

What Economic Systems and Policies are Compatible with Protection of the Environment?

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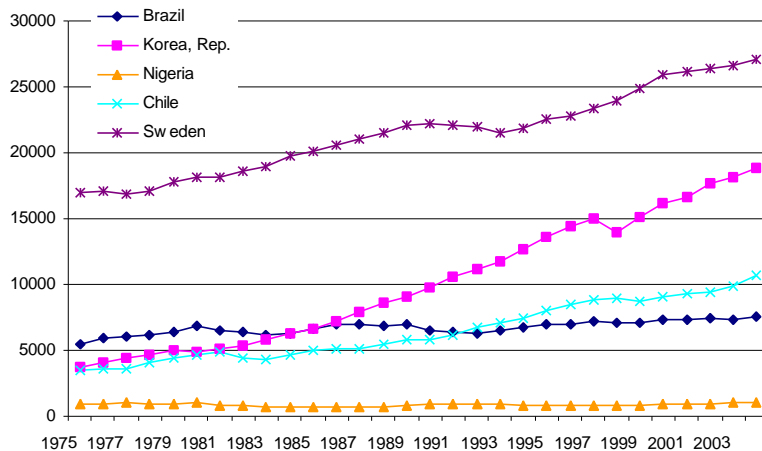
Oxford, September 16th, 2006



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Policies matter a great deal

GDP per capita*



*At PPP, constant 2000 US\$. Source: World Bank, World Development Indicators Online Database.



Global prosperity?

Table 1: Annual increase in per capita GDP (%)

Region	1950-1960	1950-2001
USA, Canada, Australia	1.7	2.2
Western Europe	4.2	2.8
Eastern Europe	3.8	2.0
Former USSR	3.3	1.0
Latin America	2.2	1.6
Asia	3.8	3.4
Africa	1.9	1.0
World	2.8	2.1

Source: Cooper (2004)

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Implications for global welfare

Table 2: What has 2.1% growth delivered?

Indicator	1960	1980	2000
Infant mortality (deaths per 1000 births)	122	80	58
Life expectancy (years from birth)	50	63	67
Illiteracy (percent of adults)	53	43	28

Source: World Development Indicators, 2005

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Poverty in the world

Table 3: Poverty in the World, 1950-2000

Region	Poverty line (\$1.50/day, PPP)					
	In percent of population			Millions of poor people		
	1950	1980	2000	1950	1980	2000
East Asia	86.6	67.2	6.0	830	955	114
South Asia	44.3	34.4	7.8	208	310	105
Sub-saharan Africa	59.3	49.9	54.8	104	188	362
Middle East and North Africa	26.3	4.3	7.8	27	10	29
Latin America	22.0	3.6	5.2	36	13	27
Eastern Europe	17.8	1.7	0.0	49	7	0
Developing world	63.2	43.5	13.1	1223	1479	647

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Global Competitiveness Index Some component variables

PUBLIC INSTITUTIONS PILLAR:

Property rights	Wastefulness of government spending
Ethics and corruption	Burden of government regulation
Diversion of public funds	Security
Public trust of politicians	Business costs of terrorism
Undue influence	Reliability of police services
Judicial independence	Business costs of crime and violence
Favoritism in decisions of government officials	Organized crime
Government inefficiency (red tape, bureaucracy and waste)	

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Global Competitiveness Index

Some component variables

HEALTH AND PRIMARY EDUCATION PILLAR

- Medium-term business impact of malaria
- Medium-term business impact of tuberculosis
- Medium-term business impact of HIV/AIDS
- Infant mortality
- Life expectancy at birth
- Tuberculosis prevalence
- Malaria prevalence
- HIV/AIDS prevalence
- Primary enrollment rate

Global Competitiveness Index

Some component variables

MARKET EFFICIENCY

❖ Goods markets

Distortions

- Agricultural policy costs
- Efficiency of legal framework
- Extent and effect of taxation
- Number of procedures to start business
- Time required to start a business

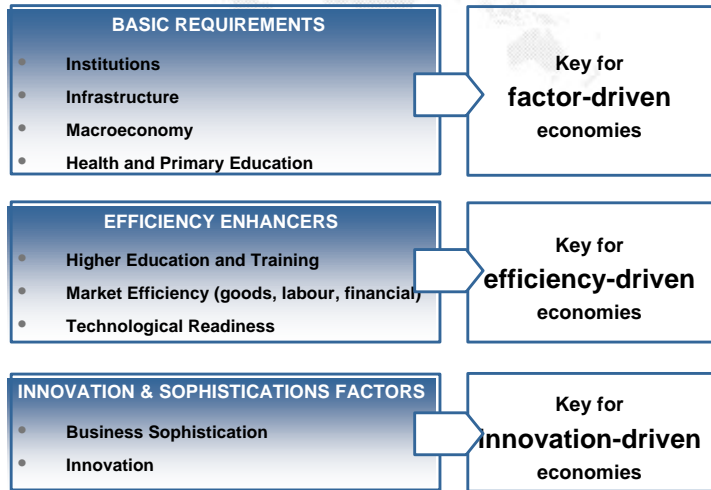
Competition

- Intensity of local competition
- Effectiveness of anti-trust policy
- Imports
- Prevalence of trade barriers
- Foreign ownership restrictions

Size

- GDP – exports + imports
- Exports

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Weights of the three main groups of pillars at each stage of development:

	Basic Requirements	Efficiency Enhancers	Innovation and Sophistication Factors
Factor-Driven Stage	50%	40%	10%
Efficiency-Driven Stage	40%	50%	10%
Innovation-Driven Stage	30%	40%	30%

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Countries by stage of development:

Stage 1 Income of less than US\$2,000	Transition from 1 to 2 Income of US\$2,000-US\$3,000	Stage 2 Income of US\$3,000-US\$9,000	Transition from 2 to 3 Income of US\$9,000-US\$17,000	Stage 3 Income more than US\$17,000
Armenia	Albania	Argentina	Bahrain	Australia
Azerbaijan	Algeria	Botswana	Czech Republic	Austria
Bangladesh	Colombia	Brazil	Hungary	Belgium
Benin	Dominican Republic	Bulgaria	Korea, Rep.	Canada
Bolivia	Ecuador	Chile	Malta	Cyprus
Bosnia and Herzegovina	El Salvador	Costa Rica	Portugal	Denmark
Cambodia	Guatemala	Croatia	Slovenia	Finland
Cameroon	Kazakhstan	Estonia	Taiwan	France
Chad	Macedonia, FYR	Jamaica	Trinidad and Tobago	Germany
China	Namibia	Latvia		Greece
East Timor	Peru	Lithuania		Hong Kong SAR
Egypt	Serbia and Montenegro	Malaysia		Iceland
Ethiopia	Thailand	Mauritius		Ireland
Gambia, The	Tunisia	Mexico		Israel
Georgia		Panama		Italy
Ghana		Poland		Japan
Guyana		Romania		Kuwait
Honduras		Russian Federation		Luxembourg
India		Slovak Republic		Netherlands
Indonesia		South Africa		New Zealand
Jordan		Turkey		Norway
Kenya		Uruguay		Qatar
Kyrgyz Republic		Venezuela		Singapore
Madagascar				Spain
Malawi				Sweden
Mal				Switzerland
Moldova				United Arab Emirates
Mongolia				United Kingdom
Morocco				United States
Mozambique				
Nicaragua				
Nigeria				
Pakistan				
Paraguay				
Philippines				
Sri Lanka				
Tajikistan				
Tanzania				
Uganda				
Ukraine				
Vietnam				
Zimbabwe				

Public Institutions: Top 10

Property rights		Diversion of public funds		Public trust of politicians	
	rank		rank		rank
Germany	1	Denmark	1	Singapore	1
United States	2	Finland	2	Denmark	2
Iceland	3	Iceland	3	Finland	3
Switzerland	4	Singapore	4	Luxembourg	4
Denmark	5	Norway	5	Norway	5
Singapore	6	Switzerland	6	Iceland	6
United Kingdom	7	New Zealand	7	Switzerland	7
Austria	8	Austria	8	Netherlands	8
Australia	9	Australia	9	United Arab Emirates	9
Ireland	10	Luxembourg	10	Malaysia	10
India	32	United States	18	United States	18
Korea	36	Korea	41	China	29
Italy	41	Italy	46	Korea	38
Brazil	60	India	54	Italy	62
China	71	China	65	India	69
Russian Federation	108	Russian Federation	87	Brazil	93
Argentina	110	Argentina	95	Russian Federation	94
Venezuela	117	Brazil	99	Argentina	107
		Venezuela	117	Venezuela	112

Public Institutions: Top 10

Judicial independence		Favoritism in decisions of government officials		Burden of government compliance	
	rank		rank		rank
Germany	1	Denmark	1	Singapore	1
Denmark	2	New Zealand	2	Hong Kong SAR	2
Switzerland	3	Singapore	3	Malaysia	3
Australia	4	Qatar	4	Taiwan	4
Ireland	5	Finland	5	Finland	5
Netherlands	6	Netherlands	6	Iceland	6
New Zealand	7	Luxembourg	7	United Arab Emirates	7
Norway	8	Norway	8	Estonia	8
United Kingdom	9	Sweden	9	Denmark	9
Luxembourg	10	Ireland	10	Tunisia	10
United States	17	Korea	26	Korea	14
India	23	United States	33	United States	20
Korea	45	India	53	China	30
Italy	59	China	59	India	76
China	65	Brazil	69	Argentina	101
Brazil	72	Italy	72	Russian Federation	110
Russian Federation	102	Argentina	97	Venezuela	111
Argentina	105	Russian Federation	106	Italy	113
Venezuela	114	Venezuela	116	Brazil	115

Health and Primary Education: Top 10

Infant mortality		Life expectancy at birth		Net primary enrollment	
	rank		rank		rank
Singapore	1	Japan	1	Japan	1
Finland	2	Australia	2	Denmark	2
Iceland	2	Italy	2	Canada	3
Japan	2	Sweden	2	Korea, Rep.	4
Norway	2	Switzerland	2	Spain	5
Austria	6	Hong Kong SAR	6	Greece	6
Czech Republic	6	Canada	6	Finland	7
France	6	France	7	New Zealand	8
Germany	6	Iceland	7	Iceland	9
Hong Kong SAR	6	Israel	7	France	10
Slovenia	6	Singapore	7	Italy	13
Spain	6	Spain	7	Argentina	14
Sweden	6	United States	7	Brazil	36
Italy	14	United States	26	China	48
Korea	14	Korea	34	United States	61
United States	32	Argentina	40	Venezuela	64
Russian Federation	60	Venezuela	40	Russian Federation	68
Argentina	63	China	60	India	76
Venezuela	65	Brazil	77		
Brazil	68	Russian Federation	87		
China	84	India	93		
India	101				

Health and Primary Education: Worst 10

Malaria prevalence		HIV/AIDS prevalence	
	rank		rank
Uganda	117	Botswana	116
Tanzania	116	Zimbabwe	115
Mozambique	115	South Africa	114
Malawi	114	Namibia	113
Namibia	113	Malawi	112
Ghana	112	Mozambique	111
Benin	111	Tanzania	110
Madagascar	110	Cameroon	109
Gambia, The	109	Kenya	108
Zimbabwe	108	Nigeria	107
India	90	Russian Federation	88
Venezuela	87	India	86
China	68	Argentina	80
Korea	66	Brazil	80
Argentina	59	Venezuela	80
Italy	1	United States	76
Russian Federation	1	Italy	73
United States	1	China	5
		Korea	5

Market efficiency: Top 10

Efficiency of legal framework		Number of procedures to start business	
	rank		rank
Denmark	1	Australia	1
New Zealand	2	Canada	1
Iceland	3	New Zealand	1
Germany	4	Finland	4
Switzerland	5	Sweden	4
Netherlands	6	Belgium	6
Finland	7	Denmark	6
Singapore	8	Ireland	6
Luxembourg	9	Norway	6
Hong Kong SAR	10	Israel	10
United States	17	United States	10
India	30	Italy	37
Korea	38	Russian Federation	37
China	57	India	61
Brazil	74	China	74
Italy	77	Korea	74
Russian Federation	95	Venezuela	84
Argentina	98	Argentina	97
Venezuela	117	Brazil	102

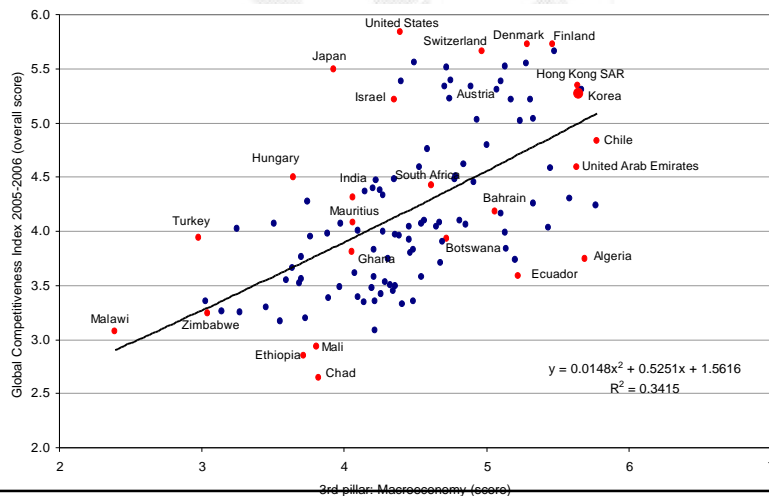
Market efficiency: Top 10

Foreign ownership restrictions		Time required to start a business	
	rank		rank
Luxembourg	1	Australia	1
Hong Kong SAR	2	Canada	2
Ireland	3	Denmark	3
Singapore	4	United States	4
Slovak Republic	5	France	5
United Kingdom	6	Singapore	5
Finland	7	Turkey	7
Chile	8	Hong Kong SAR	8
Hungary	9	Morocco	8
Ghana	10	Netherlands	8
United States	14	Italy	12
India	36	Korea	22
Argentina	50	Argentina	39
Korea	61	Russian Federation	51
Brazil	70	China	59
China	80	India	93
Venezuela	88	Venezuela	101
Italy	92	Brazil	104
Russian Federation	113		



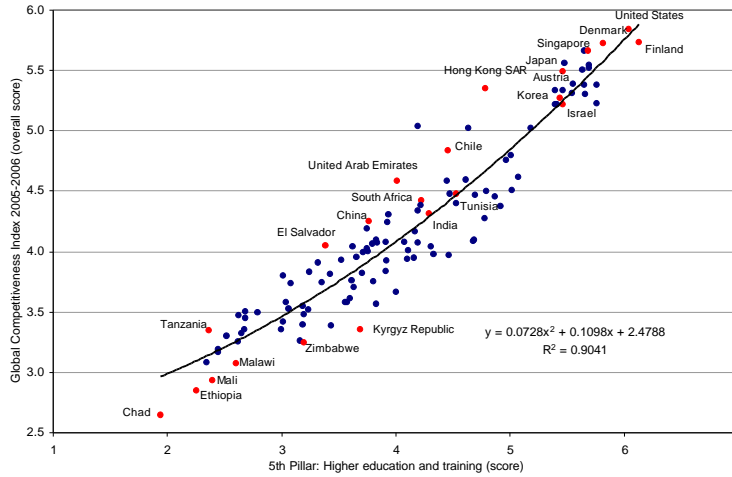
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Macroeconomic Environment and Competitiveness



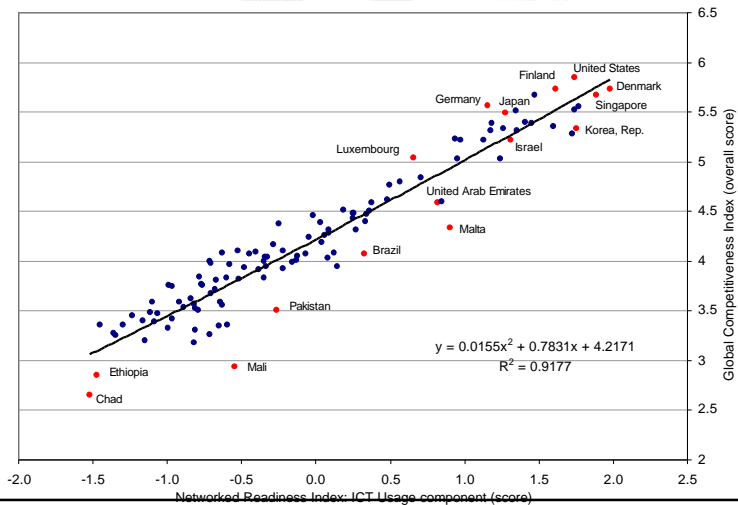
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Investment in higher education boosts competitiveness



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Investment in ICT improves competitiveness

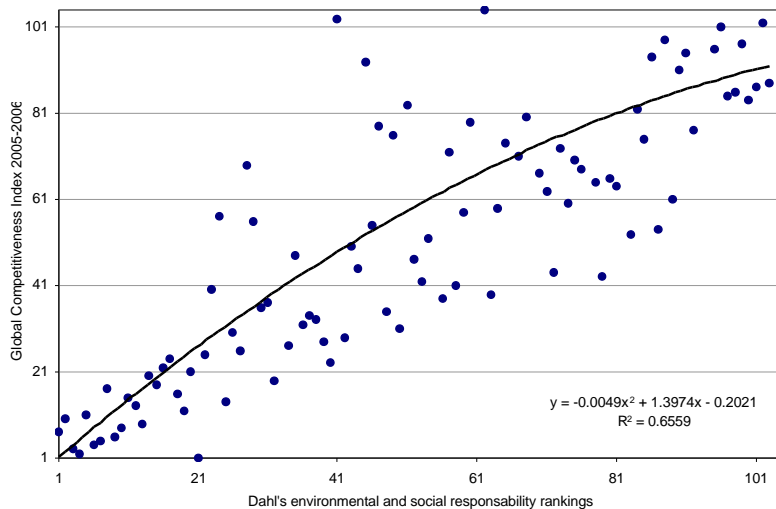


National Competitiveness and environmental responsibility

- Government action such as environmental regulations and their enforcement, standards and reporting requirements, subsidies, government-business cooperation and compliance with international environmental agreements.
- Business attitudes toward environmental issues, such as environmental management systems and reporting, environmental marketing and labelling, cleaner production and waste reduction, energy efficiency and long-term planning.
- Corporate social responsibility, including corporate codes of conduct, socially and environmentally responsible investing, company encouragement of voluntary social activities by employees, and country-wide efforts at poverty reduction.



Competitiveness vs. Social and Environmental Responsibility



The Competitive Edge in Environmental Responsibility

Top 20		Worst 20	
Sweden	1	Bosnia and Herzegovina	103
Japan	2	Paraguay	102
Denmark	3	Ecuador	101
Finland	4	Venezuela	100
Netherlands	5	Honduras	99
Switzerland	6	Georgia	98
Singapore	7	Serbia and Montenegro	97
Norway	8	Bolivia	96
Germany	9	Nicaragua	95
Taiwan, China	10	Ethiopia	94
Austria	11	Chad	93
Canada	12	Peru	92
United Kingdom	13	Guatemala	91
Belgium	14	Dominican Republic	90
Australia	15	Bulgaria	89
New Zealand	16	Bangladesh	88
Luxembourg	17	Argentina	87
Iceland	18	Pakistan	86
France	19	Macedonia, FYR	85
Ireland	20	Algeria	84