

Water-Wine : An Analysis of Water Investment Trends

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The 2015 movie *The Big Short* ended on a warning - that ace investor and predictor of the 2008 housing crisis in America, Michael Burry had now started investing in a commodity that is more often than not taken for granted. This was because he believed that it would become the next big bet, primarily because of our lax attitude towards it, and our underestimation of how grave the situation regarding its availability could be in the next few years. Nobody really thought that way about water. The concept of a resource being completely renewable is now slowly becoming mythical. This growing distance between the demand for and supply of water is widening a void that not only governments, but also financial industries around the world are apparently trying to close.

The first question that came up in my mind, and might come in yours at this point, was, “How does one invest in water?”. This piece won’t be about the perceived lack of water; we know that there is one. Instead, it will cover all the ways in which this takes place, how long this trend has been going on, the ethics of and possible intentions behind such impact investing, what is happening today, and what the future holds.

In the beginning, investing in water essentially meant that you bought land which had some underground water resources, or a water flow that goes through your property. The latter is covered by littoral rights, which also distinguishes between natural and artificial uses; for natural uses, the usage is free, while for artificial uses, the usage depends on other littoral rights’ owners. Then, there’s another form of a water right called prior appropriation- that says that the first person to extract a quantity from a given source for a beneficial purpose owns that source. Since some landowners may fight over surface water that may be common to them, they may be allowed to install some kind of pipework to alter the flow to some reasonable use.

It’s extremely inconvenient for most global investors to simply invest in water resources that cannot be moved around with ease. Moreover, literally investing in water is not the only way to make money off it. As a result, the financial services industry has diversified the ways in which investors can place faith in a largely untested market like this and still make some profits. Purchasing water utilities and water infrastructure companies dealing with better methods of improving water quality is one of them. Creating funds in order to replicate a water index tracking a list of these companies is another. Green bonds have also become popular lately, allowing the public to place a stake in changing the environment for the better.

America has some of the biggest privately-owned water utilities companies. These include Aqua America, America Water Works, and infrastructure firm Xylem. Many of these companies are listed on exchange-traded funds (ETF in short) created specifically for water investments, in order to create an index with some performance benchmark. One such is BlackRock’s iShares Global Water Index ETF, meant to

replicate Standard & Poor's water index's performance. BlackRock is one of the largest shareholders of institutional holdings in Xylem, Aqua America, and the biggest in California Water Services Company ^[1]. Veolia, a big water management company based in France, has multiple institutional holders like the Vanguard Group and BlackRock ^[1]. Goldman Sachs bought out Veolia's UK business ^[2], and tried, albeit unsuccessfully, to buy two other private water utilities in the UK in the past, and one of them was in combination with Blackstone Group, which also launched in 2014, a new investment vehicle called Global Water Development Partners for funding different water systems and projects ^[3]. There is also the Invesco Water Resources ETF and the Calvert Global Water Fund ^[4]. These ETFs have a number of companies in their portfolio, which, apart from some of the ones mentioned above, also include Ecolab and Xylem. This is just a number of cases in a sea of examples where not only investment banks, but also private individuals with money in the bank are buying up water systems, and building a tanker full of liquidity to capitalize on taking advantage of filling in the void of capital needed for public infrastructure.

Every such company - from Credit Suisse to Morgan Stanley - has a department dedicated to investing in energy utilities and infrastructure for sustainability. An article from Global Research, from back in 2008, outlines Goldman Sachs' aggressive buying strategy, that also included a buyout of Ondeo Nalco - a leading water treatment firm, unsuccessful bids for other water utilities, and an investment in Chinese bottled water - rather interesting because of China's problems in dealing with water, something that this article later deals with ^[2]. Goldman, UBS, Citigroup, Deutsche Bank, all of them consider water to be a commodity that will, in the future, be hotter and more precious than oil. The question arises whether privatisation of public infrastructure is better for nation-building in the long run.

An early discussion of this question was done in an article by the New York Times way back in 2008 ^[5]. It talks of the apprehension of Americans when foreign funds like Australia's Macquarie Group pour in investments into building roads. Coupled with the crumbling nature and inefficiency of government-run projects, the situation made it more pressing for private companies that are undoubtedly ruthless, and consequently efficient, to take control of these projects. There may be exhausting ways in which they raise revenue. For example, if it were toll roads, then they would increase the tolls. They would want to please their shareholders, but to what extent?

When corporations decide to provide dividends to their shareholders while their services are going down the drain, that is when they need to be held more accountable. Thames Water, the UK's largest water-based company, has repeatedly been accused of handing out fat cheques to its shareholders, whilst there were constant complaints of poor water quality, numerous leakages over the years, and scandals that include dumping sewage into the Thames river ^[6]. It has attracted criticism from the government, with Labour Party leader Jeremy Corbyn stating his intent to bring the monopolist into public ownership ^[7]. Thames Water is reported to not reward any dividends until 2020 ^[8]. This isn't the first time a firm has taken undue and unfair advantage when it comes to a public utility. One may be reminded of how the now-bankrupt and forever tainted company Enron exploited the California electricity industry in extremely questionable ways to make huge profits. They held the power

plants in the state at ransom, puppeteering them at their will. Water investment is generally known to have substantial sunk costs, and no immediate, short-term returns, at least currently. One can see why it could be misused.

Moreover, one interesting argument about bridging the gap between private capital and decisions in public interest with respect to water supply is the idea that we now need to start accepting high costs of water. The 2016 Aspen-Nicholas Water Forum Report states this idea - that we need to normalize it within society and expect government-subsidized water to a lesser extent^[9]. Prices should also be equitably set, depending on income levels. The very thought of accepting this idea should be some indication of how worse off we are when it comes to climate change and water scarcity. However, the same report also talks of a projected funding gap of \$84 billion by 2020, that needs private capital to fill it. This article doesn't denounce participation of private entities either, but rather the direction in which it is heading.

On the other hand, one can see whether these private firms are really as efficient as theory suggests. Cases like in the Caribbean, Singapore, Saudi Arabia, and a host of African nations are making a compelling argument for privatizing public water systems. The Asian Development Bank released a paper in 2016, comparing the performance of private utilities/public-private partnerships against public entities in China - a country facing issues of both quality and quantity^[10]. The paper makes note of lower managerial costs, higher labor productivity, lesser leakages, higher value added and revenue earned per employee, and better overall efficiency due to PPP, while also stating that these benefits magnify under majority private ownership. However, on the flip side, the paper also mentions that much of the improvement can be attributed to higher tariffs, which are also a cause for concern among Chinese citizens. Moreover, there were little to no enhancements in areas like service quality and water accessibility, and power consumption had increased significantly. China has been a case study longer than most nations, and considering the demographics and governance of the nation, it may not be far-fetched to apply similar results to other nations with similar characteristics. Privatization may not inherently be all rosy if we are talking about efficiency, either. It clearly comes at some cost, especially when an increase in water tariffs is not exclusive to this situation alone.

All this begs the question - what are the intentions of these corporations when they take over public property, and how ethical is this? The biggest consideration to make here is that we are ultimately putting a price on something that was meant to be free. We are handing over a resource essential for survival to firms that have betrayed our trust multiple times before. Sure, a lot of firms are doing it, so that might mean that competition could allow water to have a low price. But what happens when these firms set rules among themselves, as if they were colluding? Back in 2008, firms were complicit in handing out loans to those who couldn't afford the interest payments on them. Credit scores of people were botched by major institutions like Standard & Poor, Moody's, and Fitch, because if they did not do so, these same firms would not send them bank accounts to evaluate. What is to say that, much like a cartel, they would not set such unwritten rules that are otherwise hidden to the commoner? Tycoons like oil magnate T Boone Pickens, Warren Buffett and Hong Kong billionaire Li Ka-Shing have been scooping up water systems for 2 decades now^{[2][11]}.

The Bush family, a fact probably not known to many, owns what is possibly the biggest aquifer in South America ^[2]. The same people who may have failed us in public policy are probably now also saving the best for themselves. Scarcity creates an opportunity for profit, undoubtedly. Some of the most water-stressed nations include Qatar and Bahrain, and these are also places where the water ministry is willingly handing out the keys to private groups, like the Abdul Latif Jameel Group in Bahrain ^[12]. The idea that in the future, wars may be fought over water may not be such a distant possibility. If not wars, we may just have revolutions. In fact, there's also the extreme possibility of these very firms willing to exploit the needs of two parties in a water-related conflict, in the sense that the highest bidder would get the funds.

While bonds seem like an adequate alternative, there is no guaranteed way to ensure the completion of what the debt undertakes to service, except for The Green Bond Principles ^[13], which aren't set in stone, since every nation has its own norms anyway. Nor are the returns that high. However, companies like BlackRock and State Street have already launched their own products. Cape Town issued green bonds as an avenue to solve its own water crisis, and has had excellent creditworthiness so far. ^[14].

Yet another way in which one may invest in water is through investing in farmland or food that requires a lot of water. A very prominent case in recent years was the Harvard endowment fund buying vineyards, 6 years back in the name of a subsidiary company in Santa Barbara, California - a drought-stricken state ^{[15][16]}. The land was well connected to groundwater, for which the fund dug up wells. Neighboring citizens are worried that Harvard is not going to leave much for anyone else. As of 2018, the Wall Street Journal has reported that Harvard has been buying vineyards all over California ^[17]. One can't say if this is merely part of their strategy to gain tax-free profits and enrich the university; there is also a tingling sense that gives away their knowledge of what is to come in the coming years. Michael Burry himself reportedly made investments in almond farmlands after that year, since the dry fruit is a water-intensive food item ^[18].

What these farm investments also highlight is the prioritization of urban development over improving standards in rural areas, since city administrations, owing to reputation, growth potential, employment levels, and desirability to live in cities, can lobby for certain water rights harder than people in rural areas. Los Angeles was one such city back in early 20th century - the diversion of water from the now-arid Owens Valley created a conflict with the farmers in the valley that continued into the later part of the century ^[19]. The Indian government was accused of diverting water resources from farmers in Falla village in Gujarat to the town of Jamnagar, at a time of acute water shortage ^[20]. Governments around the world have been accused of displacing habitats in the name of developing dams and other forms of water infrastructure. Once they allow private entities to increase their stake in major water projects, these same governments shift their own accountability in the event that there is a conflict with regards to the common people.

India is seeing a surge in this trend of investing in water of late. The Economic Times recently reported how two India-based water infrastructure companies - VA Tech Wabag and Ion Exchange - have attracted the watchful eyes of investors on Dalal Street ^[21]. Investing maestro Rakesh Jhunjhunwala is reported to have around 8 lakh

shares in Ion Exchange. With metropolitan cities like Chennai, Delhi, and even Hyderabad being forced to control their water supply, we will be seeing more of these companies on the news. The government's "Nal Se Jal" scheme is reported to attract investments worth Rs 6.3 trillion.

It is still a little early to make conclusions about where all this can go. Investment banks have likely seen all this a mile away, and they have been amassing treasuries of funds to prepare for the worst and make it their best case scenario. What is alarming, however, is how these strategies can be applied to resources like clean air, that were previously thought to be infinite. Moreover, the rapidity with which climate change is consuming the Earth is accelerating when monied individuals and groups will take hold of vital commodities, possibly displacing communities in the run. Are we going to see any major regulations in this industry, where the opportunity for privatization also makes some public involvement a compulsion? Only time will tell.

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