

Comments on
“Applying the Growth Diagnostics
Approach: the Case of Bolivia”
By Sara Calvo

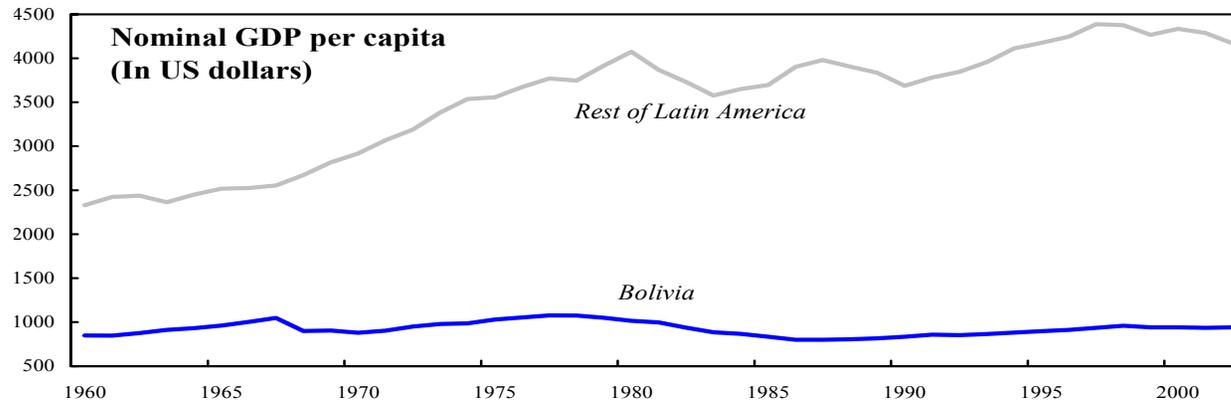
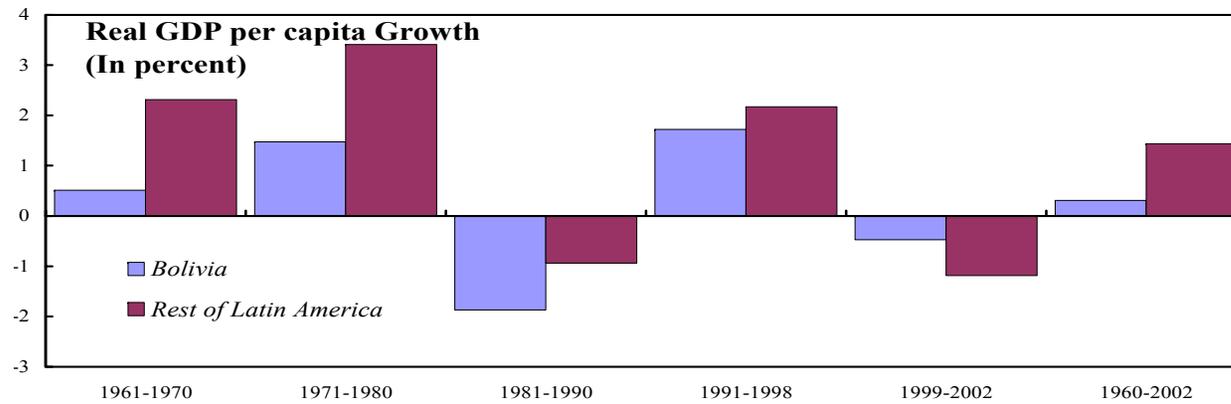
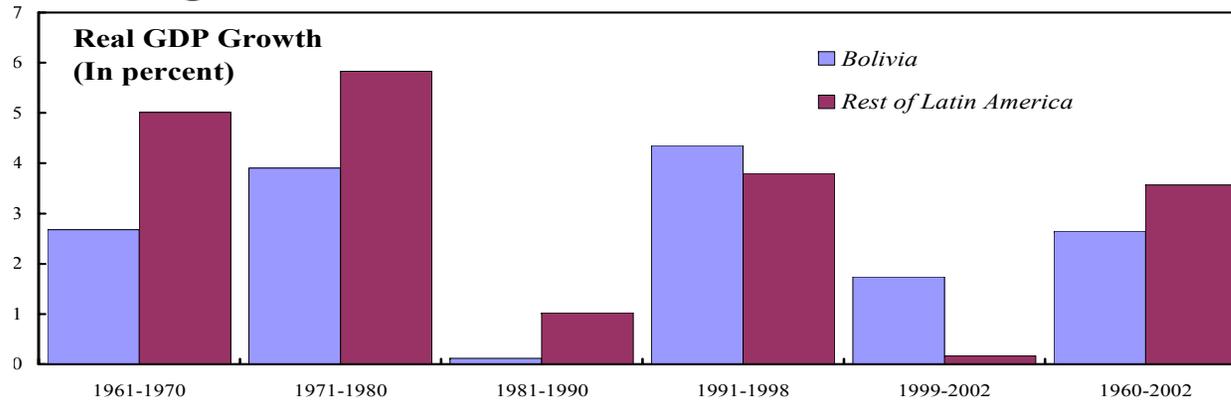
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Stylized Facts on Bolivia

- Over the long run, growth in Bolivia has been poor compared to the rest of South America—especially in per capita terms (see Figure 1).
- As in the rest of South America, the contribution of TFP has been minimal, but capital accumulation has also been low (see Table 1).

Figure 1. Bolivia: Relative Growth Performance



Source: IMF

Table 1. Bolivia: Sources of Growth 1971-2002

Period	Output	Contribution of		
		Labor	Capital	TFP
1971-1980	3.9	1.9	1.7	0.4
1981-1990	0.2	1.8	0.0	-1.7
1991-1998	4.4	1.4	1.1	1.9
1999-2002	1.7	1.2	1.9	-1.3
1971-2002	2.6	1.7	1.0	-0.1
Memorandum item:				
Rest of Latin America 1971-2002	3.1	1.7	1.5	0.0

Growth Diagnostics approach

- Different countries have different binding constraints to growth.
- Use a decision tree to spot the binding constraint.
- In effect, a checklist and an algorithm for moving through the checklist.

Results for Bolivia

- Points to the high risk of appropriation of returns, due to macro and micro risks, as the binding constraint rather than lack of innovation.
- Rules out education and infrastructure as binding constraints.
- No clear conclusion on whether high cost of finance is a binding constraint.

Positive aspects of approach

- The decision tree provides a nice framework to analyze constraints to growth.
- In the case of Bolivia, the education result shows the potential power of the approach: brain drain, and rates of return and unemployment rates by educational level suggest no shortage of educated labor.

Problems with the approach

- No clear evidence on a specific binding constraint, but rather many of the usual explanations. Paper points to fiscal and financial sector fragility, poor enforcement of contracts, a poor bankruptcy law, and undiversified exports.
- The evidence ruling out infrastructure and innovation as constraints is not convincing.

Innovation

- Paper suggests that innovations are in line with what could be expected given Bolivia's GDP per capita.
- However, Figure 10 shows that at both the 4 and 6 digit level (particularly the latter), Bolivia is below the regression line.
- A larger number of exports to more countries (Table 6), rather than reflecting innovation, could simply reflect increased real globalization.

Infrastructure

- The landlocked nature of Bolivia and returns to road rehabilitation of 40-50 percent suggest that inadequate infrastructure is an important impediment to growth.
- Other papers (Lora 2001, IMF 1998) have argued that poor infrastructure is a major impediment.

Overall thoughts

- In sum, this attempt at analyzing Bolivia through the prism of a growth diagnostics approach does not rule out much as possible binding constraints to growth.
- A growth diagnostics approach is unlikely to be able to substitute for other approaches (such as panel growth regressions), but could provide a useful complement.

Next Steps

- To “rule in” a small set of binding constraints may require a more detailed comparison of Bolivia with a small set of Latin American countries and/or low income countries that have increased growth after reducing identified binding constraints.
- Two major facts need to be explained in any approach: (i) the lack of convergence of per capita income with the rest of South America; and (ii) the poor contribution of TFP.