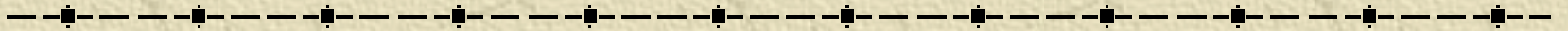


Andean Competitiveness



Background

1. Poor countries, high income inequality
2. Failure of ISI brought inflation, deep economic crisis and political crisis in the 70s
3. Market oriented economic reforms in the 80s and 90s
4. Restoration of democracy in the 90s
5. Macroeconomic stability and integration into the world economy
6. Still poor economic performers

Output per capita in the Andean Region Relative to other Regions

	1965	1980	1990	1995	1999 e
A. Relative to Rest of Latin America					
Bolivia	0.53	0.53	0.51	0.50	0.51
Colombia	0.72	0.78	1.02	1.07	1.00
Ecuador	0.63	0.86	0.85	0.83	0.72
Peru	0.99	0.76	0.67	0.76	0.77
Venezuela	2.97	1.96	1.87	1.79	1.52
Andean	1.17	0.98	0.98	0.99	0.90
B. Relative to Fast Growing Asia					
Bolivia	0.76	0.51	0.27	0.24	0.25
Colombia	1.03	0.75	0.54	0.51	0.49
Ecuador	0.90	0.83	0.45	0.39	0.35
Peru	1.41	0.74	0.36	0.36	0.38
Venezuela	4.25	1.89	0.99	0.85	0.74
Andean	1.67	0.94	0.52	0.47	0.44
C. Relative to All Developing Countries					
Bolivia	0.87	0.70	0.76	0.75	0.76
Colombia	1.18	1.03	1.51	1.58	1.50
Ecuador	1.03	1.14	1.26	1.23	1.08
Peru	1.62	1.01	1.00	1.12	1.15
Venezuela	4.86	2.59	2.77	2.66	2.27
Andean	1.91	1.29	1.46	1.47	1.35
D. Relative to Advanced Economies					
Bolivia	0.22	0.20	0.13	0.13	0.13
Colombia	0.29	0.30	0.26	0.28	0.25
Ecuador	0.26	0.33	0.22	0.22	0.18
Peru	0.40	0.29	0.17	0.20	0.19
Venezuela	1.21	0.75	0.48	0.47	0.38
Andean	0.48	0.37	0.25	0.26	0.22

Source: Sachs, J and Braun, M. "The Macroeconomic Context"

Income Distribution circa 1990

(Gini coefficient)

B o l i v i a	4 2 . 0
C o l o m b i a	5 1 . 3
E c u a d o r	4 3 . 0
P e r u	4 3 . 8
V e n e z u e l a	5 3 . 8
A n d e a n R e g i o n	4 6 . 8
R e s t o f L a t i n A m e r i c a	5 3 . 1
F a s t - G r o w i n g A s i a	3 9 . 8
A l l D e v e l o p i n g C o u n t r i e s	4 5 . 5
A d v a n c e d E c o n o m i e s	3 2 . 9

Source: Persson and Tabellini (1994) .

Sample: 73 countries

purpose of the project

to find key areas of intervention

Policy Proposals



- ✓ strengthen competitiveness
- ✓ break vicious circle of slow growth and instability
- ✓ sustainable path of growth and social progress

Research Agenda



- ✓ analytical and empirical background for the proposals

National Competitiveness Forum



- ✓ validation ground for the proposals

geography and nature

✧ three areas:

- ◆ Coastal range
 - tropical climate
 - large population
 - Spanish and African ancestors
- ◆ Highlands
 - difficult access
 - large population
 - aboriginal tribes
- ◆ Amazon rain forest
 - few settlements of indigenous groups

✧ main effects

- ◆ isolation of ethnic groups
 - ◆ transportation & communication
 - ◆ low performance of agricultural sector
 - ◆ exposure to health risks
-

Average Crop Yield Growth, 1961-1998, in Tropical versus Non-Tropical Countries in Latin America and the Caribbean

	<i>Tropical yield growth (%)</i>	<i>Non-tropical yield growth (%)</i>	<i>Tropical - Non-tropical</i>	<i>Statistically significant difference a)</i>
Cereals (milled rice equivalent)	1.8	2.6	-0.8	x
Maize	1.8	3.1	-1.3	x
Root Crops (Potato, Cassava, etc.)	0.6	2.1	-1.5	x
Sugarcane b)	0.8	1.0	-0.2	
Pulses (Beans and Peas)	0.3	0.6	-0.3	x
Oilcrops	2.0	1.8	0.2	
Vegetables	2.5	1.6	0.9	
Fruits	0.3	0.1	0.2	
Bananas	-0.3	0.2	-0.5	
Coffee	1.0	0.5	0.5	
Observations c)	33	7		

a) $x = p$ value less than 5% for t test that mean tropical yield growth is different from mean non-tropical yield growth.

b) Data are for 1961-1996.

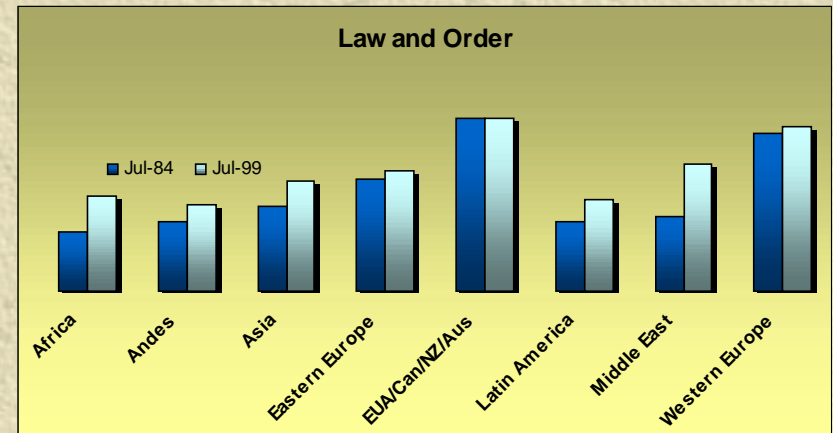
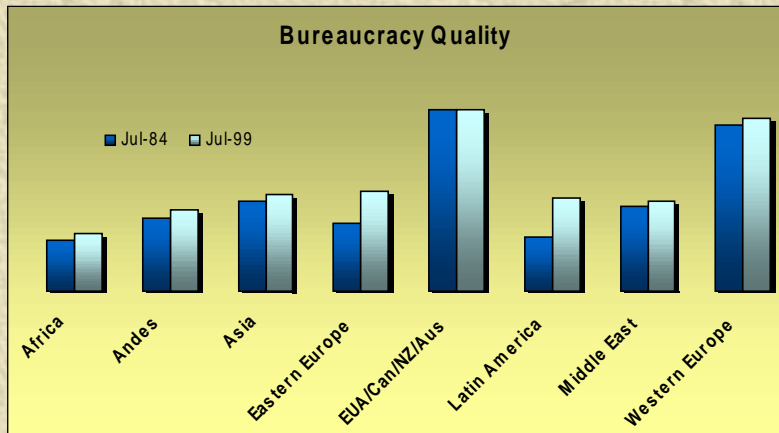
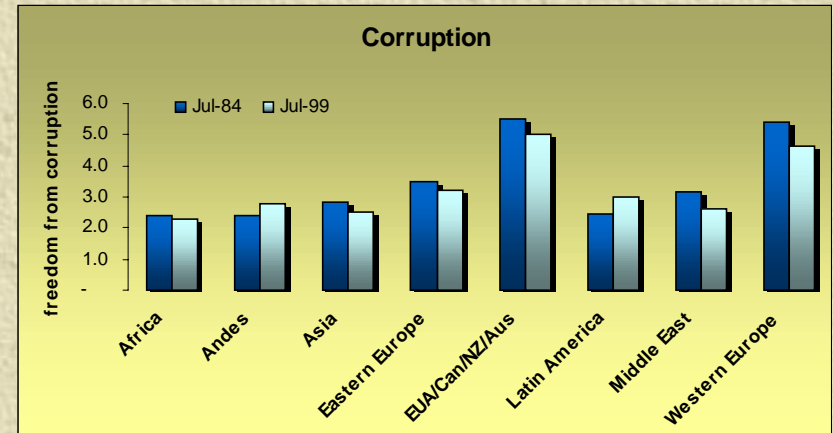
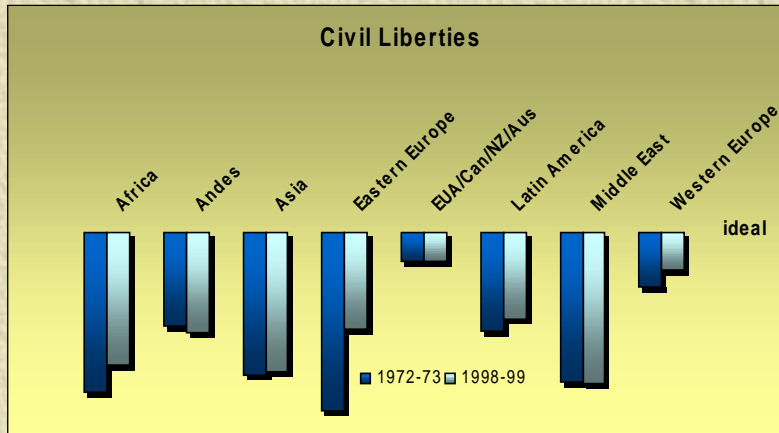
c) This is the number of observations for Cereals. For some crops, not all countries grow the crop.

Source: FAO (1999).

governance

- ✦ common heritage: former colonies of Spain
- ✦ after independence, military and civilian "caudillos"
- ✦ rent-seeking behavior
- ✦ weak institutions \Rightarrow disillusionment with politics
- ✦ coca production, drug smuggling, greater violence

Governance Indicators



sources:

Civil Liberties :

- Freedom House – Annual Survey of Freedom Country Scores – 169 countries – rating: the lower the better

Corruption, Bureaucracy Quality and Law and Order:

- International Country Risk Guide – PRS Group – 140 countries – rating: the higher the better

macroeconomics and trade

✦ Government played a strong role in ISI

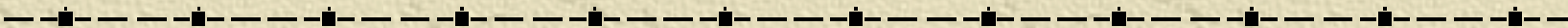
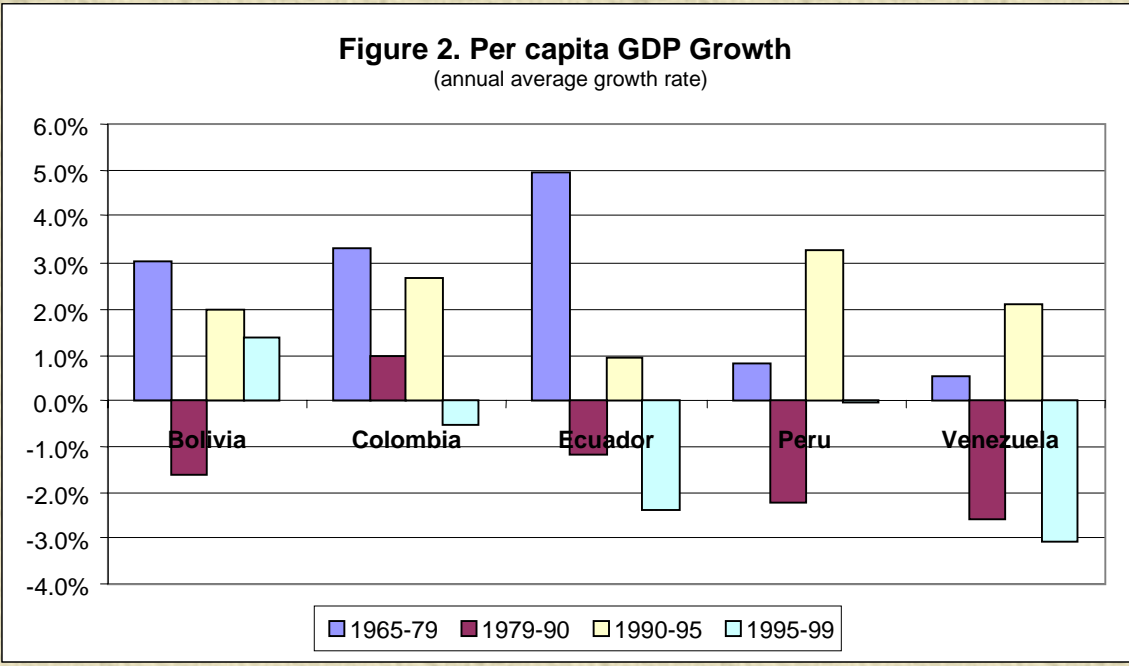
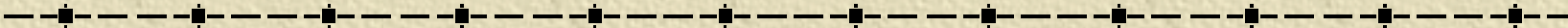
- ◆ brought distortions, privileges
- ◆ weak public finances ⇒ economic instability
- ◆ exports concentration and economic vulnerability
- ◆ Income distribution remained very unequal

✦ Crises ⇒ opportunities for change

- ◆ Reforms in Bolivia and Peru brought macroeconomic stability
- ◆ Slower reformers:
 - Colombia: slow growth, high inflation, violence
 - Ecuador: exchange crisis, close to hyperinflation
 - Venezuela: steady decline

✦ Growth performance has been poor

- ◆ Normal growth of capital and labor
- ◆ Too low growth in Total Factor Productivity



Financial Development 1960-1995

(Credit to Private Sector as % of GDP)

	Initial	Average
Bolivia	1.7%	13.1%
Colombia	18.9%	22.1%
Ecuador	19.1%	18.0%
Peru	15.3%	13.3%
Venezuela	17.6%	33.1%
Andean Region	14.5%	19.9%
Rest of Latin America	13.7%	21.9%
Fast-Growing Asia	23.7%	58.6%
All Developing Countries	12.6%	21.6%
Advanced Economies	40.0%	66.8%

Source: Levine et. al. (1999).

Growth Accounting 1960-1990

	Annual GDP Growth	Contribution from Capital	Contribution from Labor	TFP Growth Rate
Bolivia	3.9%	1.4%	1.3%	1.2%
Colombia	4.7%	1.8%	1.6%	1.3%
Ecuador	5.2%	2.1%	1.6%	1.6%
Peru	2.9%	1.6%	1.6%	-0.2%
Venezuela	3.2%	1.5%	2.2%	-0.5%
Andean Region	4.0%	1.7%	1.7%	0.7%
Rest of Latin America	3.3%	2.0%	1.4%	-0.1%
Fast-Growing Asia	8.8%	4.4%	3.2%	1.2%
Advanced Economies	3.9%	2.1%	0.5%	1.3%

Source: Authors' (Sachs and Braun) calculations based on De Gregorio and Lee (1999) and Barro and Sala-I-Martin (1995).

Competitiveness Matrix on Market Share, 1985-96 (% of 1996 Exports)

		Stagnant Commodities	Dynamic Commodities
Bolivia			
Market share gains	51.6	24.5	
Market share losses	23.6	0.3	
Colombia			
Market share gains	44.7	9.4	
Market share losses	40.7	5.2	
Ecuador			
Market share gains	34.8	29.4	
Market share losses	35.6	0.2	
Peru			
Market share gains	26.3	9.6	
Market share losses	53.7	10.4	
Venezuela			
Market share gains	85.0	4.4	
Market share losses	8.1	2.5	

Developing Country Exporters of Non-Primary Manufactured Products

Top 10 Performers, Andean countries, and Central American countries 1970-96 *

		Non-Primary Manufactured***	Average Growth Rate of
Rank	Country	Export Growth Rate **	Real GDP Per Capita (PPP\$)
1	Singapore	14.93	6.98
2	Taiwan	5.61	6.51
3	Hong Kong	5.58	5.63
4	Malaysia	4.73	5.40
5	Ireland	4.61	3.56
6	Korea	4.43	7.37
7	Mauritius	2.90	3.93
8	Hungary	1.95	1.55
9	China	1.91	5.01
10	Thailand	1.86	4.96
10 Best Performers		4.85	5.09
21	Philippines	0.77	1.02
22	Indonesia	0.64	5.13
16	Dominican Republic	1.10	2.13
24	Costa Rica	0.60	1.17
27	Jamaica	0.53	(0.27)
32	El Salvador	0.44	0.48
39	Guatemala	0.35	0.74
50	Honduras	0.12	0.58
Other Developing Countries		0.57	1.37
37	Colombia	0.38	2.30
45	Peru	0.18	0.08
46	Venezuela	0.16	(0.54)
49	Bolivia	0.15	0.71
51	Ecuador	0.12	1.63
Andean Countries		0.20	0.84

sustainable growth

- ✦ historical pattern of development at the expense of the “stock of natural capital”
- ✦ poverty ⇒ environmental degradation
- ✦ international markets ⇒ pressure to adopt environmentally friendly practices
- ✦ policies rely too much on “command and control” mechanisms ⇒ detrimental to competitiveness

Key Environmental Concerns in the Andean Region

Bolivia	Besides deforestation from land clearance operations and logging, and soil erosion from poor agricultural practices and overgrazing, Bolivia also suffers from desertification, loss of biodiversity (due in part to habitat loss) and threats to water supplies from industrial wastes.
Colombia	Suffers from deforestation and soil damage, including damage from overuse of pesticides, as well as air pollution from vehicle emissions.
Ecuador	Suffers from land degradation, deforestation, soil erosion, desertification, threats to biodiversity, and water pollution.
Peru	Suffers from deforestation, threats to biodiversity, overgrazing and soil erosion, and the pollution of rivers and coastal waters from municipal and industrial discharges. In Lima air pollution is a threat to human health.
Venezuela	Sewage pollution of Lago de Valencia. Oil and urban pollution of Lago de Maracaibo. Soil degradation. Deforestation. Urban and industrial pollution, especially along the Caribbean coast.

Source: The World Resources Institute, 1999

sources of future growth

✦ key components ⇒ innovation and increasing overall efficiency

✦ the countries are lagging behind in:

- ◆ education
- ◆ scientific discoveries and technical innovation
- ◆ protection of intellectual property rights
- ◆ information technologies infrastructure

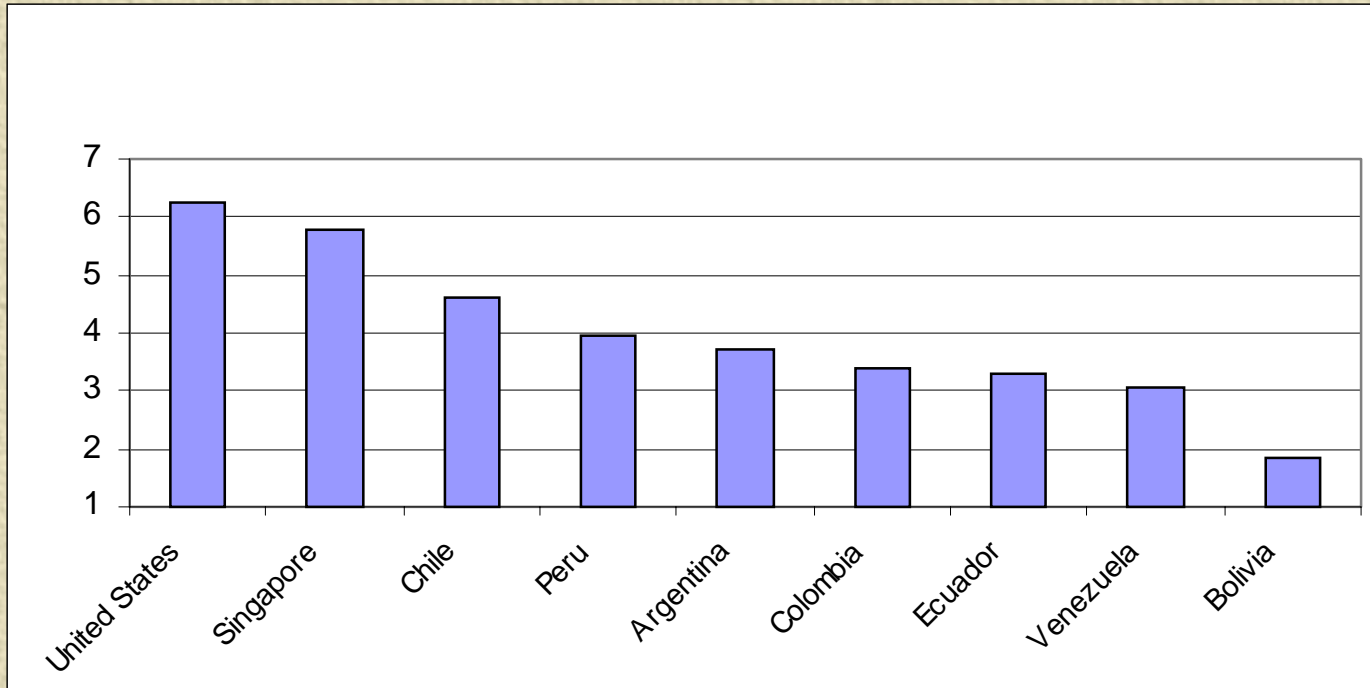
Educational Attainment of the Total Population Aged 25 and Over, 1995

Percentage of the population aged 25 and over with the highest level of attainment indicated

<i>Country</i>	<i>No Schooling</i>	<i>Primary Level</i>	<i>Secondary Level</i>	<i>Tertiary Level</i>
Bolivia	22.5	37.7	27.4	12.3
Colombia	23.1	48	20.4	8.5
Ecuador	18.8	47.1	16.1	17.9
Peru	16.3	34.7	27.2	20.4
Venezuela	18.4	54.4	12.2	15.1
Average (5)	19.8	44.4	20.7	14.8
Argentina	6.3	52.7	24.9	16.2
Chile	5.2	45.8	35.4	13.7
Average LAC (23)	19.0	51.8	18.6	10.5
United States	0.6	8.2	44.6	46.5

Source: Barro and Lee (1996) and author's updates.

Intellectual Property Protection



Ranking from 1-7 (1= intellectual property is not protected, 7= intellectual property is well protected).

Source: 1999 Global Competitiveness Report (GCR).

Quantity and Quality of Scientists and Engineers

Country	R&D Scientists and Technicians*, 1990-1996	Prevalence and Quality of Scientists and Engineers**
Bolivia	0.4	3.3
Colombia	n/a	4.2
Ecuador	0.3	3.4
Peru	0.8	4.1
Venezuela	0.2	4.2
Argentina	0.8	4.7
Chile	n/a	5.1
Uruguay	0.7	n/a
United States	3.6	5.6
Singapore	2.6	5.6
World average	1.3	
Low- & middle-income countries	0.4	
High-income countries	4.1	

* per 1000 people, average for 1990-1996.

**rated on a scale of 1-7 (1=low prevalence and quality).

Source: 1999 Human Development Report (UNDP), 1999 GCR.

Numbers of Internet Users in Selected Latin American Nations



	<i>Number of Users</i>	<i>% of Population</i>
Argentina	250,000	0.69%
Bolivia	8,000	0.10%
Brazil	1,773,900	1.07%
Chile	175,000	1.18%
Colombia	186,667	0.51%
Costa Rica	40,000	1.04%
D. Republic	25,000	0.30%
Ecuador	5,000	0.04%
Haiti	2,000	0.03%
Mexico	546,975	0.57%
Paraguay	1,000	0.02%
Peru	38,667	0.16%
Uruguay	9,000	0.27%
Venezuela	42,333	0.18%
Andes	280,667	0.27%
MERCOSUR	2,033,900	0.97%

Source: Kirkman, G. S. - Andean Readiness for the Networked World

