



# The Business Strategy Game

*COMPETING IN A GLOBAL MARKETPLACE* *2010 Edition*

## *Player's Guide*

Created by

**Arthur A. Thompson, Jr.**  
The University of Alabama

**Gregory J. Stappenbeck**  
*GLO-BUS* Software, Inc.

**Mark A. Reidenbach**  
*GLO-BUS* Software, Inc.



The **Online Edition** of **The Business Strategy Game** is published and marketed exclusively by McGraw-Hill/Irwin, 1333 Burr Ridge Parkway, Burr Ridge, IL 60527

Copyright © 2010 by *GLO-BUS* Software, Inc. All rights reserved.

No part of this document may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of *GLO-BUS* Software, Inc., including, but not limited to, in any network or other electronic storage or transmission, or broadcast for distance learning.

# The Business Strategy Game

COMPETING IN A GLOBAL MARKETPLACE

Welcome to the Online Edition of **The Business Strategy Game**. You and your co-managers are taking over the operation of an athletic footwear company that is in a neck-and-neck race for global market leadership, competing against rival athletic footwear companies run by other class members. All footwear companies presently have the same worldwide market share and the same market shares in each of the four geographic market regions—Europe-Africa, Asia-Pacific, Latin America, and North America. Currently, your company is selling over 5 million pairs annually. In the just-completed year, your company had revenues of \$238 million and net earnings of \$25 million, equal to \$2.50 per share of common stock. The company is in sound financial condition, is performing well, and its products are well-regarded. Your company's board of directors has charged you and your co-managers with developing a winning competitive strategy—one that capitalizes on continuing consumer interest in athletic footwear, keeps the company in the ranks of the industry leaders, and boosts the company's earnings year-after-year.

Your first priority as a **Business Strategy Game** participant should be to absorb the contents of this Player's Guide and get a firm grip on what the exercise involves, the character of the global athletic footwear market, and the cause-effect relationships that govern your company operations. Then you will be ready to explore the online software and start running your assigned company.

## How The Business Strategy Game Works

**The Business Strategy Game** is a PC-based exercise, modeled to reflect the real-world character of the globally competitive athletic footwear industry and structured so that you run a company in head-to-head competition against companies run by other class members. Company operations are patterned after those of an athletic footwear company that produces its shoes at company-operated plants rather than outsourcing production to contract manufacturers. Cause-effect relationships and revenue-cost-profit relationships are based on sound business and economic principles. All aspects of **The Business Strategy Game** closely mirror the competitive functioning of the real-world athletic footwear market. Everything about your company and the industry environment you will operate in has been made as realistic as possible in order to provide you with a close-to-real-life managerial experience. **The Business Strategy Game** puts you in a situation where you and your co-managers can apply what you have learned in business school and where you can be businesslike and logical in deciding what to do.

Each decision period in **The Business Strategy Game** represents a year. The company you will be running began operations 10 years ago, and the first set of decisions you and your co-managers will make is for Year 11. As soon as you get to the Main Menu for running your company, you should print a copy of the Year 10 Company Reports, a summary of the Year 10 Footwear Industry Report, and the Year 10 Competitive Intelligence Reports. The contents of these reports, along with this Player's Guide, provide you with full information on where things stand at your company going into Year 11. You and your co-managers will make decisions each period relating to corporate social responsibility and citizenship (up to 7 decisions), branded and private-label footwear production (up to 10 decisions per plant), the addition or sale of plant capacity and upgrades to existing plants (up to 6 decisions per plant), worker compensation and training (3 decisions per plant), shipping and distribution center operations (8 decisions), pricing and marketing (up to 10 decisions per geographic area), bids to sign celebrities to endorse your footwear (2 entries per celebrity), and the financing of company operations (up to 8 decisions). Plus there is a screen for making annual sales forecasts (this screen entails as few as 12 and as many as 20 entries for each geographic area and as many as 6 entries for forecasting the volume of online sales at your company's Web site). In addition, there are import tariffs and annual changes in exchange rates to consider, and shareholder expectations to satisfy.

**BSG** provides complete results of each year's operations **about 20 minutes** after each decision round deadline. Your reviews and analysis of the information in the latest Company Reports, the Footwear Industry Report, and the Competitive Intelligence Reports serve as the basis for meeting with your co-managers to agree upon any strategy changes and make a revised set of decisions for the upcoming year.

The decision schedule developed by your instructor indicates the number of decision periods that you and your co-managers will be running the company. You should use the practice decision(s) to become familiar with the software, digest the kinds of information provided on the screens and in the reports, and get a glimpse of what to expect before your management team's decisions start to count. All of the decision screens and the report screens have Help buttons explaining what the various numbers mean, describing cause-effect relationships in some detail, and providing advice and guidance on what to think about—the Help pages will answer most every question you have.

**Anytime-Anywhere Access.** You and your co-managers **can access all aspects of BSG at any time from any computer** connected to the Internet. When you go to your “Corporate Lobby” page at [www.bsg-online.com](http://www.bsg-online.com) and click on the Go to Decisions/Reports button, **BSG** automatically transfers the needed software from the BSG server to the computer you are working on very quickly (within a couple of minutes even on a slow connection). The decision entries you make can be saved back to the BSG server by clicking the Save button at the top-right of the program window. **The last decisions saved to the BSG server at the time of the decision deadline are the ones used to generate the results.**

The Corporate Lobby where you accessed this Player's Guide functions as your “gateway” for all **BSG** activities—it has links to the decisions/reports program, recommended decision procedures, the decision schedule, the two accompanying quizzes, the peer evaluations, and so on. Plus the Corporate Lobby reports the latest interest rates and exchange rate impacts. Take a couple of minutes to familiarize yourself with the features and information in your Corporate Lobby, all of which will come into play during the exercise. The recommended decision procedures link under the Support menu heading is especially worth a few minutes of your attention.

## Your Company's Operations

Your company currently produces footwear at 2 plants—a 2 million-pair plant in North America and a newer 4 million-pair plant in Asia. Both plants can be operated at overtime to boost annual capacity by 20%, thus giving the company a current annual capacity of 7,200,000 pairs. Sales volume in Year 10 equaled 5.2 million pairs, so there's no immediate urgency to add more capacity. At management's direction, the company's design staff can come up with more footwear models, new features, and stylish new designs to keep the product line fresh and in keeping with the latest fashion. The company markets its brand of athletic footwear to footwear retailers worldwide and to individuals buying online at the company's Web site. In years past, whenever the company had more production capacity than was needed to meet the demand for its branded footwear, it entered into competitive bidding for contracts to produce footwear sold under the private-label brands of large chain retailers. In Year 10 the company sold 4,500,000 million pairs of branded shoes to retailers and individuals, and it bid successfully for contracts to supply 740,000 pairs of private label shoes to large multi-outlet retailers of athletic footwear.

Materials to make the company's footwear are purchased from a variety of suppliers, all of whom have the capability to make daily deliveries to the company's plants; the company's just-in-time supply chain eliminates the need for maintaining materials inventories at its plants. Newly produced footwear is immediately shipped in bulk containers to one of the company's four regional distribution centers. The distribution center for Europe-Africa is in Milan, Italy. The distribution center for the Asia-Pacific region is in Bangkok, Thailand. The Latin American distribution center is in Rio de Janeiro, Brazil, and the North American distribution center is in Memphis, Tennessee. Many countries have import duties on footwear produced at plants outside their geographic region; import tariffs, which become payable when your company ships footwear to foreign distribution centers, currently average \$4 per pair in Europe-Africa, \$6 per pair in Latin America, and \$8 in Asia-Pacific. However, the Free Trade Treaty of the Americas allows tariff-free movement of footwear between all the countries of North America and Latin America. The countries of North America, which strongly support free trade policies worldwide, currently have no import tariffs on footwear made in either Europe-Africa or Asia-Pacific. Your instructor has the option to alter tariffs as the game progresses, so the current tariff arrangements should be viewed as temporary.

**Shipping and Distribution Center Operations.** Personnel at the company's distribution centers open the bulk shipments from plants, pack each incoming pair in individual boxes, store the shoe boxes in bins numbered by model and size, retrieve the pairs/boxes from bins as needed to fill incoming orders from footwear retailers and online buyers, and ready orders for shipment. Arrangements are made with independent freight carriers to pick up outgoing orders at the loading docks of the distribution centers and deliver them to customers. Each distribution center maintains sufficient inventory of each model and size

to enable orders to be delivered within 1 to 4 weeks from the time the order is placed. You and your co-managers will decide whether to staff for 1-week, 2-week, 3-week, or 4-week delivery to retailers.

**Competitive Efforts in the Marketplace.** From-time-to-time the company enhances its footwear with new styling and performance features and alters the number of models/styles in its product lineup. In addition, the company strives to enhance its sales volume and standing in the marketplace via attractive pricing, advertising, mail-in rebates, contracting with celebrities to endorse its brand, convincing footwear retailers dealers to carry its brand, providing merchandising and promotional support to retailers, good delivery times on shipments to retailers, and promoting online purchases at its Web site.

**Stock Listings and Financial Reporting.** The company's stock price has risen from \$11.00 in Year 6, when the company went public, to \$30 at the end of Year 10. There are 10 million shares of the company's stock outstanding. The company's financial statements are prepared in accord with generally accepted accounting principles and are reported in U.S. dollars. The company's financial accounting is in accordance with the rules and regulations of all securities exchanges where its stock is traded.

**The Worldwide Market for Athletic Footwear**

The number of companies in your industry will range from 4 to 12 companies, depending on class size and the number of co-managers assigned to each company. All companies begin *The Business Strategy Game* exercise in exactly the same competitive market position—equal sales volume, global and regional market share, revenues, profits, costs, footwear styling and quality, prices, retailer networks, and so on. In upcoming years, managers can undertake actions to alter their company's sales and market shares in all regions, opting to increase sales and share in some and to decrease sales and share in others (including exiting one or more regions or market segments entirely).

**Market Growth.** The prospects for long-term growth in the sales of athletic footwear are excellent. Athletic shoes have become the everyday footwear of choice for children and teenagers. Adults buy athletic shoes for recreational activities as well as for leisure and casual use, attracted by greater comfort, easy-care features, and lower prices in comparison to leather shoes. Athletic footwear has proved very attractive to people who spend a lot of time on their feet and to older people with foot problems.

The combined effect of these factors is reliably expected to produce 7-9% annual growth in global demand for athletic footwear for Years 11-15, slowing to about 5-7% annual growth during Years 16-20. But the projected growth rates are not the same for all four regions, as indicated in the table below:

	Projected Growth Rates					
	North America & Europe-Africa		Asia-Pacific & Latin America		Overall World Market	
<b>Branded Footwear Markets</b>	5-7%	Years 11-15	9-11%	Years 11-15	7-9%	Years 11-15
	3-5%	Years 16-20	7-9%	Years 16-20	5-7%	Years 16-20
<b>Private-Label Footwear Markets</b>	10%	Years 11-15	10%	Years 11-15	10%	Years 11-15
	8.5%	Years 16-20	8.5%	Years 16-20	8.5%	Years 16-20

**Note:** Branded footwear sales to individuals at the company's Web site (which were 5% of total branded sales in each geographic region in Year 10) are projected to rise by 1 percentage point annually to 15% of total branded sales in each region in Year 20.

Just where the actual growth will fall within the indicated 2 percentage-point intervals varies both by year and by region—thus sales might grow 5.3% in Year 11 in North America and 6.6% in Year 11 in Europe-Africa, then grow 6.2% in Year 12 in North America and 5.8% in Year 12 in Europe-Africa. Moreover, there's a possibility that (1) intense competition among rival footwear companies (in the form of declining prices, higher footwear quality, and so on) can spur market growth above the projected levels or (2) weak competition (in the form of rising prices, subpar footwear quality, and so on) can produce weaker than projected rates of market growth. Hence, there's a modest element of uncertainty regarding just what actual sales volumes will be in each of the upcoming years.

In Year 10, unit sales of branded footwear in North America and Europe-Africa were about 50% larger than the unit volumes in the Latin America and Asia-Pacific regions, but the higher annual growth rates in the two lower-volume regions will result in almost equal market sizes in all four regions by Year 20. Assuming that market growth falls close to the midpoint of the indicated ranges in growth rates, unit sales per company should be in the vicinity of 5,650,000 pairs in Year 11 and 6,100,000 pairs in Year 12. Unit volume forecasts for Years 11-14 for the four geographic regions (based on growth rates at the midpoint of the forecasted ranges) are shown below:

<b>Projected Unit Sales Volumes per Company</b>					
	<b>North America</b>	<b>Europe Africa</b>	<b>Asia-Pacific</b>	<b>Latin America</b>	<b>Worldwide</b>
<b>Year 11</b>					
Branded	1,432,000	1,432,000	990,000	990,000	4,844,000
Private-Label	200,000	200,000	200,000	200,000	800,000
Totals	1,632,000	1,632,000	1,190,000	1,190,000	5,644,000
<b>Year 12</b>					
Branded	1,518,000	1,518,000	1,089,000	1,089,000	5,214,000
Private-Label	220,000	220,000	220,000	220,000	880,000
Totals	1,738,000	1,738,000	1,309,000	1,309,000	6,094,000
<b>Year 13</b>					
Branded	1,609,000	1,609,000	1,198,000	1,198,000	5,614,000
Private-Label	245,000	245,000	245,000	245,000	980,000
Totals	1,854,000	1,854,000	1,443,000	1,443,000	6,594,000
<b>Year 14</b>					
Branded	1,706,000	1,706,000	1,318,000	1,318,000	6,048,000
Private-Label	275,000	275,000	275,000	275,000	1,100,000
Totals	1,981,000	1,981,000	1,593,000	1,593,000	7,148,000

**Note:** All forecasts are averages per company and assume that market growth averages 6% in North America and Europe-Africa (the midpoint of the 5-7% projected range) and 10% in Asia-Pacific and Latin America (the midpoint of the 9-11% projected range). The forecasts also assume that competition among rival companies will be "normal", such that intense competition among rival companies won't produce higher-than-projected growth in buyer demand for athletic footwear or that weak efforts to capture additional sales (perhaps accompanied by sharply rising prices) won't result in lower-than-expected growth in buyer demand.

**Ratings of Athletic Footwear Styling and Quality.** The International Footwear Federation, a well-respected consumer group, rates the styling and quality of the footwear of all competitors and assigns a styling-quality or S/Q rating of 0 to 10 stars to each company's branded footwear offerings. Currently, the athletic footwear lines of all competitors have a 5-star S/Q rating. The Federation's ratings of each company's shoe styling and quality in each market segment are often the subject of newspaper and magazine articles. Market research confirms that many consumers are well informed about the S/Q ratings and consider them in deciding which brand to buy. For example, if two competing brands were equally priced, most consumers would be inclined to buy the brand with the highest S/Q rating. It is unclear whether spirited competition will lead to higher/lower S/Q ratings or to large/small differences in S/Q ratings from company to company.

### Distribution Channels for Athletic Footwear

Athletic footwear manufacturers have three distribution channels for accessing the ultimate consumers of athletic footwear, the people who wear the shoes:

- Wholesale sales to independent footwear retailers who carry athletic footwear—department stores, retail shoe and apparel stores, discount chains, sporting goods stores, and pro shops at golf and tennis clubs. Worldwide, there are some 60,000 retail outlets for athletic footwear scattered across the world. North America and Europe-Africa each have 20,000 retail outlets selling athletic footwear, while Latin America and the Asia-Pacific each have 10,000 retail outlets for athletic footwear.
- Online sales to consumers at the company's Web site.
- Private-label sales to large multi-outlet retailers of athletic footwear.

All manufacturers have traditionally utilized independent footwear retailers as their primary distribution channel for selling branded footwear. Manufacturers have built a network of retailers to handle their brand in all geographic areas where they market. Retailers are recruited by small teams of company-employed sales representatives working out of regional sales offices in each geographic region; the role of the sales reps is to call on retailers, convince them of the merits of carrying the company's brand, solicit orders, and provide assistance with merchandising and in-store displays. Retailers typically carry anywhere from 1-3 brands of athletic footwear (depending on store size and location) and usually stock only certain models/styles of the brands they do carry (since manufacturers have anywhere from 50 to 500 models/styles in their product lines). Retail markups over the wholesale prices of footwear manufacturers can run anywhere from 40% at discount chains to as high as 100% at premium retailers. Thus, a pair of shoes wholesaling for \$50 usually retails for between \$70 and \$100.

However, mounting use of the Internet by shoppers has prompted all footwear manufacturers to launch a Web site displaying their models and styles and giving consumers the option to purchase footwear online. Sales have been growing steadily at the company's Web site, partly because selling online gives the company access to consumers located in areas where there are no retailers carrying the company's brand and partly because some consumers like the convenience of online buying. As indicated earlier, online sales to individuals are projected to grow from 5% to 15% of total branded sales in each geographic region by Year 20. Whether companies will gradually de-emphasize selling through retailers and shift their marketing emphasis to promoting online sales remains to be seen.

The third channel—private-label sales to large chain store accounts—is attractive for two reasons:

- The private-label segment is projected to grow a healthy 10% annually during Years 11-15 and a brisk 8.5% during Years 16-20. The growth in private label sales is being driven largely by the practice of multi-outlet chains to use lower-priced private-label goods to attract price-conscious consumers. Chain retailers that sell athletic footwear under their own label outsource the pairs they need from manufacturers on a competitive-bid basis.
- Making private-label shoes for chain retailers allows a manufacturer use plant capacity more efficiently. For example, a manufacturer selling only 5.5 million pairs of branded shoes with plant capacity of 6 million pairs (7.2 million pairs with maximum use of overtime) can reduce overall costs per pair by utilizing some or all of its unused capacity to produce private-label shoes. The added production volume from being a successful low-bidder to supply private-label shoes to chain retailers helps spread fixed costs over more pairs and can improve overall financial performance (provided the price received for producing the private-label shoes is above the direct costs per pair).

**The Demand Side of the Market for Athletic Footwear.** Consumer demand for athletic footwear is diverse in terms of price, styling, and purpose for which athletic footwear is worn. Many buyers are satisfied with no-frills, budget-priced shoes while some are quite willing to pay premium prices for top-of-the-line quality, multiple features, or trendy styling. The biggest market segment consists of customers who buy athletic shoes for general wear, but there are sizable buyer segments for specialty shoes designed expressly for walking, jogging, aerobics, basketball, tennis, golf, soccer, bowling, and so on. The diversity of buyer demand gives manufacturers room to pursue a variety of strategies—from competing across-the-board with many models and below-average prices to making a limited number of styles for buyers willing to pay premium prices for top-of-the-line quality. Price, styling/features/quality (as reflected in the S/Q ratings), and a wide choice of appropriate styles and models typically have the most influence on a buyer's choice of which brand to purchase.

## Raw Material Supplies

All of the materials used in producing athletic footwear are readily available on the open market. There are some 250 different suppliers worldwide who have the capability to furnish interior lining fabrics, waterproof materials for external use, rubber and plastic materials for soles, shoelaces, and high-strength thread. It is substantially cheaper for footwear manufacturers to purchase these materials from outside suppliers than it is to manufacture them internally in the relatively small volumes needed. Delivery times on all materials are usually less than 48 hours. Suppliers have ample capacity to furnish whatever volume of materials that manufacturers need; no shortages have occurred in the past. Just recently, suppliers confirmed they would have no difficulty in accommodating increased materials demand in the event footwear-makers build additional plant capacity to meet growing worldwide demand.

Suppliers offer two basic grades of materials: standard and superior. The qualities of superior and standard materials are the same from supplier to supplier. All suppliers charge the going market price because of the commodity nature of both standard and superior materials. The use of superior fabrics and shoe sole materials improves shoe quality and performance, but **shoes can be manufactured with any percentage combination of standard and superior materials**. All footwear-making equipment in present and future plants accommodates whatever percentage mix of standard and superior components that management opts to use.

The "base prices" for materials, which are subject to change by your instructor as the game progresses, are currently \$6 per pair for footwear made of 100% standard materials and \$12 for footwear made of 100% superior materials. However, the prevailing base prices are adjusted up or down according to the percentage mix of standard-superior materials usage and the strength of demand for footwear materials:

- **The going market prices of standard and superior materials in any one year deviate from their respective base prices whenever the percentage mix is anything other than 50% for standard and 50% for superior materials.** The going market price of superior (or standard) materials will rise 2% above the base for each 1% that worldwide use of superior (or standard) materials exceeds 50%. Simultaneously, the global market price of standard (or superior) materials will fall 0.5% for each 1% that the global usage of standard (or superior) materials falls below 50%. Thus, worldwide materials usage of 60% superior materials and 40% standard materials will result in a global market price for superior materials that is 20% above the prevailing \$12 base price for superior materials and a global market price for standard materials that is 5% below the prevailing \$6 base price for standard materials. Similarly, worldwide usage of 55% standard materials and 45% superior materials will result in a global market price for standard materials that is 10% above the \$6 base price and a global market price for superior materials that is 2.5% below the prevailing \$12 base. In other words, greater than 50% usage of superior materials widens the price gap between superior and standard materials, and greater than 50% usage of standard materials narrows the price gap.
- **Materials prices fall whenever global production levels drop below 90% of global production capacity and materials prices rise when global production levels rise above 110% of global plant capacity.** Should global shoe production fall below 90% of the footwear industry's global plant capacity (not counting overtime production capability), the market prices for **both** standard and superior materials will drop 1% for each 1% that global shoe production is below the 90% capacity utilization level. Such price reductions reflect increased competition among materials suppliers for the available orders. On the other hand, when global production levels exceed 110% of the industry's global plant capacity (reflecting use of overtime production), the prices of **both** standard and superior materials will go up 1% for each 1% that global production levels exceed 110% of global production capacity. Thus once overtime production exceeds a global average of 10% of installed plant capacity worldwide, then material suppliers are able to exert pricing power and can command higher prices. In the event global production reaches the 20% overtime maximum, the prices of standard and superior materials will be 10% higher than they would otherwise be.

## Footwear Manufacturing

Footwear manufacturing has evolved into a rather uncomplicated process, and the technology is well understood. At present, no company has proprietary know-how that translates into manufacturing advantage. The production process consists of cutting fabrics and materials to conform to size and design patterns, stitching the various pieces of the shoe top together and adding the eyelets, molding and gluing the shoe soles, binding the shoe top to the sole, and inserting the innersoles and laces. Tasks are divided among production workers in such a manner that it is easy to measure individual worker output and thus create incentive compensation tied to piecework. Labor productivity is determined more by worker dexterity and effort than by machine speed; this is why **piecework incentives can induce greater output per worker**. On the other hand, there is ample room for worker error; unless workers pay careful attention to detail, the quality of workmanship suffers. **Training production workers in the use of best practice procedures at each step of the manufacturing process has recently become important to minimizing the reject rates on pairs produced.**

Footwear producers carry no inventories of standard and superior materials because suppliers have the capability to make daily deliveries. Plant managers customarily provide suppliers with production schedules one week in advance to enable them to deliver the materials needed for each day's work shift.

Footwear industry observers expect companies to take a hard look at the economics of producing a bigger fraction of athletic shoes in Asian-Pacific and Latin American countries where trainable supplies of low-wage labor are readily available. Compensation levels for Asian-Pacific and Latin American workers currently run about 20% of annual compensation levels in Europe-Africa and North America. However, worker productivity levels at different plants can vary substantially because of the overall experience of the work force, the use of different incentive compensation plans, the degree of emphasis placed on best practices training, and the use of up-graded footwear-making equipment. All workers worldwide are paid 1.5 times their regular base wage for working overtime (more than 40 hours per week).

But locating most of the company's production in Asia-Pacific and/or Latin America has two potentially significant disadvantages. Tariffs have to be paid on footwear exported from Asia-Pacific plants to markets in Latin America (\$6 per pair) and Europe-Africa (\$4 per pair); likewise, tariffs have to be paid on footwear exports from Latin American plants to markets in Europe-Africa (\$4 per pair) and the Asia-Pacific (\$8 per pair)—it's uncertain whether tariffs in future years will rise or fall and by how much. Also, all companies are subject to unfavorable year-to-year exchange rate fluctuations in shipping footwear from one region to another (as discussed below). One way to guard against adverse changes in tariffs and exchange rates is to maintain a production base in each of the four geographic regions and rely upon those plants to satisfy demand for the company's branded footwear in their respective region. It remains to be seen how companies will weigh the pros and cons of locating plant capacity in one region versus another.

### Exchange Rate Impacts

All footwear companies are subject to exchange rate adjustments at two different points in their business. The first occurs when footwear is shipped from a plant in one region to distribution warehouses in a different region (where local currencies are different from that in which the footwear was produced). The production costs of footwear made at Asia-Pacific plants are tied to the Singapore dollar (Sing\$); the production costs of footwear made at Europe-Africa plants are tied to the euro (€); the production costs of footwear made at Latin American plants are tied to the Brazilian real; and the costs of footwear made in North American plants are tied to the U.S. dollar (US\$). Thus, the production cost of footwear made at an Asia Pacific plant and shipped to Latin America is adjusted up or down for any exchange rate change between the Sing\$ and the Brazilian real that occurs between the time the goods leave the plant and the time they are sold from the distribution center in Latin America (a period of 3-6 weeks). Similarly, the manufacturing cost of footwear shipped between North America and Latin America is adjusted up or down for recent exchange rate changes between the US\$ and the Brazilian real; the manufacturing cost of pairs shipped between North America and Europe-Africa is adjusted up or down based on recent exchange rate fluctuations between the US\$ and the €; the manufacturing cost of pairs shipped between Asia-Pacific and Europe-Africa is adjusted for recent fluctuations between the Sing\$ and the €; and so on.

The second exchange rate adjustment occurs when the local currency the company receives in payment from local retailers and online buyers over the course of a year in Europe-Africa (where all sales transactions are tied to the €), Latin America (where all sales are tied to the Brazilian real), and Asia-Pacific (where all sales are tied to the Sing\$) must be converted to US\$ for financial reporting purposes—the company's financial statements are always reported in US\$. The essence of this second exchange rate adjustment calls for the net revenues the company actually receives on footwear shipped to retailers and online buyers in various parts of the world to reflect year-to-year exchange rate differences as follows:

- The revenues (in €) the company receives from sales to buyers in Europe-Africa are adjusted up or down for average annual exchange rate changes between the € and the US\$.
- The revenues (in Sing\$) received from sales to Asia-Pacific buyers are adjusted up or down for average annual exchange rate changes between the Sing\$ and the US\$.
- The revenues (in Brazilian real) received from sales to Latin American buyers are adjusted up or down for average annual exchange rate changes between the Brazilian real and the US\$.

No adjustments are needed for the revenues received from sales to North American buyers because the company reports its financial results in US\$.

**BSG** is programmed to access all the relevant *real-world* exchange rates between decision periods, handle the calculation of both types of exchange rate adjustments, and report the size of each year's

percentage adjustments on the Corporate Lobby page, on pertinent decision screens, and in the company reports. While you do not have to master the details of how the two types of exchange rate adjustments are calculated, ***you definitely will need to keep a watchful eye on the sizes of the exchange rate adjustments each year and understand what you can do to mitigate the adverse impacts and take advantage of the positive impacts of shifting exchange rates on your company's financial performance.***

The sizes of the exchange rate adjustment each year are always equal to 5 times the actual period-to-period percentage change in the real-world exchange rates for US\$, €, Brazilian real, and Sing\$ (multiplying the actual % change by 5 is done so as to translate exchange rate changes over the few days between decision periods into changes that are more representative of a potential full-year change). However, because actual exchange rate fluctuations are occasionally quite volatile over a several day period, the maximum exchange rate adjustment during any one period is capped at  $\pm 20\%$  (even though bigger changes over a 12-month period are fairly common in the real world).

***There will be no exchange rate adjustments in Year 11.*** The real-world exchange rate values prevailing at the time your instructor re-starts the industry after any practice decisions and the real-world rates prevailing at the time of the decision deadline for Year 11 will serve as the base for calculating the Year 12 exchange rate adjustments. The real-world changes in the exchange rates between the Year 11 and Year 12 decision deadlines serve as the basis for exchange rate adjustments in Year 13. And so on through the exercise. This means you have the advantage of knowing in advance what the exchange rate effects will be in the upcoming year and can thus take actions to mitigate adverse exchange rate effects (we have done this to help you manage the risks of exchange rate fluctuations as opposed to giving you the option to engage in currency hedging, which is pretty intricate and has risks of its own).

## The Competitive Factors That Drive Market Share

Competition among rival athletic footwear companies centers around 11 sales-determining factors:

- 1. Wholesale selling price for branded footwear.** Other competitive factors being equal (S/Q rating, product line breadth, advertising, rebate offers, and so on), the more a company's wholesale price to footwear retailers in a geographic region exceeds the geographic industry average, the more that footwear consumers in that region will be inclined to shift their purchases to lower-priced brands—since higher wholesale prices to footwear retailers translate into higher retail prices for footwear consumers. Similarly, charging a wholesale price that is below the geographic market average raises a company's potential for above-average unit sales and market share unless the effects of a lower price are negated by a sub-par S/Q rating, comparatively few models/styles for buyers to choose among, low advertising, fewer retailers carrying and displaying your brand of athletic footwear, and other factors that matter to footwear consumers. However, above-average wholesale prices to footwear retailers can be partially or wholly offset with a higher S/Q rating, increased advertising, higher mail-in rebates, and so on. The further the wholesale price is above the industry average in a geographic market, the harder it is for a company to use non-price enticements to overcome consumer resistance to higher prices. Likewise, the further a company's wholesale price is below the industry average in a region, the greater the potential sales gains unless the effect of a lower price is negated by a sub-par S/Q rating, comparatively few models/styles, insufficient advertising, weak celebrity endorsements, and a below-average number of retailers merchandising and promoting the company's footwear—low price alone won't attract droves of buyers.
- 2. S/Q ratings.** Other competitive factors being equal (price, retail outlets, product line breadth, advertising, and so on), companies with higher S/Q ratings will outsell companies with lower S/Q ratings. The vast majority of footwear shoppers consider the widely-available and much-publicized annual S/Q ratings compiled by the International Footwear Federation to be a trusted measure of how a company's footwear offerings stack up against those of other companies in the industry. Market research indicates that the S/Q ratings are generally the second most important factor (behind price) in shaping consumers' choices of which footwear brand to purchase. The IFF's S/Q rating of shoes produced at each plant is a function of five factors: (1) current-year spending per model for new features and styling, (2) the percentage of superior materials used, (3) current-year expenditures for Total Quality Management (TQM) and/or Six Sigma quality control programs, (4) cumulative expenditures for TQM/Six Sigma quality control efforts (to reflect learning and experience curve effects), and (5) current-year expenditures to train workers in the use of best practices. The IFF

obtains the needed data annually from all footwear plants, tests all models and brands on the market, and rates the quality of shoes produced at each plant of each company. **IFF personnel then take the S/Q ratings at each plant and, based on where each plant's output is shipped and on the S/Q ratings of pairs in unsold inventory, calculates S/Q ratings for each company in each market where its shoes are available for sale. Companies thus have as many as 8 S/Q quality ratings—one each for branded and private-label shoes offered for sale in North America, Europe-Africa, Asia-Pacific, and Latin America.** A company's S/Q rating in each market segment is a **weighted average** of the S/Q ratings at the plants from which the pairs were shipped, adjusted up or down for the S/Q ratings of unsold pairs in inventory. **The IFF's S/Q rating formula calls for a 1-star reduction in the S/Q rating on all unsold branded pairs carried over in inventory to the following year** since they represent last year's styles.

- 3. Product line breadth, as measured by the number of models/styles comprising each company's branded offering.** The competitive value of a broader product line is that the company can participate in more end-use segments (jogging, walking, aerobics, basketball, golf, tennis, and so on) and give customers a wider selection of shoe types and styles to choose from. In effect, the more models/styles a company has in its product line, the more reasons consumers have to consider buying one or more pairs of the company's footwear. **If all other competitive factors are equal (price, S/Q rating, advertising, and so on), companies with more models/styles in their product lines will outsell companies offering fewer models.** However, companies can offset the disadvantage of narrower selection with other appealing competitive attributes (a lower price, a higher S/Q rating, more advertising, bigger mail-in rebates, etc.).
- 4. Advertising expenditures.** Media advertising is used to inform the public of newly introduced models/styling and to tout the company's brand. Even though retail dealers act as an important information source for customers and actively push the brands they carry, advertising on the part of footwear producers strengthens brand awareness, helps pull buyers into retail stores carrying the company's brand, and informs people about the features and prices of their latest styles and models. The competitive impact of advertising depends on the size of your company's current-year advertising budget. A company's aggressiveness in promoting its footwear in a given geographic region is judged stronger when its annual advertising expenditures **exceed** the region average and is judged weaker the further its ad budget is **below** what rival companies are spending on average. **Other competitive factors being equal, companies with above-average current-year advertising expenditures will outsell companies with below-average current advertising expenditures.**
- 5. Mail-in Rebates.** As an added sales inducement, footwear companies have the option of offering athletic footwear consumers a rebate on each pair purchased from retailers. Mail-in rebates, if offered, can range from as low as \$1 per pair to as much as \$10 per pair. Companies who give rebates provide retailers with rebate coupons to give buyers at the time of purchase. To obtain the rebate a customer must fill out the coupon and mail it to the company's nearest distribution center, along with the receipt of purchase. The customer service staff at the warehouse handles verification, check processing, and mailing the rebate check. Some buyers lose the coupon or the sales receipt and other buyers, for various reasons, fail to take advantage of the rebate offering. Studies show that 15% of purchasers mail in the \$1 rebate coupons; 20% mail in the \$2 coupon; 25% redeem the \$3 coupon; and so on up to 60% for the \$10 coupon. **Other things being equal (price, S/Q rating, models offered, and so on), companies offering bigger-than-average mail-in rebates will outsell companies offering smaller-than-average mail-in rebates (or no rebates).**
- 6. Appeal of Celebrities Endorsing the Company's Brand.** Footwear companies can contract with celebrity figures, especially those in sports, to endorse their footwear brand and appear in company ads. Endorsements from appealing celebrities enhance the brand image a company enjoys in the minds of athletic footwear consumers and positively affects consumer purchases. The influence of the company's celebrity endorsers is, of course, magnified by higher advertising—it would make little sense to sign celebrities and then not run ads featuring their endorsement of the company's brand. **Companies with more influential celebrity lineups enjoy an advantage in marketing their products over those companies with less appealing celebrity lineups (or no celebrity endorsements at all).**
- 7. The number of weeks it takes to deliver orders to retailers.** Company co-managers can decide whether to install the capability to deliver the orders from independent footwear retailers in 4 weeks, 3 weeks, 2 weeks, or 1 week. While retailers can easily live with a 4-week delivery time on footwear orders, manufacturers can boost the appeal of their brands and more easily convince retailers to carry

their brands by cutting the delivery times on the orders of footwear retailers to 3 weeks, 2 weeks, or 1 week. Shorter delivery times help boost sales because retailers are less likely to run out of particular sizes and styles, and they also make handling the company's brand more appealing to retailers. However, shorter delivery times entail higher shipping costs and higher inventory requirements.

- 8. The amount of support offered to retailers in merchandising and promoting the company's brand.** Understandably, footwear retailers are inclined to stock the brands of those footwear manufacturers that provide them with the best merchandising and promotional support. Such support can include providing in-store displays and signage; providing helpful information to store personnel about particular styles, models, and features; supplying brochures detailing shoe construction and other noteworthy features; making it easy for retailers to place orders online; and keeping retailers posted on styles or models that have been newly introduced or are about to be introduced. In short, footwear retailers and their store personnel want to deal with a footwear supplier that works closely with them to boost sales and that is easy to do business with.
- 9. The numbers of independent retail outlets carrying the company's brand.** A company's sales and market share in a geographic market are heavily influenced by the number of footwear retailers it can convince to stock its models/styles and promote its brand with shoppers. In general, having more retailers selling the company's brand is better than having fewer retailers because of the added retail exposure and the added convenience to athletic footwear buyers of being able to buy a given brand at more locations. **The number of retailers in a region desirous of carrying a company's brand in an upcoming year is based on four factors:** (1) the brand's prior-year market share of branded footwear sales in that region, (2) the maker's S/Q rating for branded footwear, (3) the manufacturer's delivery times in filling retailer orders, and (4) the degree of support that the company provides to retailers stocking its brand of footwear. Footwear companies can decide to sell and ship footwear to all retailers in a region who indicate a desire to stock their brand or, for whatever reason, opt to restrict their retailer network to a lesser number.
- 10. The effectiveness of the company's online sales effort at the company's Web site.** Because a substantial and growing fraction of branded footwear sales is occurring at company Web sites, a company's sales of branded footwear in a particular geographic region depends on the effectiveness of its online sales effort. The number of pairs a company sells online to buyers is a function of three global factors and three region-specific factors. The three global determinants of the unit volume sold online are (1) the number of different models and styles offered at the Web site, (2) the company's Internet sales price for these models, and (3) whether shipping fees are added to the buyer's cost of the footwear purchased online or whether the company offers free shipping (and thus absorbs the shipping fees). The three region-specific factors are (1) the S/Q rating of the pairs available in each region's distribution center, (2) the company's current advertising budget in the buyer's region of the world market, and (3) the appeal of the company's celebrity endorsers in the buyer's region. Shipments to online buyers are always made from the distribution center in the region where the online buyer is located. Since there are region-to region variations in the S/Q ratings of pairs in each distribution center, company ad budgets, and celebrity appeal, it is logical that these three region-specific factors come into play in determining online sales in each geographic region. **The more favorably that your company's S/Q rating, advertising, and celebrity appeal in a given region compare with those of rival footwear companies and the more favorably that your company's average online retail sales price, models offered, and shipping charges compare with those of other online competitors, the bigger your online sales volume and Internet market share.**
- 11. Customer loyalty.** Once footwear shoppers begin purchasing a particular company's brand of athletic footwear, they are inclined to give that same brand fairly strong consideration in making their next purchases. While it is by no means certain that buyers will return to the same brand, there is indeed **a modest brand loyalty effect** among a meaningful number of footwear buyers. The loyalty effect is strongest for brands that have proven buyer appeal and a strong brand image because of their relatively attractive competitive offerings (based on price, S/Q rating, model selection, rebates, and so on). Recent studies of the behavior of athletic footwear buyers indicate that customer loyalty is very weak for brands that are perceived as substantially over-priced or unfashionable or otherwise less appealing. In other words, footwear buyers are more likely to be repeat-purchasers of those brands with leading market shares than of those brands that have sub-par market shares.

With these 11 competitive determinants of sales and market share in play in each geographic region, you and your co-managers have many options for crafting a strategy capable of producing good profits and keeping your company in contention for global market leadership. For example, you can:

- Employ a low-cost leadership strategy and pursue a competitive advantage keyed to having lower costs and selling at lower prices than rivals.
- Employ a differentiation strategy that sets your company's footwear apart from rival brands based on such attributes as a higher S/Q rating, more models/styles to select from, and such marketing attributes as more advertising, greater celebrity appeal, higher mail-in rebates or a bigger network of retail outlets carrying the company's brand.
- Employ a more value for the money strategy (providing 7-star footwear at lower prices than other 7-star brands) where your competitive advantage is an ability to incorporate appealing attributes (styling/quality and wide selection) at a lower cost than rivals.
- Focus your strategic efforts on being the clear market leader in one or more market segments—wholesale sales to footwear retailers, Internet sales, or private-label footwear sales to chain retailers.
- Focus your company's strategic efforts on gaining sales and market share in one or two geographic regions as compared to the other regions (perhaps because you have highly efficient plants in one or two regions that give you a cost advantage over rivals in those markets).
- Pursue essentially the same strategy worldwide or else have regional strategies tailored to match the differing competitive conditions and actions of rivals in North America, Europe-Africa, the Asia-Pacific, and Latin America.

***The Business Strategy Game has no built-in bias that favors any one strategy over all the others. Most any well-conceived, well-executed competitive approach is capable of succeeding, provided it is not overpowered or stymied by the strategies and actions of your competitors.***

### How Each Company's Sales and Market Share Are Determined

***Your company's sales and market share in each geographic region depend totally on how your company's competitive effort in that region (as measured by the combined impact of the decision entries you make for the above 11 competitive factors) stacks up against the combined competitive efforts of rivals.*** Thus, what drives the success or failure of any one company's strategy in the marketplace is its competitive power vis-à-vis the strategies of the other companies in the industry. Sales and market share differences between companies are not governed by predetermined quantitative relationships programmed into the software or other mystery factors. ***There's no hidden winning strategy for you to discover—everything is based on the competitive appeal and attributes of your company's footwear offering versus the appeal and attributes of the footwear offerings of rivals. Competition is the driver of how many pairs each company sells.***

So that you can better understand the nature of a competition-based simulation and why there's no "magic bullet" strategy, consider the following question: How many more branded pairs can my company expect to sell in the Asia-Pacific market if we increase our advertising by \$1 million annually? The correct answer to the question is ***not*** some set value (say, 100,000 pairs) that has been programmed into ***The Business Strategy Game*** and that specifies if a company increases its advertising by \$1 million annually then its sales will rise by  $x$  units. Rather, the correct answer to the question is "Well, it all depends." Here's why "it all depends" is the logical and realistic answer in a competitive marketplace. Suppose, all other things remaining equal, your company increases its advertising in the Asia-Pacific region by \$1 million and your rivals change none of their prior year's decisions; then, indeed, your company's unit sales will rise by, say,  $x$  units (based on algorithms contained in ***The Business Strategy Game*** software). But, if in the same year when your company increases advertising by \$1 million several rivals decide to raise their advertising by \$500,000 in the Asia-Pacific market (all other competitive factors remaining the same), then your company's sales will rise by a lesser amount, say,  $y$  units. And, should *several* rivals elect to boost their advertising in the Asia-Pacific region by \$2 million, your company's \$1 million advertising increase would result in an even smaller sales gain say,  $z$  units (and your company's sales could actually decline if most all rivals upped their advertising by \$2 million). So, just how many extra pairs your company will sell as a result of increasing advertising by \$1 million in the Asia-Pacific market "all depends" on the actions of rivals not only with respect to advertising but also with respect to price, number of models/styles, S/Q rating, rebates, and so on. The "Well, it all depends" answer also applies to how much you can expect sales and market share to change if you and your co-managers decide to raise/lower prices, raise/lower rebates, increase/decrease the number of model/styles, or raise/lower S/Q ratings.

In *The Business Strategy Game*, the general principle used to determine how many pairs of athletic footwear each company sells in each geographic market is a company's competitive effort relative to the industry-average effort in the geographic region, competitive factor by competitive factor. A company's combined competitive effort (on all 11 measures described above) relative to the combined industry-average effort is what drives a company's unit sales and market share. And, just as in the real world, all 11 measures are far from equal in their impact. While knowing what weights are placed on each of the 11 factors might seem helpful, such knowledge is not as helpful as you might expect. Here's why. Price is clearly a very important competitive factor. ***But if every company has a wholesale selling price of \$45 for its branded footwear in North America, price is rendered completely neutral (or powerless) in determining the sales and market share differences among the competing companies in North America.*** All the sales and market share differences that result in North America then become attributable to the differing competitive efforts among the other 10 competitive measures. So which factors end up being most important in determining sales and market share differences among rival footwear-makers, in effect, hinges on how each company's competitive effort stacks up against the industry-average competitive effort, measure-by-measure, with big differences above/below the industry-average mattering as much (and often more) than the weights *The Business Strategy Game* places on the 11 measures.

Just as in the real world where there is no book of answers telling managers what is most important and what is less important, there are no answers here either—you will have to study the competitive efforts of rivals, try to match wits with rivals and anticipate their moves, and discover what works and what doesn't in trying to out-compete them. But common sense suggests that price, S/Q rating, and models/styles are quite likely to weigh in more heavily than delivery times and support provided to retailers. You should anticipate that the weights *The Business Strategy Game* places on the 11 competitive factors roughly approximate what might rationally prevail in the real-world marketplace for athletic footwear.

**Thinking Strategically: The Importance of Trying to Out-Maneuver Rivals.** In striving for gains in unit sales and market share, you and your co-managers have to worry most about what combination of price, S/Q rating, advertising, model count, delivery times, retailer support, and so forth it will probably take for your company to achieve the sales volume and market share that you have targeted, ***given the prices, S/Q ratings, advertising, model counts, delivery times, retailer support, and so on you believe that rivals, on average, will utilize in their own behalf to capture the unit sales and market shares they are targeting.*** Just as you are trying to win market share away from rival companies in order to boost your company's profitability, some or all rivals are certain to be actively striving to take market share away from your company in order to improve their profitability.

*The Business Strategy Game* involves a battle of strategies in a competitive marketplace, where the key to success is watching rivals' actions closely, anticipating their next moves, and then making competitive moves and decisions of your own that hold good prospects for delivering good results. Following each year's decisions, you'll be provided with Competitive Intelligence Reports containing prior-period prices, S/Q ratings, advertising, and so forth on every company in the industry—you'll be able to see exactly what rivals were up to and what they did to capture the sales and market shares they got. Armed with this information, you will be in pretty good position to figure out some of the things they are likely to do in the forthcoming decision period. Just as in sports where it is customary for every team to scout its next opponent thoroughly and develop a game plan to defeat them, so also in *The Business Strategy Game* you are called upon to scout the strategies of rivals, try to judge what new strategic actions and decisions they will make next, and then craft a competitive strategy of your own aimed at "defeating" their strategies and boosting your company's footwear sales and market share. You have to stay on top of changing market and competitive conditions, try to avoid being outmaneuvered and put into a competitive bind by the actions of rivals, and make sure your footwear is attractively priced and competitively marketed.

In short, how well your company performs in *The Business Strategy Game* exercise will depend on how competitive and appealing buyers view your company's footwear offerings compared to the footwear offerings of rivals. *The Business Strategy Game* is all about practicing and experiencing what it takes to develop winning strategies in a globally competitive marketplace. When the exercise is over, the only things separating the best-performing company from those with weaker performances will be the caliber of the decisions and strategies of the management teams of the respective companies. All that *The Business Strategy Game* software does in processing the decisions of the companies is to referee the competitive contest and declare whose strategies and decisions produced the best outcomes.

## Making Decisions

As indicated earlier, you and your co-managers will need to make decision entries relating to social responsibility and citizenship, footwear production, distribution centers, sales and marketing efforts in each of the four geographic regions of the world market, and financing company operations. Plus, there is a screen for making sales forecasts. On each of the 9 decision screens and the sales forecasting screen, you'll see calculations of the projected outcomes of your decision entries. These calculations appear instantaneously when each decision is entered, allowing you to isolate the incremental impacts of each entry, decision-by-decision. At the bottom of each screen are projections of upcoming year revenues, net profits, earnings per share of common stock, return on equity, credit rating, image rating, and year-end cash balance—these instantly updated calculations allow you to see how each decision entry affects projected company performance. You will find the on-screen information and decision support calculations invaluable in evaluating alternative decision scenarios. You can easily and quickly try out any number of “what-if-we-do-this” decision alternatives, evaluate the projected outcomes, and come up with a combination of decision entries that offers the most promising projected outcomes.

The first time you visit a decision screen, you will need to take time to explore the screen and digest all the information. You can move between decision screens by clicking the buttons that appear at the left of each screen. ***If you have questions or want more about information about what you see on the screen, just click on the Help button—there is a Help button at the top of every screen.*** Each Help section provides detailed entry-by-entry guidance, including explanations of all the on-screen calculations.

Each time you visit the decision screens, the numbers you will see in the decision entry boxes on the screen represent ***either*** (1) the decisions made for the prior year ***or*** (2) the latest decisions you and/or your co-managers saved in the course of having previously worked on the upcoming year's decision. No decision entry for the upcoming year is considered “final” until time expires for the decision. ***BSG considers the last decision entries saved to the server at the time of the decision deadline as “final” and will immediately proceed with processing the decisions*** and making the results available to all companies and the instructor. Thus, it is critical that you and your co-managers save the decisions you want to be used to the ***BSG*** server in time to meet the deadline.

### The Corporate Social Responsibility and Citizenship Screen

The first decision screen you and your co-managers will encounter concerns what monies, if any, that you and your co-managers wish to spend for such things as the use of “green” footwear materials, the use of recycled packaging materials, energy efficiency improvements and greater reliance on renewable energy sources at your company's plants, charitable contributions, ethics training for company personnel and ethics enforcement, and workforce diversity programs. The decisions on this screen are straightforward, and you will find ample information on this screen and the accompanying Help page to guide your entries. The degree to which your company displays good corporate citizenship and conducts operations in a socially responsible manner affects your company's image; however, the image gains are minimal unless your company's actions are “comprehensive” (involve several, but not necessarily all, of the six areas of citizenship and social responsibility), entail more than token efforts (as indicated by how much money is being spent), and represent an ongoing effort of at least 4-5 years.

### The Branded Sales Forecast Screen

After you have made tentative entries on the Corporate Social Responsibility and Citizenship screen, you need to develop a forecast of branded pair sales for the upcoming year. How many branded pairs you anticipate selling drives how many pairs to produce and ship; without a reasonably reliable sales forecast, you are not in position to enter decisions on the plant operations and shipping screens. While the Branded Sales Forecast screen looks complicated and requires many entries, the logic underlying the sales forecast boils down to simply, “If our company does ***X*** and if, on average, our rivals do ***Y***, then we can reasonably expect to sell about ***Z*** pairs and achieve a market share of ***S%***.” There's also an important decision entry on this screen—whether you want to clear out “excess” inventories of prior-year models/styles of branded footwear.

**Making a Sales Forecast.** To make a sales forecast of how many branded pairs you can expect to sell in North America, you will need to make entries in the column for North America headed “Company ?'s

Marketing Effort.” The numbers already on the screen in this column are your company’s values for the preceding year—you should proceed to enter **tentative** changes in your company’s marketing effort for the upcoming year. Your entries in this column, in effect, represent “what if we do this” to try to sell branded pairs in North America. In the column headed “Your Estimate of the Industry Average”, you’ll see numbers that represent the average marketing efforts of rivals **in the prior year**—these numbers reflect **the level of competitive effort your company was up against in the North American market** last year. These prior-year industry averages, of course, may well change **in the upcoming year** because rival companies are likely to adjust their marketing efforts so as to improve their own bottom-line performance. If you suspect that rivals, on average, might lower their prices or increase their S/Q ratings or boost their advertising in North America, then you should enter your best “guesstimate” of what the industry averages for wholesale selling price, S/Q rating, advertising, and so on might be in the upcoming year—these guesstimates, in effect, represent “what if, on average, our rivals do **Y**” (where **Y** represents the level of competitive effort you are up against in the North American market).

In the section of the screen just below the two columns for North America where you entered “what if we do **X** and, on average, our rivals do **Y**”, you will see the corresponding **forecasts** (not guarantees!) of **about** how many branded pairs you can expect to sell in North America and what **approximate** market share you can expect. Bear in mind that the sales forecast is just that—a **forecast**. To the extent that your estimates of the industry averages for North America are off-the-mark, your branded sales forecast for North America will also be off-the-mark. On the other hand, if your estimates of the upcoming year’s industry averages for North America are **close** to what the actual industry averages turn out to be, then your branded sales forecast for North America will also be **close** to your company’s actual sales. The forecasts **will never exactly equal actual sales** (except by chance) for two reasons:

- Because of the likelihood that some or many of the actual industry averages will deviate, perhaps slightly or perhaps sizably, from your estimates.
- Because the forecast is based on the assumption that the actual growth rate in branded footwear demand will fall at the mid-point of the projected growth interval (for instance, if the projected growth for North America is 5-7% in Year 11, the forecast is based on an assumed 6% growth)—the further the actual growth is from the mid-point of the projected growth range and the closer it is to the extremes of 5% or 7%, the greater the error in the branded sales forecast.

To make sales forecasts for the other three regions, you’ll follow this same forecasting procedure of entering tentative values for your company’s marketing effort in one column and your estimates of the industry averages in the adjacent column. When you have made tentative branded sales forecasts entries for all four geographic regions, turn your attention to the top left part of the Branded Sales Forecast screen and make tentative entries for “what if we do this and our rivals on average do that” as concerns online sales. The forecasted numbers of pairs sold online are included in the overall total branded sales forecasts for each of the four geographic regions because all orders from online buyers are shipped from the distribution center in which the buyer is located. (When you are doing a sales forecast and have any questions about the entries or the calculations and information being provided, click on the Help button at the top of the screen and read the step-by-step explanations of each entry and what the numbers on the screen mean.)

If your initial branded sales forecast values for any of the four geographic regions are not to your liking (perhaps because you and your co-managers are striving for greater unit sales or a higher target market share), then you have clear feedback that your company will have to exert a more potent marketing effort to capture additional sales and market share. Return to the “Company ?’s Proposed Marketing Effort” columns for any or all of the regions and make a second round of “what if we do **X**” entries (and a third or fourth round) until you come up with a **credible** company-wide sales forecast more to your liking (credible in the sense that it is based on industry averages that seem likely and realistic).

**Inventory Clearance Decisions.** It is common for footwear manufacturers to clear out “excess” inventories of last-year’s models/styles at the beginning of the year, partly because large numbers of outdated models/styles penalize the upcoming year’s S/Q rating and partly because getting rid of excess inventory will help keep the company’s plants running at or near full capacity (since low inventories mean that more of the shoes needed to meet buyer demand in the upcoming year will have to be produced in the upcoming year). Clearance sales involve discounting the wholesale price to retailers on the pairs to be cleared out of inventory, and retailers usually pass along the wholesale price cuts to consumers by having special promotions at discounted retail prices. There are entries for indicating what percentage, if any, of the inventory of unsold branded pairs that you would like to clear out—one for each distribution center.

You can enter tentative percentages for beginning inventory to be cleared at discount prices, check out the margins over direct costs and the total production volume needed to achieve the forecasted sales, and then decide whether to keep the “excess” pairs in inventory or clear them out.

Now you are ready to move on—you can come back to this screen later and do any needed fine-tuning.

### Plant Capacity Decisions

The Plant Capacity screen involves deciding whether to (1) add new shoe-making capacity (by constructing new plants, expanding existing plants, or by purchasing used footwear-making equipment if any is available), (2) upgrade production features at one or more existing plants or (3) sell all or part of the production capacity of an existing plant.

**Adding New Production Capacity.** You and your co-managers have the option at any time to expand the capacity of the 2 million-pair North American plant and/or the 4 million-pair Asia-Pacific plant. You can also establish a production base in the other two geographic areas. New plants in Europe and Latin America may be constructed in capacities ranging from a minimum of 1 million pairs annually to a maximum of 2 million pairs per year (not counting overtime); new plants can be expanded later as needed. **The construction of new plants and plant expansions takes 1 year to complete.** Thus, a decision to build a new plant or expand an existing plant in Year 11 means the plant or plant expansion will come on line ready for full production at the beginning of Year 12. There is no limit on the number of times that an existing plant site can be expanded. **The maximum amount that an existing plant can be expanded in any one year is 50% of existing plant capacity—all plant expansions must be in increments of 100,000 pairs.** The North American and Asian-Pacific plants and any new plants built in Europe-Africa or Latin America can be expanded over time **up to a limit of 12 million pairs of total production capacity** (not counting overtime) **at each plant site.** Therefore, the company is limited to a maximum of four different plant sites (one in North America, one in Asia-Pacific, one in Europe-Africa, and one in Latin America) and a maximum of 48 million pairs of capacity—far in excess of the total capacity you will need.

All costs for added capacity—newly-constructed plants or existing plant expansions—must be paid for in the same year as the decision to build or expand is made. The cost of new capacity varies according to the year ordered; scale economies and learning/experience curve effects are allowing the makers of new state-of-the-art footwear-making equipment to reduce their prices at the rate of 2.5% annually. The announced price for new footwear production capacity in Year 11 is \$5 million per 100,000-pairs of capacity, but the 2.5% annual declines will result in a cost of only \$4.3 million per 100,000 pairs of capacity by Year 16. Hence, delaying the decision to add new capacity until it is really needed has the advantage of lowering the capital investment in new facilities and equipment. You can always see what the current costs of new capacity will be in any particular year by entering numbers for the desired amount of new capacity and observing the resulting capital outlays shown at the bottom of the decision screen. New production capacity is considered to have a service life of 20 years and the capital costs are depreciated on a straight-line basis at the rate of 5% annually.

**Purchasing Used Plant Capacity.** The opportunity to purchase used, but newly-reconditioned, plant capacity at prices **20% below the cost of new construction** may arise at some point. Used capacity becomes available for purchase any time a company in your industry elects to reduce the production capacity at one or more of its plants by selling some (or even all) of capacity to merchants who specialize in buying used plant capacity in increments of 100,000 pairs and then reselling it to interested footwear companies. The amount of any used capacity that is available from these merchants, the geographic area in which it is available (plant capacity cannot be transported from one geographic region to another), and the prices of such capacity are shown on Purchase Capacity screen (see the Purchase Capacity button near the top of the Plant Capacity screen). **All purchases of used capacity occur on a first-come basis.** The advantage of buying used capacity is that it can be purchased and made available for use virtually overnight (purchased capacity becomes available in the same year that it is purchased). However, **if your company does not have a plant in the geographic region where you are considering purchasing used capacity, then the minimum-size purchase is 1 million pairs;** this is because plants smaller than 1,000,000 pairs of annual capacity tend to have prohibitively high production costs and usually cannot be cost competitive against larger-scale plants. Because used capacity is reconditioned, it is considered to have a service life of 20 years. The capital cost is depreciated on a straight-line basis at the rate of 5% annually.

**Selling Some or All of the Production Capacity at a Plant.** The merchants of used plant capacity stand ready to purchase all or a portion of the capacity in any of your plants at a price equal to your company's net book value (this value is shown in your company's Plant Operations Report as "Net Investment in Year X Capacity" and will display on the screen immediately below an entry to sell-off existing capacity). Capacity must be sold in 100,000-pair increments. To sell any of the capacity at any of your company's plants, simply enter the amount of capacity that you want to sell in the indicated spaces on the Plant Capacity screen. The money from the sale is received immediately and the capacity is removed immediately (that is, in the year for which the decision entries are made).

**Plant Upgrade Options.** *You may undertake one upgrade option per year at a given plant, with a maximum of two upgrade options throughout the life of the plant.* The cost of a plant upgrade is treated as additional investment; the upgrade equipment that is installed has a 20-year service life and is depreciated on a straight-line basis at the rate of 5% annually. **Upgrade options take effect the year after being ordered. Payments to the suppliers of upgrade options are made the year the option is ordered.** An upgrade option can be ordered for a new plant the first year the new plant is on line or any year thereafter; **upgrades for a new plant cannot be ordered in the same year a new plant is under construction.**

There are four options for upgrading existing shoe-making facilities:

	<u>Benefits</u>	<u>Capital Investment Requirement</u>
<b>Option A</b>	Reduces the number of defective pairs by 50%	One-time capital outlay of \$2.5 million per million pairs of plant capacity
<b>Option B</b>	Reduces production run set-up costs by 50%	One-time capital outlay of \$8.0 million per million pairs of plant capacity
<b>Option C</b>	Boosts S/Q rating by 1 star	One-time capital outlay of \$7.0 million per million pairs of plant capacity
<b>Option D</b>	Increases worker productivity by 25%	One-time capital outlay of \$3.5 million per million pairs of plant capacity

The **projected** annual cost savings for each option at each plant (based on current plant operations) are shown on the screen. You and your co-managers should take time to carefully weigh the pros and cons of each upgrade option because **the cost-saving benefits vary quite significantly from plant to plant and also according to the production strategy for each plant**—before deciding on plant upgrades, you are advised to consult the Help discussion for this screen.

### Branded Production Decisions

There are 9 decisions involved in producing branded footwear at a plant. The first group of decision entries relates to superior materials usage, the number of models/styles to be produced, how much to spend on enhancing the styling and features of the upcoming year's model lineup, and how much to spend on the plant's ongoing TQM/Six Sigma programs. All four of these decision entries are pretty straightforward (click on the Help button for additional details), but bear in mind the following:

- There is some degree of uncertainty about what the prices for standard and superior materials will be in the upcoming year. If many companies up the usage of superior materials, in an effort to boost their S/Q ratings, there's reason to expect that worldwide use of superior materials will exceed 50% of all materials used in making athletic footwear, thereby resulting in (1) a 2.0% increase in the price of superior materials for each 1% that the worldwide percentage use of superior materials exceeds 50% and (2) a 0.5% decline in the price of standard materials for each 1% that the global usage of standard materials falls below 50%. Shifting prices for standard and superior materials, which are not known in advance, cause actual costs for materials to differ (up or down) from the projected materials costs shown on the screen.
- The percentage of superior materials usage, expenditures for enhanced styling and features, and both current-year and cumulative expenditures for TQM/Six Sigma programs, are major components of the International Footwear Federation's annual calculation of your company's S/Q rating for branded footwear (the other factor is best practices training, which is entered in the next section of this screen). The IFF's formula for S/Q ratings is programmed in so that you can immediately see the impact on your

company's S/Q rating when you enter decisions for superior materials usage, expenditures for enhanced styling and features, and expenditures for TQM/Six Sigma. Some level of spending for enhanced styling/features is needed annually to keep the company's lineup of models/styles in vogue and provide a look that helps the company's brand stand apart from rivals. Spending to train plant personnel in state-of-the-art use of TQM/Six Sigma quality control and the use of best practices has a highly positive effect on workmanship, lowers the frequency of equipment breakdowns and work stoppages, reduces materials waste, helps cut the number of pairs that fail inspection due to production defects of one kind or another, and promotes smoother overall plant operations. However, the benefits of progressively higher expenditures for styling/features and TQM/Six Sigma programs are subject to diminishing marginal returns. In other words, the incremental gains from increasing spending on styling/features from \$5,000 per model to \$10,000 per model will exceed the benefits from increasing spending from \$10,000 to \$15,000 per model. Likewise, boosting TQM/Six Sigma spending from \$0.50 per pair to \$1.00 per pair of capacity will have greater incremental benefit than boosting spending from \$1.00 to \$1.50 per pair.

- The amount of a company's cumulative spending for TQM/Six Sigma programs over a period of years has a bigger impact than current-year spending. This is because the benefits of such programs come from *an ongoing effort over a period of years*, rather than short-term or on-again/off-again efforts to squeeze out results.
- While any of several combinations of superior materials usage, styling/features expenditures, TQM/Six Sigma spending, and expenditures for best practices training can be used to achieve, say, a 6-star S/Q rating, some combinations are likely to entail lower costs per pair than others. Thus, it is wise to experiment with different combinations and search out the lowest-cost combination to achieve the desired S/Q rating. You and your co-managers have the flexibility to vary the percentage of superior materials used, styling/features expenditures, and TQM/Six Sigma spending from plant to plant, thus producing branded shoes of varying S/Q ratings at different plants. This gives you the strategic option to market branded footwear with different S/Q ratings in different geographic regions.
- The S/Q rating(s) of the shoes you produce, when shipped to the distribution centers, should be consistent with the S/Q rating(s) of the branded pairs you plan to sell—as per your entries of the S/Q rating(s) on the Branded Sales Forecast screen. Otherwise, you are proceeding to produce branded shoes with an S/Q rating different from the one on which your branded sales forecast is based.
- In deciding how many branded models/styles to include in your company's product line, you need to be alert to the costs associated with changing the production line from making one model/style to another. The equipment on the company's production line allows making only one model at a time, though it is easy to produce different sizes of the same model simultaneously. To switch production over from one model to another takes anywhere from 2 to 5 hours of set-up time, depending on styling/features of the various models/styles, and usually is done between each day's work shifts. Production run set-up costs *per plant* for branded footwear are \$1 million for 50 models, \$2.5 million for 100 models, \$4 million for 150 models, \$6.0 million for 200 models, \$8 million for 250 models, \$10.5 million for 350 models, and \$14 million for 500 models. The size of the plant does not matter in determining production run set-up costs, only the number of models produced at the plant. Both the North American and Asian plants produced 200 models/styles of athletic footwear in Year 10.
- Widening your company's product line to include more models can have a strongly positive effect on unit sales and market share. But the sales-enhancing effect of more models also carries a potentially sizable impact on production costs *per pair*. At the North American plant, for example, producing 2 million pairs and 50 models entails production run set-up costs of only \$0.50 per pair, whereas producing 2 million pairs and 500 models entails set-up costs of \$7.00 per pair. At the bigger Asian-Pacific plant, however, producing 4 million pairs and 500 models results in set-up costs of just \$3.50 per pair. If a major element of your company's strategy is to have a broad product line, you can combat the added cost per pair associated with production run set-up costs by investing in plant upgrade option B that reduces production run set-up costs by 50%.

**Worker Compensation and Best Practices Training.** In the next section of the branded production screen, you and your co-managers have to decide (1) how much to raise/lower the base pay of workers at each plant, (2) whether to raise/lower each worker's incentive payment per pair produced, and (3) how much to spend on training workers in the use of best production practices. Base pay and incentive pay directly affect worker productivity, the number of workers needed to produce the desired number of branded pairs, and the percentage of pairs rejected due to defects in workmanship.

Expenditures for best practices training have four highly positive benefits in all plants: (1) helping curb reject rates associated with defective workmanship, (2) helping improve S/Q ratings for both branded and private-label footwear, (3) curtailing materials waste and potentially lowering material costs at the plant by as much as 20% annually over a period of years, and (4) increasing worker productivity up to a *maximum* of 2.2% annually. In Year 10, the company spent about \$44 million on standard and superior materials, so making use of best practices training to achieve (over time) materials cost savings of even 5-10% annually (and maybe 15% to 20% annually over a period of years with an all-out long-term best practices training effort) is one way to achieve a sustainable cost advantage over rival companies. A 1% to 2% annual increase in worker productivity at the North American plant where productivity is presently 4,000 pairs per worker per year and at the Asia-Pacific plant where productivity is presently 2,500 pairs per worker per year also holds potential for meaningful savings in labor costs over time. All the benefits of current-year spending for best practices training are shown in the on-screen calculations for productivity, materials costs, reject rates, and S/Q ratings, allowing you to evaluate the immediate cost effectiveness of such expenditures.

**The Factors That Affect Worker Productivity.** Annual worker productivity (that is, how many pairs each worker, on average, produces in a given year) is influenced by five factors:

- *Annual base pay increases*—Annual increases in base pay of 2% or more lead to higher levels of productivity, chiefly because higher pay scales help the company attract and retain workers with better skills and work habits. The maximum base pay increase in any one year is 15%. Cuts in base pay are allowed, up to a maximum of 10% in any one year but they will tend to dampen worker productivity (unless management offsets base pay cut with increased incentive payments). Small pay cuts do not entail a big drop in productivity but cuts approaching 10% will have a sizable negative impact. (On-screen calculations allow you to see the effects of various changes in base pay on worker productivity and on labor costs per pair).
- *How much emphasis is placed on incentive compensation (as measured by the percentage of the company's total compensation package accounted for by incentive pay)*—Prior management instituted the practice of paying each worker an incentive bonus for each pair produced that passed inspection for good workmanship, the thesis being that such incentives spurred workers to both turn out more pairs and curb defective workmanship. Currently, the incentive payment for shoes passing inspection is \$1.25 per pair for workers at the North American plant and \$0.40 per pair for workers at the Asia-Pacific plant. You and your co-managers will have to decide whether to continue incentive bonus payments, whether to raise/lower the incentive payment, and, if so, what percentage of total compensation that piecework incentives should represent. ***The larger the percentage of total compensation that comes from piecework incentives, the larger the annual boost to worker productivity.*** However, ***once incentive pay exceeds 25% of total compensation, the incremental gains in productivity become progressively smaller and top out altogether when incentive pay reaches 50% of total compensation.*** By entering various “what-if” values for base pay and worker incentives, you can search out the combination that yields the best outcome from the standpoint of worker productivity and labor costs per pair.
- *The total annual compensation of workers relative to industry-average compensation levels in the geographic region where a plant is located*—How well your company's plant workers are being compensated relative to the combined base wage and incentive pay at rival companies with plants in the same region is a major factor in the company's ability to attract and retain better-caliber, more productive employees. The best, most productive workers are inclined to leave jobs at lower-paying plants for higher-paying jobs. Likewise, job seekers with desirable work habits and attitudes are drawn to work for those footwear-makers having a better overall compensation package. As a consequence, worker productivity tends to be higher at the better-paying plants in a geographic region. [**Special Note:** The worker productivity figures shown on the screen are **projections**, not certainties, because there is no way to know in advance how the company's compensation package in the upcoming year will compare against the pay packages of rivals.]
- *The annual amount the company spends per worker on best practices training*—Apart from compensation, the productivity of workers is significantly affected by the effort the company exerts to train members in using the best-known footwear-making methods. You and your co-managers have the authority to raise/lower spending for best practices training and production methods improvement. There are potentially significant gains in worker productivity that can come from expenditures on best practices training. However, the benefits are subject to diminishing marginal returns from spending progressively more dollars on training. If and when the resulting productivity gains become too small to

justify spending additional sums, you can cut back spending on training without losing any of the previous build-up in productivity.

- *Whether plant upgrade option D has been installed at the plant.* This option boosts worker productivity by 25%.

As of year 10, worker productivity averaged 4,000 pairs annually at the plant in North America and 2,500 pairs annually at the Asia-Pacific plant. There is reason to believe that over the next several years worker productivity can be improved considerably at both plants if managers aggressively pursue productivity gains. Worker productivity is important because it determines the size of the workforce needed to staff plant operations. For instance, if your company elects to produce 2 million pairs of shoes at its North American plant and the annual productivity of North American workers averages 4,000 pairs annually, then it will take a workforce of 500 people to produce the 2 million pairs. But if worker productivity should later rise to an average of 5,000 pairs, then only 400 workers would be needed to produce 2 million pairs.

**The Factors that Determine Plant Reject Rates.** In the bottom half of the branded production screen you will see information relating to the number of pairs rejected due to defective workmanship and the costs associated with such rejects. The reject rates at a plant are a function of five factors:

- *The size of the incentive payment per non-defective pair produced.* Higher piecework incentives help reduce the reject rate. This is chiefly because the company's policy of not paying an incentive for defective pairs motivates workers to pay close attention to their workmanship, observe best practice procedures, and not engage in "hurry-up" procedures to boost their incentive compensation.
- *Spending for TQM/Six Sigma quality control efforts.* In addition to the positive effect that TQM/Six Sigma programs have on S/Q ratings, greater expenditures for TQM/Six Sigma programs also act to lower the number of pairs that end up being rejected.
- *The emphasis placed on best practices training.* Putting workers through additional best practices training helps lower reject rates because of the associated improvements in workmanship and production methods. However, just as with progressively higher spending for TQM/Six Sigma, the benefits of progressively more best practices training are subject to diminishing marginal returns.
- *The number of models/styles comprising the company's product line.* The more models produced, the less skill and experience that workers have in producing each model and the more mistakes they are prone to make. However, the tendency for reject rates to rise as more models are added to the product lineup can be combated by increasing incentive pay per pair and/or boosting spending for TQM/Six Sigma programs and/or boosting expenditures for best practices training. Likewise, if a company reduces the number of models/styles in its product line, it can usually trim spending for its TQM/Six Sigma program and/or cut back best practices training and/or slightly reduce incentive pay per worker without materially hurting reject rates.
- *Whether plant upgrade Option A has been installed.* This option cuts a plant's reject rate by 50%. The projected annual cost savings for upgrade option A, given current reject rates, are shown on the decision screen for capacity sales/upgrades/additions.

In Year 10, the reject rates of 5% at the North American plant and 7% at the Asia-Pacific plant totaled more than 300,000 pairs and cost the company \$6.4 million. It is company policy to donate all rejected pairs to charitable organizations. Studies indicate that it is possible to reduce plant reject rates to 1% or less, but it remains for company co-managers to explore to what extent such efforts would be cost-effective.

**Deciding How Many Pairs to Produce at Each Plant.** The final entries on the branded production screen concern how many pairs to produce at each plant and whether to utilize overtime at one or more plants. The total number of branded pairs that need to be produced to achieve the sales forecast is shown on the screen. But it is up to company co-managers to decide how to allocate production across the plants, so as to minimize overall costs. Not only do production costs of branded footwear vary by plant but there are also tariffs, exchange rate effects, and shipping costs to consider in deciding how many branded pairs to produce at each plant and where to ship the output.

## Branded Shipping Decisions

The shipping decisions screen entails 4 entries for each plant—all involve how many of the newly-produced branded pairs to ship to each of the four distribution warehouses. Every pair produced must be shipped to one of the four warehouses; no finished goods are ever warehoused at plants. As you enter the pairs to be shipped from the company's plants to the company's regional warehouses, there's information in the bottom half of the screen showing the weighted average S/Q ratings and model availabilities of all pairs (including leftover inventories) available for sale in the distribution warehouse serving each region and how these compare with the S/Q ratings and model availabilities entered on the branded sales forecast screen. You'll get a message in red on the screen anytime the S/Q ratings and model availabilities resulting from your shipments are not synchronized with the sales forecast. To achieve synchronization you can adjust shipments or you may need to alter some of the entries on the branded production screen or you can revise the entries on the sales forecast screen.

**The Importance of Good Inventory Management.** Because the forecasts of branded sales in each geographic region are not a guarantee of actual sales (since the actions and competitive efforts of rivals to gain sales and market share cannot be fully anticipated and since actual market growth can turn out to be anywhere in the forecasted range), there's merit in maintaining surplus inventory over and above the pairs required to fill retailer orders within the desired delivery times of 1, 2, 3, or 4 weeks (as entered on the branded sales forecast screen). Information on this screen reports the minimum inventories required to achieve delivery times. The size of the inventory requirement is a function of delivery times, annual sales volume, and the number of models available for sale in the region. The number of pairs required to be in inventory at all times ranges from as low as 1% of annual sales (with 4-week delivery and model availability of 50) to as high as 15% of sales (with 1-week delivery and model availability of 500).

In no instances will you be allowed to even temporarily use some of the required pairs in inventory to fill unexpectedly large orders from retailers or individuals buying online. Because the inventory requirement number is an absolute minimum, you and your co-managers may want to maintain an inventory surplus in each regional warehouse to fill orders higher than the projected sales volumes. ***Without a surplus to fill any orders above the projected branded sales volume, the sales will be lost*** and buyers will take their business to other footwear companies. Further more, ***any projected inventory shortfalls on the screen thus represent potential lost sales*** due to insufficient distribution warehouse inventory.

At the other extreme, allowing surplus inventories to mushroom out of control is costly in two respects. One, inventory storage costs on carrying surplus inventory over from one-year to the next runs \$1.00 per pair (handling and storage of required inventory entails annual costs of \$0.50 per pair). Two, there is a 1-star penalty applied to the S/Q rating of unsold branded pairs carried over to the following year—this penalty, which is part of the IFF's S/Q rating formula, is to reflect the fact that unsold pairs are last-year's models and styles, making them less attractive to buyers. (The 1-star penalty is already factored into the S/Q ratings reported on the branded shipping screen.) You and your co-managers are thus well advised to exercise prudent inventory management practices.

**Exchange Rate Cost Adjustments.** The exchange rate cost adjustments on incoming shipments shown in the middle of the screen merit your attention. Producing footwear in one geographic region and exporting it for sale in another region entails upward or downward adjustments in the production costs of shipments coming into a particular distribution from a foreign plant. A positive number for a region represents an adverse exchange rate adjustment that has the effect of *raising the per pair costs* of incoming footwear shipments (which can impair profit margins on sales in that region); a negative number for a region represents a favorable change in the exchange rates that effectively *lowers the per pair costs* of incoming shipments (which can boost the profitability of sales in that region). It is important to understand that ***any time the sizes of the per pair cost adjustments are large, you should experiment with different cross-region shipping patterns to minimize the cost effects of unfavorable adjustments and maximize the cost effects of favorable adjustments***. For a more detailed discussion of exchange rate cost adjustments, click the Help button at the top of the screen.

**Distribution and Warehouse Expenses.** Details of the company's distribution and warehouse expenses are shown toward the bottom of the branded shipping screen. Packing and freight costs on shipments of newly-produced footwear from a plant to a warehouse in the same region currently run \$1 per pair. Packing/freight costs on plant shipments to warehouses in a different region run \$2 per pair. These costs are subject to change in upcoming years. Any tariffs on pairs imported are due and payable at the port of entry rather than when orders are filled and the pairs shipped to retailers and online buyers. In

addition to the costs of carrying required inventory over from one-year to the next (\$0.50 per pair on required inventory and \$1.00 per pair on surplus inventory), other warehouse expenses include:

- *Annual leasing and maintenance fees of \$1 million per warehouse.* However, when warehouse volume is less than 200,000 pairs annually, leasing fees are 5 times the annual number of pairs available for sale. Should the company abandon a particular geographic region and have no pairs available for sale, leasing costs in that region will fall to \$0.
- *Boxing and shipping fees for orders sent to footwear retailers.* These expenses amount to \$2 per pair on the first 1 million pairs shipped out annually; \$1.50 per pair on the next 2 million pairs shipped out annually, and \$1 on each pair in excess of 3 million pairs shipped annually.
- *Order processing, boxing, packaging, handling, and shipping fees of \$10 on each pair shipped to online customers.*

### Internet Marketing Decisions for Branded Footwear

Three decision entries are required for selling branded pairs to online buyers: the Internet sales price, the number of models offered for online sale, and whether online buyers will pay for shipping or get free shipping. Assuming you entered tentative values for these same factors in making a branded sales forecast, the entries you see on the screen for these three decisions are the same as those you entered for your planned competitive effort on the Branded Sales Forecast screen. However, you are not required to stick with these values. All three decision entries on this screen are connected to the corresponding entries on the Branded Sales Forecast screen, such that a change in any of the entries on either screen is immediately duplicated on the other. Thus, making new entries here for Internet price, number of models offered, and who pays for shipping will instantly produce an updated forecast of branded sales volume (the new forecast numbers will appear on this screen as well as the Branded Sales Forecast screen); this keeps your decision entries consistent with the competitive effort underlying the sales forecast.

The online price you enter, in effect, represents an average **retail** price for all the models that are available for sale online. ***How your online price compares with the online prices of competing companies is the single most important determinant of your company's share of the Internet sales segment.*** Studies show that a big percentage of online buyers are bargain-hunters and are quite sensitive to price differences—it is very easy for them to click over to the Web sites of rivals and compare prices, S/Q ratings, selection, and so on. ***The maximum allowed price for models and styles sold online is \$150 per pair.*** In the unlikely event that you and your co-managers wish to abandon online sales of athletic footwear entirely, then simply enter a zero for the online price—a zero price entry is interpreted as your decision to not offer any branded pairs for sale at the company's web site. If you want to block online sales to just certain regions but accept orders from online buyers in other regions, then simply check the boxes on the screen to block orders from those areas where, for whatever reason, you do not wish to sell.

However, ***it is important to avoid setting such a low Internet price that you put your company in direct competition with retailers who stock your company's brand.*** The lower your posted Internet price, the more that your marketing efforts to attract online sales pose **channel conflict** with your marketing efforts to court retailers and convince them to stock your brand and merchandise it aggressively. ***Retailers view your Internet price as a direct competitive threat to their business whenever your Internet price is less than 40% above your company's wholesale price***—in other words, if your wholesale price to retailers is \$50, then your company's Internet price must be \$70 or higher to avoid unduly squeezing the markups that retailers can charge for your footwear. The more that your retailers find themselves having to cut their prices to match or beat your Internet prices, the lower the margins they earn on each pair sold and the more reason they have to shift their merchandising emphasis away from your brand to brands having bigger profit margins. Indeed, ***the more that your Internet price falls under the 40% benchmark, the bigger the percentage of retailers who will elect not to even stock your company's brand next year at all.*** Hence, you must be careful not to craft an Internet strategy that poses undue channel conflict with your wholesale strategy and causes retailers to shy away from stocking and merchandising your brand.

There are a couple of things to consider in deciding how many models to offer for sale on the company's web site. The **maximum** number of models you can offer for sale to online buyers equals **the minimum number of branded models available in any one of the regional warehouses where you are currently marketing branded footwear and have inventory available for sale.** This number is tracked

by the computer and reported on the screen just to the left of the decision entry cell. The minimum number of models in any one warehouse becomes the maximum number of models that can be marketed online because shipments to online buyers are always made from the distribution warehouse serving the buyer's geographic region and because the company, for cost reasons, has only a single worldwide web site rather than a web site for each geographic region. However, since your company incurs annual costs of \$15,000 for each model offered for online sale, it makes sense to consider offering fewer than the maximum number of models to online buyers to economize on the costs of web site operations. You can experiment with entering a lesser number of models than the maximum allowed and observe how the revenue-cost-profit projections change to help decide how many models to offer for sale online. If you want to increase the number of models offered online above the maximum number shown on the screen, you can go back to the production and shipping screens and produce more models and/or adjust your shipping pattern to increase the minimum number of models available at the warehouse that is setting the maximum limit.

Free shipping is very appealing to online buyers. The decision of whether to charge online buyers shipping and handling fees of \$10 per pair or whether to offer free shipping and absorb the \$10 cost for boxing, packaging, handling and shipping fees in the Internet price will thus have a sizable effect on the volume of pairs sold online. It also will have a big cost impact. You can use the on-screen projections of Internet-related revenues, costs, and profits to weigh the pros and cons of free shipping.

***In addition to the online price, the number of models offered, and whether shipping and handling is free or an added charge paid by the buyer, your company's share of total online sales in each geographic region is also a function of three region-specific factors.*** These three factors are how your company's S/Q rating, advertising, and appeal of celebrity endorsers compare with those of rival sellers in the buyer's region of the world market. Shipments to online buyers are always made from the distribution warehouse serving the buyer's geographic region. Since the S/Q rating of footwear in each regional warehouse can vary from region to region, as can the company's advertising and celebrity appeal, it is logical that these three region-specific factors come into play in determining online sales in each geographic portion of the world market for branded footwear.

Base operating costs for the company's Web site are \$1.25 million annually, plus \$15,000 for each model offered for sale. These costs appear as a marketing expense in the revenue-cost-profit projections for Internet operations that appear on this screen; also included as Internet-related marketing expenses are allocations for advertising and celebrity endorsements (the percentage of advertising and celebrity endorsement costs allocated to Internet sales equals the percentage of Internet sales to total branded sales in the region). The order processing, boxing, packaging, handling, and shipping costs of \$10 on each order shipped to online customers appear as a warehouse expense (since these costs are incurred in the course of operating the distribution warehouses).

**Exchange Rate Adjustments.** In the revenue-cost-profit projections for Internet sales, you will see an exchange rate adjustment that effectively increases or decreases the number of US\$ received from online sales in a region. These adjustments reflect gains or losses from (1) converting the euros received from online sales to Europe-Africa buyers into US\$, given the change in the US\$ per € exchange rate over the course of the year, (2) converting the Brazilian real received from online sales to Latin American buyers into US\$, given the annualized change in the US\$ per real exchange rate, and (3) converting the Sing\$ received from online sales to Asia-Pacific buyers into US\$, given the annualized change in the US\$ per Sing\$ exchange rate. A positive number for a region represents a favorable exchange rate adjustment and *raises the per pair revenues in US\$* of footwear sold online (which boosts profit margins on sales in that region); a negative number for a region represents an unfavorable exchange rate change that effectively *lowers the per pair revenues in US\$* of pairs sold online (which reduces the profitability of online sales in that region). ***If the sizes of the revenue adjustments are large, you may be able to increase overall company profitability by trimming back marketing and competitive efforts in regions where the revenue adjustments are highly unfavorable and significantly increasing marketing and competitive efforts in regions where the revenue adjustments are highly favorable.*** (You can click on the Help button to access a more detailed discussion of exchange rate adjustments on revenues.)

### Wholesale Marketing Decisions for Branded Footwear

The screen for wholesale marketing of branded footwear to retailers involves 6 marketing decisions per geographic region. Assuming you have made a branded sales forecast for each of the regions, the numbers you see on the screen for wholesale price, advertising budget, mail-in rebate offer, retail outlets utilized, retailer support, and delivery time are the same as those you entered for the planned competitive

effort on the Branded Sales Forecast screen. You are not committed in any way to stick with the marketing entries made on the sales forecast screen. Indeed, the marketing decision entries that appear on this screen are again connected to the corresponding entries on the Branded Sales Forecast screen, such that a change in any of the 6 entries on either screen is immediately duplicated on the other. This interconnection helps synchronize your branded sales forecast with your decision entries and allows new entries for these 6 marketing decisions to immediately result in an updated wholesale demand forecast of the pairs retailers are likely to order—updated forecast numbers and projections of the associated inventory surplus/shortage are provided just below the boxes for the 6 decision entries for each region. By all means, experiment with different marketing decision entries and try to discover a combination with the most appealing performance projections. Should the most appealing combination also entail projected inventory surplus/shortage numbers that are not to your liking, then simply return to the branded production and shipping screens and make adjustments in production volume and/or shipping so as to end up with a more desirable projected year-end inventory.

You'll have little difficulty in grasping what is involved in making the 6 entries on this screen, and you can always click the Help button for added information about each entry. But there are several factors to keep in mind in deciding upon what level of sales and marketing effort to employ:

- How the wholesale price of your company's branded footwear in a given region compares to the industry-average price in that region has a major bearing on wholesale sales in retail outlets and your company's branded market share in that region. *You can see the projected effect on unit sales of a change in wholesale price by observing the changes in the on-screen projections of wholesale demand and wholesale market share when you enter a higher or lower price.* While lower wholesale prices tend to boost retail sales of your company's footwear (assuming other competitive effort factors are not reduced), lower prices can narrow profit margins and lead to a decline in total profit (because the gain in revenue attributable to a higher unit volume is insufficient to overcome the revenue erosion associated with a lower price on all units sold). The on-screen revenue-cost-profit projections provide instant feedback on the impacts of higher/lower wholesale prices.
- If your company's advertising exceeds the industry-average amount of advertising in a geographic region, then your company will enjoy a competitive edge over rivals on advertising in that region—a condition that boosts branded sales and market share. If your company's ad expenditures are below the industry-average, then your company is at a competitive disadvantage on advertising and will sell fewer pairs than would be the case at higher advertising levels (assuming your company's competitive effort on all the other factors remains the same).
- Offering mail-in rebates to consumers who purchase your company's athletic footwear at retail outlets is a way to differentiate your product offering from rivals and create added buyer appeal. If you elect to employ mail-in rebates, you have ten options ranging from as little as a \$1 per pair mail-in rebate to as much as \$10 per pair. **All rebate offers must be in round dollars.** Not using mail-in rebates is always an option. Different rebates can be used in each region. Customer response to rebates is a function of (1) the size of the rebate—rebates in the \$8 to \$10 range will draw a more than proportional number of buyers than \$3 to \$5 rebates and (2) the amount by which your company's rebate is above/below the average rebate in that geographic region. Some buyers lose the coupon or the sales receipt and other buyers, for various reasons, fail to send in the coupon to get their money. Studies show that 15% of the buyers mail in the \$1 rebate coupons; 20% mail in the \$2 coupon; 25% redeem the \$3 coupon; and so on up to 60% for the \$10 coupon. **Buyer failure to mail in the rebate coupon means that the per pair cost of a rebate is below the face value of the coupon, as shown in the following table:**

Rebate Offer	Redemption Rate	Cost Per Pair Sold
\$ 1	15%	\$0.15
2	20	0.40
3	25	0.75
4	30	1.20
5	35	1.75
6	40	2.40
7	45	3.15
8	50	4.00
9	55	4.95
10	60	6.00

- On the screen, you will see the number of retail outlets in each geographic region that are willing to stock and promote your brand of footwear in the upcoming year. The appeal of your company's footwear to retailers is based on **prior-year** S/Q ratings, market share penetration, retailer support levels, delivery times, and whether your Internet price is so low that it puts you in direct competition with retailers handling your company's brand. *There's nothing you can do to secure additional retailers immediately.* If you want to increase the size of your retailer network in a given region, you will have to make stocking your brand more appealing to them via an attractive combination of S/Q ratings, market share penetration in that region, retailer support levels, delivery times, and not charging an Internet price that poses a competitive threat to retailers (*retailers view your Internet price as a direct competitive threat to their business whenever your Internet price is less than 40% above the wholesale price they must pay to buy your branded footwear*). If you are trying to recruit more retailers, you should **expect the buildup of retailers willing to handle your brand to occur over a period of several years rather than skyrocketing from one year to the next.** While you will normally want to enter a number for retail outlets utilized that corresponds to the number of retail outlets willing to place orders for your company's footwear and merchandise them to shoppers, there may be times when you decide to sell to fewer retail outlets than are available because (1) you want to economize on retailer support costs and/or (2) you want to de-emphasize wholesale sales in a particular region. And there may be times when you are willing to let the number of retailers erode because you are deliberately emphasizing online sales at the expense of wholesale sales.
- Spending an above-average amount for retailer support compared to rivals not only helps enhance footwear sales per retail outlet but also has a positive effect on the number of retail outlets willing to merchandise your company's brand of footwear.
- Footwear retailers consider 4-week delivery times as "satisfactory." However, shorter delivery times help retailers sell more pairs (because they can quickly get fresh supplies of fast-selling models/styles/sizes) and will make some retailers more willing to carry your brand (especially those that are delivery-time conscious) because they can carry less inventory and tie up less cash. Currently, 4-week delivery costs \$0.25 per pair, 3-week delivery costs \$0.75 per pair, 2-week delivery costs \$1.50 per pair, and 1-week delivery costs \$3.00 per pair.

### Bids for Celebrity Endorsement Contracts

Twelve celebrities from all over the world have indicated their willingness to wear a company's athletic footwear and endorse its brand in company ads if the fee they are paid is sufficiently attractive. All 12 celebrity personalities solicit competitive bids for their endorsement and sign with the company offering them the most money for each year of the contract (subject to a required minimum bid of \$500,000 per year). The contract periods vary by celebrity; all but one are for more than 1 year.

While all of the 12 celebrities are known worldwide, the extent to which consumers recognize them and are influenced by whose brand they endorse varies from region to region (according to the **regional consumer appeal indexes** shown on the bidding screen). A celebrity with a regional consumer appeal index of 90 will have twice the market impact as one with a regional index of 45. The higher the sum of the regional consumer appeal indexes of the celebrity endorsers your company signs, the greater the regional branded sales volume and market share will be (other competitive attributes remaining equal). There is no limit on the number of celebrities that can be signed by a particular company. However, there is a rapidly diminishing market impact associated with signing additional celebrities once the sum of their consumer appeal indexes in a particular geographic region rises above 400, and the positive impact on sales volume and market share of celebrity endorsers tops out altogether at a combined index value of 500.

Bids to gain the endorsements of three well-known sports celebrities will take place in Year 11; bidding for the services of the remaining nine celebrities will occur in upcoming years. In the event of ties in the highest offer, the celebrity will sign with the company whose celebrity endorsers have the **lowest** combined consumer appeal indexes across all regions (if the high bidders have celebrity endorsers with the same combined consumer appeal indexes, the celebrity will sign with the company having the **lowest** overall image rating). The preference of celebrity endorsers to sign with companies having a weaker lineup of endorsers reflects their belief that this will give them greater overall exposure as the company's principal spokesperson. **The potential for ties signals the wisdom of odd-number contract offers.** If you are the winning bidder for the services of a particular celebrity, the celebrity will be available in the year following your winning bid and you will begin to pay the celebrity's annual contract cost in the year following your winning bid—no costs are incurred in the year of the bid.

In bidding for several celebrities in the same year, you can prioritize your bids for different celebrities and also put a cap on the combined annual cost of all winning bids. The advantage of indicating priorities and imposing a spending cap is that once the annual cost of your company's winning bids reaches the cap you set, all lower-priority bids are withdrawn. This procedure allows you to bid for all the celebrities, control the costs for celebrity endorsements, and not run the risk of unwanted spending for celebrity endorsements should you unexpectedly turn out to be the high bidder on all bids submitted. If you have any questions about the bidding procedure, click on the Help button at the top of the screen.

Whether the incremental sales and profits contributed by a celebrity endorser are sufficient to cover the contract fees paid will, of course, depend on how high you have to bid to win the celebrity's endorsement and the sizes of the celebrity's consumer appeal index in each geographic region. There is credible market research indicating that the value of celebrity endorsements in the athletic footwear business will have a positive bottom-line payoff if the contract payments are not unreasonably high—**the maximum bid is a pretty outrageous \$50 million per year**. Companies may cancel the remaining years of the contract of any celebrity they sign for any reason, subject to paying a 10% penalty fee for one year. Bids for celebrities whose contracts are cancelled will be taken in the year immediately following any cancellation.

### Private-Label Decisions

As indicated earlier, the private-label segment of the athletic footwear market is projected to grow about 10% annually in Years 11-15, with worldwide demand averaging 800,000 pairs per company in Year 11 and 880,000 pairs in Year 12. The operation of the private-label segment of the athletic footwear market is easy to grasp. Chain retailers take bids for their annual private-label requirements at the beginning of each year. Contracts are awarded in the weeks following receipt of bids—in time for contract winners to fulfill their production obligations but not in time for footwear-makers to know whether bids have been won prior to finalizing their decisions and strategy for the full year. All chain retailers worldwide have the same production specifications for private-label footwear: (1) an S/Q rating that is 1-star below the prior-year's worldwide average S/Q rating for branded footwear and (2) 100 models (however, the number of models is subject to change by your instructor as the game progresses). **Production run set-up costs for private-label footwear are 75% lower than for branded footwear** because chain retailers order only models/styles that are simpler to produce in order to hold down costs. So long as the S/Q and model specifications are met, private-label contracts provide that footwear manufacturers have the leeway to make the footwear as they see fit.

Footwear companies interested in obtaining private-label contracts submit a bid price per pair, down to the penny. The bid price represents what the footwear-maker is willing to charge to deliver the required private-label pairs to the retailer's premises (the bid price thus has to cover all production and shipping-related costs, any tariffs that might apply on pairs coming from a foreign plant, and any exchange rate effects, plus include an allowance for profit). Bids may be submitted to chain retailers in any or all of the four geographic regions. For reasons of simplicity, each footwear company submits only one price bid per region (this limits the number of bid prices to a maximum of four, as opposed to having price bids for dozens of different chain retailers worldwide). Chain retailers arrange the bids from the lowest to the highest price per pair and award contracts, starting with the lowest bidder in each region and ascending in order of next lowest price in that region until either total chain retailer demand for private-label footwear in the region is satisfied or all qualified bids are accepted, whichever occurs first. *In the case of tie bids on price, chain store buyers will choose the supplier with the highest global image rating in the previous year.*

Depending on the amount chain stores are buying, the price bids of rivals, and the various quantities footwear-makers are prepared to supply, any one company may sell all of the private-label pairs it is willing to supply to chain-retailers in a region, some of the pairs, or none. Hence, participating in the private-label segment has risk, particularly if a company banks on winning a lot of private-label business but loses out on some or all of the hoped-for production volume because it is underbid by rival companies in some or all of the four regions. However, a company with low-cost production capability and adequate plant capacity can readily sell more private-label pairs than the industry average (800,000 pairs per company in Year 11 and 880,000 pairs in Year 12) by simply bidding low enough to win contracts to supply a larger than average number of pairs—the profitability of such bids, of course, depends on the company's production and shipping costs, tariffs costs, exchange rate adjustments, and any other direct costs that are incurred.

Prior management believed it made good business sense for the company to seek out contracts to make private-label footwear for chain retailers and thereby utilize any plant capacity not needed to make branded footwear. If you and your co-managers want to compete for private-label contracts, the following decisions

have to be entered for each of the plants in which you propose to make and ship private-label footwear, should your company be awarded contracts:

- *The percentage of superior materials to be used in making-private-label shoes*—There's merit in keeping this percentage as low as possible, subject to achieving the required S/Q rating.
- *Expenditures for enhanced styling/features*—Again, there's merit in minimizing this expense, but enough has to be spent, in tandem with superior materials usage, to achieve the required S/Q rating. It is possible that it will be more economical to increase spending for TQM/Six Sigma programs (entered on the branded production screen) to help get to the required S/Q rating than to spend more heavily for superior materials or enhanced styling features.
- *The tentative number of private-label pairs to be produced at regular time*—Any plant capacity not used for branded footwear production can be allocated to private-label production. All or part of the tentative private-label production will not actually take place, however, unless the company wins sufficient bids in the geographic region where you propose to ship the pairs.
- *The tentative number of private-label pairs to be produced at overtime*—Once plant capacity is reached, all additional production involves paying workers overtime at the rate of 1½ times the regular base pay. Overtime production will not occur to the extent that the company loses out in the bidding process.
- *The proposed shipments from a plant to each of the four geographic areas*—These shipments will take place only if you win enough contracts. **Production and shipment of private-label footwear occurs only in the event bids are won.** However, the proposed volumes shipped to each geographic area, all plants combined, represent firm commitments of the number of pairs you are willing to make available to chain retailers in that region and are thus the maximum number of private-label pairs you can hope to sell in that region.

Once these entries are made and price bids entered, you are provided with the projected incremental revenue-cost-profit contributions associated with winning all the bids you have entered (which really is a best-case scenario). The contribution margin over direct costs on private-label sales is not included in the projections of company performance at the bottom of the screen unless you check the boxes on the left and indicate you want them included. The check/uncheck feature allows you to see how any private-label sales will affect bottom-line performance but still not have your company's overall performance be dependent on winning the private-label bids (since there's some reason to be leery of assuming that you will be a winning bidder for the full amount of your bids and to be prepared for a worst-case scenario).

**Important:** *For a company's price bid to be considered by chain retailers in a given region, it must turn out to be at least \$5.00 below the current-year average price for branded footwear in that region. Bids that are not \$5.00 below the current-year average price are thrown out and not considered. Click the Help button at the top of the Private-Label screen for more details.*

The extent to which companies will be drawn to compete in the private-label segment and to make private-label label sales either a minor or major part of their strategy remains to be seen.

## Finance Decisions and Projected Cash Flows

The Finance Decisions screen involves up to 8 decisions and, just as importantly, provides you with projections of cash inflows and outflows for the upcoming year, along with projections of the company's year-end financial situation. Going into Year 11, your company has a B+ credit rating and a reasonably strong balance sheet. At the end of Year 10, the company had a debt-assets ratio under 40% and was in good position to cover its interest and principal payments on loans outstanding to the International Bank of Commerce (IBC), with which the does all of its banking, financing, and foreign exchange transactions.

**Interest Rates.** Officials at IBC, under terms of IBC's long-term banking agreement with the company, have agreed to lend the company additional monies should you elect to use debt to help finance growth. The interest rate on such loans is tied to the company's credit rating and the going rates of interest in world financial markets. Just as interest rates in real-world financial markets change intermittently and unpredictably, there is no way to predict in advance what future interest rates will be. The interest rate on 1-year (short-term) loans for companies with an A+ credit rating can range from a low of 4% to a high of 7%; the interest rate on 1-year loans for companies with a C- credit rating can range from a low of 10% to a high of

13%. Currently, the interest rate on 1-year loans for companies with an A+ rating is 5%; C- rated companies pay 11% interest on 1-year loans. The IBC's present interest rate for 1-year loans carrying a B+ rating is 7.0%. Longer-term loans are available at somewhat higher interest rates—a 5-year loan carries a 0.50% interest rate adder and a 10-year loan carries a 1.0% interest rate adder; these adders apply to 5-year and 10-year loans granted at all credit ratings. New interest rates for 1-year, 5-year, and 10-year loans are announced at the beginning of each year and appear on the Corporate Lobby screen.

The company's banking arrangement with IBC calls for the company to be paid interest on any positive cash balance in the company's checking account at the beginning of each year. The agreed-upon interest rate is set at three percentage points below the prevailing interest rate for short-term loans carrying an A+ credit rating. Going into Year 11, the interest rate of A+-rated short-term loans is 5.5%; thus the money market rate paid on cash balances will be 2.5%. If the company overdraws its checking account, IBC will automatically issue your company a 1-year overdraft loan in an amount sufficient to bring your checking account balance up to zero. The interest rate charged on overdraft loans carries a **2% adder** (i.e. 9% if your B+ credit rating carries a 7% short-term interest rate). The potential for overdrawing your checking account is signaled by a negative cash balance in the bottom right corner of each decision screen (however, even a very small positive cash balance runs the risk of having an overdraft loan, since there is always uncertainty that sales volumes, revenues, and cash inflows will be as high as projected).

**Factors Determining the Company's Credit Rating.** Analysts at independent credit rating agencies review the company's financial statements annually and assign the company a credit rating ranging from A+ to C-. A company's credit rating is a function of three factors: (1) the debt-to-assets ratio; (2) the interest coverage ratio (defined as annual operating profit divided by annual interest payments); and (3) the default risk ratio (defined as free cash flow divided by the combined annual principal payments on all outstanding loans; free cash flow is defined as net profit plus depreciation minus dividend payments). A company with a default risk ratio below 1.0 is automatically assigned "high risk" status (because it is short of cash to meet its principal payments) and cannot be given a credit rating higher than C+. Companies with a default risk ratio between 1.0 and 3.0 are designated as "medium risk", and companies with a default ratio of 3.0 and higher are classified as "low risk" because their free cash flows are 3 or more times the size of their annual principal payments. Your company's prior-year and projected performance on these three credit rating measures is shown on the Finance Decisions screen; this allows you to keep close tabs on the company's financial status and see when actions are needed to maintain a good credit rating. A projected year-end credit rating, based on projections of how your company will likely stack up on the three credit rating determinants, is shown at the bottom of every decision screen. Complete information about your company's credit status and financial strength is included in the reports that accompany each year's decision results. (See the Help page for more information about credit ratings.)

**Entering the Financial Decisions.** Finance decision entries should **always** come last in the decision-making process because until **all** of the other decision entries have been finalized there is no way to get reliable projections of cash inflows and outflows for the year and estimate the company's projected year-end cash balance. The eight finance-related decision entries revolve around the following issues:

- *Whether to borrow additional money to finance operations and, if so, whether the term of the loan should be 1 year, 5 years, 10 years, or some combination of these.* One-year loans are granted at interest rates corresponding to the company's current credit rating; 5-year loans carry an additional 0.50% and 10-year loans carry a full 1% interest rate adder. In addition to a lower interest rate, a 1-year loan has the advantage of quicker debt pay-down and smaller total interest costs, but the disadvantage of having to re-finance debt next year at perhaps less favorable interest rates should cash flows not be sufficient to fully fund a 1-year loan repayment. Longer 5 or 10-year loans have the advantages of locking in what may be an attractive long-term interest rate and lowering annual principal payments (which has the favorable effect of boosting the default risk ratio); however, 5-year or 10-year loans, in addition to their higher interest rates, have the further disadvantage of paying out bigger sums for interest over the life of the loan (which, in turn, causes the company to have a lower interest coverage ratio than it might otherwise have achieved). Company co-managers will have to decide what loan term appears best at the time any borrowing is needed.
- *Whether to raise additional equity capital by issuing new shares of common stock.* New issues of common stock, of course, have the effect of diluting earnings per share and ROE and should be done cautiously and infrequently. Nonetheless, from time to time, you and your co-managers may determine that the company needs to raise additional equity capital to (1) help pay down a portion of the outstanding loans (because of burdensome interest costs or because lowering debt is the best way to improve the company's credit rating) or (2) help pay for capacity expansion and/or plant upgrades.

The company's board of directors has established a 40-million share maximum on the total number of shares outstanding and a 5-million share maximum on the number of shares that can be issued in any one year (assuming the company is in good financial shape). The company cannot issue new shares in the same year that it elects to buy back and retire outstanding shares. At the end of Year 10 the company had 10 million shares outstanding. Each time you make an entry in the decision box specifying how many shares are to be issued, there are accompanying on-screen calculations showing the total amount of new equity capital raised (see the cash inflows section) and the price at which investors will agree to buy the newly-issued shares (the price declines as more shares are issued because additional shares dilute earnings per share). In deciding how many shares to issue, you can try several "what if" entries and check out the effects on earnings per share, return on equity, and the amount of money raised.

- *Whether to pay off one or two of the outstanding 5-year or 10-year loans early.* Company co-managers have the option of accelerating debt retirement (or refinancing high interest debt) by using excess cash on hand or new issues of equity capital or proceeds from new loans to pay off the outstanding principal on up to 2 of the outstanding 5 or 10-year loans. This is accomplished by simply entering the loan numbers of the loans you want to pay off (loan numbers are indicated in Note 6 to your company's balance sheet statement). All such loan repayments are considered end-of-year repayments; thus, the company will still make the interest payments on these loans until repayment occurs at the end of the upcoming year.
- *What size annual dividend to pay shareholders.* The company paid an annual dividend of \$1.00 per share in Year 10. Company co-managers have the authority to declare a higher or lower dividend, subject to certain conditions. The maximum allowable dividend entry is 2 times projected earnings per share; moreover, projected shareholders' equity must **always** remain at or above \$100 million after any and all dividend payments. No dividend can be paid should projected shareholders' equity fall below the \$100 million minimum established by the company's board of directors (a policy that won the enthusiastic approval of credit rating agencies). Higher dividends are welcomed by shareholders and have a positive effect on the company's stock price (unless dividend payments exceed earnings per share and can't be sustained at present levels).
- *Whether to repurchase some of the outstanding shares.* Using cash on hand to repurchase and retire outstanding shares has the advantage of boosting earnings per share, returns on equity investment, and the company's stock price. The company's board of directors has decreed that the maximum number of shares that can be repurchased in any one year is 50% of the shares outstanding, subject to **maintaining a minimum of 7.5 million shares outstanding and a minimum total shareholders' equity of \$100 million**. The company cannot repurchase outstanding shares in the same year that it elects to issue new shares. Each time you enter a number for share repurchases, you are provided with on-screen calculations showing the total cost of the repurchased shares (see the cash outlays listings) and the price at which investors will agree to sell the shares you want to buy back (see the text beside the decision entry box—the price rises as more shares are repurchased because of the upward impact on earnings per share and the bigger fraction of ownership that fewer shares represent). In deciding how many shares to repurchase, you can try several "what if" entries and check out the effects on earnings per share, return on equity, and the amount of money your company will have to pay for repurchased shares.

### The Three Year Strategic Plan

One of the most important menu selections is the 3-Year Strategic Plan option. It calls for you and your co-managers to think ahead, come up with a strategic vision for your company, indicate your financial and strategic objectives, and articulate your company's strategy for the upcoming three years. You'll be asked to set sales and market share targets for branded and private-label footwear, make projections of branded and private-label costs per pair sold, and come up with a projected income statement for each of the next 3 years. You'll find the 3-year planning option especially valuable in figuring out what it will take in the way of sales volumes, prices, and costs to improve company performance.

Don't be surprised if your instructor/game administrator asks you to prepare and submit at least one 3-year strategic plan as the game progresses. While you may not welcome such an assignment, the fact is that **making decisions one year at a time, with little or no view towards the future and few clues as to the longer-run consequences of current-year decisions, is no way to manage**. In practice, company

managers put considerable effort into trying to gauge future market conditions, develop long-range strategies, and make multiyear financial projections because it enhances the quality of managerial decisions. For the same reason, you and your co-managers will find it worthwhile to go through the exercise of developing a three-year plan.

### Special Note on Decision-Making Procedures

It is feasible (often normal) for co-managers to log-on simultaneously and each be engaged in entering decisions (either together in a computer lab or at your own residences, miles apart). When you log-on and get to your company's Corporate Lobby, you'll see information indicating the last date and time at which each co-manager logged on. Needless to say, simultaneous log-ons at different locations are an occasion for staying in communication. If another logged-on co-manager clicks the Save button and uploads new decisions to the **BSG** server, you will be notified in the Alerts and Chat Center—the notification gives you the opportunity to download the co-manager's saved decision entries onto your decision screens (overriding your own entries). **The last decisions saved to the BSG server at the time of the decision deadline will be the ones used to generate the results.** **Coordination and consensus on the decision entries is strongly urged but is left as a matter for you to work out with your co-managers.**

### Reporting the Results

**BSG** servers promptly process the decisions of all the companies in the industry, you will then be sent an e-mail saying the results are ready (usually no more than 20 minutes after the deadline for each decision round). The results are presented in the form of three sets of reports:

- The **Footwear Industry Report (FIR)** which contains (1) a 3-page company performance scoreboard, (2) a 1-page statistical overview of the athletic footwear market showing total footwear production, materials prices, inventory levels, total pairs sold, demand forecasts for each of the next four years, and plant capacity statistics, (3) 1 page of comparative financial statistics for all companies, (4) 2 pages of benchmarking data showing how your company's costs compare against those of rival companies, and (5) a final page that reports the results of celebrity bidding and graphs industry pricing and S/Q trends.
- A **Competitive Intelligence Report** consisting of (a) a 4-page "market snapshot" showing the competitive efforts (prices, S/Q ratings, advertising, number of models, delivery times, rebates, etc.) of all companies in each of the four geographic regions and (b) a "company analysis" page showing the competitive efforts of any rival company of interest for all years to date.
- A 5-page set of **Company Reports** that includes a plant operations report, a distribution and warehouse operations report, a marketing and admin report, a private-label sales report, a branded sales report, an income statement, a balance sheet, and a cash flow statement.

You'll find the information in these three sets of reports *essential* in guiding your decisions for the following year. Most of information in the reports is fairly self-explanatory, but there are instances where you will need to click on the Help button to fully grasp how the numbers are calculated and review the suggestions for making effective use of the information provided. Your first step when you receive e-mail notification that the results are ready should be to print copies of all three reports (a set for each co-manager is recommended), then carefully evaluate what transpired and how well your company fared. Once you've sized up what happened, you are ready to begin making decisions for the upcoming year.

### What Your Board of Directors Expects: Results in 5 Key Areas

The company's Board of Directors has charged you and your co-managers with **developing a strategic direction** for the company and **crafting a strategy** that delivers consistently good results. Board members and shareholders/investors have set five clear-cut performance objectives for the company's new management team:

1. *Grow earnings per share (EPS) at least 7% annually through Year 15 and at least 5% annually thereafter*—the EPS target for Year 11 is \$2.67, up from \$2.50 in Year 5. The Board of Directors

believes these EPS growth targets are well within reason given that the global footwear market is expected to grow 7-9% annually through Year 15 and 5-7% annually in Years 16-20. Board members and shareholders believe a winning strategy should be able to deliver EPS growth at the low end of the market growth percentages.

2. *Maintain a return on average equity investment (ROE) of 15% or more annually.* The company had a 17.3% ROE in Year 5. Return on equity is defined as net income divided by the average of total shareholders' equity investment at the beginning of the year and the end of the year (as reported on the company's balance sheet).
3. *Maintain a B+ or higher credit rating.* (The company's credit rating was B+ at the end of Year 10.)
4. *Achieve an "image rating" of 70 or higher.* The image rating is based on: (1) your company's branded S/Q ratings in each geographic region, (2) your company's market shares for both branded and private-label footwear in each of the four geographic regions, and (3) your company's actions to display corporate citizenship and conduct operations in a socially responsible manner over the past 4-5 years. Your company had an image rating of 70 at the end of Year 10.
5. *Achieve stock price gains averaging about 7% annually through Year 15 and about 5% annually thereafter.* Board members agree that such stock price gains are definitely within reach if the company meets or beats the annual EPS targets and pays a rising dividend to shareholders. The company's stock price was \$30 per share at the end of Year 10. **Your company's stock price is a function of earnings per share growth, ROE, credit rating, dividend per share growth, and management's ability to consistently deliver good results (as measured by the percentage of the 5 performance targets that your company achieves over the course of the BSG exercise—the EPS growth target, the 15% annual ROE target, the B+ or better credit rating, an image rating of 70 or better, and the above specified annual increases in the stock price).**

The Board of Directors has given you and your co-managers broad strategy-making and operating authority to pursue the achievement of these 5 performance objectives, subject to two primary constraints:

- You may not merge with another company in the industry—the Board wishes the company to remain independent.
- You are expected to comply fully with all legal and regulatory requirements and to conduct the company's business in an ethical and honorable manner.

## Scoring Your Company's Performance

Your instructor has placed weights on the relative importance of achieving the performance targets for EPS, return on equity or ROE, credit rating, image rating, and stock price appreciation that translate into some number of points out of 100 for each of the 5 performance measures, with the sum of the points adding to 100. Your company's performance on each measure will be tracked annually and evaluated from two different angles:

1. **The investor expectations standard.** The investor expectations standard involves calculating an *annual* "Investor Expectation Score" based on your company's success in meeting or beating each year's *expected* performance targets for EPS, return on equity or ROE, credit rating, image rating, and stock price appreciation. There is also a Game-to-Date or "all-years" Investor Expectation Score that shows your company's success in achieving or exceeding the five expected performance targets over *all years* of the exercise completed so far. Meeting each expected performance target is worth some number of points based on the scoring weight your instructor selected. For example, if the scoring weight for EPS is 20% or 20 points, meeting the EPS target earns a score of 20 on the EPS performance measure. Beating a target results in a bonus award of 0.5% for each 1% the annual target is exceeded (up to a maximum bonus of 20%). Thus, if achieving the EPS target is worth 20 points, a company can earn a score of 24 points by beating the annual EPS target by 40% or more. Failure to achieve a target results in a score equal to a percentage of that target's point total (based on its weight out of 100 points). For instance, if your company earns \$1.33 per share of common stock at a time when the EPS target is \$2.67 and achieving the \$2.67 EPS target is worth 20 points, then your company's score on the EPS target would be 10 points (50% of the 20 points awarded for meeting the EPS target). Exactly meeting each of the 5 performance targets results in an Investor

Expectation Score of 100. With potential point bonuses of up to 20% for exceeding each performance target, it is possible to earn an Investor Expectation Score of 120.

- 2. The best-in-industry standard.** The best-in-industry scoring standard is based on how your company's performance compares to the industry's best performer on earnings per share, return on equity (ROE), stock price appreciation, and image rating and to the ultimate credit rating of A+. After each decision round, **BSG** arrays each company's performance on EPS, ROE, Stock Price, and Image Rating from highest to lowest. The best-in-industry performer on each of these 4 measures earns a perfect score (the full number of points for that measure as determined by the weights chosen by your instructor)—provided the industry leader's performance on that measure equals or exceeds the performance target established by company Boards of Directors. Each remaining company earns a fraction of the points earned by the best-in-industry performer that is equal to its performance (on EPS, ROE, stock price, and image rating) divided by the performance of the industry-leading company (on EPS, ROE, stock price, and image rating). For instance, if ROE is given a weight of 20 points, an industry-leading ROE performance of 25% gets a score of 20 points and a company with an ROE of 20% (which is 80% as good as the leader's 25%) gets a score of 16 points (80% of 20 points). Likewise, if EPS is given a weight of 20 points, an industry-leading EPS performance of \$5.00 gets a score of 20 points and a company with an EPS of \$2.00 (which is 40% as good as the leader's \$5.00) gets a score of 8 points (40% of 20 points). The procedure for assigning best-in-industry scores for credit rating is a bit different. Each credit rating from A+ to C– carries a certain number of points that scales down from the maximum number of points for an A+ credit rating to 1 point for a C– rating. Each company's combined point total on the five performance measures is its score on the best-in-industry standard. Your company will receive an annual best-in-industry score and a best-in-industry score for all years completed. In order to receive a score of 100, a company must (1) be the best-in-industry performer on EPS, ROE, stock price, and image rating, (2) achieve the targets for EPS, ROE, stock price and image rating set by the company's Board of Directors, and (3) have an A+ credit rating.

After each decision round, you will be able to review every company's performance scores on both the investor expectations standard and the best-in-industry standard for each year completed, along with an overall "game-to-date" (G-T-D) score for each standard. Each company will also receive annual and game-to-date Overall Scores that are determined by combining the Investor Expectation Score and the Best-in-Industry Score into a single score using whatever weighting your instructor has chosen, often 50-50. All scores are reported on the first 3 pages of each issue of the Footwear Industry Report, and you can read the full scoring details by clicking on the Help buttons on the screens for these pages.

### Some Advice and Words of Caution

In making decisions each period, you and your co-managers are strongly encouraged to run the company in a professional, businesslike manner. The overriding purpose of **The Business Strategy Game** is to give you practice in making business decisions, learning to craft winning strategies in a competitive market, and being held fully accountable for the results of your actions—just as managers in the real-world are held accountable for the performance of the companies they run. Be wary of trying something that is imprudent, highly risky, or un-businesslike (things that would get a manager fired in a real company). Overzealous co-managers who put their company's performance at risk with extreme prices or marketing tactics or who wander off on a tangent and endeavor to "game the system" almost always shoot themselves in the foot by driving down company performance. You'll get more out of the **BSG** exercise when you take on the role of a business professional who is trying to achieve the best possible company performance using managerially prudent and responsible business approaches. Little of value will come from running your company like a daring adventurer out to win some variant of a videogame with whatever "off-the-wall" or un-businesslike decisions you can enter on the screens.

### What You Can Expect to Learn

**The Business Strategy Game** is a hands-on, learn-by-doing exercise designed to:

- *Connect directly to the material in your textbook and give you practice in applying basic strategy concepts, using the standard tools of strategic analysis, and crafting strategies.* **BSG** provides opportunity after opportunity to put much of what you've been reading into play and gain some

proficiency in utilizing the concepts and tools of strategic analysis. You and your co-managers will have to assess the latest industry developments, check out competitive conditions in the different market segments, chart a long-term direction for your company, set and achieve strategic and financial objectives, craft strategies that produce good results and perhaps lead to competitive advantage, and adjust strategic plans in response to changing conditions. You'll be provided with strategic group maps, lists of competitive strengths and weaknesses for your company and for rivals, assorted benchmarking data, and competitive intelligence on what rivals are doing—all of which can be used to size up your company's situation, diagnose what rivals are up to, and anticipate what moves they are likely to make next. You'll have to match strategic wits with the managers of rival companies. You'll be thrust into "thinking strategically" about your company's competitive market position and figuring out the kinds of actions it will take to improve it. You'll be responsible for doing the strategic thinking needed to successfully lead your company in a globally competitive marketplace. Learning to do all these things and gaining an appreciation of why they matter are the heart and soul of courses in business strategy.

- *Draw together the information and lessons of prior courses, consolidate your knowledge about the different aspects of running a company, and provide a capstone for your business school education.* **The Business Strategy Game** incorporates a wealth of material covered in earlier business courses. Wrestling with accounting and financial data, production operations, workforce compensation and training, sales and marketing issues, and so on each decision period will not only give you a stronger understanding of how all the different functional pieces of a business fit together but also teach you the importance of looking at decisions from a **total-company perspective** and unifying decisions in a variety of functional areas to create a cohesive strategy. You will see why and how decisions made in one area spill over to affect outcomes in other areas of the company. **BSG** is very much a **capstone learning experience** that ties together material from other core courses and gives you a better feel for what running a business is all about.
- *Deepen your understanding of revenue-cost-profit relationships and build your confidence in utilizing the information contained in company financial statements and operating reports.* The numbers-oriented nature of **BSG**, where you repeatedly make decisions and immediately see on-screen calculations of their impacts on revenues, cost, profits, cash flow, and other important factors, and where you are confronted with all kinds of statistical information about your company and your industry, has the beneficial result of helping you gain greater familiarity with and command of "all the numbers" that surround the tasks of managing a company's operations. The power of having the computer instantaneously calculate the consequences of each decision will make you appreciate the importance of basing decisions on solid numbers instead of the quicksand of "I think", "I believe", and "Maybe it will work out okay." Moreover, because you'll have frequent occasion to review all kinds of operating statistics, identify costs that are out-of-line and take corrective action, compare the profitability of different market segments, assess your company's financial condition, and decide on what remedial and proactive approaches to take to improve your company's performance, you'll see why you cannot hope to understand a company's business and make prudent decisions without full command of the numbers—you won't have to play **BSG** very long to appreciate why shooting from the hip is a sure ticket for disaster.
- *Provide valuable decision-making practice and help you develop better business judgment.* In the course of making all the strategic and operating decisions for your company, you and your co-managers will get all kinds of practice in deciding what to do. You'll experience the thrill of "good" decisions (good in the sense they contributed to above-average or maybe even superior company performance) and the agonizing consequences of "bad" decisions (bad in the sense that the company's performance turned out more poorly than expected). The exercise of repeatedly making decisions on the factors that make up **The Business Strategy Game** will sharpen your sense of business judgment. In the midst of all this decision-making practice, you will get to test your ideas about how to run a company, and there will be prompt feedback on the caliber of your decisions.

The bottom line is that being an engaged participant in **The Business Strategy Game** exercise will make you better prepared for a career in business and management. Further, we predict that **The Business Strategy Game** will make your competitive juices flow and that you will have a lot of fun.