



AFRICAN ECONOMIC RESEARCH CONSORTIUM

JOINT FACILITY FOR ELECTIVES
JULY-OCTOBER, 1995

AERC MA COLLABORATIVE

INTERNATIONAL ECONOMICS

First Session: Final Examination

TIME ALLOWED: 3 Hours

Wednesday 16, 1995

INSTRUCTIONS: Answer four (4) questions, any two from each section.

Note: Use of graphs and mathematical representations (where applicable) is highly recommended.

SECTION 1: TRADE THEORY AND EMPIRICAL TESTS OF TRADE THEORIES

1. How does the Specific Factors model help to explain the apparent contradiction to the predictions of the Stolper-Samuelson theorem? Explain your answer fully.
(16 points)
2. What are the salient features of the Brander-Krugman model of oligopolistic competition? Extend your discussion to Reciprocal Dumping.
(16 points)
3. Write notes on:
 - a) The Leontief Paradox in the presence of factor intensity reversals (FIRs).
(6 points)
 - b) Measures of intra-industry trade and the categorical aggregation problem.
(10 points)

SECTION II: TRADE POLICY AND ECONOMIC DEVELOPMENT

4. a) What are voluntary export restraints (VERs)? (4 points)
- b) Illustrate the effects of a VER for a large country case. (5 points)
- c) What are the economic effects of an export subsidy for a small open economy? For simplicity use partial equilibrium analysis. (5 points)
5. It is argued that the Direct Resource Cost (DRC) ratio is a broader measure than the effective rate of protection (ERP) coefficient.
- a) Explain the meaning and importance of the concepts DRC and ERP (for the latter include many and non-traded inputs). (6 points each)
- b) What is the relationship between DRC and ERP? (2 points)
6. Define:
- a) at least three (3) measures of terms of trade and give a brief analysis of the alleged reasons for the deterioration of the commodity terms of trade for developing countries. (8 points)
- b) three (3) types of technical progress (your definitions should include the relevant diagrams). (6 points)
7. Explain and demonstrate the following:
- a) Metzler's Paradox. (5 points)
- b) Effects of a customs union, in a partial equilibrium setting, when both prospective members levy a prohibitive tariff. (9 points)

END OF EXAM



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**COLLABORATIVE MA PROGRAMME
JOINT FACILITY FOR ELECTIVES (JFE)**

FINAL EXAMINATIONS

INTERNATIONAL ECONOMICS

October 5, 1994

Question 1: Real exchange rates, GDP and GNI

Give a definition of real exchange rates, and explain the difference between Gross Domestic Product and Gross National Income. (6 marks)

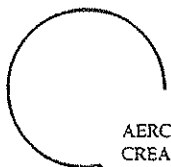
Question 2: Devaluation and Income in LDCs

- a) For LDCs, devaluations are some times claimed to have negative effects on domestic income. Which are the most likely theoretical explanations for a reduction in income?
- b) In the general case, must devaluations in developing countries result in a fall in income, why/why not? According to your opinion.

(12 marks)

Question 3: Overshooting of exchange rates

Explain Dornbush's overshooting model and, give examples of policy conclusions of the model. (12 marks)



got funded sometimes because project officers were self-interested.

Nonetheless, I would like to see participants realize that of utmost importance in discussions of debt relief is the credible commitment needed from countries seeking relief—that the windfall will be prudently utilized. Many countries in subSaharan Africa have leaders and parties that prebend. That is practice “privatization of ~~the~~ state resources.” So, how can we be assured that the payments that would have gone to the forgiven debts would not end up in private pockets?

5. Consider the following structural equations of the classic exchange rate overshooting model of Dornbusch (1976):

$$r = r^* - \theta(s - \bar{s}) \quad (1)$$

$$m - p = \phi y - \lambda r \quad (2)$$

$$y = u + \delta(p^* + s - p) + \gamma y - \sigma r \quad (3)$$

$$\dot{p} = f(y - \bar{y}) \quad (4)$$

- (a) Interpret the above four structural equations which can be used to describe the relationships between the money supply, price level, output and exchange rate along the path of convergence to the steady state.
- (b) Suppose that the impact of a one-time permanent increase in money supply can be described by

$$\frac{ds}{dm} = 1 + \frac{1}{\lambda\theta}, \quad (5)$$

where $\frac{1}{\lambda\theta}$ denotes the reaction index. Characterize the adjustment to equilibrium in a hyper-inflationary environment.

Answer: (a) Equation 1 represents the uncovered interest parity assumption, and expresses the expected rate of depreciation of domestic currency [interest differential] in terms of both the gap between the current and equilibrium exchange rates and the model consistent parameter. Equation 2 is the money market-clearing condition, in which the demand for real money balances is assumed to depend positively on the level of domestic real income (output) and negatively on the domestic interest rate. Equation 3 is the goods market-clearing condition, in which the demand for domestic output is positively related to both domestic real income and the relative price of foreign output, and negatively to the domestic interest rate. Equation 4 is an assumption about the process of price adjustment—inflation is a function of excess demand or deviation from steady state output. (b) The main point to note here is that Dornbusch (1976) is a continuous-time monetary model with sticky prices. Sluggish price adjustment drives the overshooting result that is obtained, with expectations constrained to be consistent with the parameters of the model. If as assumed, agents never make mistakes, they will realize that prices adjust instantaneously in a hyper-inflationary environment and so prices will be expected to fully adjust immediately to increases in nominal money. The reaction index will tend to zero, and therefore, adjustment to equilibrium immediate.

ALL QUESTIONS ARE WEIGHTED EQUALLY. GOODLUCK!