Global Competitiveness in the Beer Industry: A Case Study

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Abstract

Three companies (Anheuser-Busch, Miller, and Coors) in the brewing industry accounted for 78 percent of the U.S. market in 1992. Among these three, Anheuser-Busch is the apparent leader with 46.2 percent of the market. Although Anheuser-Busch produces and markets a number of brands, the Budweiser brand has been the top selling beer with 24.1 percent market share in 1992. Lately, light beers have been gaining ground, a trend likely to continue in the future.

Foreign beer brands account for about eight percent of the U.S. market. The foreign brands are popular in certain niches of the market. While the imported brands are likely to remain popular, they are no threat to the domestic competitors.

A new trend in the market is the emergence of the specialty beers as a significant factor. Specialty beers cater to the needs of specific segments in the market, providing an opportunity for small brewers to survive. Even major firms in the industry have introduced their own specialty beers.

U.S. Brewers have failed to make an impact in the foreign markets. Although all major firms have formed alliances to seek expansion overseas, their business outside the United States remain slim. Foreign brewers, particularly Heineken are ahead of U.S. brewers in securing markets abroad.

Global Competitiveness in the Beer Industry: A Case Study

1. Introduction

The purpose of this case study is to examine the impact of foreign firms' activities in the U.S. beer market. In other words, how the market penetration strategies of importers influence the strategies, conduct and performance of U.S. firms. The study also analyzes the impact of imports on U.S. consumers and farm products. The discussion is organized into seven sections: section one briefly traces the history of beer industry in the U.S.; section two looks at the Structure of the industry, and the strategic perspectives of industry members; section three is devoted to competition at the brand level; section four analyzes success factors in the industry; section five examines competition in the industry; section six discusses long-term prospects in the industry, including the impact on U.S. economy and the public policy implications; and the final section draws conclusions for the industry.

2. History

Beer has been a part of the social fabric of cultures around the world for thousands of years. Even today, beer ranks as the third most popular beverage in the world next to water and tea. To a great extent, the native ingredients available in different parts of the world contributed to the distinctive types of beer products. The availability of different grains, yeasts, hops, and even water gave each regional brew a taste of its own.

Human activity also influenced the types of beer brewed over the years. For example, boch beer originated in the German town of Einbeck. It was favored by royalty, and was often transported over great distances for the royal family's pleasure. The high alcohol content in the boch kept the beer from spoiling during transport.

The first commercial brewery in America dates back to 1633 when today's New York was still New Amsterdam, and today's Stone Street, close to the New York's financial center, was still Brewer

Street. It was not much of an industry until the mid-1800's when German immigrants[1] introduced *lager*.[2] Beer soon became not only a refreshing drink, but also a source of revenue in form of a 'sin-tax' (an euphemism for an excise tax).[3] In 1983, beer drinkers paid over $2 billion to the treasury for the joy of sipping down the oldest of all man-made drinks.[4] The industry has survived its Dark Ages between 1920 and 1933 when the 18th Amendment proclaiming Prohibition was law of the land. The total industry output fell from 27.7 million barrels in 1919 down to 2.8 million barrels in 1932,[5] forcing many brewers out of business.

Although America is number one in production of beer, its consumption per capita lags behind many, mostly European, countries. It ranked 9th in 1981 with 24.6 gallons per capita. The leader of the pack was Germany with 38.8 gallons per capita. In the 1980s the trend was downward and the U.S. beer consumption actually fell to 22.8 gallons in 1992.[6]

2.1 Different Types of Beer

Brewed in more than 170 styles, there are more than 20,000 brands of beer sold around the world. All malt beverages are referred to as "beer," but there are two distinct types: ales and lagers. Ales are top-fermented while lagers are bottom-fermented. Until the 1800s, all beers were ales; i.e., they were brewed with yeasts that fermented at the top of the fermenting tank. One of the problems with top-fermenting brews was the susceptibility of the yeast to breed with wild strains in the atmosphere, which made brewing practically impossible in the summer months. Bottom-fermenting yeasts, discovered around 1830, helped solve this problem, and as advances in refrigeration developed, it became possible to brew "lagers" all year round.

The following are the major styles of ale and lager beer:[7]

2.2 Ale Styles

Altbier. A German style of top-fermenting beer, altbier comes from the German *alt*, meaning "old". These light ales are cold-conditioned, making them more similar in taste to lagers than ales.

Bitter. British ales, usually bronze to deep copper in color, that are heavily hopped, giving them a high degree of hops bitterness.

Brown Ale. A sweet, dark brown ale brewed in southern England. Brown ales in northern England are more reddish in color, slightly higher in alcoholic content and have a drier finish.

Cream Ale. An American invention, cream ales are usually blends of pale golden, mild, light-bodied ale and lager. Only two outstanding examples remain in this country, *Genessee Cream Ale* and *Little Kings*.

Lambic. Brewed in Belgium, lambics are made with both barley and 30% to 40% unmalted wheat. The mash is left to ferment spontaneously with wild yeast from the atmosphere for a night, then barrelled for the rest of the primary and a secondary fermentation. Lambics are sometimes cased with cherries, raspberries or other fruit. Young lambics are dry, sour, cloudy and similar in taste to a cider. Aged lambics are more mellow and settled.

Mild. The English term for ales that are only mildly hopped, and therefore less bitter than "bitters" or "stouts." Most are dark brown, though they range in color to copper. They're full-bodied in flavor, but have relatively low alcohol content.

Pale Ale. Pale generally refers to the color of the malt used to brew this ale. The malt is only dried instead of roasted, giving the resulting brew a lighter bronze or copper color than the brown ales, and a lighter, less hearty flavor.

Porter. A style developed in London in the early 1700s in response to customer demands for a blended brew drawn from casks of pale ale and brown ale or stout, Porter was originally a heavy brew. Once extinct, the style has been revived in recent years (notably in America by the Sierra Nevada brewery), and is made with highly roasted malt. It has a less pronounced hop flavor than other ales, and a slightly sweet taste.

Scotch Ale. In a country known more for its malt whiskeys, Scotch ales are heavily dominated by malt flavor, but range in strength.

Stout. Stout has a dark, almost black color (due to highly roasted malt), and a rich malty flavor usually combined with a strong, bitter hops taste. There are a couple of versions of this type of ale. "Dry" stout, best exemplified by *Guinness*, is the Irish style, which is more "hoppy" in character and may contain roasted unmalted barley. "Sweet" or "milk" stout was given its name because of the lactose used as a nonfermentable sugar in the brew, giving it a sweeter taste. *Mackeson* is a good example. "Imperial" stout was originally brewed in Russia and adopted as an English style. It is usually medium dry, very heavy and generally very strong.

Trappist. Only the order of monks bearing this name may rightly use the term Trappist to describe their brews. The order has five breweries in Belgium and one in The Netherlands that produce a variety of ales under the nomenclature. The ales are usually brewed with candy sugar and bottle-conditioned, and range in color from bronze to dark brown. *Chimay* is a good example.

Weisse (or Weissbier). Brewed from wheat instead of the more traditional barley, weisse beer also is brewed with top-fermenting yeast. Most are light and tart in taste with a bready or yeasty aroma, and pale in color.

2.3 *Lager Styles*

Bock. A German term for strong beer, bock beers are usually brewed for consumption in late winter, spring or autumn. They can range in color from golden to tawny to brown, and are generally stronger than typical lagers (more than 6.25% alcohol by volume).

Dortmunder. Technically, this is a beer brewed in the German city of Dortmund, but it often refers to the city's classic style of Export. There are actually seven brewing companies in the city of Dortmund producing a wide variety of beer styles with the name Dortmunder. The Export style is a beer that is pale and medium dry, with a little more body and alcoholic content than pale lagers from Munich and Pilsen.

Dry. Originally a style in Germany where carbohydrates were diminished by a very thorough fermentation (creating a high alcohol content), dry beer was popularized by Japanese brewers. The mild version brewed in America has a conventional alcohol content, and is noted for having no "beery" aftertaste.

Marzen. Originally a beer that was brewed and cased in March for consumption through the summer months, Marzen eventually came to be associated with one specific style — a malty, medium-strong version of the Vienna style.

Munchener (or Munich-style). This dark brown lager is full-bodied with a sweet malt flavor and slight hop taste that is more creamy and aromatic than a light lager. The dark color and malty flavor come from roasted barley. Most dark super premiums and imports (*Michelob Dark, Löwenbrau Dark, Beck's Dark*) are fashioned after Munchener beers.

Pilsner (or Pils). Like Dortmunder, a true pilsner can only come from the town of Pilsen, Czechoslovakia. Pilsner Urquell ("original") is the only real pilsner still around, but most light lager beers produced in the U.S. are now modeled after this style.

Steam beer. The only beer style indigenous to America, steam beer was invented in California when early brewers tried to make bottom-fermenting beers without adequate supplies of ice. The brewers used bottom-fermenting yeast, but brewed their beers in wide, shallow vessels at the higher temperatures characteristic of ale brewing. The technique produced beer with the combined character of lager and ale.

The term is now trademarked by Anchor Steam Brewing, the only company still making this distinctive style of beer.

Vienna. An amber-red lager originally produced in Vienna, the term Vienna also still refers to the amber-red kilned malt that produces this style of beer.

2.4 *American Beer Terminology*

Most beers brewed in America are lagers, and styles are often used interchangeably. Some are called "pilsners," some "lagers," and even the brand names may pay a passing nod to a style they may have been based on (bock, marzen, etc.).

Even more confusing, though, is the fact that any beer sold in the U.S. with an alcohol content of more than 5% by volume cannot be labeled "beer." It can be called "ale," "stout" or "porter" even though it isn't brewed with top-fermenting yeast like a true ale.

Most beers of high alcoholic content in this country are labeled "malt liquor" despite the fact that they are not liquors in any sense, and most aren't particularly malty. Most malt liquors produced here are, in fact, pale lagers with a higher alcoholic content than typical "beers."

In conclusion, the U.S. produces more lager beer than any other country in the world. Most of the lagers in this country are made with an adjunct of rice or corn in addition to barley malt, making them smoother and paler than all-barley brews, giving them less body and character than imports.

3. Structure of the Industry

The U.S. beer industry is highly concentrated with ten top brewers commanding 98.5% share of the market. The absolute leader in market share is **Anheuser-Busch** with 46.2%. The other two major producers are **Miller** (22.4%) and **Coors** (10.4%). All of the big three are well-entrenched. Beyond the big three, the play field is divided among old-timers that have been losing their market shares for several years now and smaller brewers. Some of the smaller brewers have been expanding rapidly, but their performance is negligible in total industry terms. The second-tier breweries include: **Stroh** (in its 10th year of sales decline with 7.6% of the market), **G. Heileman** (also in its 10th year of sales decline with 5.3% of the market), and a conglomerate **S&P Industries**[8] (the only brewer in this group showing sales growth with 4.4% of the market). The third tier consists of brewers ranked 7th through 14th, many of whom had an increase in sales. The companies at the bottom of the top ten list are **Genessee, Latrobe, Pittsburgh Brewing,** and **Hudepohl-Schoenling.**

Since the industry is so concentrated, the 1992 growth rates of some newer brewers, like **Boston Beer** (67%), **Evansville Brewery** (106%), and **Yuengling** (37%) were impressive, but have little effect on the industry structure. These companies are too small to be able to exercise any significant influence on their distributors, and have to accept only the second-best treatment behind the prime brewers from them. Their advantage, however, lies in the strong regional markets

where they are well recognized and patronized by the novelty-seeking customers.

At the upper end of the spectrum, the three industry leaders have all the resources required to fend off any attacks by the smaller players. The industry analysts see the following advantages of being big:[9]

- Have well diversified and segmented product lines and brand families;
- Have large, well-funded and efficient marketing programs;
- Have efficient, very often vertically integrated operations;
- Have committed and efficient distribution networks.

Table 1 lists the top ten brewers in the U.S. and shows their 1992 total barrelage and market share. As can be noted, the "big three" control 79% of the market. The "next three" account for an additional 17.3% market share. While these major companies in the industry are not growing, they are holding on to their own.

3.1 Strategic Perspectives of Key Firms in the Industry

The top six brewers have developed distinctive strategies to effectively compete with one another. Discussed below is the competitors' strategy applied to sourcing, brands/pricing, distribution, and international presence.

3.2 Anheuser-Busch

Sourcing: **Busch Agricultural Resources**, a subsidiary, satisfies a substantial portion of sourcing needs of **Anheuser-Busch**. Thirty percent of malt needs are supplied by three midwestern operating malt plants. Fifty percent of rice requirements come from two rice mills, one in California and one in Arkansas. Twelve elevators and four seed processing plants are strategically located across the country. Hop is being provided by hop farms in Bonners Ferry, Idaho and in Huell, Germany. Altogether, **Anheuser-Busch** operates 13 breweries located in different parts of the U.S.

Product Policy: To keep ahead of competitors, the company continues to constantly update and strengthen its brand portfolio and introduces new products expanding its product lines and product family. In every beer segment, **Anheuser-Busch** has a strong brand that appeals to every type of consumer in the market. The following are the brands that currently comprise the **Anheuser-Busch** beer list:

Superpremium —	Michelob, Michelob Classic Dark, Michelob Dry;
Premium —	Budweiser, Budweiser Ice Draft, Michelob Golden Draft;
Popular —	Busch, Natural Pilsner;
Light —	Natural Light, Bud Light, Michelob Light, Michelob Golden Draft Light, Busch Light Draft;
Malt —	King Cobra;
Non-Alcoholic —	O'Doul's;
Imported —	Carlsberg, Carlsberg Light, Elephant Malt.

In terms of marketing strategy, **Anheuser-Busch** has been managing some of its brands in the following way: *Bud Dry* has been put into a new bottle with a new label to preclude any further decline in sales.[10] *Michelob Golden Draft* and *Michelob Golden Draft Light*, the direct competitors of **Miller's** *Genuine Draft*, have been sold in the test market since 1991. *O'Doul's* has outsold its direct competitor, **Miller's** *Sharp* to become the top non-alcoholic brew in the nation.

Distribution: The law dating back to 1933 bans brewers from selling directly to retail, so even such giants as **Anheuser-Busch** have to use middlemen to market their product. Consequently, **Anheuser-Busch's** distribution network consists of 900 independent wholesalers, 10 company-owned and 22 partially-owned distributorships scattered throughout the United States.

International Presence: **Anheuser-Busch** has been significantly present in international markets since 1981 and is selling to more than fifty markets worldwide now. In 1993, the brewer formed joint ventures with Mexican **Grupo Modela** (*Corona*), and the Japanese **Kirin Brewing Co.** Both companies are the largest brewers in their markets.

3.3 Miller Brewing Company

Product Policy: The company has departed from a small number of brands which was its marketing strategy in the 1970s, and now aggressively rolls out new products in all beer segments. Currently, Miller markets the following brands targeted at different market segments:

Superpremium —	Löwenbrau, Miller Reserve;
Premium —	Miller High Life, Miller Genuine Draft, Miller Clear, Miller "Icehouse";
Light —	Miller Lite, Milwaukee's Best Light, Miller Genuine Draft Light, Miller Reserve Light, Löwenbrau Light, Leinenkugel Light, Meister Bräu Light;
Malt —	Magnum;
Non-Alcohol —	Sharp's;
Specialty —	Leinenkugel, Chippewa Pride, Leinenkugel Limited;
Imported —	Molson, Foster's.

The specific brands were managed individually with the companywide objective of competing with **Anheuser-Busch** head to head. *Miller High Life* has been repositioned as a near-premium beer as a measure to reverse ten years of decline. After two years of test marketing, **Miller** has rolled out the 100% malt barley *Miller Reserve* and *Miller Reserve Light*, both at superpremium prices of $5.00 per a six-pack. In March of 1993, **Miller** introduced another superpremium specialty beer — *Miller Reserve Amber Ale.* Two innovative, test-marketed brands: *Colders* and *Clear Beer,* have not gained enough consumer acceptance to wage a nationwide rollout.

Distribution: The *Service 2000* team is the brewer's effort to improve its relationships with distributors which have been strained in the past. An immediate goal of closing the "trust gap" between the brewer and its distributors has become a long-term objective of future harmony and growth of the business.

International Presence: Recently, **Miller** has become more active in international business. The company's holding stakes, largely financed by its parent **Philip Morris**, range from Mexico to Canada to China, and also include the UK and Puerto Rico. On the import side, **Miller** has an exclusive sale agreement to market *Molson* and *Foster's* brands in the U.S.

3.4 Adolph Coors Brewing Company

Coors is the most recent of the big three in the beer industry, being a national brewer for only the past 18 years. Before the national rollout in 1975, **Coors** brewed only one brand — *Coors Banquet* that was offered in 11 Midwestern states only.

Sourcing: **Coors** has a unique approach in sourcing its raw materials. Water, described by the company as "pure Rocky Mountain spring water," comes from 60 company-owned springs. Two thousand long-term contracts with farmers provide for all barley needs. The brewer also owns rice- and grain-processing facilities. Hop is purchased both in domestic and European markets. The **Coors** brewery in Golden, Colorado is the largest in the world with a capacity of 18 million barrels.[11]

Product Policy: **Coors'** marketing strategy is focused on strengthening its recently achieved position and matching the efforts of **Anheuser-Busch** and **Miller.** In order to augment its brand portfolio, the brewer has developed new brands beyond its traditional high-margin premium and superpremium brands.

Superpremium —	George Killian's Special Ale;
Premium —	Coors, Coors Extra Gold, Coors Dry;
Light —	Coors Light, Keystone Light, Shulers Light;
Popular —	Keystone, Keystone Dry, Shulers (test);
Non-Alcohol —	Coors Cutter, Moussy (imported);
Specialty —	Zima (test).

Having entered new markets, **Coors** had to develop new strategies to cope with competition. *Coors Dry* has been growing very fast, adding momentum to the otherwise successful brand family.[12] A new brand aimed at women between 21 and 39, and priced at superpremium $4.99 for a six-pack, has proved successful in the test market. In March 1993, *Coors Extra Gold Light* was launched to directly compete with **Miller's** *Lite* and **Anheuser-Busch's** *Bud Light.* Economy priced *Schulers* and *Schulers Light* are supposed to compete with *Milwaukee's Best*, *Natural Light* and *Schlitz* from **Miller, Anheuser-Busch,** and **Stroh Brewery,** respectively.

Distribution: Distribution of **Coors** brand has traditionally been affected by the fact that beer was never pasteurized. Consequently, an advanced rail car delivery system has been in use. This is how beer arrives in the East and the South to be packaged for final delivery in the respective local markets. The company plans to create 28-warehouse "satellite network" to increase its distribution efficiency.

International Presence: The **Coors'** international activities include a joint venture with the New Zealand company, **Lion Nathan,** to distribute its *Castlemine XXXX* brand in the United States. **Royal Brewery** in Manchester, England has been upgraded at the expense of $12 million to produce *Coors Extra Gold* that is going to be marketed in England and Scotland.

3.5 Stroh Brewery Company

Product Policy: Stroh retains a whole range of brands, most of them acquired when the industry was still consolidating in the 1970s. Today, **Stroh's** brands represent all price and taste segments:

Superpremium —	Signature, Primo;
Premium —	Stroh, Stroh Draft;
Popular —	Old Milwaukee, Old Milwaukee Genuine Draft, Schaefer, Schlitz, Piels, Goebel;
Light —	Stroh Light, Old Milwaukee Light, Old Milwaukee Genuine Draft Light, Scheafer Light, Schlitz Light, Piels Light, Goebel Light;
Malt —	Shlitz Malt Liquor, Schlitz Malt Genuine Draft, Red Bull Malt Liquor;
Non-Alcohol —	Old Milwaukee NA.

To maintain its somewhat precarious position, **Stroh** has applied aggressive brand marketing strategies. These have not always proved effective and a sales decline affected the best selling line — *Old Milwaukee.* It fell by 13.8% to 5.0 million barrels between 1991 and 1992. Also, *Old Milwaukee Light* dropped by 12.5% to 1.4 million barrels in the same period. *Shaefer,* acquired in 1981 and being on the market for 150 years, recorded flat sales in 1992 after five years of steady decline. On the positive side, the successful malt liquor line grew by 5.3%, for a fourth year in a row.

Recently, **Stroh** has introduced several specialty beers that have distinctive taste and are sold only during specific periods of the year (seasonal beers). The first mass produced wheat beer — *Augsburger Weiss* contains 25% wheat in its mash. Between September and November of 1993 *Oktoberfest* went on sale, and *Doppelbock* is scheduled for introduction in 1994.

Distribution: In the early 1980s, acquisitions of **Schaefer** and **Schlitz** made **Stroh** concentrate on streamlining three different distribution networks. Still, the brewer has over 1,000 wholesalers. It is trying, however, to cut this number down by offering incentives to wholesalers who resign from carrying **Stroh's** brands. Needless to say, many of the wholesalers are not happy with the brewer's approach.

3.6 G. Heileman Brewing Company

Product Policy: Renewed after being in bankruptcy for the past two years, **G. Heileman** still carries the best selling brand in the malt liquor segment — *Colt 45*. For the time being, because the brewer is going through ownership changes, **G. Heileman** cannot commit its efforts fully to developing a decisive marketing strategy. Once financial issues are settled, the company will be able to take a better advantage of its numerous brands.

Superpremium —	Special Export, Tuborg Gold, Henry Wenhard Private Reserve;
Premium —	Old Style, Old Style Special Dry;
Popular —	Schmidt's, Red, White and Blue, Blatz, Carling Black Label, Blitz-Weinhard, Lone Star;
Dry —	Lone Star Dry, Rhengoldi, Rainier, Rainier Dry;
Light —	Old Style Light, Reinier Light, Blatz Light, Schmidt's Light, Black Label Light, Carling Black Label Light, Red, White and Blue Light, Lone Star Light, Special Export Light;
Malt Liquor —	Colt 45, Mickey's Malt, Cool Colt;
Non-Alcoholic—	Black Label, Kingsbury, Schmidt Select, Zing;
Specialty —	Val Blatz.

The brewer also markets a wine cooler — *Country Cooler,* that although not quite a beer, competes with brews within the broad beverage category.

Due to low budget, the company could only attempt to design a low-key marketing plan. Both *Carling Black Label* and *Old Style* dragged the brewer's sales down (total drop of 2.9% in 1992). Capitalizing on the success of *Colt 45,* the company introduced *Cool Colt* in January 1993.

Distribution: Many of the **G. Heileman's** wholesalers are small and carry the brands only as secondary products. Slowly, **G. Heileman** has been consolidating wholesalers who are willing to provide good merchandising and promotion. Contrary to the current law, the brewer started to ship directly to retailers in the California market.

3.7 S&P Industries

Product Policy: Formerly, **Pabst Brewing Company, S&P Industries** became a new entity after a series of takeovers in the 1980s. Today, **S&P Industries** own mostly popular segment brands that have shown promising trends lately in the flat beer market. The company's brand portfolio includes:

Popular —	Pabst Blue Ribbon, Olympia, Olympia Dry, Olympia Draft, Falstaff, Pearl;
Light —	Pabst Light, Olympia Light, Hamm's Special Light, Falstaff Light, Pearl Light;
Low Alcohol —	LA Pabst Extra Light;
Malt Liquor —	Olde English 800, Olde English Genuine Draft;
Non-Alcoholic —	Pabst NA, Olympia NA, Hamm's NA, Pearl, NA.

The best selling brand in the company's portfolio is *Olde English 800* that had increased sales by 17.6% in the last two years. The brand is heavily advertised and the company is counting on a spill-over of its success to the newly introduced *Olde English 800 Genuine Draft.*

Distribution: **S&P Industries** does not have a national distribution system, per se. The brewer's advantages lies in the aggressive pricing that helps to carry the brands by otherwise unwilling wholesalers.

4. Competition at Brand Level

Today, the most popular beer brand is *Budweiser* from **Anheuser-Busch,** holding 24.1% of the market. The next three brands: *Miller Lite, Bud Light,* and *Coors Light* each has less than 10% of the market. All three represent, however, the light beer category, which had been in existence for only the past 20 years when today's leading brand *Miller Lite* was introduced. Riding on the success of *Miller Lite*, both **Anheuser-Busch** and **Coors** can congratulate themselves on having added light beer to their offering. *Bud Light* and *Coors Light* were third and fourth in 1992, respectively, with positive growth in the previous years. The proof of popularity of the category is attested to by the fact that the light category grew a healthy 5.1% despite the flat beer market. *Busch* from **Anheuser-Busch** has been fifth for the last three years now and seems to reflect the industry's overall lackluster growth. *Miller Genuine Draft* (6th) and *Milwaukee's Best* (7th) represent 32% of total **Miller's** sales. Both brands are relatively strong with the latter posting its first drop in seven years. *Natural Light* (**Anheuser-Busch**) ranks eight, but has the highest growth among the top ten.

The only brand on the list that comes from outside the big three breweries is *Old Milwaukee* by **Stroh** (not to be confused with *Milwaukee's Best*) which ranked a distant nine. *Miller High Life*, once the top beer from **Miller**, rolls out of the list. This is also its tenth year of decline. Table 2 summarizes data on top ten brands.

To understand the positioning of different brands, consider the seven categories of beer examined below:

1. ***Premium*** beers, produced by the major brewers; priced and positioned for the mainstream consumer, more expensive than popular beers (share 35.4%).
2. ***Light*** beers, lower calorie and less filling (3.2% - 3.4% alcohol content by weight), siblings to brews in all price categories (share 31.6%).
3. ***Popular*** beers, priced below premium beers and typically the lowest priced products on the market (share 21.7%).
4. ***Imports***, generally the highest priced products on the market (share 4.4%).
5. ***Malts***, brews containing higher than average alcohol content, and brewed to achieve a distinctive taste (share 4.3%).
6. ***Superpremium*** beers, priced above premium level, and including some specialty and seasonal brews (share 2.5%).
7. ***Low Alcohol***, typically have approximately half of the alcoholic content; and ***Non Alcohol***, made of malt, some corn or rice, and hops, and put through a dealcoholizing process. Legally, they cannot contain more than 0.5% alcohol and cannot be labelled "beer" (share 0.1%).

Brand examples for the seven beer segments are:

Premium —	Budweiser, Miller High Life
Popular —	Old Milwaukee, Busch, Blatz, Milwaukee's Best
Non Alcohol —	Birell, Moussy, Sharp's, O'Doul's, Kingsbury
Malt Liquors —	Colt 45, Mickey's Malt, Schlitz Malt Liquor
Low Alcohol —	LA, Blatz LA
Light —	Miller Lite, Michelob Light, Coors Light, Bud Light
Imports —	Heineken, Molson, Beck's

4.1 Geographic Markets

The U.S. market can be divided into seven regions: Northeast, South, East Central, West Central, West, Southwest, and Pacific. The states comprising each region are the following:

Northeast —	Connecticut, Delaware, D.C., Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island and Vermont
South —	Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee and Virginia
East Central —	Illinois, Indiana, Kentucky, Michigan, Ohio, West Virginia and Wisconsin
West Central —	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota
West —	Colorado, Idaho, Montana, Nevada, Utah and Wyoming
Southwest —	Arizona, New Mexico, Oklahoma and Texas
Pacific —	Alaska, California, Hawaii, Oregon and Washington

The traditionally leading region of the Northeast (23.4% barrelage in 1983) has lost its leading position to the South (19.4% in 1983). This occurred in 1989-90 which marks the beginning of the recession in the Northeast. In 1992, 22.1% of beer was sold in the South versus 20.6% in the Northeast. The East Central region, which is closely competing with the South and the Northeast, lost its share from 20.2% in 1983 to 19.0% in 1992. In terms of growth, the Southwest is a clear leader with 3.6% growth in 1992. The Northeast has further shrunk by 3.2% in 1992.

The U.S. per capita consumption has fallen for a second year in a row. The Northeast region had the lowest consumption of 21.1 gallons, and the Southwest the highest of 26.8 gallons versus the national average of 23 gallons. Since 1982, when the national average stood at 24.3 gallons, the consumption fell in all, but the South region. This decline is attributed to the following factors:

- Legislation enacted in several states has placed legal liabilities on bar and restaurant owners for drunk driving related automobile accidents, forcing them to place stricter limits.
- National activists groups have focused more scrutiny on the way popular alcoholic beverages are advertised and promoted, especially to younger audiences.
- The more upscale consumers who traded up to premium and superpremium "dry" and packaged draft beers in the 1980s were hardest hit by the "white collar" recession.

Table 3 depicts the geographic breakdown of the beer market in the U.S.

5. Success Factors in the Industry

This section isolates the critical factors on which success in the beer industry depends. The success factors may vary from company to company according to shifts in industry position, product superiority, distribution methods, economic conditions, availability of raw materials, and the like.

5.1 Role of Price

Importantly, while the gap narrowed somewhat in the last two years, **Anheuser-Busch's** products in each segment continued to sell at a higher price than those of the other brands (see Table 4). Also

remarkable is in the environment where they sold (i.e., supermarket outlets, where in theory revenues per case should be impacted most severely by promotion), prices increased by an average of 1.7% annually during 1990-92. Notably, while **Anheuser-Busch's** competitors need price increases much more to support their bottom lines than **Anheuser-Busch** does, for the most part, they remain reluctant to price at parity with **Anheuser-Busch** brands. This situation is not likely to change in the foreseeable future.

During the coming five years, beer prices are likely to advance at about half of the rate of inflation, or by 2-3% annually. This prediction is based on **Anheuser-Busch's** strong role in industry pricing. Increases of this magnitude will afford **Anheuser-Busch** annual earnings growth of 15%, allowing it to remain the price leader in the business. Competitors should follow along dutifully, if for no other reason than that their bottom line in all likelihood need price increases more than **Anheuser-Busch**.

5.2 Distribution — Another Important Factor

Beer in the United States is distributed through a system of beer wholesalers, each of whom is given a specific geographic territory. In theory, the distributor is the only one allowed to sell a particular brewer's brand in his/her territory. By and large, wholesalers respect the geographic boundaries of each other. However, this is not the case 100% of the time.[13]

In any case, the wholesalerships are, for the most part, not owned by the breweries. The wholesaler's job is not only to market and promote the brands on a local level, but to sell and deliver product directly to the retail outlets, whether it be for off-premise consumption (grocery stores, liquor stores, etc.), which accounts for 75% of the business, or for on-premise consumption (restaurants, taverns, etc.), which accounts for the remainder. The job necessitates having a large warehouse, which is typically refrigerated, a fleet of trucks, and a staff of sales people as well as drivers. Obviously, the nature of the wholesaling business is such that it is typified by high fixed costs. Therefore, a distributor's profitability is extremely sensitive to both volume and brand mix. With respect to the latter, the higher-priced brands typically carry much higher margins for the wholesaler as well as the brewer. Table 5 reflects the estimates of a typical brewer's gross margins within the various segments of the beer market. Table 6 reflects the average volume per wholesaler for each of the major brewers and the percent of total volume in each of the price categories.

Not only does the average **Anheuser-Busch** wholesaler do the largest volume in this business by far, but he also has the most profitable product mix. Given the substantial sensitivity that wholesaling has to volume, it is safe to say that **Anheuser-Busch's** wholesaling system is financially much stronger than its major competitors'. Therefore, it is able to market at a much higher level, and for the most part, is totally dependent on **Anheuser-Busch** products for its income. There are specific markets where **Coors** and **Miller** may have the dominant brands, but generally speaking, the **Coors** or **Miller** wholesaler is much more likely to carry a competitor's brand in order to boost total volume — which means he is likely to be less focused on his primary brewer's brands. For example, in Ohio, most of **Coors'** distribution is done by **Miller** wholesalers.

The *Budweiser* brand, according to a company representative, is so popular that its on-premise distribution is nearly 100%. It may not be wrong to say that *Budweiser* alone may account for as much as 35-40% of total on-premise consumption. This brand strength likely makes it easier for **Anheuser-Busch** to get placements for its brands that are not segment leaders than would be the case for **Coors** or **Miller**. This in part would appear to account for the recent success of *Bud Light* and the initial success of *Bud Dry*.

5.3 Critical Role of Advertising

While periodic price promotions obviously play an important role in marketing, strategically national advertising is most significant for gaining market dominance in the beer industry. Advertising economies of scale help the brewer compete with a product that is sold no longer on its characteristics, like taste, but on image that is created by the advertiser. Brand name and product differentiation are obvious candidates for barriers to entry for new brewers. The consumer is often unaware of the myriad of different brands, and taste test are consistent in showing no differentiation at all, despite the claims made by the beer TV ads.[14]

The top brewers are also top advertising spenders with the top three accounting for nearly 93% of all industry advertising. Advertising budgets in 1992 for the industry leaders show the gap that exists between the first and second-tier brewers. **Anheuser-Busch** ($316 million), **Miller** ($231 million), and **Coors** ($121 million) spent over $668 million in 1992 versus $41.3 million spent by the next three producers (**G. Heileman, Stroh, S&P Industries**).

Per barrel spending shows the intensity of competition, with **Coors** being first ($5.45), **Miller** second ($4.36), and **Anheuser-Busch** third ($3.99). The reversed order of spending on per barrel basis is due to the "beer wars" between the relatively new **Coors** and the long-time leader, **Anheuser-Busch**.

Table 7 compares media expenditures of three major companies in the industry. Not only does **Anheuser-Busch** dominate media expenditures in the brewing industry, but it enjoys the highest operating margins. Given its market share lead, this suggests that **Anheuser-Busch** will continue to pull away from competitors, both in terms of market share and profitability. As a matter of fact, it may not be an exaggeration to say that since 1981, the company has largely determined media spending in absolute dollars for the industry. And what **Anheuser-Busch** spends on advertising should not only remain the standard to which other companies aspire, but it should continue bringing **Anheuser-Busch** productivity improvement while it penalizes the earnings of its competitors.

When competing in a consumer packaged goods market, obviously one ideal is to have a stable of brands that outdistance competitors by a long shot. Like Kellogg and McDonald's, **Anheuser-Busch** has met this ideal — all three have product groups with market shares that are generally 100% greater than their closest competitor's. Better yet is having an individual brand that dominates a market segment, such as *Budweiser*, Dorito and Marlboro. All have market shares that are measured in multiples of competing brands'. For example, volume for the *Budweiser* brand alone is substantially greater than for all of **Miller's Brewing** products combined.

Advertising expenditures in the industry are a fixed expense. By this it means that if a company is to compete effectively with **Anheuser-Busch** in a given product segment and geographic area, it must advertise at the same level that **Anheuser-Busch** does, no matter what its market share is. At times, many companies will argue that they spend as much per market share point as the share leader, or that their ads get more recognition so they do not have to spend as much as the share leader. But that is wishful thinking.

In a market share driven business, the idea obviously is to take share from another entity. In order to succeed, one must make as much noise; i.e., spend as much money on media on an ongoing basis, as the other entity does, regardless of the bottom-line impact. Even then, more market share is not a sure thing. Generally speaking, unseating a leader is more difficult and expensive than maintaining one's leadership. While it's obviously true that some ads have greater recognition than others, an ad's low effectiveness is a short-term problem if one has the wherewithal to develop a new campaign. The industry leader is generally the best positioned to do that.

Consider the premium beer category, the largest market segment, representing approximately 40% of the total beer market. The premium segment is dominated by **Anheuser-Busch** with the *Budweiser* brand. Its major competitors are **Miller** *High Life*, *Genuine Draft*, **Coors'** *Banquet* and *Extra Gold*. Table 8 shows what **Miller** and **Coors** would have to spend absolutely per barrel on their respective brands in this category in order to match **Anheuser-Busch's** spending. This appears to be beyond their means.

The advertising cost per barrel for **Miller's** and **Coors'** premium beers is currently significantly higher than that for **Anheuser-Busch's** . Given the impact it would likely have on their bottom lines, it is unlikely that either **Miller** or **Coors** will ever spend at the same absolute level as does **Anheuser-Busch**. Had they done so in 1990, the following would have happened to their operating earnings. During 1990, **Coors** earned $100 million and **Miller** $285 million. If both companies had equalized their ad spending with that of **Anheuser-Busch** in the premium category, earnings would have been 60% and 10% lower, respectively. In order to build a strong brand franchise, it must be emphasized that such a spending level would have to be maintained over the long-term. It is not just a one-shot deal. Even then, there is no assurance that the increased spending would succeed in usurping **Anheuser-Busch's** market leadership.

A secondary competitor that reverts to heavy discounting to take market share is almost certainly playing a loser's game, since the leader is probably more financially able to discount and advertise at the same time. Moreover, the market leader does not have to discount as heavily and will likely have an easier time raising prices, since it has been breeding stronger brand loyalties by advertising and discounting at the same time.

Additionally, in the beer market, heavily and frequently discounted brands run the risk of being perceived by consumers as popular-priced brands. The popular-priced segment suffers from narrow margins and correspondingly meager advertising support. It is expected that volume in the popular segment will continue to decline.

Unless **Anheuser-Busch** were to have the misfortune of brewing a bad batch or otherwise adulterating the product, it is virtually impossible for any brand in the segment (other than a *Budweiser* line extension such as *Bud Dry* or *Bud Light*) to make a significant headway against the *Budweiser* brand in the premium beer category. *Budweiser* is likely to remain the *King of Beers*.

Now, consider the light beer segment. **Anheuser-Busch** is trailing the leader currently, but has made significant market share inroads over the last seven years (see Table 9). Even though *Bud Light*, a trailing brand in the light segment, has had relatively low volume over an

extended period of time, **Anheuser-Busch** has been willing and able to spend at or above the absolute levels spent by **Miller Brewing** on the segment's leading brand, *Lite*. Just ad spending alone seems to suggest that *Bud Light* has a good chance of becoming very competitive at some point in the future. In 1992, the decline in media spending for the *Bud Light* brand was due to the increased media spending for **Anheuser-Busch's** introduction of *Bud Dry*. It is expected that for 1993 and beyond, the company will maintain competitive spending levels on the *Bud Light* brand. That is, as its share goes up, advertising expenditures will be proportionately increased.

The probability that **Coors** *Light* will be successful is much more questionable, since **Coors** has not been willing to consistently spend as heavily as its competitors. While the brand has exhibited strong growth over the last five years, much of this is attributable to geographic expansion of the distribution. Because of very competitive environments in the premium and popular-priced segments, **Coors** will find it difficult in the coming five years to maintain advertising dollar parity with **Miller** and **Anheuser-Busch** in the light segment. Therefore, merely projecting historical growth rates into the future in order to arrive at a forecast for **Coors** *Light* is a risky exercise.

Of course, the whole question is much more complicated than a comparison of market share and advertising dollars suggests. Market leadership is not just a function of advertising. Distribution is at least as important. But the point is that a company unwilling or unable to subsidize its brands heavily over an extended period of time has little hope of developing a strong brand franchise in a market that is already dominated by a competitor. Advertising, as well as distribution advantages, are what make many consumer packaged brands (such as Frito Lay, *Budweiser*, *Busch*, Coca-Cola, Pizza Hut, Pepsi-Cola, Kentucky Fried Chicken, and Taco Bell, to name a few) undisputed leaders in their field.

5.4 *Cost Structure*

The following is the estimated cost distribution in the beer industry:[15]

1.	Raw Materials (Grains)	15%
2.	Labor	12%
3.	Packaging	45%
4.	Marketing	20%
5.	Administrative	8%
		100%

Over the coming five years, the costs are expected to increase no more than half of the rate of inflation. For **Anheuser-Busch**, they might average significantly less than that. With respect to the can companies, it is estimated that **Anheuser-Busch** accounts for more than 15% of their total volume, as do both Coca-Cola and Pepsi-Cola. In addition, **Anheuser-Busch** has demonstrated an ability to manufacture its own cans. It currently meets about 40% of its needs through self-manufacture. It is safe to assume that all three companies will continue to increase market shares in their respective industries. Therefore, as manufacturers' livelihoods can become increasingly dependent upon these three entities, can makers should think twice before instituting a price increase.

With respect to total glass demand, it is estimated that **Anheuser-Busch**, Pepsi, and Coke account for approximately 15%, 7% and 7%, respectively, of total demand. While none of these companies has seen fit to start manufacturing its own glass bottles, there is a sword hanging over the heads of the glass manufacturers in the form of the plastic bottle. While plastic bottles cannot be used to hold beer (since they will not withstand the heat generated by the pasteurizing process), soft drink companies can and obviously do use them extensively. This is a trend that has developed over the last 12 years. The decision to move toward plastic packaging as well as overcapacity in the industry has tended to keep the lid on glass prices for the last ten years. The situation is not likely to change in the next five years.[16]

A good barley crop during 1992 resulted in raw materials costs also being flat. In 1989, a poor crop drove the barley costs at **Anheuser-Busch** up by about $100 million. In 1993, the crop was more normal, and prices tended to slide somewhat. While they have not dropped to their pre-drought levels, they are coming down. Assuming increased acreage and that growing conditions cooperate, barley costs can be expected to continue to drop over the next several years.

The shrinking state of the labor force in the brewing industry, and the current weak economic environment overall should keep the wage increases at a comfortable level in the next five years. The increases are not expected to go up beyond a percentage or two over inflation.

Over the next five years, marketing expenditures in the industry will increase above 5% annually. Because **Anheuser-Busch** brands are so dominant, its competitors tend to follow its lead in terms of absolute marketing expenditures rather than forging ahead. Improved marketing efficiencies, attributable to scale economies, should be an important source of productivity increases for the big three in the industry.

If the above projections are correct for these segments — packaging, raw materials, labor, and marketing — the remainder of the costs would have to be up in excess of 20% in order to hit management's projections of an increase of 4% in total costs annually. This is not likely. As a matter of fact, the 1994 costs are most likely to be flat, and the worst case would be a 1% increase. From all indications, over the next several years, the combination of price increases net of discounts amounting to 2-3% in both 1994 and 1995 should result in gross margin improvements of between a half and one percentage point each year.

5.5 *International Expansion*

Often, it had been suggested that the majority of Europeans and Englishmen would not adjust their tastes to accept American beers, but this may not be so as evidenced by the following related facts:

- The largest brewer in Europe, **Heineken**, brews a lager beer similar to that made by American brewers.
- In the United Kingdom over the last 15 years, lager beers have grown from accounting about 7% of the total volume to about 50% of current volume.
- Twenty years ago, many suggested that Europeans would never adapt their smoking habits to American blend cigarettes, as opposed to the stronger tasting Virginia cut blends that they were used to smoking. However, one has to look no further than to Philip Morris to realize that this has not been the case. As an example, the company's Marlboro brand, which accounts for about 75% of the company's European volume, in the last five years has increased its market share in Europe from 16% to 22%. Currently, the company holds approximately 33% of the market in Germany, 41% in Italy, and 25% in France.

All three companies in the industry, **Anheuser-Busch**, **Miller** and **Coors**, have taken steps in the last few years to establish business outside the U.S. During 1985 and 1986, **Anheuser-Busch** came very close to negotiating the acquisition of the **San Miguel** operation (a Philippines-based company) in Hong Kong, where the **San Miguel** brand had the largest market share. However, the attempt was unsuccessful due to both asking price and political considerations. Subsequently, the company appears to have actively sought an acquisition, but it has not completed a deal. Management has stated that in the late 1980s, the presence of leverage-buyout (LBO) money had driven the price of potential acquisitions up to the point that they no longer met the company's investment hurdle rate requirements. Now management appears to reason that the absence of LBO money, combined with what are likely to be tighter credit restrictions in general, better positions it to acquire a foreign brewer. This is reflected in recent management changes as well. The company appointed Mr. Jack Purnell, who had been senior vice president or corporate planning and development, to the position of chairman and chief executive officer of **Anheuser-Busch International, Inc.**, the company's export, licensing, and trading subsidiary. Additionally, Mr. Jack N. McDonough, who had been vice president in charge of brand management for **Anheuser-Busch, Inc.** (the domestic brewing operation), has been appointed executive vice president of marketing for **Anheuser-Busch International**.

Currently, the company's international brewing business is mostly composed of licensing arrangements with local brewers of Budweiser in Canada, Ireland and the United Kingdom. In addition, the company has formed joint ventures with the largest brewers in Japan (**Kirin Brewing Co.**) and Mexico (**Grupo Modela**, the producer of *Corona* beer). The company's new allies are China's **Tsingtoa Brewery Company** in which it bought 5% interest and Italy's SPA Birra Peroni Industriale to distribute its products there. While on a percentage basis, the margins on this business are very high, on an absolute basis the profits are so small as to be meaningless to the corporate bottom line. It is likely that the company's further development of an international business will take one of two tacks, depending upon what part of the world it happens to be operating in. For the most part, the beer markets in the Pacific Rim countries tend to be developing, while those in Europe tend to be mature, and thus growing slowly, if at all. Table 10 reflects growth rates of specific beer markets in several countries in each area.

Based on these different fundamental characteristics, it is expected that developing the business in the Pacific would be logistically more complicated than would likely be the case in Europe. Since the Pacific Rim is a developing market, it would likely require capital expenditures to build brewing and distribution facilities, as well as heavy marketing expense to develop the market and the individual brands. In Europe, while the market is mature, it is extremely fragmented. The development of the business, in most instances, would almost by definition revolve around taking market share. Thus, in Europe, the company's first challenge will be to settle the trademark restrictions that in several countries prevent **Anheuser-Busch** from using the *Budweiser* label. A Czechoslovakian state-run brewer, **Budvar**, already has the rights to the brand. The Czechoslovakian government's recent announcement that it will be privatizing state-owned businesses should help resolve this problem. The ultimate resolution would be **Anheuser-Busch** buying a controlling, if not a 100% interest in the business. Presumably, this will occur sometime in 1994.[17]

Seeking to enhance its position in a sluggish domestic beer market and energize its presence internationally, the **Miller Brewing Company**, in 1993, bought a 20 percent stake in **Molson Breweries**, Canada's leading maker of beer, for $273 million. With it, **Miller** also got the rights to import and distribute **Molson**, as well as other brands **Molson** distributed in the United States. **Miller** also bought **Molson's** United States offices and plant in Reston, Virginia.

According to company executives, the acquisition addressed two major goals for the company. The first was to expand the company's share of the domestic market in which **Miller** has been trailing **Anheuser-Busch** by more than a 2-to-1 margin. Second, **Miller** also viewed the acquisition of **Molson** as a major step toward strengthening its ability to move into foreign markets. **Molson** itself is a joint venture between **Molson's** parent and **Foster's Brewing Group** of Australia.

Miller also has a 7.9 percent stake in Mexico's largest beverage company, **Fomento Economico Mexicano S.A.** (the makers of *Dos Equis* brand), and plans to seek out joint ventures and partnerships in foreign markets. Currently, **Miller** markets beer in Britain, Ireland, China and Canada.

Adolph Coors Co. has gone even farther south, having established a joint venture with New Zealand's **Lion Nathan,** maker of *Castlemaine XXXX,* another brew it hopes will ape **Foster's** success. **Coors** is also building a brewery with **Jinro** in Korea that starts up towards the end of 1994. The company has also given rights to a Manchester, U.K. company to produce **Coors** *Extra Gold* for local distribution.

Currently, international marketing activities of the three major beer companies are limited, but the market opportunities for American beers overseas appear to be substantial. For example, in 1992, **Anheuser-Busch** increased international sales 14% to 3.3 million barrels, about 4% of its total volume.[18] The beer industry has the potential of becoming global, and the American brewers are in a better position to play a dominant role worldwide. When the industry finally becomes global, there will be no more American beers, at least from a marketing standpoint. Instead consumers will quaff popularly priced North American brews: *Molson, Budweiser, Miller, Coors, Corona, Dos Equis,* and perhaps imports *Foster's* and *Castlemaine*. This new hierarchy of brands is likely to take away the mystique of the traditional imports. Why are all these brewers so interested in global expansion?

6. Competition in the Industry

The competition within the beer industry has been very intense and has affected all aspects of the business; i.e., advertising, pricing, packaging, and distribution because of the mature stage this industry is in. The economies of scale in production and marketing pose a high entry barrier for newcomers, so the only way to compete is via finding a niche in the highly segmented market. The wholesale and retail networks have been consolidated along with the consolidation of the producers. Particularly, wholesalers see their position jeopardized with the recent moves by the large brewers to bypass them and sell directly to retailers.[19]

A recent phenomenon in the industry are microbreweries or brew pubs. Their output and sales are only a fraction of those of the giants (their output is below 15 million barrels per year — analysts use this number as a benchmark), but the small breweries often cater to local markets and they take advantage of consumer's constant quest for new products. The small breweries also contract to brew beer for the larger players, because their brands are not established in the marketplace yet. The top three among the microbreweries in 1992 were **Bridgeport**, **Mendocino**, and **Sprecher** with sales of 13 million barrels each.[20] Due to their perceived scarcity, the microbrewers are able to charge high prices which makes them comparable in prices to imports.

One way the brewer can compete at its mature stage is to introduce more and more new products and to create new categories; e.g., drafts, drys, lights, and ultralights.[21] The reason for added competitive intensity is the simple fact that for the last eight years the growth in terms of output has never reached the level of 3% and since 1989 there has even been a decline.[22] The big three, being the most visible, are not only engaged in price wars, or expensive advertising campaigns, but they also try to show greater social responsibility by publicizing their campaigns against drunk driving. Nevertheless, they still have to deal with new challenges, like new-age beverages and microbreweries. **Anheuser-Busch** is an unquestioned leader with **Miller** and **Coors** following its every move. Increasing the market share by 1% is considered a success in the industry that survived a 100% increase in excise tax in 1991 and has to gather forces to fend off another possible tax hike mentioned as a source to finance health

reform in 1993. In the short run, brewers try different tactics to outsmart their competitors by:

- Introducing new products; e.g., clear, or non-alcoholic beers or through proliferation of styles of beer (**Coors'** *Keystone Dry* and *Coors Dry*)
- Setting up distribution agreements with foreign producers to appeal to upscale consumers (**Miller's** *Molson* and **Coors'** *Clandestine XXXX*). This also helps to undermine importers' efforts to conquer the market.
- Sponsoring events like beer contests, participation in parades,[23] or even such sports events like the Super Bowl or Monday Night Football.[24]

Above all, big players watch what small ones are doing and jump quickly into opportunities that generally do not last very long. Often, this implies filing lawsuits, claiming unfair advertising only to gain time to develop the competitive match for an innovation.

6.1 Foreign Competition

In 1992, total imports were only 8.1 million barrels or 4.3% of the total beer market in which the most visible brands represented are: *Heineken, Corona, Molson,* and *Beck's*. Those brands target the traditional upscale market and are able to charge premium prices. This is why their efforts concentrate on the large metropolitan areas like cities on both coasts (Boston, New York, San Francisco and Los Angeles), areas highly populated by the educated affluent. Imports are particularly strong in the on-premise (i.e., restaurants) market with 50% sold in bars and restaurants.[25] Numbers, however, when compared with domestic brewers are unimpressive and show a scale gap or as one industry analyst put it: "For every yuppie who buys a six-pack of *Beck's* once a month, there are five guys drinking six-packs of *Budweiser* every single night."[26] This colorful example of conspicuous consumption got dimmer with the recession of the early 1990s that hit especially the traditional import market on both coasts. Table 11 lists the top ten brands of imported beer.

Over 50% of imported beer is consumed on-premise, often to accompany gourmet and ethnic dishes. This dependence on restaurants creates a unique opportunity of hiding any price increases behind sizable proprietors' margins. The other 50% of imports are obviously sold through retail or off-premise. There, being exposed more to the domestic brands, importers have to swallow their pride and discount their brands. To avoid the notion of being "cheap," however, **Heineken, Molson**, and others resort to innovative packaging. Twelve-packs by the latter and 21.6 ounce bottles by the former are just two examples of differentiating themselves from the ordinary brews.[27]

6.2 Countries of Origin

The definite leader countries are the Netherlands (37.4% of dollar sales in 1992), Mexico (17.1%), Canada (16.4%), and Germany (12.4%) who have carved out significant shares of the U.S. beer import market (see Table 12). The traditional European beer stronghold, Germany, who is backed by a huge home demand, the highest per capita consumption in the world, has lost its former third position to Mexico that in turn outranked the second, Canada, only recently. With the NAFTA agreement in effect since January 1, 1994, Mexico and Canada stand to gain even a larger share of the U.S. market. On the other hand, surges in sales can be expected due to the elimination of tariffs, but on the other hand, competitors may resort to other barriers in trade. Whatever the scenario, market penetration will not happen without a battle. The recent acrimonies between Canadian and American authorities over wheat are only a prelude to the heated competition over the Canadian beer gaining share in the U.S. market.[28]

One important aspect of beer imports from different countries is the fluctuation in exchange rate and the relative weakness of dollar that can often wipe out the minutely calculated profits. The appreciating German market and the depreciating Mexico peso have largely contributed to the relative position of the respective imports in the U.S.

6.3 Strategies Pursued by Foreign Firms

Because no foreign beer distributor can even try to directly compete with domestic brewers, importers tend to approach areas that seem to have been neglected by the giants. The importers can primarily count on the novelty factor. They can try to proliferate their product line by adding new subcategories like light and non-alcoholic beers. **Van Munching** of New York has currently as many as five brands, including: *Amstel Light* and Irish *Murphy's* and its' flagship *Heineken*. As far as distribution is concerned, prospective importers try to use existing distribution networks of the domestic wholesalers while playing down the risk of retaliation by the domestic brewers.

6.4 Impact of Foreign Firms' Strategies on Domestic Firms

The domestic giants like **Anheuser-Busch** or **Miller** are big enough to dismiss any competitive measures by the importers. The firms that directly compete with foreign brewers are microbreweries like *Samuel Adams* and a few hundred others that have sales below 100 thousand barrels a year. They compete in the same markets and for the same customer. The small brewer's advertising budgets are too small and their products not well recognized which makes them especially vulnerable if an importer decides on a fully blown marketing campaign.

The most visible, figuratively and literally, impact on behavior of domestic firms is via labeling. The microbreweries defend themselves by trying to appeal to snobbish labels and packages. The unfamiliar names and fancy packaging (**Frankenmuth** of Michigan) are purposefully confusing to entice the consumer who looks for something foreign, but by and large, he is not loyal to any specific brand.

6.5 Competition from Specialty Beers

Top six brewers control about 96% of the U.S. market. The remainder of the business is shared by regional breweries, microbreweries, and brew pubs with imports. Specialty beers are only a tenth of the latter. But they are the fastest growing and most profitable segment with the 1992 growth amounting to 41%. Traditionally, specialty beer business has been dominated by regional breweries and microbreweries such as the Boston Beer Company. In the past two years, however, with sales stagnating, brutal price wars spreading and consumers rejecting many new, mass-audience concoctions (ice beer, clear beer, dry beer), some of the large companies have developed their own specialty beers. For example, **Coors** introduced *Killian's Irish Red* in 1991. In 1992, *Killian's* sales rose by a hefty 60%.[29] *Killian's* represent an aggressive effort to reverse the think-big marketing strategy that has dominated the beer industry for decades. That conventional wisdom forced the once-regional brewers to expand nationwide and compete with the giants like **Anheuser-Busch** companies. But this strategy back-fired for most regional companies.

Specialty beers offer a new opportunity for small brewers. The history of **Boston Beer Company** illustrates how growth can be achieved through concentrating on specialty beers.

6.6 Boston Beer Company — A Success Story

In 1985, its first year of production, the **Boston Beer Company** sold 7,000 barrels of beer (a barrel has a volume of 31 gallons). In 1991, it sold 173,000 barrels, and in 1992, it sold 273,000. The company sold as much in 1992 as they did in their entire first five years of existence. The **Boston Beer Company** is a privately held company, so no revenue figures are available. But based on the production levels and the average price for a barrel of beer, the company brought in as revenue an estimated $4,700,000 in 1992.

Jim Koch founded the **Boston Beer Company** with the goal of competing head-to-head with the imports in the United States market. He noted that more and more people were turning to the imports as a result of their disappointment with the bland-tasting, mass-produced American beers like **Budweiser** and **Miller**. Because he set his target on a small part of the beer market, on the most discriminating beer-drinking consumer, Koch doesn't see himself in competition with the giants of the American brewing industry. In fact, he claims 80% of American beer drinkers are perfectly happy with **Bud** or **Miller** or **Genessee** or some other popular domestic brew. The remaining 20% are receptive to the idea of imported beer, but he believes that 80 to 90% of that group drink imported beer for the image more than the taste. Thus, Koch looks to a small percentage of the regular imported beer drinkers as his target market.

The **Boston Beer Company** is the leader in the growing microbrewery industry, a fact Koch attributes to both the quality of his beer and the awards it has won. But by the very nature of a microbrewery, they produce a limited amount of beer, and thus don't have aspirations of huge market share. By definition, a microbrewery is one that produces less than 15,000 barrels of beer per year. But there are several, like the **Boston Beer Company**, that have expanded production way beyond the definition while keeping the quality and individuality of a microbrewery. Jim Koch does not really consider other microbreweries as competition, since they are not competing for each others' customers. He believes that if one microbrew succeeds, then the whole microbrew industry succeeds. The real competition for all of them is the imports. And Koch believes he can differentiate his beer from the imports because of its freshness and high-quality ingredients.

The **Boston Beer Company** produces a variety of brews in addition to its popular *Samuel Adams Boston Lager*, ranging from a *Wheat Beer* to a *Triple Boch* (see Appendix 1). The company produces a wide selection of seasonal as well as year-round brews. In addition,

the brewery experiments with small batches, 100 to 500 barrels, of unusual beer like the *Samuel Adams Cranberry Lambic* brewed for the Thanksgiving and Christmas holidays, and the extremely dark and rich *Triple Boch*. Such is the beauty of a microbrewery — they are at liberty to take risks and experiment with different recipes since they are not trying to appeal to the masses.

The top brand of the company is *Samuel Adams*, which is priced about the same or slightly higher than the imports. It sells for about $.25 more than **Heineken**, or $1.75 to $3.50 per bottle at retail. A six-pack retails for about $6.50, and a case sells for $20-$24. Koch equates the higher price to buying a higher-quality bottle of wine, believing that consumers with discriminating tastes will be willing to pay a higher price for a better beer. He also has no desire to get into a "price war" with his competitors from overseas. For one thing, the all-natural ingredients and "old world" brewing process of *Samuel Adams* cost twice as much as the mass-produced imports. And for another, Koch theorizes that in business you only have two ways of surviving: either your product is better than your competitor's, or it is cheaper. He believes that no amount of clever marketing will overcome a poor-quality product.

Jim Koch's promotional efforts, at least in the first few years of production, more closely resembled those of a door-to-door salesman than a marketing or advertising campaign. In fact, Koch did little to no advertising at all up until five years ago. He prefers to let the beer speak for itself.

To get his beer on the market, Koch embarked on a door-to-door campaign with restaurants, bars, and liquor stores. He converted his briefcase into a cooler, packed up four or five bottles of *Samuel Adams*, and began knocking on doors of people to taste his beer. And apparently, this strategy worked. Koch claims that 19 of his first 20 stops resulted in orders.

Koch's emphasis and dedication to the quality of his beer paid off right from the start. Less than two months after its introduction to the market in 1985, *Samuel Adams Boston Lager* was voted Best Beer in America at the annual Great American Beer Festival. The Great American Beer Festival, held each year in Denver, Colorado, is increasing in popularity. The first festival, held in 1981 in Bolder, Colorado, was attended by approximately 300 people. The first year *Samuel Adams* won, in 1985, it competed with 93 other beers. By 1989, the festival drew up to 500 competing brewers, and attracted more than 5,000 brewers, beermasters, and beer lovers for the two day event. The festival includes both a public tasting and a Professional Blind Tasting of the Festival beers which is conducted by the American Association of Brewers.

Coupled with the publicity from the Great American Beer Festival, the word-of-mouth promotion worked well for the company. In the 1990's, Koch introduced a radio advertising campaign to further promote his beer. In 1992, the **Boston Beer Company** spent about $1 million on advertising, more than any other microbrewery.

For four years, *Samuel Adams Boston Lager* was chosen to be the best beer in America. Several other brews created by the **Boston Beer Company** have won the Festival's Gold Medal awards, including *Samuel Adams Boston Ale* and *Samuel Adams Boston Lightship*, a reduced calorie beer.

Winning these awards was not only a great honor for Jim Koch, but also an effective third-party endorsement that helped boost sales with its resulting publicity.

Samuel Adams has also achieved the highest rating of 4½ stars for any lager by the World Beer Review, received the highest rating for an American Lager of 3 stars by Michael Jackson, author of the *Simon & Schuster's Pocked Guide to Beer*, and was first place in 1988 and 1990 at the International Beer Judging by Les Amis du Vin.

To keep up with its growing demand, the majority of *Samuel Adams* is brewed under a craft brewing agreement with the **Pittsburgh Brewing Company**. The **Pittsburgh Brewing Company** has numerous craft brewing contracts with brewers around the country. The **Pittsburgh Brewing Company** accounted for about 90% of the 83,000 barrels of *Samuel Adams* produced in 1989. The rest was brewed at the original brewery in Boston, at a company-owned brewhouse in Philadelphia, and under contract at breweries in Germany and Portland, Oregon. Most of the **Boston Beer Company's** "experimental" brews are produced in Boston.

Most microbreweries will agree that finding the right distributor is one of the most difficult challenges facing the industry. Jim Koch explains one of the biggest dangers to his company: "Distribution in the business in controlled by **Bud**, **Miller** and **Coors**. We sell 90% through these distributors, and they make 98% of their money on these big American beers. If they came out with a competing brand, as they have with **Miller** *Reserve*, they could pressure the distributors to not pay attention to our beer."

The **Boston Beer Company**, however, was fortunate to establish an agreement with a major regional distributor, Burke Distributing Corporation of Randolph, Massachusetts, right from the start. This gave the **Boston Beer Company** instant access to many established accounts that they would otherwise have to pursue one by one. But their distribution system is not seamless. There have been numerous occasions where Koch has made deliveries himself out of his station wagon.

Jim Koch, founder and CEO of the **Boston Beer Company**, is sitting atop a mountain of success. Since its inception in 1985, the **Boston Beer Company** has seen its sales volume increase nearly 40-fold, and has evolved from a small, local Boston microbrewery to a national, even international company. In addition to shipping its award-winning *Samuel Adams Boston Lager* across the United States, the brewery is the first to sell American made beer in Germany outside of U.S. military bases.

Koch's strategy is to focus on the quality of his beer, not the quantity produced or sold. Using his great-great grandfather's original recipe, his company holds about 1/1000 share in the U.S. beer market, yet he is not concerned. He is not trying to compete against the mass-produced domestic breweries like **Anheuser-Busch** or **Miller Brewing**. He targets a very small percentage of the beer-drinking population: those who enjoy a hearty, full-bodied beer with a distinctive taste, and who have become dissatisfied with the monotony of the blander, mass-produced imported and domestic brands.

The dilemma facing Koch is not how to achieve success in the shrinking beer brewing industry, but how to maintain, or even expand his success. There are many options he could choose from, including increasing distribution in the United States, increasing exporting or exporting into other countries, licensing agreements, joint ventures, all of which would require increased production which could, in turn, require additional investment.

7. Industry Prospects: Long-Term Trends

The long-term trend issues relative to the beer industry are how much and how quickly can **Anheuser-Busch** increase market share from the current level. **Anheuser-Busch** is the market share leader in the business, with 46% of the market. **Miller** is second, with a total share of about 22%, and **Coors** third with a 10% share.

The question asked about the leaders in virtually any consumer packaged goods market is how much share can they ultimately take. This is because most consumer packaged goods markets are slow- or no-growth markets. Therefore, market share improvement is vital to fundamental and financial success. The brewing industry is, obviously, no exception.

The theoretical maximum market share is 100%, but it is unlikely that even **Anheuser-Busch** would reach that level since beer is a low-tech product without any significant proprietary processes associated with making it. On the other hand, similar types of low-tech packaged food products, such as Heinz Catsup or Campbell's Soup, have, at points in time, achieved 80% shares. This may not happen to **Anheuser-Busch**. However, there are several markets where the company currently has a 50% share or more — for instance, New England, Florida, and California, to mention a few. In fact, in New York City, it is believed the company has close to a 50% share with the *Budweiser* brand alone. Industry experts predict that in the coming eight to ten years, **Anheuser-Busch** will achieve a 60% share of the total market.

Their high confidence in this aggressive forecast results from the significant economies of scale that **Anheuser-Busch** enjoys over its competitors in terms of both advertising and distribution. These two factors will be of primary importance in continuing to strengthen what is already a very strong brand franchise. The magnitude of **Anheuser-Busch's** market share lead over its competitors, combined with the fact that this lead is widening, suggests that over the coming five years it will be easier for **Anheuser-Busch** to generate market share gains than it was over the last five years.

Brand franchise is at once the most important and the least important fundamental factor for a consumer packaged goods company. If a company does not have a brand franchise now and it wants to participate in a major market segment, it would have to buy one, since the odds are extremely high against it building a brand franchise of any significance from the ground up. Given the critical condition of the banking system and the absence of the leveraged buyout market, the probability of buying diminishes. Assuming the three major competitors continue to operate independently, **Anheuser-Busch** will keep growing at the cost of the other two companies.

Substantial evidence suggests that with respect to low-ticket items — in particular beer — consumers are not terribly concerned about price. This is largely the result of beer consumers' significant brand awareness. The brand loyalty will help keep consumers from trading down even in the face of a price increase.

In the most price sensitive segment of the business — where cheap price is the principle marketing tool — the *Busch* brand sells at a significant premium to other brands, yet has shown substantially better growth than most of its competitors. This can be attributed to heavy advertising and the resulting brand loyalty.

It is the strong brand franchise which will benefit **Anheuser-Busch** in the short-term as well as in the long run. *Budweiser* is the largest brand of beer in the world. *Budweiser* alone (excluding *Bud Light* and *Bud Dry*) generates 25% more volume than all of **Miller Brewing**, the second largest brewer in the world (**Miller** is slightly

larger than **Heineken**). Apparently, *Budweiser* brand will continue to play a dominant role over the long haul.

During the 1980s, the industry's unit volume increase averaged 0.6% annually, which represented a significant slowdown from the 1970s, when average volume increased 3.0% a year. In the 1990s, the volume for the entire industry is expected to rise over 2%. This prediction is based on the following factors:

- *Rising Drinking Age.* Due to public sentiment and a change in the federal highway funding program, the legal drinking age in most states was increased from 18 or above to 21 years of age in 1986. The rise in the drinking age decreased the number of entry-level consumers in the late 1980s. Since this transition has been completed, this will be a nonrecurring event in the 1990s.
- *DWI Enforcement.* DWI (driving while under the influence) enforcement increased markedly during the early 1980s, which affected the on-premise business (bars, restaurants, etc.) adversely. This has, however, begun to ease. Not that DWI enforcement levels are likely to decline, but they are unlikely to increase as substantially as in the past. Thus, the effect that increased DWI enforcement has on beer consumption — decreasing it in the 1980s, and consequently benefitting 1990 unit volume comparisons — should represent a nonrecurring event as well (see Figure 1).
- *New Product Introductions.* New product introductions, which increased significantly during 1990, broaden consumer appeal. For example, **Anheuser-Busch** had three new product introductions — *Bud Dry, Busch Light,* and *O'Douls* — and expanded the distribution of *Michelob Dry* and *Busch*. **Miller** introduced *Sharps* and expanded the distribution of *Genuine Draft*. **Coors** introduced *Keystone* and *Keyştone Light*, two popular-priced entries. While it is expected that new product introductions will slow down, it is believed that the dry products in particular draw more female and entry-level consumers into the market. This should be a continuing phenomenon. Additionally, consumers are likely to continue switching from distilled spirits to what are perceived as more moderate alcoholic beverages, such as beer and wine. Quantifying what the impact of this has been, or is likely to be, however, is virtually impossible.

Clearly, demographers have been working against the industry — a disproportionate amount of the product is consumed by young people, and that segment of the population is declining. This has been going on since about 1981 and will likely continue through at least 1995. The 1980s showed a 1.5% average annual decline in the population aged 18 to 24 years old, and between 1990 and 1995 the average annual decline should be approximately 1.7%. But the manifestation of this trend has already been reflected in overall volume trends. As a matter of fact, this negative will be more than offset by total population growth of 1% annually, combined with a broadening of the number of consumers in the market.

7.1 Industry's Impact on U.S. Economy

Among the beverages category which belongs to a more general consumer goods category, beer ranks the highest in the terms of revenue. In 1992, beer sales brought \$51.3 billion out of total \$159 billion of retail beverage receipts (over 32%), outpacing soft drinks with \$48.9 billion which constituted 51.3% of gallonage share in beverage consumption.[30]

Anheuser-Busch estimates that the tax hike of 1991 cost 21,000 jobs at different points of beer value chain.[31] Those who remained employed at breweries saw their pay grow by 3% and kept the top rank among the 300 industries surveyed by the Department of Labor. On a weekly basis, the workers made \$851 versus the manufacturing benchmark of \$469.[32]

The stunning productivity increases of 7% in the mid-seventies which placed the industry into the second position are over. In 1992, the brewer's productivity actually fell by 0.6% while the related industries posted gains; e.g., 5.1% in the case of soft drinks or 8% in the case of cans. This suggests saturation of the industry and gloomy growth prospects in the long run.

The tax hike of 1991 also gave "boost" to the industry price index in 1991 — 11.8% versus 3.1% for all consumer prices. This was the only time when the overall CPI was lower than the beer industry index. The long-term trend is falling beer prices versus other goods.[33] The producer price index for all goods in the years 1984-92 averaged 1.73% versus the slightly higher beer index of 1.82%. The different pattern of wholesale prices reflects the decreasing spread between wholesale and retail levels and suggests ability of retailers to absorb increases in supplier prices.

7.2 Public Policy Implications

The beer industry belongs to the traditional consumer packaged-goods industry that, unlike newly developing electronics or biotech industries, does not qualify for any government protection the latter industries might require. At the same time, the government cannot freely impose tariffs or import duties because of the danger of violating the GATT agreements. On the other hand, domestic firms feel safe and do not actively seek out bureaucrats' help in developing and implementing their competitive strategies. Moreover, they form a united front with the importers when the whole industry has to suffer painful tax increases.

The best the government can do now is to take a hands-off approach and treat all firms, both domestic and foreign, indiscriminately. By no means should the government try to regulate the industry via some kind of *purity laws* as is the case in Germany where domestic firms are insulated from international competition and are unable to take advantage of their home base to successfully compete in the U.S. market.

8. Conclusion

The U.S. beer market can be divided into two segments: mass market and niche market. In the mass market **Anheuser-Busch**, **Miller** and **Coors** are the major players. These three firms adopt different strategies to secure their positions, comprising media advertising, new product introductions, deals with foreign brewers, and so on. In the past five years their competitive positions as measured by market share have not changed significantly. The respective rankings of the three firms are unlikely to change barring some marketing/technological innovation. For example, **Miller** became a significant player in the 1970s through the introduction of *Lite* brand. If anything, **Anheuser-Busch** may expand at the cost of other two firms through economies of scale, and by adopting aggressive marketing practices. Inasmuch as the U.S. beer market is in the mature stage, these firms will continue to explore foreign markets for further growth.

In the niche market, traditionally foreign brands competed with each other. In the past few years, however, competition in this segment has emerged from two different sources. First, specialty beers which are positioned as upscale products to compete with imported brands. Second, **Anheuser-Busch**, **Miller** and **Coors** have formed alliances with foreign firms to market their brands in the U.S. market. In other words, some foreign brands that traditionally competed on their own meager strengths now have the backing and clout of major industry players. The niche market is highly volatile and competitive activity in this segment in the future is likely to be intense. For example, new flavors of beer may be introduced, upsetting the industry equilibrium. Although not very likely, the industry may be further consolidated through mergers and acquisitions. Such events may strengthen some brands at the cost of others.

Foreign beer brands will continue to be popular in the small pockets of the market, but are unlikely to ever be a significant factor. For example, **Heineken** will always have a following in certain strata of the beer-drinking population. Similarly, other foreign brands will have their own following. For example, Chinese restaurants will serve Chinese beer. Beyond that, opportunities for foreign brands are limited. It is unlikely that foreign brands (excluding Canadian and Mexican brands) will be brewed in the U.S. The market for them is too small to invest money in brewing facilities. Thus, U.S. agricultural inputs (for example, hop and barley) may not have any market among foreign brewers. On the other hand, U.S. brewers, especially the specialty beer producers, may buy foreign agricultural inputs in their efforts to develop unique products. But the overall impact of foreign activity in the beer industry on U.S. agriculture is not likely to be significant.

To conclude, the United States beer industry is most productive. The small size of breweries in Germany and regulation in Japan cause their productivity to lag that of the U.S. The scale of packaging, rather than brewing itself, explains the difference. According to one study, if the productivity in the industry is considered 100 for the United States, the relevant figures for Germany and Japan would be 44 and 69, respectively.[34]

Much like the United States thirty years ago, Germany's beer industry is highly fragmented. The country has over 1,000 breweries that produce 12.5 billion liters of beer per year. In contrast, the U.S. has 67 plants (excluding microbreweries) producing 23.1 billion liters per year. German beer drinkers remain fiercely loyal to their local brews, resisting the efforts of big brewers to launch national brands and consolidate production. Such fragmentation means that the breweries are far too small to duplicate the economies of scale, and hence the productivity, of their counterparts in the U.S. and Japan.

While breweries in Japan are large enough to capture most scale economies, their productivity lags because the Ministry of Finance — which sets prices and issues operating permits for breweries, wholesalers, and retail outlets — has consistently protected the weakest brewers from competition. Because the prices are high, Japanese

brewers compete by introducing new products aimed at small market niches. Kirin, for example, despite producing one-quarter of the quantity brewed by Anheuser-Busch, sells 17 brands of beer compared to the latter's 14. Smaller volumes and more products mean shorter bottling runs and increased logistical complexity, exacting a considerable toll on productivity.

While the figures reflect labor productivity in brewing and bottling, fragmentation and product proliferation cause further inefficiencies outside the factory gates. Trucks have to be loaded for small deliveries to retail outlets, making logistics and administration less efficient than in the U.S. and thus contributing to the productivity gap. Thus, in the U.S. market, or rather in the North American market, the domestic brewers will continue to play a dominant role. Foreign brewers will find it difficult to invade the premium and light segments which account for almost 60 percent of the U.S. market.

At the same time, the U.S. brewers may find it difficult to duplicate their success abroad. Foreign brewers, particularly Heineken, are ahead of U.S. brewers in exploring markets abroad. For example, Heineken is distributed in 150 countries and territories. In such emerging markets as China, Vietnam, India, and Indonesia, Heineken has already negotiated joint ventures for local production and distribution.

Table 1 Top 10 Brewers 1991, 1992

Rank and Company	Barrelage (Millions) 1991	1992	Growth % 1991 - 1992	Market Share 1991	1992
1. Anheuser-Busch	86.0	86.6	0.9%	45.8%	46.2%
2. Miller	43.6	42.2	-3.2%	23.2%	22.4%
3. Coors	19.5	19.6	0.5%	10.4%	10.4%
4. Stroh	15.0	14.2	-5.3%	8.0%	7.6%
5. G. Heileman	10.3	10.0	-2.9%	5.5%	5.3%
6. S&P Industries	8.1	8.3	2.5%	4.3%	4.4%
7. Genessee	2.2	2.2	—	1.2%	1.2%
8. Latrobe	0.8	0.9	12.5%	0.4%	0.5%
9. Pittsburgh Brewing	0.5	0.6	13.3%	0.3%	0.3%
10. Hudepohl-Schoeling	0.4	0.4	—	0.2%	0.2%
Top 10 Brewers	186.4	185.2	-0.7%	98.7%	98.5%
All Others	1.2	2.8	126.7%	0.6%	1.5%
Total Imports	7.8	8.1	3.8%	4.1%	4.3%
Total U.S. Market	188.8	188.0	-0.2%	100.0%	100.0%

Table 2 Top 10 Beer Brands in 1992

Rank and Order	Barrel (in millions)	Share
1. Budweiser	45.4	24.1%
2. Miller Lite	18.5	9.8%
3. Bud Light	13.2	7.0%
4. Coors Light	12.6	6.7%
5. Busch	9.9	5.3%
6. Miller Genuine Draft	6.9	3.7%
7. Milwaukee's Best	6.6	3.5%
8. Natural Light	5.3	2.8%
9. Old Milwaukee	5.0	2.7%
10. Miller High Life	4.8	2.6%
Top 10 Brands	128.2	68.6%
All Others	59.8	31.4%
Total	188.0	100.0%

Source: Beverage Marketing Corporation, *Beer in the United States*, 1992.

Table 3 U.S. Beer Market: 1992 Percentage Share, Growth, and per Capita Consumption

Region	Share	% Growth	Gallons
Northeast	20.6%	-3.2%	21.1
South	22.1%	2.5%	23.2
East Central	19.0%	-2.5%	23.0
West Central	7.0%	-0.8%	22.6
West	3.7%	3.0%	24.0
Southwest	12.3%	3.6%	26.8
Pacific	15.3%	-1.4%	22.4
Total U.S.	100.0%	-0.4%	23.0

Source: Beverage Marketing Corporation, *Beer in the United States*, 1993.

Table 4 Price Comparison of Major Brewers in Different Segments

	% Difference Price Per Case		Relative to Anheuser-Busch's Brands	
	1992	1990	1992	1990
Top Premium Brands				
Budweiser	$12.63	$12.42	—	—
% Change	1.7%			
Miller High Life	11.96	11.68	-5.3%	-5.9%
% Change	2.4%			
Miller Genuine Draft	12.19	11.82	-3.5	-4.8
% Change	3.1%			
Coors	12.26	11.91	-2.9	-4.1
% Change	2.9%			
Top Popular-Priced Brands				
Busch	$9.79	$9.62	—	—
% Change	1.8%			
Natural Light	9.01	9.54	-7.9%	-0.1%
% Change	-5.5%			
Milwaukee's Best	7.70	7.48	-21.3	-22.2
% Change	2.9%			
Old Milwaukee	8.49	8.21	-13.3	-14.6
% Change	3.4%			
Top Light Brands				
Bud Light	$12.49	$12.27	—	—
% Change	1.8%			
Miller Lite	12.08	11.81	-3.3%	-3.7%
% Change	2.3%			
Coors Light	12.28	11.96	-1.7	-2.5
% Change	2.7%			

Source: Modern Brewery Age, Infoscan.

Table 5 Gross Margins in Different Beer Segments

Beer Segment	Gross Margin For Brewer	Gross Margin For Wholesaler	% of Industry Volume
Popular-priced	10% - 16%	20% - 22%	22%
Premium-priced	28% - 30%	25% - 27%	40%
Light Beer	30% - 32%	25% - 27%	28%
Super Premium-priced	37% - 39%	25% - 27%	2%

Sources: Beverage Industry, Prudential Securities estimates.

Table 6 Average Volume per Wholesaler for Major Brewers

			Wholesalers' Average Product Mix			
Company	Number of Wholesalers	Average Volume*	Popular	Premium	Light	S-Premium
Anheuser-Busch	950	1,300,000	11%	61%	22%	6%
Miller	720	832,000	22%	29%	47%	2%
Coors	602	435,000	12%	22%	61%	5%

* In cases.
Source: Beverage Industry, Prudential Securities estimates.

Table 7 Comparison of Advertising Expenditures in the Beer Industry

Advertising Expenditures	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Total Beer Industry	$351.8	$406.5	$494.7	$575.8	$602.5	$688.8	$684.5	$720.4	$677.2	$643.2
% Change		-15.5%	21.7%	16.4%	4.6%	14.3%	-0.6%	5.2%	-6.0%	-3.5%
Anheuser-Busch	$117.2	$164.3	$197.8	$245.8	$270.0	$337.4	$339.0	$369.7	$346.0	$301.1
% Change		40.1%	20.4%	24.3%	9.8%	25.0%	0.5%	9.1%	-6.4%	-13.0%
% of Total Industry	33.3%	40.4%	40.0%	42.7%	44.8%	49.0%	49.5%	51.3%	51.1%	46.1%
Market Share	30.0%	32.4%	32.9%	35.0%	37.1%	38.6%	40.6%	41.9%	43.0%	44.6%
Miller	$91.1	$115.5	$133.9	$163.7	$163.5	$201.2	$170.9	$168.4	$149.5	$188.6
% Change		26.8%	15.9%	22.3%	-0.1%	23.1%	-15.1%	-1.5%	-11.2%	26.2%
% of Total Industry	25.9%	28.4%	27.1%	28.4%	27.1%	29.2%	25.0%	23.4%	22.1%	28.9%
Market Share	22.2%	21.5%	20.4%	20.5%	20.2%	20.5%	20.8%	21.5%	22.2%	22.7%
Coors	$23.0	$22.1	$30.4	$38.1	$58.4	$77.7	$84.7	$111.1	$114.3	$122.4
% Change		-3.5%	37.3%	25.2%	53.3%	33.2%	9.0%	31.2%	2.9%	7.1%
% of Total Industry	6.5%	5.4%	6.1%	6.6%	9.7%	11.3%	12.4%	15.4%	16.9%	18.7%
Market Share	7.3%	6.5%	7.5%	7.2%	8.0%	8.1%	8.4%	8.8%	9.5%	9.9%

Source: Beverage Industry and Leading National Advertisers.

Table 8 Advertising Effort to Match the Major Brands' Expenditure in the Premium-Priced Segment

Brand	Unit Volume (Millions)	1990E Media Expense $ in Millions	Media Expense per Barrel	Expense per Barrel to Reach BUD Level
Budweiser	52.2	$116	$2.22	$2.22
Miller	12.5	89	7.12	9.28
Coors	4.9	56	11.42	23.67

Sources: Beverage Industry, Leading National Advertisers, Prudential Securities estimates.

Table 9 Advertising Effort to Match the Major Brands' Expenditure in the Light Segment

	Unit Volume	Media Expense $ in Millions	Media Expense per Barrel	Expense per Barrel to Reach Lite Level
Bud Light				
1983	3.7	$54.1	$13.35	$13.59
1984	4.0	55.4	13.85	16.70
1985	5.7	47.2	8.28	12.30
1986	6.8	59.3	8.72	11.28
1987	8.2	61.5	7.50	9.06
1988	9.5	70.1	7.38	7.19
1989	10.5	62.3	5.93	6.14
Average Media	$57.2			
Lite (Miller Brewing)				
1983	17.9	$50.3	$2.81	$2.81
1984	18.0	66.8	3.71	3.71
1985	18.5	70.1	3.79	3.79
1986	18.9	76.7	4.06	4.06
1987	19.3	73.8	3.82	3.82
1988	19.5	68.3	3.50	3.50
1989	20.0	64.5	3.22	3.22
1990	20.3	74.1	3.65	3.65
Average Media	$68.0			

Table 9 *(Continued)*

	Unit Volume	Media Expense $ in Millions	Media Expense per Barrel	Expense per Barrel to Reach Lite Level
Coors Light				
1983	3.8	$10.2	$2.68	$13.24
1984	4.7	11.1	2.36	14.21
1985	6.0	19.1	3.18	11.68
1986	7.1	30.8	4.34	10.80
1987	7.9	34.7	4.39	9.34
1988	8.7	52.1	5.99	7.85
1989	10.5	52.2	4.97	6.14
1990	11.7	72.9	6.23	6.33
Average Media	$35.0			

Sources: Beverages Industry, Leading National Advertisers, Prudential Securities estimates.

Table 10 Global Beer Consumption Trends

	Per Capita	Consumption (Cases) Change*	Total	Change		Per Capita	Consumption (Cases) Change*	Total	Change
United States					Netherlands				
1960	6.6				1960	2.8			
1970	8.1	2.15	16,487,320		1970	6.6	9.2%		
1980	10.6	2.7%	23,489,633	3.6%	1980	10.0	4.2%	1,411,082	
1984	10.5	-0.4%	24,740,835	1.3%	1984	9.6	-0.9%	1,384,383	-0.5%
1987	10.4	-0.2%	25,381,057	0.9%	1987	9.8	0.5%	1,427,769	1.0%
Germany					Canada				
1960	10.9				1960	6.9			
1970	16.3	4.1%	10,561,646		1970	8.6	2.1%	1,920,803	
1980	16.8	0.3%	10,483,076		1980	9.9	1.5%	2,431,046	2.4%
1984	16.7	-0.2%	10,234,772	-0.8%	1984	9.6	-1.0%	2,417,619	-0.2%
1987	16.7	0.0%	10,181,391	-0.2%	1987	9.6	0.0%	2,441,865	0.3%

Table 10 *(Continued)*

	Per Capita	Consumption (Cases) Change*	Total	Change		Per Capita	Consumption (Cases) Change*	Total	Change
United Kingdom					Italy				
1960	9.8				1960	0.6			
1970	11.7	1.8%			1970	1.3	8.5%		
1980	13.5	1.4%			1980	1.9	3.8%	1,102,221	
1984	12.7	-1.5%	7,173,203	-0.1%	1984	2.3	4.0%	1,244,940	3.1%
1987	12.8	0.1%	7,262,056	0.4%	1987	3.0	9.5%	1,526,511	7.0%
France					Australia				
1960	4.1				1960	11.9			
1970	4.8	1.6%			1970	14.3	1.8%		
1980	5.1	0.7%	2,737,594		1980	15.1	0.6%	2,212,677	-0.1%
1984	4.8	-1.8%	2,607,790	-1.6%	1984	13.3	-3.2%	2,104,562	-1.2%
1987	4.5	-1.9%	2,503,548	-1.4%	1987	12.9	-1.1%	2,069,388	-0.6%

Table 10 *(Continued)*

	Per Capita	Consumption (Cases) Change*	Total	Change
Japan				
1960	1.7			
1970	3.3	6.8%		
1980	4.5	3.1%	5,236,835	
1984	4.4	-0.3%	5,285,085	0.2%
1987	5.1	4.4%	6,088,916	4.8%
New Zealand				
1960	11.6			
1970	13.4	1.5%		
1980	13.4	0.0%	444,810	
1984	13.4	0.1%	436,016	-0.7%
1987	14.0	1.3%	478,204	3.1%

* Percent changes compounded annually.
Source: International Survey Alcoholic Beverage Taxation and Control Policies.

Table 11 Top 10 Imported Beer Brands in 1990-1992 (in millions of gallons)

Brand and Importer	1990	1991	1992
Heineken *(Van Munching)*	64.4	57.9	59.1
Corona Extra *(Barton Beer)*	27.7	25.7	25.6
Molson* *(Martlet)*	26.2	24.7	25.6
Beck's *(Dribeck)*	27.2	24.0	25.2
Labatt's *(Labatt U.S.A.)*	15.3	15.2	15.3
Amstel *(Van Munching)*	11.2	11.4	11.4
Tecate *(Wisdom)*	8.7	9.0	9.1
Moosehead *(Guinness)*	10.9	9.6	8.4
Foster's* *(Century)*	6.3	6.3	6.9
Dos Equis *(Associated)*	6.2	6.5	6.9
All Others	65.8	52.3	58.0
Total Imports	269.9	242.6	255.1

* Now, Miller has exclusive rights to market and distribute the brand in the U.S.
Source: Beverage Marketing Corporation

Table 12 The Trend in Beer Sales According to Countries of Origin and Brands (in millions)

Country	Brands	1990	1991	1992
Netherlands	Heineken, Amstel	$351.1	$305.2	$323.3
Mexico	Corona Extra, Tecate, Dos Equis	152.8	129.9	147.4
Canada	Molson, Moosehead, Labatt	156.9	144.3	141.4
Germany	Beck's, St. Pauli Girl, Holsten	117.0	94.7	106.9
U. Kingdom	Bass Ale	31.0	33.9	38.5
Ireland	Guinness Stout	21.1	27.1	36.3
Japan	Sapporo, Gingjikomi, Kirin	16.9	18.9	19.6
Australia	Foster's, Castlemine XXXX	20.2	19.2	6.2
Denmark	Carlsberg	5.1	4.7	6.0
P.R. China	China Light	6.2	6.6	5.9
All Others	Moretti, San Miguel, Pilsen	28.4	28.2	32.3
Total		$906.7	$812.7	$863.8

Source: Beverage Marketing Corporation

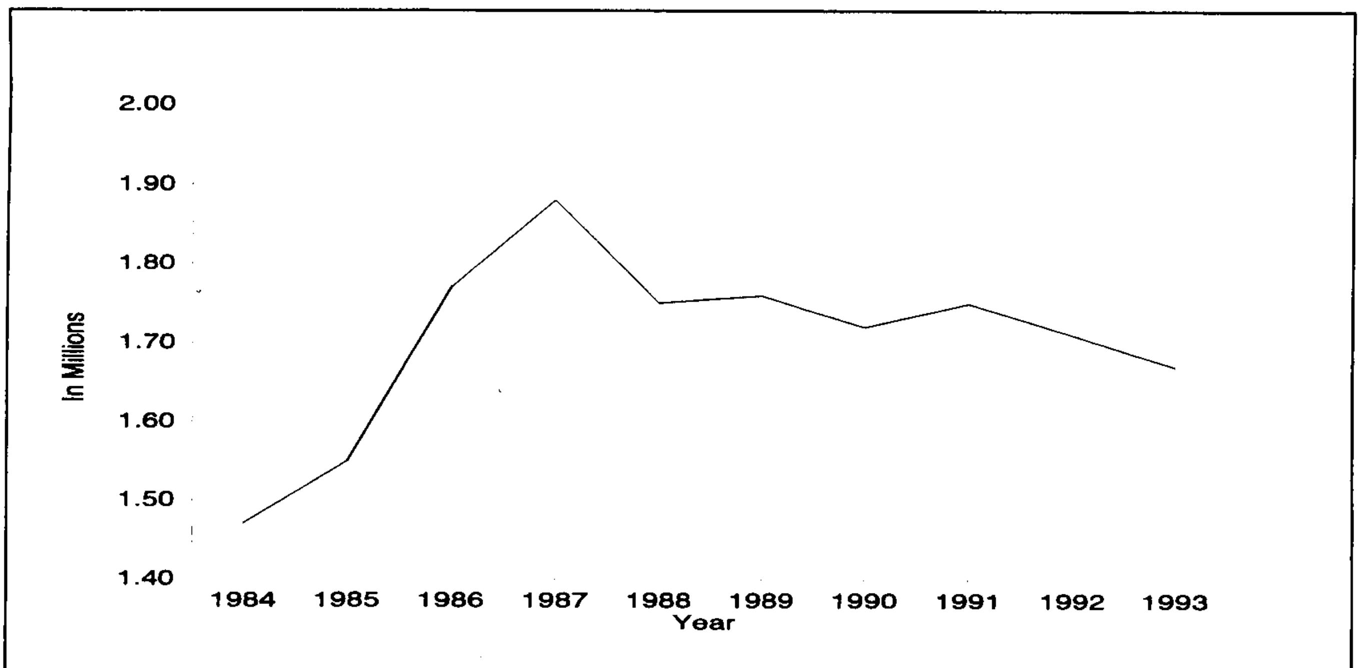

Figure 1 DWI Enforcement
Source: Uniform Crime Reporting Bureau

Endnotes

1. The top league of today's brewers reads like a diary of German families that came around 1850 to the Midwest and opened breweries using the skills and technology brought from their homeland: Anheuser-Busch (1860), Miller (1855), Stroh (1850), Schlitz (1849) and Pabst (1844). *Beverage Dynamics*, July/August, 1992, pp. 40-50.
2. There are two distinct types of beer producing processes: ale and lagers. As discussed later is this paper, ale is top-fermented while lager is bottom-fermented.
3. "The government makes more from every six-pack sold than does the company. In 1992, federal excise tax collections on beer sales matched total operating profits, while more than a billion additional excise tax dollars were collected by the states." *Anheuser-Busch Companies Fact Book 93/94.*
4. Aaron Davidson and Theresa Callahan, "Beer and Ale," *Collier's Encyclopedia,* 1993 edition, pp. 770-773.
5. "The Year in Review: 1992," *Modern Brewery Age,* pp. 6-7.
6. *Ibid*, pp. 14-15.
7. "Retail Guide to Beer," *Beverage Dynamics,* July-August, 1992, pp. 40-51.
8. S&P Industries is an association of such brewers as Pabst, Falstaff and Olympia.
9. Marj Charlier, "Beer Brouhaha," *The Wall Street Journal,* November 22, 1993, p. A1.
10. Prudential Securities Incorporated, "Anheuser-Busch Company Update," June, 1993.
11. Pankaj Ghemawat, "Adolph Coors in the Brewing Industry," Harvard Business School Case #9-388-014, p. 6.
12. Coors Dry barrelage grew from 100,000 to 200,000 barrels between 1991 and 1992. *Ibid.*
13. Marj Charlier, "Existing Distributors are Being Organized by Brewers, Retailers," *The Wall Street Journal,* November 22, 1993, p. 1.
14. Russel Ackoff and James Emshoff, "Advertising Research at Anheuser-Busch, Inc. (1963-68)," *Sloan Management Review,* vol. 16, no. 3, Spring, 1975, p. 11.
15. Estimates based on various Prudential Securities Incorporated reports on beverages.
16. Prudential Securities Incorporated, *Report on Beverages*, March 13, 1991.
17. "Czechs, Anheuser-Busch to Hold Talks over Bud," *Hartford Courant,* January 31, p. D1.
18. *Fortune,* August 9, 1993.
19. Marj Charlier, *op cit.*
20. *Fortune,* August 9, 1993.

21. Marj Charlier, "Specialty Beers' Success Prompts Big Brewers to Try out the Niche," *The Wall Street Journal,* January 5, 1994, p. 1.
22. "Light beers, which revolutionized U.S. beer marketing (Miller introduced Lite in 1973, G.M.) in the late 1970s and early 1980s, were the result of a breakthrough in technology in 1964. Until then, low-calorie beers could only be made by either diluting a regular beer or by using a couple of processes that reduced calorie content but resulted in poor taste.

    An enzyme called amyloglucosidase was developed that renders all the dextrins in beer completely fermentable, reducing the carbohydrate content and raising the alcohol content (about 1% higher than regular beer). The enzyme had the desired effect of reducing the calorie content of beer, but because there are no dextrins left in the beer, the alcohol can be more rapidly absorbed by the bloodstream, making it more intoxicating.

    Breweries, therefore, adjust the alcohol content of light beers to a level slightly below that of regular beer to give them the same effect as regular beer.
23. Greg Prince, "Here Comes the Natural," *Beverage World,* March, 1992, pp. 81-85.
24. For example, Clydesdales ... weighing about one ton a piece, the horses (sic!) travel all over the country promoting Budweiser. They cover approximately 90,000 miles each year to appear in parades, festivals, rodeos, state fairs and other special events. *Anheuser-Busch, Inc. Marketing Fact Sheet.*
25. Carol Eusterbrock, "Hanging Tough," *Market Watch Special-Beer,* Summer, 1991, pp. 41-48.
26. *Ibid.*
27. Christopher Brooks, "Remarkable Rebound," *Market Watch,* May, 1993, pp. 62-68.
28. "U.S. federal taxes together with practices in 39 states — affecting the distribution, taxation, listing, pricing, access to points of sale, and transportation of Canadian beer, wine and cider — actively discriminate against Canadian beer," "Why Ontario Wants to Settle the Beer Feud with the U.S.," *Canada NewsWire,* May 17, 1993, p. 1.
29. Greg W. Prince and Eric Sfiligoj, "The Beverage Market Index for 1993," *Beverage World,* May, 1993, pp. 33-34.
30. *Ibid.*
31. *1992 Anheuser-Busch Companies Annual Report.*
32. *Ibid.*
33. Over the 1970-92 period, beer prices grew by the average 3.9%, while all other items by 48% (1991 tax increase excluded). Merrill Lynch Research Department.
34. Based on a proprietary study commissioned by Heineken, N.V.

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Appendix 1 Boston Beer Company's Products

Samuel Adams Boston Lager *Available All Year*
Samuel Adams has been chosen as the Best Beer in America for four years at the Great American Beer Festival. All malt brewing and costly Bavarian hops result in a deep golden color, rich malt body and spicy hop character. Samuel Adams Lager is the only American beer both to pass the German Beer Purity Law and be sold in Germany.

Boston Lightship *Available All Year*
The Beer Lover's Light Beer. Lightship is full-bodied with just the right bite. The only light beer in the world brewed with only traditional ingredients and brewing processes. The calories are reduced by using one-third less malt. For beer drinkers who care as much about robust taste as reduced calories.

Boston Ale *Available All Year*
Boston Ale is brewed and fermented as an ale and then aged in cool rooms called "stock cellars." Traditional ale hops, Kentish Goldings and Fuggles give this ale an earthy herbal character. We revived the brewing of this bygone style to celebrate the opening of our Boston brewery.

Samuel Adams Double Bock *Available Feb-April*
Samuel Adams Double Bock is brewed with more malt than any other beer in the United States — over half a pound per bottle. This enormous amount of malt gives the full body and sweetness of a classic double bock as well as almost twice the alcohol of Samuel Adams Lager.

Samuel Adams Octoberfest *Available Sept-Oct*
Octoberfest is bottled from a single batch brewed in early summer and aged for nearly two months. A little darker and maltier, it is a fresh version of the traditional beer style. The reddish-amber color is achieved from extra amounts of deep-roasted malt. The classic Bavarian hops, Hallertau Mittelfrueh and Tettnang, are added to the brew at four distinct stages.

Appendix 1 *(Continued)*

Samuel Adams Winter Lager *Available Nov-Jan*
Winter Lager is a dark wheat bock brewed with extra malt for a heartier, more full-bodied taste. A substantial portion of wheat malt is used in addition to two row barley malt. A traditional ale hop, Kentish Goldings, is added early in the brew to import its earthier, herbal bitterness. This special beer is brewed just once a year as part of our commitment to the handcrafted brewing of classic American beers.

Samuel Adams Wheat *Available May-Aug*
This unique taste of a classic wheat beer comes from a special top fermenting yeast strain from Weihenstephan, the oldest brewery in the world, and a blend of wheat and barley malts. Only noble hops: Hallertau, Tettnang and Saaz, are used. The malted wheat gives a clean quenching taste and lighter body to this traditional specialty.

Samuel Adams Holiday Classics *Available Nov-Dec*
The Boston Beer Company's Samuel Adams Holiday Classics is the perfect gift for the discriminating beer drinker. This beautifully packaged assortment includes four of our classics, handcrafted brews: Samuel Adams Boston Lager, Boston Ale, Boston Lightship and Samuel Adams Winter Lager.

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