IMPACT INVESTING GROUP: WATER INDUSTRY REPORT

Authors: Alyssa Ayyash, Jack Bressman, Bhoomika Jain, Oliver Li, Nishitha Lingala, Sneha Yarlagadda
Editors: Jiten Parbhoo, Mehul Pandey, Sarah Carroll, and Scarlett Ong
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Introduction

The two main topics we are going to focus on within this report are water refinement and water infrastructure. We will be analyzing a few companies based on specific metrics that we have internally developed in order to determine how well each of these companies match our impact goals. We also want to analyze the financial gain within these companies that have proven to do measurable impact.

While researching the water industry, we have found that water charities such as “Pump Aid Water for Life” are inefficient due to significant amount of time needed to apply to grants and due diligence to determine where to spend the money. Additionally, other student groups at the University of Michigan, such as BLUElab NicarAGUA and India Project, have confirmed that they need to spend significant time applying to university grants to cover travel costs needed to perform their in-country operations. These external costs make the process very inefficient, and a solution is direly needed.

Government programs are also highly inefficient, and politics have held the rebuilding of water infrastructure and refinement of water back significantly. The inefficiency is shown by the Flint Water Crisis. Nobody wants to take blame of the problem, but the problem will continue to exist without intervention from a third-party group that is not associated with the reputation of the government.

We aim to use impact investing in order to solve this problem and others that exist in the water industry. The water industry is a very profitable industry as there is a continuous need for refinery and replacement of pipes as well as refined water. Droughts, inaccessibility, and decreasing pipe quality are prevalent throughout the country, and investing in the selected companies would effectively generates social and financial impact.
Major Players and The Issue

There are three main players in the water industry: the government, private businesses, and impact-based organizations. Of the three, the government is the largest player especially in the public sector of the water industry. Due to the government’s inefficiencies and lack of funds, the infrastructure in the water industry is in poor shape with $1 trillion dollars needed to repair and replace the drinking water system. Private businesses are mainly focused on water refinement, transportation, and general services. Many of the larger private corporations only have water as a smaller sub-section of their organization. The third major player, impact-based organizations, are mainly smaller accelerators and start-ups that are focused on innovation in the water industry from making the desalination process more cost efficient to increasing accessibility to drinking water in rural villages.

The majority of the problems that are facing the water industry are based on the poor infrastructure and lack of funds. Most of the players are not focused heavily on either of these issues. The main focus of players in the water industry thus far has been in the water purification process and delivery. Infrastructure issues and the absence of major contributions to its improvements is a huge potential opportunity for impact investing. The drinking water system alone could generate billions for impact-based companies if they choose to focus on the issue.
What is impact investing?

Impact Investing is a strategy that works to funnel positive social impact and financial return together through investment-based operations. This option is particularly useful for the specific problems in the water industry since it will allow us to invest funds into public companies and innovative startups or accelerators that have strategies in place to combat the water infrastructure and refinement issues at the forefront of their agendas. Impact investing is an important tool for this specific problem because it can enable investors to receive direct financial contributions in a diversified setting to both stable, well-established utility and infrastructure companies with impact subsidiaries and high dividend payouts, like American States Water Company, and also to relatively newer, more innovative companies that carry out differentiated water services and other sectors including agribusiness, like PICO Holdings.

Impact investing could be adopted by the government, private businesses, and impact-based organizations through shifting their business models and adding a more directly funded social impact policy to fit these niches in pipe infrastructure, desalination, and water refinement that are not being fully reached. The government, and potentially some areas of private institutions, can allocate a percentage of their resources, time, and money that are already budgeted to the water industry but are coming up short of substantial results, and transfer those funds as investments to impact based organizations and accelerators such as the aforementioned. By exhibiting a return on these impact investments, it may have the potential to incentivize the government and other major players to adapt their business models in the social impact industry and use impact investing as a main strategy to work and improve current industry shortfalls in the water sector. Success with this kind of initiative within impact-based organizations could lead the way for larger investments and devising more innovative plans and promotions to extend the positive impact seen in the water sector. This could further markets in the future, or even to more expansive or alternative niche-based efforts not currently being funded enough in the water industry itself, like rainwater and wastewater catching or purification.
Proposed Solution

We propose the mutual fund Water Funds Trust which will include investment structures with both large, well established companies as well as newer and more volatile companies. This diversified investment portfolio will allow us to take some risk in newer, smaller companies while also having stable dividend returns from more reliable and historically sound companies. In order to achieve this, we have researched into a variety of companies and narrowed down potential investment candidates that meet certain criteria. One criteria was to have both a combination of large market cap and small market cap companies for diversification in market size. We also looked for companies with long proven stable dividends and ones that are more unpredictable yet could have higher earning potential. We tried to find water companies with stocks of varying P/E ratios since we wanted to seek out some undervalued companies that may have great potential in the social impact space while also being aware of stable companies that appear to be overvalued at the current time of investment. Generally, we sought out higher ROIs and then we evaluated stocks with different beta degrees to grasp which businesses in the water sector would produce constant returns based on the market and which ones would be more volatile and potentially exceed or drop below the normative market movements.

Our mutual fund, Water Funds Trust, will be diversified through a portfolio with shares from each of the following companies: American States Water Company (AWR), Consolidated Water Company (CWCO), Mueller Water Products, Inc. (MWA), PICO Holdings Inc. (PICO), and Pentair Ltd. (PNR). First off, a majority of our capital should be delegated to the companies we have deemed financially stable: AWR and PNR. By investing 60% of our funds into these consistently earning companies, we ensure enough financial return to offset potential losses and mitigate risks from the more volatile companies. We will allocate the remaining 40% of funds into companies that show high earning potential at a more substantial risk including CWCO, PICO, and MWA. This distribution of capital will focus our diversified portfolio in a space that both has the capability to generate stable returns and enter into newer, volatile markets that will make tangible impact in the water industry.
Individual Company Analysis

American States Water

American States Water is a water utility and electric company that focuses primarily on infrastructure, wastewater treatment, and refinement throughout various subsidiaries operating in 75 communities (10 counties) in the state of California. Although AWR market cap of 1.94B is relatively small/mid cap, it is attractive because of its good track record of paying out consistent dividends. This company also has a P/E ratio at 29.16 that is slightly above the industry average of 20-25 times earnings, which indicates that investors are anticipating growth in the future. Finally, we chose AWR due to its stability in terms of beta (around .5) which indicates that this particular security was less volatile than the market on average, signaling to us that it is a sound investment with overall stable returns and potential to grow in the future.

Consolidated Water Works

Consolidated Water is a desalination plant with 14 locations spanning across 5 countries, and they encompass bulk water operations via engineering and management services to supply drinkable water to users from residential areas to government owned distributors. We targeted this company since it had a differentiated service, desalination, and was particularly small cap (212M), indicating that although it may be riskier, it also has a higher potential return. This company had a smaller ROI (1.69), and beta of .7. A big factor that we used to decide on investing in this company was its prospective growth, as there is already a proven and growing high demand of desalination and water purification on the Caribbean islands and related areas, which paves the way for growth in that area from their success in existing locations like the Bahamas, Virgin Islands, and Cayman Islands.

Mueller Water Products

Mueller Water Products is one of the largest distributors of water infrastructure products in North America, headed in Atlanta, Georgia. This company had a small/medium market cap of 1.8B, but a high beta of 1.2, meaning that it has relatively more ups and downs than the market on average. Although riskier, Mueller offers a high ROI at 34.46 compared to the industry average of 10.45. This made the stock very attractive as a potential earner and also as a high volume operating company working towards fixing pipe infrastructure which is one of our biggest concerns in the water sector.

PICO Holdings

PICO Holdings engages in the water resource, water storage, real estate, insurance, and agribusiness areas across the southwestern US. PICO is a newer and undervalued company (P/E ratio around 11), which appealed to us as its financials and its impact status show positive indication of future growth. Investing in PICO is a riskier move as it is smaller and more volatile in the agribusiness and real estate sector, which is different than the other companies focused in the water industry. However, there is a great potential return and it differentiates our portfolio in the impact space.
Pentair

Pentair’s central water operations are its quality systems business and flow and filtration solutions business, that include a wide range of brands focused on customers' needs for water reuse, water availability and water stewardship. This company was chosen due to its large market cap, valued at 12.5B, so that it could balance out some of the smaller, riskier companies in the portfolio. It is relatively an older company (founded in early 1980s), has had historically steady returns, and has been growing in market value for the last 5 years. Pentair appears to be a good stock to invest primarily as a bigger, more stable player in our basket that could counter aggressive market changes in the other companies.

Portfolio Summary

Pentair and AWR are our larger, stable return companies with lower beta while Mueller, PICO and Consolidated Water show higher growth potential but also a higher degree of risk. This diversified structure is suitable for impact investing because we can take a risk in smaller, newer companies that show positive signs of increasing both profits and social impact, while relying on steady returns and progress with larger, stable companies as a reassurance that we can retain earnings when our more volatile stocks underperform or frequently change in the market. Aside from financial diversification, the proposed portfolio is diversified within the water industry and the portfolio involves companies that deal with infrastructure, desalination and other water refinement and utility services. This dual approach to diversifying our investment structure is what we believe will generate the largest social impact in the water industry while earning a profit.

Sideline Companies

Three other companies in the water industry were considered for the portfolio such as American Waterworks, Middlesex Water Company, and California Water Service, but we decided to not include these in our starting water portfolio. American Waterworks is a private company focused on water infrastructure, but it was ruled out as it is one of the largest water companies with a market cap around $14 billion and a very low beta ratio of -0.07. As it is so large with such low volatility, investing in American Waterworks would result in very low returns compared to the other companies we have selected. Middlesex Water Company is public water company located in New Jersey and Delaware also focused on infrastructure. This company has been eliminated due to its steady decline in stock price since November of 2017. California Water Service is a public company focused on water and wastewater utilities such as storage, treatment, testing, and distribution. It was ultimately eliminated because the company has lost market share in niche categories due to new entrants in their industry, and they have not been able to expand their product segments due to their limiting business model.
Qualitative Metrics

We devised 4 specific metrics these institutions can measure impact. The four-main tools that we propose to use to measure the impact from these companies are the following:

1) number of pipes replaced for infrastructure

2) percentage of saltwater made drinkable through desalination each year

3) how the quality of water has increased or decreased

4) amount of sanitation water that is recycled.

These metrics can be overseen by government institutions and a portfolio manager and measured by using press releases and public company reports. These metrics gauge how effective the investments in the companies are by providing a measurable data set of the progress and improvement in the water sector from each firm’s practices. For instance, measuring the percentage of saltwater made drinkable through desalination each year can give insight and quantifiable measurements of how Consolidated Water’s performed as a desalination plant in previous years, which can also help in predicting its future success and determine if it is a worthy investment going forward. Similarly, measuring the amount of sanitation water that is recycled gives us data on the success of Pentair’s central water operations. One of its focuses are the needs for water reuse, so using this metric would help in predicting how impactful Pentair is currently as well how impactful it would be in future years.
Conclusion

Social impact through Impact Investing is more efficient in the sense that it avoids a lot of the obstacles and challenges nonprofits face, while also prioritizing financial returns. The government dominates the water industry, but its inefficiencies hamper their and impact organization's’ ability to efficiently make change. Without being tangled with governmental policy and legislation, we will be able to broaden our influence to not only include water infrastructure, but also refinement and desalination. The water industry is suffering from a lack of funds, inefficiency of government programs, and general lack of awareness of the necessity of improvement within this invaluable industry. With these problems in mind, we have begun investigating specific companies we deemed to be both financially promising and capable of beneficial impact. By investing in large, established companies we expect stable dividend returns, but we have also chosen several smaller, riskier ventures to generate high returns. We selected companies with varying degrees of financial details to ensure a selection mixed with safety and risk, but in terms of measuring impact we had four specific primary metrics. We assessed the number of pipes efficiently replaced by water infrastructure companies, the percentage of saltwater made drinkable by desalination companies, the change in quality of water by the companies, and the amount of sanitation water that is recycled. By simultaneously analyzing a company’s financial standing as well as looking into our established metrics for impact, we hope to ensure the success of our mutual fund “Water Funds Trust.” Through a mutual fund, we hope that VC’s see the value within the water industry and its opportunity to generate a great financial return and impact.
References


