

SIGNIFICANT, BUT SLOWER, GROWTH FOR BOTTLED WATER IN 2018

Beverage Marketing's U.S. and international statistics show how bottled water holds on to its position as the No.1 packaged beverage

By John G. Rodwan, Jr.

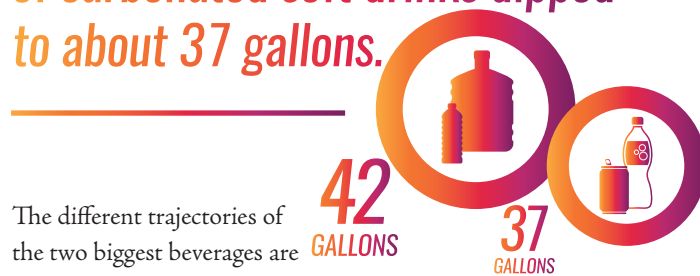
In 2018, for the third year in a row, bottled water stood as the largest beverage category by volume in the United States. The popular packaged beverage increased its lead over the former No.1 category, carbonated soft drinks, which once again declined in size. At the same time, however, bottled water also saw the slowest annual growth rate in the five-year period ending with 2018, which represented the second consecutive year when volume grew at a slower rate than it had in the preceding twelve-month period. Even so, bottled water volume grew from 13.2 billion gallons in 2017 to 13.8 billion gallons in 2018, an increase of 4.9 percent. While this followed growth of nearly 8 percent in 2016 and more than 6 percent in 2017, it nonetheless remained notable for a beverage of such considerable size.



Bottled water reconfigured the U.S. beverage landscape and continues to shape consumers' conceptions of what they want from their liquid refreshment beverages. When Perrier first arrived on the U.S. market in the 1970s, hardly anyone could have guessed the heights to which bottled water would eventually rise. Where once it would have seemed peculiar to see Americans walking around with plastic bottles of water or driving around with them in their cars' cup holders, now that's the norm. One significant consequence of this is that the number of calories U.S. consumers take in from beverages has declined.

But for a couple of small reductions in 2008 and 2009—years when most other beverage categories also contracted due to the Great Recession—bottled water volume grew every year from 1977 to 2018. That span included 17 double-digit annual volume growth spurts. Since resuming growth in 2010, bottled water volume has reliably enlarged at solid single-digit percentage rates. As a result, per capita consumption exceeded 42 gallons in 2018, while average intake of carbonated soft drinks dipped to about 37 gallons.

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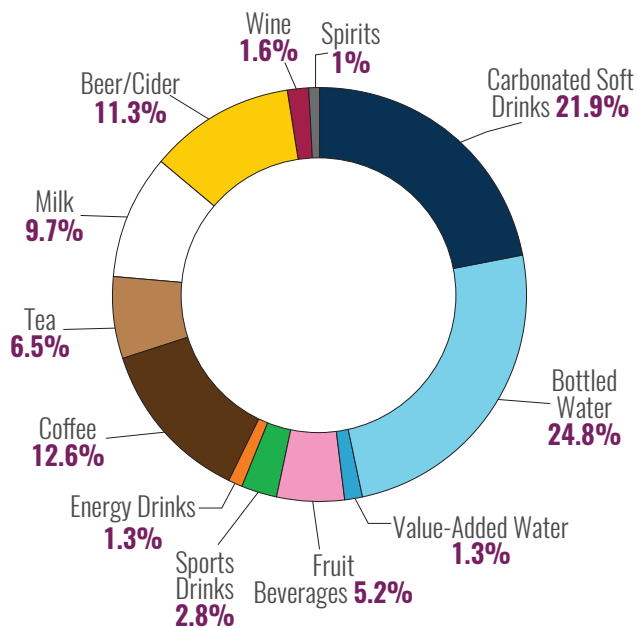


The different trajectories of the two biggest beverages are revealing of broader trends. Bottled water's rapid ascent coincided with, and contributed to, major changes in consumer preferences for refreshment and rehydration. As the quintessential portable and affordable beverage, bottled water spawned new usage occasions and habits. Suitable for consumption at any time of day or night, and not necessarily needing to be imbibed ice cold, bottled water emerged as the preferred beverage choice not only for consumers aiming to reduce caloric intake or lessen artificial sweetener usage but also for consumers of all kinds. Carbonated soft drinks, of course, lacked precisely those attributes and struggled to grow, let alone sustain, their volume as a result.

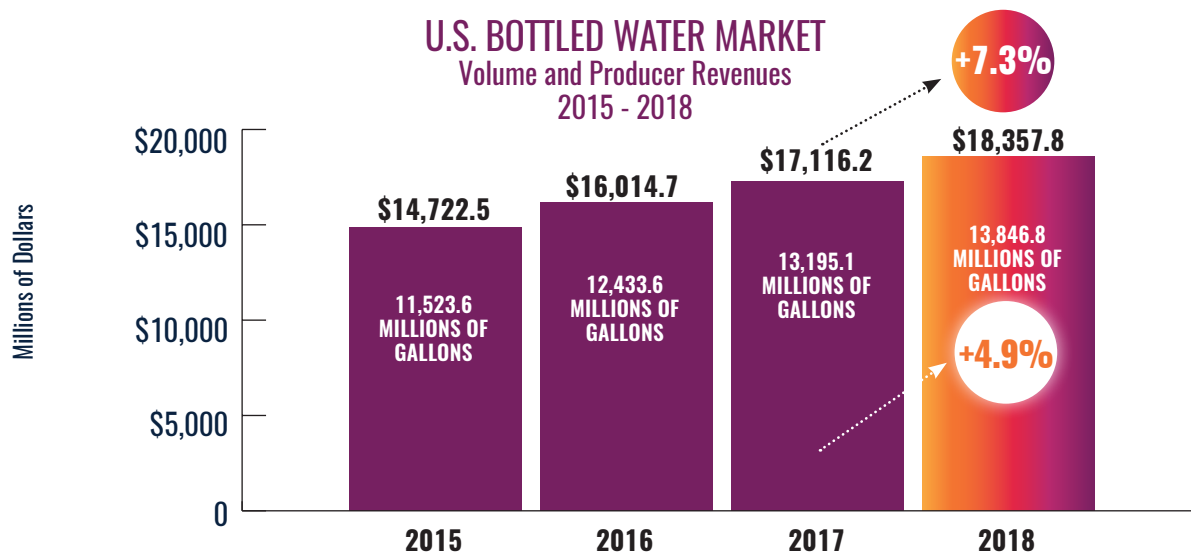
Plastic bottles in single-serving sizes became the most popular option, driving overall growth of the category and accounting for the majority of its volume. Yet all other segments—including larger, multi-serving bottles as well as home and office delivery (HOD), sparkling water, and imports—also registered growth in 2018. Domestic sparkling advanced at a double-digit rate for the fifth year in a row, and imports moved in advance of the total bottled water market, though both grew from comparatively small bases.

Prior to the economic downturn at the end of the century's first decade, bottled water enjoyed a lengthy run of forceful volume growth, as documented in "U.S. Bottled Water through 2023," Beverage Marketing Corporation's latest yearly analysis of the market. During the 2000s, bottled water volume charted double-digit percentage growth rates in two years and advanced at rates close to that level in several others. Bottled water volume grew by nearly 12 percent in 2002, and, after growing by almost 11 percent in 2005, it enlarged by 9.6 percent in 2006. Departing from the pattern of preceding

2018 VOLUME SHARE OF STOMACH BY U.S. BEVERAGE SEGMENT (BILLIONS OF GALLONS)



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Bottled water achieved its position atop the beverage rankings by enticing consumers away from other packaged beverages.

years, bottled water volume declined during the years of the Great Recession, by 1.1 percent in 2008 and then by 2.5 percent in 2009.

In contrast to carbonated soft drinks, which followed a number of years of tepid growth with multiple volume reductions, bottled water demonstrated that its two consecutive losses were aberrations rather than the beginning of stagnation. When bottled water volume resumed growth in 2010, it effectively restored volume to where it had been prior to the declines. Still stronger growth ensued in subsequent years. By 2018, volume reached a new volume record—more than 5.2 billion gallons higher than it had been in 2007. Carbonated soft drinks, on the other hand, underwent its fourteenth consecutive year of volume reduction in 2018.

During the Great Recession years of 2008 and 2009, bottled water producers' revenues also fell and did so more dramatically than volume did, but they also recovered. Bottled water wholesale dollar sales first approached \$6 billion in 2000. By 2007, they neared \$11.9 billion. Category sales declined by almost 4 percent to \$11.4 billion

the following year and then by 5 percent to \$10.9 billion in 2009. They inched upward in 2010 and 2011, and moved above \$12 billion in 2012. Wholesale dollars reached \$12.7 billion in 2013 and exceeded \$13.5 billion in 2014. They hit \$14.7 billion in 2015, surpassed \$16 billion in 2016, topped \$17 billion in 2017 and had climbed above \$18.4 billion by 2018.

Upward movement in per capita consumption points to an undeniable, ongoing demand for bottled water, a product that consumers see as a healthy alternative to other beverages. U.S. residents increased their annual consumption by close to 14 gallons from nearly 29 gallons per person in 2007 to 42.3 gallons in 2018.

During the same period, per capita consumption of carbonated soft drinks dropped by about 12 gallons. Per capita consumption of major beverage categories like milk and fruit beverages also fell. Other types, including coffee and tea, were characterized by stability, though the ready-to-drink versions of both categories made gains. Those beverages associated with beneficial properties and functional benefits—a group that includes packaged water as well as energy drinks, sports beverages, and ready-to-drink tea—were the most resilient elements of the beverage market after 2009. Even so, average intake of ready-to-drink tea and sports beverages remained fractions of bottled water's per capita consumption level. Indeed, bottled water added more gallons to its per-person consumption rate in 11 years than either ready-to-drink tea or sports beverages reached by the end of that period. (Ready-to-drink intake stood above 5 gallons per American in 2018, while sports

U.S. BOTTLED WATER MARKET Per Capita Consumption 2008 - 2018

Year	Gallons Per Capita	Annual % Change
2008	28.1	-1.9%
2009	27.2	-3.2%
2010	27.8	2.5%
2011	28.7	3.3%
2012	30.4	5.7%
2013	31.6	4.0%
2014	33.6	6.4%
2015	35.9	6.8%
2016	38.5	7.1%
2017	40.6	5.4%
2018	42.3	4.3%

Source: Beverage Marketing Corporation
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beverages remained below that level.) Bottled water proved to be not only a key component of the U.S. liquid refreshment beverage market but also on track for additional increases in per capita consumption in the future. Beverage Marketing predicts that it could climb to around 50 gallons within just a few more years.

Numerous qualities explain bottled water's continuing appeal for U.S. consumers, including its associations with healthfulness, convenience, safety, and value. Varied packaging types, ranging from bulk to single-serve, facilitate a wide array of uses. Among commercial ready-to-drink beverages, bottled water is fairly inexpensive, and aggressive pricing—especially in the retail PET segment (named for its bottles made from polyethylene terephthalate)—made it more and more affordable. Consumers' interest in beverages that boast benefits beyond refreshment alone also played a part in the fundamental hydrating beverage's rise in the beverage rankings. Bottled water's freedom from calories and artificial ingredients appeals to many consumers. Even where tap water may be safe, people may prefer bottled water, which they deem as better tasting. The ready availability of packaged water wherever beverages are sold also differentiates bottled water from tap.

Although it has at times been characterized as competing with tap water, bottled water achieved its position atop the beverage rankings by enticing consumers away from

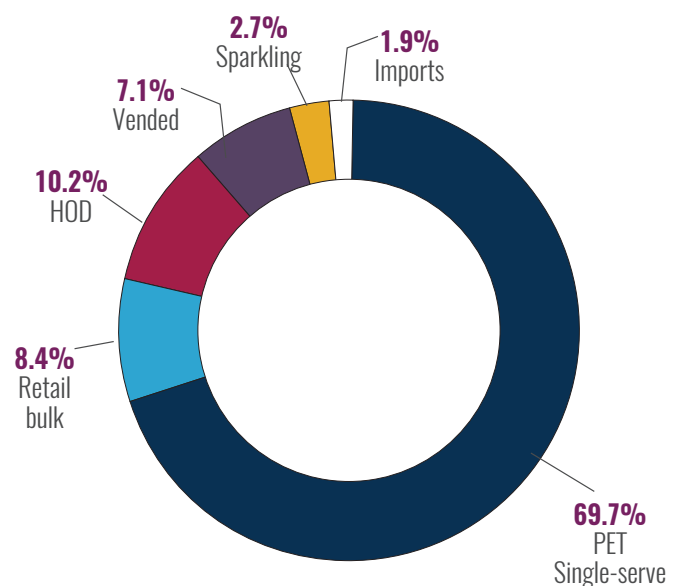
other packaged beverages. Some consumers may have transitioned away from regular, full-calorie sodas in favor of their diet versions, but many others opted for bottled water instead. As some consumers became leery of artificial sweeteners, they foreswore diet sodas as well as their sugar-sweetened counterparts.

Category Developments

Domestic non-sparkling water remains by far the largest individual segment of the U.S. packaged water business. Domestic non-sparkling water's 13.2 billion gallons represented 95.4 percent of total volume in 2018. Domestic non-sparkling saw slower volume reductions than the overall market in 2008 and 2009, and then outperformed it again in 2010. It moved very slightly slower than the total market in following years, including 2018.

The non-sparkling category includes diverse components that usually perform quite differently from one another. In 2018, for the eighth consecutive year, all four segments grew, but they did so at dissimilar rates. Throughout most of the 1990s and 2000s, the retail premium segment—consisting of still water in single-serve PET bottles—drove the overall category's development. Indeed, the PET segment enlarged by a double-digit percentage rate 16 consecutive times through 2007. Growth slowed considerably in 2008 before it halted in 2009. Yet PET's 0.9 percent reduction was far

2018 Volume Share of Stomach by Water Segment



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Domestic sparkling advanced at a double-digit rate for the fifth year in a row.

less than the 2.5 percent loss measured for bottled water in general. Moreover, 2009 PET volume of almost 5.2 billion gallons stood more than 4.1 billion gallons higher than it had in 1999, and its share of total bottled water swelled from 24 percent to more than 61 percent during that ten-year period. In 2010, PET experienced the strongest growth of any bottled water segment, advancing by 6.8 percent to 5.5 billion gallons, which boosted its share above 64 percent. Growth slowed in 2011 but remained well in advance of the total market: volume greater than 5.8 billion gallons flowed from growth of 5.3 percent, which pushed PET's share to 65 percent. In 2012, the segment saw its strongest showing since 2007, increasing by more than 8 percent to 6.3 billion gallons, which represented 66 percent of the overall market. Greater than 6 percent growth in 2013 pushed volume up to nearly 6.7 billion gallons—essentially two-thirds of the total. In 2014, the segment advanced at an even greater rate than in 2012, catapulting volume above 7.2 billion gallons and market share to 67.5 percent. Still another year of acceleration in 2015 drove PET volume to nearly 7.9 billion gallons and share to more than 68 percent. In 2016, the single-serve segment enlarged by more than 9 percent to reach 8.6 billion gallons, which gave it still more market share. PET volume slowed in 2017, but with volume of close to 9.2 billion gallons, the segment still accounted for close to 70 percent of U.S. bottled water volume, a

share it held onto in 2018, when volume approached 9.7 billion gallons.

Retail bulk volume experienced some reversals as consumers frequently opted for convenient PET multipacks in large format retail channels instead of larger (1 to 2.5 gallon) sizes. Its share fell from nearly one-quarter of the category volume at the beginning of the century to 8.4 percent by 2018, largely due to competition from PET. After several declines, the segment did grow each year from 2011 to 2018. Yet retail bulk's 1.5 percent uptick was far slower than the overall bottled water market, or the non-sparkling sub-set, in 2018.

Like retail bulk, direct delivery faced competition from PET bottles. The segment, which was the largest of them all as recently as the mid-1990s, accounted a little more than 10 percent of total volume by 2018. HOD volume in the United States slipped from close to 1.4 billion gallons in the early 2000s to around 1.2 billion gallons a few years later before inching back up to 1.4 billion gallons again in 2018, when volume enlarged by just 0.7 percent.

The comparatively small, mostly regional vending segment consisting of refillable jug containers saw some growth even when total bottled water volume did not. Its low cost during economic difficulties undoubtedly had something to do with vending's positive results. It continued to grow in 2018, but at a slower pace than the domestic still water market or the bottled water market as a whole (though it did grow faster than both retail bulk and HOD).

The two segments outside the domestic non-sparkling space grew in 2018; one did so with exceptional force, while the other slowed down a bit but still outperformed the overall market. Imported water, the smallest segment

U.S. BOTTLED WATER MARKET								
Volume and Growth by Segment								
2016 - 2018								
	Non-sparkling		Domestic Sparkling		Imports		Total	
Year	Volume*	Change	Volume*	Change	Volume*	Change	Volume*	Change
2016	12,012.6	7.5%	198.8	35.6%	222.2	11.5%	12,433.6	7.9%
2017	12,678.8	5.5%	273.6	37.7%	242.6	9.2%	13,195.1	6.1%
2018	13,215.1	4.2%	372.9	36.3%	258.7	6.7%	13,846.8	4.9%

*Millions of gallons

Source: Beverage Marketing Corporation

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of them all, is prone to fluctuations. 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 and then plummeted precipitously in 2009. It continued to shrink in 2010 before moving up again in 2011. In 2012, imports notched their first double-digit growth rate since 2007. Growth rates remained at similarly high levels for a few years until 2017, when imported volume enlarged by 9.2 percent. Growth cooled to less than 7 percent in 2018. Sparkling water held a small share of bottled water volume, but it grew at an even more explosive rate than imports, let alone retail PET, for several years, and 2018 was no exception.

Domestic non-sparkling water accounted for almost all per capita bottled water consumption in 2018, as usual. Sparkling water volume worked out to about 1.1 gallons per person. (With imports, the figure translated into about four-fifth of a gallon per U.S. resident.) In the key PET portion, average intake moved from 17.2 gallons in 2008 to 29.5 gallons a decade later.

International Developments

Bottled water became a beverage industry phenomenon not only in the United States—which once ranked as the No.1 market in terms of volume—but also in just about every part of the world. Bottled water first became a sizeable, mainstream commercial beverage category in Western Europe, where consumption of it has long been part of many residents' routines. It later grew into a truly global beverage. Several Asian markets achieved strong growth to become major bottled water markets during the 2000s. In fact, Asia itself became the largest regional market in 2011, edging out North America and easily outshining Europe. After having moved ahead of Mexico to claim the No.2 position in 2012, China surpassed the United States to take the lead in 2013. By 2018, China accounted for more than one-quarter of the world's bottled water volume.

Global bottled water consumption is estimated to have surpassed 100 billion gallons for the first time in 2018, according to data from the latest edition of Beverage Marketing's "The Global Bottled Water Market." Total consumption swelled by 5.4 percent during the year. Per capita consumption of nearly 14 gallons represented a gain of 3 gallons over the span of five years.

Of course, per capita consumption by individual region or country can differ greatly from the global average. For instance, several Western European countries have per capita consumption levels far above 25 gallons, and the No.1

Global bottled water consumption surpassed 100 billion gallons for the first time in 2018.



market had average intake of more than 72 gallons in 2018. Simultaneously, much of the developing world, where the majority 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 can obscure significant regional variations, bottled water's international growth indicates demand for it in all types of markets. Consumers have shown an enthusiasm for it in well-developed markets, in less-developed ones, and in economies in transition. Bottled water has synced with various consumer trends around the globe. In developed countries, such as the United States and Canada, bottled water became a particularly dynamic major commercial beverage category by registering as an attractive option for health-conscious consumers. Marketers positioned bottled water as a virtuous alternative to carbonated soft drinks and fruit juice drinks (some of which comprise sizeable portions of their own product portfolios). In the developed world, some people viewed bottled water as not only a way of achieving hydration but also as a functional beverage. Simultaneously, bottled water serves at least a partial solution to the problem of often-unsafe water found in many economically developing countries.

A great deal of the world's bottled water market remains fragmented and controlled by local brands, but consolidation has occurred. Four companies came to dominate much of the international market. Swiss food and beverage giant Nestlé and France's Danone are the traditional leaders of the bottled water pack. Both companies originally centered their operations around the core markets of Western Europe and the United States. However, as water growth increasingly came from the developing world, Nestlé and Danone expanded their initiatives to the competitive fields of Asia, Latin America, and other areas. Danone backed away from the U.S. market to focus instead on some of those other markets. Soft drink industry leaders Coca-Cola and PepsiCo also entered the bottled water arena. After reaching solid positions in the United

GLOBAL BOTTLED WATER MARKET

Leading Countries' Consumption and Compound Annual Growth Rates 2013 - 2018

2018 Rank	Countries	Millions of Gallons		CAGR*
		2013	2018	2013/18
1	China	17,379.9	27,764.9	9.8%
2	United States	9,990.2	13,846.8	6.7%
3	Mexico	7,907.2	9,463.5	3.7%
4	Indonesia	5,362.7	8,676.0	10.1%
5	Brazil	4,796.4	6,049.5	4.8%
6	India	3,852.4	6,039.7	9.4%
7	Thailand	3,248.2	4,053.7	4.5%
8	Germany	3,045.3	3,137.8	0.6%
9	Italy	2,788.6	2,985.1	1.4%
10	France	2,335.0	2,496.4	1.3%
Top 10 Subtotal		60,705.9	84,513.6	6.8%
All Others		17,179.2	20,488.6	3.6%
WORLD TOTAL		77,885.1	105,002.2	6.2%

*Compound annual growth rate

Source: Beverage Marketing Corporation

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States, both companies directed resources and energy to expanding their global bottled water businesses.

North America contains two of the three largest individual bottled water markets with the United States and Mexico, which together represented for 22.2 percent of the world's packaged water market in 2018. The U.S. bottled water market had been a catalyst for much of the global expansion up until the mid-2000s, and its ongoing growth continues to contribute to the overall market's enlargement. Its compound annual growth rate (CAGR) of 6.8 percent for the five-year period ending with 2018 was slightly faster than the 6.2 percent CAGR achieved by the global market in the same timeframe. Mexico alone accounted for 9 percent of the global volume with nearly 9.5 billion gallons

in 2018. With a five-year CAGR of 3.7 percent, however, it grew much more slowly than either the United States or the world market.

Besides the United States, China was the only other country that could claim a double-digit share of global volume with more than 27.8 billion gallons and a percentage of the total market higher than the combined shares of the second and third largest markets in 2018. Chinese bottled water volume enjoyed double-digit percentage growth rates for several consecutive years, but it fell just short of that for the period from 2013 to 2018, when it saw a CAGR of 9.8 percent—the second highest rate among the ten biggest bottled water markets. Fourth-place Indonesia moved a few tenths of a percentage point faster than China and well

The United States and Mexico represent 22.2 percent of the world's packaged water market in 2018.



ahead of the international market, as did India, the No.3 Asian market, which ranked seventh overall. Thailand also ranked as a top-ten bottled water market, but it grew more slowly than China, Indonesia, and India.

Though Europe can no longer claim to have any of the biggest bottled water markets, it does have several major ones, including three of the ten biggest. These are firmly established markets, which means their growth tends to be slower than those where bottled water has less of a tradition. Some of the most prominent continental countries experienced only very slight growth. For example, during the five-year period ending with 2018, Italy's volume grew by a CAGR of just 1.4 percent. Germany, the eighth largest bottled water market in the world, had a CAGR of 0.8 percent, and tenth-place France moved recorded a CAGR of 1.3 percent. As a group, the trio of leading European bottled water markets accounted for 8.2 percent of the world's total volume in 2018—less than the share Indonesia held on its own.

Still water accounts for the majority of bottled water sales in much of the world. Sparkling water sales are strong in several countries, such as Argentina, Chile, Uruguay, the Netherlands, and Germany, where sparkling water is often served with meals. 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.

Plastic packaging is preferred over glass in almost every country. Even in Germany and other countries, such as the United

Kingdom, where glass has a strong presence, PET is the most dynamic and rapidly growing segment. HOD, or bulk water, still accounts for a minority of global bottled water sales. Yet, HOD is a vital segment in many countries, such as Mexico, where it accounts for a majority of the volume.

Mexico regularly leads the world in bottled water per capita consumption, and that remained the case even after China surpassed it (and all other countries) in absolute volume. Average intake in Mexico went from 64.5 gallons in 2013 to 72.4 gallons five years later. Per capita consumption in China stood almost four times lower, at 19.6 gallons, in 2018. The erstwhile leader in average intake, Italy, consumed the equivalent of 50.3 gallons per person in 2018, which put it in third place behind Thailand, which in 2013 consumed the equivalent of 47.7 gallons per person but had upped average intake to 58.6 gallons by 2018.

Some Middle Eastern markets rank very highly in per capita bottled water consumption. With the equivalent of more than 31 gallons for each resident in 2018, Saudi Arabia had the eleventh highest level of bottled water consumption in the world. In addition to Saudi Arabia, the Middle East region had the United Arab Emirates in the top 20 in per capita bottled water consumption. At slightly more than 20 gallons per resident, both Kuwait and Lebanon also consume bottled water at rates greater than the global average, though neither made it onto the 2018 top-20 list.

Although Europe no longer held the top spot in volume per capita, fully half of the top 20 bottled water consumers on a per person basis were European countries as of 2018. The consumers of the combined market of Belgium-Luxembourg imbibed more than 35 gallons each, a rate that tended to inch upward over the years. Germany, France, Spain, Hungary, and Italy were the other European countries with per capita consumption greater than 30 gallons. French consumers quaffed almost 2 gallons more bottled water in 2018 than they had five years earlier. In 2018, Germany and Spain had per capita consumption rates of 38.1 gallons and 37.6 gallons, respectively, putting them in sixth and seventh place in terms of average bottled water intake. Like France, both Germany and Spain consumed more bottled water per person in 2018 than they had five years before. Hungary, which ranked twelfth, also increased its bottled water consumption. Other European markets among the top 20 were Austria, Portugal, Romania, Switzerland, and Poland.

Though Asian nations attained prominence among the world's bottled water markets when measured in total

GLOBAL BOTTLED WATER MARKET

Per Capita Consumption by Leading Countries
2013 – 2018

2018 Rank	Countries	Gallons Per Capita	
		2013	2018
1	Mexico	64.5	72.4
2	Thailand	47.7	72.4
3	Italy	46.7	50.3
4	United States	31.6	42.3
5	France	36.5	38.3
6	Germany	37.5	38.1
7	Spain	31.7	37.6
8	Belgium-Luxembourg	34.8	35.4
9	United Arab Emirates	27.5	35.0
10	Indonesia	21.3	32.5
11	Saudi Arabia	27.8	31.3
12	Hungary	28.6	30.8
13	Korea, Republic of	21.2	29.9
14	China, Hong Kong SAR	26.0	29.8
15	Brazil	23.7	28.7
16	Poland	22.3	27.5
17	Portugal	22.3	26.9
18	Romania	20.4	26.4
19	Uruguay	20.4	25.5
20	Switzerland	24.7	25.1
Global Average		10.8	13.8

Source: Beverage Marketing Corporation
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Beverage Marketing predicts that, in just a few more years, per capita consumption of bottled water in the United States could climb to around 50 gallons.

volume, the most populous countries generally do not have high per-person intake levels. The Chinese special administrative region (SAR) of Hong Kong made the list for the first time as its average intake approached 22 gallons in 2009 and continued to increase per capita consumption subsequently, climbing to 29.8 gallons in 2018. Despite its position as the largest market, mainland China did not rank among the top 20 markets in per capita consumption in 2018, although intake had climbed above the global norm by that point.

Americans' 2018 per capita bottled water consumption put the United States in the No.4 position among the countries of the world, right behind Italy but ahead of France.

Looking Forward

Beverage Marketing anticipates that bottled water will continue reshaping the U.S. multiple beverage marketplace, enlarging its market share in the process. The overall amount of liquid Americans annually drink will remain steady, resulting in total volume growth in line with population increases. Bottled water is on track to grow faster (though more slowly than it did in recent years), unlike carbonated soft drinks or fruit beverages, which will, in all probability, lose share points. Other major beverage categories, such as coffee and tea, are expected to grow but do so more slowly than bottled water. Building on its remarkable history of growth, bottled water will likely put still more distance between itself and carbonated soft drinks, the former leading category.

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