HENRY THOMPSON

International ECONOMICS

GLOBAL MARKETS AND INTERNATIONAL COMPETITION

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INTERNATIONAL ECONOMICS
Global Markets and International Competition

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Preface for Students

International economics will influence your private and business lives. International economics has moved to the center stage as countries become more integrated through increased international trade, foreign investment and migration. The world is effectively shrinking due to transportation and telecommunication.

The foreign exchange market is the largest market in the world. Industries wax and wane in the face of global markets and international competition. International agreements such as the World Trade Organization (WTO), North American Free Trade Area (NAFTA), and European Union (EU) are becoming the fundamental form of government.

Government protection tries to ease the pressures of international competition. Industries seek protection in the form of tariffs and quotas, securing profit but hurting the economy. Tax policies hinder international trade and investment. Government central banks interfere with the foreign exchange market. Such policy maneuvers impede international commerce and lower global income.

This text focuses on the microeconomic foundation of international economics, examining the system of international markets. In microeconomics, an economy is a collection of interdependent markets. In international economics, markets and economies are linked across borders.

International economics is based on the supply and demand for goods and services across countries. Comparative advantage is the basic tool for predicting international production and trade. The international supply of traded products is based on underlying production capabilities. The production and trade of minerals and agricultural goods are based on geographical advantages. For manufactured goods and services, capital is an important input that can be installed where there is labor and infrastructure.

International trade is to the arbitrage of products from countries where prices are low. Through arbitrage, traders make profit and products are more economically distributed. International demand is based on income and tastes. The interaction of international supply and demand determines the pattern of production and trade. The effects of trade and trade policy depend partly on the types of industries involved, from competition to monopoly.

Trade policies are designed to redistribute income toward some favored industry or group, altering the efficient pattern of production and distribution. The costs of protection outweigh the benefits, but industry and labor groups

lobby for protective tariffs and quotas because they stand to gain at the expense of others. Politicians respond to political pressure and contributions.

International economics builds models to capture the essence of international commerce. The fundamental scientific models of international economics have stood the test of time. Models are tested and refined as more is learned about how the international economy works.

The graphs, examples, applications, and problems in this text are essential for learning. There are hints for even numbered problems. Good luck, and I think you will enjoy *International Economics: Global Markets and International Competition*.

Visit the international economics web site at www.auburn.edu/~thomph1 where you can find analysis of current events and links to data and resources in international economics. E-mail the author at thomph1@auburn.edu.

Preface for Instructors

International Economics: Global Markets and Interntional Competition is unique in several ways.

- It is a one-term text covering international trade, investment, and monetary economics
- It is designed for students with a background in principles
- Microeconomic models stress positive theory
- The theory advances through partial equilibrium, general equilibrium production, industrial organization, and monetary economics
- There are over 200 boxed examples from the literature illustrating theory
- Problems carefully lead students through the theory
- The text openly advocates free trade and is skeptical about the ability of trade policy to improve market outcomes

International economics covers the entire realm of economics, focusing on the effects of international borders. This text uses the tools of microeconomics including general equilibrium. The foreign exchange market and concepts from balance of payments theory are integrated throughout the text. Macroeconomic models of income determination are not included because they stray too far from a market foundation and a mid-term switch to macroeconomics confuses students.

The themes of *International Economics: Global Markets and International Competition* are:

- excess supply and excess demand
- constant cost production and trade
- neoclassical trade theory
- protection and free trade
- specific factors and factor proportions models
- industrial organization and trade
- labor migration and investment in international markets
- foreign exchange markets
- balance of payments theory
- international roles of monetary and fiscal policy

The text is designed for students who have had only principles of economics. There is no assumption of a background in intermediate economic theory or calculus. The text is appropriate for "service" courses for nonmajors. The

numerous boxed examples make it excellent for MBA students. The boxed examples are a central component of the text, introducing tools and concepts as well as applications.

Technical points are made with numerical examples and graphs, avoiding "formulas" and algebraic symbols. Classroom presentations should be more general, using diagrams and algebra.

The problems after each section and chapter are designed for learning and were developed in the classroom. Hints for even numbered problems are in an appendix. Students can be called on to answer or work problems at the board, greatly increasing their capacity to absorb the material.

You will be pleasantly surprised at how well your students learn using *International Economics: Global Markets and International Competition*.

The web site at www.auburn.edu/~thomph1 can be integrated into classwork. There is analysis of current events and links to resources and data. E-mail the author at thomph1@auburn.edu.

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Chapter Preview

This chapter introduces some fundamental concepts:

- *International markets*, supply and demand from different countries
- *Excess supply* and *excess demand*, the international market model
- *Comparative advantage*, the foundation of international trade
- *Balance of trade*, net receipts from trade in goods

INTRODUCTION

The most important tools of economics are market supply and demand. A market is any place or mechanism in which goods and services are traded. Markets determine prices both in nominal currency terms and relative to one another. Markets include the corner convenience store, the stock market, the market for brain surgeons, the foreign exchange market, a neighborhood lemonade stand, the international market for steel. In market transactions, money changes hands between buyer and seller at an agreed price.

An international transaction arises when the buyer and seller are in different countries. International markets involve economic agents in different countries. Two currencies are typically involved in an international transaction. The buyer's currency and the seller's currency must be exchanged.

Another fact that distinguishes international economics is that governments can easily tax transactions with tariffs or limit transactions with quotas or nontariff barriers. International economics is also characterized by the lack of labor mobility between countries. Workers can move within a country with relative ease, but international migration is more difficult and typically restricted by law. Investment is also inhibited across national boundaries.

Comparative advantage is one of the cornerstones of economics. Comparative advantage, a relative advantage in production efficiency, is the fundamental cause of international trade. The principle of comparative advantage rests on the important idea of opportunity costs. The opportunity cost of an action is the value of its next best alternative. When a country turns its resources to producing a particular good or service, it gives up producing alternatives. Productive resources are limited and it is important to employ them efficiently.

The balance of trade regularly makes headlines, but what it estimates and why it is important are rarely clear. The balance of trade is a country's export revenue minus import expenditure on manufactured goods during a given time period. Trade deficits occur if import expenditure is greater than export revenue.

A. INTERNATIONAL MARKETS

Everyone is involved in international markets every day. Almost everything we buy has some foreign element or component. Virtually every job provides something to exports and uses some imports. International markets provide a beginning toward understanding the policy issues of international economics. This section presents the picture of an international market.

Domestic Demand

The law of demand states that as the price of a good rises, the quantity demanded falls. Examples of the law of demand are everywhere. If a clothing retailer wants to clear the shelves, prices are lowered. Car dealers offer discounts and rebates when inventories are too high. Fast food restaurants introduce specials with low prices to increase their sales.

Figure 1.1 shows a domestic market demand curve *D* for new rugs. This demand curve represents the quantity of a particular quality of rug that would be demanded at various prices by domestic consumers. If the price of a rug is \$15, 100 units are demanded per month. Demand curves show the quantity consumers would buy at various prices.

Demand curves slope downward for two reasons:

- *substitution effect* — a higher price induces consumers to look for substitutes

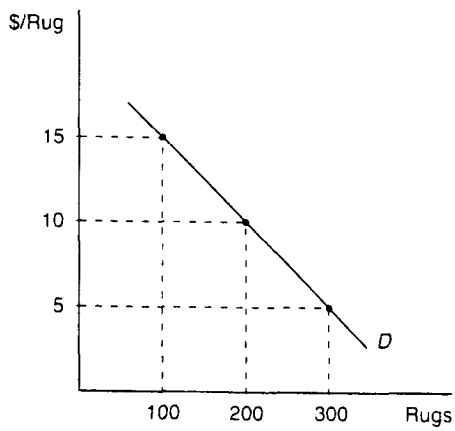

Figure 1.1
The Domestic Demand (*D*) for Rugs
The quantity demanded is inversely related to price. When price goes up, the quantity demanded falls. When price goes down, the quantity demanded rises.

- *income effect* — a higher price, especially for a good that has a large budget share, lowers real income and consumption of all goods.

Some goods have readily available substitutes. If the price of beef rises with a quota on imported beef, consumers make a switch to pork, chicken, lamb, or fish. If the price of gasoline rises by 50% because of more expensive imported crude oil, consumers trade in their old cars for new more fuel efficient ones. If the price of Japanese cars rises with a voluntary export restraint, consumers switch to European or US cars. If the price of Dutch cheese rises with a tariff, consumers switch to Wisconsin cheese.

Many other goods do not have such readily available substitutes. International telephone service has no good substitutes: international mail is slow, e-mail is impersonal, and so on. There is no good substitute for original artwork, since each artist produces a limited amount of work. Teak is a durable wood from East India without good substitutes. When there are fewer substitutes, demand is less responsive to price changes.

Embargoes of the Organization of Petroleum Exporting Countries (OPEC) during the 1970s significantly raised the price of crude oil. The price of gasoline rose relative to other goods. Consumers began to substitute away from gasoline, but real incomes fell. The higher relative price of gas lowered the purchasing power of consumer income, which lowered the consumption of all goods, including oil.

Another example of the income effect comes from the entry of Japanese cars in the US market in the 1970s. Japanese imports were cheaper than cars made in the US. Consumers who bought Japanese cars enjoyed higher real income, and increased the purchases of all goods, including cars.

Many types of goods, from big screen television sets to shirts to refrigerators are traded internationally. The world of international economics must be simplified to gain an understanding of what is going on. The process of abstracting and simplifying is a crucial step in the scientific method. Scientists build and test simple models that reflect what goes on in the real world. If a theoretical model proves useful in predicting what happens, it becomes accepted. The demand curve in Figure 1.1 presents a first step of model building.

Demand curves slope downward because of substitution and income effects.

Demand curves are different across nations. Various factors determine the position of a demand curve:

- Tastes of consumers
- The number of potential consumers
- Price expectation of consumers
- Income of consumers
- Prices of related goods

As tastes for a good become stronger, the demand curve shifts right. This means that consumers are willing to pay a higher price for the same quantity of the good, or will demand more of the good at any price.

Tastes change and are difficult to analyze. Only 35 years ago, US consumers had little taste for Japanese cars or electronics. Imported beer, beverages, food, bicycles, and clothes were rare. Advertising is one way to change tastes. Foreign firms spend resources advertising their products. Advertising informs consumers about product availability quality. In the same way, US firms advertise in foreign countries.

An increase in the number of potential consumers in a market increases demand. As nations grow, there is increased demand for goods and services. When a country enters international trade, the number of potential buyers of its products expands. The North American Free Trade Area (NAFTA) increases the demand for goods produced in Canada, Mexico, and the US. The US government outlaws trade with Cuba, a loss of potential consumers for US exports. If Europe opens its protected agricultural industry to free trade, the demand for US agricultural products will increase.

Expectations of higher prices induce consumers to buy now in order to avoid higher prices later, increasing current demand. When approval of NAFTA was pending, US buyers of Canadian lumber waited for the tariff to be eliminated. The expectation of lower prices in the future lowered present demand. With news that the Ukrainian wheat harvest is expected to be poor, buyers of wheat expect higher prices in the future, increasing their current demand and pushing up prices.

Higher income raises demand for *normal* goods, but lowers demand for *inferior* goods. Income limits what consumers can spend on all goods and services. As income rises, consumers increase spending and save some of their income for future consumption. The Japanese save a relatively large share of their income. As incomes rise in newly industrialized countries such as South Korea, Mexico, and Brazil, their demand for normal goods rises, increasing the demand for exports of US business services. Demand for public transport, an inferior good, may decline in these growing countries as more people switch to cars.

Many goods are related in consumption. Demand for a good is positively related to the price of its substitutes. Coffee and tea are substitutes. When the price of coffee rose in the early 1970s as the international coffee cartels restricted output, demand for tea and the price of tea increased. Other examples of substitutes are new versus used cars, and junior college versus university education. Coffee and sugar are complements and the two are used together. If the price of coffee tripled, demand for sugar and its price would fall. Demand for a good is negatively related to the price of its complements. Other examples of complements are gas and tires, and tuition and textbooks.

When the demand curve in Figure 1.1 increases because of these nonprice influences, it shifts right. At a price of $15, consumers will want to buy more than 100 units. To consume 200 units, consumers will be willing to pay more than $10 per unit. A decrease in demand would be represented as a shift to the left of *D*.

Demand curves shift to the right (increase) or left (decrease) because of nonprice influences.

EXAMPLE 1.1 *Growing Levels of International Trade*

During the past 50 years there has been a steadily increasing level of international trade in manufactures, minerals, and agriculture. Growth in world trade has outstripped growth in output, which itself has steadily grown since World War II. US firms are becoming more involved in international trade, and US consumers enjoy products from around the world.

Domestic Supply

Supply curves are the marginal costs of production of firms in an industry. Marginal cost is the additional or extra cost of producing one more unit of output. Marginal cost slopes upward for two reasons:

- *Diminishing marginal productivity* of labor, natural resources, and capital inputs
- Increasing output may bid up prices of inputs

The law of diminishing marginal productivity law says that the additional output per unit of an added input declines as the input is increased, holding other inputs constant. For a given physical plant, the marginal product of additional workers declines after some point. For some large industries, increasing output may also raise demand for inputs enough that input prices rise.

The marginal cost curve of a typical firm slopes upward. When output in an industry rises, firms within the industry are producing more or new firms are entering the industry. Output in an industry will generally rise when the price of output in the industry rises. There is a positive relationship between price and output.

Figure 1.2 shows the upward sloping domestic supply of a manufactured good. It might represent any manufactured good, cars, apparel, or computers. Supply curves are likely to differ across nations. Differences in the supply curve are due to

- Technology
- The number of firms