
Natural Resources in Latin America and the Caribbean: Beyond Booms and Busts?

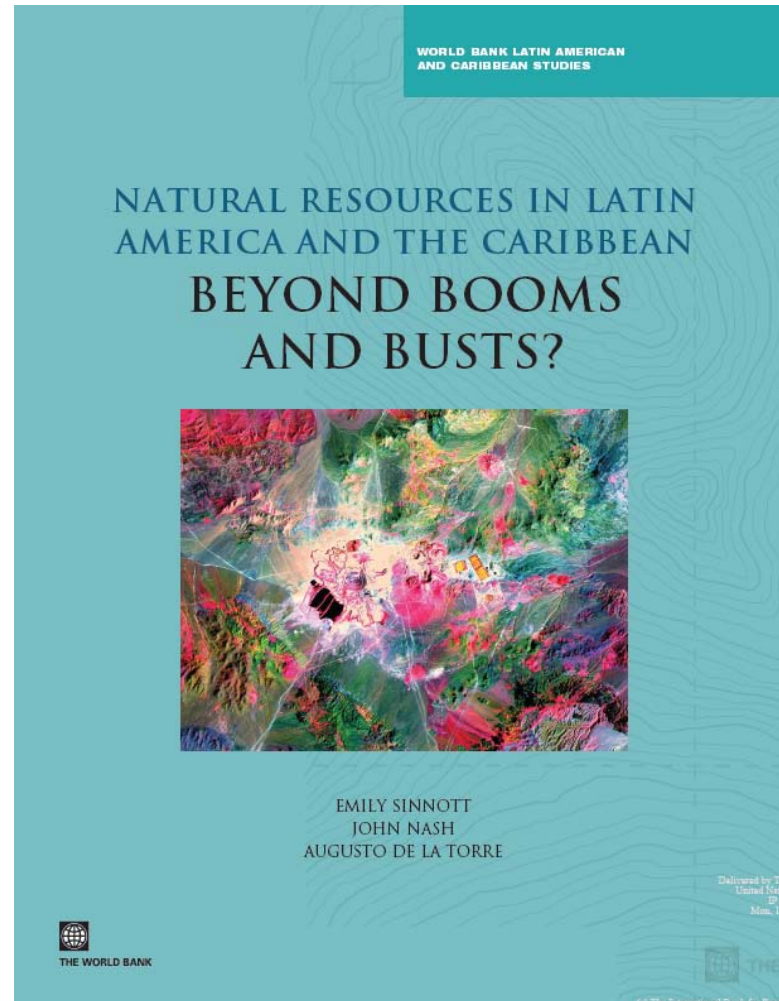
*Managing Natural Resource Wealth: Sharing of South- South
Experiences*

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Chief Economist Office
Latin America and the Caribbean Region
The World Bank



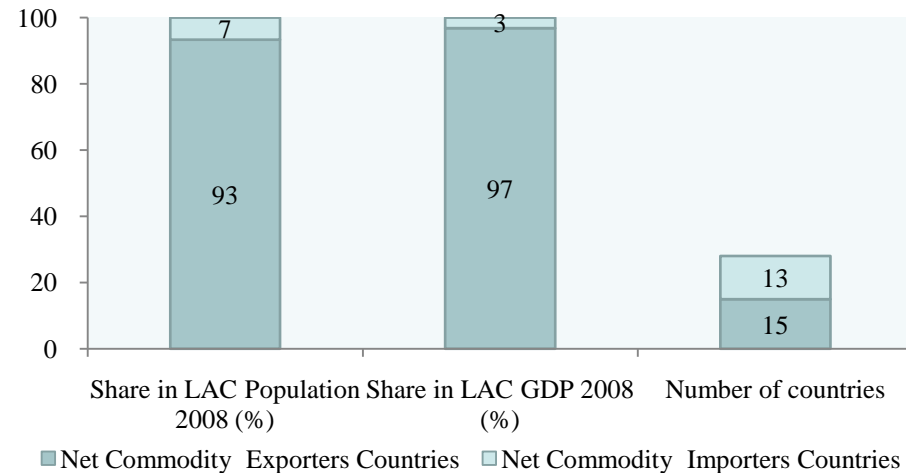
Beyond booms and busts?



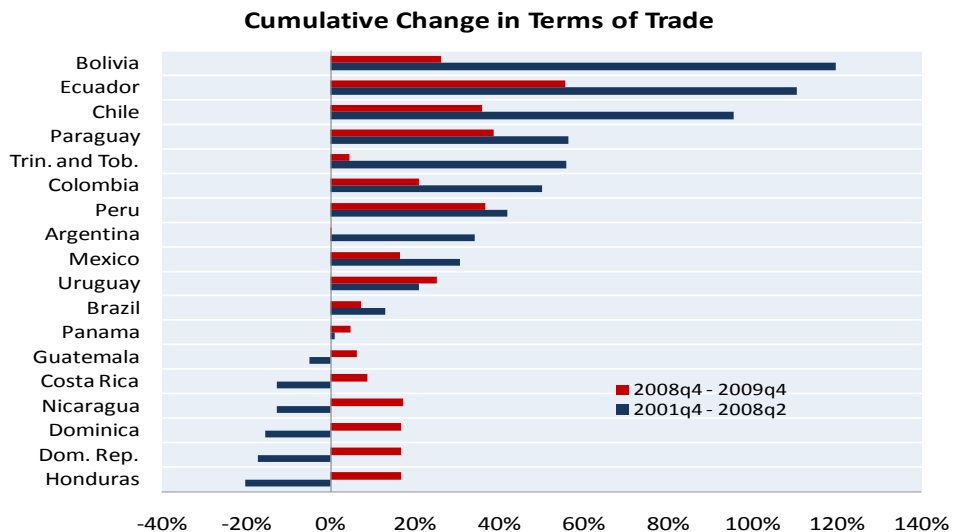
First, some stylized facts about the economic importance of commodities to set the stage ...

The majority of Latin Americans and most of the region's GDP are located in net commodity exporting countries

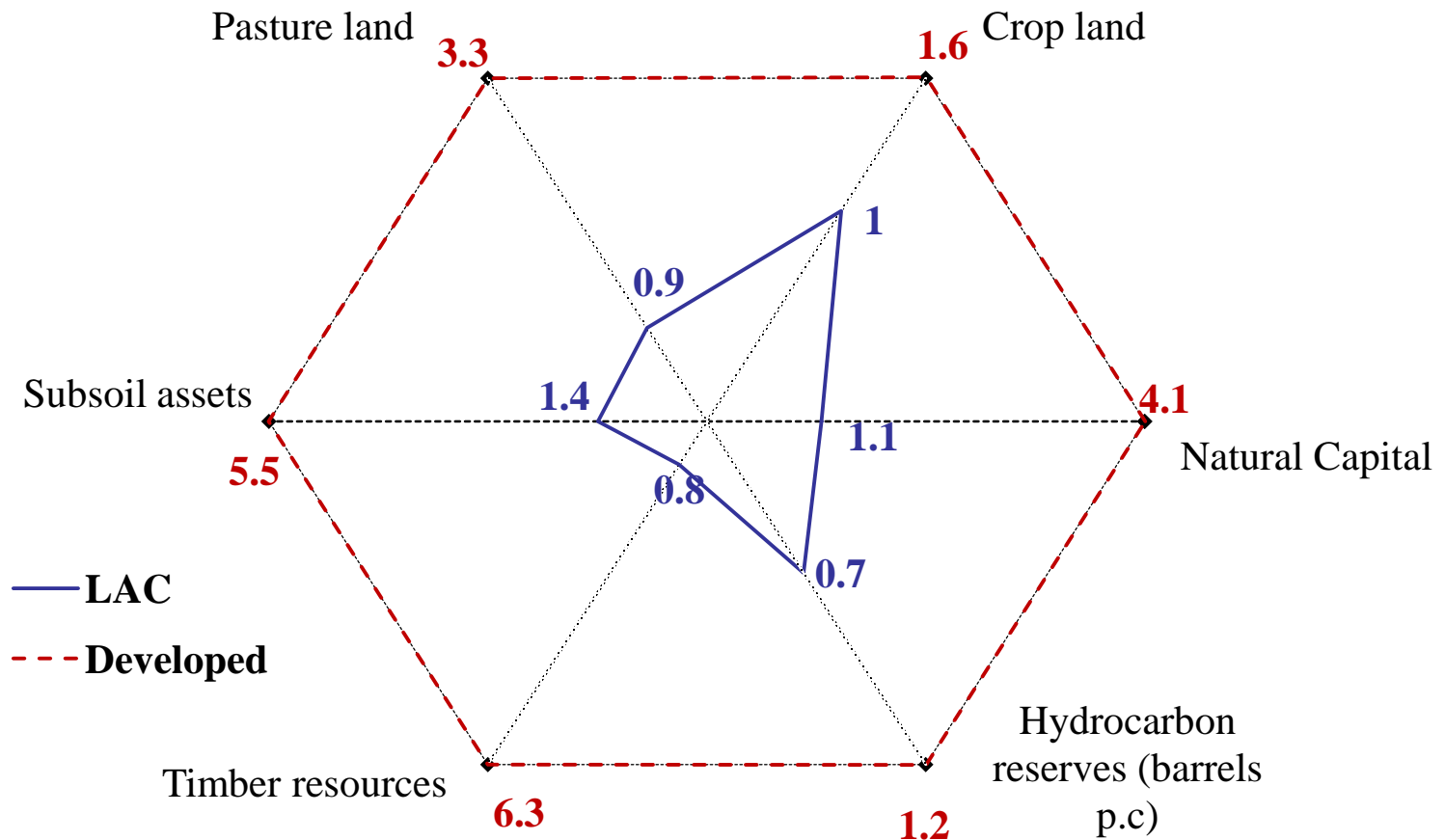
Around 93% of LAC's population and 97% of its economic activity is in countries which are net exporters....



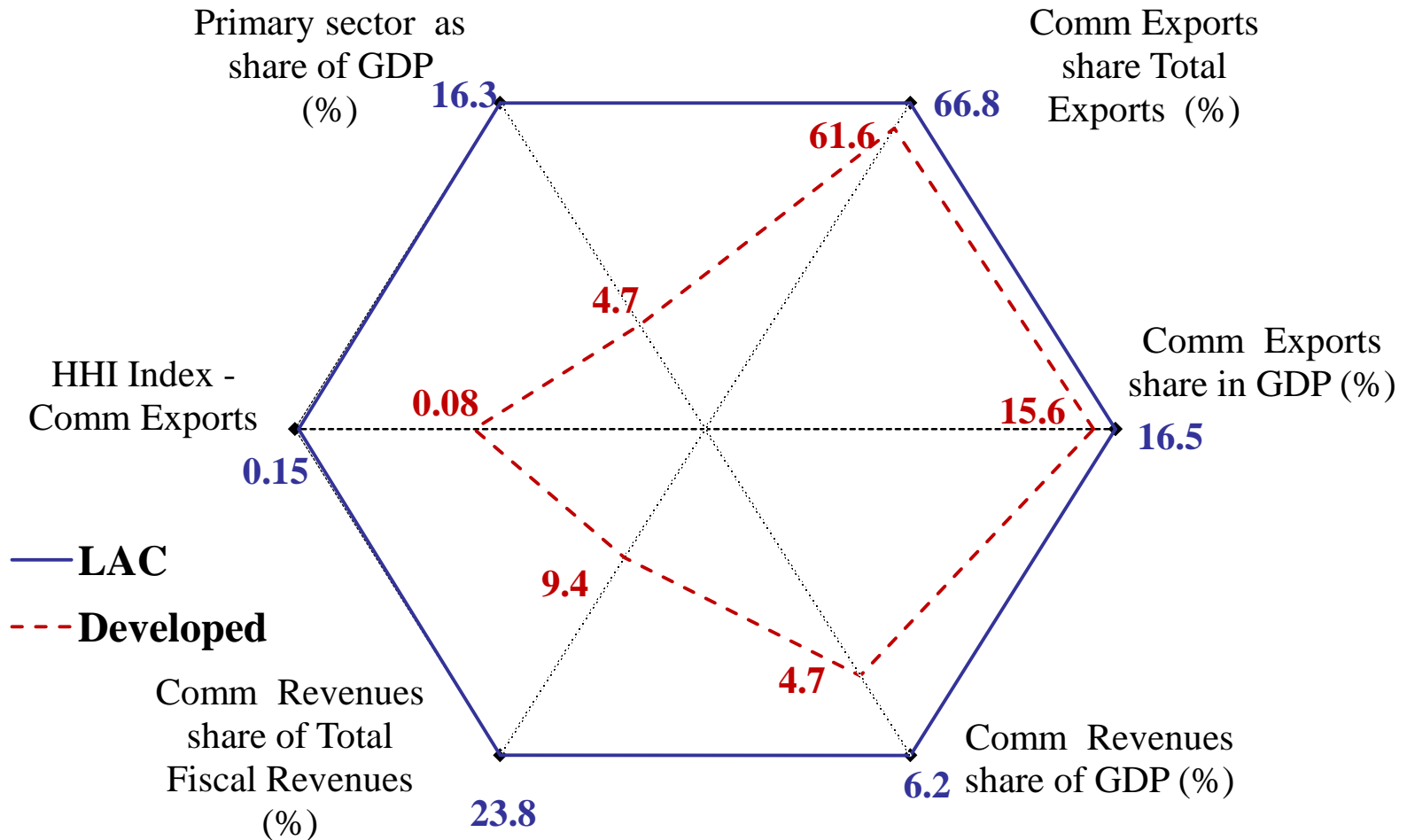
But there is much heterogeneity, and many smaller economies are importers, so shocks have an asymmetric impact across the region



Relative to the rich commodity exporters, LAC is modestly abundant



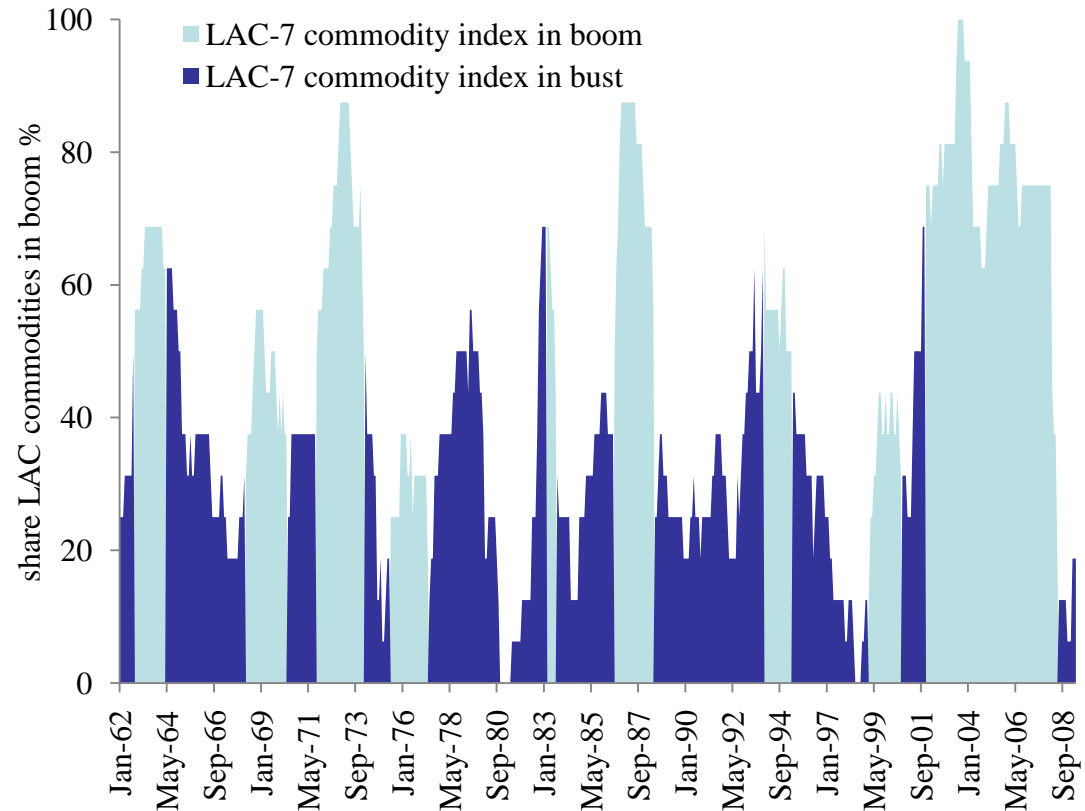
... but heavily dependent on natural resources, reflecting undiversified output & fiscal revenue structures



The latest commodity price boom was broad-based and long-lasting

- The most comprehensive in terms of the number of commodities it affected...
- ... and the number of countries it benefited
- For LAC, it was the longest lasting boom since records have been kept

LAC-7 Economies: Share of Commodities Experiencing a Boom



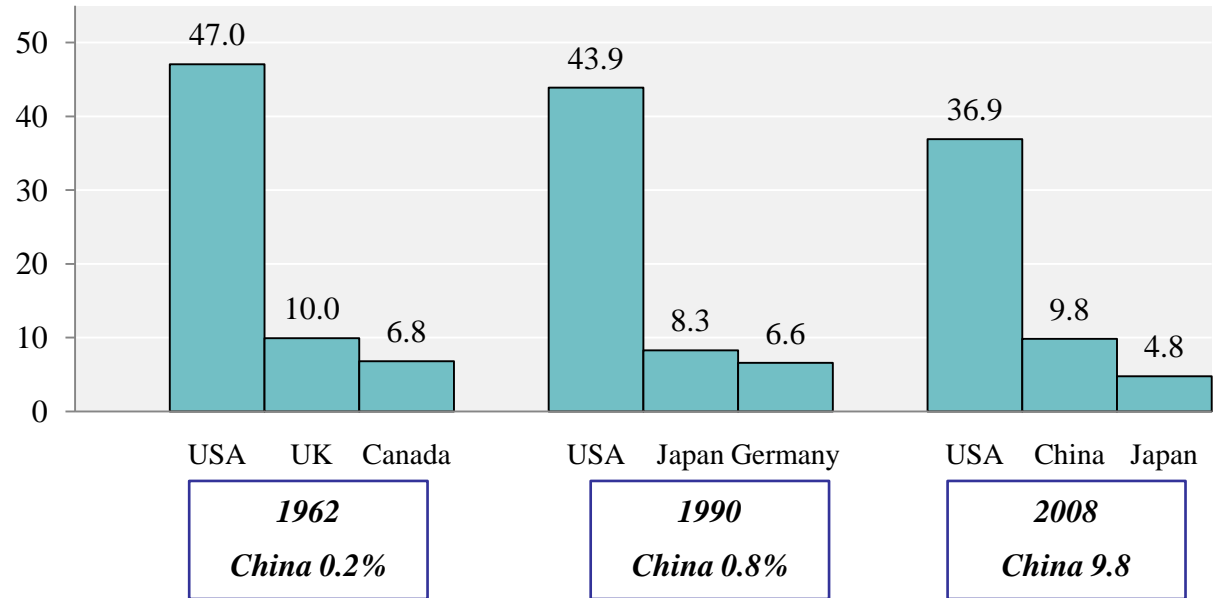
Source: World Bank staff calculations based on export commodity price data from Cunha, Prada and Sinnott (2009a, 2009b).

Note: The figure represents the share of the LAC-7 economies Top 16 commodities experiencing a price "boom" for each period of time. Booms and bust in commodity prices were defined following the Bry-Brochan cycle dating exercise. The figure also shows the boom-bust intervals for the overall commodities index.

China is increasingly important for LAC: direct and indirect linkages have increased

China has replaced traditional Latin American commodities export markets in importance

*Top 3 commodity export destinations for LAC
(% of total commodity exports)*

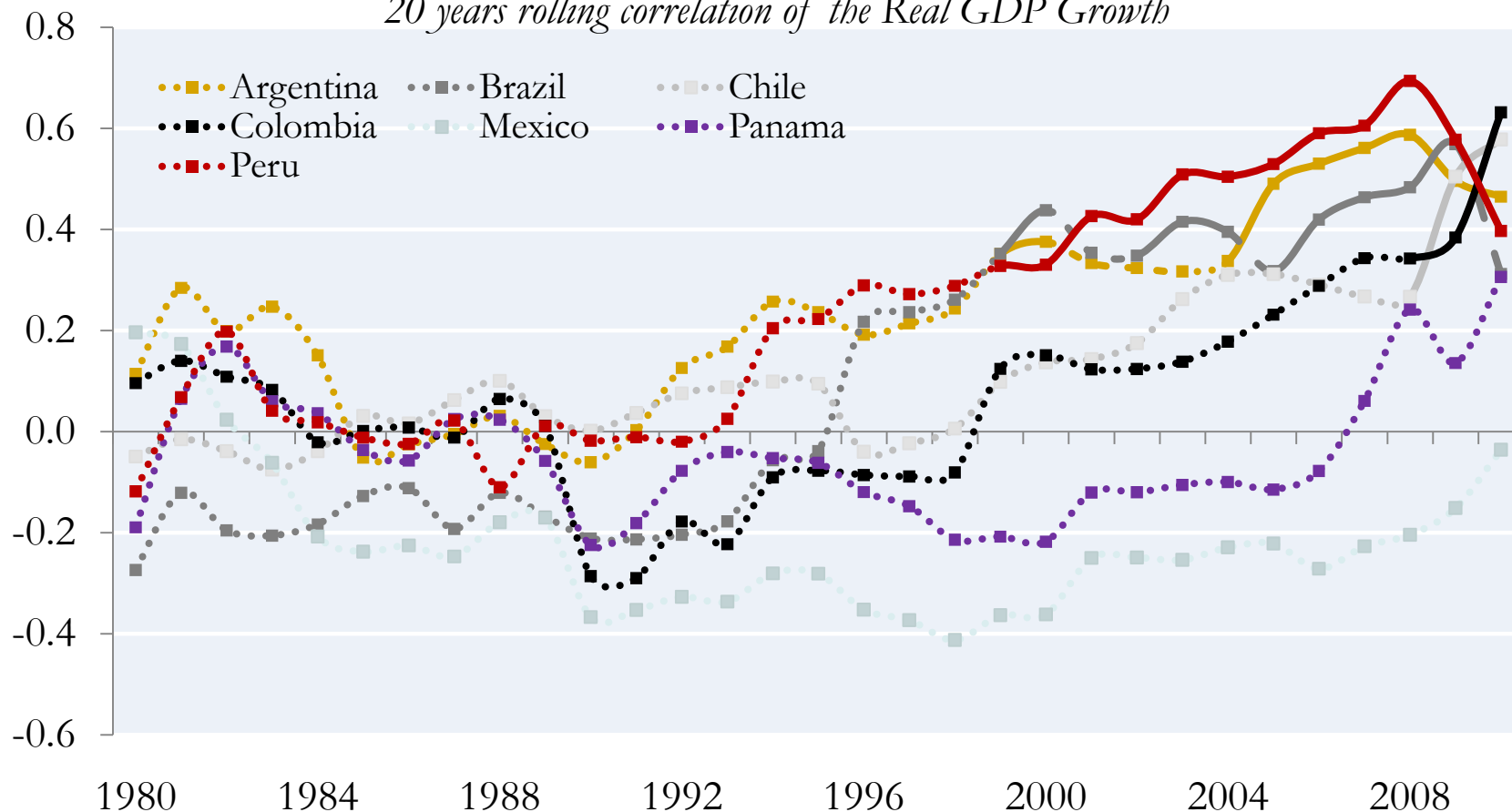


Indirect links: China's demand for commodities has been an important factor in the substantial buoyancy in world commodity markets

Looking forward, will LAC become the granary and mine of China? Is that a threat or an opportunity?

Output Co-Movement Between LAC and China

20 years rolling correlation of the Real GDP Growth



Source: World Bank calculations based on National Authorities' data.

Note: Solid colors reflect correlation values significant at a 10% confidence interval.

The “natural resource curse” hypothesis:
much ado about nothing?

We can't ignore the curse hypothesis... some very wise people have believed it!

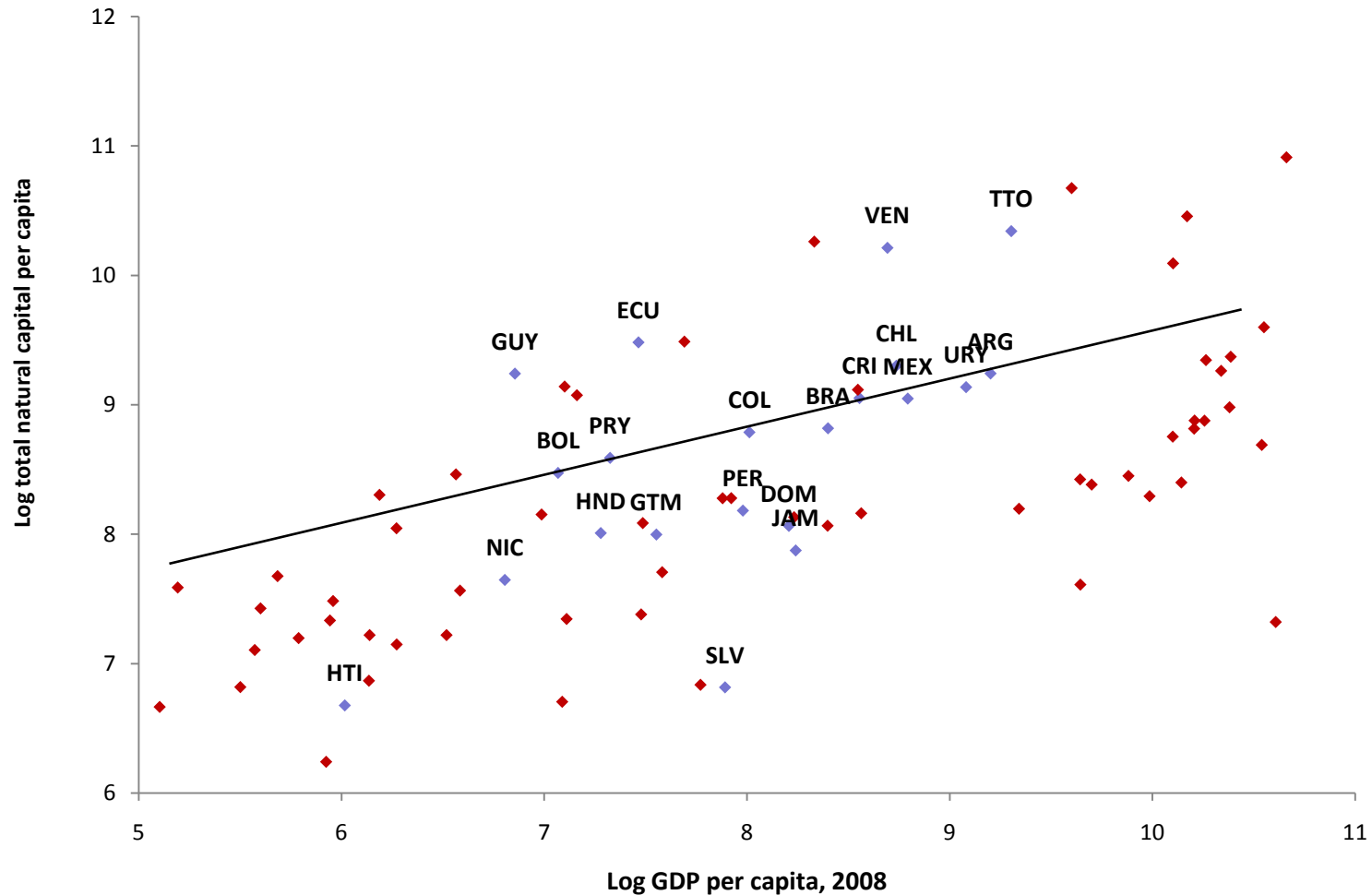
"Projects of mining... are the projects... to which of all others a prudent law-giver, who desired to increase the capital of his nation, would least choose to give any extraordinary encouragement" (1776) –Adam Smith

*"Ten years from now, twenty years from now, you will see: oil will bring us ruin ... Oil is the Devil's excrement" (early 1970s)
– Juan Pablo Pérez,
Venezuelan Minister of Energy and founder of OPEC*

"Neither now nor in former ages have the nations possessing the best climate and soil been either the richest or the most powerful; but ... generally among the poorest" (1848) – John Stuart Mill

"Oil is a curse. Natural gas, copper, and diamonds are also bad for a country's health" (2009) – Moisés Naím, Foreign Policy editor-in-chief

But natural resources are associated with higher per capita incomes, so why the fuss?



Source: World Bank Staff estimations based on World Bank data for GDP per capita in 2008 (constant 2000 US\$) and natural abundance in 2000. Note: Resource abundance is measured by the total natural capital per capita.

Natural resource curse hypothesis is multifaceted

Three valid concerns ...

- Productivity/growth trap
- Institutional/political trap
- Environmental and social sustainability trap

And one red herring ...

- Little support for Prebisch-Singer hypothesis that commodity prices are declining

Commodity price volatility magnifies other problems

➤ High price volatility

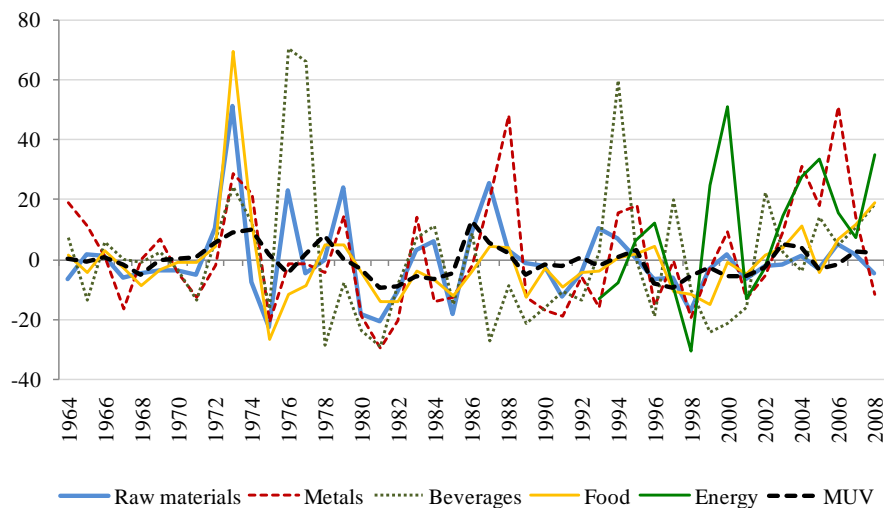


➤ Exacerbates Dutch Disease and rent-seeking

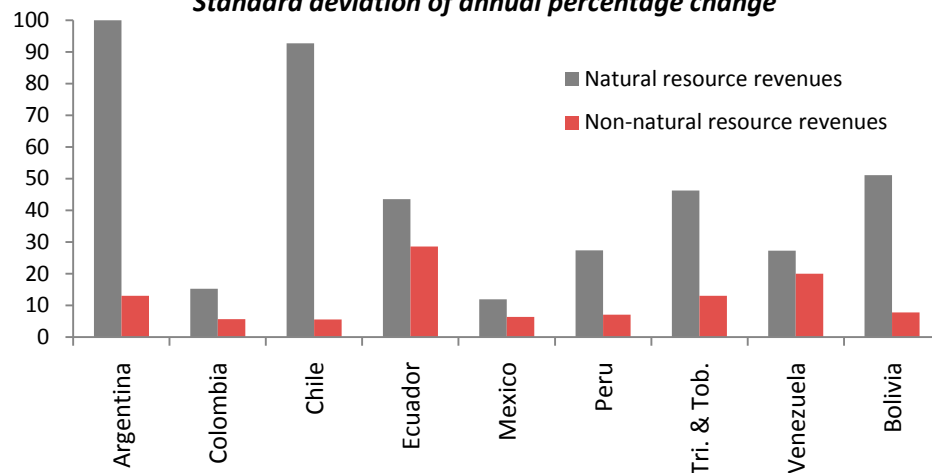
➤ Creates fiscal and output instability

➤ Depletes real wealth

Annual changes in Real Price Indexes



Standard deviation of annual percentage change



So, how serious are these 3
traps?

And how have they affected Latin America
and the Caribbean?

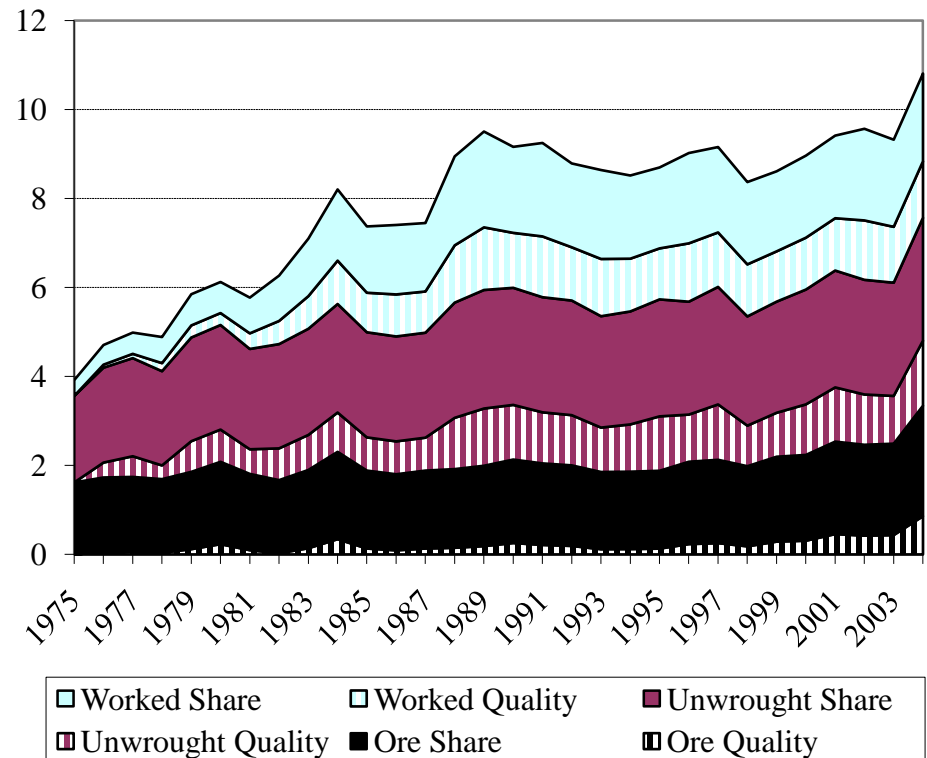
How serious is the threat of a growth trap?

- Some evidence seems to say quite serious
 - Enclave production in many countries in the past, with few linkages and minimal employment generation
 - Via a strong currency (Dutch Disease), commodities can displace industries where potential spillovers are higher (Hausmann, Rodrik)
- But
 - Careful econometric evidence contradicts early finding of a curse effect
 - Many high-income countries developed by exploiting natural resources
 - Commodity sectors can be of high productivity with much innovation
 - Many cases of linkages & upgrading with significant employment effects
- Bottom line: issues are more complicated than commonly thought, with much space for policies to determine outcomes

Case study of metals illustrates potential of commodity sectors

- Much potential for *upgrading*: high degree of intra-industry trade implies product differentiation.
- Share of LAC in global trade of metals has expanded over time, due to both *inter-product upgrading and intra-product quality improvement*.
- Value-added metals—worked metal products—increased eightfold in LAC since 1975.

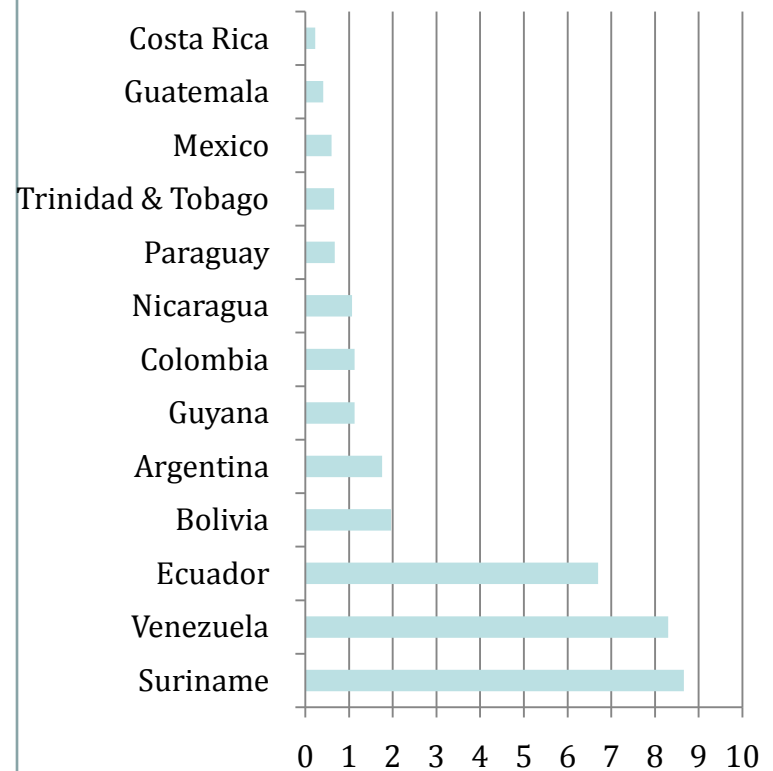
LAC metal market share along the value chain (in percent)



Commodity riches can pose downside risks to institutional development

- High rents can feed rent-seeking behavior and institutional capture
 - Revenue dependence is often associated with reduced tax effort and low accountability
 - Patronage + rent-seeking => rent dissipation through inefficient public spending
 - Important example in LAC: energy subsidies are about 2% of GDP
- Possible institutional trap: enclaves generate low demand for institutional improvement

Energy subsidies as a share of GDP, 2005
(in percent)



Source: Olade (2007)

Two institutional dimensions in which LAC seems to suffer less from the resource curse than other regions

- No systematic effect in undermining democracy
 - But some recent backsliding in *quality* of democracy in hydrocarbon producing states
- No systematic tendency for increased large-scale violent conflict in resource-rich states
 - Fewer secessionist movements in LAC – perhaps because these were worked out over the longer history of independence
- Institutions in many LAC countries are improving, but trend towards greater decentralization may create special problems

Over-exploitation of common property resources can destroy environment and create social tension

Mining

- Large-scale
 - Air-borne particulates
 - Water pollution from mine discharge
 - Failure of containment of tailings & waste
 - Over-use of surface or ground water
- Small-scale artisanal
 - Mercury pollution (est. 200 tons p.a. in LAC)
 - Problems exacerbated by lack of tenure



Smelter La Oroya in Junin, Peru, where emissions and tailings have had serious health impacts, now being remediated

Hydrocarbon production

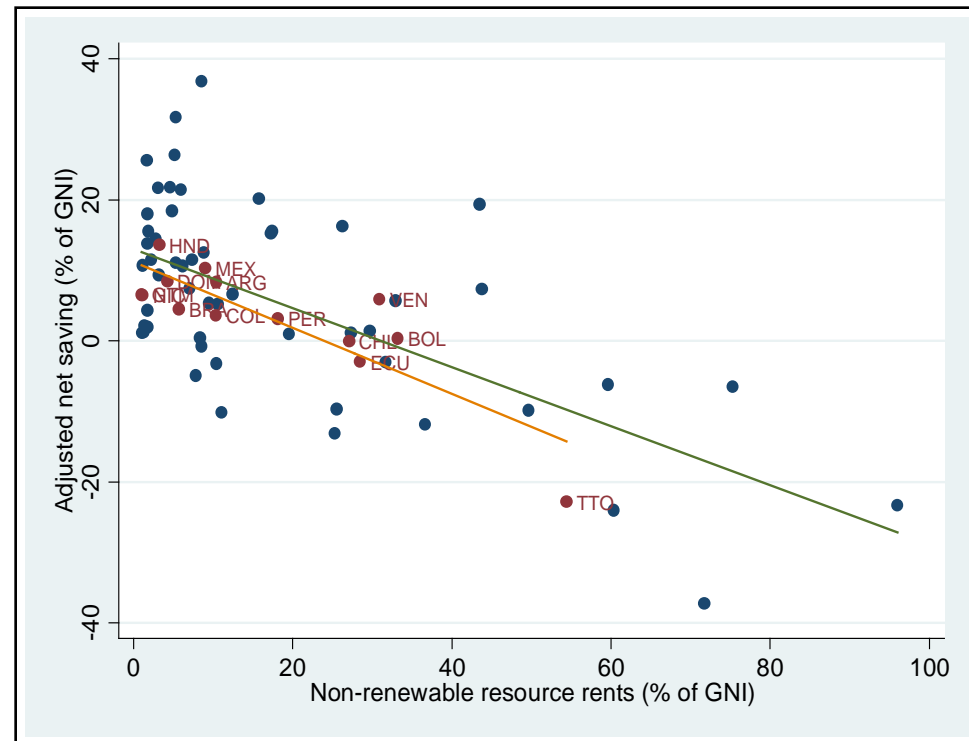
- Waste pits contaminated with oil or drilling mud
- Un-remediated spills
- Discharge of untreated produced water
- Installations decommissioned or abandoned without proper planning
- Flaring of associated gas

Managing commodity abundance and commodity price volatility...

It's all about saving, insurance, and good regulation

Long term savings needed to convert natural capital into other forms of wealth

- Sad reality: savings negatively correlated with resource rents
 - Too much of the rent is consumed, not invested
- Harsh reality: difficult to save
 - High social discount rate, given pressing development needs
 - Difficulties in organizing collective action in inter-temporal horizon
- The pace of *local* investment of LT savings matter – to avoid Dutch Disease
 - Save part of windfall abroad



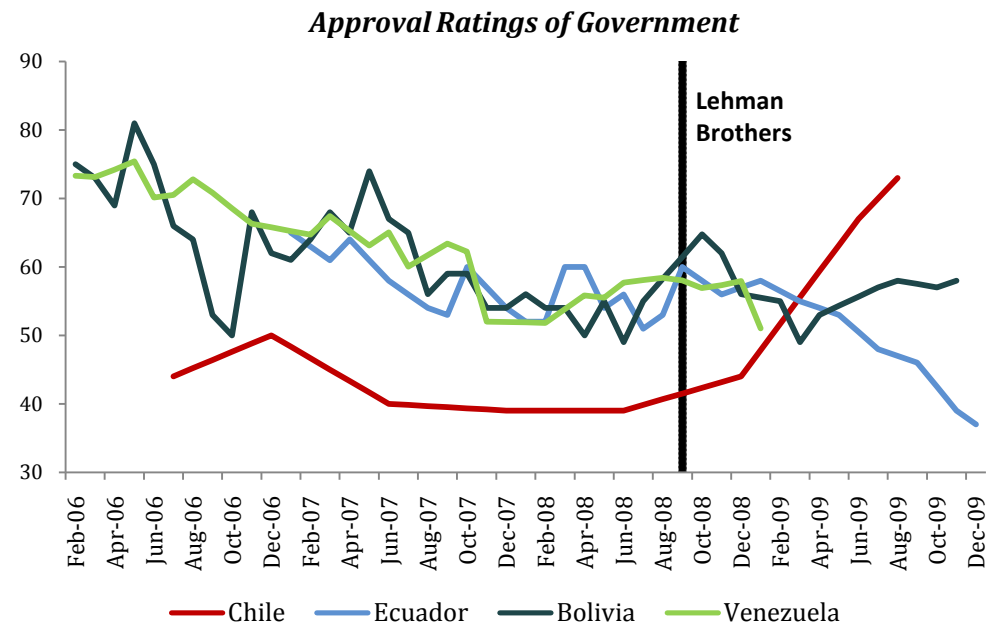
And short term volatility requires other strategies

- *Self protection*: reduce income volatility through diversification
 - Tradable sector diversification: avoid excessive real appreciation through saving and gradual local investment of windfall
 - Don't forget to nurture the goose that lays golden eggs!
 - Diversification of commodity production also reduces income volatility
 - Fiscal revenue diversification
 - Buffer adverse impact on the poor through targeted transfers
- *Market insurance* to hedge price volatility
 - Market for hedges and insurance products is incomplete, especially for the long-term ...
 - ... but emerging successful experiences in hedging (Mexico, Panama)
 - Political and legal risks hinder the use of market instruments

Self insurance (saving) to smooth fiscal spending and act counter-cyclically

- Many stabilization funds have failed because it is hard to resist political pressure to spend unduly during the boom

- Chile's experience shows that saving out of windfalls (to use in downturns) can have economic *and* political pay offs



Address environmental and social problems with up-front actions and new tools

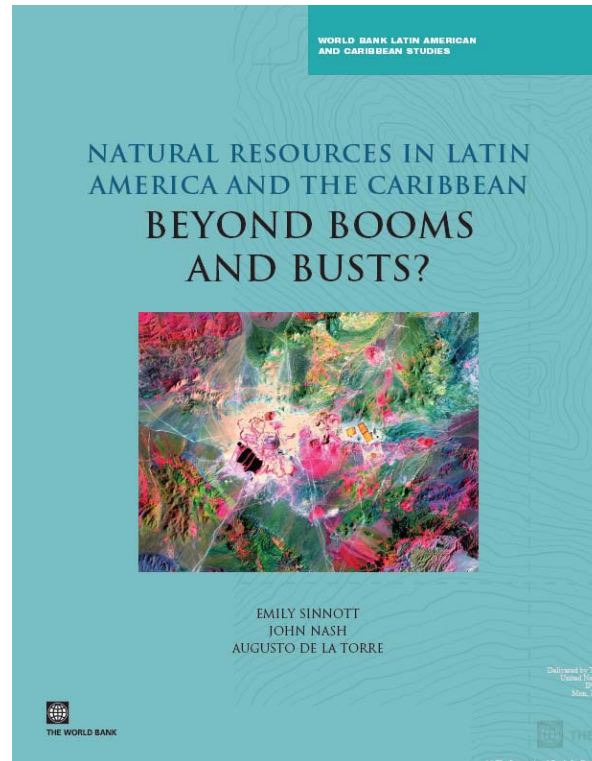
Reduce environmental impact:

- Don't subsidize environmental destruction!
- Take advantage of market-based approaches (tradable permits, PES)
- Use strategic environmental assessments
- Build local government and civil society capacity to help enforce environmental regulations

Reduce social impact:

- Grant secure land title in advance of large projects
- Educate residents to avoid unrealistic expectations
- Strengthen local capacity to negotiate
- Promote transparency (EITI)
- Avoid resettlement if possible

Thank you !



<http://go.worldbank.org/O43ZXDBC80>