FINANCE FOR THE FUTURE AWARDS

Sustainability | Leadership | Innovation

ACCOUNTING FOR SUSTAINABILITY   ICAEW

2015 WINNER
Driving change in others

LESSONS IN DRIVING BUSINESS SUSTAINABILITY

CARBON TRACKER INITIATIVE

The Carbon Tracker Initiative won the Driving change in others award by catalysing changes with the finance and accounting community towards a more sustainable economy.

THE BUSINESS

The Carbon Tracker Initiative (CTI) was founded by Mark Campanale in 2011 to investigate what levels of future carbon emissions are being financed by the world's fossil fuel giants. The organisation is made up of a team of financial, energy and legal experts who have a ground-breaking financial markets-based approach to highlight the financial risk faced by the capital markets on the assumption that existing fossil fuel reserves will be exploited; something that cannot happen if the world is to limit the rise in average global temperatures to less than two degrees above pre-industrial levels, as agreed at the Paris Climate Conference in December 2015. CTI is an independent, not-for-profit organisation, free from the commercial constraints of mainstream analysts and able to set its own research agenda.

Mark Campanale, CTI Founder and Chief Executive

THE IDEA

CTI mainstreamed the innovative concept of the 'carbon bubble' and 'stranded assets', which turn climate change into a material issue for the financial community. This approach has proved valuable in being able to build sustainability into the worlds of finance and energy.

'The core assumption that underpins the CTI thesis is that there are physical planetary limits to emissions of global warming gases. To prevent a breach of a two degrees warming, you have to keep within a set 'carbon budget', and once these levels are reached, you have to stop emitting,' says founder Mark Campanale.

> **The core assumption that underpins the CTI thesis is that there are physical planetary limits to emissions of global warming gases. To prevent a breach of a two degrees warming, you have to keep within a set 'carbon budget', and once these levels are reached, you have to stop emitting'.**

'We applied this budget to publicly-traded fossil fuel companies and their reserves/resources of coal, oil and gas. These reserves represent 'future emissions' and if they are greater than the budget, they must remain in the ground. Investors hadn't seen this before. We pointed out that capital market participants didn't recognise these limits or boundaries; but clearly they should.'

By comparing the stocks of carbon in the form of coal, oil and gas sitting in the ground with carbon budgets, CTI has been able to demonstrate the huge overhang of carbon in the energy system if we want to stay below the two-degree threshold. The coal, oil and gas in the ground are referred to as 'unburnable carbon'.

The ultimate goal of the project is to enable a climate-secure global energy market by aligning the capital markets with climate reality by correctly factoring in climate risk. To this end, over the last two years, CTI has created waves in the global debate on finance and climate change, leading to critical analysis of the financial world's exposure to the fossil fuel sector. It has achieved this by launching a series of reports which allow investors to assess the risk associated with oil and coal investments.

THE INNOVATION

CTI discovered that many fossil fuel projects make neither economic nor climate sense, while unconventional oil projects, such as oil sands and deep water projects, present the greatest levels of financial and environmental risk. It identified $1.1trn (£711bn) of potential capital expenditure on oil projects up to 2025 that may be cancelled, as efforts continue to limit the increase in global warming to below two degrees, as governments around the world have committed to.

Similarly, CTI's coal report suggests that $112bn of future coal mine expansion and development may be excess to requirements as a result of lower demand forecasts.

> **'It will be for investors to act as responsible owners and work with company boards and policymakers to ensure we secure an orderly transition to a low-carbon future. We need that cooperation and it is crucial that investors play the lead.'**

It has also launched the Capex Tracker, which allows analysts and investors to monitor changes in capex flows that impact on carbon, as well as producing a report on how the accountancy profession can take the lead in ensuring that the carbon component can be assessed and reported on.

FINANCIAL LEADERSHIP

The project's analyses are grounded in the Carbon Supply Cost Curve concept. In effect, this takes a classic supply curve that is typically expressed in terms of production against time using different break-even prices. These supply curves are now being used by financial analysts as well as energy and environmental policy experts.

The Carbon Tracker Initiative has used a classical financial tool to convert oil and coal production into CO_2 emissions. In a nutshell, this tool allows investors to see how much CO_2 is likely to be produced at different break-even prices. CTI found that most financial and environmental risk is concentrated in, for example, unconventional oil projects such as tar sands and high-cost deep-water projects, as well as thermal coal.

POSITIVE LONG-TERM IMPACT

'Now we know what the upper limit to emissions should be – no more than around 900 gigatonnes of CO_2 (though I recognise that many scientists would say less), we can then model every major new fossil fuel project being planned,' says Campanale.

In September 2015, Mark Carney, Governor of the Bank of England (BoE), publicly referenced the stranded assets thesis, warning that investors could face 'huge' climate change losses

'We can see which projects are 'in excess' of the carbon budget for two degrees. So it will be for investors to act as responsible owners and work with company boards and policymakers to ensure we secure an orderly transition to a low-carbon future. We need that cooperation and it is crucial that investors play the lead. There are growing signs that they are, which gives me some confidence for the future.'

So far the signs are very encouraging. CTI's oil and gas analyses has led to Stanford University divesting from coal, while Rockefeller Brothers Fund has led a coalition of foundations that will divest $50bn from fossil fuel investments.

In addition, CTI's analytical work on climate change has led Norwegian insurer Storebrand to divest from coal and oil sands companies, and Nordea from coal. The CTI report *Unburnable Carbon: Wasted Capital and Stranded Assets*, has directly influenced the work of the Bank of England, which has agreed to examine, for the first time, the risks that fossil fuel assets could pose to the stability of the financial system.

Through its pioneering research, terms such as 'stranded assets' and 'unburnable carbon' – terms coined by CTI in its studies – have entered the financial lexicon.

LESSONS FROM THE CASE STUDY

CTI has realised that, in order to gain the confidence of seasoned investors and achieve the authoritative voice necessary to address financial markets, the team needed to partner with high profile experts from major investment banks. Alongside that, CTI combined technical reports with simple infographics to make its findings accessible to a wide-ranging audience.

The Carbon Supply Cost Curves help investors to convert climate change risk into financial risk. Such tools empower investors, giving them a more powerful voice. They also allow them to engage with company management boards and push them towards responsible capital allocation and climate risk management.

WHAT THE JUDGES SAID

The growing impact of CTI's work on both market participants and the regulatory community was easy to see. The judges felt that its work is making a significant contribution towards catalysing the transition to a more sustainable economy.