

Growth and innovation in resource-based economies: evidence and explanations

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Issues

- In much development theory, there is a lack of awareness of empirical features of growth
- In particular, weak treatment of where innovation happens, and what kinds of industrial structures are associated with growth
- There is a 'conventional wisdom' that resources and low-tech equate with poverty - a 'resource curse'
- This not consistent with empirical evidence

Empirical points...

- Many small, open, resource-based economies have developed strongly and are at the world income frontier (Sweden, Norway, Finland, Netherlands, Denmark, Australia, Canada etc)
- Large economies too are resource-based (Russia, USA)
- Some resource-based economies are developing strongly at the present time in resource sectors (Chile, Brazil)

Resources defined...

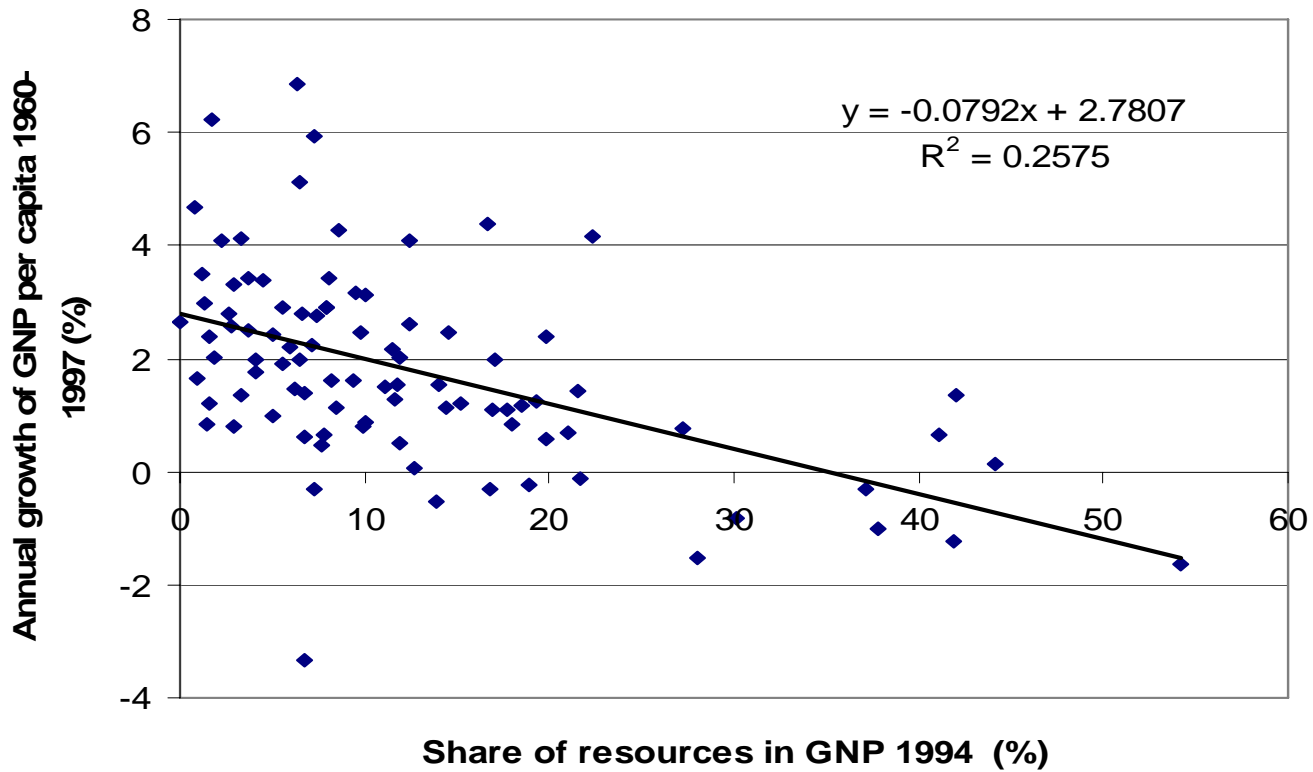
- Minerals (metallic ores, precious stones etc)
- Oil and gas
- Coal
- Timber
- Agricultural and horticulture

Background

- 1950s-1970s – Mainstream vs Marxist debates in development theory. Prebisch/Singer hypothesis.
- Sachs and Warner (1995), 'Natural resource abundance and economic growth' formalised long-standing idea that resources inhibited growth
- Neo-Schumpeterian ideas about sectoral structure of growth –the key issue is what you do, not how you do it.
- Recent work challenging the 'resource curse' hypothesis; recent work on innovation in low-tech sectors
- General absence of innovation and knowledge-related issues in studies of resources, other than idea that manufacturing is the key source of learning and productivity growth

Growth and resources

**Figure 10. Economic Growth and Resources
1960-1997**



Economic explanations

- Dutch disease – exchange rate and labour supply effects
- Declining terms of trade in primary commodities and instability in commodities markets
- Rent seeking behaviour
- Linkages

Political explanations (following Michael Ross)...

- Cognitive (short-sightedness among policymakers)
- Societal (empowering of elites that hinder growth)
- State-centered (resources undermine state institutions, or create cumbersome state enterprises)

How have resource-based economies developed?

Three broad explanations:

- Major technological and infrastructure upgrading within resources sectors
- Development of upstream and downstream industries - turning linkages into 'development blocks'
- Exploitation of resource 'booms' - use of fiscal and external effects to promote structural change

Some hypotheses...

Four suggestions about growth in resource-based economies:

1. Institutional structures are critical to early growth, especially with reference to property rights, income distribution, finance and risk management
2. Control of key knowledge resources is central to long-run resources growth
3. The micro-macro structural impacts of resource booms play a strong role in shaping long-run growth
4. The ability to create viable upstream and downstream linkages accounts for a significant part of growth in small advanced resource-based economies