

EXAMINATION

PART I. Answer **one** of two questions.

1. Consider a closed economy that produces two goods, cars and computers, using a single factor of production, labor, according to the production functions

$$y_{car} = \ell_{car} / 3$$
$$y_{comp} = \ell_{comp}.$$

The representative consumer has the utility function

$$u(c_{car}, c_{comp}) = \log c_{car} + \log c_{comp}$$

and is endowed with $\bar{\ell} = 30$ units of labor.

- (a) Define an autarkic equilibrium for this economy. Calculate the equilibrium. Use a diagram that includes a production possibility frontier to illustrate your answer.
- (b) Suppose now that the country is opened to trade where the international terms of trade are $p_{car} / p_{comp} = 1$. The country is so small that this price ratio stays constant even as the country trades with the rest of the world. Define a trade equilibrium for this small open economy. Calculate this equilibrium. Use the diagram from part a to illustrate the gains from trade.
- (c) Discuss the strengths and weakness involved in using the model in parts a and b to analyze trade liberalization. If you can, explain how the analysis can be modified to overcome some of the weaknesses that you discuss.

2. Consider an economy with the following input-output matrix:

	Agr.	Mfg.	Ser.	Con.	Inv.	Exp.	Total
Agriculture	3	4	1	8	1	6	23
Manufacturing	6	8	6	10	6	4	40
Services	1	2	3	22	2	0	30
Imports	4	5	1				10
Tariff Revenue	1	1	0				2
Labor Compensation	4	15	12				31
Returns to Capital	4	5	7				16
Total	23	40	30	40	9	10	

Here, Agr. = Agriculture, Mfg. = Manufacturing, Ser. = Services, Con. = Consumption, Inv. = Investment, and Exp. = Exports. All transactions are measures in 100 billion 1990 pesos.

- What are the national income and product accounts for this economy?
- Explain how you could use this, and possibly other data, to calibrate an applied general equilibrium model. To make your discussion concrete, calibrate a representative domestic consumer and a production technology for the domestic manufacturing sector.
- Briefly explain how you would use the model discussed in part b to evaluate the impact of a change in trade policy.
- Briefly discuss the strengths and weaknesses of the sort of analysis discussed in parts b and c.

PART II. Answer **one** of two questions.

1. The political debate that preceded the ratification of the North American Free Trade Agreement in the U.S. Congress was one of the most intensive debates related to economics in the United States in recent years. What interest groups were lined up on opposing sides? Can you explain the motivations of, and arguments made by, any of these groups using economic theory?

2. Currently, Argentina is experiencing an economic crisis touched off by the failure the Convertibility Plan. Explain what this crisis is and how it has come about in terms of Argentinian economics and politics from 1989 to present.