

Seminario Internacional

“De Redes Diásporas a Redes de Inversión”

**Comentarios sobre el Libro
“Building Knowledge Economies,
Advanced Strategies for
Development” – The World Bank
Institute**

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Santiago de Chile – September 26, 2007

Contents

1. Excellent book. But is the Knowledge Economy a somewhat mystifying concept?

- Is there a “knowledge economy” also in traditional activities and in history?
- Shift in knowledge from inputs to outputs.

2. How do Chile and Latin America perform in the KEI index?

- Latin America is below developed countries rankings.
- Chile has the highest score in the regional ranking. It also increased from 1995 and 2007. (See table 1 and 2).

Contents

3. Education is very important for developing a Knowledge Economy (KE) but we want to underscore also the importance of Talent.
4. The role of Talent in the KE.
 - Talent as capacity to develop new products, technologies, ideas. Creativity with high impact and economic value. (See Chart A).
 - Two topics: (i) How good institutions and markets reward talent? (ii) Education and talent. (Slides 8 and 9).
 - Latin America is still a small provider of talent in global knowledge markets. (See table 3).
5. Final Topic: the Impact of the KE in the workplace.
 - Does the Knowledge Economy promote workers' participation at the workplace and Economic Democracy? (Slide 11).
 - Argument; The “knowledge worker” has an asset (knowledge). (Peter Drucker)

Table 1. KEI Index. Latin America and other regions.

Country	KEI 1995	KEI 2007	% Change
Uruguay	6.79	6.11	-10.01
Costa Rica	6.57	6.02	-8.37
Chile	6.53	6.74	3.22
Argentina	6.41	5.49	-14.35
Mexico	5.82	5.35	-8.08
Brazil	5.14	5.5	7.00
Colombia	4.84	4.32	-10.74
Venezuela, RB	4.59	4.26	-7.19
Peru	4.54	4.43	-2.42
Paraguay	4.19	3.19	-23.87
Bolivia	4.12	3.78	-8.25
Ecuador	4.01	3.26	-18.70
Dominican Republic	3.41	3.62	6.16
Latin America	5.41	5.06	-6.47
United States	9.19	8.8	-4.24
G7	8.9	8.74	-1.80
East Asia and the Pacific	7.15	6.67	-6.71
Europe and Central Asia	6.01	6.3	4.83
Middle East and North Africa	5.5	5.3	-3.64
Africa	3.21	2.72	-15.26

Source: World Bank

KEI Index: Four Pillars

1. Economic Incentive and Institutional Regime

- Tariff & Non-tariff Barriers
- Regulatory Quality
- Rule of Law

2. Education and Human Resources

- Adult Literacy Rate
- Secondary Enrollment
- Tertiary Enrollment

3. The Innovation System

- Royalty and License Fees Payments and Receipts
- Patent Applications Granted by the US Patent and Trademark Office
- Scientific and Technical Journal Articles

4. ICT

- Telephones per 1,000 people
- Computers per 1,000 people
- Internet Users per 10,000 people

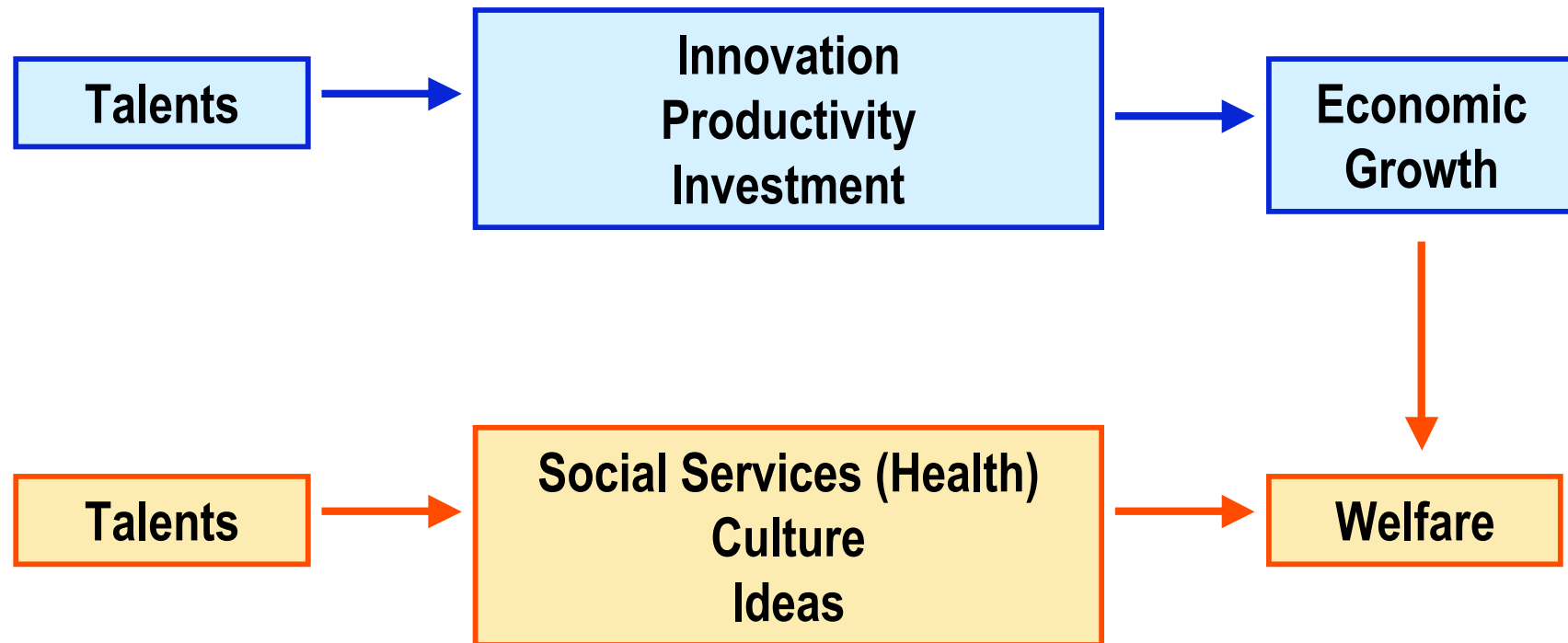
Table 2. KEI Index (four pillars). Latin America.

Country	EI 1995	EI 2007	Inn 1995	Inn 2007	Edu 1995	Edu 2007	ICT 1995	ICT 2007
Uruguay	7,78	6,16	6,1	5,14	6,82	7,27	6,46	5,85
Costa Rica	7,52	6,62	6,31	6,26	5,48	4,82	6,96	6,38
Chile	7,16	7,74	6,51	6,84	5,98	6,26	6,46	6,12
Argentina	5,93	2,7	7,02	6,89	6,51	6,69	6,18	5,7
Mexico	6,82	5,55	6,3	5,4	4,57	4,51	5,58	5,95
Brazil	5,21	4,52	5,93	6,01	4,03	5,68	5,4	5,8
Colombia	4,64	3,67	4,43	4,3	4,67	4,76	5,62	4,54
Venezuela, RB	3,31	0,95	4,23	5,77	4,94	5,21	5,9	5,09
Peru	3,89	3,75	4,44	3,94	5,49	5,31	4,35	4,72
Paraguay	6,03	2,36	2,94	2,71	3,92	4,14	3,85	3,54
Bolivia	5,16	3,39	3,51	3,21	4,2	5,34	3,62	3,18
Ecuador	3,68	2,11	3,62	3,52	4,22	3,72	4,53	3,71
Dominican Republic	3,01	3,71	3,4	3,12	4,36	4,26	2,88	3,4

EI: Economic Incentives; Inn: Innovation; Edu: Education;
ICT: Information and Communication Technologies

Source: World Bank

Chart A. Talent, Economic Growth and Welfare.



Rewards Structures for Talent: Problems

- ✓ For productive talent: Failures of markets to properly reward talent (complexity to identify talent, weak property rights, patent system).
- ✓ The existence of increasing returns to ability (winners-take-all). Examples: sports, artists and famous writers (i.e. Roger Federer in tennis, J.K. Rawlings with Harry Potter).
- ✓ Distortions: Incentives for rent-seeking, penalize innovation and entrepreneurship.

Education and Talent Allocation

A complex relationship...

- ✓ *Human Capital Theory*. Talent goes to careers with high rate of return.
- ✓ *Education, as a signal* of capacity and talent.
- ✓ Is it always profitable to study?
 - ✓ High opportunity of costs of education for the talented and less risk-averse (Bill Gates left Harvard University to create his own business).

Table 3. H-1B Visas to High Skills Immigrants Granted by the United States by Region (2002)

Origin region	Visas H-1B Granted		Visas related to areas of information technology and computer science		
	Total	Percentage	Total	Percentage of Total Visas H-1B	Percentage into the information technology sector
<i>South America</i>	12 732	6.4	1 500	11.8	2.0
<i>Asia</i>	127 625	64.6	62 121	48.7	82.7
<i>Africa</i>	5 994	3.0	1 308	21.8	1.7
<i>Europe</i>	30 840	15.6	5 901	19.1	7.9
<i>Others</i>	20 346	10.3	4 284	21.1	5.7
All countries	197 537	100.0	75 114		100.0

Source: R. Barrere, L. Luchilo y J. Raffo, "Highly skilled labour and international mobility in South America", *STI Working Paper* 10 N° 2004/10, Paris, OCDE, December, 2004

The Impact of the KE in the workplace.

- The knowledge worker (Drucker):
 - The means of production are “locked in the head” of more skilled employees.
- The need of
 - » “flatter organizations”
 - » effective transmission of information flows within firms and
 - » new forms of workers’ participation.

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