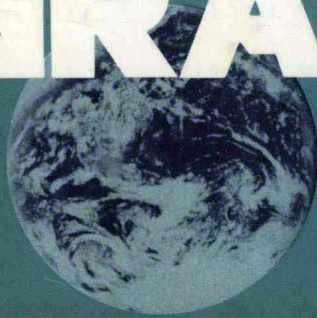
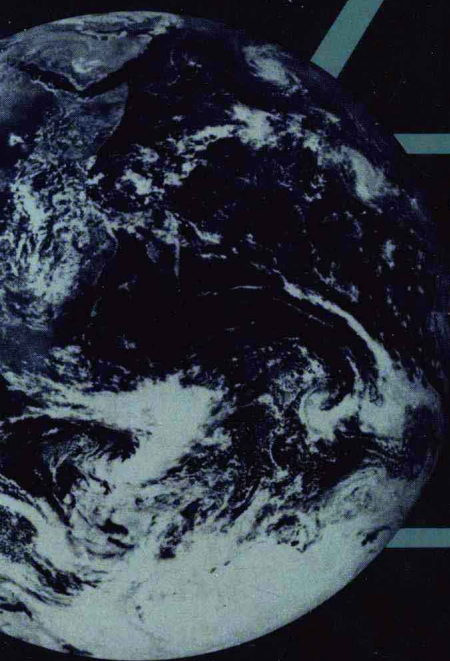
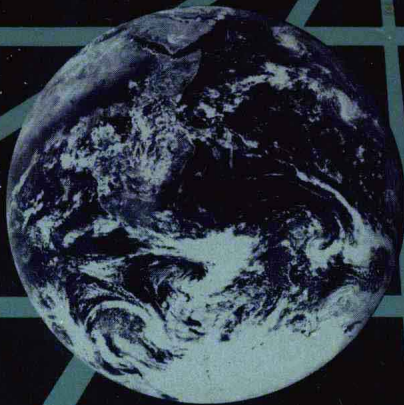


THIRD EDITION

# ECONOMIC GEOGRAPHY



TRUMAN A. HARTSHORN / JOHN W. ALEXANDER



**THIRD EDITION**

# **Economic Geography**

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*To my parents Gailan and Carolyn Hartshorn and to the  
budding geographers in the family: Alan, Mary Karen, Sil,  
Louise, and Lois.*

# Preface

The first edition of the Alexander *Economic Geography* textbook became my first text as a rookie instructor of the Economic Geography course at Western Illinois University in 1966. Some 20 years later I still have a fondness for the book. It has always represented the mainstream of economic geography to me. I hope this third edition, drastically revised to keep abreast of the times, can maintain that stature.

## **ORGANIZATION OF BOOK**

As with earlier editions, this book begins with a discussion of low-technology subsistence activities, followed by an examination of advanced commercial agricultural systems. Sections on energy, mineral resources, and manufacturing activity follow. In the final cluster of chapters sophisticated high-technology research and development activity and the structure of the modern metropolitan economy are discussed. The growing role of retail, office, and other service functions in the emergence of the multicentered metropolis is examined in this final section focusing on the urban economy.

This format provided a successful framework for the first edition of the book and is maintained here even though many chapters have been consolidated or eliminated. We do not cover as many commodities

or functions as did earlier editions but explore in greater detail the contribution of various sectors of the economy, with in-depth discussions of representative activity at an international level. Highlighting this change is a dramatic scaling back of the earlier emphasis on the United States. The global system perspective followed promotes a more complete understanding of the interdependence exhibited by the contemporary functioning of the world economy.

Whereas most readers are familiar with the lifestyles and problems associated with modern, highly developed economies such as those in the United States, Canada, western Europe, and Japan, the situation facing third-world economies remains considerably different and much less familiar. Since all areas of the world economic system are discussed here, we felt that it would be useful to discuss in the first chapter the nature of poverty and development issues facing the third world as a prelude to later discussions of economic development trends.

## **WORLD-INTERDEPENDENCE THEME**

The economic geography of the world has changed as much in the 25 years since the first edition of this book appeared in the early 1960s as it did in the previous century. In this 25-year period, the world economy

mushroomed in size and complexity. At the same time, greater interdependence among nations added new dimensions to the world system. Major new work forms emerged as the postindustrial economy revolutionized the job market. The propelling force in economic growth increasingly became information and technology in the place of traditional raw materials and smokestack industries.

New forms of management and organization developed to shape and lead these changes. The world became particularly aware of Japanese business practices in the 1980s. The most visible and influential institution associated with business activity remained the multinational corporation, albeit much larger than before. Governments became more actively involved in promoting economic development. World inflation rates accelerated in the 1970s, an energy crisis emerged, and a crisis of finance gained momentum as the disparities between the developed and developing countries increased in the mid-1980s. Several newly influential groups of countries became important actors in the global marketplace. These included the Organization of Petroleum Exporting Countries bloc (OPEC), the newly industrializing countries (NICs), the Organization of Economic Cooperation and Development group (OECD), the Council for Mutual Economic Aid group (CMEA) in the Soviet bloc, and the European Economic Community (EEC).

World trade became a crucial factor in the development process, one that affected all parties. Gone were the days when raw materials flowed one way and finished goods the other. More and more goods were "international" in the sense that complex combinations of management, raw materials, technology, and semiprocessed goods, from many countries, interacted to create them. As less developed countries climbed the technology ladder, they began producing products at home to substitute for previously imported items and eventually began exporting more sophisticated products as well. In turn, the more developed nations moved to knowledge-intensive activities such as electronics, integrated circuits, robots, aerospace, telecommunications, and biogenetics.

To finance this process, nations bought and sold one another's products at an accelerating and unprecedented pace. Unfortunately, aberrations in the process have occurred, such as protectionism in the form of import restrictions or tariffs to insulate declining activities in some nations. The more developed nations generally financed the expansion of activity in less developed areas by extending credit, leading to growing dependency on the major powers by the third-world countries.

The growing economic interdependence among nations inspired the use of the term *global village* to refer to the scale and functions of the interworkings of the world economy today. The geographical consequences of this arrangement become apparent. It reminds one of a closed system in which any and all changes in one portion or place directly affect all others. Of course, there is spillover into the political arena because of this linkage. We discuss several political manifestations of this process in Chapter 20.

In the first chapter we define economic geography and discuss the particular plight of developing areas today, focusing specifically on poverty. Before delving into a discussion of particular economic activities in Chapter 3, the process of economic development and the evolution of the world system is reviewed in Chapter 2. Only from a better understanding of the differences in the setting and historical circumstances facing the third world in relation to the developed world can one appreciate how the third world possesses a completely separate and unique setting from the developed world's experience. Rather than following in the footsteps of the western world in terms of stages of economic development over time, that area appears to be forging its own destiny, even though ties to the developed world remain strong. The reasons for this difference are obscure and complex, but they relate to the widespread presence of poverty, the historical experience of the area (discussed in Chapter 2), and the growing gap in affluence between the developed and developing areas following recent inflationary price increases, high interest rates, and skyrocketing energy price hikes, to name a few.

#### A RECOMMENDATION

The names of many nations and of other places are mentioned in the chapters to follow. Therefore, every reader should have ready access to an atlas, an indispensable tool for mastering the material of geography as well as for comprehending world affairs. Among the best atlases for economic geography are *The Oxford Economic Atlas of the World*; *The Oxford Regional Economic Atlas, the United States and Canada*; *The Oxford Regional Economic Atlas, Western Europe*; *Man's Domain, a Thematic Atlas of the World*; *The National Atlas of the United States of America*; and *Goode's World Atlas*. In addition, it is helpful to purchase country or regional outline maps at a bookstore to make notations about places and areas discussed in the text.

Truman A. Hartshorn  
Georgia State University



# Acknowledgments

A worthy manuscript for the third edition of *Economic Geography* required five years of developmental effort. I have been ably served by capable secretaries, editors, reviewers, and patient students and colleagues during this time. I would not have attempted the project at all if it were not for the thoughtful counsel and encouragement from Betsy Perry, the first of four Geography editors with whom I worked at Prentice Hall. She was ably followed by Nancy Forsyth, Curt Yehnert, and Dan Joraanstad. Their assistants, Joan-Ellen Messina, and Jennifer Schmunk have been the unsung heroines during these transitions. Executive editor Bob Sickles supported the project throughout.

Reviewers also deserve plaudits for their critiques of at least two versions of the entire manuscript. For this effort, I will be indebted always. This group included the following: Geoffrey Hewings, and Howard Roepke of the University of Illinois; Murray Austin, University of Northern Iowa; David Goldstein, College of DuPage; Peter Muller, University of Miami; and James McConnell of the State University of New York at Buffalo. I am saddened to report that Professors Roepke and Goldstein did not live to see the fruits of their work on this project, but may we rejoice that *Economic Geography* is stronger for their contribution. Other, anonymous reviewers, have also played a helpful role in the manuscript development.

At the local level, I was the beneficiary of many enlightening discussions about the emerging world system with a former colleague, Nanda Shrestha, now

of the University of Wisconsin, Whitewater. He authored Chapter 2 and entered practically all the manuscript into the word processor. My colleague Sanford Bederman penned Chapters 3 and 8 in superb fashion. During this time, I was also ably served by Barbara Denton, Georgia Nixon, Cynthia Fox, Steven Fievet, and Richard Sheets at Georgia State University. Several graduate students also provided helpful services including Steven Johnson, Sara Yurman, and Malissa Carling. No long-term project such as this could be accomplished without the support of the Dean, and I am most grateful for the positive commitment extended by Clyde Faulkner in this regard. Finally, my colleagues deserve thanks for their good nature during this extended period.

This edition includes a more balanced selection of maps at the world, regional, and local scales. Even those retained from earlier editions have been redesigned, providing a uniform product. Appreciation is extended to Jeff Mellander and Mark Smith of Precision Graphics in Champaign, Illinois who handled the drafting.

On the production side I would like to thank Barbara Zeiders for her copy-editing prowess, Jeanne Hoeting, managing editor of the math/science group and Fay Ahuja, production editor.

Courtesies are extended to co-author John Alexander whose legacy I have tried to uphold here. Lay Gibson similarly carried the day with the second edition, and is commended for his encouragement.

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# 1 Economic Geography Today

Economic geography: What is it? Everyone knows that the term “economic” refers in one way or another to business activity, jobs, and/or money, and most people also have some notion of what geography means based on their experience in learning about the world around them. But what is economic geography?<sup>1</sup> *Economic geography* refers to the field of study focused on the location of economic activity at the local, national, and world scale (Figure 1-1). Economic geographers study not only highly developed areas such as the United States and Canada, but also developing areas and centrally planned economies. *Developing areas* lack a modern urban-industrial structure and are sometimes referred to as *third-world nations*. *Centrally planned economies* include China and countries in the Soviet bloc, which are also known as the *second world*. The growing interdependence among activities in all these areas has intensified in recent years. We now talk of global interdependence, and the geography of international business in recognition of this situation. This internationalizing process, which affects all world economies, is given particular attention in this book.

## CLASSIFYING ECONOMIC ACTIVITY

A useful way to classify the various ways in which goods and services can be produced is to think in

<sup>1</sup>The word *economic* pertains to all the activities in which people engage, the world over, in the production, exchange (or distribution), and consumption of goods and services. Anything people

terms of a continuum from simple to complex, from the harvesting of fruits and nuts from nature’s storehouse to creating them purposefully using modern agricultural practices (see Table 1-1). *Primary production* includes age-old activities such as hunting animals and gathering wild berries and nuts; extracting minerals from the earth’s crust; fishing from rivers, lakes, and oceans; and the harvesting of trees. Primary producers might be labeled *red-collar workers* due to the outdoor nature of their work.

*Secondary production* increases the value (or usefulness) of a previously existing item by changing its *form*. Such activities include manufacturing and commercial agriculture. The farmer, for instance, applies hybrid seeds, fertilizers, and modern technology in the form of cultivating and harvesting equipment to increase the yields of crops. Steelmakers turn iron into a more durable metal in blast furnaces and steel mills. We often think of this group collectively as the *blue-collar labor force*.

*Tertiary production* involves the service sector rather than tangible goods. This work refers to a range of personal and business services involving a rapidly growing share of the labor force in highly developed areas. In a colloquial sense, persons engaged in personal service occupations “take in one another’s washing.” Retail clerks, barbers, beauticians, and secretaries all fall into the personal and business service

---

buy, barter, or work to produce, consume, or exchange is an economic item.



**Figure 1-1 Retail Shops in Tokyo.** The majority of retail sales in Japanese cities continues to occur in small “mom and pop” retail outlets. Operators often live upstairs over the store in neighborhoods with narrow streets, colorful signs and sidewalk plants. (T.A.H)

categories as a group and have been described as *pink-collar workers*.

*Quaternary* services represent a special type of service work, focusing on professional and administrative services, including financial and health service work, information processing, teaching, and government service as well as entertainment activity. Specialized technical, communication, and/or motivation and leadership skills provide the common thread linking these activities. Practically all quaternary activity occurs in office building environments or specialized environments provided by schools, theaters, hotels and hospitals, and we think of this group as the *white-collar work force* (see Figure 1-2).

The final grouping, *quinary activities*, remains more restricted in size in comparison to the other groups of activities just reviewed. The most visible persons in this group include chief executive officers and other top-management executives in both government and private service. Research scientists, legal authorities, financial advisers, and professional consultants who

**Table 1-1**

**Classification of Economic Activities**

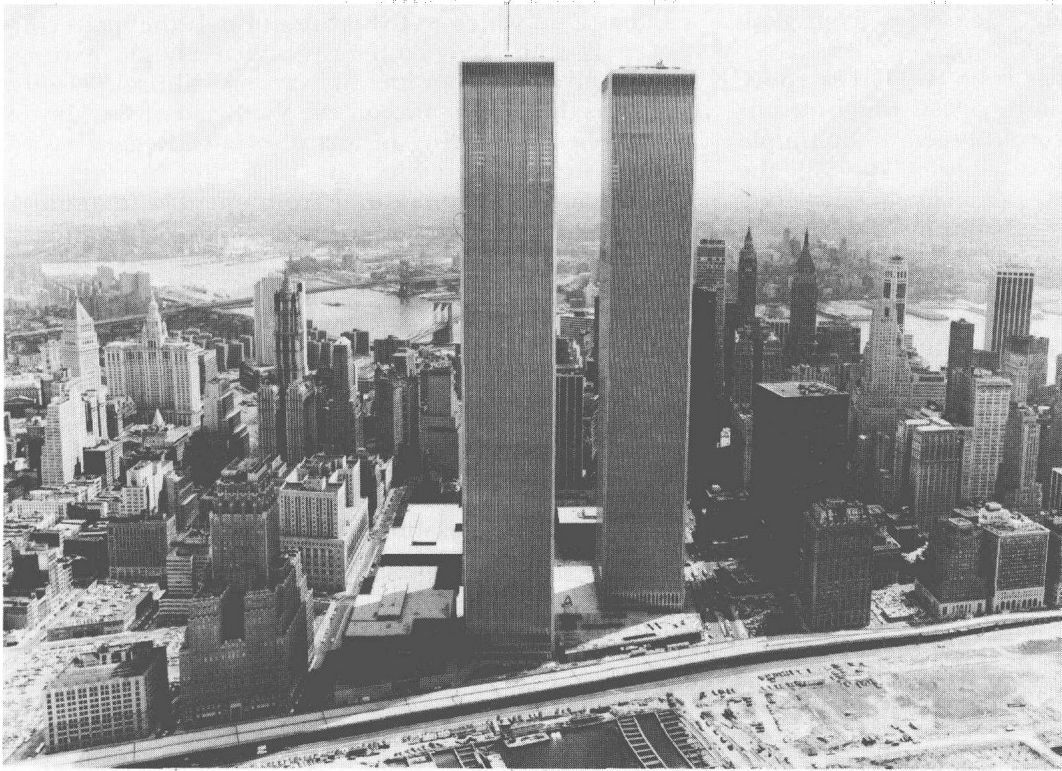
- 
- |    |   |
|----|---|
| A. | Production  |
| 1. | Primary: harvesting commodities from nature (subsistence agriculture, forestry, fishing, mining)  |
| 2. | Secondary   |
|    | (a) Purposeful tending of crops and livestock (commercial agriculture)  |
|    | (b) Increasing the value of commodities by changing their form (manufacturing)  |
| 3. | Tertiary: services (clerical, personal, business)   |
| 4. | Quaternary: financial, health, entertainment, education, information, and data-processing services; middle-management administrative services; government bureaucrats |
| 5. | Quinary   |
|    | (a) High-level managerial and executive administrative positions (public and private)   |
|    | (b) Scientific research and development services  |
| B. | Exchange  |
| 1. | Transportation and distribution services  |
|    | (a) Increasing the value of commodities by changing their location (freight transportation)   |
|    | (b) Exchanging services and ideas by telecommunication or face-to-face contact  |
|    | (c) Satisfying the needs of people by changing their location (passenger transportation)  |
|    | (d) Warehousing and distribution function   |
|    | (e) Wholesale trade   |
|    | (f) Retail trade  |
| C. | Consumption: use of commodities and services by human beings to satisfy needs and wants   |
- 

provide strategic planning and problem-solving services belong to this cluster. Most of these high-order analytical and managerial activities occur in larger urban centers or in close proximity to large university, medical, and/or research centers. New York, London, and Tokyo, for example, being the primary world financial centers, possess a large number of specialized banking and other financial executives, giving them a very large cadre of quinary workers. An appropriate label for this group is the *gold-collar worker*.

**Exchange Services**

In addition to the “goods and services” occupations just discussed, people engaged in the exchange of items, whether it involves handling freight, wholesaling, storage, telecommunications, or passenger movement, also play important roles in modern economies. Most such exchanges increase the value of an item because of the services provided. This type of exchange is the purpose of wholesale trade and retail trade. A radio, for example, is worth more when it leaves a distributor than when it leaves the manufacturer, and its value continues to increase as it passes from distributor to retailer and from retailer to consumer. This additional value is created by the specialized services provided at each level of handling, including packaging, promotion, financing, and merchandizing of the product.





**Figure 1-2 Downtown and Mid-town Manhattan.** *The two downtowns of Manhattan have distinct histories. Downtown Manhattan, the “original” New York that developed on the waterfront, has evolved into the world’s premier financial district, while mid-town has become the corporate office center and retail district. (Courtesy of Port Authority of New York and New Jersey)*

### **Consumption**

A third aspect of all economic activity involves the consumption of goods and services. Until recently, the geography of consumption has largely been ignored by geographers. Today there is a small but growing literature that deals with both the patterns of consumption and the spatial aspects of consumer behavior.

The term *consumption* refers to the final or direct use of goods and services to satisfy the wants and needs of human beings. Some forms of consumption devour goods quickly, as is the case with nondurable goods produced for final consumption (textiles, food, etc.). Other forms of consumption engulf a commodity slowly, bringing about its gradual depreciation, as in the case of producing goods to make other goods, such as occurs with the machine tool industry. Still other forms of consumption, such as tourism and travel, may or may not diminish the quality or quantity of a commodity at all. For example, gazing at the Alps or skiing down the snowy slopes may not diminish the value of the product, especially if environmental concerns are not evaluated. Occasionally, consumption may actually increase the worth of an object, as in enjoying an antique table or a Rembrandt painting.

This gamut of economic pursuits, ranging from hunting and gathering in primitive societies to col-

lecting antiques in highly developed areas, provides a topic for study by economists, historians, and several other scientists, including geographers. Just how does geography differ from these other disciplines in the study of economic activity? A partial answer can be found in the meaning of *geography* itself. The geographer’s perspective deals with location and space, and even though the subject matter is the same as that of other disciplines, the approach or viewpoint of the geographer in dealing with this material provides the field with an identity and uniqueness.

### **THE MEANING OF GEOGRAPHY**

Two widely held but false notions of geography may assist with the definition of geography. A good many people seem to think that geography is simply a matter of place-name recognition; to them, a geographer is a person who knows the location of county seats, state capitals, rivers, and seas. When a contestant on a quiz program chooses the “geography” category, for example, questions asked invariably involve place-name recall.

Other persons have the idea that geography is solely the study of the natural or physical environment. To them, the geography of Illinois, for example, would deal with its climate, topography, drainage, nat-

ural vegetation, soil, and minerals. In this view, geography represents a medley of excerpts from geology, meteorology, and biology.

The word *geography* comes from two Greek roots: *geo*, which means “earth,” and *graphos*, which means “description.” The meaning would seem to be simple and clear. But many scholarly disciplines “describe the earth,” for instance, geology, pedology, botany, zoology, and meteorology. Surely, geography cannot claim to be the sum total of all earth sciences. In fact, the hallmark of geography is not so much *what* it studies as *how* it studies. Geography is unique because of the perspective from which its practitioners study the earth from a spatial perspective.

### **Analogy with History**

The approach used in the field of geography shares at least one common perspective with that of the field of history. There would be no history if human events never changed and were invariable from day to day; it is because of the variation through time that the discipline of history exists. Because of these temporal variations, the historian can identify periods, such as

the Elizabethan period, the Middle Ages, or the cold war era, on which to focus attention. If the main concern is with the manner in which people express themselves, one can identify various cultural periods, such as the Renaissance or the Victorian or the Mayan era, when classifying historical events. Regardless of the historian's predilection, then, the fundamental fact that phenomena differ from one *time* to another enables the researcher to distinguish chronological periods.

But this is only the beginning. The historian's main objective is to understand relationships between events. The scholar, for example, may want to know how an incident in 1914 relates to other events that took place in that year, in subsequent years, and decisions in earlier years that led to World War I.

The geographer is concerned primarily with variations from *place to place* rather than from time to time. Understanding relationships among places provides the integrating theme (Figure 1-3). There would be no geography if physical and human phenomena were distributed uniformly over the face of the earth. But rainfall, elevation, temperature, population, farming, mining, manufacturing, and cities themselves do vary

**Figure 1-3 The Site and Situation of St. Paul, Minnesota.** *St. Paul, located on the east side of the Mississippi River, but in an area where the river actually flows east-west, was settled due to its favorable site for crossing the river.*

