Water Now More Valuable Than Oil?

Savvy Investors and Successful Companies are Turning Water Into Gold

By Larry West, About.com Guide

The most valuable commodity in the world today, and likely to remain so for much of this century, is not oil, not natural gas, not even some type of renewable energy. It's water—clean, safe, fresh water.

Follow the Money
When you want to spot emerging trends, always follow the money. Today, many of the world's leading investors and most successful companies are making big bets on water. Do a little research, and it's easy to see why. There simply isn't enough freshwater to go around, and the situation is expected to get worse before it gets better.

According to *Bloomberg News*, the worldwide scarcity of usable water worldwide already has made water more valuable than oil. The Bloomberg World Water Index, which tracks 11 utilities, has returned 35 percent to investors every year since 2003, compared with 29 percent for oil and gas stocks and 10 percent for the Standard & Poor's 500 Index.

"There is only one direction for water prices at the moment, and that's up," said Hans Peter Portner, who manages a $2.9 billion US Water Fund at Pictet Asset Management in Geneva, according to a report by *Bloomberg News*. The value of the fund increased 26 percent in 2005, and Portner expects water to provide 8 percent annual returns through 2020.

Freshwater Becoming More Scarce
The United Nations estimates that by 2050 more than two billion people in 48 countries will lack sufficient water. Approximately 97 percent to 98 percent of the water on planet Earth is saltwater (the estimates vary slightly depending on the source). Much of the remaining freshwater is frozen in glaciers or the polar ice caps. Lakes, rivers and groundwater account for about 1 percent of the world's potentially usable freshwater.

If global warming continues to melt glaciers in the polar regions, as expected, the supply of freshwater may actually decrease. First, freshwater from the melting glaciers will mingle with saltwater in the oceans and become too salty to drink. Second, the increased ocean volume will cause sea levels to rise, contaminating freshwater sources along coastal regions with seawater.

Complicating matters even further is that 95 percent of the world's cities continue to dump raw sewage into rivers and other freshwater supplies, making them unsafe for human consumption.

The Need for Freshwater is Increasing Rapidly
Yet, while freshwater supplies are at best static, and at worst decreasing, the world's population is growing rapidly. The United Nations estimates that the world population—approximately 6.5 billion in 2006—will grow to 9.4 billion by 2050.

The cost of water is usually set by government agencies and local regulators. Water isn't traded on commodity exchanges, but many utilities stocks are publicly traded. Meanwhile, investments in companies that provide desalinization, and other processes and technologies that may increase the world's supply of freshwater, are growing rapidly.

Companies Investing in Water

General Electric Chairman Jeffrey Immelt said the scarcity of clean water around the world will more than double GE's revenue from water purification and treatment by 2010—to a total of $5 billion.

GE's strategy is for its water division to invest in desalinization and purification in countries that have a shortage of freshwater. Saudi Arabia is expected to invest more than $80 billion in desalinization plants and sewer facilities by 2025 to meet the needs of its growing population. And while China is home to 20 percent of the world's people, only 7 percent of the planet's freshwater supply is located there.

"This will be a big and growing market for a long time," Immelt said at the GE annual meeting in Philadelphia in April 2006.

How could there ever be a "water scarcity?" Isn't water the most plentiful thing on Earth?
– Chris Carroll, Austin, TX

Ocean water may cover more than 70 percent of the Earth's surface, but thirsty humans rely on finite supplies of freshwater to stay alive. And with exploding human population growth, especially in poor countries, these finite supplies get quickly spoken for. Further, in places without proper sanitation, water can become tainted with any number of diseases and parasites.

Billions of People Lack Clean Water
According to the World Bank, as many as two billion people lack adequate sanitation facilities to protect them from water-borne disease, while a billion lack access to clean water altogether. According to the United Nations, which has declared 2005-2015 the "Water for Life" decade, 95 percent of the world's cities still dump raw sewage into their water supplies. Thus it should come as no surprise to know that 80 percent of all the health maladies in developing countries can be traced back to unsanitary water.

Water Scarcity Likely to Increase as Population Grows
Sandra Postel, author of the 1998 book, *Last Oasis: Facing Water Scarcity*, predicts big water availability problems as populations of so-called "water-stressed" countries jump perhaps six fold over the next 30 years. "It raises tons of issues about water and agriculture, growing enough food, providing for all the material needs that people demand as incomes increase, and providing drinking water," says Postel.

Developed Nations Using Disproportionate Amount of Water
Developed countries aren't immune to freshwater problems either. Researchers found a six-fold increase in water use for only a two-fold increase in population size in the United States since 1900. Such a trend reflects the connection between higher living standards and increased water usage, and underscores the need for more sustainable management and use of water supplies even in more developed societies.

Environmentalists Oppose Desalination Solution
With world population expected to pass nine billion by mid-century, solutions to water scarcity problems are not going to come easy. Some have suggested that technology--such as large-scale saltwater desalination plants--could generate more freshwater for the world to use. But environmentalists argue that depleting ocean water is no answer and will only create other big problems. In any case, research and development into improving desalination technologies is ongoing, especially in Saudi Arabia, Israel and Japan. And already an estimated 11,000 desalination plants exist in some 120 countries around the world.

Water and Market Economics
Others believe that applying market principles to water would facilitate a more efficient distribution of supply everywhere. Analysts at the Harvard Middle East Water Project, for example, advocate assigning a monetary value to freshwater, rather than considering it a free natural commodity. They say such an approach could help mitigate the political and security tensions caused by water scarcity.

Personal Action to Conserve Water Resources
As individuals, we can all rein in our own water use to help conserve what is becoming an ever more precious resource. We can hold off on watering our lawns in times of drought. And when it does rain, we can gather gutter water in barrels to feed garden hoses and sprinklers. We can turn off the faucet while we brush our teeth or shave, and take shorter showers. As Sandra Postel concludes, "Doing more with less is the first and easiest step along the path toward water security."

Water - A Valuable Resource Joseph Winn

Being based in South Florida, water is a regular part of our lives. On the west, we are bordered by the Gulf of Mexico, while the Atlantic Ocean graces our eastern shore. The southwest region of the state is entirely dominated by the Everglades, a region of enormous biodiversity and importance. This completely notwithstanding the Florida Keys, the only living barrier reef system in the continental United States. For us, water isn't just a drink or the recipe for a fun weekend; it is our livelihood. As the top tourist destination on the planet, we entertained over 76 million visitors in 2004, providing a $57 billion effect on our economy(1). Much of this is due to our shores and underwater treasures. From airboat tours to SCUBA diving trips, our natural resources are invaluable economically and environmentally. So how can we balance their environmental preservation with our own social growth? The draining of the Everglades has been covered nationally as one of the most ambitious land reclamation projects ever conceived.

Looking back, was it a bad idea? Absolutely, it disrupted the natural flow of freshwater from the Lake Okeechobee region into the Everglades and subsequently, the Florida Bay. We're now spending billions of dollars and countless work hours in an attempt to return the system to some semblance of the original design. However, by drying up a large part of the historical Everglades in the early 20th century, it accomplished the original intent of the Army Corps of Engineers. Massive population centers in South Florida would not exist as we know them had the region not been dried and water flows redirected into canal systems. Permanent building was impossible due to the constant variation in water levels before the canals.

Much of the reclaimed wetlands was initially used for farming, a natural fit due to the rich swampy "muck". Our economy grew from those farmers, fast-forwarding to Flagler's Railroad and the first tourists. Some of those visitors constructed winter homes in the area, slowly converting the region from the next agricultural frontier (which it remains to this day in some regions) to the must-visit destination of the U.S.

Of course, even then, tourists came here not for the mosquitoes, humidity, or sunburns (well, maybe the tanning), but for the water. Since the water they craved was ocean, there was need for another source of water to drink.

Underneath the southern part of the state lies the Biscayne Aquifer, the primary source of our water supply. While other regions have large, well-filtered aquifers buried thousands of feet below the ground, the Biscayne Aquifer is essentially our water table. It fluctuates with rainfall and is directly accessible from the surface. While it makes extraction very simple, it presents a number of significant issues. Fertilizers and other toxins readily make their way into our water supply. Additionally, when over-pumping or periods of drought occur, saltwater intrusion becomes a serious problem. Ironic that the state which receives more rainfall than nearly anywhere else in the continental United States is among the highest at risk for water shortages.

"Thanks for the history lesson", the reader might say, "but what's it to us?" Especially here, where the environment is so closely linked with our economic well-being, the need to consider sustainability along with growth is essential. The advice for Floridians is valid anywhere. Nutrient overload is causing damage to our nearshore water quality, reef health, and wetland viability. This originates from agricultural facilities, yes, but also from the average family's green lawn. How can you make a difference? Take care to avoid fertilizers and pesticides unless necessary, then using only the natural varieties. Time-release formulas can positively affect our water supply as they only use what is needed at the moment, minimizing runoff. It may not be apparent, but no matter where you are, every chemical you pour into your soil eventually makes its way to a waterway. Native plants require fewer, if any, fertilizers. A growing trend nationally is xeriscaping, or planting native flora. My home county has a NatureScape Broward program which

highlights homes and businesses who have met a xeriscaping goal. These yards require less care and watering, thereby lowering their total cost of upkeep.

Reducing total water consumption also helps to preserve the natural environment. In a way, it is unfortunate that, for most users, water is so cheap as to render a financial savings extremely minimal. At a rate of ~$2 per 1,000 gallons, even massive reductions will not result in significant savings. However, there is another reason to save water Â it's a limited resource. Though we may not have a direct eye into our own supply, know that the less each of us use, the better off all us will fare.

A number of technologies, both old and new, are available to help reduce our depletion of valuable aquifers. Low-flow toilets, shower-heads, and faucets can more than halve indoor usage. Atmospheric water generators allow drinking water to be produced straight from the humidity in the air, purified for instant enjoyment. For irrigation purposes, cisterns connected to building gutters can retain the water necessary to keep the plants green through the hot summer or dry spring seasons.

Whether it be flowing down a plain in the Everglades, surrounding a healthy coral reef, or sitting in an ice-filled glass, water is an essential resource. Please treat it as such.