

PLAYER'S MANUAL



# THE GLOBAL BUSINESS GAME

JOSEPH  
WOLFE



A STRATEGIC MANAGEMENT  
AND INTERNATIONAL  
BUSINESS SIMULATION

**The Global Business Game:**

a strategic  
management and  
international business  
simulation

**Player's Manual**

**Joseph Wolfe, Ph.D.**

**Experiential Adventures LLC**

Professor Emeritus, University of Tulsa



**South-Western College Publishing**  
Thomson Learning™

*The Global Business Game: A Strategic Management and International Business Simulation—  
Player's Manual*, by Joseph Wolfe, Ph.D.

Publisher: Dave Shaut  
Executive Editor: John Szilagyi  
Media and Technology Editor: Kevin von Gillern  
Media Production Editor: Robin Browning  
Marketing Manager: Rob Bloom  
Production Editor: Kelly Keeler  
Manufacturing Coordinator: Dana Schwartz  
Production House: Pre-Press Company, Inc.  
Printer: West Publishing

Copyright © 2000 by South-Western College Publishing, a division of Thomson Learning.  
The Thomson logo is a registered trademark used herein under license.

**All rights reserved.** No part of this work covered by the copyright hereon may be reproduced or used in any form or by any means – graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems – without the written permission of the publisher.

Printed in the United States of America  
1 2 3 4 5 02 01 00 99

For more information contact South-Western College Publishing, 5101 Madison Road, Cincinnati, Ohio, 45227,  
or find us on the Internet at <http://www.swcollege.com>

For permission to use material from this text or product, contact us by

- telephone: 1-800-730-2214
- fax: 1-800-730-2215
- web: <http://www.thomsonrights.com>

#### Library of Congress Cataloguing-in-Publication Data

Wolfe, Joseph A. (Joseph Allen)

The global business game: a strategic management and  
international business simulation : player's manual / Joseph Wolfe.

p. cm.

Includes bibliographical reference and index.

ISBN 0-324-00376-5

1. Management—Study and teaching—Simulation methods. I. Title.

HD30.4.W65 1999

658.4'0352—dc21

99-17253

This book is printed on acid-free paper

# Preface

---

Globalization and technology are rapidly altering the nature of international business today. The process of developing and making strategic decisions is being continuously changed through the advancement of technology and the sophistication of the global business environment. In the world arena, current economic, political, and technological events play a significant role in how we formulate strategies for both short-and long-term goals.

When we decided to create *The Global Business Game*, we recognized the immense challenges that the fast-paced business world of today presents. Thus, using a flexible platform, we created a simulation that changes as the world changes. In handling currency fluctuations, maneuvering through critical political and and economic incidents, using real economic data, students develop strategies and techniques that model situations they will encounter throughout their business careers. Working with a top software developer and an experienced editorial team, *The Global Business Game* provides a new, unique simulation that takes the lead amongst a new millenium of strategic games.

*The Global Business Game* can be used as a stand-alone product or as core supplement for a course in Strategic Management, Business Policy, or International Management. Ideal for use with any text, the simulation follows the traditional approach to strategy. *The Global Business Game* is also uniquely flexible. Game Administrators are given the tools to decide the number and variety of products, the location of company operations, whether to invoke critical incidents, as well as other data that define the perimeters of play. Unlike other games, *The Global Business Game* offers a Game Administrator's Manual that is simple and complete.

In *The Global Business Game*, students assume management of a firm that produces television sets. The company is now under attack from its competitors and is confronting consumer demands for higher quality products and features. To ensure a unique business experience for each player, the simulation offers the following features:

- **Global Focus.** Competition is based in countries representing the three major trade regions and agreements—the United States, Mexico, Germany, Spain, Taiwan and Thailand.
- **Flexible Business Environment.** The Game Administrator decides the number and variety of products manufactured and sold, as well as the location of company operations. Choices range from a one-country, one-product operation to three products in six countries.
- **Generic Strategies and Grand Strategies.** Students can design and implement a full range of strategies to increase their firm's competitiveness.
- **International Dynamics.** Players experience currency fluctuations, value-added taxes and dividend taxes, technology transfers, joint ventures, cross licensing, differing labor wage rates, and productivity/absenteeism rates, as well as off-shore manufacturing opportunities.
- **Supports Windows® 95/98.** The Game uses standard Windows functionality, including spreadsheet files for use in Excel®.
- **Market Research Studies.** Market research studies on competitors can be purchased in order to plan which markets to enter and to improve competitive advantage.
- **Critical Incidents.** The Game Administrator can invoke a number of critical incidents, which emphasize the "soft" side of the strategic manager's decision-making situation.
- **Reality-based.** Real-world economic data is available by country and by various financial markets on a quarterly basis.

The business game of today is an extremely complex entity and requires a great number of talents and skills to bring it from a concept to something that is alive and usable for management education and development purposes. *The Global Business Game* is the most recent example of how computer-based games will be designed, programmed, and distributed in the future. Because of its complexity, most of which will lie below the page and will not be apparent to the game user, the list of those who should be acknowledged would be formidable and interminable. Thus, for the sake of brevity, and also for honor, I will acknowledge those who have had the most direct impact on the development of *The Global Business Game*.

First and foremost, I acknowledge the help of my wife, Nancy, who has read and re-read the game's written text too many times to mention. She has also served as a game assistant and creative companion in the many uses of various business games overseas, where my beliefs in the universality of the gaming experience were intensified. Within academic circles, I want to acknowledge the energy with which C. Richard Roberts served as my major coauthor on many of my research studies on the validity of business games. Also within the academic realm, J. Bernard Keys has been very important in my associations with other gaming professionals and their academic societies. He has been at the center of the business gaming movement since the early 1970s and was kind enough to recognize and encourage my talents. In a more broad academic context, my efforts with both the Association for Business Games and Experiential Learning and the journal *Simulation & Gaming* have served as outlets for my research, as well as providing informed opinions about the nature of games and the experiential learning process. The last group in the academic realm that must be acknowledged are my many, many students of all types and needs, who helped me learn more about how games should be designed and used.

South-Western College Publishing assembled a very professional and thorough team that was a delight to work with. Katherine Pruitt-Schenck, Development Editor/Project Manager, must be acknowledged for bringing both my cases and business game work to South-Western's attention. It was this act that put this project into motion. Also within South-Western, the efforts of the publishing team headed by John Szilagyi, Executive Editor, together with Kelly Keeler, Production Editor, Robin Browning, Media Production Editor, Kevin von Gillern, Media Technology Editor, and Rob Bloom, Marketing Manager, have made this project a reality.

The next individuals associated with *The Global Business Game* were those assembled by Horizons Interactive. Dave Fullen served as the patient and thoughtful coordinator of the game's user interface and the thousands of lines program code that had to be created. In his role he served as liaison for the myriad of issues that arise when creating such a complex product. Those on his team include Doug Brown, Interface Designer at Horizons Interactive, and programmers Brian Makuch and Joe Keller, at Bitfoundry.

I hope that I have done justice to all of those who have helped in this project, whether mentioned here or known only to me. I have been honored by their efforts and my associations with them, and I trust this business game returns the favor.

Joseph Wolfe  
May 1, 1999

# Contents

---

*Table of Exhibits* v

*Preface* vii

## **1 The Global Household Audio and Video Equipment Industry 1**

Industry demand and product characteristics 2

World and national markets 4

Germany 7

Spain 7

Mexico 7

Taiwan 8

Thailand 8

United States 9

Country seasonal demand 9

Competitive strategies in global industries 9

Additional readings 11

## **2 Company History and Background 13**

Global industry report 14

Market/country area reports 24

Market/country operations reports 29

Your next steps 34

## **3 Organizing Company Operations 35**

Creating an effective management team 35

Personal-goal and group norm-setting exercise 36

Executive evaluation form 36

Mission statement and organizational purpose 39

Possible organizational forms 44

Position descriptions 44

Opportunities and threats 48

Strategic objectives and the strategic planning hierarchy 53

Recording your decisions 56

Critical incidents 57

A well-organized team 57

Additional readings 57

## **4 Marketing and Marketing Logistics 59**

Demand creation 60

Product prices and backorders 60

Product segments 61

Distribution centers and sales offices 62

Shipping methods 63

Inventory-handling charges 64

Distribution center and sales office expenses 64

Independent wholesale operations 64

Company-owned wholesale operations 65

Intra-company transfers 66

Sales force size 66

Sales representatives and sales-incentive programs 67

Import tariffs, trading communities, and trading zones 68

Research and development 69

Patents and cross-licensing agreements 69

Intercompany contracts and joint-licensing ventures 69

Market research 70

Private label bids 71

The marketing/production interface 71

Additional readings 71

## **5 Manufacturing Operations 73**

The production process 73

Worker scheduling, vacations, and absenteeism 75

Television set components and subassemblies 77

Subassembly inventories 77

Subassembly inventory charges 78

Subassembly quality grades 78

Straight-time, second-shift operations, and overtime 79

General administration and factory overhead 79

Work in process 79

Finished goods inventories 80

Warranty work 80

Product quality 80

Automaton precision 80

Work-crew training and development 81

Assembly line supervision 82

Quality control budget 82

Plant and equipment maintenance 83

Capital equipment changes 83

Automaton additions and transfers 83

Used Automaton sales and purchases 85

Plant construction and outfitting 85

Almost everything in place 86

Additional readings 87

## 6 Finance, Financial Markets, and Accounting Operations 89

- Common stock issues 90
- Treasury stock purchases 91
- Dividends 91
- Debt issues 92
- Overdrafts 92
- 90-day short-term loans 92
- 10-year bonds 92
- Call option 93
- Cash transfers 93
- Income taxes 93
- Value-added taxes 94
- Dividend taxes 94
- The Euro and "Euroland" 94
- Exchange rate gains and losses 95
- Short-term investments 96
- Money circles and hedging 96
- Accounting and cash flow operations 97
- Gross receipts 97
- Other income 97
- Cost of goods sold 97
- General administration 98
- Depreciation 98
- Interest charges 98
- Income tax 98
- Capital in progress 98
- Total to retained earnings 99

- Accounting and cash flow operations 99
- Income statement results 99
- Balance sheet results 99
- Cash flow operations 99
- Entering decisions 115
- Additional readings 115

## 7 Simulation Operations and Playing Procedures 117

- General diskette operations and procedures 117
- System requirements 118
- Using Windows™ 118
- Player Application Installation 119
- Running GBG Player 119

## Appendices 129

- Appendix A: Quarterly Decision Logs* 131
- Appendix B: Cash Flow Forecasting Forms* 167
- Appendix C: Pro Forma Income Statements* 173
- Appendix D: Pro Forma Balance Sheets* 175
- Appendix E: Critical Incidents in Global Industries* 177
- Appendix F: Patent Licensing Sale and Transfer Agreement* 186
- Appendix G: Automaton Sale and Transfer Agreement* 187
- Appendix H: Product Sale and Transfer Agreement* 188
- Appendix I: Private Brand Bid* 189
- Appendix J: Game Debriefing Form* 190

## Table of Exhibits

### 1 The Global Household Audio and Video Equipment Industry 1

- Exhibit 1.1: 25- and 27-Inch Sets with Remote Selectors 2
- Exhibit 1.2: Repairs and Serious Problems by Brand 3
- Exhibit 1.3: Television-Set Ownership in the United States 4
- Exhibit 1.4: Population Projections by Major Region 4
- Exhibit 1.5: Population Projections for Selected Countries 5
- Exhibit 1.6: Television-Set Ownership, 1997 5
- Exhibit 1.7: Selected Raw Economic Data 6
- Exhibit 1.8: Size, Growth, and Intensity of Prospective Country Markets 6
- Exhibit 1.9: Television-Set Seasonal Indices by Quarter 9
- Exhibit 1.10: Strategies in Global Industries 11

### 2 Company History and Background 13

- Exhibit 2.1: Decision Log 15
- Exhibit 2.2: Intrafirm Automaton Transfers 20
- Exhibit 2.3: Global Industry A Report, Page 1 21

- Exhibit 2.4: Global Industry A Report, Page 2 22
- Exhibit 2.5: NAFTA Consolidated Income Statement 25
- Exhibit 2.6: NAFTA Consolidated Balance Sheet 28
- Exhibit 2.7: Operations Report, Page 1 32
- Exhibit 2.8: Operations Report, Page 2 33

### 3 Organizing Company Operations 35

- Exhibit 3.1: Possible Organizational Forms for Position Descriptions 45

### 4 Marketing and Marketing Logistics 59

- Exhibit 4.1: Marketing Channels and Channel Participants 59
- Exhibit 4.2: Product Grades and Market Segments 62
- Exhibit 4.3: Distribution Center and Sales Office Start-Up and Shut-Down Costs 62
- Exhibit 4.4: Unit Shipping Rates 63
- Exhibit 4.5: Inventory and Handling Charges by Product 64

- Exhibit 4.6: Quarterly Distribution Center and Sales Office Overhead Costs 65
- Exhibit 4.7: Independent Wholesaler Servicing Costs 65
- Exhibit 4.8: Company-Owned Wholesaling Operations Costs 66
- Exhibit 4.9a: Sales Force Hiring, Firing, and Deployment Costs 68
- Exhibit 4.9b: Trading Zone Tariff Rates 68
- Exhibit 4.10: Country Tariff Rates 68
- Exhibit 4.11: The Merlin Group, Ltd., Research and Rate Schedule 70

## 5 Manufacturing Operations 73

- Exhibit 5.1: General Factory Operations 74
- Exhibit 5.2: Automaton 8-Hour Productivity and Required Technical Support 75
- Exhibit 5.3: Automaton Technician Hourly Wages 75
- Exhibit 5.4: Labor-Hour Requirements by Product 75
- Exhibit 5.5: Base-Period Hourly Wage Rates by Factory Task Assignment 76
- Exhibit 5.6: Labor Charges for 27-Inch Sets for Selected Countries 76
- Exhibit 5.7: Vacations, Sick Days, and Absenteeism by Country 76
- Exhibit 5.8: Product Subassembly Requirements 77
- Exhibit 5.9: Subassembly Lot Prices by Grade and Group 77
- Exhibit 5.10: Lot Shipping Rates from Hong Kong 77
- Exhibit 5.11: Subassembly Grades and Quality Indices 78
- Exhibit 5.12: United States Assembly-Line Hourly Rates by Shift 79
- Exhibit 5.13: Automaton Precision Levels and Variance Rates 81
- Exhibit 5.14: The Physical Control of Product Quality 81
- Exhibit 5.15: Quality-Control Inspection Programs 83
- Exhibit 5.16: Quarterly Automaton Maintenance Requirements 83
- Exhibit 5.17: Automaton Shipping Costs from Turin, Italy 84
- Exhibit 5.18: Automaton Price Schedule 84
- Exhibit 5.19: Combined Automaton Shipping Charges and Dismantling Fees 84
- Exhibits 5.20: Building an 86-Worker Base Capacity Factory with Automatons 86

## 6 Finance, Financial Markets, and Accounting Operations 89

- Exhibit 6.1: Data Sources for Money Markets and Financial Activities 89
- Exhibit 6.2: Credit Ratings and Debt Interest Rates 90
- Exhibit 6.3: A Stock Sale Example 91
- Exhibit 6.4: A Treasury Stock Purchase Example 91
- Exhibit 6.5: A Bond Offering Example 93
- Exhibit 6.6: Simplified Income, Value-Added and Dividend Tax Rates 94
- Exhibit 6.7: A Sample of Currency Rates by Country 95
- Exhibit 6.8: Summary of Cash Flow Operations 97
- Exhibit 6.9: Cash Inflow Operations 114
- Exhibit 6.10: Cash Outflow Operations 115

## 7 Simulation Operations and Playing Procedures 117

- Screen 7.1: Opening Global Business Game Screens 119
- Screen 7.2: Initializing Your Company 120
- Screen 7.3: Company Roster 121
- Screens 7.4a–7.4d: Saving Company Input 121–122
- Screen 7.5: Open File Open Player Application 123
- Screen 7.6: Security Check 123
- Screen 7.7: Entering Decisions 125
- Screen 7.8: Asset Transfers 125
- Screen 7.9: Critical Incident Responses 126
- Screen 7.10: Merlin Reports Requests 126

## Chapter 1

# The Global Household Audio and Video Equipment Industry

---

This chapter provides you with a general introduction to the world that has been created by *The Global Business Game's* (GBG) model. The game itself is very flexible and provides your instructor or Game Administrator with a number of options regarding its complexity. Depending on which learning objectives have been chosen for you, your company may be competing as a manufacturer of 25-inch color television sets for sale in your home country, which might be the United States. Should your Game Administrator wish to give you more strategic options, your company might be allowed to manufacture nationally branded 25-inch and 27-inch sets plus another privately branded 25-inch set for sale by one of the country's large electronics or general-merchandise chains. If your Game Administrator wants to present you with a challenge that has international trade dimensions, you might have the option of building new manufacturing facilities in the Western European countries of Germany and Spain and/or the Asian countries of Taiwan and Thailand. Under these conditions, your company could sell the sets made in those countries throughout the world. Before your game begins, your instructor or Game Administrator will inform you of your particular game's configuration and will provide you with start-up information on how your firm has done in its most recent business quarter.

*The Global Business Game* itself is a simplified model of the structure and details of the television segment of the Household Audio and Video Equipment Industry (SIC 3651200).<sup>\*</sup> Because the GBG is a teaching simulation, however, it simplifies the real world, for if it exactly captured reality, it would take a lifetime to master! Instead, the game's model captures those elements essential to understanding how globally competitive industries operate and the options and operating methods allowed firms in such industries, and to give you a chance to practice strategic management and to better understand your own strengths and weaknesses as a key decision maker in business. Since many companies and industries now compete at the international level, even the strongest domestic firms are no longer protected from foreign competition. Such factors as fast, inexpensive communications, rising income levels in numerous countries, and the internationalization of consumer tastes and expectations have created world markets for a large array of goods and products. For financial survival, at the minimum, or financial security and growth, at the maximum, companies must mount and withstand competition on the international level, and the GBG has been created to help you become more attuned to this competitive world.

Your company's previous management group in *The Global Business Game* had chosen to compete in a smaller segment of the household audio and video equipment industry. Because this is a global industry, many different-sized companies manufacture and sell their products across their national borders; these products are as diverse as

---

<sup>\*</sup> The *Standard Industrial Classification Manual* describes this industry as "Establishments primarily engaged in manufacturing electronic audio and video equipment for home entertainment (including automotive), such as television sets, radio broadcast receivers, tape players, phonographs, and video recorders and players. This industry also includes establishments primarily engaged in manufacturing public address systems and music distribution apparatus." See *Standard Industrial Classification Manual*, 1987. Springfield, Va.: National Technical Information Service, 1987, p. 228.

juke boxes, microphones, television sets, and remote control devices. Considering your firm's more limited assets, as well as its specialized competencies, it chose a number of years ago to manufacture and sell through wholesale distributors a more limited line of middle-sized home television sets (SIC 3651200)—after having dabbled in small clock radios, record turntables, and audio tape recorders and players.

## Industry Demand and Product Characteristics

The demand for television sets of an individual nation and the world depends on a number of intertwined factors. These factors are both economic and socioeconomic in nature and consist of disposable incomes and literacy levels, the country's degree of electrification, amount of leisure time and how people use it, the relative costs of alternative pastimes and diversions, and the population's size and number of household units.

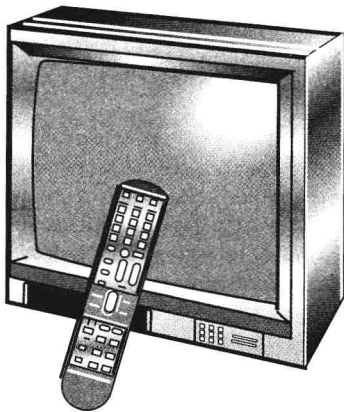
The set you are making is the result of a series of inventions and discoveries that began in Britain in 1908, when Campbell-Swinton proved that light signals could be transmitted and received by a cathode-ray tube. In 1920 John Logie Baird demonstrated "radio-vision" in London. Four years later he presented his transmitting and receiving system at the Wembley Exhibition. This was a mechanical system using synchronized spinning disks. Britain was also the first country to have regular television service. This was begun in November 1936 by the BBC from a London hilltop.

Although the British were at the vanguard regarding television's basic technological research, it was in the United States that its commercial possibilities and mass-market appeal were the most thoroughly exploited. Applied research was directed by RCA's Director of Electronic Research V. K. Zworykin in the early 1930s. RCA invented the Iconoscope as the part of the camera for capturing the images that were broadcast, and then the Kinescope, for viewing the images that had been received. By the late 1940s, television stations were operating in most of America's largest cities, although viewing hours were restricted.

---

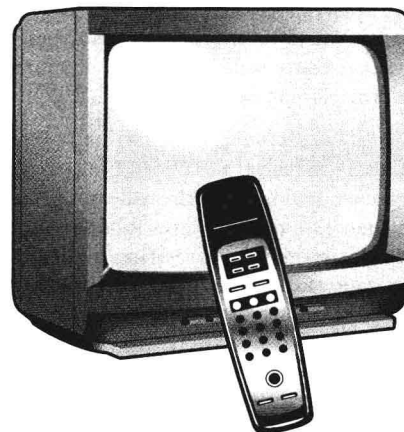
### Exhibit 1.1 25- and 27-Inch Sets with Remote Selectors

---



#### 25-Inch Set Features:

- Remote control
- On-screen multilingual menu
- Closed-caption capability
- Closed captioning when muted
- Stereo capability
- Commercial-skip timer
- Separate audio program
- 12-month parts warranty
- 24-month picture-tube warranty



#### 27-Inch Set Features:

- Universal remote control
- Color-"warmth" adjustment
- Automatic volume control
- S-video-input jack
- Multiple-input jacks
- On-screen multilingual menu
- Closed-caption capability
- Closed captioning when muted
- Stereo sound
- Ambience sound
- Audio-output jacks
- Commercial-skip timer
- Picture-in-picture
- Channel block-out
- 12-month parts warranty
- 24-month picture-tube warranty

---

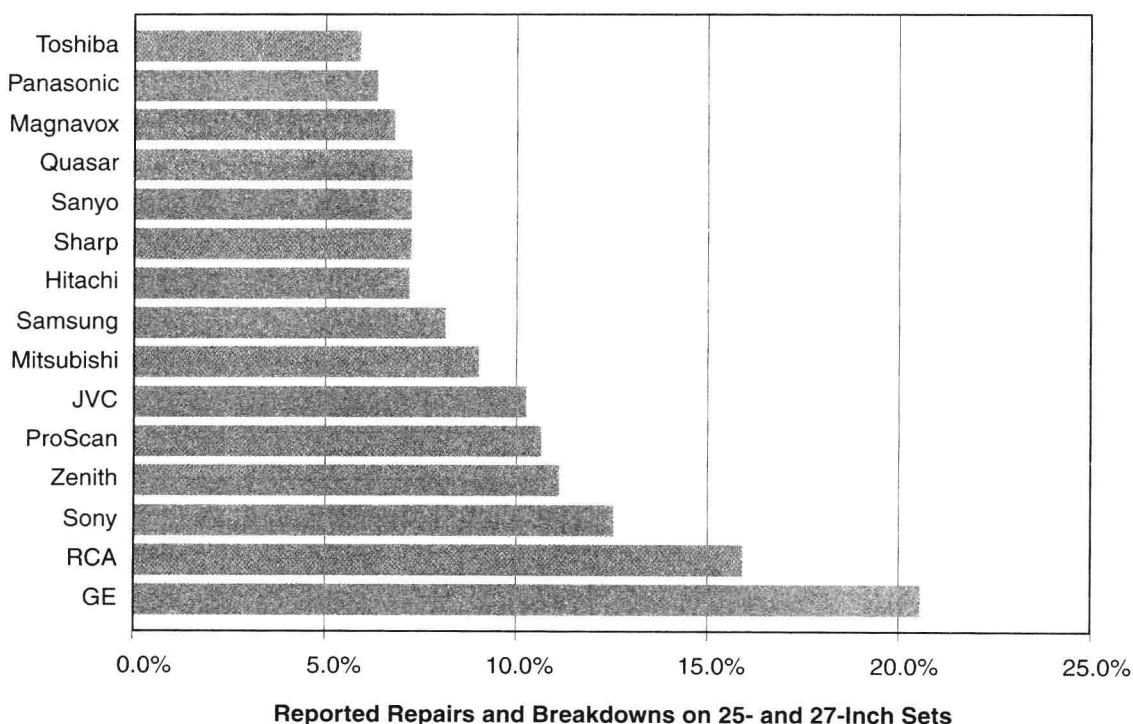
Whereas many black-and-white television sets were being purchased by American consumers at this time, demonstrations of color television sets were occurring simultaneously. The CBS Network's field sequential system of spinning colored disks initially challenged RCA and its NBC Network for supremacy, but the latter's more complicated but theoretically superior three-color gun system prevailed. Today almost all new television sets are color sets, and all come with a number of convenience features.

The most popular-sized sets in North America are those whose picture tube diagonally measures 25 or 27 inches across the face. These sets lie between the industry's smallest models, 19 and 20 inches, and its big-screen models, measuring 31 inches or more. In the United States, the industry's 25-inch TVs are often used as secondary or even tertiary sets in larger bedrooms or dens. The big-screen sets are used in large family rooms. Monophonic 25-inch sets retail in the United States for from \$250 to \$280, with those featuring stereophonic or "surround" sound retailing for \$270 to \$350. This class of sets, which is presented in Exhibit 1.1, is limited regarding the number of features and amenities found in them.

In contrast, the industry's 27-inch sets offer very fine pictures, higher quality sound, and a host of useful features. Many provide color-"warmth" adjustments that present flesh tones and interiors in a more favorable light, automatic volume controls that tone down loud advertisements, S-video-input jacks that take advantage of the superior picture quality generated by Hi8 or S-VHS-C camcorders, picture-in-picture, and audio circuitry that emulates surround sound. Exhibit 1.1 cites the typical features found on sets in this size category. These television sets currently retail for \$350 to \$580 in the United States but receive higher prices in foreign markets due to tariffs and value-added taxes (VATs) often levied on them. They are also retailed through relatively inefficient marketing channels.

Sets of these two sizes produce acceptable pictures and sound as well as featuring remote-control devices. There are substantial differences, however, in the reliability of the various brands found in the marketplace. Many consumers attach great importance to having a set not prone to breakdowns. Exhibit 1.2 presents the five-year frequency of repair records associated with the world's major television brands.

**Exhibit 1.2 Repairs and Serious Problems by Brand**



Source: "Ratings and Recommendations: 27-Inch TV Sets," *Consumer Reports* (March 1998), p. 29.

The demand for these features, and the ability to pay for them, differ between countries. The number of broadcast television channels, let alone the number of cable channels, also varies radically from country to country. Additionally, the television set's use as a home entertainment medium varies depending upon the household's financial circumstances. Various features are also more or less attractive due to differing literacy levels, the availability of repair facilities, and the product's life-cycle stage within each country. Depending on the situation, increased complexity or greater product sophistication could be a product disadvantage. Exhibit 1.3 shows that a high degree of product saturation and market maturity exists in the United States for television sets. The markets of Taiwan, Mexico, and Thailand are relatively unsaturated in this regard.

## World and National Markets

Because the household audio and video equipment industry is global in scope, competitors must systematically monitor many global economic trends and developments. Raw population projections, such as those shown in Exhibit 1.4, indicate that the world's population will increase about 44% in the very long term. This results in a 1.5% average annual increase in the number of people who could potentially watch a television set. The greatest growth will be found in the developing areas of Africa, the Middle East, and Latin America.

**Exhibit 1.3 Television-Set Ownership in the United States**

Item	1970	1980	1992	1993	1994	1995
Percent of households	95.3	97.9	98.3	98.3	98.3	98.3
Sets (hundreds of thousands)	81.0	128.0	192.0	201.0	211.0	217.0
Sets per home	1.4	1.7	2.1	2.2	2.2	2.3
Color sets (hundreds of thousands)	21.0	63.0	91.0	92.0	93.0	94.0

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States: 1997*. Washington, D.C.: U.S. Government Printing Office, 1997, Table 888.

**Exhibit 1.4 Population Projections by Major Region (hundreds of thousands)**

Major Region	1996	Years 2000	2025	Long-Term Growth (Percent)
Asia	3,151.1	3,375.4	4,196.7	33.2
Western Europe	388.3	392.1	395.7	1.9
Eastern Europe	421.3	435.8	498.3	18.3
North America	286.8	297.7	347.3	21.1
Latin America	501.3	550.0	786.6	56.9
Middle East	148.7	168.3	270.0	81.6
Africa	753.2	877.4	1,642.9	118.1
Oceania	28.5	30.4	39.5	38.6
Total	5,679.2	6,127.1	8,177.0	44.0

Source: Adapted from United Nations data reported in the *World Almanac & Book of Facts 1991*. New York: World Almanac Books, 1991, p. 772.

**Exhibit 1.5 Population Projections for Selected Countries (hundreds of thousands)**

Country	1996	Year 2000	2010	Long-Term Growth (Percent)
Germany	83.5	85.7	88.9	6.5
Mexico	95.8	102.9	120.1	25.4
Spain	39.2	39.6	40.4	3.1
Taiwan	21.5	22.2	24.0	28.8
Thailand	58.9	61.1	66.1	11.6
United States	265.6	275.0	298.0	12.2
Total	564.5	586.5	637.5	12.9

Source: Derived from data in Annmarie Muth (ed.), *Statistical Abstract of the World*. Detroit: Gale Research, 1997, pp. 354, 623, 874, 920, 937, and 993.

Although the gross estimates for these areas are notable, your company's previous management group has been relatively uninterested in conducting international operations and has focused solely on its home country of the United States. Some in your company, however, are aware of international developments, especially the profits that might be gained through expanded operations encouraged in North America by NAFTA, and in Western Europe and Asia via their respective trading zones of the European Union (EU) and APEC (Asia Pacific Economic Cooperation). Exhibit 1.5 shows the projected population growth rates for these economic zones and for the specific countries possibly available to you in *The Global Business Game*.

Understanding that a nation's growth is a factor to be considered when seeking foreign markets, your company was also interested in the buying power of each nation's population, as well as each nation's current stock of television sets. Exhibit 1.6 displays each nation's television-set ownership in 1997. On a per capita basis, a relatively low level of television-set saturation has been realized in Thailand, whereas Germany is rapidly approaching the saturation point.

To create their best estimates of each nation's buying power regarding the purchase of TV sets and other consumer products, your company collected the raw data displayed in Exhibit 1.7. The results of this analysis are presented in Exhibit 1.8, with the size of the circles indicating each country's relative size within the set of countries considered and Market Intensity indicating each country's relative wealth or past experience as a consumer nation.

Although your Game Administrator may inform you that different conditions will apply to your simulation, when Exhibit 1.8 was created against comparable data from the 1988 period, your prior management group obtained a general feeling about most factors that made various markets more or less attractive investment opportunities.

As part of your company's research into various new markets and manufacturing sites, a portfolio was collected for each country. The following reviews certain macroeconomic features for the six countries that appeared to be likely expansion candidates.

**Exhibit 1.6 Television-Set Ownership, 1997 (thousands)**

Country	Television Sets
United States	223,295.6
Germany	46,704.6
Mexico	15,994.0
Spain	15,697.7
Taiwan	7,218.5
Thailand	6,994.2

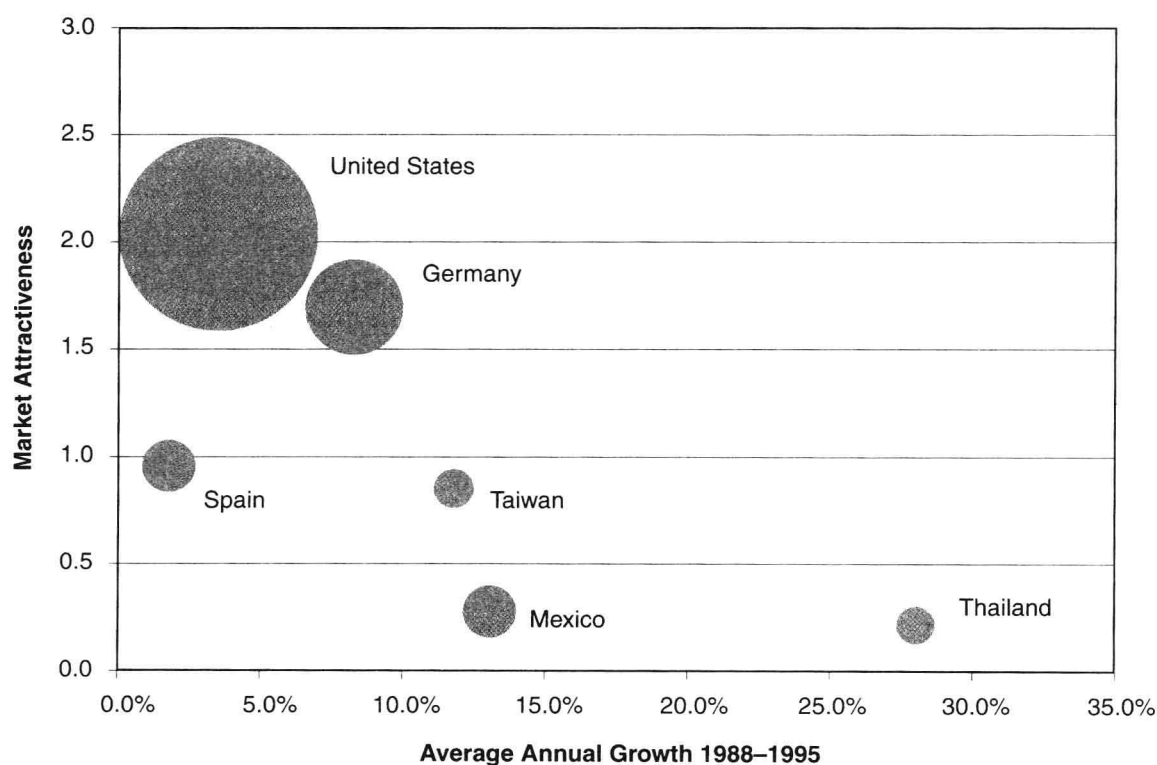
Source: Derived from ratios presented in the *World Almanac & Book of Facts 1998*. New York: World Almanac Books, 1998, pp. 767, 798-799, 820, 824-825, and 832.

**Exhibit 1.7 Selected Raw Economic Data**

Economic Factor	Germany	Mexico	Spain	Taiwan	Thailand	United States
Total population <sup>1</sup>	83.5	95.8	39.2	21.5	58.9	266.9
% Urban population	87.0%	74.0%	77.0%	75.0%	20.0%	76.0%
Private consumption <sup>2</sup>	1401.1	177.5	346.3	133.6	90.2	4727.4
Steel consumption <sup>3</sup>	70.7	15.0	13.5	17.4	10.0	153.8
Cement consumption <sup>3</sup>	40.2	31.5	25.1	23.7	29.9	77.9
Electricity consumption <sup>4</sup>	495.8	145.2	154.1	121.8	77.5	3600.0
Telephones <sup>1</sup>	44.0	12.0	15.1	10.3	1.6	182.6
Passenger cars <sup>1</sup>	40.5	14.6	14.2	4.1	1.4	172.0
Television sets <sup>1</sup>	44.8	13.1	15.7	6.7	3.3	215.0

<sup>1</sup>In millions.<sup>2</sup>In billions of US\$.<sup>3</sup>In millions of metric tons.<sup>4</sup>In billions of kilowatt hours.

Source: Various sources, including *Statistical Yearbook: 1995*, New York: United Nations, 1997; Annmarie Muth (ed.), *Statistical Abstract of the World*, Detroit: Gale Research, 1997; *1997 World Bank Atlas*, Washington, D.C.: World Bank, 1997; and U.S. Bureau of the Census, *Statistical Abstract of the United States: 1997*, Washington, D.C.: U.S. Government Printing Office, 1997.

**Exhibit 1.8 Size, Growth and Intensity of Prospective Country Markets**

*Germany.* The official reunification of the Federal Republic of Germany (West Germany) with the German Democratic Republic (East Germany) at midnight October 2–3, 1990, created an expanded economic unit of over 77 million people. As the European Community has taken shape, Germany has assumed a central role in its affairs as well as in the value of the new Euro in “Euroland.” A low internal inflation rate and elaborate rail, roadway, and telephone infrastructures, along with a pro-business governmental posture, make this country an attractive economic opportunity. Its per capita income, while not as great as that found in the Scandinavian countries, is the highest in Europe after Denmark. Its major industries are steel, ships, vehicles, machinery, coal, and chemicals. About 40 percent of its labor force is engaged in industry and commerce, and 54 percent of its workers are engaged in various service industries. Less positive features are labor rates that are the highest in the world—the equivalent of \$31.79 per hour in the late 1990s—a work week simultaneously shortened from 37 to 35 hours plus vacations lasting up to six weeks, and highly participative union relations.

Key statistics for Germany in the late 1990s:

- Major cities—Essen (6.5 million), Frankfurt (3.6 million), Berlin (3.3 million), Cologne (3.0 million), Dusseldorf (3.0 million), Hamburg (1.6 million), and Munich (1.3 million).
- Population density—610 per square mile
- Land mass—349,300 sq. kilometers
- Literacy rate—100%, with ten years of compulsory education
- Newspaper circulation—317 per 1,000 population
- Airports with scheduled flights—28
- Physicians—1 per 298 persons
- Hospital beds—1 per 130 persons
- Infant mortality—6 per 1,000 births

*Spain.* This country has been a favorite manufacturing site for European firms wishing to lower their labor costs. The economy has been growing at a relatively high rate of about 3.4 percent for the past several years, although its unemployment rate is the highest in Western Europe, at around 21.9 percent. Despite this level of unemployment, wages have been rising, and they have been outgaining increases in worker productivity. A certain degree of political unrest lingers on in Spain, as a 1981 coup attempted by right-wing military officers was foiled by King Juan Carlos. Basque extremists have continued their campaign for independence, despite having been granted political autonomy in January 1980. Spain is also seeking the return of Gibraltar from the British, who gained control of the entrance to the Mediterranean Sea in 1704.

Key statistics for Spain in the late 1990s:

- Major cities—Madrid (4.1 million), Barcelona (2.8 million) Valencia (.8 million), Sevilla (.7 million) and Zaragoza (.6 million).
- Population density—200 per square mile
- Land mass—499,400 sq. kilometers
- Literacy rate—97%, with ten years of compulsory education
- Newspaper circulation—104 per 1,000 population
- Airports—12
- Physicians—1 per 246 persons
- Hospital beds—1 per 234 persons
- Infant mortality—6 per 1,000 births

*Mexico.* Despite the discovery of perhaps the world’s largest oil reserves in the late 1960s Mexico’s economy has reaped little benefit. The country’s economic and political history have both been turbulent. Various administrations have attempted to improve the population’s welfare through economic and social reforms, but little real progress has been made. Agricultural crops and farm prices have recently come under government control, as have imports and exports. The peso was devalued in the 1980s, and private banks were nationalized to restore monetary security. It has been estimated that an amount almost 40 percent as large as Mexico’s official GDP is obtained through illegal or undocumented activities, thus depriving the government of much-needed tax revenues. Despite one of the hemisphere’s lowest factory labor rates, at the equivalent of about \$1.56 an hour, much unemployment and underemployment exists.

Key statistics for Mexico in the late 1990s:

Major cities—Mexico City (18.0 million), Guadalajara (3.0 million), and Monterrey (2.7 million).  
Population density—129 per square mile  
Land mass—1,908,700 sq. kilometers  
Literacy rate—90%, with ten years of compulsory education  
Newspaper circulation—113 per 1,000 population  
Airports—83  
Physicians—1 per 613 persons  
Hospital beds—1 per 1,196 persons  
Infant mortality—24 per 1,000 births

*Taiwan.* Now called Chinese Taipei or the Taiwan Province of China, this densely populated country—about the size of New Hampshire and Connecticut combined—manufactures textiles, clothing, electronics, processed foods, chemicals, and plastics. Land reform, U.S. aid and investment, and universal education have helped the country to advance rapidly since its creation by two million Kuomintang supporters in 1949. Its 38-year-old martial law was lifted in 1987, and its relations with the People's Republic of China have become more flexible. Inflationary pressures have relaxed and its economic growth has been relatively unaffected by the Asian meltdown of mid-1998. The pro-business government invested NT\$ 83.2 billion in the construction of the 3,643-hectare Changhua off-shore industrial zone, completed in 1998. The country's legislature is attempting to further accelerate economic development by replacing its Statute for the Encouragement of Investment with new, more favorable legislation. Japanese and Australian firms have made the largest investment in Taiwan, with total new foreign investment in 1997 amounting to more than \$4.3 billion.

Key statistics for Taiwan in the late 1990s:

Major cities—Taipei (2.6 million), Kaohsiung (1.4 million), Taichung (.9 million), and Tainan (.7 million).  
Population density—1,550 per square mile  
Land mass—35,745 sq. kilometers  
Literacy rate—94%, with nine years of compulsory education  
Airports—13  
Physicians—1 per 864 persons  
Hospital beds—1 per 204 persons  
Infant mortality—7 per 1,000 births

*Thailand.* The economic collapse of the Pacific Rim's countries was precipitated by this country's devaluation of its currency in July 1997. This has hit Thailand especially hard. Its economy was never very robust, and the corruption that has traditionally existed in high places made it especially difficult for the government to take effective action. Short-term interest rates soured to 21.5% by mid-1998. The prime rate was 15.5% in May 1998, industrial production fell and GDP fell about 4.5% for 1998 with consumer prices falling about 10.2%. It is also experiencing an AIDS outbreak of epidemic dimensions. Because of the economy's downturn, Thailand received \$17.2 billion in emergency loans in August 1997 from the International Monetary Fund. In May 1998 Thailand's central bank nationalized seven of the country's ailing finance companies. The financial empires of the country's two most important forces, the military and the Sophonpanich family, who control, respectively, the Thai Military Bank and the Bangkok Bank, are also experiencing distress.

Key statistics for Thailand in the late 1990s:

Major cities—Bangkok (6.5 million), Nakhon Ratchasima (.2 million), Chiang Mai (.2 million) and Hat Yai (.2 million)  
Population density—300 per square mile  
Land mass—510,900 sq. kilometers  
Literacy rate—94%, with nine years of compulsory education  
Newspaper circulation—48 per 1,000 population  
Airports with scheduled flights—25  
Physicians—1 per 4,245 persons  
Hospital beds—1 per 599 persons  
Infant mortality—32.0 per 1,000 births

*United States.* Once incomparable in most economic activities, this country's businesses have encountered strong competition on their home soil, while finding it difficult to sell many of their products overseas. Despite these problems, the United States is both the world's richest and largest market and one whose government is basically pro business. Its relatively low interest and inflation rates have led to the longest run of GDP growth in its history. Because of its relatively high labor costs, about \$18.24 per hour, a number of its major corporations have established off-shore manufacturing operations. Alternatively, a major source of new investment has come from foreign corporations seeking footholds in North American markets. In recent years, the dollar has risen against most European and Asian currencies. It appears it will also be strong against the euro.

Key statistics for the United States in 1997:

Major cities—New York City (7.4 million), Los Angeles (3.4 million), Chicago (3.1 million), Houston (1.7 million), and Philadelphia (1.6 million).

Population density—72 per square mile

Land mass—9,159,100 sq. kilometers

Literacy rate—99%

Newspaper circulation—228 per 1,000 population

Airports—834 with scheduled flights

Physicians—1 per 381 persons

Hospital beds—1 per 232 persons

Infant mortality—7 per 1,000 births

## Country Seasonal Demand

Your company has also collected information on past television set sales by nation. In gathering this data, it became clear that television set sales in the consumer goods market varied throughout the year, regardless of each country's underlying macroeconomic elements, and that seasonal variation differed from country to country. In the United States, sets of the size you manufacture have proven to be good Christmas gifts for a child's bedroom. In Germany and Spain, two countries that have many rabid soccer fans, it has been found that television-set sales spike in June, shortly before the World Cup matches begin.

The empirically derived seasonal indicators your management group has created are presented in Exhibit 1.9. These indices, because they are based on long-term, relatively constant factors, will not change over the course of your simulation. They also reflect the fact that distributors stock their warehouses well before retailers stock their shelves with television sets in anticipation of consumer demand.

**Exhibit 1.9 Television-Set Seasonal Indices by Quarter**

Country	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Germany	1.17	1.08	.83	.92
Mexico	1.21	1.11	.81	.87
Spain	1.19	1.10	.79	.92
Taiwan	.84	1.00	1.12	1.04
Thailand	.94	1.02	1.03	1.01
U.S.	.74	.82	1.31	1.13

## Competitive Strategies in Global Industries

A global industry can be defined as one where the industry's participants are present in all key international markets, demand for the product is standardized and the product itself is fairly standardized, and a significant portion of the product's components or raw materials are obtained from international sources. Accordingly, the automobile industry is a global industry; this could also be said of the tire industry, the watch and watch-parts industry, and the pharmaceutical industry.