

## **The Growth and Development of Nations**

### *Midterm Exam 1*

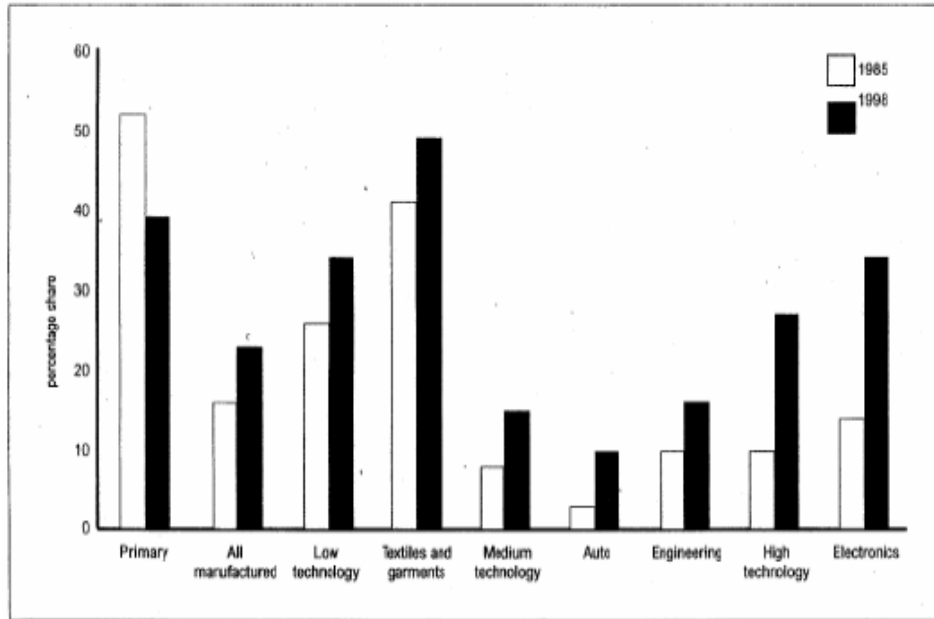
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## **Part 1 Short Answer Section: Answer 3 of the 5 questions**

1. What do we mean by the income spending effect in the Dutch Disease model? Why does it tend to lead to a more distorted economic structure during a resource boom? What basic policy could a government enact to dampen its effects?
2. Easterly talks about the “financing gap approach” to development policy:
  - a. What is the financing gap?
  - b. What effect would filling the gap have on per capita income growth according to the Harrod-Domar model?
  - c. Explain some characteristic of developing countries which might cause slow per capita income growth.
3. We discussed distinctions between rival/non-rival and excludable/non-excludable goods:
  - a. Given an example of a rival, non-excludable good.
  - b. Why is patent protection (that grants inventors monopoly power) often seen as a precondition for private firms to generate new technology?
  - c. Why might patent protection slow down technological growth?
4. Structuralist critiques of comparative advantage rest frequently on declining terms of trade concerns.
  - a. Explain one mechanism by which structuralists generate this prediction.
  - b. Explain at least one other key assumption that is necessary to make declining terms of trade a potentially serious long-term constraint on economic growth.
5. Explain briefly using the dynamic relationship between health and income why HIV-AIDS might lead to an inter-generational poverty trap. Given the logic of your argument, what type of policy response seems most crucial to avoiding long-term poverty traps.

## Part 2 Long Answer Section: Answer 1 of the 2 questions

**Question 1.** This question refers to the following Figure about developing countries:



**Figure 1.5**  
Share of developing countries in world exports: selected product groups (1985 and 1998)

Source: Lall 2001a

|         |   |   |   |   |   |   |   |   |   |
|---------|---|---|---|---|---|---|---|---|---|
| Column: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------|---|---|---|---|---|---|---|---|---|

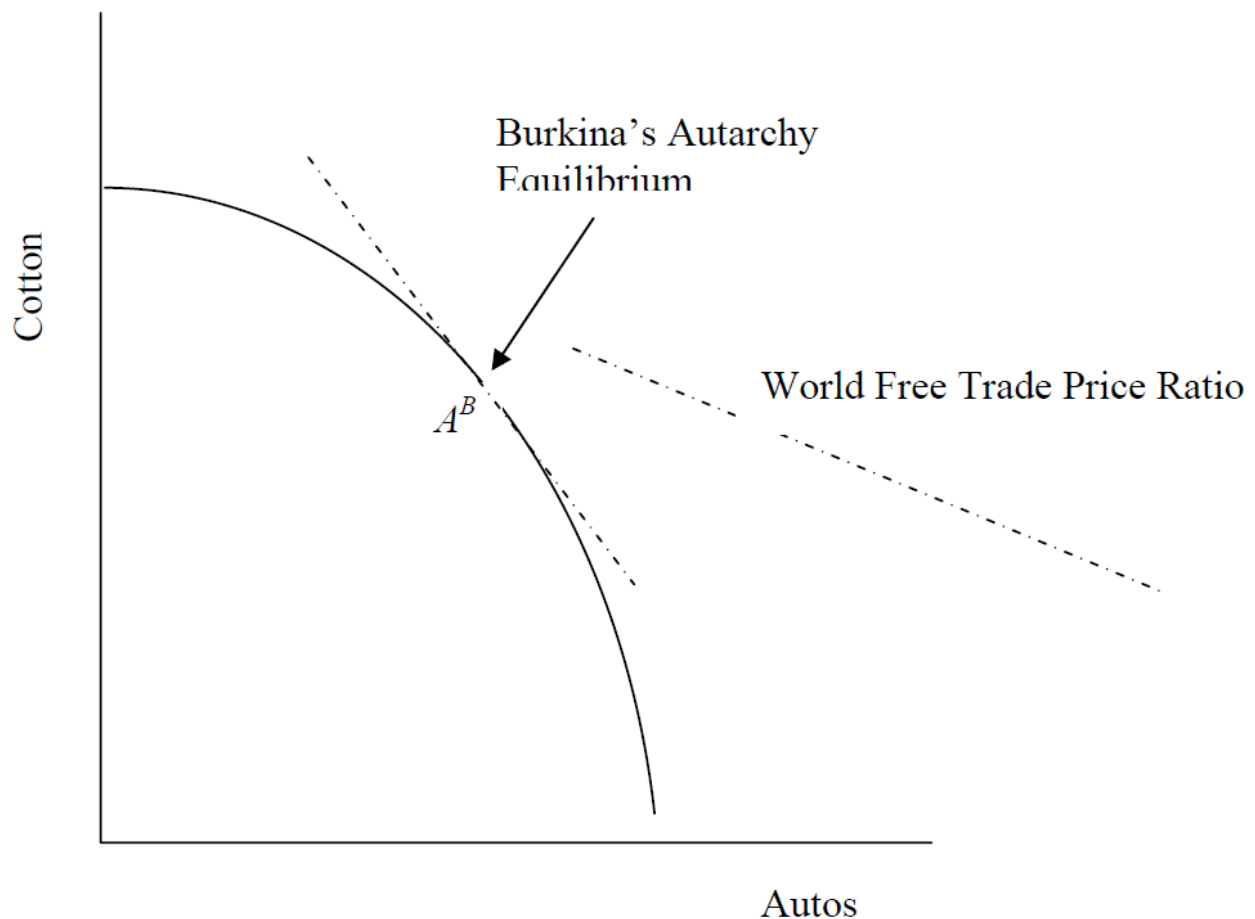
- Interpret the pattern displayed in the first two columns (Primary and All Manufactured) of the Figure.
- In the context of Heckscher-Ohlin Trade theory, explain a change which could account for the pattern you found in the first two columns.
- Now assume Columns 3-9 are ranked in order of increasing capital intensity. Considering the size of relative changes by column, what does Heckscher-Ohlin theory suggest about changes across the sectors between 1985 and 1998?
- In the context of the (extended) Solow model, explain a change which could account for the increase in exports of High Technology and Electronics products relative to other columns. **Make sure your explanation is a different mechanism than in Part (3).**
- An economist in Bananastan (a tropical developing country) makes the following statement: "Our national export has been bananas for 100 years. There are no incentives to generate economic growth. Consequently we will grow bananas forever." In light of your above answers:
  - Provide economic reasoning in the context of a trade or growth model that argues against the Bananastan economist's argument that predicts growth is not just around the corner for Bananastan.
  - On the other hand, provide economic reasoning about hypothetical conditions that can support the economist's argument that Bananastan (a tropical, developing country) faces obstacles to growth (**mention three**).

**Question 2.** This question asks you to think about the complex real world of north-south commodity trade using a relatively simple model of:

- 2 countries (the US and Burkina Faso)
- 2 commodities (autos and cotton)
- 2 factors of production (labor and capital).

Assume that autos are the relatively capital-intensive good, and that the US has a higher capital/labor ratio than Burkina Faso. The diagram below represents the production possibilities curve for Burkina Faso. Burkina's autarchy equilibrium is denoted  $A^B$  and the relatively steep line tangent to the production possibilities frontier represents the autarchy price ratio in Burkina. The relatively flat line represents the world price ratio that would exist under complete free trade.

### Autarchy Equilibria in North and South



1. Explain why the World Free Trade price ratio is so flat compared to Burkina Faso's autarchy price ratio.
2. Use this diagram to show how Burkina Faso can make itself better off if it specializes and produces a little more cotton and trades the extra cotton away for autos at the world price ratio.

3. The Oxfam report we read (“Finding the Moral Fiber”) reports that the US multi-billion dollar subsidies reduce Burkina Faso’s purchasing power from its exports by \$14 million. How do US subsidies have this effect? Using the production possibilities diagram, illustrate and explain the reduction in Burkina’s purchasing power that results from US subsidies.
4. Explain why an increase in US cotton subsidies would be expected to decrease Burkina’s production of cotton. If this change or structural adjustment were to take place, what would be predicted to happen to factor prices (the relative price of capital and labor) in Burkina Faso. Please explain your answer fully and indicate whether you think that this change would be a good thing or a bad thing.
5. Finally, the paper we read by Anderson and Valenzuela (“The WTO’s Doha Cotton Initiative”) estimates that cotton subsidies cost the US itself \$429 million in lost GDP.
  - a. Please explain how cotton subsidies can cost the US economy so much money.
  - b. Take a position on the following statement and explain your position using economic reasoning: “The US should keep its agricultural subsidies to maintain its large share of world agricultural exports.”