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AN ECONOMIST'S REFLECTIONS ON INDIVIDUALITY, HUMAN AND SOCIAL CAPITAL, AND RESPONSIBILITIES OF ACADEMIA

Abstract: We are still facing consequences of the financial crisis of 2008 and the follow up economic recession while the evolving Eurozone crisis with its economic, social and political consequences seems to be far from over. This type of development calls academic community for reflection on the past contributions in shaping human and social capital to find out what went wrong. Equally important is to nurture creative and innovative approaches to solve these problems by producing new human and social capital. Attempts to use old approaches to resolve the crises delay resolution, and exacerbate the crisis and waste public resources by defending the past instead of investing in the future.

In order to mobilize academia effectively, there is a need for interdisciplinary dialogue to help each other to understand different aspects of the crisis and find out right solutions. So, the author will define briefly as an economist the concept capital, then will move on to explain some of the aspects of the human and social capitals, and their role in contributing to sustainability of development. Finally the role of academic community will be introduced – the unique place where the vast stock of human capital should be created.

From classical economists such as Adam Smith through neoclassical economists such as Nobel Prize Winners – G. Becker and T. Schultz – capital is mainly defined as a stock of abilities to produce benefits – revenues, incomes or profits.

Analysis of curricula in the selected SPA in CEE indicates that there is lack of balance between three basic elements of the educational process – developing new knowledge, skills and attitudes – in favor of the first. Extensive readings from often outdated textbooks, learning detailed legal rules and procedures and passive knowledge transfer are typical features of the majority of SPA in CEE. This way, with the limited time allocated for the degree program, there is no space for practical skills development and building collaborative attitude. To overcome the crisis, there is a need to assess and mobilize local resources, create value propositions that can attract investors. This requires a new approach to teach in SPA based on creative thinking and new knowledge development, building practical skills and team work of students and faculty with their major stakeholders. To build such capacity among students and faculty there is a need to teach rather based on case studies than traditional textbooks, to use rather field work and policy clinic than classroom abstract exercises.

The paper is given in terms of PowerPoint presentation.

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Introduction

- Background => Learning how to respond to challenges
- Defining Human & Social Capital
- The Role of Human & Social Capital in Sustainable Development (SD)
  - Operationalizing SD
  - Competing Approaches
- Lessons from Central and Eastern Europe
- Building Human and Social Capital for SD
- Challenges and Opportunities for Academia

Previous Research Background

- The Center for Nations in Transition (CNT), University of Minnesota, has been involved in policy-oriented research, institutional design for sustainable development and in reforming management and economic education in seven Central and East European countries (CEEC) since the late 1980s.
- Four "blueprints" for sustainable development (SD) were prepared for Poland, Czechoslovakia, Hungary and Bulgaria -1990-1992.
- A Regional Report for UNCED on "Capacities for SD in CEEC" was elaborated and delivered for the Earth Summit in Rio de Janeiro 1992.
- Since the 1990s, CNT initiated research on sustainability of the transformation processes in the CEE region. The CNT activities are continued at the Evans School, University of Washington since 2007.

Defining Human Capital - 1

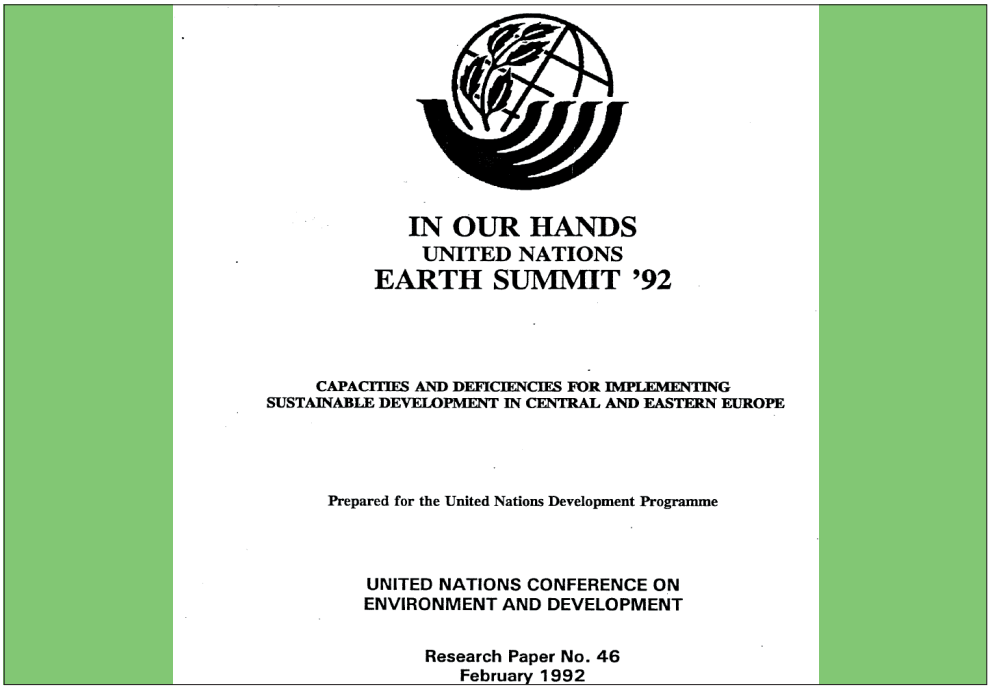
- From classical economists such as Adam Smith through neoclassical economists such G. Becker and T. Schultz – **Capital** is mainly defined as a **stock of abilities to produce benefits** – revenues, incomes or profits.
- **Human Capital** (HC) presents the **unique form of capital** that has the ability to put other forms of capital – tools, infrastructure (man-made capital) and land (natural capital) in motion to produce goods & services = new values.

Defining Human Capital - 2

- The **value** of HC depends on the **previous investments** in developing new and useful knowledge, skills and attitude.
- As any capital, it requires **continuing investment** in developing new knowledge and skills.
- **Academia** plays enormous role in building new human capital but its effectiveness depends on many other factors, including **political system** and **culture**, which could **encourage or suppress** critical thinking and creativity – the unlimited ability of this capital to create values.

Defining Social Capital

- Social Capital is a stock of norms, rules and connections (networks) that allow building the trust within communities and between those participating in economic or political activities – the fundamental factor of success.
- Academia plays an important role in shaping the right attitude, including openness, positive thinking, and collaborative behavior – foundation for building social capital.



IN OUR HANDS
UNITED NATIONS
EARTH SUMMIT '92

CAPACITIES AND DEFICIENCIES FOR IMPLEMENTING
SUSTAINABLE DEVELOPMENT IN CENTRAL AND EASTERN EUROPE

Prepared for the United Nations Development Programme

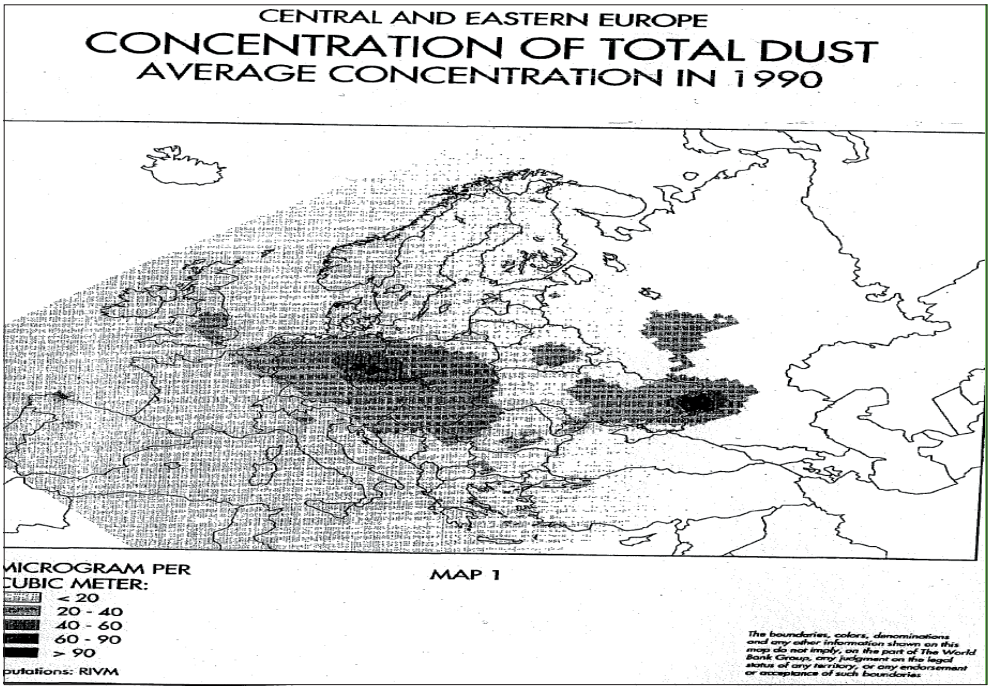
UNITED NATIONS CONFERENCE ON
ENVIRONMENT AND DEVELOPMENT

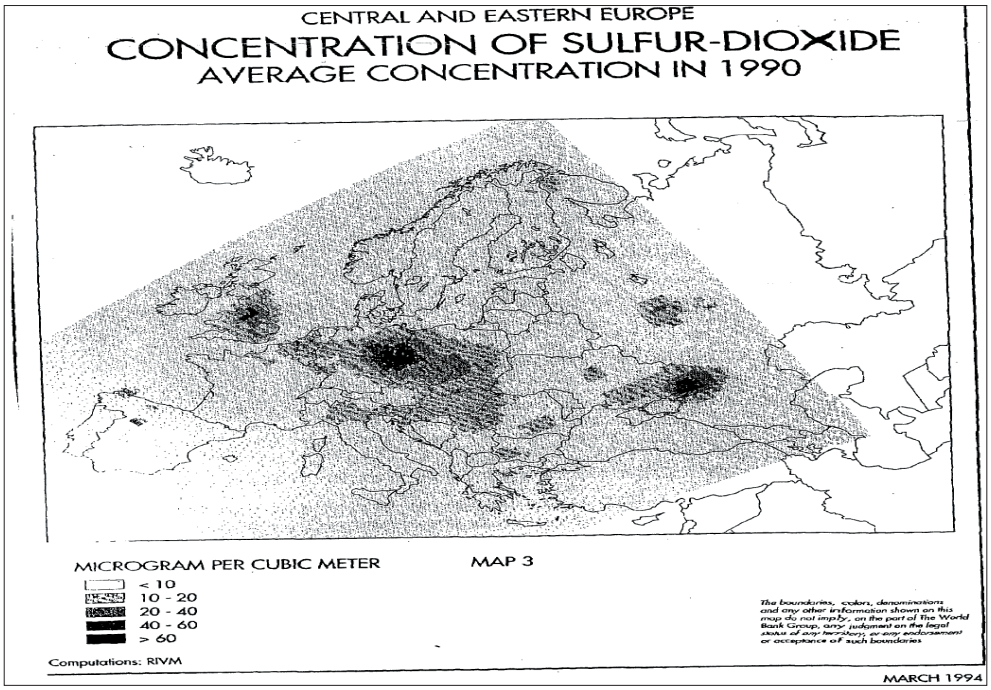
Research Paper No. 46
February 1992

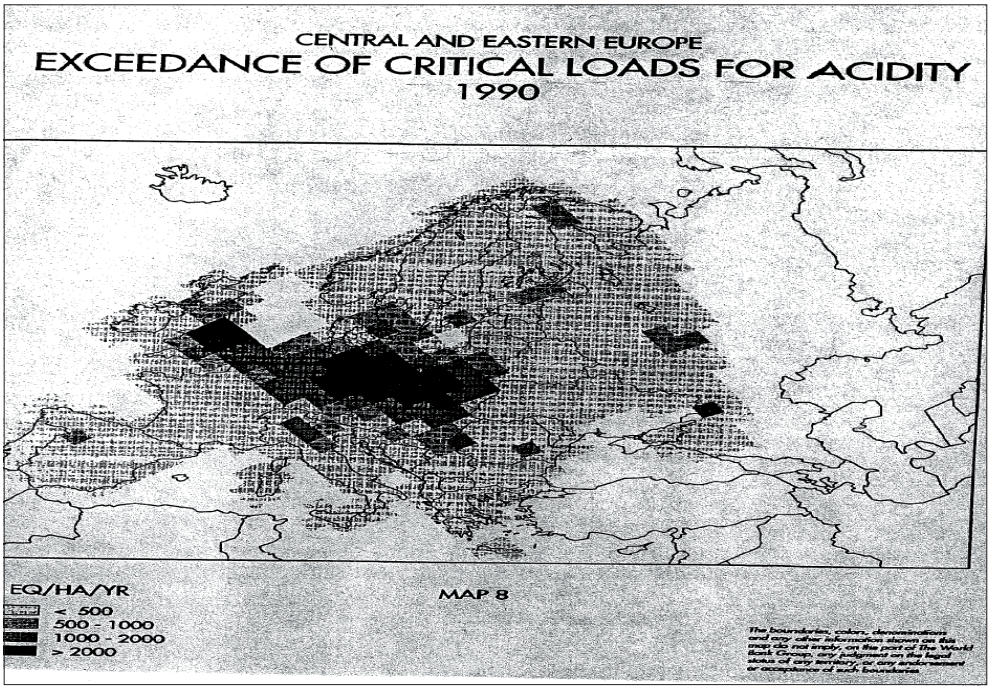
Before Rio 1992: Legacy of Centrally Planned Economies in CEE

The inefficient centrally planned system produced:

- ✓ **Economic stagnation or decline at the end of the 1980s**
- ✓ **Chronic shortage of consumer and capital goods**
- ✓ **High material & energy intensity of GDP (5 times higher than in EU)**
- ✓ **High dependence on non-competitive CMEA market (65-70%)**
- ✓ **Outdated, deeply in debt major enterprises and industries**
- ✓ **High external debt (particularly in Bulgaria, Hungary and Poland)**
- ✓ **Social apathy and/or unrest (e.g., Solidarity, Charter 77)**
- ✓ **High levels of industrial pollution and severe damage to the environment and health of local people**
- ✓ **The environmental conditions became a barrier for development**




CENTRAL AND EASTERN EUROPE
CONCENTRATION OF SULFUR-DIOXIDE
AVERAGE CONCENTRATION IN 1990
MICROGRAM PER CUBIC METER
< 10
10 - 20
20 - 40
40 - 60
> 60
MAP 3
Computations: RIVM
The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries
MARCH 1994


CENTRAL AND EASTERN EUROPE
EXCEEDANCE OF CRITICAL LOADS FOR ACIDITY
1990
EQ/HA/YR
< 500
500 - 1000
1000 - 2000
> 2000
MAP 8
The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of the World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries

The State of Human Capital in CEE before 1992 - I

Positive legacies of the past system:

- education system, particularly in mathematics, natural and technical sciences,
- basic health care system
- these two systems were critical for preserving existing and building new human capital necessary for sustainable development

The State of Human Capital in CEE before 1992 - II

Major deficiencies of the education system:

- weak humanities & social sciences
- lack of neoclassical economics and management – disciplines critical for transformation to market economy
- misallocation of priorities in the education process:
  - too much time devoted to knowledge transfer
  - too little to the development of appropriate skills and attitudes
- passive, teacher-centered way of delivery
- lack of appreciation for soft skills

What Are Their Major Achievements of CEE 10?

- **National Economies in 2007:**
  - Economic growth of over 3.5% annually during the 13 years before the financial crisis (1994-2007)
  - Moved away from industrial to post-industrial societies with dominant contribution to GDP from services (55-65%) and significant reduction (over 50%) of contribution from "heavy industries"
  - Shifted their exports from non-competitive CMEA markets (65-70%) to demanding EU and developed countries' markets (70-75%)

What Are Their Major Achievements of CEE 10?

- **National Wealth in 2007**:
  - Increased average living standards (measured by GDP per capita) over 50%, compared to 30% increase in EU15
  - Reduced infant mortality by 50%
  - Extended life expectancy of over 3 years

What Are Their Major Achievements of CEE 10?

- **Environment:**
  - Introduced basic institutional infrastructure for the environment
  - Made visible progress in technical infrastructure
  - CEE10 Significantly reduced major types of pollution
    - particulate matters (70-80%)
    - carbon dioxide (15-20%)
    - sulfur dioxide (over 60%)
    - nitrogen oxides (35-40%)
    - wastewaters (35-40%)

Are the Achievements Sustainable?

Sustainability of systemic transformation means the process has reached a "critical mass" and cannot be reversed in the foreseeable future, particularly:

- A *civic society* that cannot be turned to a dictatorship
- A *market economy* that cannot be replaced by a centrally planned or heavily regulated economy
- *Improved basic ecosystems* that cannot be endangered by nation's policy
- Initiated movement along the path of *sustainable development*

What is Sustainability?

- Often the term **sustainability** is used as:
  - a substitute of sustainable development (Adams 2006)
  - an intergenerational equity (Ott 2003)
- In fact the sustainability applied in many disciplines means **maintaining a state of a dynamic balance of a system** with its major elements interacting with each others and its relations with the higher system

Two Basic Approaches to Sustainability

- **Maximizing Wealth vs. Non-Declining Total Capital**
- **Applying John HARTWICK's rule (1977): "constant level of consumption could be maintained perpetually if all the scarcity rents were invested in capital." after Tietenberg 2008**

Evaluating Sustainable Development: Non-Declining Wealth vs. Non-declining Total Capital

- *Non-declining Wealth:*
  a. Non-declining income per capita (mostly GDP –PPP- per capita)
  b. Non-declining genuine (adjusted net) savings (GDS or ANS)

GDS indicator (Pearce 1994):

- GDS = GDP – C - Kmf D + EdI - EngD – MinD – ForD – CDD

Where:

GDS	genuine domestic savings
GDP	gross domestic product
C	annual consumption
Kmf D	capital fixed depreciation
Ed I	education expenditure (investment in human capital)
EngD	energy resource depletion (depreciation of natural capital)
MinD	mineral resource depletion (depreciation of natural capital)
ForD	forest depletion (depreciation of natural capital)
CDD	damage to the environment due to carbon dioxide emission (depreciation of natural capital)

$$ANS = \left(GNS - D_h + CSE - \sum R_{\pi,i} - CD\right)/GNI$$

- *ANS* - the Adjusted Net Savings indicator,
- *GNS* - Gross National Savings,
- *Dh* - depreciation of produced capital,
- *CSE* - current non-fixed capital expenditures on education,
- $R\pi,i$ - rent from natural capital depletion,
- *CD* - damage from carbon dioxide emissions,
- *GNI* - Gross National Income at market prices.

Evaluating Sustainable Development: Non-Declining Wealth vs. Non-declining Total Capital

- Non-declining Total Capital
  (Bochniarz & Bolan, 2005, expanding concepts of Solow,1974; Hartwick, 1977; and Pearce, 1989)
- TK = Km + Kn + Kh + Ks = constant (non-declining)
- Where:
  - Km = Kmf + Kmo (*capital fix and operational*)
  - Kn = Knu + Knr (unique and renewable *natural capital*).
  - Kh = Khu + Khi + Khr (unique, institutionalized and renewable *human capital*)
  - Ks = Kso + Ksn (old, inherited and new, needed at a current stage of development *social capital).*

How Did the CEE10 Cope with the Crisis: EU vs. CEE 10 GDP Growth 2008

- **EU 27** **0.9%**
- **EU 15** **0.6%**
- **CEE10** **4.5%**

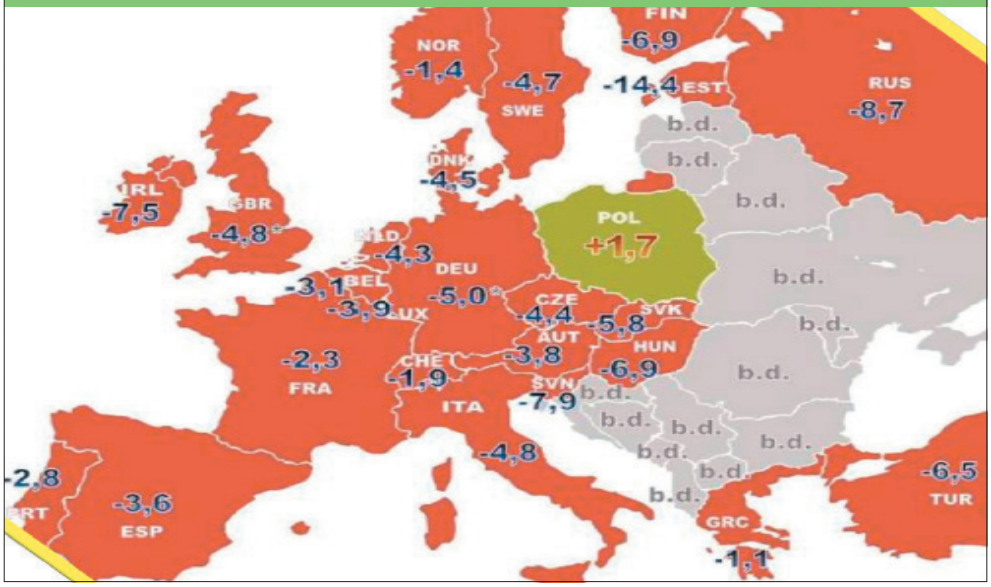
RO	**7.1%**	**PL**	**5%**	**LI**	**3%**
SK	**6.4%**	**SL**	**3.5%**	**HU**	**0.5%**
BG	**6%**	**CZ**	**3.2%**	**ET**	**-3.5%**
				LV	**-4.6%**

How Did the CEE10 Cope with the Crisis: EU vs. CEE 10 GDP Growth 2009

- EU 27 -4.2%
- CEE10 -2.4%

PL	1.7%	CZ	-4.3	SK	-4.7%
SL	-4.7%	BG	-6.5%	HU	-6.9%
RO	-8.5%	ET	-14%	LV	-18%
LI	-18.5%				

Poland- "Green Island" in EU in 2009



How Did the CEE 10 Performed in 2010 vs. EU

- EU 27 2.0%
- EU 15 2.0%
- CEE10 3.5%

SK	4.2%	PL 3.9%	CZ 2.7%
SL	1.4%	HU 1.3%	RO -1.6%
BG	0.4%	ET 2.3%	LI 1.4%
LV	-0.3%		

How Did the CEE 10 Performed in 2011 vs. EU (earlier estimates)

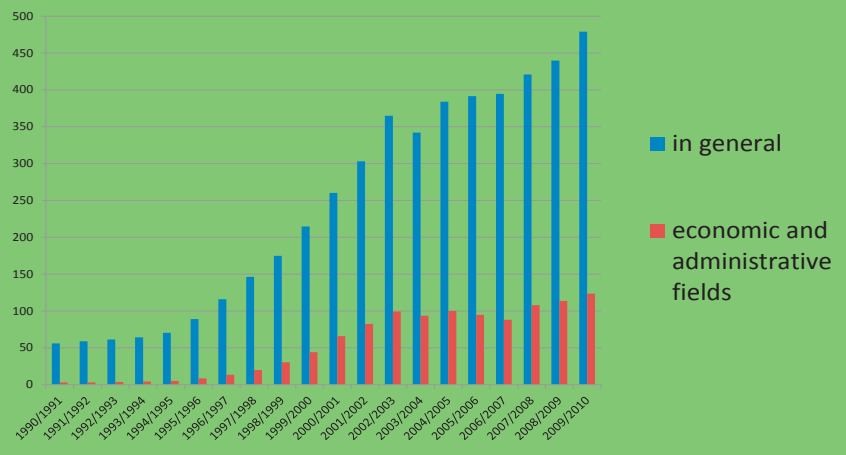
- EU 27 1.5%
- EU 15 1.4%
- CEE10 4.2%

ET 7.6%	LI 5.9%	LV 5.5%
PL 4.3%	SK 3.3%	RO 2.5%
BG 1.7%	CZ 1.7%	HU 1.7%
SL -0.2%		

What Factor Contributed the Most to These Successes?

- The single most important factor was the CEEC's significant investment in *Human Capital (Kh)*, particularly in higher levels of education, which increased enrollment 4-5 times
- Consider the case of Polish higher education from 1990-2005:
  - Total number of students increased 5 times
  - 3 times in public institutions (part-time students have increased by 7)
  - More than 30 times in private schools
  - 17 times in economics and business management
  - Total capital investments in public institutions has increased 16 times – in private universities and business schools much more

Graduates from higher education institutions in Poland: 1990 - 2010



Dynamics of Enrollment and Graduation vs. the Education Quality

- Huge increases in enrollment did NOT match appropriate increases in hiring new faculty members => Quality of education suffered
- More teaching resulted in decreasing of faculty
- research activities
- Building Human Capital at educational organizations => New curricula is NOT enough
- New delivery methods – student-centered - needed

Polish high economic growth confirms theory of increasing returns

- Huge inflows of new graduates, particularly with their neoclassical economics and managerial skills was one of the major sources of the successful transformation process in Poland resulting in high economic growth during last 20 years

- Has this huge influx of new graduates contributed to make Poland more innovative and competitive?

Poland's Competitiveness – Main Barriers in PA
World Economic Forum: GCR 2011-2012 (142 countries)

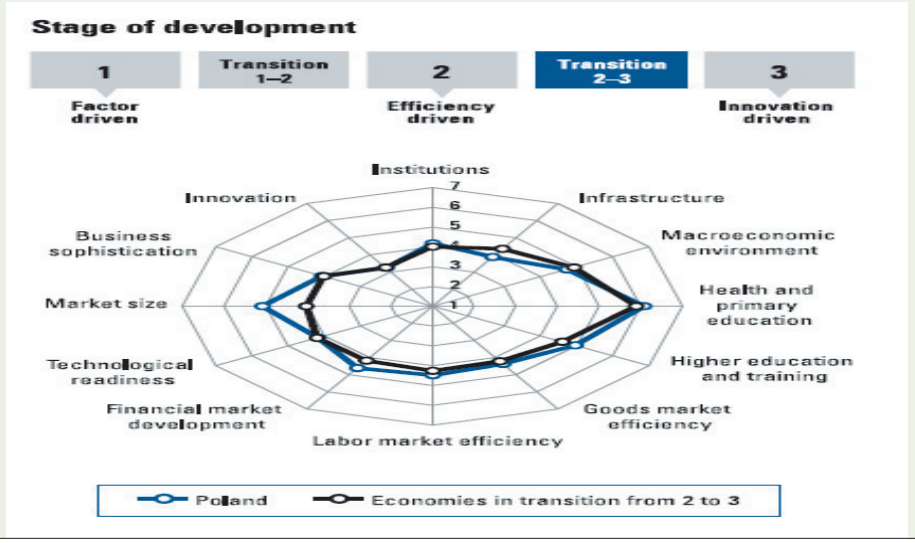
Rank/Score (R/S)	Basic Requirement (BR)		Efficiency Enhancers (EE)		Innovation Factors (IF)	
Poland **41**	4.5	56	4.70	30	4.61	57	3.64
CEE **benchmk.** (CZ, ET, SL)	**4.59**		**5.02**		**4.65**		**4.20**
EU benchmk. (SW, DK, FN)	**5.47**		5.99		5.28		5.42

Poland's BR Pillars:	**Institution**	**Infrastruct.**	**Macroecon Stab.**	**Health & Prim. Edu.**
	56 (4.7)	**52(4.2)**	**74(3.9)**	**74 (4.7)**	**40 (6.1)**

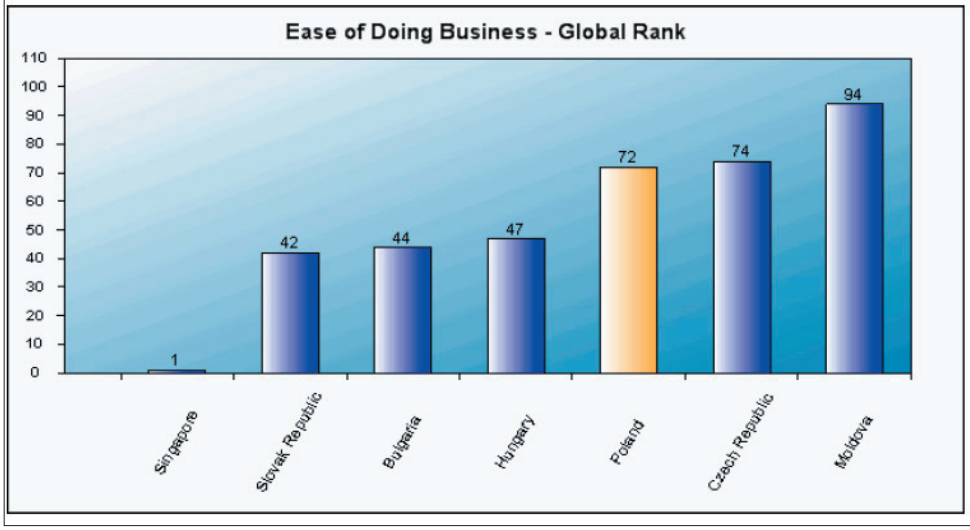
Poland's Competitiveness – Main Barriers in PA
World Economic Forum: GCR 2011-2012

Poland's Institutions	**52**
• **Burden of government regulations**	**124**
•**Efficiency of legal framework of setting disputes**	**97**
•**Transparency of policy making**	**93**
•**Efficiency of legal framework of challenging regulators**	**83**
•**Public trust of politicians**	**76**
•**Wastefulness of government spending**	**76**
Infrastructure	**74**
• **Quality of roads**	**134**
Macroeconomic Environment	**74**
• **Governmental debt**	**102**

Poland's Competitiveness – Main Barriers in PA
World Economic Forum: GCR 2011-2012



Poland's Competitiveness – Main Barriers in PA
World Bank: Doing Business 2010 – Poland (183 countries)



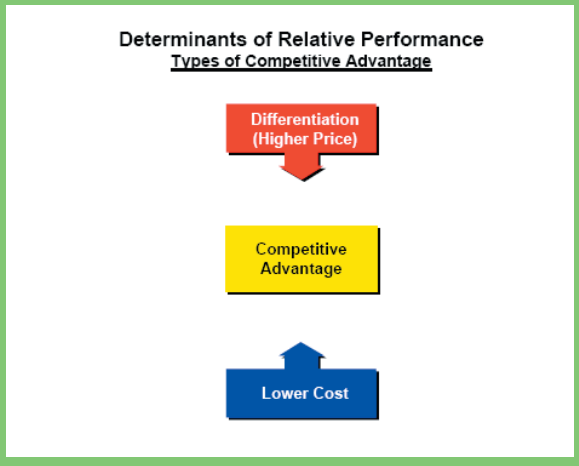
Poland's Competitiveness – Main Barriers in PA

World Bank: Doing Business 2010 – Poland (183 countries)

DOING BUSINESS 2012 RANK 62	DOING BUSINESS 2011 RANK 59	CHANGE IN RANK ↓ -3

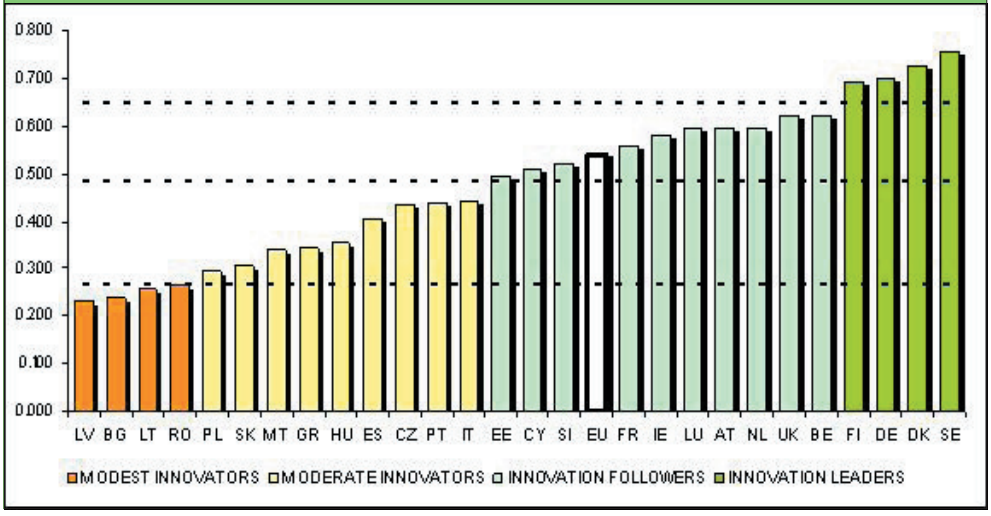
TOPIC RANKINGS	DB 2012 Rank	DB 2011 Rank	Change in Rank
Starting a Business	126	115	↓ -11
Dealing with Construction Permits	160	159	↓ -1
Getting Electricity	64	64	No change
Registering Property	89	87	↓ -2
Getting Credit	8	8	No change
Protecting Investors	46	44	↓ -2
Paying Taxes	128	128	No change
Trading Across Borders	46	36	↓ -10
Enforcing Contracts	68	69	↑ 1
Resolving Insolvency	87	74	↓ -13

Two Types of Competitive Advantage (M. Porter)



M. Porter & M. Kramer- The Big Idea: Creating Shared Value –HBR 2011

EU Member States' innovation performance



Lessons learned from the best

- The common feature of the most innovative and competitive economies - rich human and social capital – the critical component to building strong industrial clusters and network-based communities.
- All Nordic economies successfully combined a high level of R&D with investment in education & ICT, while maintaining a high level of social capital and cluster-based development policies.
- Similar patterns followed by Switzerland, Singapore, The Netherlands and US.

How to Deliver the right Knowledge in the right Way?

Our educational environment in 21st Century:

- Instant **Internet access** to verify the knowledge (K)
- Acceleration of scientific discoveries make K fast outdate =>
  => Less textbooks more articles & reports from websites
- **Comparative study** helps to understand concepts
- Practical **cases facilitate discovering** of the theoretical concept
- Literature from competing schools boosts **critical thinking**
- **Practitioners** make the concept relevant
- **Projects competition** inspire students to learn and apply (e.g. GSEC)
- **Focusing on K application** in the academic (e.g. green university) or local/regional environment (e.g. action research on local pollution)

How to Shape the necessary Skills?

What are the necessary skills?

- Hard Skills => mostly quantitative
- Soft skills => mostly qualitative:
  - Communication:
    - written,
    - verbal,
    - informal (symbolic, body language, etc)
  - Entrepreneurship
  - Leadership
  - Team work
  - Problem solving

How to Build the needed Attitude?

Several methods to build the needed attitude:

1. Collective case study solving
2. Team projects
3. Mentoring
4. Practicing “advocatus diaboli”
5. Participating in competitive projects
6. Designing project own “constitution” – roles, rules & schedule
7. Exploring potential project sponsors.

Policy Recommendations for Higher Education to improve PA - I

- Designing balanced programs, particularly MPA with the right proportions between knowledge, skills and attitude building.
- Teaching the public administration officers and staff the basics of innovation and competitiveness from globally-recognized programs adapted to local conditions.
- Opening universities to practitioners to act as guest lectures.

Policy Recommendations for Higher Education to improve PA - II

- Encouraging collaborative efforts with faculty exchanges and joint MPA programs through universities from the top competitive economies.
- Including faculty achievements in developing innovation as criteria toward evaluating their performance and promotion.
- Motivating faculty to conduct applied research on the innovation and competitiveness of their own communities, cities and regions.
- Spearheading the public-private dialogue to improve innovation and competitiveness of their local and regional communities.

Conclusions

The global financial crisis and follow up economic recession, lingering environmental and social crisises call for visionary leadership in mobilizing factors to generate sound economic development, innovations, entrepreneurship, for converting disadvantages into advantages, and weaknesses into strength.

An effective government oriented on high performance of strategic priorities, equipped in appropriate human & social capital, and technology should facilitate the change for recovery and prosperity.

Academia and their alumni should be first to answer to this call.