



# LIQUID FUTURES

*A Stream of Thoughts*

# PIO

Invesco Global Water ETF

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ETF.com segment: [Equity:Global Water](#)  
Popular PIO Comparisons: [PIO vs CGW](#), [PIO vs SPY](#), [PIO vs IVV](#), [PIO vs VTI](#), [PIO vs VOO](#)  
Related ETF Channels: [Equity](#), [Theme Investing](#), [Sectors](#), [Global](#), [Water](#), [Vanilla](#)  
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\*Unless otherwise stated, data provided by FactSet.

Overview	Efficiency	Tradability	Fit	PDF
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#### PIO Fund Description

PIO tracks a liquidity-weighted index of global companies that create products to conserve and purify water for homes, businesses, and industries.

#### PIO Factset Analytics Insight

PIO provides viable exposure to the broader global water market. The fund's (ironically appropriate) liquidity-weighting scheme produces a concentrated portfolio that only loosely resembles our market-cap-weighted benchmark. PIO is dominated by large- to midcap firms that create products that conserve and purify water for homes, businesses, and industries. Also, only companies participating in the "Green Economy" as determined by SustainableBusiness.com LLC are eligible for inclusion. The index currently limits weighting in both the country and issuer level, to ensure diversification between constituents. Lastly, it is important to note that the fund uses a "full replication" method to track the underlying index. Rebalancing is done quarterly while substitution is done annually.

#### PIO MSCI ESG Analytics Insight

**MSCI**  
ESG RATINGS  
AA

#### PIO Summary Data

Issuer	Invesco
Inception Date	06/13/07
Legal Structure	Open-Ended Fund
Expense Ratio	0.75%
Assets Under Management	\$243.10M
Average Daily \$ Volume	\$917.34K
Average Spread (%)	0.20%
Competing ETFs	CGW
Fund Home Page	

#### PIO Portfolio Data

Weighted Average Market Cap	\$29.16B
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Taking a free drink of water from a fountain in Rome, filling up a jug at a decentralized private water filling station in Accra, or pumping groundwater from Jakarta. Water shows us the multiplicity of futures in a single glass.

Water is a critical signal and entry point to seeing different windows of the future around the world. Water's relationship with any object on this earth and in space can be like examining a million different scenarios based on the signal of water. From the macro, the fractalization of scenarios can be driven down to infinite granularities and then extends on the relationship of time to scale to what trend or future you want to see.

The fall of Rome rests on its water table just as Jakarta is already falling due to its water mismanagement engendered by its colonial masters. Ancient utopic empire versus dystopic ruins of the plantationence into late capitalism concerning water.

From a lay perspective, the complexity of water management is mind-boggling. Jakarta and much of the world have been pumping out all its groundwater. Due to urban development, these aquifers cannot replenish themselves. Over time, the earth will sink; this, coupled with other macro systems like sea-level rise, is a recipe for disaster. The chaos of the system does not forgive linearity in approach. Jakarta's water problem encompasses ancient history, colonial history, modern nation-building, geologic time, political stakeholders, millions of inhabitants, weather systems, private real estate developers, industrial runoff, ecosystem health, global warming, etc. There is little to no hope when we look at the situation of Jakarta.

**FIW**  
First Trust Water ETF

Closing Price **\$75.59** Change (%) **-0.7 (-0.92%)**

ETF.com segment: Equity:Global Water  
Popular FIW Comparisons: FIW vs CGW, FIW vs PIO, FIW vs PHO, FIW vs EBLU, FIW vs SPY  
Related ETF Channels: U.S. Equity, Theme Investing, Sectors, Water, North America, Smart-Beta ETFs, Equal-Weighted  
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Overview	Efficiency	Tradability	Fit	PDF
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**FIW Fund Description**  
FIW tracks an index of the 36 largest US-listed water companies, weighted equally within five tiers.

**FIW Factset Analytics Insight**  
FIW holds 36 of the largest US-listed water companies, ranked by market cap and weighted equally within five tiers. Companies of any market capitalization that derive revenue from the potable and wastewater industry are selected. In addition, its tiered equal-weighting scheme boosts the weight of small- and micro-cap companies, hence, reducing concentration. FIW changed its name from First Trust ISE Water Index Fund to First Trust Water ETF on December 14, 2016, which had no impact to FIW's investment strategy. The index is rebalanced and reconstituted semi-annually.

**FIW MSCI ESG Analytics Insight**  
**MSCI ESG RATINGS** **A**

**FIW Summary Data**

Issuer	First Trust
Inception Date	08/08/07
Legal Structure	Open-Ended Fund
Expense Ratio	0.55%
Assets Under Management	\$771.95M
Average Daily \$ Volume	\$4.31M
Average Spread (%)	0.12%
Competing ETFs	CGW, PIO, PHO, EBLU
Fund Home Page	



Just as we look to other places in the world where water is shaping our world. Shifting aridity lines create food shortages that increase instability, leading to war, famine, and other disasters. Climate refugees are increasing, whether rising sea levels or water shortage and miss management.

Bottled water futures is the easiest thing to imagine. Hyper commodification creates so many different types of waters that match "who we are"; raw, basic, luxurious. 300 dollars per liter of water from a well in Tuscany.

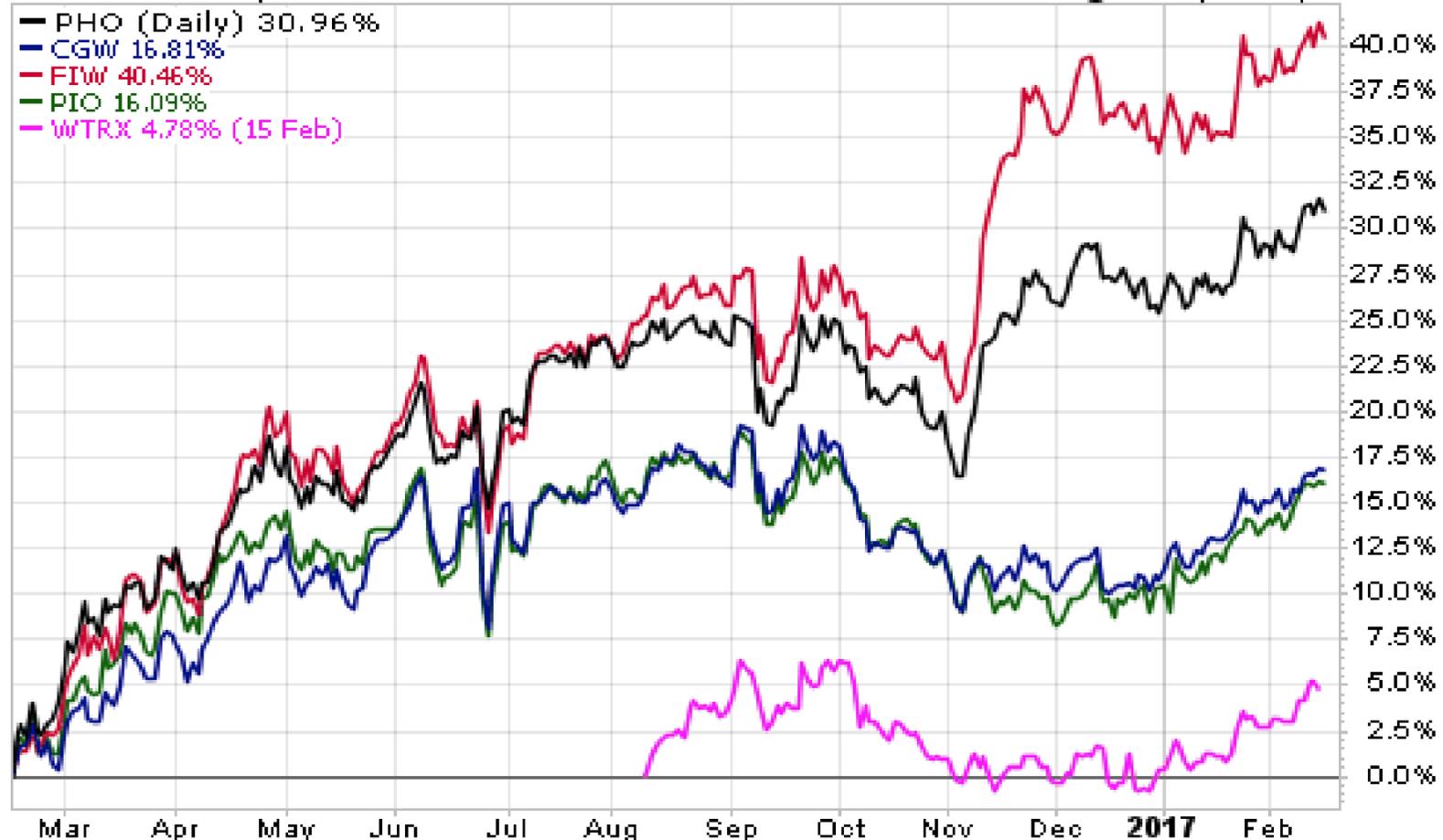
The shortcomings of our water ideals as human rights wither away as the Mekong Delta Conference cracks under Chinese pressure. Damning upstream creates resource tensions, not hard nor soft; domination commands those downstream to obey. Hydro politics in public and private sectors are among the few threads that tie things together, but things can unravel at an instance.

Global population rise combined with macro instability in weather, economy, and the government is a recipe for continued chaos. However, we can continue to dream that we will be able

PHO PowerShares Water Resources Portfolio Nasdaq GM

© StockCharts.com

16-Feb-2017 1:10pm O 25.77 H 25.78 L 25.61 Last 25.69 V 17.5K Chg -0.13 (-0.50%)



PHO

Invesco Water Resources ETF

+ Add to watchlist

Closing Price  
**\$47.86**

Change (%)  
**-0.69 (-1.42%)**

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3:59:00 p.m. (ET) 03/03/21 Cboe BZX Real-Time Quote

ETF.com segment: Equity:Global Water

Popular PHO Comparisons: PHO vs CWW, PHO vs PLO, PHO vs FITV, PHO vs EBLU,

Related ETFs: Chemicals, Equity, Environmental, Energy, Health Care, Technology, Water, North

America, Vanilla

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Financially sound

PHO Fund Description

PHO tracks a modified liquidity-weighted index of US-listed companies that create products to conserve and purify water.

PHO Factset Analytics Insight

Despite its geographic focus (and only holds US listings), PHO is the most popular water-themed fund on the market, and also the most liquid. As one would expect, its US-centric, modified liquidity-weighted basket looks very different from our global benchmark.

PHO is small, and makes a few sector bets, chiefly along them: bias to industrials and an underweight to utilities. Investors who want US-only exposure in this segment will be well served, but those who don't should look elsewhere. The fund trades in decent volumes, and spreads are small. Underlying liquidity is excellent. PHO charges a reasonable fee for a niche product, and trading is pretty tight.

to 'tech' out of this problem and create enough distributed purification technologies to combat macro shortages of potable water by harvesting non-potable. Privatized decentralized distribution models step in where public infrastructure falls short; 1 Piso per cup of water is a common sight on the street in the Philippines. A piso water dispenser is a common sight at many corner stores. This trend can be mapped to India and across Africa. Different forms of the 'Piso water dispenser' have mapped over the universal need for potable water.

A citadel, an island in the sea, once depended on water from the peninsula, beholden to water pipelines that are the lifeblood to the city. If these lines were to fall, so would this city—utopic ideals of progressive water catchment to residential zoning and building code laws. The required use of aeration filters across the city cuts the general population's water consumption by 20%—investment in wastewater regeneration and desalinization plants linked by a network of strategic natural and man-made reservoirs. However, this city-state is an anomaly, a potential future those without water could

# CGW

Invesco S&P Global Water Index ETF

 Add to watchlist

Closing Price

**\$47.12**

Change (%)

**-0.7885 (-1.65%)**



4:00:00 p.m. (ET) 03/03/21 Cboe BZX Real-Time Quote

ETF.com segment: [Equity:Global Water](#)

Popular CGW Comparisons: [CGW vs PIO](#), [CGW vs SPY](#), [CGW vs IVV](#), [CGW vs VTI](#), [CGW vs VOO](#)

Related ETF Channels: [Equity](#), [Theme Investing](#), [Sectors](#), [Global](#), [Water](#), [Smart-Beta ETFs](#), [Equal-Weighted](#)

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\*Unless otherwise stated, data provided by FactSet.

Overview

Efficiency

Tradability

Fit

### CGW Fund Description

CGW tracks a market-cap-weighted index of global water utilities, infrastructure and water equipment & materials companies.

### CGW Factset Analytics Insight

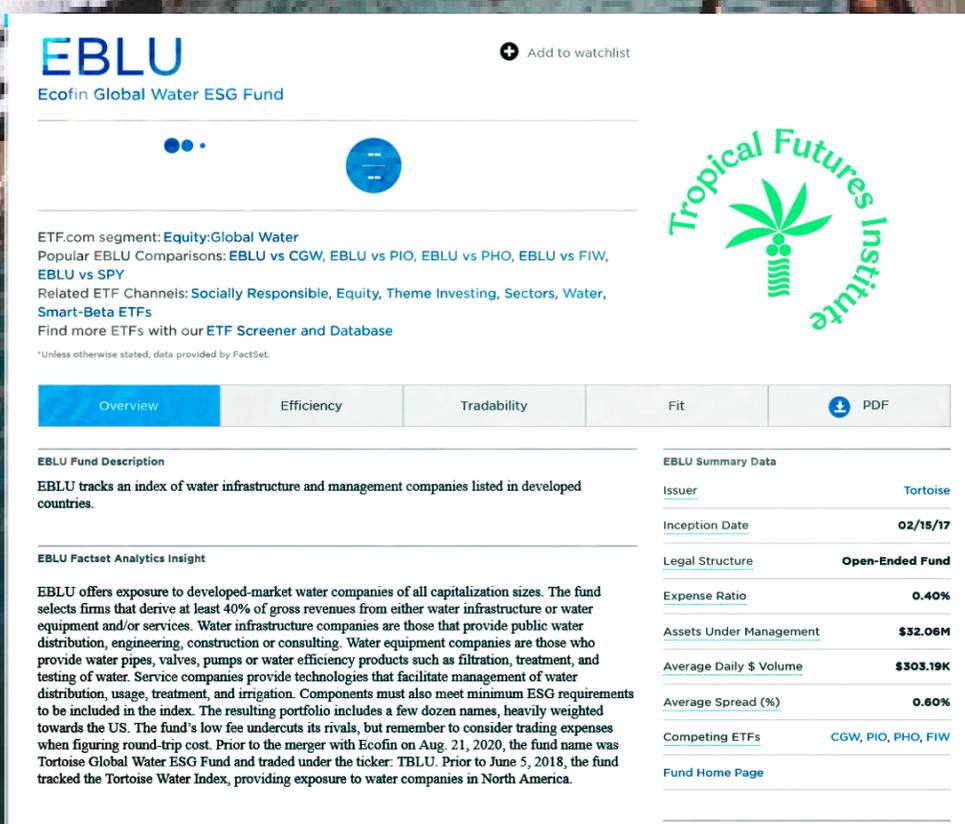
CGW offers comprehensive coverage of the global water segment in an efficient wrapper. The fund starts with all eligible securities from the S&P Global BMI Index that are classified in either water equipment & materials or water utilities & infrastructure cluster. To identify industry relevance, each company from both clusters will be assigned an exposure score based on its business description and most recent reported revenue. The 25 largest companies with an exposure score of 1 from each cluster will be selected for inclusion. However, if fewer than 25 companies have an exposure score of 1, the fund will select the largest companies with a 0.5 exposure score until the portfolio contains a total of 25 constituents for each cluster. Stocks are weighted by market-cap within each bucket and are constrained, such that securities with an exposure score of 1 are capped at 10% and those with 0.5 exposure score are capped at 5%. Index rebalancing occurs semi-annually.

hope for. Still, it remains to be seen if this future will diffuse. The price to pay to enter the citadel is unattainable by most in this world.

The continued financialization of water is one of the only ways forward as the markets create water investment products as megacities are beholden to the aquifers themselves and those who own those aquifers that are beholden to climatic results. Hopefully, those who own these critical resources invest in technologies that aid in the conservation and regeneration of water. That is what many people hope for when they invest in a water exchange-traded fund. The markets will encourage water optimization, but in the inefficiencies of the markets,

there will be those who will be punished by this optimization, not necessarily bad actors but those who will be priced out of water: a family, a farm, a business, a town, village, city, a country. The scale of water in multiple dimensions of time, space, and connectivity is bigger than anything we as humans could ever relate to.

The rise of water in various markets, from global international water sales to stock markets betting on an axis of scarcity and abundance against technological innovation and geopolitical strife along another axis of time. A different glass of water, a different future; which future diffuses across the world the fastest controls the equilibrium of our world.



**EBLU**  
Ecofin Global Water ESG Fund

ETF.com segment: **Equity:Global Water**  
Popular EBLU Comparisons: **EBLU vs CGW, EBLU vs PIO, EBLU vs PHO, EBLU vs FIW, EBLU vs SPY**  
Related ETF Channels: **Socially Responsible, Equity, Theme Investing, Sectors, Water, Smart-Beta ETFs**  
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Overview | Efficiency | Tradability | Fit | PDF

**EBLU Fund Description**  
EBLU tracks an index of water infrastructure and management companies listed in developed countries.

**EBLU Factset Analytics Insight**  
EBLU offers exposure to developed-market water companies of all capitalization sizes. The fund selects firms that derive at least 40% of gross revenues from either water infrastructure or water equipment and/or services. Water infrastructure companies are those that provide public water distribution, engineering, construction or consulting. Water equipment companies are those who provide water pipes, valves, pumps or water efficiency products such as filtration, treatment, and testing of water. Service companies provide technologies that facilitate management of water distribution, usage, treatment, and irrigation. Components must also meet minimum ESG requirements to be included in the index. The resulting portfolio includes a few dozen names, heavily weighted towards the US. The fund's low fee undercuts its rivals, but remember to consider trading expenses when figuring round-trip cost. Prior to the merger with Ecofin on Aug. 21, 2020, the fund name was Tortoise Global Water ESG Fund and traded under the ticker: TBLU. Prior to June 5, 2018, the fund tracked the Tortoise Water Index, providing exposure to water companies in North America.

**EBLU Summary Data**

Issuer	Tortoise
Inception Date	02/15/17
Legal Structure	Open-Ended Fund
Expense Ratio	0.40%
Assets Under Management	\$32.06M
Average Daily \$ Volume	\$503.19K
Average Spread (%)	0.60%
Competing ETFs	CGW, PIO, PHO, FIW
Fund Home Page	

EBLU Portfolio Data