WEALTH

FINANCIAL AND LIFESTYLE PERSPECTIVE FROM NORTHERN TRUST

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For Some Sellers, Cash Is Not King

A Blueprint for a Successful Wealth Transfer



Experts predict fresh water may soon be the world's hottest commodity





oday, more than a billion people lack access to safe drinking water, according to the United Nations. By 2050, that number is expected to grow to nearly four billion. Even in the United States, an aging water infrastructure and regional droughts are causing water-related problems. The causes are many — rapid industrialization, increased agricultural use and population growth, for starters. But for trend-conscious investors, the effects are the same: The emerging global water crisis is fueling the growth of water-based investment opportunities.

Mining "Blue Gold"

Zealous investors have called water many things: a miracle, a gamble, a sure thing and an inevitable flop. One nickname in particular, however — blue gold — has speculators comparing water to the world's hottest commodity: oil. But is this an apt comparison? Steve Hoffmann thinks so. He designed the Palisades Water Index, which tracks two exchange-traded funds: the PowerShares Water Resources Portfolio (PHO) and the PowerShares Global Water Portfolio (PIO).

THE THISTY INVESTOR

Worldwide, fresh water is in dangerously short supply. Demand, however, is growing. This has many investors wondering whether water could be the new oil.

"Is water the next oil? By and large, if you recognize the economic value of water, which includes human health, then yes, you have to attribute the implied level of strategic importance to water," Hoffmann says. "It is a very critical resource that has implications that can be as significant as oil, especially from an economic development perspective."

Fresh surface water, unlike oil, generally renews itself. But in many places today, demand outstrips nature's replenishment process. On the other hand, while oil alternatives exist, including coal, nuclear energy, solar power and wind power, there is no substitute for water. Compared to oil, then, experts argue that it's incredibly undervalued. "Water is critical," says Nicholas Parker, co-founder and chairman of the Toronto- and San Francisco-based Cleantech

involve infrastructure - the lack of it in emerging nations and the age of it in developed nations. Without a safe and effective way to tap, store, clean and transport water, even a good water supply won't be able to meet demand.

Those challenges are especially evident, Hoffmann adds, in developing nations such as India and China, which have booming populations and little water infrastructure to support them.

Even in developed countries like the United States, municipalities face massive spending to repair and upgrade their aging water infrastructures. And, as the Environmental Protection Agency (EPA) tightens water quality standards, these same municipalities will have to upgrade their existing systems to meet new requirements.

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Group, creator of the Cleantech Index, which tracks clean technology and includes many water purification companies. "We're paying more retail for [bottled] water than we are for gasoline. And yet we're obsessed with \$100 per barrel; why aren't we obsessed with \$2 per liter?"

The problem of demand outstripping supply is hitting home in Georgia, where the city of Atlanta has learned firsthand the meaning of drought. It's not surprising that Atlanta is having water problems - it had just half its normal annual rainfall in 2007, and its population has doubled since 1980.

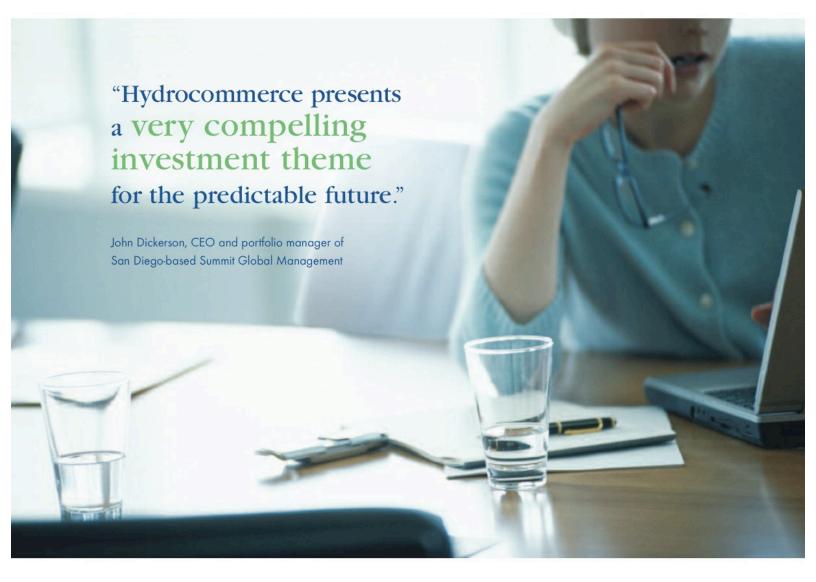
Infrastructure Situation Is Critical

Of course, Atlanta isn't the only place with water problems. "Virtually every country has some combination of water quality or quantity problems that must be resolved," Hoffmann says. Many of these problems

In 2005, the EPA estimated that it would take a \$102 billion infrastructure investment to allow the nation's water systems to meet the requirements of the Safe Drinking Water Act and a \$122 billion investment to ensure everyone is compliant with the Clean Water Act requirements.

This has many cities and towns scrambling to find ways to pay for this massive undertaking. The money likely will come from a variety of sources, ranging from higher fees for water service (cash financing) to new municipal bond issues to relatively new approaches, such as partnerships with private companies. A 2005 survey by the National Council of Mayors found that 53% of mayors would consider some type of private sector partnership program to fill the gap between income from cash financing and municipal bonds revenue and the funds needed to upgrade their water systems.

These partnerships could prove promising for utility companies like Aqua America, the United States' largest publicly traded water utility, and wastewater specialists like AqWise, an entrepreneurial company that specializes in removing contaminants from both industrial and municipal water supplies.



Building From Scratch

Developing nations face a different water challenge creating an infrastructure where nothing currently exists. Only 1% of the municipal water resources processed globally is directly consumed by humans, according to Henry Hidell, founder and chairman of Hidell-Eyster International, a Boston-based water consultancy that provides business development services to water-based companies. "Because of this, the huge cost of developing massive urban distribution systems puts extreme pressure on emerging economies and the upkeep and maintenance of these systems adds to that cost burden," he says.

China has chosen to make major investments in developing its infrastructure, which in many ways has contributed to its major economic growth. Other countries may soon follow China's lead, giving a boost to infrastructure architects like French water giant Veolia Water, an emerging player in the treatment and distribution of water in China.

Water on Wall Street

"There's a huge demand-supply imbalance with water that will only be remedied by innovation," says Cleantech's Parker. "And that creates a massive opportunity."

Today, more and more experts on Wall Street are mindful of water's cost and its value. "Combined with the vigorous market drivers that are now becoming globally and undeniably apparent, hydrocommerce presents a very compelling investment theme for the predictable future," says John Dickerson, CEO and portfolio manager of San Diego-based Summit Global Management, which runs a water equity hedge fund.

Indeed, investment opportunities abound at nearly every stage of water's journey from ground to consumption. Among the companies attracting large shares of both capital and attention are those:

■ Building water infrastructures in emerging economies, and those repairing and modernizing water infrastructures in developed nations;



Defining the Water Market

"The water industry is enormous, on par with oil, gas and electricity in terms of embedded capital, but remains ill-defined when compared to more traditional and well-followed investment sectors," says longtime water investor John Dickerson, CEO and portfolio manager of San Diegobased Summit Global Management, which runs a water equity hedge fund. "The true scale is better captured by the term hydrocommerce."

Whatever the term, the water market spans diverse industrial groups and includes a wide spectrum of companies that are creating products and providing services to aid in the collection, storage, treatment, transportation and distribution of water and wastewater.

Currently, water-curious investors have several options. For starters, there are now index funds that either specialize in water stocks or include them as part of their larger portfolio. Also popular are exchange-traded funds that are based on water stocks.

Private equity opportunities also abound for venture capitalists and angel investors who want to bring a Silicon Valley approach to their water investments. Big players like GE and Siemens aren't going away, but there is plenty of room for entrepreneurial players to affect the market with technological contributions toward high-value processes like desalination and resource productivity.

"Some of the big water elephants will learn to dance," says Nicholas Parker, co-founder and chairman of the Toronto- and San Francisco-based Cleantech Group, creator of the Cleantech Index. "But many of them won't." In other words, where the industry's giants fail to produce, smaller, more innovative start-ups can be counted on to provide solutions — and opportunities — within the water space.

WHO'S KEEPING TRACK?

A number of indexes tracking water-related stocks have sprung up in recent years, including:

- ABN AMRO Water Index
- Bloomberg World Water Index
- Dow Jones U.S. Water Index (DJUSWU)
- ISE-B&S Water Index (HHO)
- MSCI World Water Index
- Palisades Water Index (ZWI)
- Palisades Global Water Index (PIIWI)
- S&P 1500 Water Utilities Index
- S&P Custom/ABN AMRO Total Return Water Index

- Finding energy-efficient and cost-effective ways to turn wastewater and saltwater into fresh drinking water; and
- Developing technologies for transporting water from wet climates to dry ones.

Each segment has its own inherent risks, experts caution, but the potential long-term returns on all are high.

Bottled Water: A Controversial Sector

The market is even larger if you include bottled water. Considered beverage makers by some, and a solution to the drinking water shortage by others, bottled water companies are a controversial segment within hydrocommerce.

"Bottled water, while certainly a viable investment option, has really become a beverage category," says Palisades' Hoffmann. "There are certainly global situations where portable water may serve in emergency or temporary situations, but, by and large, it's not a sustainable answer to our long-term global water resource problems."

David Cope disagrees. As president and CEO of Purfresh, a Livermore, Calif.-based business specializ-

ing in water treatment technology for the bottled water, personal care and pharmaceutical segments, he maintains that bottled water is an important sector within the growing water

Water is not a short-term investment. It's a longer-term play.

market. After all, a major driver of growth within that market is the shortage of fresh drinking water in developing nations. Whether you call them beverage companies or water companies is a moot point, he says; bottled water manufacturers are bringing safe water to populations that don't have any. "The fact is, if you're in the middle of Pakistan, you just don't have a reliable water infrastructure," he says. "Bottled water has been your first chance to get a reliable source of water."

No matter where you stand in the debate, it's clear that bottled water represents a short-term solution to long-term problems. Eventually, experts point out, even places like Pakistan will need to establish a reliable water infrastructure. "There are large segments of the global population, billions of people, that lack access to healthy drinking water and/or basic sanitation, especially when compared to developed countries," Hoffmann says. "According to one report, \$22.6 trillion in capital spending on global water infrastructure alone will be required in the next 25 years. That's a big number, and all the companies that are involved in the water business have some little part to play in that."

Risks and Rewards

The water market is not without risk. "Don't fall into the trap of trying to debate whether water's important," Cope says. "Of course it is. But that doesn't mean that every water investment is viable."

Perhaps the biggest risk is timing. "We're dealing with the restructuring of markets here, from a low-tech, highly centralized approach to a high-tech and decentralized approach," Parker says. "The number one risk is over what time frame this is going to unfold."

According to Hidell, water is not a short-term investment. "This is a longer-term play," he says.

Still, when it comes to investing in water, according to Hoffmann, there is no time like the present. "The time is right now and will continue to be for many, many decades," he says. "This isn't a story that's going to be diminished or that's going to change; it's simply going to transition into other stages over a very long period of time, such as advanced treatment, reuse, resource management and, ultimately, sustainability." In its present stage, no matter where - or if - you choose to invest your water dollars, the market for them can no longer be ignored, Dickerson concludes. "The water industry has more wind in its sails than any other industry. Period." ■