

Public Sector Management and Regulation Working Papers

WP-PSM-06

**Infrastructure Development in the EU-Accession
Countries and the CIS - A European Perspective**

Christian von Hirschhausen

Reprint from
Presentation at the EBC Presiding Committee, Varna, 28 November
2003



Workgroup for Infrastructure Policy (WIP)
Berlin University of Technology



Chair of Energy Economics and Public Sector
Dresden University of Technology

DIW Berlin

German Institute
for Economic Research



Berlin University of
Technology

Infrastructure Development in the EU-Accession Countries and the CIS - A European Perspective

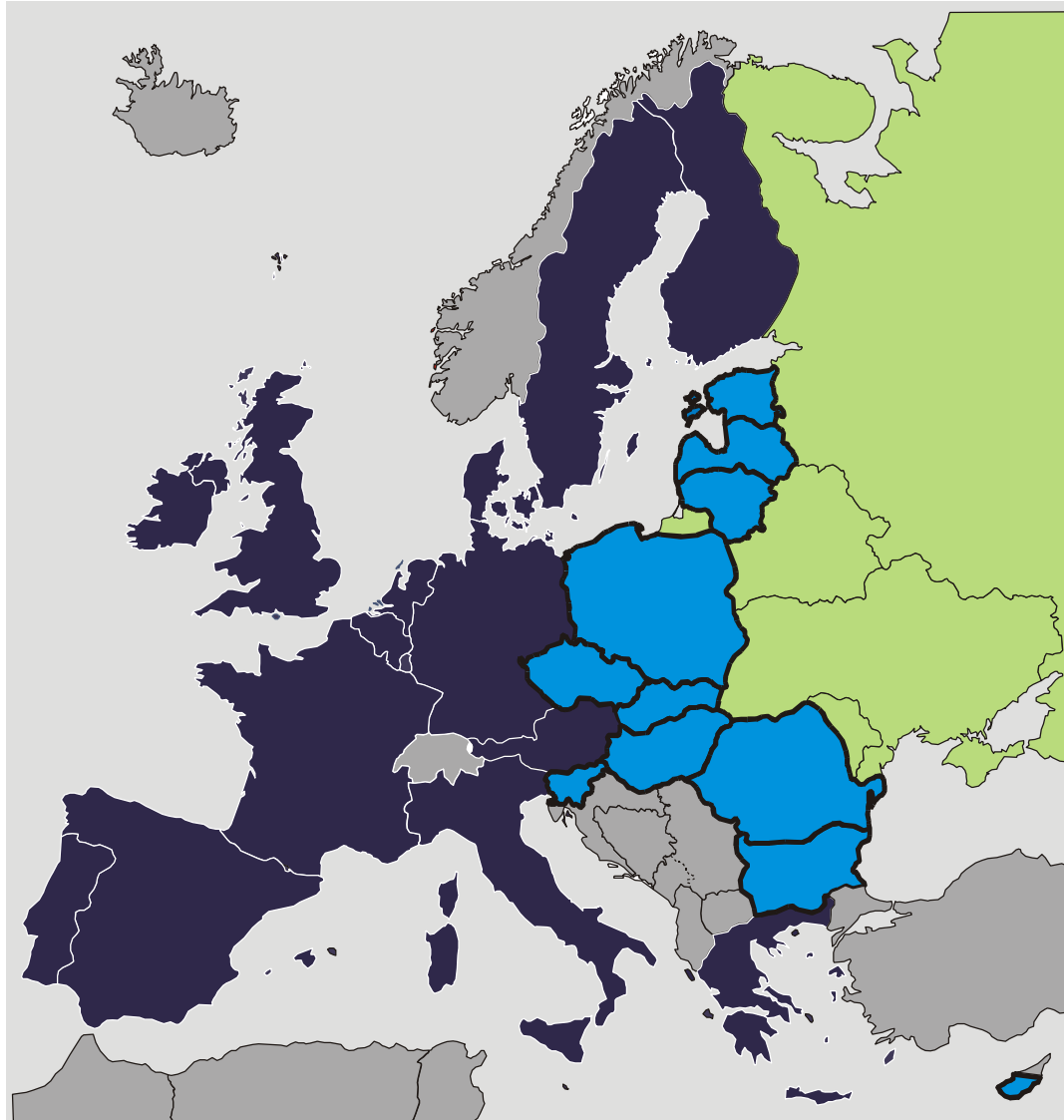
Christian von Hirschhausen
cvh@wip.tu-berlin.de

Presentation at the EBC Presiding Committee

Berlin, November 28, 2003

-
1. The Issue
 2. How many roads does Eastern Europe need?
 3. A diversity of experiences
 4. What to do?
 5. Conclusions

Europe



 EU Member States

 EU-Accession countries

 CIS

1. The Issue: How to Conduct Successful Infrastructure Reforms for Growth in Transition Countries

- Regulation:
 - Competition-oriented models (unbundling) vs. regulated monopolies
- Speed of reform
 - Big bang reform vs. gradual phasing in of competition
- Financing
 - State vs. private
 - Gap
- Political and institutional constraints

=> What is the optimal speed of modernizing and liberalizing material infrastructure in the transition context?

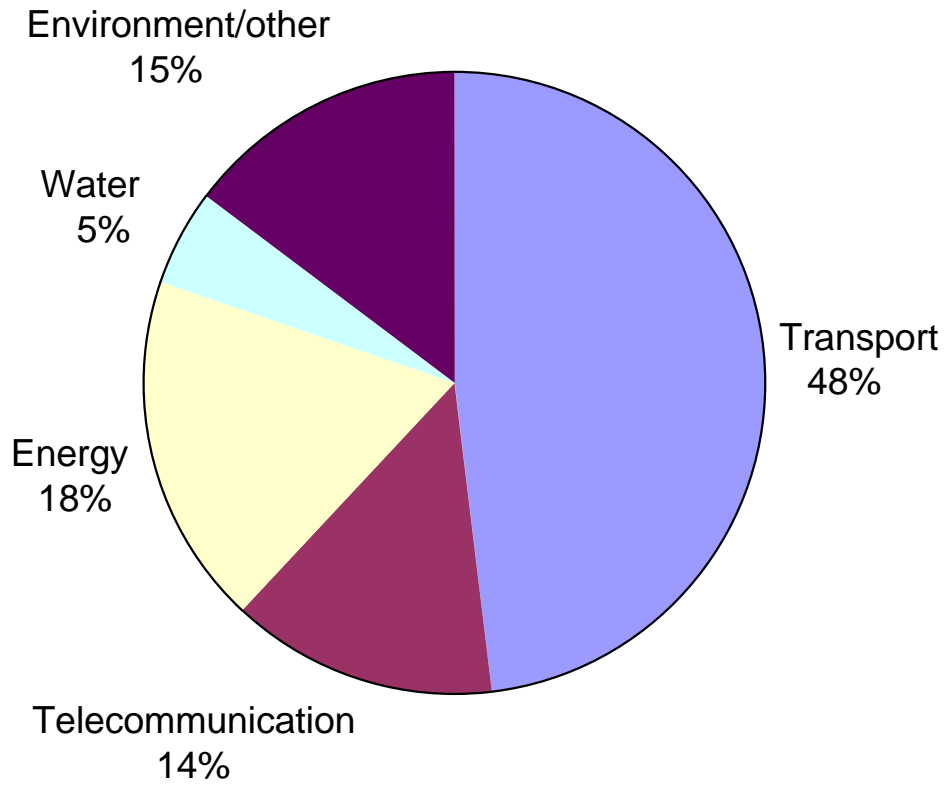
2. How Many Roads does Eastern Europe Need?

Investment Requirements of Transition countries (1995-2010)

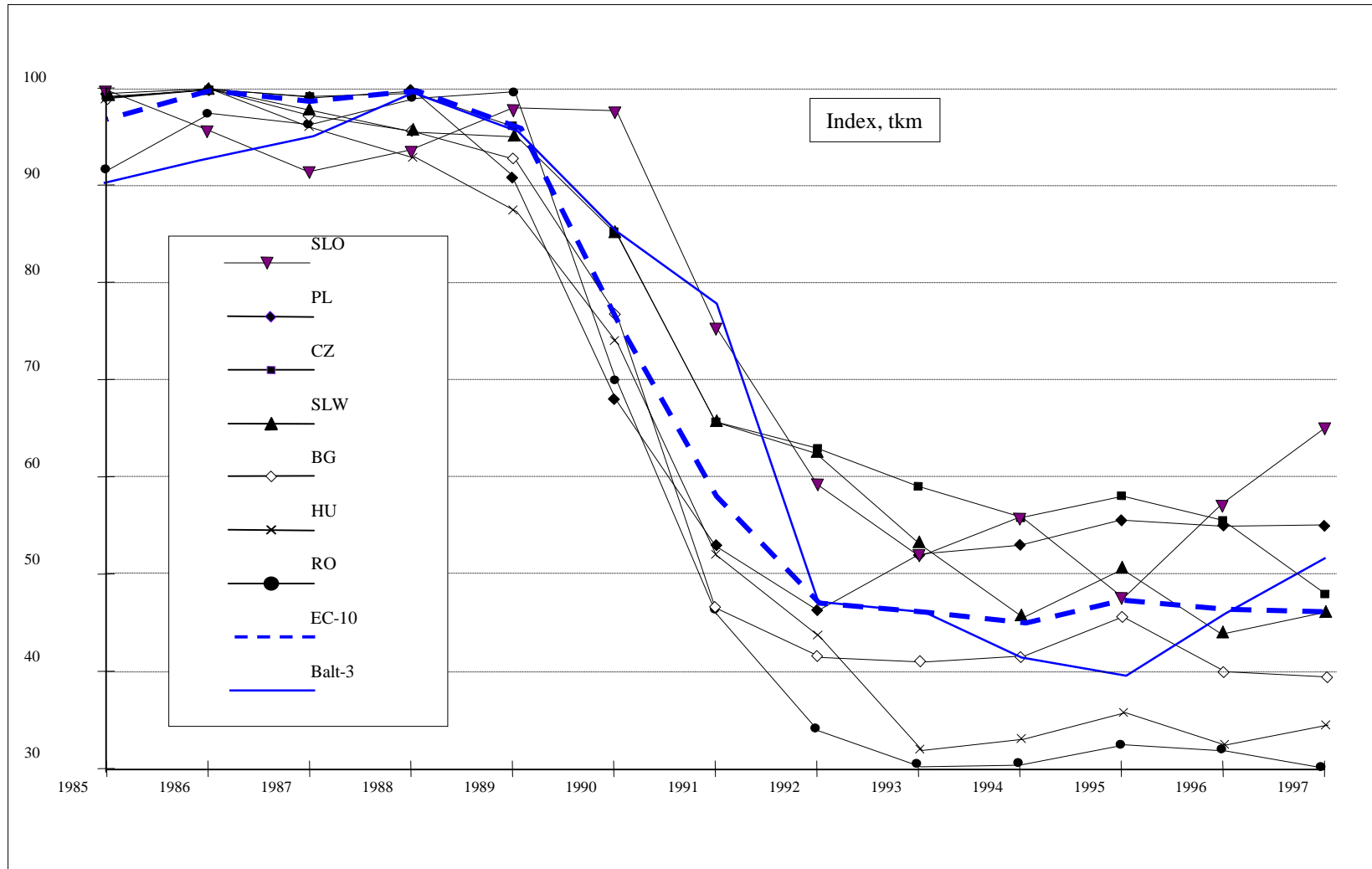
Sector	Reference	Investment req. (bn. USD)	% of annual GDP
Roads	Modernization/construction to to EU average density	100	0.5
Railways	Modernization/construction to to EU average density	85	0.4
Telecommu- nication	Teledensity of 35/100 mainlines	170	0.9
Water/ Sewage	European standards for collection and treatment	290	1.5
Energy	Network development, oil-, gas- and coal sector reform	270	1.4
Environment	EU-Directive Air Pollution and Waste	71	0.3
Sum		ca. 1,000	ca. 5%

Source: European Commission, TINA, EBRD, own calculations

Real Infrastructure Investments in Transition Countries (1991-2001): only about USD 50 bn.



3. A diversity of experiences: Reduction of Rail Freight in Accession Countries (t-km index)



Quelle: Wiss. Beirat BMV, auf der Basis nationaler Statistiken

Central/Eastern Europe: Planned toll Highways

POLAND


- A1 North-South connection (Gdansk-Katowice)*
- A2 Frankfurt/Oder-Warsaw (USD 1,5-2 bn.)*
- A4 Kattowice-Cracow (USD 590 mn.)*

CZECH REPUBLIC

- D5 BOT-project highway Prague-Nuremberg*
- D8 BOT-project Prague-Aussig (-Dresde)*

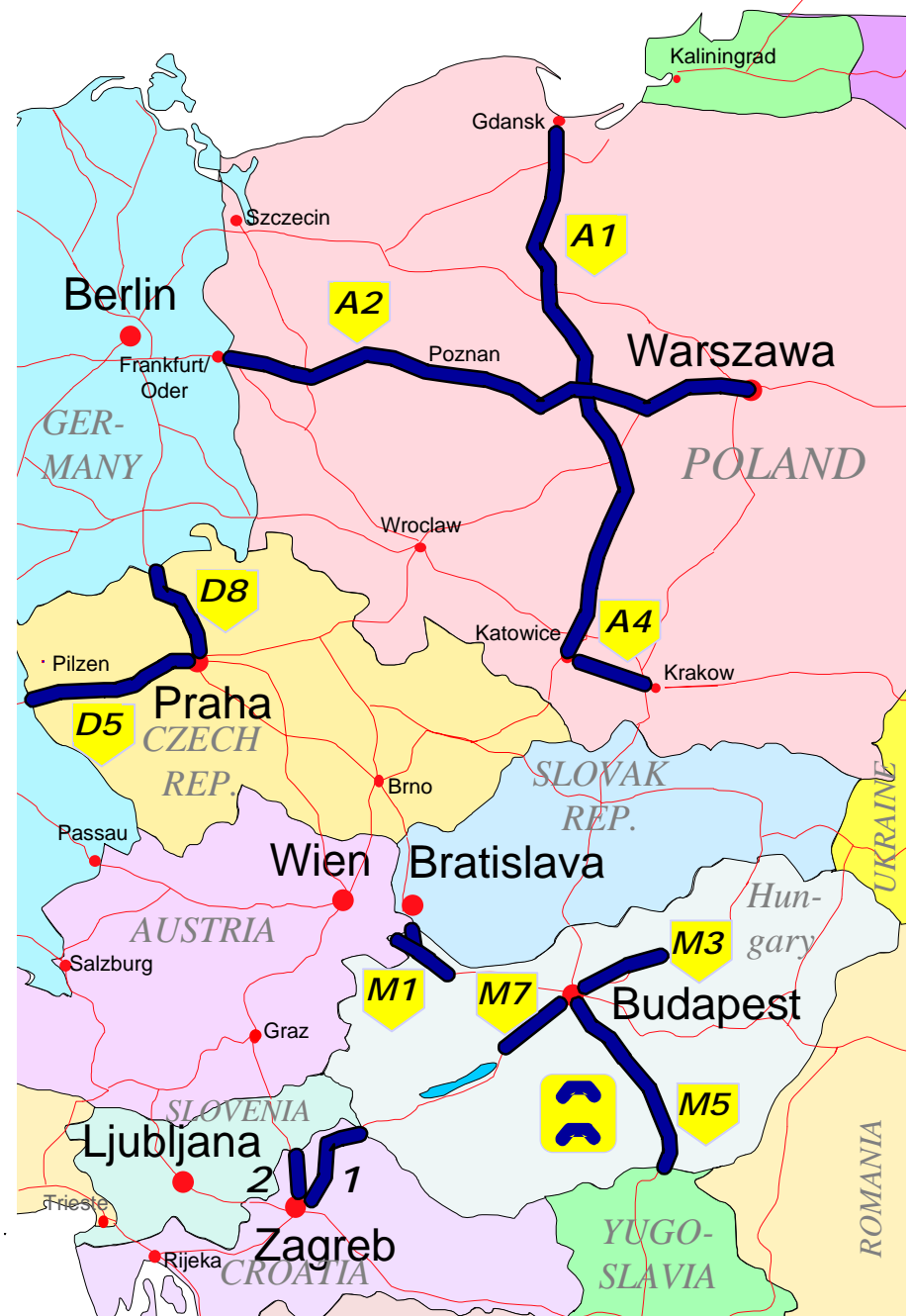
HUNGARY

- M1 Győr-Hegyelshalom: USD 200 mn.;
(in addition: branch to Bratislava M15)*
- M3 Budapest-Gyöngyös (59 km)*
- M5 Budapest-Kecskemét-Szeged (27 km Budapest-
Kiskunfélegyháza: reconstruction; 29 km 2nd lane;
40 km: new construction; USD 300 mn.)*
- M7 Budapest-Székesfőhérvár (USD 700 mn.)*

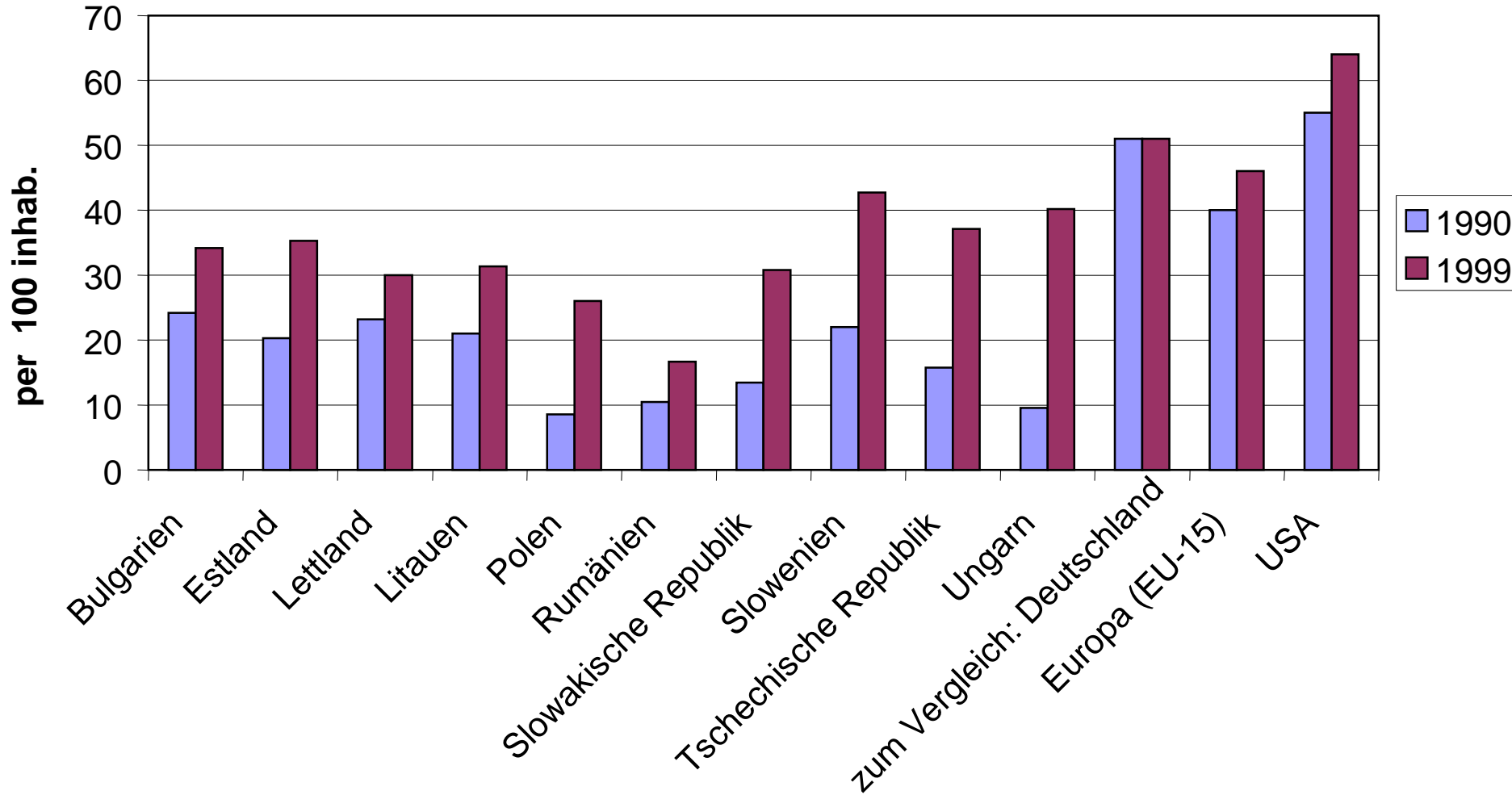
-  *toll bridge over Danube at Szekszárd, plus
20 km highway access (USD 120 mn.)
and toll bridge over Danube at Dunaujváros*

CROATIA

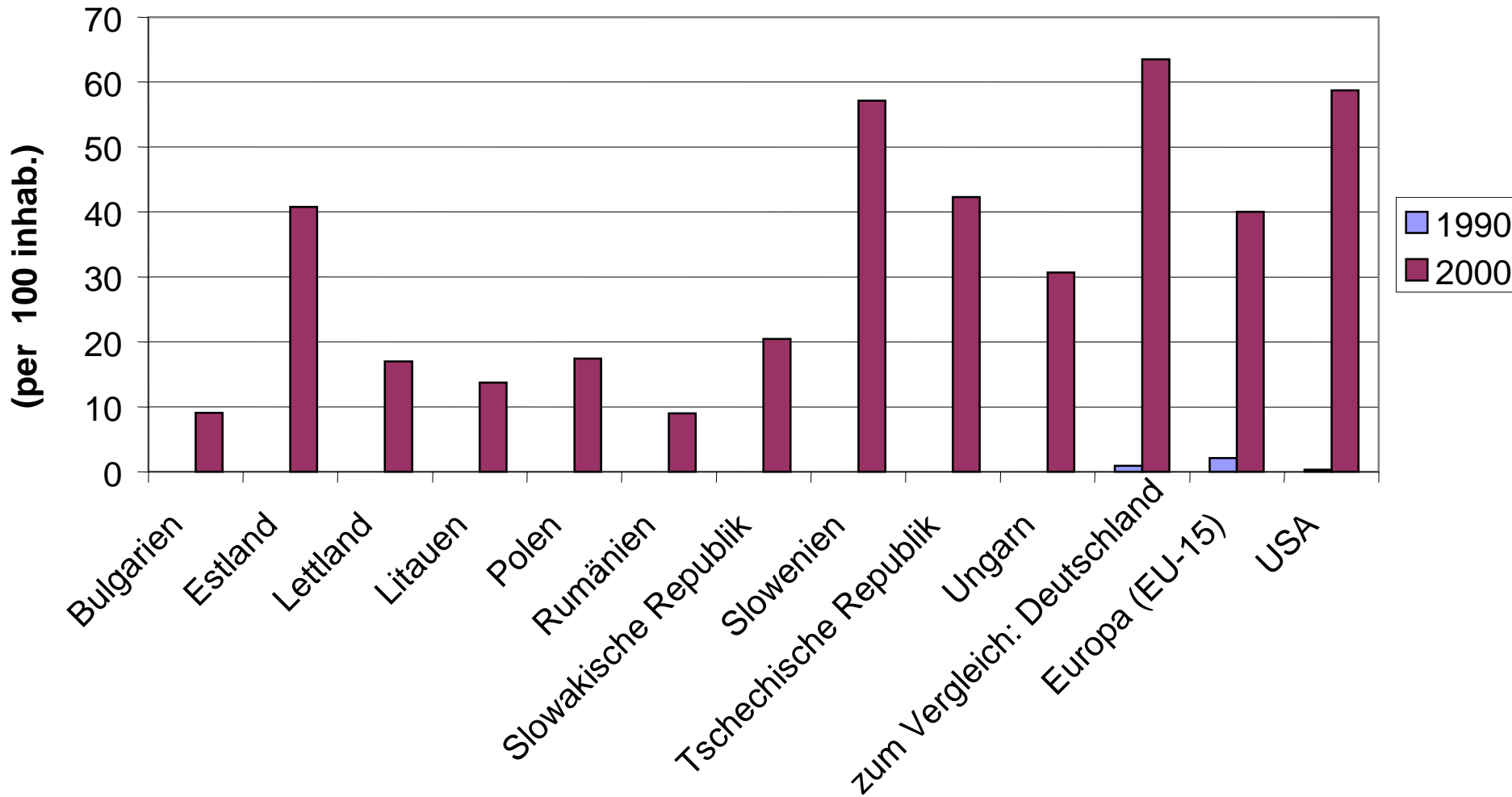
- 1 - highway Zagreb-Gorican (Hungary) (USD 400 mn.)*
- 2 - highway Krapina-Macelij (17,4 km, USD 150 mn.)*



Fixed Line Connection in Eastern Europe

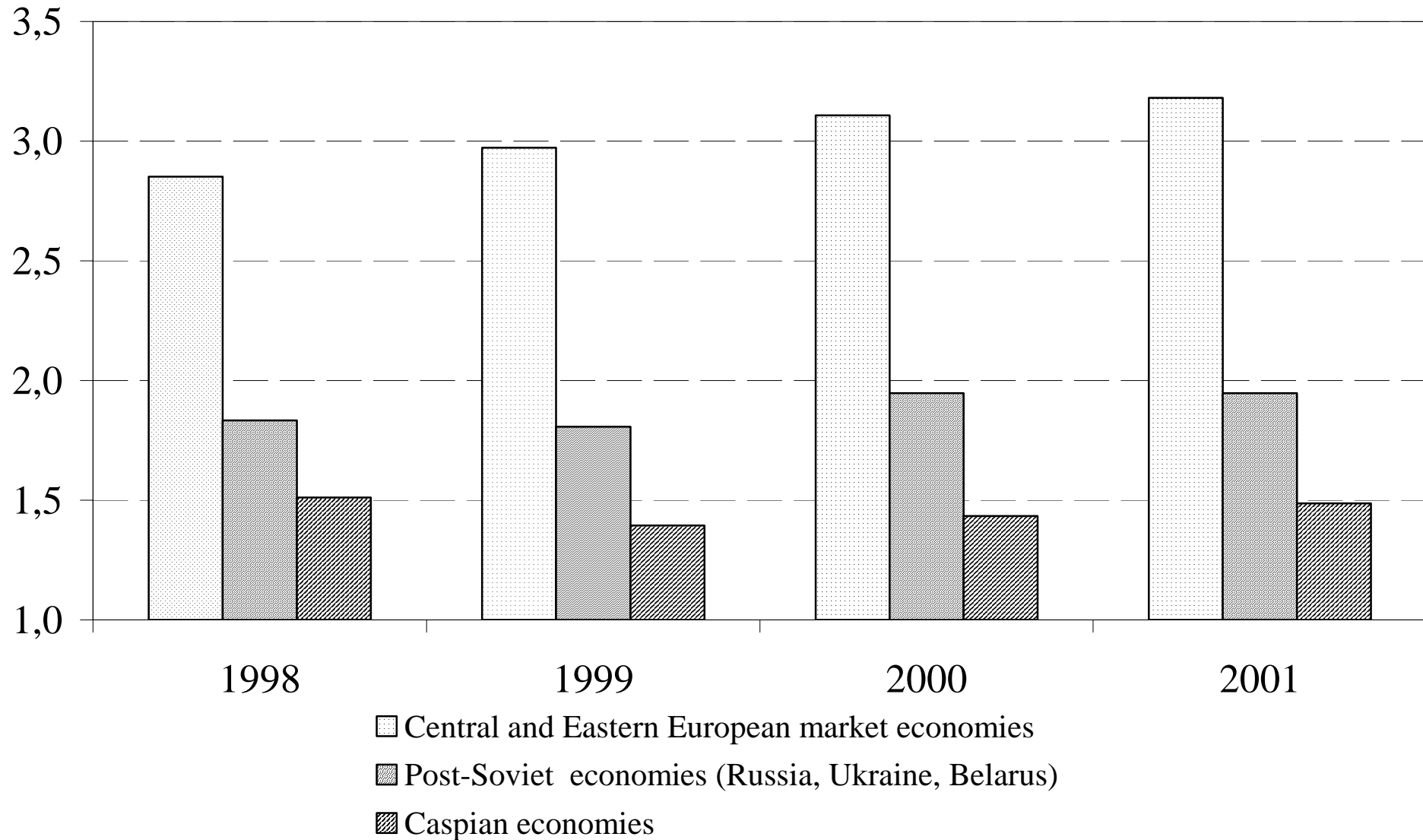


Mobile Phone Density in Eastern Europe



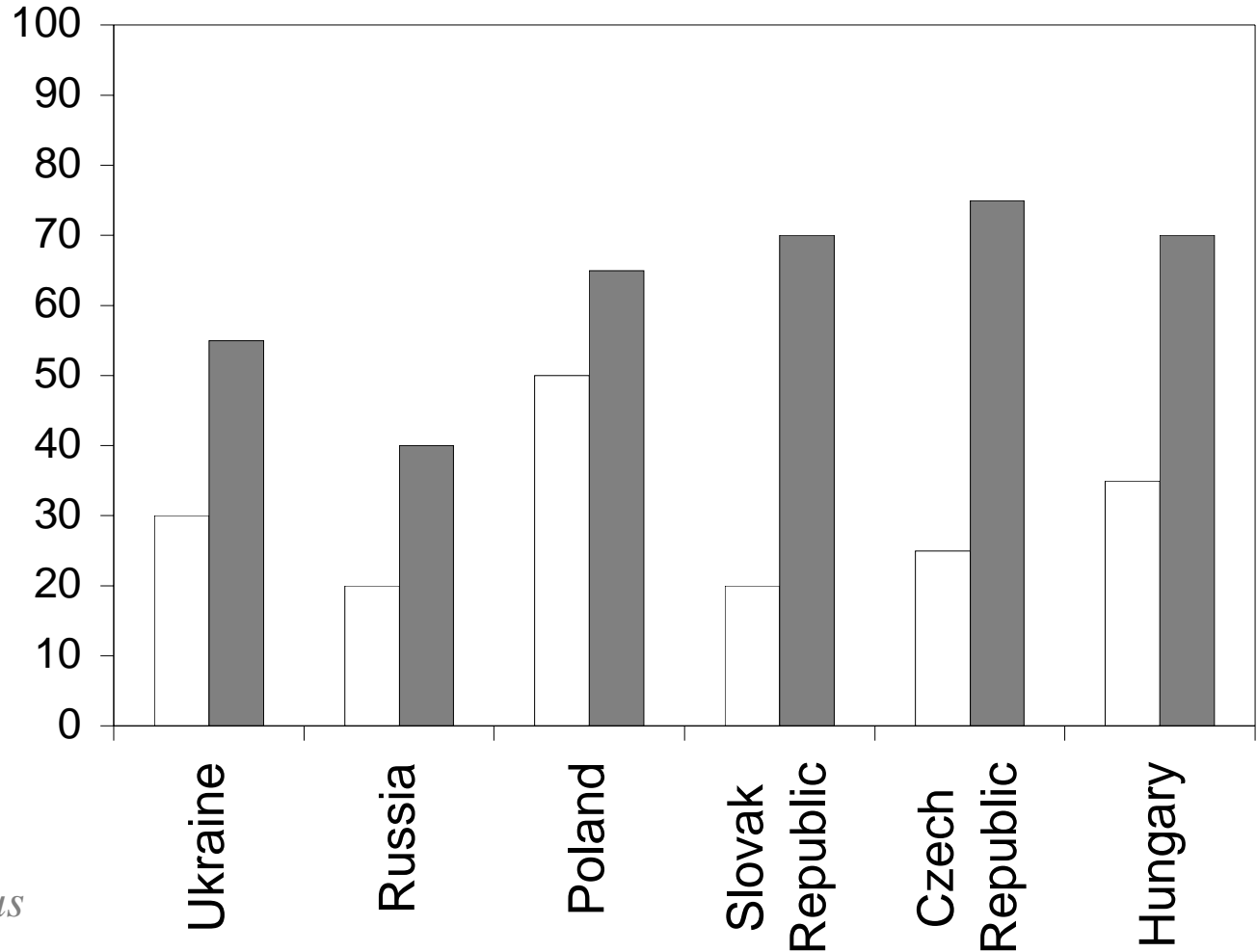
4. What to Do? Continue Reforms!

Infrastructure-Indicators are positive related with growth



Adjust Prices: Cost-coverage ratios of electricity prices (1999)

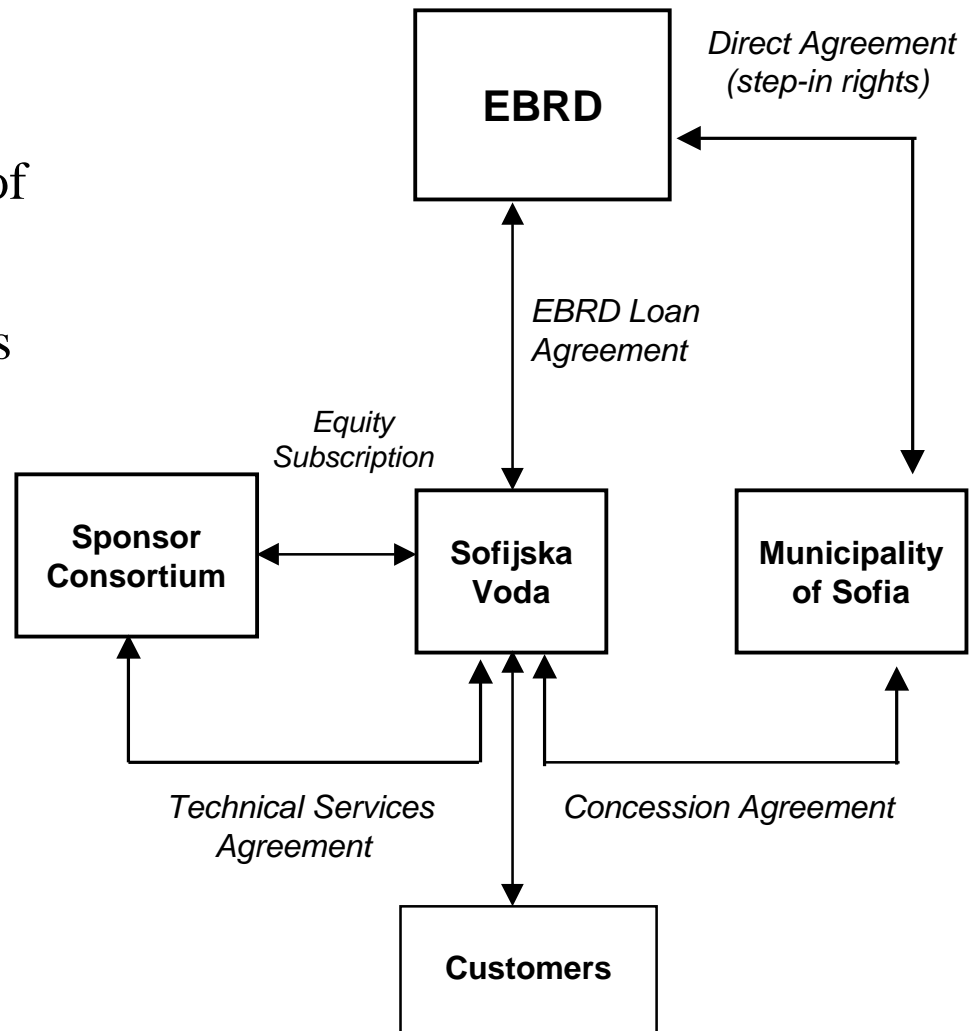
□ Household prices: % of LRMC
■ Industry prices: % of LRMC



Introduce New Forms of Public-Private Partnership: Transaction structure of the Sophia Water Case

(source: Shugart)

- Twenty-five-year full concession for water and wastewater system of Sofia, Bulgaria
- Covers operation and investments – and financing
- Population: 1.2 million
- First major municipal infrastructure concession in Bulgaria
- First water concession or privatisation in Bulgaria
- Received several awards



5. Conclusions

- East European countries still relatively far away from average European infrastructure equipment; adjustment will take (much more) time
- Institutions matter: Reform-orientation of infrastructure policies are important
- In general, better results from a *gradual* introduction of regulatory reform (deregulation and privatization)
- Appropriate task- and risk-sharing between the private and the public sector
- Integration of accession and CIS-countries in Trans-European Networks increasingly important (van Miert Plan), not only in energy ...

read more
in ...



Modernizing Infrastructure in Transformation Economies

Paving the Way to European Enlargement



Christian von Hirschhausen

Edward Elgar
Publishing, 2002