THE RESOURCE CURSE: CAUSES AND CURES

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The Resource Curse

• The belief or hypothesis that natural resource wealth and its exploitation hinder rather than help economic growth in developing countries
Overview

- Origins
- Possible Causes
- Suggested Cures
Origins – Conventional View

• Rich resource deposits are assets
• Traditional production function
  \[ Q = f (K, L, N) \]
• So mining and resources create wealth and foster development
Origins – Resource Curse

• Empirical evidence
  – Case studies of individual developing countries (Auty, Gelb, and others in late 1980s and early 1990s)
  – Cross section studies of many countries (Sachs and Warner in the late 1990s and early 2000s)
Origins – Sachs & Warner

Minerals and energy production as a share of GDP in 1971

Average rate of real per worker economic growth, 1970 - 1990
Overview

• Origins
• Possible Causes
• Suggested Cures
Causes

- Declining terms of trade
- Intrinsic nature of mining
- Volatile market prices
- Dutch disease
- Allocation and use of rents (profits)
Causes – Declining Terms of Trade

- Prebisch Singer thesis (1950)
  - Declining terms of trade
  - Growth of demand
  - Technology and costs

\[ TT = \frac{P_{\text{exports}}}{P_{\text{imports}}} \]
Causes – Declining Terms of Trade

• Import substitution policies
  – Adopted by many LDCs in 1950s, 1960s, and 1970s
  – High tariffs, nationalizations
  – Generally disappointing results
  – Largely abandoned in 1980s
Causes – Nature of Mining

- Enclave operations in remote areas
- Supplies and equipment imported
- Concentrates sent abroad for processing
- Skilled labor from abroad
- Little use of unskilled labor
- Few benefits for country other than taxes
Causes – Price Volatility

- Price Volatility
- Capacity Constraint
- Supply
- Output

Graph showing the relationship between price and output, with a sharp increase when capacity constraint is reached.
Causes – Price Volatility

![Diagram showing price, capacity, and constraint relationships.]

- Price Volatility
- Capacity Constraint
- Supply
- Price \( P_m \)
- Output \( Q_m \)
- Demand \( D_m \)
- Capacity Constraint
Causes – Price Volatility

Price

\( P_b \)

\( P_m \)

Output

\( Q_m \)

Supply

\( D_m \)

\( D_b \)

Capacity Constraint
Causes – Price Volatility

Price Volatility

- Price
- Capacity
- Constraint
- Supply

$P_b$: Product
$P_m$: Market
$P_r$: Retail

Output

$Q_m$: Quantity

Graph showing supply and demand curves with price points $P_b$, $P_m$, and $P_r$. The graph illustrates the relationship between price and quantity, with capacity constraint indicated by a vertical line.
Causes – Price Volatility

- Government revenues and foreign exchange earnings vary over business cycle
- Both down during recessions inhibiting expansionary monetary and fiscal policies
- So planning for both short and long runs difficult
Causes – Dutch Disease

• Not really a disease and not particularly Dutch
• Macroeconomic structural adjustments caused by a booming sector
• Wage rates rise and domestic currency appreciates
• Hurts industries, such as manufacturing and agriculture, that have to compete at home or abroad with foreign companies
Causes – Dutch Disease

• Not a problem unless we make other assumptions
  – After the boom labor and other resources have problems moving to other sectors
  – Manufacturing has externalities (e.g., learning economies) that are lost

• Can transfer market volatility from minerals to other sector, as Canada, Australia, and Chile illustrate
Causes – Rent Allocation and Use

1. Rent dissipation
   - Other stakeholders (organized labor, NGOs, local communities, and so on)
   - Rent diverting activities (civil strife, wars)

2. Rent distribution between producing companies and government
   - If too much of rents go to companies, potential benefits from mineral wealth are lost
   - Same true if too little of the rents go to companies
Causes – Rent Allocation and Use

NPV of Taxes

Rate (percent)

0  T  100
Causes – Rent Allocation and Use

3. Government use of its rents
   – Difficult to spend funds wisely
   – Incompetence, poor planning, political pressures
   – Receives little government attention
Causes – Importance

• Terms of trade
  – Resource prices may not be falling relative to other prices
  – Nor may it matter

• Intrinsic nature of mining
  – Enclave operations less prevalent today
  – Tax revenues alone can greatly stimulate development if used wisely

• So mining countries probably should focus on the three other causes
Overview

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Cures – No Silver Bullet

• How have some countries (eg, Norway, Chile, Botswana) avoided the resource Curse?
  – Not totally clear
  – Mineral wealth and economic development part of the broader question of what promotes economic growth
  – Still much we do not know
  – No readily apparent panacea or silver bullet
Cures – Suggestions

• Cartels, international commodity agreements and other collective efforts to control commodity markets have generally not worked

• Individual country stabilization funds
  – Designed to protect a country from price volatility and the Dutch disease rather than alleviate price volatility
  – Record mixed, but some successes
  – Chile over past 8 years
Cures – Suggestions

- Strong institutions and good governance
  - Helps explain success of stabilization funds in some countries
  - Particularly important coping with the last cause – the allocation and use of rents
  - Determinants – transparency and an anti-corruption culture
  - Here too we need to know more