

20 Years of Green Investing

An in-depth analysis



The last few years have seen the environment shoot up the agenda for investors, with momentum really speeding up from 2005, when the Kyoto Protocol came into force. However, the roots of interest in the investment opportunities presented by the environment date back at least 20 years when the UK's first "green" fund, the Jupiter Ecology Fund, was launched in 1988.

Environmental issues highlighted

The fund's debut followed two seminal events in 1987. The first was the publication of a report by the United Nations' World Commission on Environment and Development, better known as the Brundtland Commission – named after former Norwegian prime minister Gro Harlem Brundtland, who chaired it. The report, *Our Common Future*, highlighted the adverse effect on economic and social development of environmental problems and created one of the most widely used definitions of sustainable development – "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

The second event was the adoption of the Montreal Protocol on Substances that Deplete the Ozone Layer, to support the phasing out of production of a number of ozone-depleting chemicals. Its widespread adoption and implementation – 191 nations have signed up, leaving only Andorra, Iraq, San Marino, Timor-Leste and Vatican City that have not – have seen it held up as an exemplar of international co-operation, not least because the depletion of the ozone layer has started to be reversed. Former UN Secretary General Kofi Annan called it "perhaps the single most successful international agreement to date..."^[1]

Increased concern over the environment

Concern over the environment grew through the 1990s as evidence of mankind's impact on the natural world became clearer. With this concern came increasing action – the 1992 "Earth Summit" in Rio de Janeiro produced Agenda 21, a blueprint for achieving sustainable development worldwide. It also led to the adoption of the Framework Convention on Climate Change (UNFCCC), out of which was born the Kyoto Protocol, which committed developed nations to stabilise emissions of greenhouse gases (GHGs).

At the time of Kyoto's adoption in 1997,

consensus on climate change was far from universal. For the Protocol to come into force, it had to be signed by at least 55 countries representing 55% of global emissions. This did not happen until 2005, when Russia signed up. This left only the US, the biggest total emitter of GHGs, Australia, which had the largest emissions per capita, and oil-rich Kazakhstan as non-signatories. Australia signed up at the UN conference on climate change in Bali in December 2007 after Kevin Rudd won what has been called the world's first climate change election. The US continues to hold out against signing Kyoto, because developing country signatories, such as China, do not have to commit to reductions. But it has acknowledged that climate change is a significant problem and whoever is elected president in November 2008 is expected to re-engage the US in the process to come up with a successor to Kyoto.

Causes of climate change

At the same time, the scientific consensus around the causes and consequences of climate change was hardening, culminating in 2007's report by the Intergovernmental Panel on Climate Change (IPCC), which said that it was "very likely" that global warming since the mid-20th century was caused by human activity. It added that a rise in global temperatures by more than 2°C above pre-industrial levels would cause catastrophic change, yet we only have a narrow window in which to reduce global emissions to a level that will avoid this. Even if global temperature increase are limited to 2°C, sea levels will still rise 0.4-1.4 metres, with severe implications for many parts of the world.^[2]

Profile raised

The year before, Sir Nicholas Stern's seminal Review on The Economics of Climate Change, produced for the UK Treasury, said the costs of addressing the climate change issue were far lower than acting later. It said that investment of 1% of global GDP per year would allow us to

^[1] <http://www.theozonhole.com/montreal.htm>

^[2] <http://www.ipcc.ch/graphics/speeches/nobel-peace-prize-oslo-10-december-2007.pdf>

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avoid the worst effects of climate change, and that failure to do so could lead to global GDP being up to 20 % lower than it otherwise might be.

Meanwhile, another boost to the cause of green investing came from an altogether unexpected direction – Al Gore’s film *An Inconvenient Truth* raised the profile of climate change around the world, culminating in the former US vice-president winning an Oscar and sharing the Nobel Peace Prize with the IPCC.

Climate change is not the only worry

Burgeoning global populations and rapid global economic growth are adding to the strain on the environment and are creating further impetus for governments to encourage more sustainable practices in such areas of water, energy, waste, food and transport. The International Energy Agency, for example, says that global energy demand is expected to rise by more than 50% by 2030. With the threat of peak oil looming and supplies regularly disrupted by political instability, high oil prices are set to be the norm. Finding alternatives to fossil fuels is not just an environmental issue, it is also important for the economy.

Three key drivers:

1. Governments take action

All of the developments outlined above translate into three key drivers for growth in green investing. As the requirements of the Kyoto Protocol trickle down and sustainable development climbs the political agenda, a plethora of legislation and government initiatives has been launched. The UK government is pushing through the world’s first climate change legislation, which will set out a carbon budget and commit ministers to meeting the targets set out. At the same time, it plans to introduce a cap and trade system for large businesses not covered by the EU Emissions Trading Scheme (ETS). It is introducing measures to hit gas-guzzling cars and it is even warning it will take action to outlaw plastic bags if companies do not act.

The UK is not alone in this – indeed much of its legislation originates in the EU, which has introduced measures to cut waste from electrical equipment (the Waste Electrical and Electronic Equipment Directive), cars (End of Life Vehicle Directive), buildings (Energy Performance of Buildings), and waste (Landfill Directive). On top

of this, the heaviest emitters – including utility companies, cement groups and steelmakers – are subject to the EU ETS, the world’s largest carbon market. The EU also has a raft of targets in place that have to be met by 2020 – 20% of energy to come from renewable sources; a 20% cut in CO₂ emissions and 10% of road transport fuel to come from biofuels.

The EU scheme is the world’s first but it will not be alone for long. US states have been introducing a whole range of measures including emissions trading schemes in 10 north-eastern states and in six states in the Midwest. There is also the Western Climate Initiative, a partnership among a number of US states, including California, and the Canadian provinces of British Columbia and Manitoba, that plans to introduce its own cap and trade scheme.

Emerging markets too are taking action, with China expected to spend some US\$264 billion to meet its target of generating 15% of its electricity from renewable energy by 2020.

Along with the stick approach, there are a number of carrots as well, in the shape of feed-in tariffs for various renewable technologies. In California, Governor Arnold Schwarzenegger introduced the ‘Million Solar Roofs’ initiative while there are tariffs for wind and solar energy in countries including Germany, Spain, Italy and the UK.

2. Consumers demand sustainability

The increasing awareness of environmental issues has transformed consumer attitudes to sustainability and this is translating into sales. UK sales of organic food, cosmetics and clothes grew to £2 billion in 2007, while in the US sales of organic food are increasing at a rate of 20% per annum. Green consumers have historically made up about 6-8 % of the market and it is a segment of the economy that has been growing fast.

As a result, the number of products catering to these consumers is also on the rise. From Fairtrade coffee to ethical mortgages, from hybrid cars to carbon offsets, the consumer landscape has been transformed in the last few years, with an ever-growing range of products appealing to the environmentally-conscious consumer coming on to the market.

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3. Business looks to exploit opportunity

The combination of increasing government action and growing consumer interest has brought a significant response from the corporate world. While regulations have forced all companies to clean up their acts, some businesses are acting now to stay ahead of the game, both on their own and in partnership with others.

Consumer-focused companies with strong brands, such as BP, Marks & Spencer, Tesco, BT and John Lewis have made very public pledges to improve their environmental performance, while the Climate Group's We're In This Together campaign has seen household names such as Barclays, O2, Tesco, Sky and Royal & Sun Alliance offering climate-friendly products ranging from eco-friendly car insurance to half-price energy saving light bulbs. Outside the UK, the world's biggest retailer Wal-Mart has pledged to make its operations – and its suppliers – more sustainable.

David Hall, campaign director of Together, said: "Consumers now expect companies to make it easier for them to take action on climate change, and more businesses need to collaborate on climate saving promotions. Initiatives like these are not just about doing the 'right thing' they make good business sense."

Elsewhere, the CBI Climate Change Task Force released a report in November 2007, highlighting the need for business to incorporate carbon management into business planning. In the run-up to the Bali conference, some of the world's largest companies issued the Bali Communiqué on Climate Change in an initiative led by Prince Charles. The communiqué called on UN member governments to take stronger action on climate change and introduce an ambitious legally-binding international agreement with tough CO₂ emission reduction targets guided by science. The communiqué also cited the need to increase global investment in low-carbon technologies, saying that doing so would present "significant business opportunities".

One factor influencing business attitudes towards the environment has been the attitude of investors, who increasingly see companies' performance on environmental issues as a proxy for good management. The Carbon Disclosure Project, which calls on the world's largest companies to

disclose – and manage – their carbon emissions, represents some of the world's largest investors, who want the companies they invest in to take into account carbon emissions because they see it as a business risk that could have a material impact on the performance of their investments. The UN's Principles for Responsible Investment call on investors to incorporate environmental, social and governance issues into their decision-making and ownership practices, while the 'P8', a group of eight of the world's biggest pension funds, is promoting investment strategies to fight global warming.

The universe expands

One result of the changes outlined above is that more and more businesses are 'greening' their existing products or entering new markets to provide solutions to the challenges we face. They range from the smallest start-up companies to some of the world's biggest enterprises. The moment in 2005 when GE launched its Ecomagination campaign to cash-in on the demand for environmental products, ranging from wind turbines to water treatment equipment, was a watershed moment for the sector, which has grown exponentially in the last few years.

Figures from sector analysts New Energy Finance show that investment in clean energy rose by 60% in 2007 to \$148.4bn, helped by encouraging policy trends around the world, high oil prices and growing consumer and business awareness. Announcing the figures, New Energy Finance chief executive Michael Liebreich said: "The amount invested in clean energy technology and projects needs to grow much more – on our estimates a further fivefold increase is required for major countries to meet their own ambitious targets for reductions in greenhouse gas emissions." [3]

The level of activity has provided a huge boost to green investors because it means there are many more companies to choose from. Even 10 years ago, the investment universe numbered only about 250, whereas there are now well over 1,000 pure-play 'green' companies and the number is growing all the time. There is an increasing diversity and maturity to the sector as well.

[3] http://www.newenergyfinance.com/NEF/HTML/Press/2008-02-28_PR_Total_Investment_In_Clean_Energy_Final.pdf

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Jupiter's Ecology Fund is about 25% invested in small caps today – a figure that used to be much higher. This is partly because some of the fund's early small cap investments have turned into large companies and partly because there are large cap companies to invest in that were not available in the past.

There are a growing number of environmental solutions companies coming to the public markets for money, from the minnows that choose to list on AIM, London Stock Exchange's international market for smaller growing companies, to Iberdrola Renewables €4.9bn initial public offering on the Madrid Stock Exchange at the end of 2007. In a sign of how the political climate is changing, the Conservative Party has proposed a Green Environmental Market, to sit alongside AIM and "enable investors to track and invest in green tech stocks in a simple way and make the City of London the undisputed leader in green finance for years to come."^[4]

A growing choice for investors

The current vogue for green investing has led to a surge in the number of funds in the sector. In 2007, 16 funds with more than 50% of their investments in clean energy or energy efficiency were launched, up from five in 2006, one in 2005 and none in 2004^[5]. A whole host of other funds will also have dabbled in environmental investments. And no wonder – the NEX index of clean energy shares rose 58% in 2007.

When these shares do well, they usually do very, very well. However, the sector can still be volatile at times, as you would expect from an area where new companies are emerging, some technology still remains unproven and many companies need to spend large sums of money before they approach profitability. In the first quarter of 2008, for example, the NEX was down 22%, a far bigger drop than the S&P500 or NASDAQ.^[6]

However, while shares of these businesses can, like most others, be volatile at times, the long term drivers for growth in this area are clear. We are arguably in a virtuous circle, where the three

pillars of growth – government, companies and consumers – are all positively engaged. But this is an area where experience and long-term knowledge of the trends and of the companies is needed. You want a fund manager team that knows the investment universe well, that conducts in-depth research on the companies being considered for investment and who meets the management of potential investments. Some funds look to get in right at the beginning of a company's development, but this can be risky – the company can be as likely to fail as it is to go on to great things, even if its product is a good one. It is much more sensible to invest in companies that are already profitable, but not ones where the hype has got ahead of reality. The solar sector, for example, saw valuations last year that bore no relation to the profits companies were making.

Given the huge number of companies springing up to meet the demand for environmental solutions, it is important that an investment team has a track record of identifying the leading technology in a particular field and being able to gauge whether company managements have the competence and commitment to provide the returns investors are looking for.

While some investors will be keen to seek out green investments because it is an area they believe in and want to encourage, the average investor may be reluctant to commit all their funds to one sector. Environmental companies offer high potential returns but the sector remains highly volatile. Many investors may be more comfortable investing 5-10% of their portfolio in the sector.

^[4] http://www.conservatives.com/tile.do?def=news.story.page&obj_id=142554

^[5] New Energy Finance, March 2008

^[6] New Energy Finance Press Release, April 2008

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The Jupiter Ecology Fund

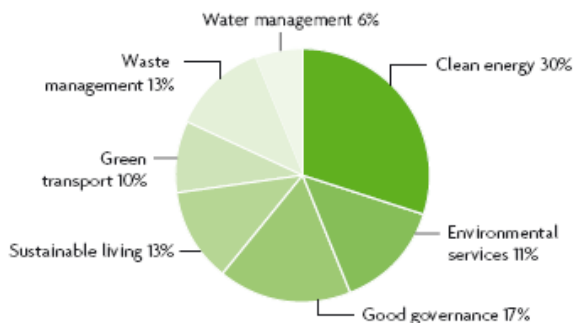


Jupiter has been at the forefront of managing green and socially responsible investment (SRI) funds for the past 20 years, which has enabled us to develop a leading knowledge of corporate, environmental, social and governance performance. Our team is made up of specialist green and SRI fund managers and the Green & SRI Research Team of expert analysts.

The Jupiter Ecology Fund, the first UK authorised green unit trust launched in April 1988, celebrates its 20th anniversary this year. Since launch it has returned 410.2%* and is in the top quartile of the Global Growth Sector*.

Charlie Thomas, AA rated by Citywire, has managed the Fund since 2003 and actively invests globally in companies that can demonstrate positive growth as well as sound environmental and social principles. The Fund focuses on investing in companies that are providing solutions to environmental and social problems through Jupiter's six green investment themes. Companies must meet both our financial and socially responsible criteria and this includes looking at a full range of ethical exclusions.

Investment theme breakdown**



Our approach to green and SRI investing

The team also researches and manages the Jupiter Environmental Income Fund (Unit Trust), the Jupiter Green Investment Trust Plc and the Jupiter Climate Change Solutions SICAV. We believe green investing is about actively seeking out growth companies operating in a variety of fast growing niches.

- We aim to deliver long-term performance through investing in companies that have positive growth supported by trends in environmental and social policies and regulations.
- Our twin-track approach combines the specialist SRI Fund Management Team focused on financially led stock selection, and the Green &

SRI Research Team with a pro-active approach to environmental, social and governance research.

- For our ethically screened SRI funds, the Jupiter Ecology Fund and the Jupiter Environmental Income Fund, our rigorous approach to company selection is combined with different ranges of ethical exclusions. Companies must meet both financial and socially responsible criteria to be eligible for investment.
- We focus on investing in companies that are providing solutions for environmental and social problems as well as those which are actively managing their environmental and social impact. This has led to six green investment themes: clean energy, water management, green transport, waste management, sustainable living and environmental services. We believe that the companies that fit into these themes will benefit from growing markets and be among market leaders in future years.
- For companies that do not naturally fit into our green investment themes, we look at how they manage their key environmental and social issues on a sector basis: good governance companies.

It should always be remembered that the value of an investment and the income from it can go down as well as up, it may be affected by exchange rate variations and investors may not get back the amount invested

Further information

The SRI Department welcomes comments, suggestions and questions from investors, IFAs, companies and green organisations. Further information on Jupiter's green and SRI funds and our six green investment themes are available by calling our literature line or visiting our website www.jupiteronline.co.uk.

*Source: Financial Express, bid to bid, net income reinvested as at 31.03.2008. Citywire rating as at 31.03.2008. **Excludes cash. This is the typical breakdown of the Fund but depending on the manager's view this could vary.

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Green evolution time-line



1987

The Montreal Protocol on Substances that Deplete the Ozone Layer is adopted to support the phasing out of production of a number of ozone-depleting chemicals.

The World Commission on Environment and Development publishes *Our Common Future* (The Brundtland Report), which concludes that preserving the environment, addressing global inequities, and fighting poverty could fuel—not hinder—economic growth by promoting sustainable development.

1988

The UK's first 'green' fund – Jupiter Ecology Fund – is launched.

1990

UK Social Investment Forum established.

1992

The Union of Concerned Scientists, consisting of 1,700 scientists from 69 countries, issues its *World Scientists' Warning to Humanity*, which states that "human beings and the natural world are on a collision course".

A total of 117 heads of state participate in the UN Conference on Environment and Development (Earth Summit), in Rio de Janeiro, Brazil.

Participants adopt Agenda 21, a blueprint for sustainable development and the Convention on Climate Change sets non-binding carbon dioxide reduction goals for industrial countries (to 1990 levels by 2000).

1995

The Intergovernmental Panel on Climate Change (IPCC), a group of hundreds of prominent climate scientists, releases a report concluding that "the balance of evidence suggests there is a discernible human influence on global climate".

1997

The Kyoto Protocol strengthens the 1992 Climate Change Convention by making it mandatory for industrial countries to cut their carbon dioxide emissions by 6-8% from 1990 levels by 2008-2012.

Shell becomes the first UK company to face an environmental shareholder resolution. The resolution is supported by 11% of the votes.

1998

The ozone hole over Antarctica grows to 25m square km (the previous record, set in 1993, was 3m sq km).

2001

The IPCC releases a report citing "new and stronger evidence that most of the observed warming of the last 50 years is attributable to human activities". The study projects that at current rates, temperatures will increase by 1.4 to 5.8 degrees Celsius by 2100.

US President George W. Bush says the US cannot afford to reduce CO2 emissions and will not ratify the Kyoto Protocol.

The UN warns that the world's reservoirs are losing storage capacity as deforestation causes erosion and sedimentation behind dams.

2002

The European Union ratifies the Kyoto Protocol, bringing industrial countries closer to binding reductions of greenhouse gas emissions.

2003

Scientists report earth's northern hemisphere has been hotter since 1980 than at any time during the past 2,000 years.

2005

Russia ratifies the Kyoto Protocol, meaning there are enough signatories to bring it into force.

The EU Emissions Trading Scheme is launched.

2006

The Stern Review on The Economics of Climate Change is released.

2007

Al Gore wins an Oscar for his documentary on climate change *An Inconvenient Truth* and, jointly with the IPCC, wins the Nobel Peace Prize. The IPCC releases a report saying that most of the rise in temperatures in the 20th century is 95% certain to be caused by mankind.

Kevin Rudd, Australia's new prime minister, signs the Kyoto Protocol at the UN climate change summit in Bali, making the US the only significant non-signatory to the Protocol.

The hole in the ozone layer returns to 'near average levels'.

2008

The UK's Climate Change Bill, the first piece of legislation to commit a government to binding carbon reduction targets, is due to become law.

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