



# ECPI GLOBAL CARBON EQUITY INDEX

The Index is an investable index featuring companies from carbon-intensive sectors such as Utilities, Basic Materials, Industrial and Energy that are best equipped to deal with a world of rising carbon emissions and tougher climate legislation

DECEMBER 2011

## BACKGROUND

Since the beginning of the Industrial Revolution, the atmospheric concentration of CO<sub>2</sub>, the most prevalent of the greenhouse gases (GHG), has increased from a natural range of 180–300 parts per million (ppm) to 379 ppm in 2005<sup>[1]</sup>. As emerging economies industrialize, that figure is set to rise rapidly in the coming decades, heralding potentially devastating consequences for global climate patterns

There are implications for economic growth and geopolitical stability, too. The scarcity of natural resources coupled with a changing climate, will likely increase government and public pressure on the world's largest corporate emitters, each desperate to remain competitive amid volatile markets.

The more carbon-intensive sectors (utilities, say, or Energy) can expect to be affected most.

As major contributors to climate change, these look set to be the initial focus of legislation aimed at reducing greenhouse gas emissions from industry.

Companies operating in these sectors will need to prepare for a drastically different environment. Threats to their business posed by climate change include:

- Risks to a company's physical operations
- Subsequent risks associated with tough climate legislation
- Products losing cost competitiveness in the marketplace

Staying competitive amid those dangers means first accounting for a firm's carbon emissions; reducing that level of carbon intensity thereafter should be no less of a priority.

## SELECTION PROCESS

The ECPI Global Carbon Equity Index selects companies from traditionally carbon-intensive industries with superior carbon management strategies and low carbon intensity levels compared to their peers. These companies are not only likely to prosper in the future but may also cause a significant drop in global atmospheric CO<sub>2</sub>.

Arthur D. Little, the global management consultancy, advised ECPI on the selection process, helping fine-tune the carbon assessment of candidates.

**Sector Selection and peer groups**

The carbon-intensive sectors were selected on the basis of publicly-available carbon emissions data.

Sources of information included company documents, information providers, and relevant reports.

- Among the key sectors identified:
  - Utilities
  - Basic Materials
  - Industrial
  - Consumer (Cyclical and Non-cyclical)
  - Energy
  - Technology

Within these sectors, we identified peer groups or subsectors, enabling the comparison of carbon data between like companies.

### Stock Selection

Index components are selected on the basis of their:

1. ESG Rating
2. Carbon Intensity
3. Carbon Rating
4. Liquidity Constraints

### 1. ESG Rating

Any companies not attaining a positive ESG Rating according to the ECPI Methodology are immediately excluded.

The ESG Rating - an evaluation by ECPI Research of a firm's Environmental, Social, and Governance performance - aims to single out companies with the highest unexpressed intangible value

### 2. Carbon Intensity

Firms are then screened for their carbon intensity.

That amounts to the sum of a company's direct and indirect emissions divided by their net production value <sup>[2]</sup>.

The screen aims to filter out firms with a carbon intensity higher than their peer-group average.

### 3. Carbon Rating

This rating, developed by ECPI in partnership with Arthur D. Little, assesses the quality of the companies' carbon management strategies for dealing with future physical, reputational, and market hazards along, more importantly, with the regulatory risks posed by climate-change legislation.

The quality, quantity and breadth of information disclosed on the topic are considered a proxy for a company's carbon management.

That information falls under several categories, including:

- GHG Emissions Management
- Energy Procurement Mix
- Governance and Ownership
- Quality of GHG Emission Reporting
- Carbon Risk Management

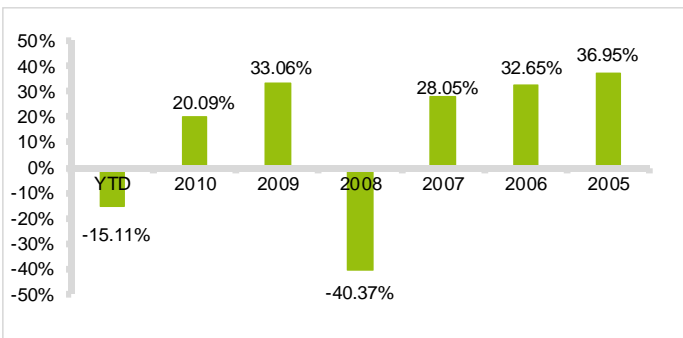
### 4. Liquidity Constraints

*Minimum Market Cap: €1 bio*

*Minimum 6-months Average Trading Volume: €10mio*

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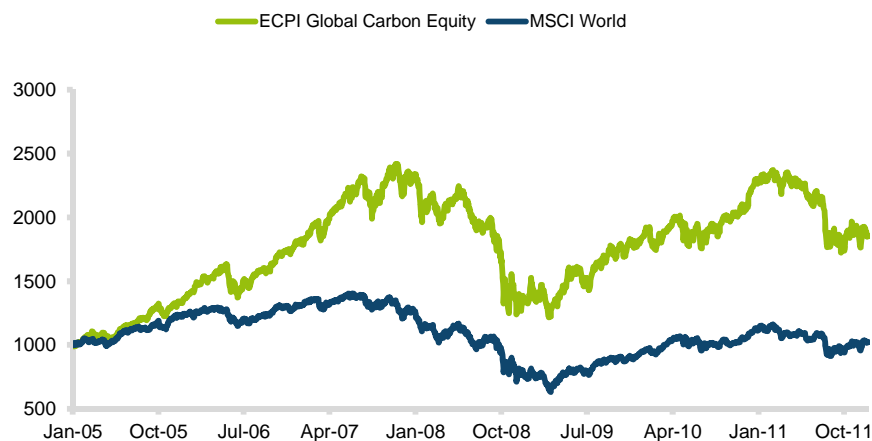
|                                  |                   |
|----------------------------------|-------------------|
| Number of Constituents           | <b>40</b>         |
| Eligibility Monitoring           | <b>Daily</b>      |
| Constituent Weights              | <b>Equal</b>      |
| Index Rebalancing Frequency      | <b>Annual</b>     |
| Constituent Min. Market Cap      | <b>1 Bio EUR</b>  |
| Min. ADV (last 6 months)         | <b>10 Mio EUR</b> |
| Currency of Calculation          | <b>EURO</b>       |
| Average Market Cap. (EUR bio)    | <b>32.54</b>      |
| Largest Market Cap. (EUR bio)    | <b>126.20</b>     |
| Smallest Market Cap. (EUR bio)   | <b>0.47</b>       |
| Highest Index Value (since 2003) | <b>3548.30</b>    |
| Lowest Value (since 2003)        | <b>853.75</b>     |



|            |                       |
|------------|-----------------------|
| Average    | Annualized Volatility |
| Since 2003 | <b>19.80%</b>         |

| Country        |        |
|----------------|--------|
| BRAZIL         | 2.37%  |
| CANADA         | 7.42%  |
| DENMARK        | 7.54%  |
| FRANCE         | 12.03% |
| GERMANY        | 7.57%  |
| NETHERLANDS    | 2.64%  |
| SPAIN          | 10.40% |
| SWITZERLAND    | 7.52%  |
| UNITED STATES  | 17.57% |
| UNITED KINGDOM | 7.33%  |
| SWEDEN         | 7.62%  |
| FINLAND        | 2.41%  |
| PORTUGAL       | 2.36%  |
| ITALY          | 2.47%  |
| AUSTRIA        | 2.74%  |

| Fundamental Analysis | P/E Trailing | P/E Projected | P/B  | P/S  | P/CF | Dividend Yield |
|----------------------|--------------|---------------|------|------|------|----------------|
|                      | 11.70        | 12.02         | 1.71 | 0.91 | 6.24 | 2.99           |



| Sector                 |        |
|------------------------|--------|
| Utilities              | 24.64% |
| Basic Materials        | 22.60% |
| Industrial             | 17.37% |
| Consumer, Non-cyclical | 14.93% |
| Energy                 | 12.58% |
| Technology             | 2.85%  |
| Consumer, Cyclical     | 5.03%  |

| Index Summary        |              |             |              |
|----------------------|--------------|-------------|--------------|
| Asset Class          | Equity       | Bond        | Alternative  |
| Investment Objective | Beta         | Alpha       | Income       |
| Constituents         | Large Caps   | Medium Caps | Small Caps   |
| Screening            | Positive     | Negative    | Both         |
| Bias                 | Geographical | Industry    | Quantitative |

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## DEFINITIONS

**P/E trailing:** Current price/index earnings. Index earnings are calculated by summing up the trailing 12 months EPS before XO items of the member companies multiplied by the shares in the index and divided by the index divisor. US and Canada: calculated using trailing 12 month diluted EPS from continuous operations of each member.

**P/E projected:** Current price/index projected earnings. Index projected earnings are calculated by summing all members' best EPS in FY1 multiplied by shares in the index and divided by the index divisor.

**P/B:** Current price/index weighted book value. Index weighted book value is calculated by summing up current book value per share of the member companies, multiplied by the shares in the index and divided by the index divisor.

**P/S:** Current price/index sales. Index sales are calculated by summing up all trailing 12 month sales per share, multiplied by shares in the index and divided by the index divisor.

**P/CF:** Current price/index cash flow. Index cash flow is calculated by summing up the trailing 12 month cash flow per share of the member companies, multiplied by the shares in the index and divided by the index divisor.

**Dividend Yield:** Index dividend/current price. Index dividend is calculated by taking the sum of all members' last 12 month dividends, multiplied by shares in the index and divided by the index divisor. Market convention dividends use gross dividends except for Australia, New Zealand, and the United Kingdom, which use net.

Fundamental Data Source: Bloomberg

## REFERENCES

[1] Source: IPCC Fourth Assessment Report 2007

[2] Net production is defined as sales adjusted for current and previous year inventories

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