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ABSTRACT

An alternative to existing methods for teaching elementary economic geography courses was developed in a game format to teach the basic process of trade through role playing. Simplifying the complexities of multilateral trade to a few basic decisions and acts, the cognitive objectives are to develop in the student: 1) an understanding of regional economic specialization based on factor endowment; 2) commodity and capital flows in singular global economic systems; 3) investment decision-making and associated risk; 4) the costs of internal and external distortion of free trade; 5) the interdependence of nations engaged in trade; and 6) the comparative disadvantage of some Third World countries in the global trading system. The game is tailored to 36 students, divided into teams representing nine different countries. Appendices contain a summary of the countries, their economic background, an international trade export-import balance sheet and asking prices for each country. The game is divided into two rounds. Instructions for round two and demand cards for each country are provided in appendices. A final evaluation exrcise summarizes each country's trading strategies and results. (Author/KSM)

A GAME SIMULATION OF MULTILATERAL TRADE FOR CLASSROOM USE

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Paper prepared for Special Session on Geographic Simulation Games at the Annual meeting of the Association of American Geographers, Atlanta, Georgia

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International trade is one of the most difficult topics to adequately conceptualize in an elementary economic geography course, for geographers have contributed scantily to the body of theory which explains the process. The instructor faces two possible solutions--he can depend upon classical economic theory as updated by economists such as Ohlin, or he can attempt to build generalizations inductively on an empirical base by analyzing commodity flows, imports and exports.

In the experience of these instructors, neither of these approaches has proven completely satisfactory. For this reason a new game format has been developed to teach the basic processes of trade through role-playing. In the game, the complexities of multilateral trade have been simplified to a few basic decisions and acts. The cognitive objectives of the game are to develop in the students: 1) an understanding of regional economic specialization based on factor endowment; 2) commodity and capital flows in singular global economic systems; 3) investment decision-making and associated risk; 4) the costs of internal and external distortion of free trade; 5) the interdependence of nations engaged in trade; and 6) the comparative disadvantage of some Third World countries in the global trading system.

As a teaching-learning tool, the trade game is also meant to simulate the "act" of trade in a classroom, thus eliminating the mental atrophy which can be fostered by the "passive" approach to teaching--the lecture. If your personal teaching preferences stress classroom order and structure, students in columns and ranks, it is doubtful that the game described here will prove complementary to your purposes. If you can tolerate planned disorder and chaotic student enthusiasm, and if you are convinced that gaming techniques are effective teaching constructs, you may wish to consider the following as a partial substitute for your present trade segment.

Assuming that the cognitive and behavioral objectives of the game have merit, the game must pass one other test--does it arouse the interest of students? This will depend on the way in which students relate to their roles, to the amount of stress or conflict introduced into the situation, and to the balance of strategy or chance which is built into the game.

The International Trade Game described in this paper is tailored to a class size of thirty-six students. This same game can be played by as few as eighteen or as many as fifty-four students without rewriting the scenario. Students are divided into teams representing nine different countries (Appendix 1). Each country has a set of resource endowments and political characteristics which are detailed on a background card (Appendix 2). Each country is also assigned a list of surplus commodities which can be exported and a list of deficit commodities which must be imported. The amounts of surpluses and initial selling prices are also specified on the background cards of each country. Each country has its own currency, however, all trade among countries is conducted in ITU (International Trading Units) as a common standard of value.

Ideally, four students are assigned to represent each country. Roles can be assigned to each student in accordance with the political philosophy of the country. After background cards have been distributed and digested, balance of payments sheets (Appendix 3) are distributed. These are used to record the sales and purchases of each country during trade. At this point, Round One of trade is ready to begin.

Salesmen go forth from each country to visit potential customers in an effort to sell their wares. The commodities selected for trade are carefully balanced so as to assure adequate demand and supply of each item (Appendix 4). In assigning commodities, care has been taken to assure that competition and differential prices exist. In some cases demand and supply are deliberately unbalanced to simulate conditions in the real world of trade. When a sale is negotiated, the quantity and value is recorded on a balance of payments form.

Sellers from a single country must coordinate their sales so that they will not exceed the surplus available for export. This is normally solved by each salesman becoming a specialist in several commodities so that no other salesman from his own country is selling the same group of commodities. At the end of Round One, each country must compute its balance of trade and re-evaluate its overall position. Some export commodities may have remained unsold at the end of Round One. These unsold surpluses are subject to a penalty as outlined in Appendix 5.

Before Round One, each country is assumed to have sufficient money to purchase the required imports. During trade, money is accumulated as surplus commodities are sold. At the end of Round One, each country can compute its Balance of Trade, which is simply the difference between total sales and total purchases. An alternative to this method of computing the trade balance is to assign each country a specific amount of capital before the game. Their trade success is then measured by the growth or shrinkage of this capital stock throughout the game. This alternative requires more time to compute.

At the end of Round One, each country has the opportunity to increase or decrease its commodity production in an effort to improve its position for trade in Round Two. This option may be viewed as an investment or withdrawal decision. The amount of each type of export commodity may be increased or decreased as much as twenty percent more or less than the quantity available for export in Round One. In reaching this decision, each country is attempting to adjust its commodity production to world demand. Unsold surpluses from Round One should be eliminated through reduction and ready markets should be exploited by increased production. Unsold surpluses after Round Two are penalized to prevent all countries from increasing export production without fear of cost.

Demand for imports also changes for Round Two but by chance rather than by decision of the traders. Each country is given a Demand Card (Appendix 6), which outlines changes in imports which must be purchased during Round Two. These cards list multipliers which are to be applied to the import figures used in Round One. After the adjustments of exports and imports are made and recorded on the Balance Sheets, Round Two of trade can begin. Due to the changes in export strategy and the chance changes in demand, Round Two of trade will not be as close to a balanced equilibrium multilateral flow as Round One. Again, each country evaluates its situation by computing its balance of trade after Round Two. After the second round, the trade game may be terminated. Additional rounds may be played, but new Demand cards must be written for subsequent rounds.

After trade ends, the class enters the final evaluation exercise. Each country selects a representative to sit on a panel discussion of the previous trade. At this time, each country's trading strategy and results are summarized. Difficulties, obstacles, setbacks, are reviewed. An effort should be made to discuss the direction of commodity flows within the system and to understand the causes of trade problems which develop. At this session, many of the salient points of trade theory and commodity flows can be introduced as well as value laden questions of trade relationships.

The time required for playing two rounds of the trade game is approximately two hours if the instructor is familiar with the game. An additional hour of evaluation and discussion is necessary.

The game has been through a number of developmental stages, but is not presented here as the final solution to teaching trade concepts. Further modifications are anticipated. The game can stimulate intense student participation in the act of trade. The value of this exercise seems to lie in the arousal of interest which is then carried over to the evaluation session at which time concepts are introduced to explain what took place.

Suggestions for improving the game, for those who wish to amplify the general format, include the establishment of a World Bank to lend money and regulate trade; the creation of trade blocs based on political affinity; the introduction of multi-national firms which operates as producers and consumers; and the impositions of tariffs, quotas, and embargoes. International trade is such a complex process that it defies precise simulation in economic models much less in a classroom game. The format outlined here radically simplifies the process for the beginning student. More elaborate trade games can be constructed but increased complexity plus the associated accounting requirements can detract from the objectives of the game. The authors invite all comments after experimentation in classroom situations.

APPENDIX 1

INTERNATIONAL TRADE

Summary of Participating Countries

Hypothetical Country	Location	Import Needs (See code below)	Export Surpluses (See code below)
Abu Khali	Middle East	1,3,4,10,11,12,14 15,16,17	7
Astoria	South Pacific	1,3,5,9,14,15	2,6,7,8,16,17
Frankonia	West Europe	2,4,5,6,7,8,10, 16,17	1,3,9,11,14,15
Ghanzia	West Africa	1,3,5,7,11,14,15,17	4,6,10,16
Korat	Southeast Asia	1,3,6,7,11,15,17	8,10,12,13,14 16
LaMancha	Latin America	1,3,9,11,12,14,15, 17	2,4,7,8,16
Superbia	North America	1,2,3,4,7,8,14,15,16	5,6,9,11,12,17
Terra Yaki	East Asia	2,4,5,6,7,8,10,11, 12,13,16,17	1,3,14,15
Tuscovy	East Europe	1,3,5,7,11,17	8,10,15,16

COMMODITY CODE

Automobiles.........	1	Jet Passenger planes.....	9
Beef................	2	Lumber..................	10
Bicycles............	3	Machines................	11
Coffee..............	4	Rice....................	12
Computers...........	5	Rubber..................	13
Cotton..............	6	Shirts..................	14
Crude oil...........	7	Stereos.................	15
Iron ore............	8	Sugar...................	16
		Wheat...................	17

This sheet should be given to each student as a guide to buying and selling commodities.

APPENDIX 2a

ABU KHALI

ECONOMIC BACKGROUND

Population: 10,000,000
Monetary Unit: Shekels
Value: 8.00 Shekels=1.00 ITU (International Trade Unit)

Background: Your country is located in the Middle East and is characterized by an economy which is largely dependent on the production and export of a single commodity--oil. Your government is a monarchy dominated by a strong King, who is also commander of all military forces. About fifty per cent of the population are desert nomads. The other half of the people want to live a modern urban life-style hence imports of consumer goods are necessary. Food must also be imported.

There are demands that other resources be developed, irrigated agriculture and petrochemicals, for example. Schools, highways, and housing are also in demand, but the King is oriented towards defense spending and opposes rapid modernization which conflicts with the traditional culture. Government policy is oriented towards selling as much oil as possible at the highest attainable prices. To facilitate this, Abu Khali should attempt to organize other oil producing states into an "oil marketing consortium" in order to set world crude oil prices. The export surplus and the initial asking price are as follows (in the SECOND ROUND and subsequent rounds, you may raise and/or lower the prices as much as 20 per cent):

SURPLUS FOR EXPORT		ASKING PRICE
95,000,000	Barrels of crude oil	24 Shekels per barrel

DEFICITS (To be imported)

200,000	Shirts	500	Tons of coffee
60,000	Automobiles	300	Basic Industrial machines
10,000,000	Bushels of wheat	200,000	Tons of Lumber
30,000	High fidelity stereos	20,000	Bicycles
10,000	Tons of sugar	100,000	Tons of Rice

You have the following amount of money with which to purchase the above imports during ROUND ONE of trade: 188,000,000 ITU's.

ASTORIA

ECONOMIC BACKGROUND

Population: 12,000,000
Monetary Unit: Shilling
Value: 1.00 Shilling = 1.00 ITU (International Trade Unit)

Background: Your country is characterized by a very large land area and a low population. Your resources are abundant and provide large quantities of raw materials and foodstuffs for export. Your population is affluent, but labor costs are high. Consumers are accustomed to luxury manufactured goods which are imported. The government of Astoria is democratic, stable, and your country has enjoyed a favorable balance of trade in recent years.

You approach ROUND ONE of trade with the following surpluses which may be sold on the world market. The asking price represents your first price policy. In ROUND TWO and subsequent rounds you may lower the price as much as 20 per cent if your goods cannot be sold. If you find a ready market, you may raise the price as much as 20 per cent.

SURPLUS FOR EXPORT	ASKING PRICE
2,500,000 Tons of iron ore	40.00 Shilling per ton
100,000 Tons of beef	675.00 Shilling per ton
300,000 Tons of sugar	150.00 Shilling per ton
100,000 Bales of cotton	125.00 Shilling per bale
18,750,000 Barrels of crude oil	3.20 Shilling per barrel
25,000,000 Bushels of wheat	2.30 Shilling per bushel

DEFICIT (To be imported)

100,000	Automobiles
200,000	High fidelity stereos
200,000	Bicycles
600,000	Shirts
300	Computers
5	Jet passenger planes

You have the following amount of money with which to purchase the above imports during ROUND ONE of trade: 315,000,000 ITU's.

FRANKONIA

ECONOMIC BACKGROUND

Population: 50,000,000
Monetary Unit: Mills
Value: 2.00 Mills=1.00 ITU (International Trade Unit)

Background: Your country is located in Europe and is characterized by a diversified economy. The resource base as developed to date is based largely on importing food and exporting manufactured goods. Formerly, your country was in control of a varied collection of colonies, but most of these are now independent states. Trade ties within the former colonial system are still observed, particularly with such former states as Ghanzia, a former West African dependency.

You must import a large amount of fuel, particularly crude oil and refined products. Also, you must constantly import significant amounts of wheat, beef, sugar, and coffee.

Textiles, automobiles, and machinery are your major exports. Labor costs in your country are moderate to high due to the heavy taxes which support government social programs. The economy is basically capitalistic though heavily influenced by government social and economic policies.

You approach ROUND ONE of trade with the following surpluses which may be sold on the world market. The asking price represents your first price policy, In ROUND TWO and subsequent rounds, if your goods cannot be sold you may lower the price by as much as 20 per cent. If you find a ready market, you may raise your prices by as much as 20 per cent.

SURPLUS FOR EXPORT		ASKING PRICE
119,565	Automobiles	4,600 Mills per car
450,000	Bicycles	150 Mills per bicycle
2,200,000	Shirts	8 Mills per shirt
2,000	Pieces of Machinery	40,000 Mills per piece
150,000	Stereos	400 Mills per stereo
5	Aircraft	16,000,000 Mills per plane

DEFICITS (To be imported)

10,000 Tons of Beef	1,400,000 Tons of Iron Ore
40,000,000 Tons of Wheat	40,000,000 Barrels of Crude oil
240,000 Tons of Sugar	200,000 Tons of Lumber
10,000 Tons of Coffee	60 Computers
100,000 Bales of Cotton	

Your capital available for purchasing the above necessities is 365,000,000 ITU's.

GHANZIA

ECONOMIC BACKGROUND

Population: 10,000,000
Monetary Unit: Ghanzian Mills (GM)
Value: 20.00 GM=1.00 ITU (International Trade Unit)

Background: Your country is located in West Africa and is characterized by problems of economic underdevelopment. A high birth rate, high illiteracy rate, and low per capita incomes are three indicators of your country's problems. In years past, your country was a colony of Frankonia, a European state, and close ties still exist between the two. You may use these close ties to secure preferential treatment in foreign trade. Frankonia may choose to buy your exports in order to perpetuate these trade ties, but may expect your country to reciprocate by purchasing their exports.

Your role in world trade is to sell tropical agricultural products such as sugar, lumber, coffee, and cotton, all of which can be grown successfully in your climate. Recently, a petroleum field has been discovered along your southern coast, but you lack the capital to develop the field for production.

Your imports include textiles, machinery, automobiles, bicycles, high fidelity stereos, crude oil, and wheat. Politically, your country is modelled after a western democracy, but in reality is controlled by a single political party run by a powerful clique. Your economy is capitalistic, but the government often makes major economic decisions.

You approach ROUND ONE of trade with the following surpluses which may be sold on the world market. The asking price represents your first selling price. In ROUND TWO and subsequent rounds, if your goods cannot be sold, you may lower the price by as much as 20 per cent. If you find a ready market, you may raise the price as much as 20 per cent.

SURPLUS FOR EXPORT	ASKING PRICE
200,000 tons of Sugar	3,200 GM per ton
400,000 tons of Lumber	2,200 GM per ton
25,000 tons of Coffee	18,000 GM per ton
20,000 bales of Cotton	2,500 GM per bale

DEFICITS (To be imported)

10,000	Automobiles
20,000	Bicycles
400	Basic industrial machines
8,200,000	Barrels of crude oil
2,000	High fidelity stereos
100,000	Shirts
12,000,000	Bushels of wheat
30	Computers

You have the following amount of money with which to purchase the above imports during ROUND ONE of trade: 85,000,000 ITU's.

APPENDIX 2e

KORAT

ECONOMIC BACKGROUND

Population: 40,000,000
Monetary Unit: Ghat
Value: 5.00 Ghat=1.00 ITU (International Trade Unit)

Background: Your country is located in Southeast Asia and is characterized by problems of economic underdevelopment. A high birth rate, low literacy rate, and low per capita income are three indicators of your country's problems. Previously, your country was a colony of Frankonia, a European state, but since independence, you have tried to become economically independent.

Your foreign trade is rather low in comparison to your total population, and exports need to be expanded. Your resource base for producing exports is oriented towards tropical raw materials, hence you sell such items as rice, lumber, iron ore, sugar, and rubber. In addition, you also export textiles based on your cheap labor supply.

It is necessary for you to import a wide range of items, particularly manufactured goods and crude oil. The government of your country is basically capitalistic, hence, businessmen make most of the import-export decisions. The government has tried to encourage exports and discourage imports by tariffs. Still, the consumers of Korat are demanding automobiles, electronic items such as high fidelity stereo equipment, and bicycles. The government has promised more consumer goods to the citizenry and must attempt to meet this promise to stay in power. Presently, the government is being run by a committee of Army Generals.

You approach ROUND ONE of trade with the following surpluses which must be sold on the world market. The asking price represents your first selling price. In ROUND TWO and subsequent round, if your goods cannot be sold, you may lower the selling price by as much as 20 per cent. If you find a ready market, you may raise the asking price as much as 20 per cent.

SURPLUS FOR EXPORT		ASKING PRICE
250,000	Tons of Rice	700 Ghat per ton
1,800,000	Shirts	15 Ghat per shirt
1,000,000	Tons of Iron Ore	200 Ghat per ton
200,000	Tons of Sugar	800 Ghat per ton
20,000	Tons of Rubber	1,800 Ghat per ton
400,000	Tons of Lumber	300 Ghat per ton

DEFICIT (To be imported)

30,000	Automobiles
50,000	High fidelity stereos
40,000	Bales of raw cotton
160,000	Bicycles
600	Basic industrial machines
9,000,000	Barrels of crude oil
5,000,000	Bushels of wheat

Your capital available for purchasing the above commodities is 140,000,000 ITU's.

APPENDIX 2f

LA MANCHA

ECONOMIC BACKGROUND

Population: 15,000,000
Monetary Unit: Caruso
Value: 3.00 Carusoes=1.00 ITU (International Trade Unit)

Background: Your country is located in Latin America and is characterized by problems of poverty in rural areas and modern, affluent consumers in large urban centers. Your government has been unstable in the past and is now headed by an Army officer who is attempting to encourage economic development by a capitalistic form of economy. A small upper class of businessmen and landowners dominates the economic life of La Mancha, except for the peasant agriculture in the countryside.

Your country enjoys a favorable resource endowment in comparison to surrounding areas. The tropical climate allows the production of a number of export crops and a large oil field provides petroleum exports. Iron ore is also exported. Imports are mainly consumer goods and certain foodstuffs.

You approach ROUND ONE of trade with the following surpluses which may be sold on the world market. The asking price represents your first price policy. In ROUND TWO and subsequent rounds you may lower the price as much as 20 per cent if your goods cannot be sold. If you find a ready market, you may raise the price as much as 20 per cent.

SURPLUS FOR EXPORT	ASKING PRICE
30,000,000 Barrels of Crude oil	9 Carusoes per barrel
100,000 Tons of Sugar	480 Carusoes per ton
2,000,000 Tons of Iron ore	120 Carusoes per ton
45,000 Tons of Coffee	2,700 Carusoes per ton
50,000 Tons of Beef	1,800 Carusoes per ton

DEFICITS (To be imported)

40,000	Automobiles
40,000	High fidelity stereos
1,200,000	Shirts
1,400	Basic Industrial Machines
11,000,000	Bushels of wheat
25,000	Bicycles
50,000	Tons of Rice
10	Jet passenger aircraft

You have the following amount of money with which to purchase the above imports during ROUND ONE of trade: 235,000,000 ITU's.

APPENDIX 2g

SUPERBIA

ECONOMIC BACKGROUND

Population:
Monetary Unit: Bills
Value: 1.00 Bill=1.00 ITU (International Trade Unit)

Background: Your country is located in North America and is characterized by a highly developed, diversified economy. The resource base of your country allows both raw materials and manufactured goods to be exported. High wage rates have caused difficulties in exporting certain of your commodities.

Superbian consumers demand large quantities of luxury goods. This demand has led to a chronic balance of trade deficit which in turn has caused the Bill to be devalued. Relations with other countries have also been strained as these countries try to limit the importation of manufactured goods exported by Superbia. Your country is also characterized by a relative abundance of investment capital.

You approach ROUND ONE of trade with the following surpluses which may be sold on the world market. The asking price represents your first pricing policy. In ROUND TWO and subsequent rounds you may raise or lower the price as much as 20 per cent to fit the demand.

SURPLUS FOR EXPORT		ASKING PRICE
105,000,000	Bushels of Wheat	2.00 Bills per bushel
100,000	Tons of Rice	160.00 Bills per ton
8,000	Pieces of machinery	20,000.00 Bills per piece
200,000	Bales of Cotton	125.00 Bills per bale
1,600	Computers	40,000.00 Bills per unit
25	Jet passenger planes	8,000.00 Bills per plane

DEFICITS (To be imported)

150,000	Automobiles	5,000,000	Shirts
40,000	Tons of coffee	200,000	High fidelity stereos
18,000,000	Barrels of crude oil	400,000	Tons of sugar
400,000	Bicycles	1,500,000	Tons of iron ore
		80,000	Tons of beef

You have the following amount of money with which to purchase the above imports during ROUND ONE of trade: 695,000,000 ITU's.

APPENDIX 2h

TERRA YAKI

ECONOMIC BACKGROUND

Population: 100,000,000
Monetary Unit: Yang
Value: 1.00 Yang=1.00 ITU (International Trade Unit)

Background: Your country is located in East Asia and is characterized by a strong economy based on exports of manufactured goods. The resource base of Terra Yaki in terms of food and mineral production is meager, hence large amounts of these commodities must be imported.

Your economy is capitalistic and has a very high annual growth rate. Businessmen are rarely hindered by the government when making economic decisions. The consumers of your country are becoming affluent, and are demanding more luxury goods.

Much of your previous economic development has been based on low labor costs, but wages have now risen to the point that your country is having difficulty in competing with many lesser developed areas where labor is still very cheap. This affects your textile industry. Your industries and businesses are very aggressive at selling Terra Yaki made products abroad.

You approach ROUND ONE of trade with the following surpluses, which may be sold on the world market. The asking price represents your first price policy. In ROUND TWO and subsequent rounds, if your goods cannot be sold, you may lower the price as much as 20 per cent. If you find a ready market, you may raise the asking price as much as 20 per cent.

SURPLUSES FOR EXPORT		ASKING PRICE
300,000	Cars	2,000.00 Yang each
500,000	Bicycles	60.00 Yang each
2,500,000	Shirts	3.75 Yang each
300,000	High fidelity stereos	180.00 Yang each

DEFICIT (To be imported, if possible)

60,000,000	Barrels of crude oil	180,000	Bales of Cotton
200,000	Tons of Rice	50,000	Tons of Beef
300,000	Tons of Sugar	10,000	Tons of Coffee
2,600,000	Tons of Iron ore	300	Computers
500,000	Tons of lumber	20,000	Tons of Rubber
4,000	Basic Industrial Machines	21,000,000	Bushels of Wheat

You have the following amount of money with which to purchase the above imports during ROUND ONE of trade: 670,000,000 ITU's.

APPENDIX 2i

TUSCOVY

ECONOMIC BACKGROUND

Population: 30,000,000
Monetary Unit: Rupoff
Value: 2.00 Rupoffs=1.00 ITU (International Trade Unit)

Background: Your country is located in Eastern Europe, and is characterized by emphasis on heavy industry. Your government is Marxist. All economic investment and international trade is planned by the central government. As a resource base, your country is well endowed to produce iron and steel, lumber, sugar, iron ore, and certain consumer goods. In your country, consumers are not encouraged to buy large quantities of luxury imports, but a small quantity has to be made available due to political unrest. Tuscovian leaders had much rather import machinery, raw materials, and other such goods which can be used for purposes of economic development.

Tuscovy has a reputation of being difficult to deal with as a trading partner. The State Trading Ministry does not try to expedite trade in order to foster cordial relations. The country should be self-sufficient in agriculture, but is occasionally forced to import food due to drought and inefficient agricultural policies. Tuscovy has been known to make trade deals for political purposes to gain influence in a given region or to place capitalistic countries in an embarrassing situation. Tuscovy may also make loans to smaller countries for political purposes.

You approach ROUND ONE of trade with the following surpluses which may be sold on the world market. The asking price represents your first selling price in ROUND ONE. In ROUND TWO and subsequent rounds you may raise or lower prices a maximum of 20 per cent as the market dictates or to suit your political purposes.

SURPLUS FOR EXPORT	ASKING PRICE
800,000 Tons of iron ore	90.00 Rupoffs per ton
200,000 TTons of beet sugar	350.00 Rupoffs per ton
500,000 Tons of lumber	120.00 Rupoffs per ton
100,000 Stereos	350.00 Rupoffs per stereo

DEFICITS (To be imported)

30,000,000	Bushels of wheat
1,200	Basic industrial machines
10,000	Automobiles
80,000	Bicycles
160	Computers
4,000,000	Barrels of crude oil

You have the following amount of money with which to purchase the above imports during ROUND ONE of trade: 130,000,000 ITU's.

APPENDIX 3a

INTERNATIONAL TRADE EXPORT BALANCE SHEET

Country____________

Round____________

Commodity	Quantity to Export	Quantity Actually Exported	Price per Unit	Total ITU	Difference col.2-col.3	Sold To
TOTAL RD. ONE						
ROUND TWO						

APPENDIX 3b

INTERNATIONAL TRADE <u>IMPORT</u> BALANCE SHEET

Country______________________

Round	Commodity	Quantity Imported	Price per Unit	Total ITU	Purchased From

INTERNATIONAL TRADE IMPORT - EXPORT

BALANCE SHEET

Country______________________

Round	Col. 1 Total Export Sales	Col. 2 Total Import Sales	Balance of Trade Col. 1 - Col. 2

APPENDIX 4a

EXPORT ASKING PRICES at the beginning of the game (all values expressed in ITU's)

	TRADE UNITS	FERRA YAKI	GHANZIA	LAMANCHA	KOVAT	TUSCOVY	ASTORIA	SUPERBIA	FRANKONIA	ABUKHALI
utomobiles	each	2000.00							2,300.00	
eef	tons			600.00			750.00			
icycles	each	60.00							75.00	
offee	tons		900.00	900.00						
omputers	each							40,000.00		
otton	bales		125.00				125.00	125.00		
rude Oil	barrels			3.00			3.20			3.00
ron Ore	tons			40.00	40.00	45.00	40.00			
umber	tons		60.00		50.00	60.00				
achines	each							20,000.00	20,000.00	
ice	tons				140.00			160.00		
ubber	tons				360.00					
hirts	each	3.75			3.00				4.00	
tereos	each	180.00				175.00			200.00	
ugar	tons		160.00	160.00	160.00	175.00	150.00			
heat	bushels						2.30	2.00		
et Passenger planes	planes						8,500,000.00	8,000,000.00		

APPENDIX 4b

EXPORTS FROM (In ITU's)

	Terra Yaki	Ghanzia	LaMancha	Kovat	Tuscovy	Astoria	Superbia	Frankonia	Abu Khalf		
Automobiles	600,000,000							275,000,000		875,000,000	Automobiles
Crude Oil			90,000,000			60,000,000			285,000,000	435,000,000	Crude Oil
Sugar		32,000,000	16,000,000	32,000,000	35,000,000	45,000,000				160,000,000	Sugar
Iron ore			80,000,000	40,000,000	36,000,000	100,000,000				256,000,000	Iron ore
Coffee		22,500,000	40,500,000							63,000,000	Coffee
Beef			30,000,000			75,000,000				105,000,000	Steel
Bicycles	30,000,000							33,750,000		63,750,000	Bicycles
Shirts	9,375,000			5,400,000				8,800,000		25,475,000	Shirts
Rubber				7,200,000						7,200,000	Rubber
Rice				35,000,000			16,000,000			51,000,000	Rice
Lumber		24,000,000		24,000,000	30,000,000					78,000,000	Lumber
Machines						160,000,000	160,000,000	40,000,000		200,000,000	Machines
Computers							62,200,000			65,200,000	Computers
Cotton		2,500,000				12,500,000	25,000,000			40,000,000	Cotton
Wheat						55,000,000	210,000,000			265,000,000	Wheat
Stereos	54,000,000				17,500,000			30,000,000		101,500,000	Stereos
Aircraft							200,000,000	40,000,000		240,000,000	Aircraft
TOTALS	693,375,000	81,000,000	256,500,000	143,600,000	118,500,000	347,500,000	676,200,000	427,550,000	285,000,000		TOTALS

APPENDIX 4c

IMPORTS INTO

	Terra Yaki	Ghanzia	LaMancha	Kovat	Tuscovy	Superbia	Frankonia	Astoria	Abu Khali	Raw Totals	
Automobiles		21,000,000	84,000,000	63,000,000	21,000,000	330,000,000		210,000,000	126,000,000	855,000,000	Automobiles
Crude Oil	180,000,000	24,600,000		27,000,000	12,000,000	54,000,000	120,000,000			417,600,000	Crude oil
Sugar	48,000,000					64,000,000	38,400,000		1,600,000	152,000,000	Sugar
Iron ore	104,000,000					60,000,000	56,000,000			220,000,000	Iron ore
Coffee	9,000,000					36,000,000	9,000,000		450,000	54,540,000	Coffee
Beef	33,750,000					54,000,000	6,750,000			94,500,000	Beef
Bicycles		1,400,000	1,875,000	12,000,000	6,000,000	30,000,000		15,000,000	1,500,000	67,775,000	Bicycles
Shirts		3,750,000	4,500,000			8,750,000		2,100,000	750,000	19,850,000	Shirts
Rubber	7,200,000									7,200,000	Rubber
Rice	30,000,000		7,000,000						15,000,000	52,000,000	Rice
Lumber	20,000,000					20,000,000	12,000,000		11,000,000	63,000,000	Lumber
Machines	80,000,000	8,000,000	28,000,000	12,000,000	24,000,000				6,000,000	158,000,000	Machines
Computers	12,000,000	1,200,000			6,400,000		24,000,000	12,000,000		55,600,000	Computers
Cotton	22,500,000			5,000,000			12,500,000			40,000,000	Cotton
Wheat	42,000,000	24,000,000	22,000,000	10,000,000	60,000,000		86,000,000		20,000,000	264,000,000	Wheat
Stereos		360,000	7,200,000	9,250,000		36,000,000		36,000,000	5,400,000	94,210,000	Stereos
Jet Passenger planes	80,000,000		80,000,000					40,000,000		200,000,000	Jet Passenger Planes
TOTALS	668,450,000	84,310,000	234,570,000	138,250,000	129,400,000	692,750,000	364,650,000	315,100,000	187,700,000		TOTAL

APPENDIX 5

INSTRUCTIONS FOR ROUND TWO

After the first round of trade, your finance minister or businessmen will compute the amount of the difference between the commodities you had available for export and the commodities you actually exported on an item by item basis. These figures are then entered into column 6 of Appendix 3a.

In planning for ROUND TWO, you have the option of increasing or decreasing the amount available for export of each commodity by as much as 30 per cent. In other words, the amount available for export of each commodity will be the same as ROUND ONE, plus or minus 30 per cent. You should note, however, the commodities that remained unsold in ROUND ONE (column 6 of appendix 3a) and not increase the amount available for export on these items. If you choose to continually hold available more than you actually export it will affect your overall trade balance at the end of the game, thus placing your country in a worse position than at the start of trade. On the other hand, if you feel that your country can sell additional amounts of some commodities, you may increase the amounts available by as much as 30 per cent. It is highly recommended that you exercise caution on increases even if you received more demand than you could supply in ROUND ONE because the situation could change.

After the new amounts of export commodities have been decided, you will receive a situation card which will give you information concerning the imports you must purchase in ROUND TWO. These imports may be the same as your imports for ROUND ONE, or they may differ. Demand does not fluctuate radically from year to year except in crisis situations. Before beginning your negotiations for ROUND TWO be sure that your balance sheet is completed for the transactions of ROUND ONE.

You are now ready to begin selling your exports and purchasing imports in ROUND TWO.

APPENDIX 6a

ROUND TWO

DEMAND CARD

ABU KHALI

Your King has been convinced that more automobiles are necessary for your country. Demand for other consumer goods is also increasing. Adjust your imports by multiplying each imported commodity listed on your background card by the following multipliers:

Automobiles.................	1.3
Sugar......................	1.0
Coffee.....................	6.0
Bicycles...................	1.0
Shirts.....................	3.0
Rice.......................	1.0
Lumber.....................	1.2
Machines...................	1.0
Stereos....................	.5
Wheat......................	1.1

APPENDIX 6b

ROUND TWO

DEMAND CARD

ASTORIA

Your citizens are demanding new roads and more automobiles. Due to rapid changes in world shirt fashions, all your men's shirts have gone out of style. Adjust your imports by multiplying each import commodity listed on your background card by the following multipliers:

Automobiles................	1.1
Bicycles...................	1.0
Shirts.....................	2.0
Computers..................	.8
Stereos....................	1.0
Jet planes.................	.8

APPENDIX 6c

ROUND TWO

DEMAND CARD

FRANKONIA

Your country faces an energy crisis which is stimulating oil imports. A hard winter has reduced your supplies of food. Coffee consumption has gone up due to an advertising campaign. Adjust your imports by multiplying each commodity listed on your background card by the following multipliers:

Crude oil	1.2
Iron ore	1.0
Coffee	2.0
Beef	1.5
Sugar	1.1
Computers	0.8
Wheat	1.1
Lumber	0.8
Cotton	1.0

APPENDIX 6d

ROUND TWO

DEMAND CARD

<u>GHANZIA</u>

Your citizens are demanding more consumer goods. Adjust your imports by multiplying each commodity listed on your background card by the following multipliers:

Automobiles....................	1.2
Crude oil......................	1.0
Bicycles.......................	1.1
Shirts.........................	.8
Basic Industrial Machines......	1.0
Computers......................	0.0
Wheat..........................	.8
Stereos........................	1.0

APPENDIX 6e

ROUND TWO

DEMAND CARD

<u>KORAT</u>

Your country has suddenly begun an austerity program in order to develop heavy industry. The ruling military officers have decided to reduce consumer imports. Adjust your imports by multiplying each commodity listed on your background card by the following multipliers:

Automobiles.................	.8
Crude oil..................	1.2
Bicycles...................	.7
Machines...................	1.3
Cotton.....................	.9
Wheat......................	.8
Stereos....................	0.0

APPENDIX 6f

ROUND TWO

DEMAND CARD

LA MANCHA

Your citizens are demanding more consumer goods. Adjust your imports by multiplying each commodity listed on your background card by the following multiples:

Automobiles	1.0
Bicycles	1.5
Shirts	1.5
Rice	1.0
Machines	.8
Wheat	.8
Stereos	1.3
Jet planes	1.0

APPENDIX 6g

ROUND TWO

DEMAND CARD

SUPERBIA

Due to high food costs, your population continues to demand greater imports of these commodities. Government policy is now oriented towards reducing automobile imports by means of a surcharge. An energy crisis means greater oil imports. Adjust your imports by multiplying each import commodity listed on your background card by the following multipliers:

Automobiles...............	.7
Crude oil.................	1.3
Sugar.....................	1.1
Iron ore..................	1.0
Coffee....................	1.3
Beef......................	1.3
Bicycles..................	1.0
Shirts....................	1.0
Lumber....................	1.0
Stereos...................	.8

APPENDIX 6h

ROUND TWO

DEMAND CARD

TERRA YAKI

Your exports of manufactured goods have increased meaning that you must import more crude raw materials. Your people are developing a taste for luxury goods. Adjust your imports from ROUND ONE by multiplying each commodity listed on your background card by the following multipliers:

Crude oil	1.1
Sugar	1.2
Iron ore	1.1
Coffee	1.2
Beef	1.3
Rubber	1.1
Rice	1.2
Lumber	1.2
Machines	.8
Computers	.8
Cotton	1.2
Wheat	.8
Jet planes	1.1

APPENDIX 6i

ROUND TWO

DEMAND CARD

TUSCOVY

Your economic planners yielded to pressure to increase food imports and have decided that walking is healthy for peasants. Computers from ROUND ONE are still not in working order.

Automobiles	.8
Crude oil	1.0
Bicycles	.8
Machines	1.0
Computers	.5
Wheat	1.3