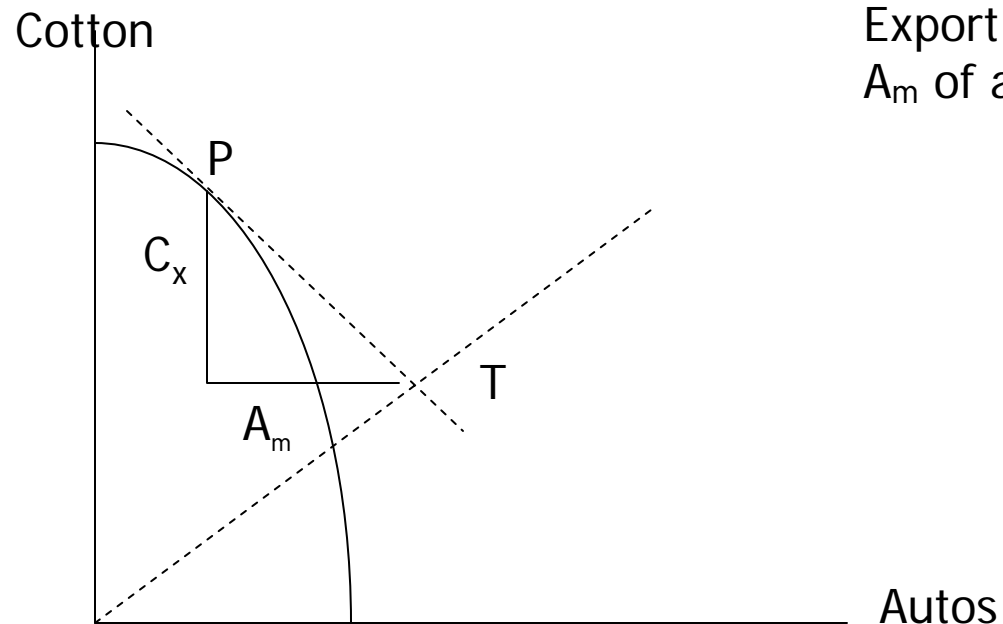


Lectures 6 – 7, 9/22-24

AAE 374 Fall 2008

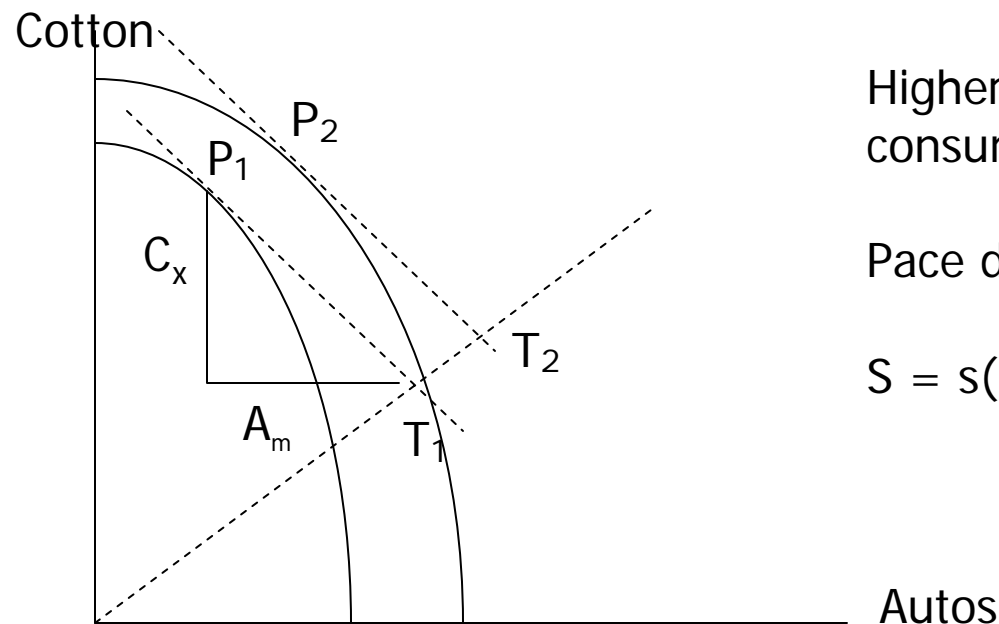
- “Lessons” - Comparative Advantage
- Critiques of Comparative Advantage
 - Structuralist 1: Declining Terms of Trade, Unequal Exchange
 - Structuralist Critique 2: Technologically Stagnant
 - Resource Curse: Dutch Disease, Institutions, and Foreign Exploitation

Basics of Comp. Advantage



Produce at P, Trade to T,
Export C_x of cotton, Import
 A_m of autos.

Growth and Trade: Capital accumulation in the South



PPF shifts out with more capital.

Higher production, higher consumption.

Pace determined by savings.

$$S = s(\text{GDP})$$

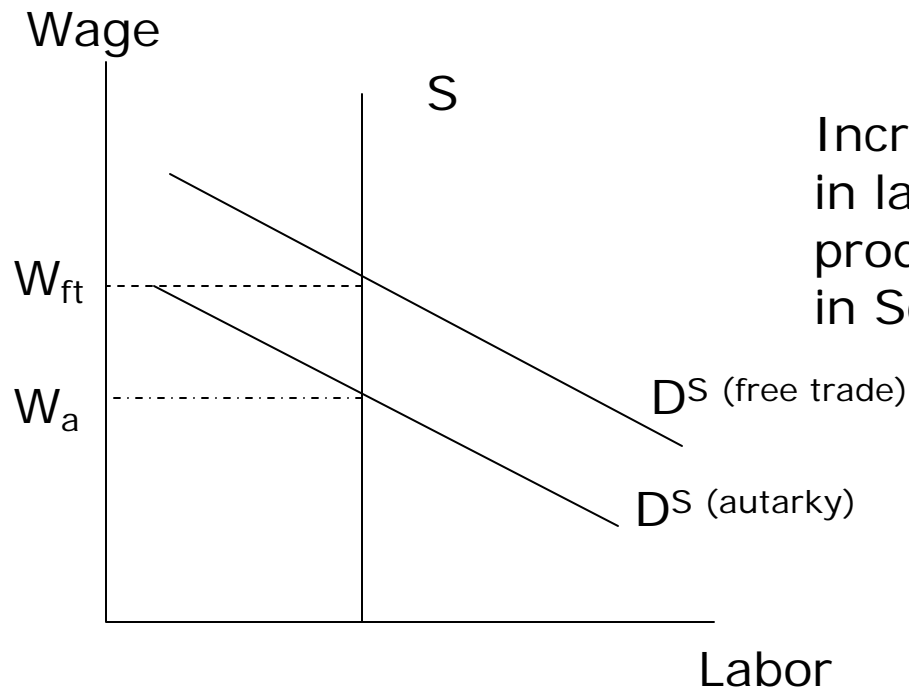
Autos



Factor Price Equalization

- What is this notion?
 - Free trade leads to a convergence of payment rates (wages, profit rates) to labor & capital between trading countries.
- Adjustment of production in South leads to more demand for what?
 - Labor because cotton is labor-intensive
 - How is this S-D imbalance resolved?

Factor Price Equalization 2



Increased demand for labor in labor-intensive cotton production increases wages in South.



Factor Price Equalization 3

- Converse would be true in North. Wages would fall as production shifted to more capital intensive autos. Returns to capital rise in N and fall in S.
- Is this good?
 - Rising wages in S, good for poor
 - Convergence of living standards internationally.
 - Who contests this outcome?
 - Labor in N, Capital owners in S?



Factor Price Equalization 4

- Full free trade equalizes returns to capital and labor internationally – serves as a substitute for movement of factors.
- Does this mean equalization of income in N, S?
 - Not if N owns more of the capital,
 - Yes for workers w/out capital holdings.



Free Trade = Free Factor Flows

- Note first that with FPE, free trade and free factor flows give same outcome.
- Who would and would not like this?
 - Yes – Capital owners in N, Labor in S
 - No – Workers in N, Capital in S
- FPE in the real world? Why not?
 - Impediments to trade (natural and policy)
 - More to trade than H-O model w/ perfect factor mobility within economies and free access to diverse technologies across economies.
 - Explore later implications of: factor immobility, technology access, and increasing returns.



Critiques of Comparative Advantage: Structuralist View

- Declining Terms of Trade Critique
 - P_C = Export Price of Cotton
 - P_A = Import Price of Autos
- Over time, what happens to P_C / P_A ?
 - Declines, trends down
 - So What?
 - Same cotton production, buys less autos, and provides less income.
 - Primary product comparative advantage is problematic, earning less over time.



Logic of Declining P_C/P_A Argument

○ Prebisch

- Uncompetitive supply conditions in N and competitive supply conditions in S
- Unions and companies raise prices through market power in labor markets and product markets, respectively.

○ Singer

- High income elasticity of demand for manufactured goods, low income elasticity of demand for primary products
- Relative demand rises faster for manufactured goods, pushing their prices up compared to primary products.

○ Prebisch-Singer Hypothesis:

- Supply and demand conditions push terms of trade down over time.
- Declining terms of trade reduce benefits of comparative advantage in primary products.



Declining T of T/Unequal Exchange: Lewis Critique

- Stagnating wages and Falling T of T
 - Low productivity in food/subsistence agriculture lowers wages in S relative to N (see handout)
 $a_f^N < a_f^S \rightarrow w^N > w^S$
 - $P_T = a_t^S w^S$ Price of primary product (tropics)
 - $P_I = a_i^N w^N$ Price of industrial product (temp)
- Productivity improvements in primary products (falling a's) in S lead to falling prices.
- Rising productivity of labor in food agriculture in N pushes up w^N which pushes up prices of P_I .
- S-S migration reinforces low wages, reverse is true for N-N migration in late 19th century.



Discussion of Structuralist Critique 1: Prebisch-Singer and Lewis

- Are they logically coherent?
- Which are the most persuasive?
- What assumptions about factor mobility underlie the structuralist view?



Discussion Continued:

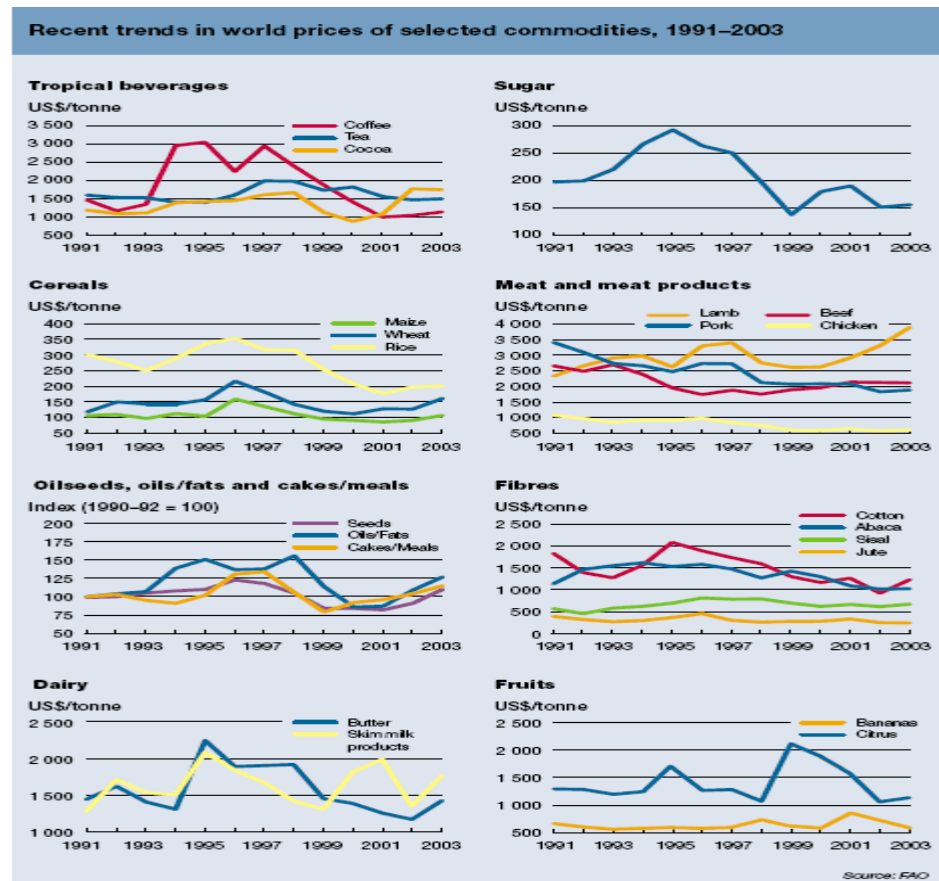
- Empirical Evidence for Declining Terms of Trade?
 - Volatility of primary product prices is non-controversial.
 - Major periods of declining T of T.
 - But, empirical issue hinges a lot on starting and ending point of comparison.

Terms of Trade 1991-2003, FAO Data

What if we compare
Coffee 1991-1997?
Coffee 1997-2002?
Coffee 1991-2000?

What about bananas?

What about citrus?





Structuralist Critique 2: Technological Change/Stagnation

- Growth is not just about capital accumulation but also tech change or improvements in productivity.
- Are primary products a dead-end?
 - Learning spillovers?
 - Labor skills?
 - Linkages to other more technologically advanced activities?
 - Is there a primary product → manufacturing path?



Your Views:

- What factors might shape your answer to this question?

- Empirical evidence supporting or negating this critical view?



Resource Curse: Overview

(http://en.wikipedia.org/wiki/Resource_curse)

○ Countries with rich natural resource bases have worse growth and development outcomes. Why?

- Dutch Disease (distorts structure of economy) +
- Excessive borrowing (on promise of future \$\$) +
- Lack of Diversification (back to Dutch Disease)
- Rent-seeking – Conflict +
- Feeble taxation systems (Guatemala example) +
- Corruption (back to Rent-seeking) ⇒

Lack of attention to human capital & democracy



Why Called “Dutch Disease”? Why Not the Venezuela Disease?

- Dutch Disease Story

- Venezuela (<http://www.state.gov/r/pa/ei/bgn/35766.htm>)

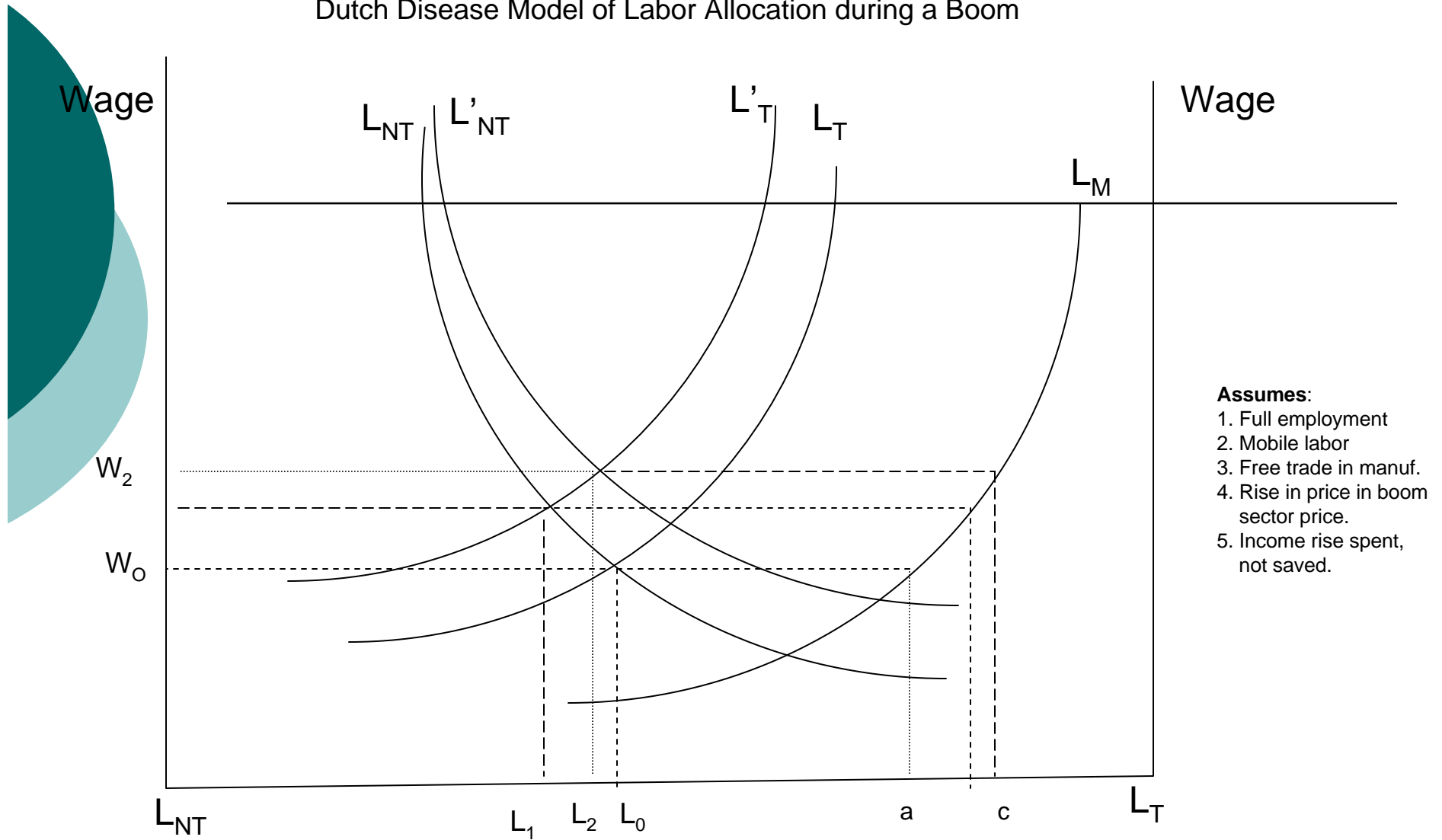
- Exports (2006) = \$64.5 billion, oil = \$57.8 billion
- GDP = \$6,250 per capita, 15% = petroleum, 17% = manufacturing, ag = 3%



Resource Curse: Excessive Borrowing and Profligacy

- Logic of borrowing?
 - Resource reserves (esp. when prices are high) provide high revenue stream
 - Borrowing allows govts to move faster on development, redistribution, or corrupt actions (often all 3)
- Examples of excessive borrowing:
 - Mexico, Venezuela, Algeria, Nigeria, and Ecuador with oil riches. One of the main roots of the 1980s debt crisis in many developing countries.
- Why is it a problem?
 - Exacerbates Dutch Disease (increases spending effect)
 - Set up debt traps with volatile commodity prices
 - Undercuts prudent taxation and expenditure policies.

Dutch Disease Model of Labor Allocation during a Boom



Assumes:

1. Full employment
2. Mobile labor
3. Free trade in manuf.
4. Rise in price in boom sector price.
5. Income rise spent, not saved.

1. Rise in boom sector price shifts out the L_T curve – Resource Movement Effect
2. Rise in demand shifts out the L_{NT} curve – Income Spending effect
3. Net Effect – Decline in labor in manufacturing (ac), shifted to NT and Boom sector



Dutch Disease Distortions

- Increased Dependence on Boom and Non-Tradable (NT) Sectors →
VULNERABILITY TO PRICE SHOCKS
but only if what?
- Rising NT prices means inflation.
- Decline of Tradable Sector:
Dynamic issue loss of competitiveness
- Technology and learning associated with NT and boom sector
- Again, these issues assume what about learning and factor mobility?



Your Views on Dutch Disease?

- Conceptually

- Strengths

- Weaknesses:

- Empirically – How about Venezuela?

- Exports = \$64.5 billion, 2006, oil = \$57.8 billion, 90%
 - GDP/Capita=\$6,250; Petroleum = 15% of GDP, Man. = 17%.
 - Inflation = 15% per year recently compared with 3-4% US.
 - Big Trade Surpluses recently with lots of capital flowing where? Into local construction and development projects and assistance in S America.
 - More? (<http://www.state.gov/r/pa/ei/bgn/35766.htm>)



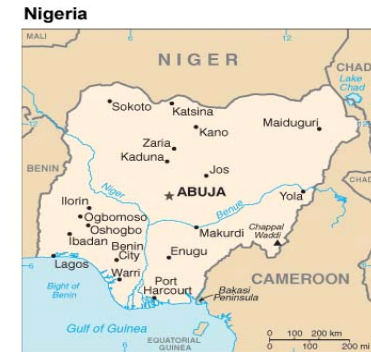
Resource Curse: Lack of Diversification

- Basic logic of why?
 - Dutch Disease model explains
 - Expectations of easy wealth
 - Incentives for entrepreneurs and innovators shifted to wealth-grabbing
- Evidence of lack of diversification
(boom sectors dominating exports, Boom and non-tradables sector dominating GDP)

Empirical Evidence on Lack of Diversification

○ Nigeria

- Petroleum, 95% exports, 20% GDP, once a food exporter now importer,
- 70% labor in agriculture, 17% of GDP.



○ Ecuador

- Petroleum, 56% of exports, Bananas 12%
- Oil-mining, 24% of GDP
- Ag 6% GDP, 8% of labor
- Services 60% of GDP, 68% of Labor



○ Iran

- Petroleum, 80% of exports,
- Ag 11% of GDP 30% of labor
- Unemployment 20%





Resource Curse: Rent-Seeking Behavior

- Huge incentives to capture the “rents” (excess profits of resources). Foreign exploitation potential is high.
 - Ex: \$80/bbl of oil versus \$8/bbl prod costs.
 - Rents = Super-normal profits (graph in class)
- Political economy of country dominated by efforts to control, co-opt, & capture rents.
- Crowds out other kinds of political and economic initiatives.
- Conflict becomes central (as does potential for dictators or authoritarian regimes).



Resource Curse: Feeble Taxation Systems

- State control of resources (nationalization or taxation) reduces need for development of other tax systems.
 - Oil-rich countries get almost all of their government revenues from state oil company or taxes.
- Lack of public commitment to taxation system makes government vulnerable to volatile prices of oil or other leading resource.
- Also undercuts commitment to public expenditures.
 - Low investment in public education very common in resource rich countries (competitiveness of workers lower priority when resource rents are main source of wealth).
Low commitment to democracy as well if public sector not viewed as carrying out allocation of people's tax revenues.



Resource Riches Not Always a Curse

- Empirical examples
 - U.S., Canada, Australia
 - Chile (copper, fruits, lumber)
 - Norway and Sweden
 - Botswana
 - Malaysia
 - Brazil?
- Why?
 - Types of resource riches (ag/ind. Links)
 - Types of institutions in place
 - Size of economy
 - Timing of booms
 - Policy Choices



Cursed by Resources or Institutions?

- Institutions hurt by resource riches?
Or
- Institutions don't matter
Or
- **Resources interact with good/bad institutions to be blessing/curse**
- Mehlum et al view rents as an opportunity or curse depending on how they are allocated which depends on quality of institutions.

Institutions hurt by resource riches

- Conflict/civil wars to control resource rents:
 - Sudan, Chad, Nigeria, Angola, Congo
 - Afghanistan, Colombia, Iraq
- Could be dependent on type of resource and potential for “rents”, but not always and everywhere leading to conflict.

Commander Fara Dagogo is a member of the biggest rebel group, the Movement for the Emancipation of the Niger Delta, or MEND. The commander talks with The Takeaway about why he is sabotaging his country's oil production.

<http://www.thetakeaway.org/archives/2008/09/17/6>
Press listen with control key on.





Institutions as Neutral?

- If we cannot prove institutions as always bad, then they are neutral, and it must be about Dutch Disease distortions.

- Mehlum et al say what about a dynamic between

Resources \longleftrightarrow Institutions

where the feedback can be positive or negative...



Institutions as foundational to good and bad outcomes

- Key distinction:
 - Productive push (entrepreneurs)
 - Rent-seeking push (warlords)
- Use two graphs to explore the balance between producer profits and grabber profits (see board)
- Growth paths of resource rich countries likely to be more heterogeneous than resource-poor countries.

Growth Paths of Resource Rich/Poor Countries with Good/Bad Institutions

Country B, B* - Resource rich

Country A, A* - Resource poor

- A* refers to good institutions
- No* refers to bad institutions

All start from original income level Y_0 .

Heterogeneity of growth path – Resource rich has higher variance than poor.

Could help to explain why simple statistical comparisons of mean growth rates would not work.

FIGURE 4
Growth Paths

