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# WATER FROM ICELAND

Stan Otis was in a contemplative mood. He had just hung up the phone after talking with Roger Morey, vice president of Citicorp. Morey had made him an offer in the investment banking sector of the firm. The interview had gone well, and Citicorp management was impressed with Stan's credentials from a major northeastern private university. "I think you can do well here, Stan. Let us know within a week whether you accept the job," Morey had said.

The three-month search had paid off well, Stan thought. Yet an alternative plan complicated the decision to accept the position.

Stan had returned several months before from an extended trip throughout Europe, a delayed graduation present from his parents. Among other places, he had visited Reykjavik, Iceland. Even though he could not communicate well, he found the island enchanting. What particularly fascinated him was the lack of industry and the purity of the natural landscape. In particular, he felt the water tasted extremely good. Returning home, he began to consider making this water available in the United States.

## The Water Market in the United States

In order to consider the possibilities of importing Icelandic water, Stan knew that he first had to learn more about the general water market in the United States. Fortunately, some former college friends were working in a market research firm. Owing Stan some favors, these friends furnished him with a consulting report on the water market.

### The Consulting Report

Bottled water has a 19 percent share of total non-alcoholic beverage consumption, excluding milk, in the United States in 2007. Bottled water has more than a 16 percent share of total beverage consumption in the United States. The overall distribution of market share is shown in Exhibit 1 and Exhibit 2. Primary types of water available for human consumption in the United States are treated or processed water, mineral water, sparkling or effervescent water, and spring well water.

Treated or processed water comes from a well stream or central reservoir supply. This water usually flows as tap water and has been purified and fluoridated.

Mineral water is spring water that contains a substantial amount of minerals, which may be injected or occur naturally. Natural mineral water is obtained from underground water strata or a natural spring. The composition of the water at its source is constant, and the source discharge and temperature remain stable. The natural content of the water at the source is not modified by an artificial process.

Sparkling or effervescent water is water with natural or artificial carbonation. Some mineral waters come to the surface naturally carbonated through underground gases but lose their fizz on the surface with normal pressure. Many of these waters are injected with carbon dioxide later on.

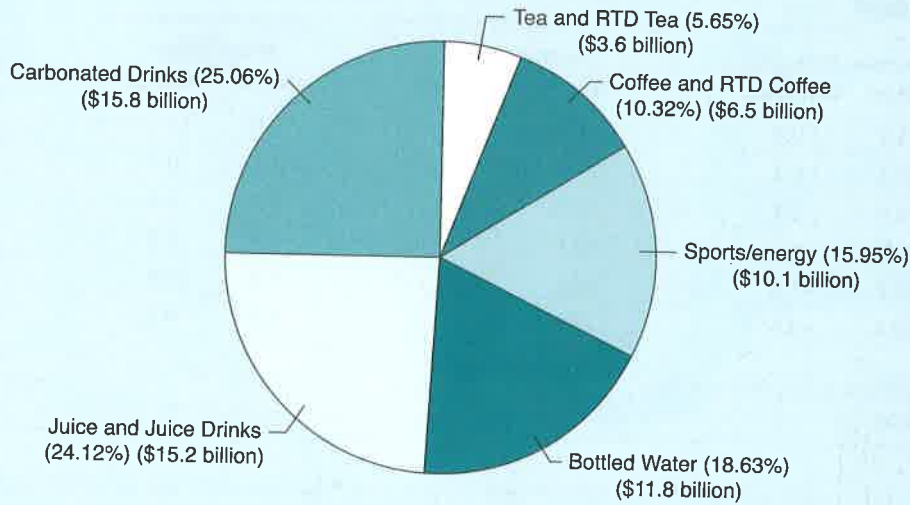
Enhanced waters are bottled waters that contain components that are acclaimed to enhance a particular physical aspect. For example, Propel Fitness Water, made by PepsiCo, is a popular brand of enhanced water that boasts its ability to increase hydration.

Minerals are important to the taste and quality of water. The type and variety of minerals present in the water can make it a very healthy and enjoyable drink. The combination of minerals present in the water determines its relative degree of acidity. The level of acidity is measured by the pH factor. A pH 7 rating indicates a neutral water. A higher rating indicates that the water contains more solids, such as manganese calcium, and is said to be "hard." Conversely, water with a lower rating is classified as "soft." Most tap water is soft, whereas the majority of commercially sold waters tend to be hard.

## Water Consumption in the United States

Tap water has generally been inexpensive, relatively pure, and plentiful in the United States. Traditionally, bottled water has been consumed in the United States by the very wealthy. In the past several years, however, bottled water has begun to appeal to a wider market.

*SOURCES:* This study was prepared by Professor Michael R. Czinkota. The author is grateful for the input from Professor Ingjaldir Hannibalsson and the students at the University of Iceland. Assistance from Kenneth Adam Krupa, undergraduate student of the Edmund A. Walsh School of Foreign Service at Georgetown University, is acknowledged. This study was prepared using the following background material: International Bottled Water Association, Beverage Marketing Corporation, Beverage Aisle, 2002. We also gathered statistics from "Non-alcoholic Beverages: The Market-US-April 2008," *Mintel Oxygen* (London: Mintel International Group Ltd.), <http://academic.mintel.com/>, accessed March 2, 2009, "Bottled Water-US-December 2008," *Mintel Oxygen* (London: Mintel International Group Ltd.), <http://academic.mintel.com/>, accessed March 2, 2009 and the World Fact Book.

**Exhibit 1****Sales in U.S. \$ Million and Market Share of U.S. Non-alcoholic Beverage Sales, 2007\***

\*excludes milk

SOURCE: Mintel's estimates based on: Bureau of Labor Statistics, Consumer Expenditure Surveys, Information Resource, Inc. InfoScan® Reviews™  
Date Accessed: March 2, 2009

**Exhibit 2****U.S. Bottled Water Market Per Capita Consumption Per Year 1997-2007**

Year	Gallons Per Capita Per Year	Annual Percentage Change
1997	13.5	-
1998	14.7	8.3%
1999	16.2	10.2%
2000	16.7	3.5%
2001	18.2	8.6%
2002	20.1	10.6%
2003	21.6	7.2%
2004	23.2	7.5%
2005	25.4	9.7%
2006	27.6	8.4%
2007	29.3	6.4%

SOURCE: Beverage Marketing Corporation  
Data Accessed: March 2, 2009

The two main reasons for this change are:

1. An increasing desire to avoid excess consumption of caffeine, sugar, and other substances in coffee and soft drinks
2. Affluence in society

Bottled water consumers are found chiefly in the states of California, Texas, Florida, New York and Arizona. Consumers in California, Texas, Florida, New York, and Arizona account for 70 percent of the bottled water consumption in the United States, with California consuming the most.

Nationwide, consumption is estimated to be nearly 30 gallons per capita per year. Sales from bottled water increased by nearly \$1.7 billion from 2005 to 2007. Bottled water sales grew more than any other beverage, except for sports/energy beverages. As Exhibit 3 shows, per capita consumption of bottled water steadily increased from 2001 to 2006.

Exhibit 4 shows the volume of bottled water sold. It rose from only 354.3 million gallons in 1976 to nearly 8.8 billion gallons in 2007, an almost twenty-five fold increase. From 2002 to 2007, bottled water volume increased almost 4 billion gallons, a 75 percent increase.

The volume of bottled water sold in the U.S. (non-sparkling, sparkling, and imported) rose from 4.7 billion gallons in 2000 to 8.8 billion gallons in 2007, roughly an 86.7 percent increase in just seven years. Consumption of nonsparkling water increased 6.8 percent from 2006 to 2007, while consumption of domestic sparkling increased 6.3 percent. Overall, as demonstrated by Exhibit 5, nonsparkling water holds the lion's share of the market.

### Exhibit 3

#### U.S. Per Capita Consumption of Carbonated Soft Drinks, Bottled Water, and Sports Drinks, 2001–2006

Years	Carbonated Beverages		Bottled Water		Sports Drinks	
	Gallons	% Change	Gallons	% Change	Gallons	% Change
2001	54.3	-0.4	19.3	8.4	2.8	12
2002	54.2	-0.2	21.2	9.8	3.1	10.7
2003	53.8	-0.7	22.1	4.2	3.2	3.2
2004	53.7	-0.2	23.8	7.7	3.4	6.2
2005	52.7	-1.9	26.1	9.7	4.1	20.6
2006	50.4	-4.4	27.6	5.7	4.5	9.8

SOURCE: Mintel/Beverage Marketing Corp./Beverage World

Date Accessed: March 2, 2009

### Exhibit 4

#### U.S. Bottled Water Market Volume, 1976–2007

Year	Millions of Gallons	Year	Millions of Gallons
1976	354	1995	3,167
1980	605	2002	5,033
1985	1,214	2005	7,507
1990	2,237	2007	8,828

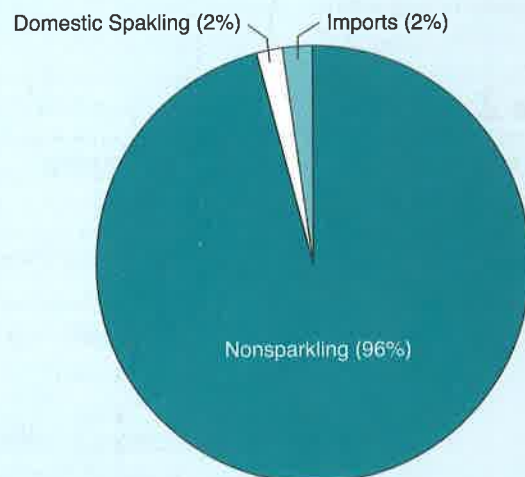
SOURCE: Beverage Aisle, Table and graph data taken from Beverage Aisle, 11 (no 8): 38, August 15, 2002. Figures are determined based upon industry contracts with the help of Adams Business Media. Figures from 2005 and 2007 are determined from data from the Beverage Marketing Corporation and the U.S. Census Bureau.

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The most popular type of bottled water is convenience/PET still water with sales growing almost 11 percent from 2006 to 2008. PET stands for polyethylene terephthalate and is a common component in synthetic materials. Examples of convenience/PET water include 20 ounce water bottles. This increase can be attributed to the popularity of a portable healthy drink. Both Jug/bulk still water (not easily transportable and typically left in the left in the home for multiple uses) and sparkling/mineral water sales fell 6 and 2 percent, respectively, between 2006 and 2008. Sparkling/mineral water sales fell nearly 3 percent due to rising prices. On the other hand, Jug/bulk still water was most likely substituted by tap water as households shifted to using tap water because of its very low cost and improving purity. Some reports claim that substituting tap water will cost only \$0.50 per year.<sup>1</sup> FDA law also subjects city tap water to thorough filtration and high chemical standards, whereas bottled water is not required to undergo the same treatment. Moreover, given that bottled water

### Exhibit 5

#### U.S. Market Share of Bottled Water by Segment in 2007 (Based on Volume)



SOURCE: Source: Beverage Marketing Corporation

Date Accessed: March 2, 2009

is an industry, companies often lobby for legislation to reduce standards.<sup>2</sup> Lowering standards would ultimately lower costs.

It should be noted, however, that there is a growing demand for enhanced waters. Enhanced waters appeal to consumers for their high-vitamin and low-calorie content. Consumers are often unaware that enhanced waters contain lots of sugar, thus defeating their desire to consume a healthy drink.

According to Exhibit 6, the forecasted sales of bottled water for 2011 are approximately \$15.3 billion, an estimated 21 percent increase in sales from 2008.

**Exhibit 6****Forecast of U.S. Non-Alcoholic Beverage Sales, 2008–2011**

Beverage Type	Sales at current prices, 2008 \$million	Sales at current prices, 2009 \$million	Sales at current prices, 2010 \$million	Sales at current prices, 2011 \$million
Carbonated drinks	16,006	16,178	16,354	16,536
Juice and juice drinks	15,123	15,056	14,989	14,918
Bottled water	12,641	13,520	14,411	15,341
Sports/Energy	11,186	12,323	13,477	14,681
Coffee and RTD Coffee	6,931	7,391	7,857	8,343
Tea and RTD tea	3,991	4,412	4,839	5,284

SOURCE: Mintel estimates

Date Accessed: March 2, 2009

Imports of bottled water to the U.S. rose 34.9 percent from 2000 to 2007 from 137.9 to 186.0 million gallons (Exhibit 7). The leading country importing water to the United States is France, with 24.5 percent share of total bottled water imports in 2005, which fell from 53.12 percent in 2001. In 2005 Canada was second with 22.7 percent market share, which is about a 4 percent increase since 2001. Ranked eighth, bottled water from Iceland holds roughly 0.6 percent market share.

Among producers, Nestlé Waters North America is the strong leader with a 27 percent market share in 2008, a 1 percent from 2007. Most of its market share comes from its still water distribution. Its sales are driven primarily by Poland Spring, Nestlé Pure Life, Arrowhead, and Deer Park. The Coca-Cola Company holds 24.5 percent of the market, a 0.3 percent increase from 2007. The Coca-Cola Company's market share is mainly comprised of Dasani and Evian. The market share of PepsiCo is

15 percent, a 1.5 decrease from 2007. Its sales are mainly comprised of Aquafina. Refer to Exhibit 8 for details.

Overall, U.S. bottled water consumption has risen and is projected to continue to grow 12 percent in the next five years after adjusting for inflation. However, the 2008 financial crisis has many producers anticipating actual decreased consumption in the following years as bottled water sales only grew by 0.6 percent in 2008. To try to entice consumers, the industry has worked to appear more environmentally friendly. Many consumer groups have attacked bottled water manufacturers for being wasteful and detrimental to the environment for not using decomposable bottles. To curb such criticism, companies such as Nestlé and PepsiCo have introduced new "eco-shape" bottles that have reduced plastic content by 30 percent.<sup>3</sup> However, the growth of the market for bottled water could continue to shrink in following years.

**Exhibit 7****U.S. Bottled Water Market by Segments**

Year	Nonsparkling		Sparkling		Imports		Total	
	Volume	Change	Volume	Change	Volume	Change	Volume	Change
1990	1,988	—	176	—	74	—	2,237	—
1995	2,906	46.2%	164	-6.8%	97	31.1%	3,168	41.6%
2000	4,443	52.9%	144	-12.2%	138	42.3%	4,725	49.1%
2005	7,171	61.4%	185	28.5%	183	32.6%	7,523	59.2%
2007	8,435	17.6%	201	8.6%	186	1.6%	8,823	17.3%

\*All volume figures reported in millions of gallons

SOURCE: Beverage Marketing Corporation

Date Accessed: March 2, 2009

## Exhibit 8

### Sales of Bottled Water Companies, from 2007 to 2008\*

	52 weeks ending on November 4, 2007		52 weeks ending on November 2, 2008		% change in market share from 2007 to 2008
	\$million	% market share	\$million	% market share	
Nestlé S.A.	1,478	28.5	1,392	27.2	-1.3
Coca-Cola Co.	1,254	24.2	1,252	24.5	0.3
PepsiCo Inc.	857	16.5	770	15.1	-1.5
Crystal Geyser Water Co.	153	3	153	3	0
Private label	1,076	20.8	1,112	21.8	1
Other	367	7.1	430	8.4	1.3
Total	5,185	100	5,109	100	0

\*Excluding sales from Wal-Mart

SOURCE: Mintel based on Information Resources, Inc. InfoScan® Reviews™

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## Additional Research

Further exploring his import idea, Stan Otis gathered information on various other marketing facets. One of his main concerns was government regulations.

### Bottled Water Regulations in the United States

The bottled water industry in the United States is regulated and controlled at two levels—by the federal government and by various state governments. Some states, such as California and Florida, impose even stricter regulations on bottled water than they are required to follow under the federal regulations. Others, such as Arizona, do not regulate the bottled water industry beyond the federal requirements. About 75 percent of bottled water is obtained from springs, artesian wells, and drilled wells. The other 25 percent comes from municipal water systems, which are regulated by the Environmental Protection Agency (EPA). All bottled water is considered food and is thus regulated by the Food and Drug Administration (FDA). Under the 1974 Safe Drinking Water Act, the FDA adopted bottled water standards compatible with EPA'S standards for water from public water systems. As the EPA revises its drinking water regulations, the FDA revises its drinking water regulations, the FDA is required to revise its standards for bottled water or to explain in the Federal Register why it decided not to do so. The FDA requires bottled water products to be clean and safe for human consumption, processed and distributed under sanitary conditions, and produced in compliance with FDA good

manufacturing practices. In addition, domestic bottled water producers engaged in interstate commerce are subject to periodic, unannounced FDA inspections.

These standards are regularly maintained with so-called sanitary surveys. Moreover, private testing performed by bottled water manufacturers must be kept on company record for a period of no less than 2 years.

In 2006, the EPA enacted the Ground Water Rule that calls for better testing and measures against fecal contaminants. Recently, the FDA has proposed to test source water with the similar standards as bottled water. Most notably, the FDA wants to test source water from coliform, and, should coliform be detected, the source water would be further tested for E. coli.

In 1991, an investigation by the U.S. House Energy and Commerce Committee found that 25 percent of the higher-priced bottled water comes from the same sources as ordinary tap water, another 25 percent of producers were unable to document their sources of water, and 31 percent exceeded limits of microbiological contamination. The Committee faulted the FDA with negligent oversight. In response, the FDA established, in November 1995, definitions for artesian water, groundwater, mineral water, purified water, sparkling bottled water, sterile water, and well water in order to ensure fair advertising by the industry. These results went into effect in May 1996. They include specification of the mineral content of water that can be sold as mineral water. Previously, mineral water was not regulated by the FDA, which resulted in varying standards for mineral water across states. In addition, under these rules, if bottled water comes from a municipal source, it must be labeled to indicate its origin.

## The Icelandic Scenario

Iceland is highly import-dependent with an estimated \$6.181 billion in imports compared to an estimated \$4.793 billion in exports in 2007, according to the World Fact Book. In terms of products exported, it has little diversity and is dangerously dependent on its fish crop and world fish prices. Until 2008, the country utilized a policy that had, for the past four years, helped economic growth. An Icelandic Export Board had been created and charged with developing new products for exports and aggressively promoting them abroad.

The Ministry of Commerce, after consulting the Central Bank, has the ultimate responsibility in matters concerning import and export licensing. The Central Bank is responsible for the regulation of foreign exchange transactions and exchange controls, including capital controls. It is also responsible for ensuring that all foreign exchange due to residents is surrendered to authorized banks. All commercial exports require licenses. The shipping documents must be lodged with an authorized bank. Receipts exchanged for exports must be surrendered.

All investments by nonresidents in Iceland are subject to individual approval. The participation of nonresidents in Icelandic joint venture companies may not exceed 49 percent. Nonresident-owned foreign capital entering in the form of foreign exchange must be surrendered.

Iceland is a member of the United Nations, the European Free Trade Association, and the World Trade Organization. Iceland enjoys "most favored nation" status with the United States. Under this designation, mineral and carbonated water from Iceland is subject to a tariff of 0.33 cents per liter, and natural (still) water is tariff-free.

As a result of the 2008 financial crisis, great strain has been placed on Icelandic trade—particularly imports. Although the Central Bank of Iceland has worked to boost international trade in the past, imports have been restricted. Imports are limited to necessities—such as

food—as the government tries to curb the entrance of foreign currency into its economy.

The Icelandic banking system was crippled as the country's three largest banks collapsed. Meanwhile, the value of its currency fell sharply because of high inflation rates and low financial reserves. Iceland's stock exchange (OMX Nordic Iceland Exchange) plummeted amidst the crisis. The government was further troubled by civil unrest, as Icelanders protested for the government to claim responsibility and to restore the economy.

Despite the international trade strain placed on Iceland as a result of the crisis and stagnation of American demand for bottled water, Icelandic Glacial bottled water from Reykjavik, Iceland, might still see substantial penetration of the U.S. market. In 2007, beverage giant Anheuser-Busch (before being acquired by InBev) developed a plan to distribute Icelandic Glacial bottled water to the widespread U.S. market by 2008.<sup>6</sup> However, in early 2009, the now Anheuser-Busch InBev sold InBev USA, which could potentially hinder the distribution plan of Icelandic Glacial bottled water.

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## Questions for Discussion

1. Is there sufficient information to determine whether importing water from Iceland would be a profitable business? If not, what additional information is needed to make a determination?
2. Is the market climate in the United States conducive to water imports from Iceland?
3. What are some possible reasons for the fluctuation in the market share held by imports over the past ten years?
4. Should the U.S. government be involved in regulating bottled water products?



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