

Asia (China) Impact in Latin America: Deindustrialization & Export Concentration?

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Motivation

- Main Trading Partner for Latin America
 - China is Latin America's 2nd trading partner, only behind to the US.
 - China is the world's main consumer of Ni, Cu, Al, Zn, Steel, Fe and Oil.
 - Between 2000-2008: LA's M from China grew at 37% annual pace, X to China grew 35% annually.
 - Trading pattern almost exclusively inter-industrial
- => LA exports natural resources and imports manufactures.
- 90% of AL's X to China are from only 4 countries,
 - LA Chinese M reach all the continent.

Main Exporting Destinations for LA in 2010 (% Total Exports)

	<u>Argentina</u>		<u>Brasil</u>		<u>Chile</u>		<u>Colombia</u>	
1	Brasil	21%	EU27	22%	China	25%	USA	43%
2	EU27	16%	China	16%	EU27	17%	EU27	13%
3	China	9%	USA	10%	Japón	11%	China	5%
4	Chile	7%	Argentina	9%	USA	10%	Ecuador	5%
5	USA	5%	Japón	4%	Brasil	6%	Venezuela	4%

	<u>Costa Rica</u>		<u>Mexico</u>		<u>Peru</u>	
1	USA	37%	USA	80%	EU27	18%
2	EU27	18%	EU27	5%	USA	16%
3	Hong Kong	5%	Canada	4%	China	15%
4	Panama	5%	China	1%	Canada	9%
5	Nicaragua	4%	Brasil	1%	Japón	5%

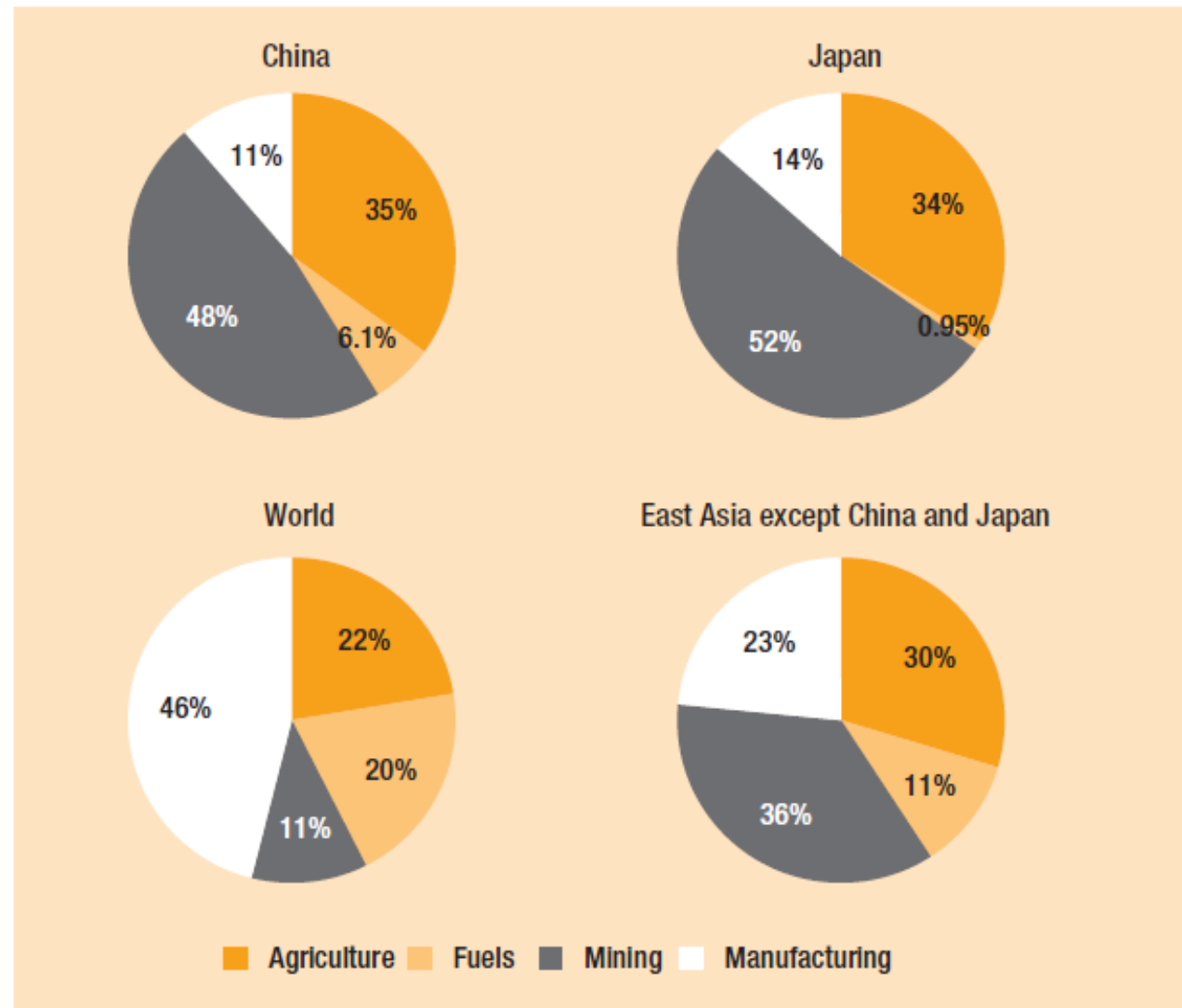
Source: UN COMTRADE

Composition of Exports: Relevance of Natural Resources

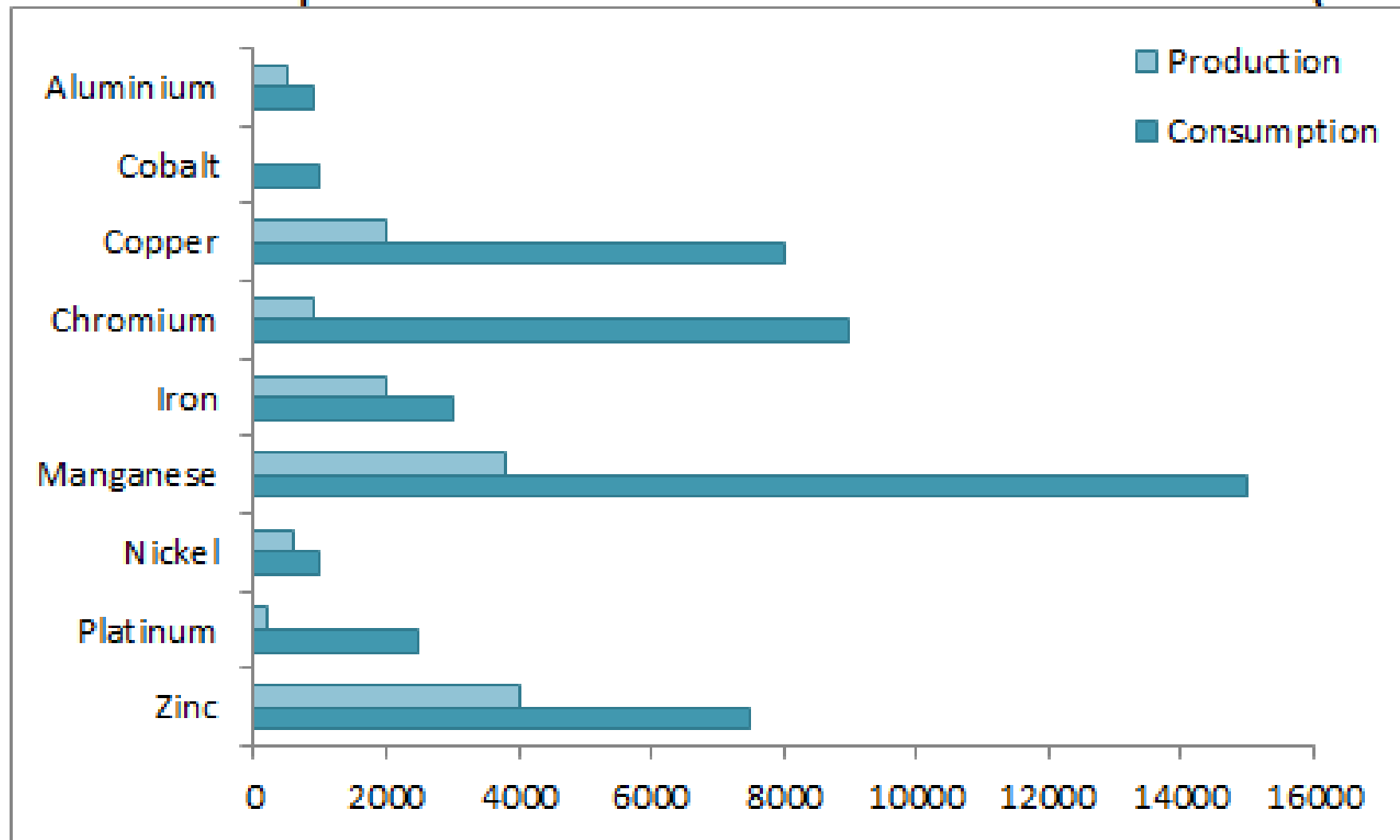
LAC's Export Composition to China and Selected Markets. 2008-09, (%)

LA only exports 11% of manufactures to China, though 46% of its exports to the world are manufactures.

Fuente: BID (2010), *Ten Years After the Take-off Taking Stock of China-Latin America and the Caribbean Economic Relations*



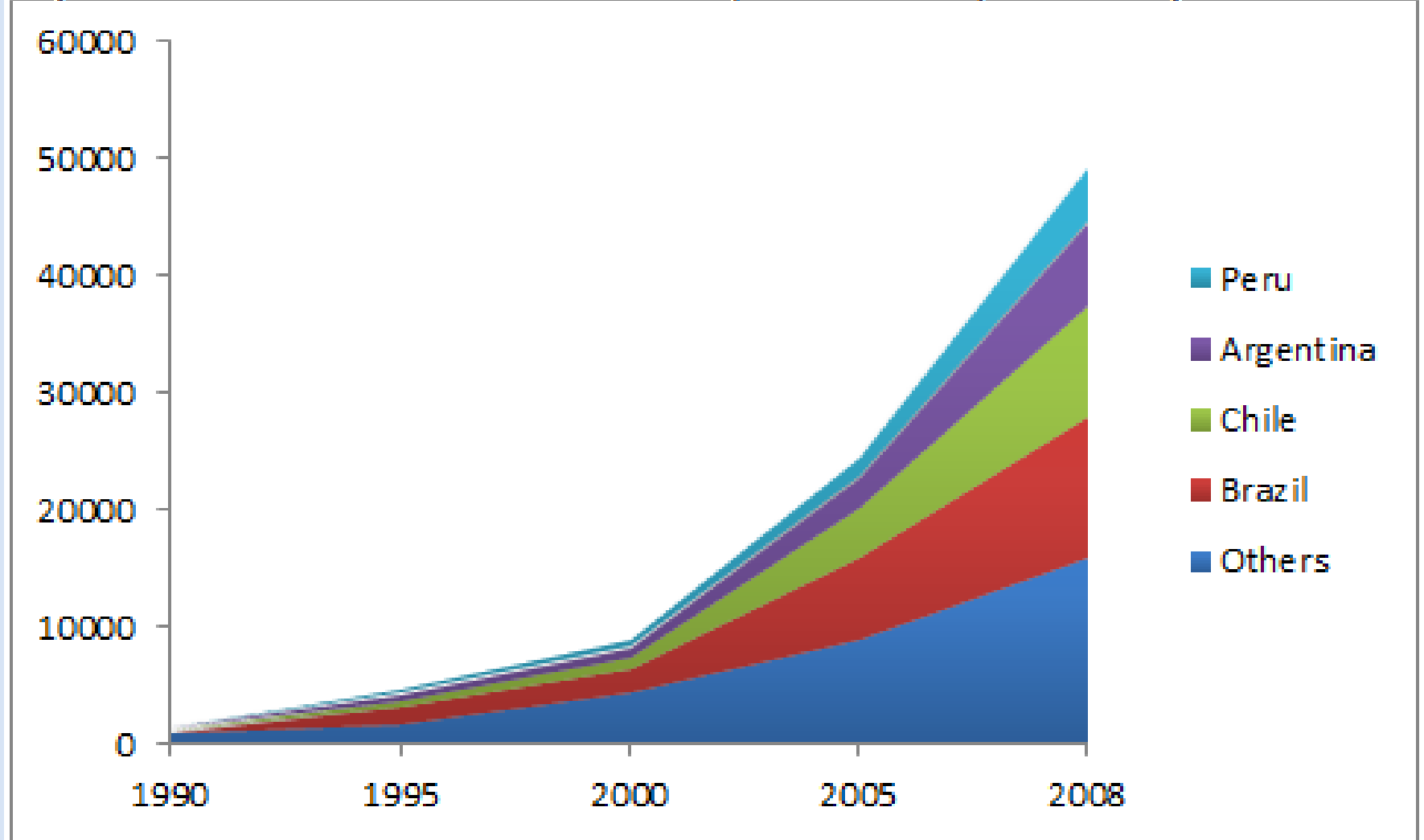
China: Consumption and Production of Selected Minerals in 2010 (tons)



Source: Huang (2011)

Note: Aluminium and Iron in million tons. Other minerals in thousand tons.

Exports from Latin America to China, 1990-2008 (USD mills)



Source: Jenkins & Dussel Peters (2009) and Berrios (2010)

Top 3 Exports to China, selected Latin American Countries, 2006-2008.

Country	Product	%	Product	%	Product	%	% of Total
Argentina	Soybeans	55	Soybean Oil	24	Petroleum	10	89
Brazil	Iron Ore	44	Soybeans	23	Petroleum	6	73
Chile	Copper	50	Copper Minerals	31	Chemical Wood Pulp	6	87
Colombia	Petroleum	50	Ferro-alloy	40	Non-ferrous Metals	5	95
Costa Rica	Integrated Circuits	96	Cristals	1	Semiconductors	1	98
Mexico	Integrated Circuits	13	Copper Minerals	8	Office Equipment Parts	7	28
Peru	Copper Minerals	39	Meat, edible meat offal	16	Petroleum	10	65
Venezuela	Petroleum	51	Iron Ore	9	Iron Fundition	2	62

Source: ECLAC 2010

Positive view w/r to the rise of China in LA

– Natural Resources Boom:

Chinese D has => boom that has positive effect on: X (US\$),
fiscal revenue, R^* , T_T , g

– China as a new potential X market for LA:

China represents a huge market; middle class of 200M.

LA X_{NR} are opening China market

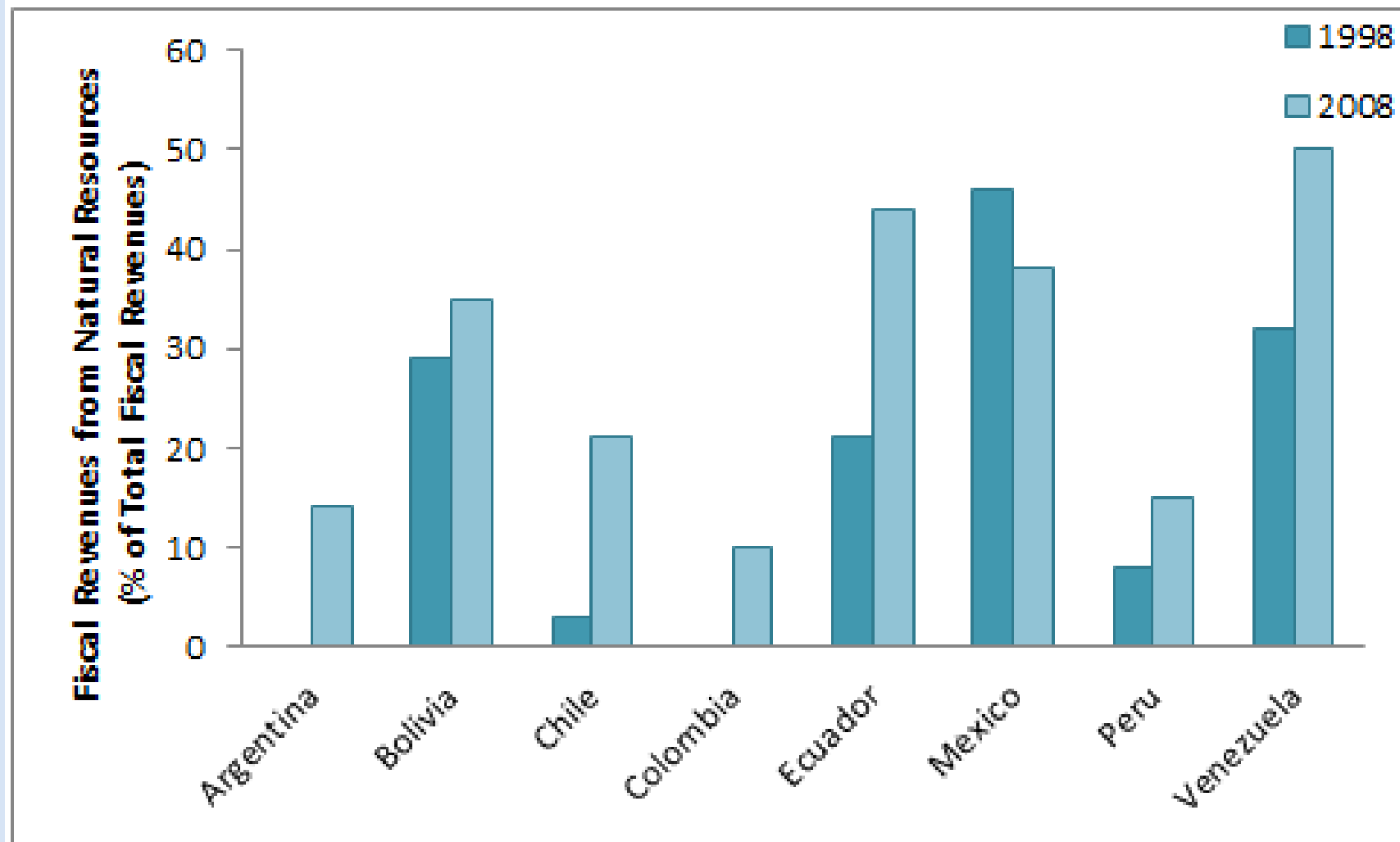
– Large LA surplus provides window opportunity for g:

resources could be Invested to \uparrow HK, infrastructure, $\Delta\Omega$

Negative view w/r to the rise of China in LA

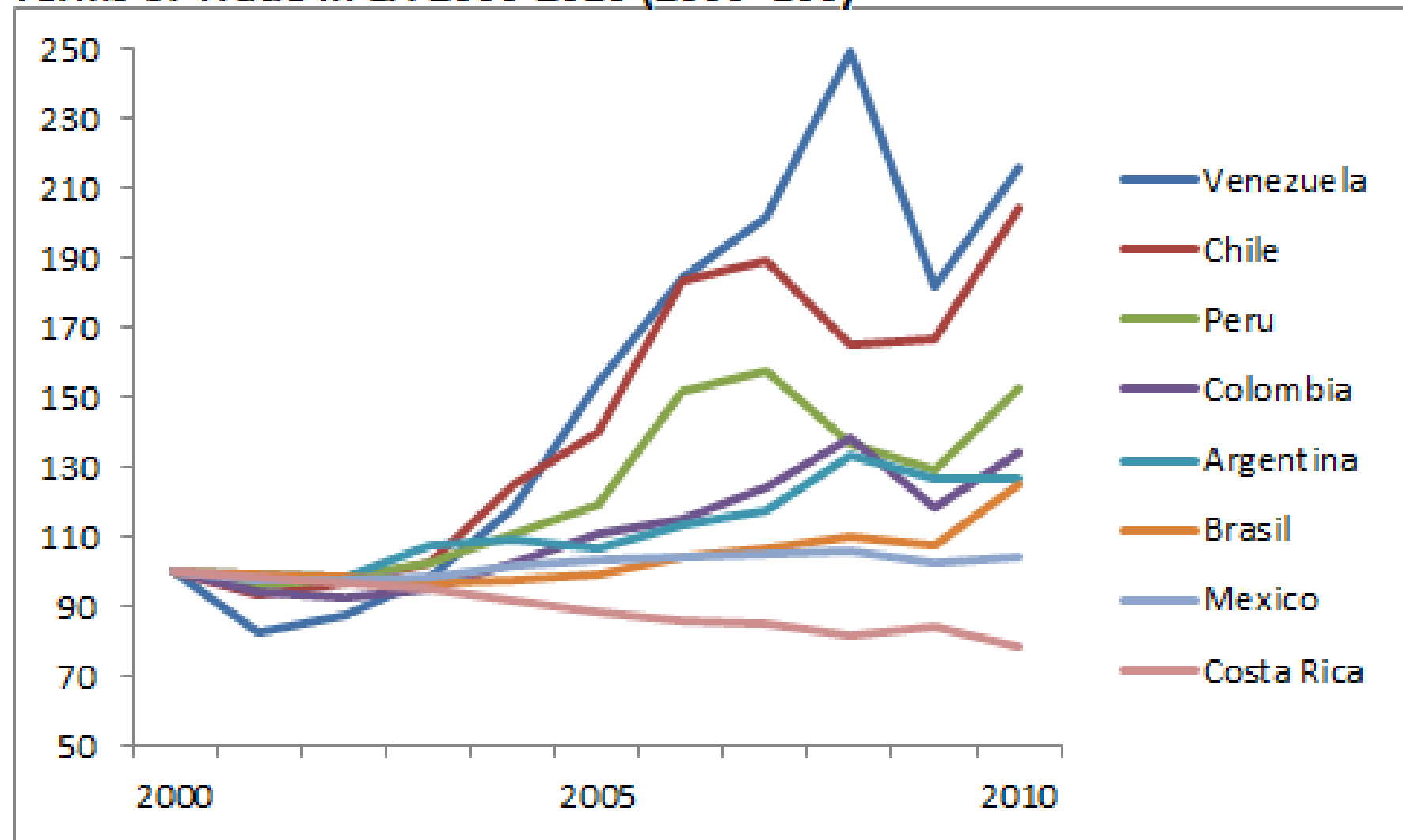
- De-industrialization of LA due to:
 - Strong Chinese Demand for NR => ↑ NR X
concentration
 - Substitution local production in domestic markets
by Chinese M
 - Substitution of LA X in 3rd markets by Chinese X.

Fiscal Revenues from Natural Resources Rents in LA



Source: Sinnot, Nash & de la Torre (2010)

Terms of Trade in LA 2000-2010 (2000=100)



Source: World Development Indicators, World Bank.

Counter-arguments to the negative view:

– NR / Total X ↑ from 28% (2001) to 39% (2009)

This share was also 39% (1991) -- 52% (1981)

– Is it really a curse to X NR?

– Survey shows that effects of Chinese M on domestic production has been small and focalized

– Effects of Chinese X in 3rd. markets upon LA X is relevant for Mexico and some Central American countries

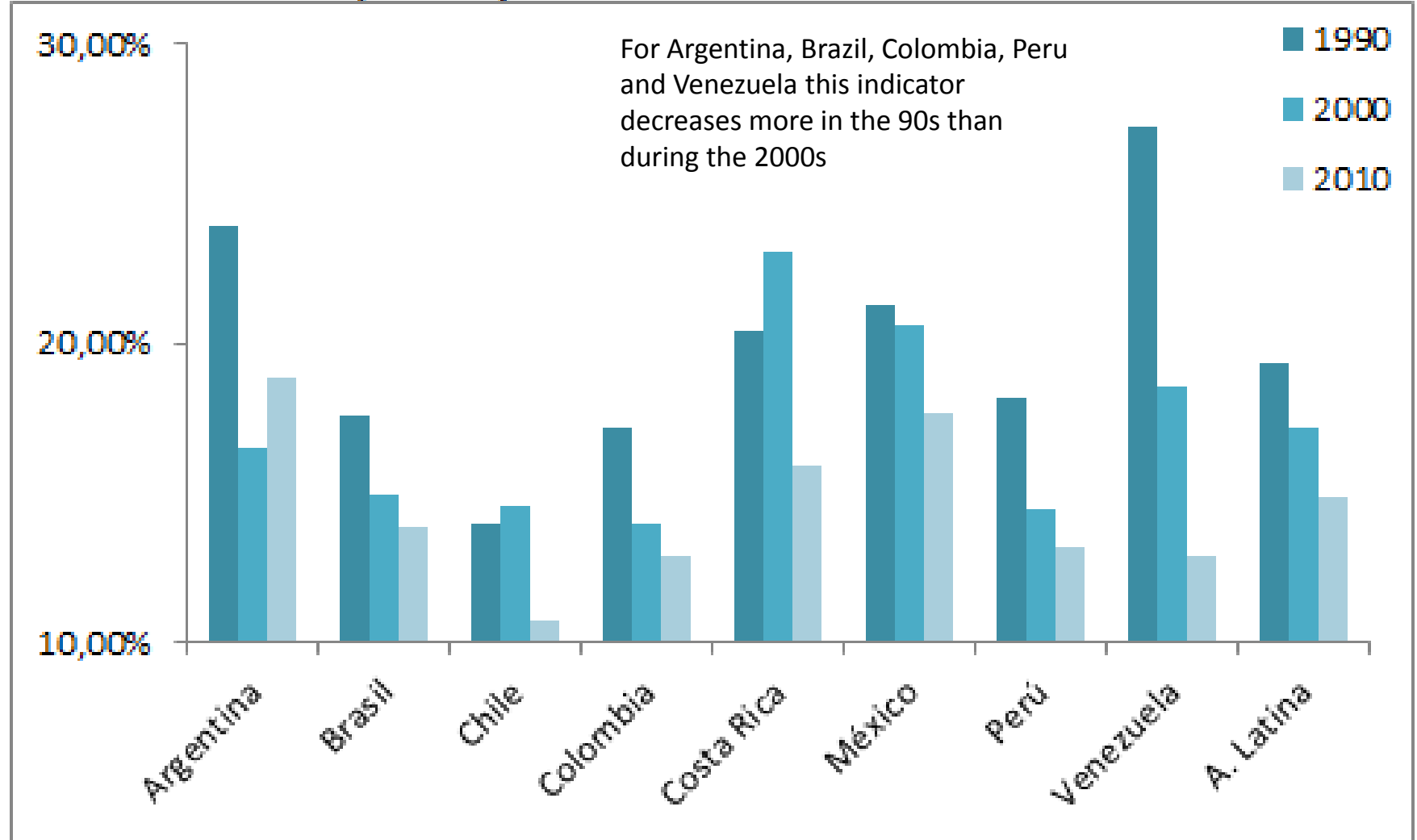
Counter-arguments to the negative view:

– Industrial sector in every LA country has increased LA industrial production \uparrow 62% between 1990-2010 (constant US\$).

– Industrial sector GDP share \downarrow for Argentina, Brazil, Colombia, Peru and Venezuela

However this indicator \downarrow more in the 90s than in the 2000s (trade with China becomes relevant only in the 2000s)

Industrial Sector (% GDP)



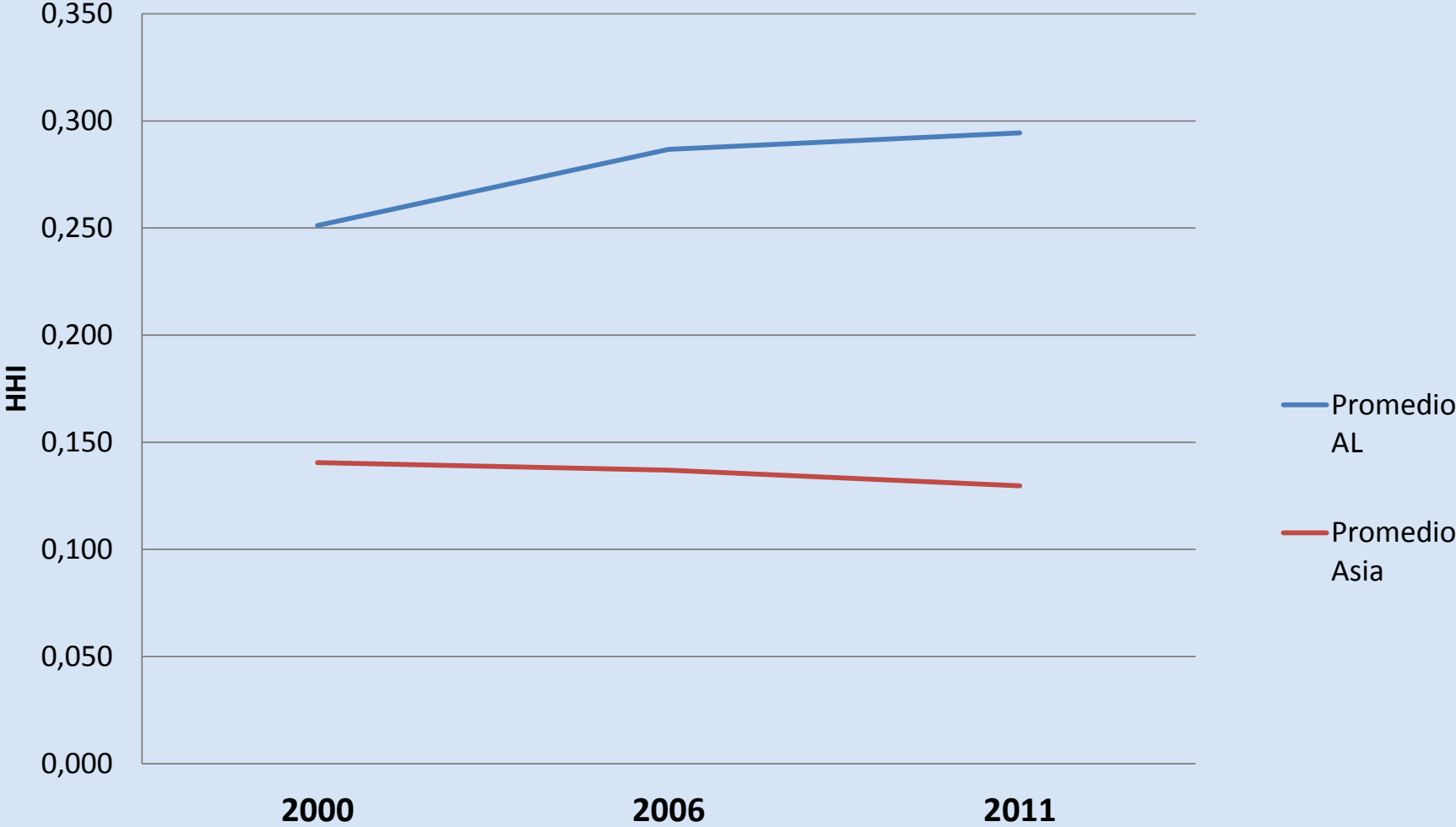
Source: Cepalstat database

How can LA diversify X ?

- High concentration LA's X in raw materials
- Need of X diversification (to \uparrow g)
- Measurement Indicators of X Concentration:
 - Traditional Herfindahl–Hirschman Index (HHI)
=> is not useful

Proposal: To measure X Diversification use:
Number of new X products

IHH: AL vs Asia (2000-2011)



Nº of significant exporting categories, LA and Asia

X>100M US\$ Anual

	2000	2006	2011
Argentina	51	72	92
Brazil	100	137	155
Chile	25	39	57
Colombia	18	36	41
Costa Rica	9	9	18
Mexico	142	154	172
Peru	14	26	41
Uruguay*	4	9	13
Venezuela**	13	13	11
China	179	207	218
India**	75	140	165
Japan	157	165	171
Malaysia	92	130	164
Korea	135	155	171
Thailand	108	144	169
Average LA	42	55	67
Average Asia	124	157	176

New X Categories

- **Traditional Products** (Expansion NR comparative advantage)
 - Brazil: Soybeans -- Chile: Copper -- Venezuela: Petroleum
- **Non-Traditional Products NR intensive** (new comparative advantages with higher added-value)
 - Colombia: Flowers -- Chile: Fruit, forestry
 - Brazil: Pork Meat -- Mexico: Avocado
- **Non-Traditional Products, not NR intensive**
 - Brazil: Aircraft -- Uruguay: Software
 - Costa Rica & Mexico: Integrated Circuits
 - Chile: Wine

Determinants of new X & Policy Lessons (1)

- Acquisition, Creation and Difussion of Productive Knowledge
- Investment in Infrastructure: key to ↓ costs & ↑ competitiveness
=> Government Role
- Technological Innovation Applied to Productive Processes
 - Research centres focused on strategic sectors (EMBRAPA Soybeans; Brazil + EMATER; INIA fruit; Chile...)
 - Cooperation with universities (ARTech + InCo softwares Uruguay)

Determinants of new Xs and Policy Lessons (2)

- Provision of Relevant Public Goods
 - FTA's and sanitary agreements. Reduction of entry costs => Government role.
 - Protection of sanitary conditions. Fundamental for NR with added value => Government Role.
 - Quality Control & National Image Promotion
Generates Important positive (or negative) externalities. Mechanism provided by public or private sector.

Determinants of new Xs and Policy Lessons (1)

- **FDI & Joint ventures**: Relevant in many cases; Chile: Wine, Colombia: Flowers, Brazil: Aircraft
 - Ω Invest, knowledge of international D & distribution chains.
 - Promote cooperation between foreign & local business (Chinese model)
- **Specific HK Formation**
 - Ex. Chile California 1965-78 program, key for fruit X ---
 - Forestry Engineering, relevant for Chilean forestry
- **Cooperative Asociations** for Difussion of Knowledge – Business Associations like Asocolflores (Col) & Salmon Chile
 - Relevant for difussion of knowledge, sanitary requirements, consumer tastes, distribution chains
 - PR of the sector in foreign markets
 - Coordination to solve problems

Determinants of new Xs and Policy Lessons (3)

- Other Important Elements
 - Long term public policies. Tax Incentives (forestry)
 - Niche Strategies. Focus in specific niches has been successful in some cases (Brazil: Aircrafts -- Uruguay: Software -- Chile: Fruit...)

Concluding Remarks

- Asia (China) has major role in XXI & has ↑ importance for LA as a trade partner, FDI and finance.
- LA has much to learn from Asian(Chinese) experience --
LA has to focus on large & dynamic Asian market
- Empirical examination does not provide clear evidence for LA de-industrialization hypothesis.
- LA has been diversifying its X. Yet, it has been slower than Asia
- Relevant policy lessons are cooperation, I infrastructure, specific HK, public good provision by the government, long term policies and niche strategies.

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