$145 trn
is the projected aggregate total global AUM by 2025 according to PwC.

Water Risk

can be diversified away under portfolio theory, if the risk can be independently assessed.

waterBeta™ Analysis and Water Risk Index Design & Simulation Platform

Smart Algorithm to integrate physical and financial water risk.

Water 2014

573 investor signatories
$63 trn in assets

(CDP, 2014)

“Water-related risks and disasters, such as floods and droughts associated with an increasing temporal variability of water resources due to climate change, result in immense and growing human and economic losses globally.”

THREE STRONG PARTNERS BEHIND THE FIRST WATER-RISK INDEX

With the LIMEYARD TSC Water Risk US 50 Index, the best of three worlds are being brought together: LIMEYARD as one of the most innovative, agile, and client centric global index provider, Thomas Schumann Capital as sponsor of Water Risk Index, Water Security Fund, Equarius Risk Analytics, as Equarius Risk Analytics, as a proprietary water risk indexing platform provider.
2.1. LIMEYARD TSC Water Risk US 50 Index

VALUE-BASED INVESTMENT STRATEGY CAPTURING CORE PORTFOLIO RISK IN SECURITIES FROM WATER EXPOSURE

ANTICIPATE TODAY THE RISK OF TOMORROW

Objectives

- Portfolio of 50 components derived from the LIMEYARD US 500 Index based on free-float MCap.
- Investment into a combination of non-cap-weighted waterRisk criteria with the following goals:
  - To capture excess short term non-systemic price volatility
  - To integrate geographically granular risk exposures in corporate productivity, efficiency and cost
  - To weight intangibles risk from water using unstructured data
  - Access to a rules-based investable product based on a transparent index methodology

LIMEYARD Solution

The LIMEYARD TSC Water Risk US 50 Index and the underlying waterBeta™ support UN’s SDG 6 (“Ensure availability and sustainable management of water and sanitation for all.”) and is based on the following criteria:

1. Represents a fixed number of 50 companies derived from the LIMEYARD US 500 Index based on free-float MCap and a 20% buffer-rule.

2. Applies the following three pillars: (a) for every component the beta to the LIMEYARD US 500 Index is combined with the waterBeta; (b) adjusted beta ensures avoidance of negative beta; (c) every component is weighted to the adjusted beta.

3. The weights are capped at 8.5%.

Investor Benefits

- Rules-based & transparent
- Value-based investment strategy – portfolio risk diversification
- Participate in the US market with an additional focus on the companies’ excess volatility risk from water events
WATER RESULTS IN A SHORT-TERM HIGH IMPACT PRICE DEVIATION (HIGH KURTOSIS)

Key Factors

- **Selection feature**: 50 largest components of LIMEYARD US 50 index in terms of free-float market cap and a 20% buffer-rule

- **Weighting**: adjusted combined beta of beta compared to LIMEYARD US 50 index and the waterBeta

- **Type of calculation**: End of day

- **Index type**: Price and total return in USD

Composition

- Fixed (within a quarterly rebalancing period)

- Integration of updated waterBeta™ in asset allocation strategy

Performance Drivers

- Excess quarterly tail risk volatility (VaR) relative to industry sector benchmark

- Productivity and efficiency impacts of local water risk exposures

- Intangibles risk on brand, IP and reputation

Risks

- Not all companies disclose similar risk information. Sector-specific imputation models are used to predict data, and updated as information becomes available

- Choice of sector benchmark influences VaR signal processing. Sector classification of portfolio company is key

- Intangibles weighting and risk correlation based on ESG data and unstructured data processing from corporate disclosures and third parties

Strategic Assumptions

- Water is an idiosyncratic risk affecting industry sectors differently

- Water results in a short-term, high impact price deviation (high kurtosis)

- Water risk is highly correlated to weather risks, and incorporates quantity, quality and regulatory components
2.3. LIMEYARD TSC Water Risk US 50 Index

**A ROBUST METHODOLOGY ENSURES CONSISTENCY OF SUPERIOR RETURNS ACROSS VARIOUS MARKET CYCLES**

**Methodology**

1. **Universe**
   50 largest components of LIMEYARD US 50 index in terms of free-float market cap

2. **waterBeta™ Methodology**
   The waterBeta™ methodology prices water risk in securities by way of a sector-specific beta (volatility risk). Its components include:
   - A short-term (63 trading days) Value-at-Risk signal for the asset, relative to a sector benchmark
   - Corporate accounting data (efficiency, asset intensity, and operational risk ratios; FactSet or Bloomberg)
   - Geographic water risk exposure data (e.g. Aqueduct, CDP, TruCost)
   - Intangibles risk data (‘beta prime’) based on unstructured data from SEC and voluntary disclosures, as well as public data scraping (incl. ESG water risk data)

   For the Limeyard TSC Water Risk US 50 Index, all companies were assessed individually.

3. **Weighting**
   The LIMEYARD TSC Water Risk US 50 Index is based on three pillars:
   
   1. for every component of the universe calculate the beta to the LY US 500 and combine it with the waterBeta:
      \[
      \text{combined beta} = \frac{\beta}{\beta + \text{waterBeta}}
      \]
   
   2. To avoid any possible problems of having negative combined beta the combined beta is transformed using the following formula:
      \[
      \text{adjusted beta} = \begin{cases} 
      1 + \text{combined beta} & \text{if combined beta} \\
      \max(1 + \text{combined beta}, 0) & \text{if combined beta}
      \end{cases}
      \]
   
   3. Every component weighted proportionally to the adjusted beta and application of a cap weight of 8.5%

**Investor benefits**

- Participate in the largest stocks of the US market based on free-float market cap
- Account for industry-specific water driven price volatility forms corporate engagement strategies
- Identification of idiosyncratic risks affords diversification strategies. Inclusion of the waterBeta in asset allocation captures excess volatility and drives ‘water-alpha’
2.4. LIMEYARD TSC Water Risk US 50 Index

ANNUALIZED RETURN & VOLATILITY WATER RISK INDEX
OUTPERFORMS THE S&P 500 INDEX SINCE SEPTEMBER 2008

Index Performance: Sep 2008 - YTD(*)

21 days Correlation to S&P 500: Sep 2008 - YTD(*)

Descriptive Statistics(*)(*)

<table>
<thead>
<tr>
<th></th>
<th>1mth</th>
<th>1yr</th>
<th>Annualized Return since 22/09/2008</th>
<th>1mth</th>
<th>1yr</th>
<th>Annualized Volatility since 22/09/2008</th>
<th>1mth</th>
<th>1yr</th>
<th>Correlation since 22/09/2008</th>
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</thead>
<tbody>
<tr>
<td><strong>TOP US 50 USD NET</strong></td>
<td>1.86%</td>
<td>21.33%</td>
<td>10.38%</td>
<td>8.55%</td>
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<td><strong>waterBeta USD NET</strong></td>
<td>2.01%</td>
<td>18.70%</td>
<td>10.96%</td>
<td>7.47%</td>
<td>12.40%</td>
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<tr>
<td><strong>S&amp;P 500 USD NET</strong></td>
<td>2.06%</td>
<td>19.47%</td>
<td>10.79%</td>
<td>7.83%</td>
<td>11.92%</td>
<td>19.43%</td>
<td>0.9700</td>
<td>0.9855</td>
<td>0.9909</td>
</tr>
</tbody>
</table>

(*) All figures are in USD terms. Correlations are vs. S&P 500 Index.