



Confronting Challenges

U.S. and International Bottled Water Developments and Statistics for 2008

By John G. Rodwan, Jr.

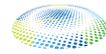
Despite an uncharacteristically staid performance in 2008, bottled water remains a beverage industry phenomenon. It stands as the second-largest beverage type in the U.S. market and for many years also ranked as the most vigorously growing category. Only

carbonated soft drinks (CSDs) have greater volume, but they have been declining, in no small part because of the ascent of bottled water and its ever enlarging share of Americans' beverage intake.

A significant shift in consumer preferences occurred during the 2000s. At the beginning of the decade, CSDs accounted for nearly 28 percent of total liquid consumption by U.S. consumers. Then, Americans drank more than 15 billion gallons of CSDs, compared with 4.7 billion gallons of bottled water, which represented less than 9 percent of total beverage consumption and placed bottled water as the number 5 beverage category behind beer, coffee, and milk as well as CSDs. By 2008, CSD volume had slipped to 14.1 billion gallons while bottled water's increased to almost 8.7 billion gallons. Consequently, CSDs' market share eroded to 24 percent, while water's swelled to almost 15 percent.

Rapid volume growth characterized bottled water for much of this period, as chronicled in the latest edition of *Bottled Water in the U.S.*, an annual comprehensive study of the market by Beverage Marketing Corporation (BMC). Bottled water volume achieved double-digit percentage growth rates in two years and advanced at rates close to that level in several others. After growing by 10.8 percent in 2005, for instance, bottled water volume enlarged by 9.5 percent the following year.

CSDs, in pronounced contrast, followed several years of slow growth with multiple volume reductions. Indeed, the category charted its fourth year in a row of intensifying volume loss in 2008.



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In addition, some consumers began selecting smaller, more affordable package sizes. While people still are consuming the same overall amount of liquid, the impact of trading to smaller sizes—such as going from the 20-ounce size to the 16-ounce—may be the reduction of product waste. Consumers may be increasingly careful not to throw away 4 ounces of the 20-ounce size. Significant portions of the country saw unusually cold or wet weather, which dampened demand for cold drinks. Consumer concerns about the environment may have affected some buying decisions, particularly as a result of campaigns targeting bottled water.

U.S. BOTTLED WATER MARKET Volume and Producer Revenues 2000 – 2008				
Year	Millions of Gallons	Annual % Change	Millions of Dollars	Annual % Change
2000	4,725.0	--	\$6,113.0	--
2001	5,185.3	9.7%	\$6,880.6	12.6%
2002	5,795.6	11.8%	\$7,901.4	14.8%
2003	6,269.8	8.2%	\$8,526.4	7.9%
2004	6,806.7	8.6%	\$9,169.5	7.5%
2005	7,538.9	10.8%	\$10,007.4	9.1%
2006	8,253.6	9.5%	\$10,857.8	8.5%
2007	8,757.4	6.1%	\$11,551.5	6.4%
2008	8,665.6	-1.0%	\$11,178.5	-3.2%

Source: Beverage Marketing Corporation

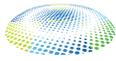
In a significant change from previous years, producers' revenues declined in 2008. Bottled water wholesale dollar sales first exceeded \$6 billion in 2000. By 2007, they topped \$11.5 billion. However, category sales declined to \$11.2 billion the following year.

While bottled water did not realize growth in 2008, its flatness reflected forces affecting the beverage marketplace generally and did not suggest the start of an ongoing diminishment in demand for bottled water. It was a very challenging year all around. The weak economy affected the industry as a whole. High energy and commodities costs had been a challenge during much of the year.

U.S. BOTTLED WATER MARKET Per Capita Consumption 1997 – 2008		
Year	Gallons Per Capita	Annual % 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	29.0	5.3%
2008	28.5	-1.8%

Source: Beverage Marketing Corporation

However, consumers have demonstrated a strong thirst for bottled water that will persist in the future. Changes in average intake indicate the high level of consumer interest in a product they perceive as a healthful alternative to other beverages. Americans upped their annual consumption by nearly a dozen gallons from 16.7 gallons per person in 2000 to 28.5 gallons eight years later. During the same period, per capita consumption of CSDs dropped by more than six and a



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half gallons. Per capita consumption of other major beverage categories, like milk and fruit beverages, also declined. Other types, including coffee and tea, saw only modest gains. Thus, bottled water proved itself to be the key contributor to growth in liquid refreshment beverage volume.

U.S. residents' unabated thirst for bottled water can be attributed to several factors. Many consumers recognize it to be healthy, safe, and convenient. It's a versatile product, suitable for consumption at any time of day and need not be kept cold (like soft drinks or juice) or warm (like coffee or tea). As far as ready-to-drink commercial beverages go, it's relatively inexpensive, and, with competitive pricing, it is becoming increasingly affordable for consumers. Various packaging types, ranging from bulk (i.e., 1-, 2.5-, 3-, and 5-gallon containers) to single-serve, facilitate a variety of uses. Consumers' interest in foods and beverages that confer benefits above and beyond refreshment also contributes to the quintessential hydrating beverage's performance in recent years. As concern about obesity and diabetes spreads and intensifies, bottled water's lack of calories appears that much more attractive to consumers.

The most successful PET water brands share several key characteristics related directly to consumer perceptions. Successful PET water brand positioning involves creating a set of product attributes that strongly resonate with the bottled water consumer. Taste issues are one of the most important success criteria because if a product does not taste good it is unlikely to be repurchased. The most important product attributes for consumers include "purity," "refreshing,"

"healthy," "good-for-you," and "taste." Each of the leading PET water brands—Aquafina, Dasani, and Poland Spring—emphasize taste, purity, and "good-for-you" product qualities in their positioning. Pepsi-Cola, Coca-Cola, and Nestlé Waters North America (Nwana) have each done extensive research to ensure that their respective products are rated very high in the taste category.

Clearly, consumer perceptions matter, and consumers regard bottled water very differently from tap water. Even where tap water may be safely potable, many people prefer bottled water, which they regard as superior in taste. The convenient availability of packaged water wherever beverages are sold also crucially differentiates bottled water from tap. Bottled water reflects our times by highlighting the need for convenience among busy, on-the-go Americans.

Though bottled water is frequently compared to tap water, bottled water actually achieved its growth by luring consumers away from other packaged beverages perceived as less healthy than bottled water. While some consumers turning away from regular, full-calorie sodas shift to diet versions, a growing percentage are opting to imbibe bottled water.

Category Developments

Domestic non-sparkling water is the largest and strongest part of the U.S. packaged water industry, consistently outperforming other segments. Domestic non-sparkling water's 8.4 billion gallons represented 95.8 percent of total volume in 2008. As a whole, domestic non-sparkling moved at essentially the same pace as the total market. The segment includes diverse components that experienced very different results.

As it has for years, the retail premium PET segment—consisting of still water in single-serve PET bottles—continued to drive the overall category's development. PET volume increased from 1.4 billion gallons in 2000 to 5.2 billion gallons eight years later, boosting its share of total bottled water volume from 29 percent to more than 60 percent. For 16

U.S. BOTTLED WATER MARKET
Volume and Growth by Segment
2000 – 2008

Year	Nonsparkling		Domestic Sparkling		Imports		Total	
	Volume*	Change	Volume*	Change	Volume*	Change	Volume*	Change
2000	4,443.0	--	144.2	--	137.8	--	4,725.0	--
2001	4,917.3	10.7%	144.0	-0.1%	123.9	-10.1%	5,185.3	9.7%
2002	5,487.5	11.6%	149.5	3.8%	158.7	28.0%	5,795.6	11.8%
2003	5,923.9	8.0%	152.6	2.1%	193.3	21.8%	6,269.8	8.2%
2004	6,411.3	8.2%	166.8	9.3%	228.6	18.2%	6,806.7	8.6%
2005	7,171.4	11.9%	185.0	10.9%	182.5	-20.2%	7,538.9	10.8%
2006	7,899.9	10.2%	189.3	2.3%	164.4	-9.9%	8,253.6	9.5%
2007	8,376.6	6.0%	200.1	5.7%	180.8	10.0%	8,757.4	6.1%
2008	8,303.0	-0.9%	200.9	0.4%	161.7	-10.6%	8,665.6	-1.0%

* Millions of gallons

Source: Beverage Marketing Corporation

consecutive times from the early 1990s to 2007, annual growth rates for the PET segment exceeded 10 percent.

Retail bulk volume growth slowed as more and more consumers selected convenient PET multipacks in large format retail channels instead of larger (1 to 2.5 gallon) sizes. Its share eroded from nearly one-quarter of the category volume at the beginning of the century to 12 percent by 2008, largely as a result of competition from PET. The small vending segment however, achieved growth late in the decade after several years of contraction, mostly because of its low cost.

The small imported water segment fluctuates. In the 2000s, it registered double-digit percentage growth in some years, and equally sizeable contractions in others. After one of those up years in 2007, imported water's volume fell sharply in 2008.

Domestic non-sparkling water accounted for almost all per capita bottled water consumption in 2008. Sparkling water and imports each represented less than one gallon per person. The key PET portion boosted intake from less than 5 gallons in 2000 to 17.2 gallons by 2008.

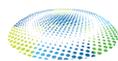
International Developments

As the 20th century closed and the 21st century opened, the bottled water phenomenon could be observed not only in the United States—the largest national market as measured in volume—but also in almost every major geographical region of the world. Bottled water got its start as a viable commercial beverage category primarily in Western Europe, where, for many consumers, it has long been part of their daily consumption ritual. However, it is now a truly global beverage, found even in some of the more remote corners of the globe. Certain Asian markets achieved strong growth to become major bottled water markets during the 2000s.

Global bottled water consumption is estimated to have approached 53 billion gallons in 2008, according to data from the latest volume of BMC's *The Global Bottled Water Market*. The global rate of consumption rose by 5.6 percent in 2008. Per capita consumption of 7.9 gallons represented a gain of almost two gallons over the course of five years. It also marked an increase of three-tenths a gallon from 2007, when average intake stood at 7.6 gallons.

Of course, per capita consumption by individual region or country can diverge dramatically from the global average. For instance, several Western European countries have per capita consumption levels far above 25 gallons, and two national markets exceeded 50 gallons per person in 2008. At the same time, however, much of the developing world, where the bulk of the world's population resides, finds its per capita consumption figures still in the single-digit range.

While the global per capita consumption figure may belie massive regional differences, bottled water's persistent global growth indicates demand for it in diverse markets. Consumers have demonstrated a thirst for bottled water in highly developed markets, in less developed ones, and in economies



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in transition, demonstrating the beverage's versatility. Bottled water has been able to make tremendous volume gains during the last decade by successfully tapping into some divergent consumer trends around the globe.

In developed countries—such as the United States and Canada—bottled water has become the fastest growing and most dynamic major commercial beverage category by tapping into a growing health and well-being consciousness on the part of consumers. That increased health awareness has helped position bottled water as an alternative to carbonated soft drinks and juice drinks. Many in the developed world see bottled water as not only a way of achieving hydration, but also as a functional beverage. At the same time, in the developing world, bottled water serves at least a partial solution to the problem of often-unsafe water found in many countries.

While much of the world's bottled water market is still highly fragmented and controlled by local brands, consolidation is rapidly occurring, as four companies have come to dominate much of the market. Swiss food and beverage company Nestlé and French entity Danone are the traditional leaders of the bottled water pack. Both companies centered their operations around the core markets of Western Europe and the United States. However, as water growth is increasingly coming from the developing world, Nestlé and Danone have taken their battle to the new competitive fields of Asia, Latin America, and other areas. In fact, Danone has restructured its business plan to focus on some of those other markets. Complicating matters for the two European leaders is the entry of soft drink stalwarts Coca-Cola and PepsiCo into the bottled water race. Following their strong showings in the United States, both companies increasingly devoted resources and energy to developing their global bottled water businesses.

Although Europe ranks as the leading regional consumer of bottled water, the largest national markets do not lie within the continent's borders. In terms of volume by individual countries, North America boasts the two largest markets, the United States and Mexico, which together combined for a noteworthy 29 percent of the world's packaged water market in 2008. The U.S. bottled water market has been a catalyst for much of the global expansion during the past five years, achieving a five-year compound annual growth rate (CAGR) of 6.7 percent, which matched the growth of the global market. Mexico accounted for 12.3 percent of the global volume with more than 6.5 billion gallons in 2008.

GLOBAL BOTTLED WATER MARKET				
Leading Countries' Consumption and Compound Annual Growth Rates				
2003 – 2008				
2008 Rank	Countries	Millions of Gallons		CAGR* 2003/08
		2003	2008	
1	United States	6,269.8	8,665.6	6.7%
2	Mexico	4,357.6	6,501.5	8.3%
3	China	2,523.6	5,207.7	15.6%
4	Brazil	2,842.0	3,775.7	5.8%
5	Italy	2,734.2	3,140.5	2.8%
6	Indonesia	1,834.7	2,899.5	9.6%
7	Germany	2,628.5	2,863.1	1.7%
8	France	2,352.9	2,218.4	-1.2%
9	Thailand	1,303.4	1,705.6	5.5%
10	Spain	1,346.8	1,291.3	-0.8%
Top 10 Subtotal		28,193.5	38,268.9	6.3%
All Others		9,917.3	14,427.9	7.8%
WORLD TOTAL		38,110.8	52,696.8	6.7%

* Compound annual growth rate
Source: Beverage Marketing Corporation

While no other country could claim a double-digit share of global volume, third-place China came very close. Its 5.2 billion gallons accounted for 9.9 percent of total industry volume. Chinese bottled water volume has enjoyed double-digit percentage growth rates for several consecutive years, registering a 15.6 percent CAGR for the period from 2003 to 2008—by far the highest rate among the 10 biggest bottled water markets. After lagging the global market in growth, the Brazilian market revived in 2007, enlarging by nearly 10 percent. However, growth slowed in 2008 and, after a couple of sub-par years, the fourth largest market's CAGR remained slightly lower than the international market's. Among the top-10 markets, Indonesia recorded the most forceful single-year growth surge, increasing its volume by more than 20 percent in 2008, which catapulted the market above Germany into sixth place with a share of 5.5 percent, up from 2007's 4.8 percent.

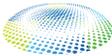
Europe may not boast the biggest bottled water markets, but it does have several major ones, including four of the 10 biggest. However, as those are firmly established, their growth tends to be slower than those where packaged water has a less lengthy tradition. Indeed, some of the most prominent countries experienced contraction. For instance, in 2008, France's volume declined by 2.9 percent. Italy declined in 2007 but saw modest growth in 2008, ending the year at 3.1 billion gallons, which made it Europe's largest and the world's fifth largest bottled water market. Germany also followed a down 2007 with an up 2008; the number 7 market's volume approached 2.9 billion gallons. France ranked eighth, with 2.2 billion gallons, and Spain completed the top-10 with almost 1.3 billion gallons. As a group, the four most absorbent European bottled water markets accounted for slightly more than 18 percent of the world's total.

In terms of market segmentation, broad generalizations are hard to come by, as vast differences exist from country to country, but with the split between still and sparkling water, the trends are fairly obvious. In the vast majority of countries throughout the globe, still water accounts for the majority of sales. Sparkling water sales are strong in a minority of countries, such as Argentina, Chile, Uruguay, the Netherlands, and Germany, where sparkling water is often tied to meal consumption routines. On a global level, sparkling water accounts for an estimated 10 percent of the total volume, with still water accounting for the remaining 90 percent.

With regard to packaging trends, plastic dominates over glass in almost every country, with the exception of Germany (one can assume because of Germany's recycling laws). However, even in Germany, and in other countries (such as the United Kingdom) where glass has a strong presence, PET is the most dynamic and rapidly growing segment. At about one-third of global volume, home and office delivery (HOD), or bulk water, still accounts for a minority of global bottled water sales. Yet it is a vital segment in many countries, such as Mexico, where it accounts for more than 70 percent of the volume. Interest from the major water players has grown recently as HOD water becomes increasingly branded. A hotly contested race for HOD leadership will likely occur in the next few years.

Mexico leads the world in bottled water consumption. Average intake in Mexico jumped from 41.5 gallons in 2003 to more than 59 gallons five years later. The erstwhile per capita consumption leader, Italy, consumed 54 gallons per person in 2008.

Several Middle Eastern markets rank highly in per capita bottled water consumption. With the equivalent of almost 40 gallons for each resident in 2008, the United Arab Emirates (UAE) had the third-highest level of bottled water consumption in the world. In addition to the UAE, the Middle East region has Lebanon and Saudi Arabia in the top 20 in per capita bottled water consumption. At almost 14 gallons per resident, Israel also consumes bottled water at a rate greater than the global average.

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While Europe may no longer hold the top spot in volume per capita, 13 of the top 20 bottled water consumers on a per person basis are European countries. The consumers of the combined market of Belgium-Luxembourg imbibed 39 gallons each. France, Germany, and Spain were the only other countries with per capita consumption greater than 30 gallons. French consumers quaffed 4.5 gallons less bottled water in 2008 than they had five years earlier. In 2008, Germany and

GLOBAL BOTTLED WATER MARKET			
Per Capita Consumption by Leading Countries			
2003 – 2008			
2008		Gallons Per Capita	
Rank	Countries	2003	2008
1	Mexico	41.5	59.1
2	Italy	47.1	54.0
3	United Arab Emirates	25.4	39.7
4	Belgium-Luxembourg	35.1	39.0
5	Germany	31.9	34.8
6	France	39.1	34.6
7	Spain	33.5	31.9
8	Lebanon	25.4	30.5
9	Hungary	16.2	29.2
10	United States	21.6	28.5
11	Switzerland	25.4	26.3
12	Austria	22.7	26.1
13	Thailand	20.3	26.0
14	Slovenia	20.5	26.0
15	Czech Republic	22.2	25.6
16	Qatar	19.6	25.6
17	Saudi Arabia	23.3	25.2
18	Croatia	16.4	25.0
19	Cyprus	22.8	24.0
20	Bulgaria	11.4	23.1
GLOBAL AVERAGE		6.0	7.9

Source: Beverage Marketing Corporation

Spain had per capita consumption rates of 34.8 and 31.9 gallons, respectively, putting them in fifth and seventh place in terms of average bottled water intake. Unlike France and Spain, Germany consumed more bottled water per person in 2008 than it had five years before. Hungary, which rounded out the top 10, increased its bottled water consumption greatly during the 2000s. Although Western European markets hold

the highest numbers, Eastern Europe can claim several spots among top-20 in per capita bottled water consumption.

While Asian nations attained stature among the world's bottled water markets when measured in total volume, the populous countries generally do not have high per-person intake levels. Thailand was the sole Asian country ranking among the top 20 in terms of per capita bottled water consumption with 26 gallons in 2008. Despite its status as the third-largest market, China had a per capita consumption figure of just 3.9 gallons, well below the global norm. However, Chinese consumption more than doubled from 2003 to 2008.

Americans' per capita bottled water consumption puts the United States in the number 10 position among the countries of the world, having been surpassed by Hungary.

Looking Ahead

BMC fully anticipates bottled water to rebound from 2008's absence of growth and remain the star of the U.S. multiple beverage marketplace during the next several years. While the overall amount of liquid Americans annually consume will remain steady, resulting in overall volume growth in line with population enlargement, bottled water will grow considerably faster—and CSDs will continue to contract. Most other beverage categories, including coffee, fruit beverages, and tea, are likely to grow much more slowly than bottled water, which is poised to achieve still another high in per capita consumption in the near term.

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