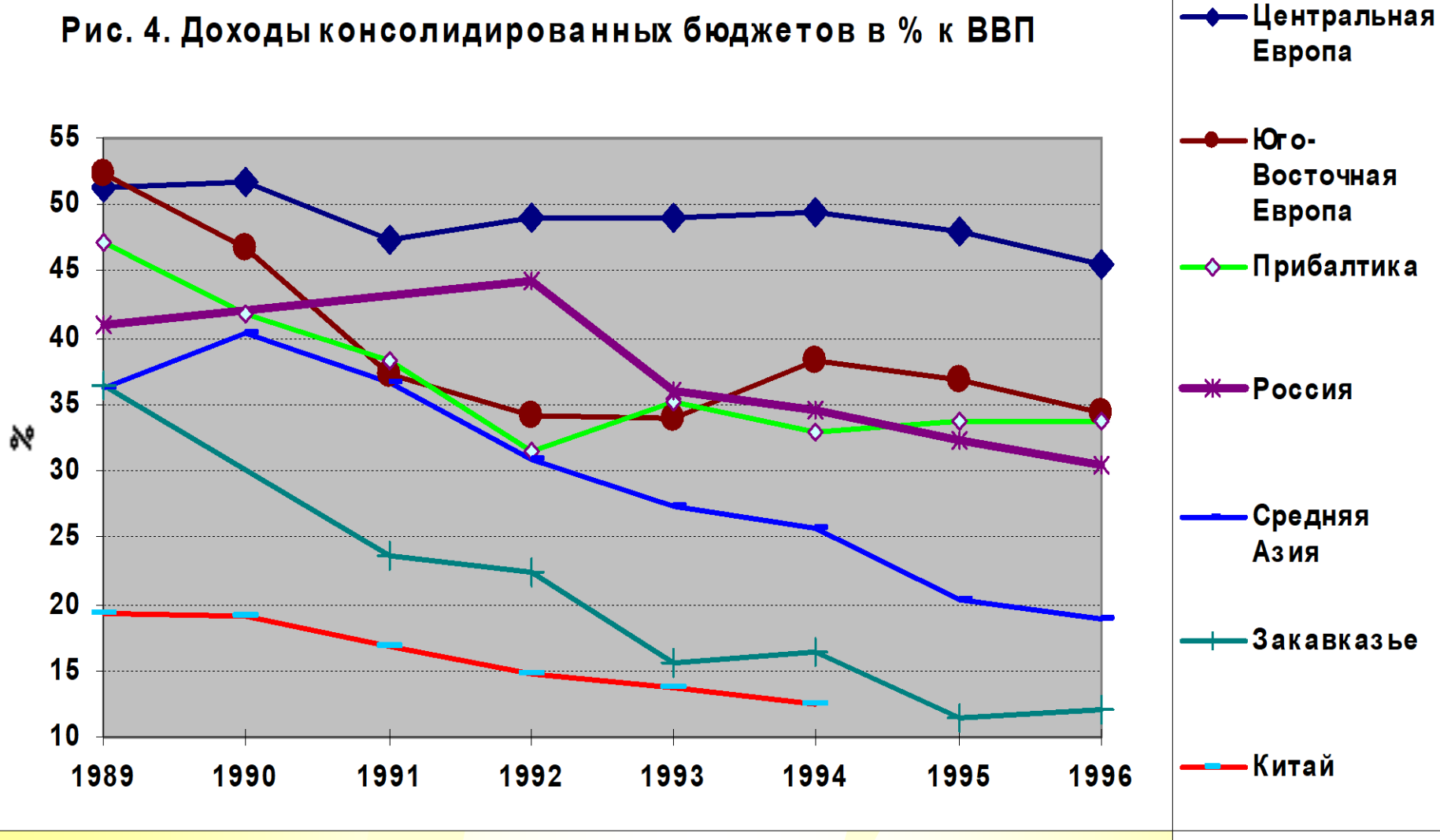
**Belarus had very distorted economy before transition, but managed to avoid the collapse of the institutional capacity of the state**

**INITIAL CONDITIONS (DISTORTIONS) AND INSTITUTIONS –  
CLASSIFICATION OF COUNTRIES**

<b>DISTORTIONS</b>	<b>LOW</b>	<b>HIGH</b>
<b>INSTITUTIONAL CAPACITY</b>		
<b>HIGH</b>	<b>CHINA, VIETNAM</b>	<b>BELARUS</b>
<b>LOW</b>	<b>RUSSIA</b>	<b>UKRAINE</b>

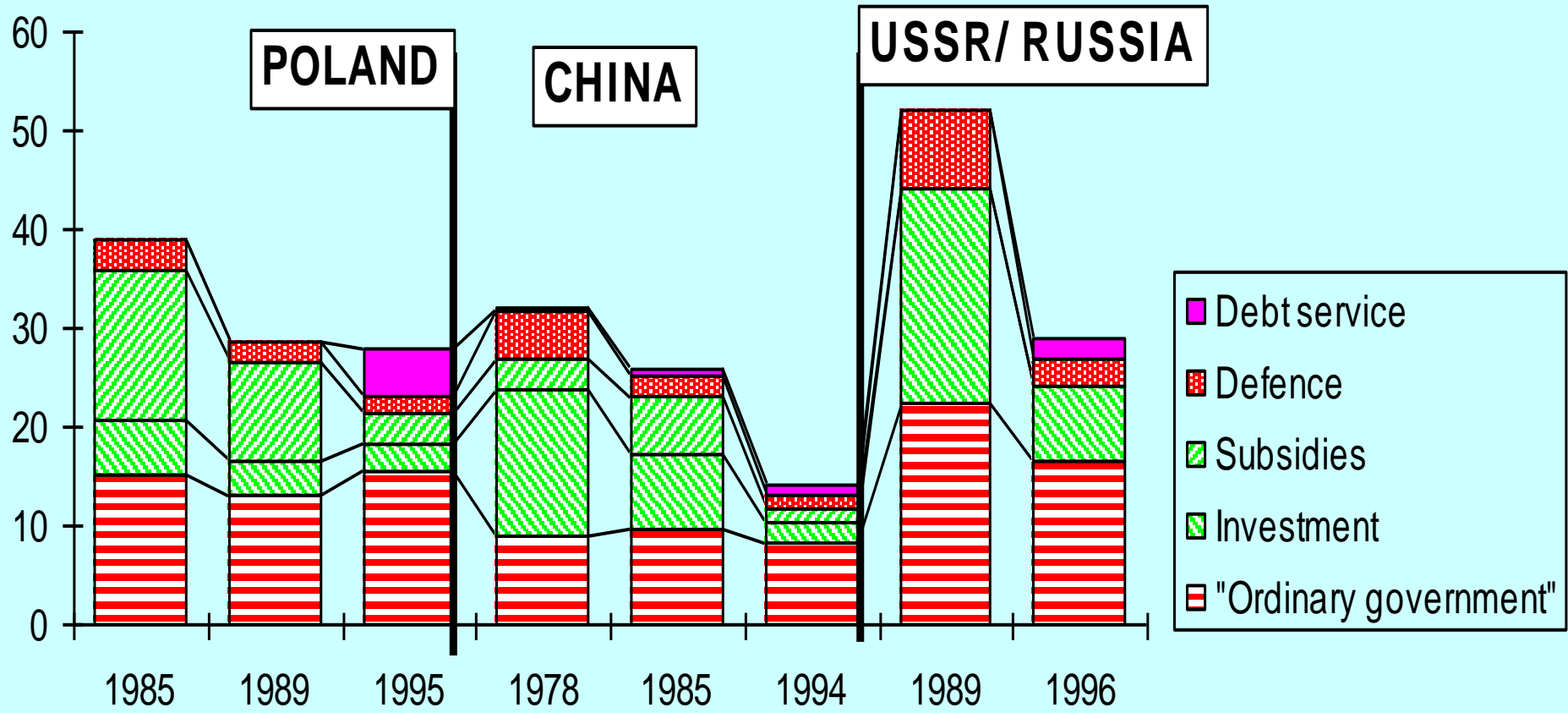
# Government revenues and expenditure declined in virtually all transition economies

Рис. 4. Доходы консолидированных бюджетов в % к ВВП



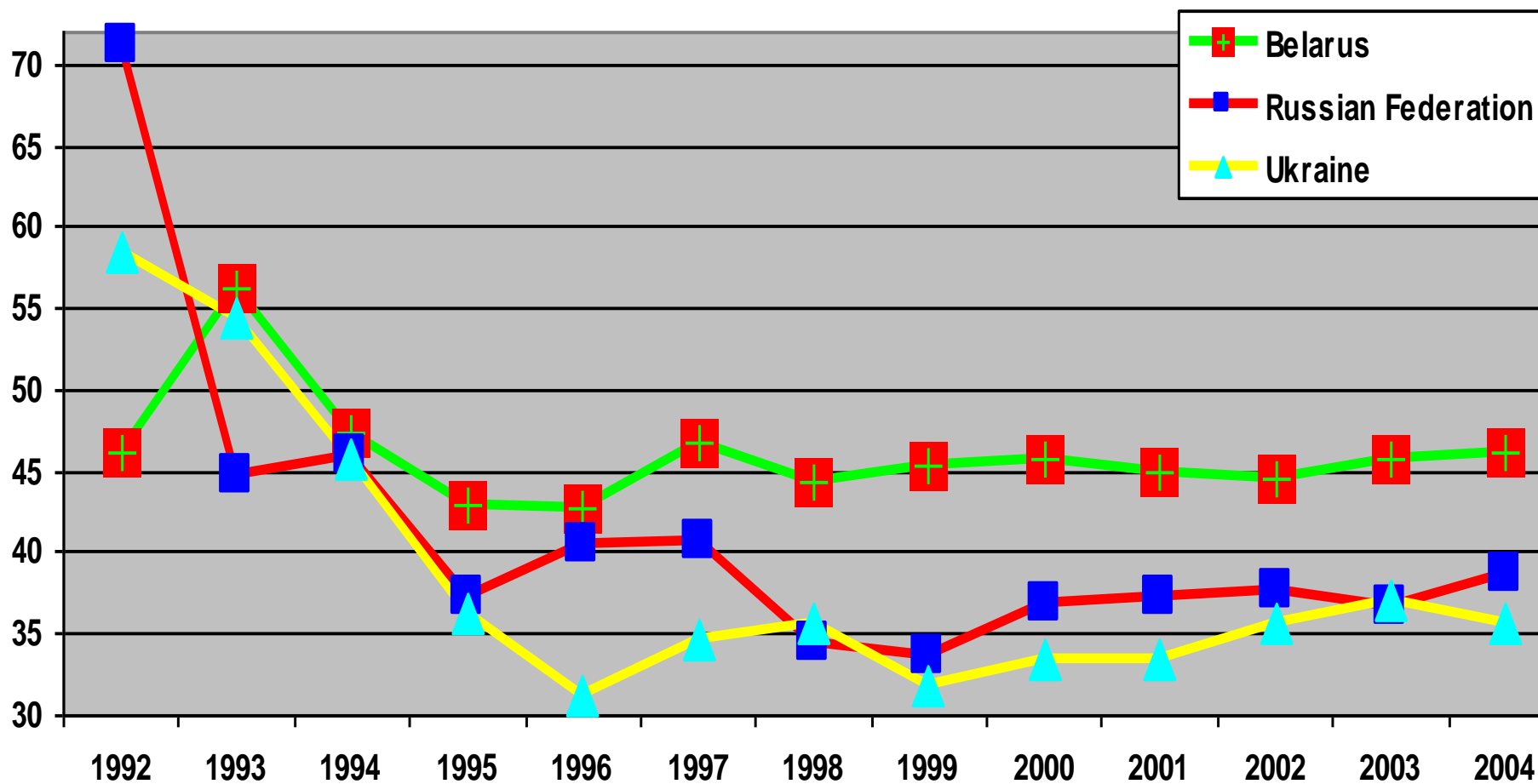
# Expenditure for “ordinary government” did not decline in Central Europe and in China...

Fig. 3. Government expenditure, % of GDP



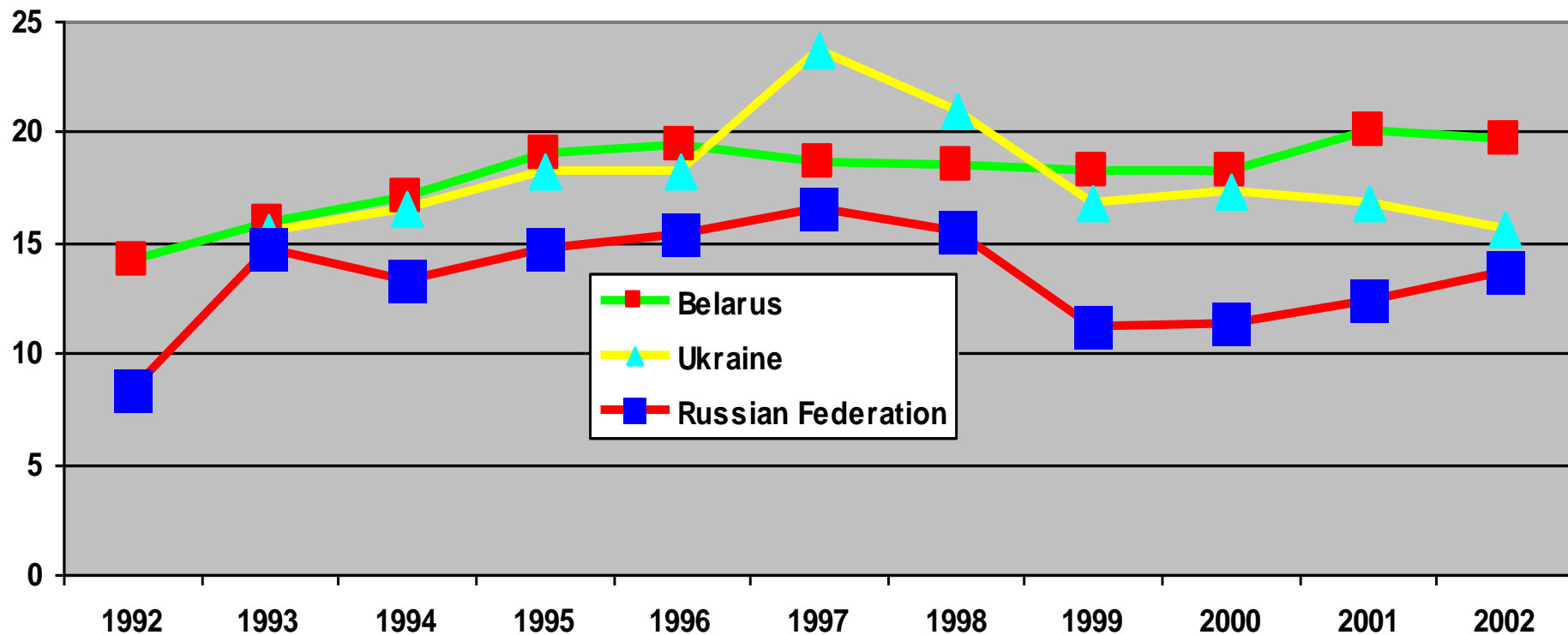
# ...And in Belarus

General (consolidated) government revenues (% of GDP)



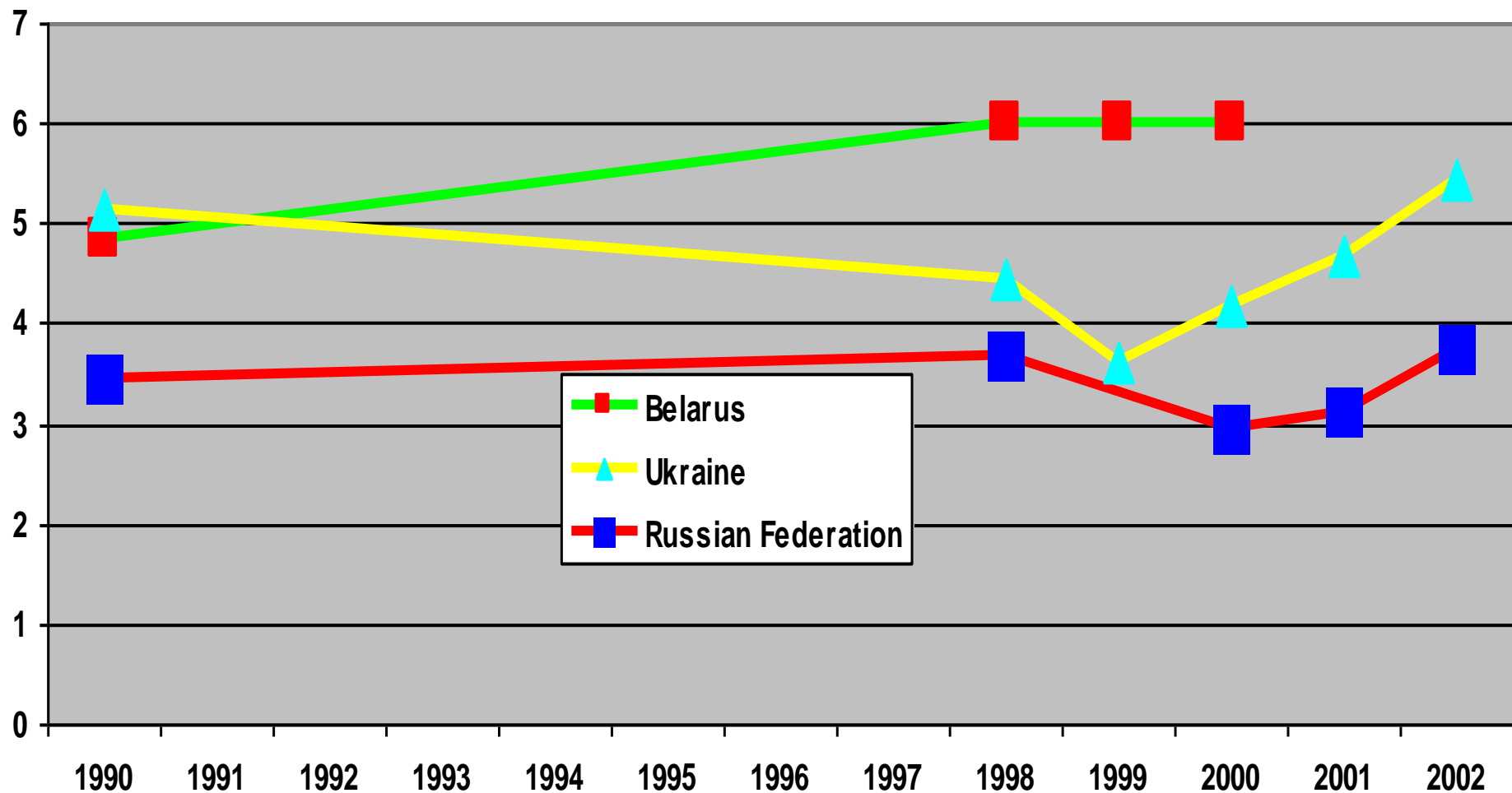
# Government purchases of goods and services (i.e. government expenditure minus transfers) were relatively high in Belarus

General government final consumption expenditure without defense expenditure (% of GDP)



# For instance, government expenditure on education

Public spending on education, total (% of GDP)



# Conclusions

- The impact of the speed of liberalization at the initial stage of transition, i.e. during the transformational recession, appears to be negative, if any.
- The reason for the negative impact is most probably associated with limited ability of the economy to adjust to new price ratios

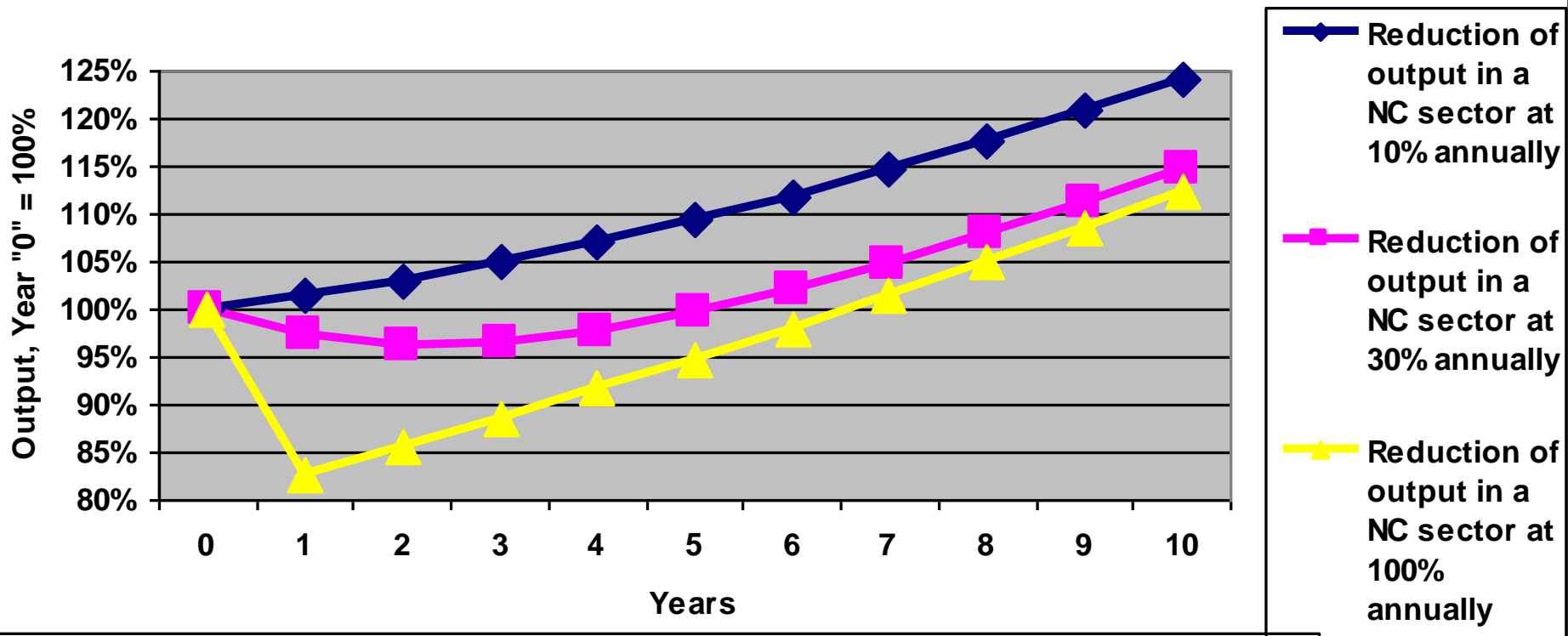


# Conclusions

- Differences in performance during transition depend strongly on the initial conditions:
  - **The higher the distortions (militarization, over-industrialization, "under-openness" of the economy and the share of perverted trade flows), the worse is the performance**
  - **The higher was GDP per capita before transition, the greater were distortions embodied in fixed capital stock, the more difficult it was to overcome these distortions to achieve growth**

# Conclusions

Fig. 5. Hypothetical trajectories of output (Year "0" = 100%) assuming gradual and instant liberalization



Assumptions: size of non-competitive sector (NC) in the initial year = 20% of total output; net investment (s) = 10% of total output; marginal capital productivity, output increase per unit of net investment ( $a$ ) =  $1/3$ .

# Conclusions

- At the recovery stage liberalization starts to affect growth positively, whereas the impact of pre-transition distortions disappears. Institutional capacity and macroeconomic policy continue to be important prerequisites for successful performance.
- Liberalization at the recovery stage influences performance positively because it creates market stimuli without causing rapid collapse of output of inefficient industries, which cannot be compensated fully by the rise of efficient industries due to investment constraints.

# Thank you

- Details are available from:

[vpopov@nes.ru](mailto:vpopov@nes.ru)