SUSTAINABLE TRENDS

Sustainable Insight CAPITAL MANAGEMENT

EDITION 4 | QUARTER 2 2014

1 ECONOMICS OF CLIMATE CHANGE:

HOW SHOULD WE PAY FOR ITS IMPACTS? AND ARE WE UNDERESTIMATING WHAT IT'S GOING TO COST US?

It has taken a long time for the 2006 Stern Review on 'The Economics of Climate Change' to fertilize a meaningful discussion in academia. But it is underway and significant debates are evident on issues from valuing future impacts (and suitable discount rate models) to who should pick up the cost of climate change. An attempt to de-politicize the discussion looks encouraging, but this appears a tall order at present.

We reported in Q1 2014 Trends that there was no consensus on the price tag of climate change. This topic still has scientists, economists, business leaders and policy-makers talking. In June, a leading climate change economists released a paper urging a higher price on carbon and deep cuts in greenhouse gas emissions. The report, *Endogenous Growth, Convexity of Damages and Climate Risk: How Nordhaus' Framework Supports Deep Cuts in Carbon Emissions,* co-authored by leading climate economist Nicholas Stern and Simon Dietz from the Grantham Research Institute, makes the case that existing economic models "grossly underestimate" the costs of global warming. The authors note that the risks are so great that a "globally coordinated carbon price of USD 32 - USD 103 per tonne of emissions is needed as soon as 2015 to prevent the temperature increase from exceeding 2 degrees of pre-industrial age levels." Further, the carbon price will need to nearly triple in real terms to USD 82 - USD 260 within two decades. In the report, which is published in The Economic Journal, the authors also underscore the need to greatly reduce GHG emissions. The revised model by the two authors also takes into account the likelihood that the global economy's ability to generate new wealth would be affected by extreme weather, warming and other impacts from climate change (Sustainable Insights: Edition 47).

Whether or not the cost is underestimated, there is agreement that climate change will be costly. So the next question begs: who will foot the bill? Businesses inevitably will, according to the CDP and new Risky Business report. The CDP noted in its most recent report that companies are currently dealing with about 45 percent of the potential risks from climate change (Sustainable Insights: Edition 43). Many companies expect climate change to have a significant impact on business operations and that costs are already being incurred. Costs included buildings destroyed by hurricanes and increased insurance premiums. In addition, cost of fuel and disruptions to supply chains are other impacts companies reported.

Meanwhile, the Risky Business report also urges companies to treat climate threat as a business threat. The report, a joint project of Henry Paulson, Tom Steyer, and Michael Bloomberg, aims to "depoliticize" climate change and instead turn the focus towards the economic risk climate change poses to US businesses. The study finds that the impacts of climate change – rising sea levels, coastal damage, increased extreme weather – could cost the country billions of dollars over the next fifteen

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> *"I have had a fair amount of experience over my career in attempting to understand and manage risk," said Paulson, alluding to the 2008 financial collapse. "In many ways the climate bubble is actually more cruel and more perverse."*
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> *–Henry Paulson, Bush Administration Treasury Secretary*

to twenty years. More specifically it finds that by 2050 between USD 66 billion and USD 106 billion worth of coastal property may be below sea level. The report assesses the risk of climate change by economic sectors and regions (Sustainable Insights: Edition 48).

What are some ways that we can address the economic realities of climate change? Some economists argue that the discount rate needs to change. In a lot of climate modelling, researchers use discount rates of around 4% to 6%. These are based on commonly recognized estimates of the average rate of return on capital to calculate the present value of future benefits from reduced emissions today. However, "that sort of rate implies that humans should do a bit to save the planet, but only just a bit. Lower discount rates, like the 1.4% effective rate used by Sir Nicholas Stern in his review of the economic risks from climate change, imply that humanity should be willing to bear substantial costs in the present to protect generations in the distant future from harm." A working paper by NBER released in May entitled *Very Long-Run Discount Rates* estimates how distant benefits are actually valued in the market. Using an example of leasehold versus freeholds in the British real estate market, it finds that people are willing to part with real money now in exchange for benefit flows accruing well beyond any reasonable expected lifespan (Sustainable Insights: Edition 43).

A professor of economics asserts that climate change should be addressed by the private risk management institutions. In a NY Times op-ed, Robert Shiller, professor of economics at Yale University, argues that given the realities of climate change, we need to worry about the potential for disasters, many of which we cannot predict today. "Global warming needs to be addressed by the private institutions of risk management, such as insurance and securitization. They have deep experience in smoothing out disasters' effects by sharing them among large numbers of people. The people or entities that are hit hardest are helped by those less badly damaged," Shiller says (Sustainable Insights: Edition 44).

2 NON-FINANCIAL REPORTING GAINS TRACTION

STILL WORKING TOWARDS COMMON STANDARDS

The demand for non-financial reporting continues to rise; institutions are demanding more, ESG data suppliers are jostling to dominate this market, and organizations are attempting to provide clear definitions. However, the term 'non-financial' appears to us a misnomer, as the main reason for this data provision is the belief that this may unearth significant financial risks for corporates and their shareholders.

In Q1 2014 Trends we reported on the increase in non-financial reporting. In Q2, we saw growth in both the number of non-financial standards and the variety of requirements, perhaps muddling the field instead of bringing clarity to it. Notably, the European Union made strides in the area of non-financial reporting this quarter. A new regulation will require major businesses to add social, environmental, and human rights impacts to their annual reports. The historic law passed European Parliament in mid-April requiring large businesses – 500 employees or more – to report on environmental, social and human rights impacts on an annual basis. Although approximately 5,000 companies already voluntarily report, using GRI or another third-party framework, the law will apply to 7,000 companies. The first law of its kind to pass by EU member states, it will mandate that "public interest" companies: (1) Report on environmental, social and employee-related, human rights, anti-corruption and bribery matters; and (2) Describe their business model, outcomes and risks of their policies regarding these topics, as well as their diversity policy (Sustainable Insights: Edition 38).

More recently, the UK's Law Commission released a report in the end of June calling for a new code of conduct governing long-term investment behavior. The report concludes that trustees should take into account factors which are financially material to the performance of an investment. While the commission said the trustees are not obliged to take account environmental, social and governance (ESG) matters, as these were often "ill-defined" and covered a number of risks, where trustees think ethical or environmental, social or governance (ESG) issues are financially material they will be required to take them into account (Sustainable Insights: Edition 49).

Asset managers and banks also became more vocal on non-financial reporting. Stateside, the CIO of State Street announced in June that he will back Project Delphi, a new industry standard ESG framework that will be released in mid-2014. Project Delphi, an initiative to develop ESG "super factors", aims to be the "standard" framework for the industry according to State Street CIO, Rick Lacaille. The framework will be used within the State Street Global Exchange trading, research, and data arm, just launched last year. The project brings together asset managers, sell-side analysts, and asset owners among others to help guide investors and corporations in decision-making. (Sustainable Insights: Edition 45).

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> *"The increasing recognition of global 'mega-risks' such as climate change and resource depletion mean that sustainable investment must move up the agenda of everyone involved in pensions- trustees, administrators and sponsors"*
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> *–Lesley Alexander, CEO of HSBC Bank Pension Trust*

In addition, three major asset managers are demonstrating a stronger commitment to incorporating sustainability information into their investment processes. AMP Capital, a large Australian Asset Management firm, announced that it will remove 56 mining and energy companies from its responsible funds, which represent approximately USD 3 bn and about 2 percent of all funds under management by AMP. The firm notes that the change comes in response to "growing interest and concern" about climate change from investors. DekaBank, a German asset management bank, announced plans to phase in a "sustainability filter" which negatively screens out companies from its own multi-billion dollar investment portfolio. Examples of companies that will be screened out include cluster bomb or land mine manufacturers or companies that are guilty of systematic corruption. In addition, Larry Fink CEO of Black Rock, the world's largest asset management firm, revealed that he received criticisms from unnamed CEOs for a letter that he released in March 2014. (Sustainable Insights: Edition 35) Despite the criticisms, Fink continued to urge S&P 500 executives to practice long-term thinking. He warned them against relying too much on dividends and buybacks at the expense of long-term thinking. (Sustainable Insights: Edition 44)

In May, BlackRock announced it would partner with FTSE to help investors avoid fossil-fuel companies. This is driving an intense discussion about carbon asset pricing. The Climate Disclosure Standards Board (CDSB) is developing a proposal that would require companies to report on carbon stranded asset risk as part of the group's climate reporting framework. The London-based CDSB hopes that its proposed amendments will "encourage companies to account for and report in a way that enables investors and other users of mainstream corporate reports to identify, assess and respond to CASRs [Carbon Asset Stranding Risks]." (Sustainable Insights: Edition 40)

3 US & CHINA COMPETE AS LEADERS ON CLIMATE CHANGE

MEANWHILE, MIXED MESSAGES FROM OTHERS

We predicted that China would accelerate its environmental commitment and this appears accurate. Now the Obama Administration and EPA have upped their game raising hopes for real progress at the year-end climate summit. If these two economic superpowers really can begin to move in tandem, that may create more space for the politicians to maneuver by neutralizing the fear that such policies create a competitive disadvantage.

We've been reporting for several quarters that China has been positioning itself as a leader in climate change mitigation. This past quarter the country continued to take steps to reduce air pollution and cut greenhouse gas emissions. Notably, China is cracking down on coal pollution. The head of the coal division of China's National Energy Administration announced that China—the world's largest coal consumer—will ban imports of the dirtiest coal with high-ash and high-sulfur. This doesn't come as a surprise given China's soaring pollution levels and new reporting standards. Nonetheless, China's environment ministry found that nearly 2,000 Chinese companies are in breach of China's anti-pollution rules because they either failed to install pollution controls or provided false emissions data (Sustainable Insights: Edition 37).

China is not just addressing its local air pollution problem. This quarter, China launched its first carbon-linked financial product, a debt product linked to carbon offsets of the Shenzhen Emissions Exchange. The note, which will mature in 5 years, was issued by a unit of China General Nuclear Power Group. Chinese trading houses have historically considered carbon permits unattractive, so this move will test market confidence. The General Nuclear Power Group will allow investments of up to 1 billion yuan (USD 160M). We reported on growth in China's emissions markets in March. Meanwhile, since the beginning of the year Beijing has fined over 650 industrial facilities for breaking environmental regulations. This action demonstrates China's commitment to its "war on pollution". The fines have totalled over 14.5 million yuan (USD 2.3M) (Sustainable Insights: Edition 41).

The US has also taken strong actions to address climate change—perhaps in part to keep up with China. In May, the Obama Administration released an 800-page report, *National Climate Assessment*, outlining how a changing climate has impacted every region in the United States and noted that urgent action is needed. The report, finds that the climate has already changed and that the effects are already being felt. The report cited drought in the southwest, increased flooding in wet regions, storm surges on the East Coast and forests coming under attack from insects that thrive in the heat as possible outcomes of human-induced climate change. By highlighting issues in every region, the administration hopes to drum up support for federal and state actions, including existing and pending regulations. "Climate change, once considered an issue for a distant future, has moved firmly into the present," the scientists declared in the report (Sustainable Insights: Edition 41).

Towards the end of the quarter, the Justices of the US Supreme Court endorsed the Obama Administration's recent efforts to mitigate climate change by ruling to uphold the Environmental Protection Agency's authority to regulate emissions from the largest stationary sources under the Clean Air Act. Environmentalists are thrilled but others are saying that the ruling may open the door for limitations and how the Agency can exercise its authority in the future. For example, in part of the ruling, the court said the EPA could regulate sources of greenhouse gases as long as it already required permits for emitting conventional pollutants. This approach allows the agency to regulate large, industrial polluters, such as power plants and oil refineries, but also exempts millions of the nation's small and medium-scale carbon emitters, such as apartment buildings and individual businesses (Sustainable Insights: Edition 48).

The UK, on the other hand, has been sending mixed messages on its stance on combating climate change. After it found "no value for money" to keep two coal pits open, the UK government announced it will close two coal pits next year. Citing rising costs, government pension liabilities, and competition from US shale gas, the UK hopes to phase out coal in favor of cleaner gas and renewables (Sustainable Insights: Edition 37).

However, just weeks later, the Department of Energy & Climate Change revealed plans to cut funding for solar projects, saying that they were being completed so quickly they risked becoming unaffordable. Owners of solar installations larger than five megawatts will need to compete with other renewables–such as wind power–for financing. Companies in the midst of building large solar projects will still be eligible for subsidies under a new proposal that offers long-term contracts for power generators. In the past, the industry has been strengthened by subsidies and has further brought costs down through efficiencies. Despite setbacks, solar is on track to become the cheapest source of low carbon power by 2018. Some have condemned the move, saying it will weaken investor confidence in the renewable sector (Sustainable Insights: Edition 42).

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4 CORPORATE ESG BATTLE LINES ARE BEING DRAWN

WILL FOSSIL FUEL COMPANIES STAND THEIR GROUND? ARE MAJOR TECHNOLOGY COMPANIES THE NEW CONVERTS?

ESG issues continue to be featured on a range of corporate agendas, sometimes driven by activists or unfavorable media coverage but also from internal management strategies. Some sectors are emerging as front runners, such as consumer and transportation. A surprise has been the appearance of some major IT companies at the top of the rankings, when a couple of years ago they were the laggards. But not all companies are on board and it looks as if the fossil fuel companies intend to stand their ground. With significant financial resources and lobbying power, this battle may barely have started.

On the theme of mixed messages, we have seen some increased corporate activity around ESG, but it hasn't been consistent across the board. We are seeing action in consumer goods, transportation, IT and surprisingly some movement in the oil and coal sectors. However, other energy companies don't seem too concerned. Consumer product giants P&G and Unilever both made significant sustainability commitments this quarter. Under pressure from Greenpeace, P&G announced that it has set a new goal to eliminate deforestation from its palm oil supply chain by 2020. Multinational Unilever announced that all European factories have achieved a milestone of zero non-hazardous waste to the landfill. Two automakers under scrutiny for recent recalls have also stepped up their commitments. General Motors is the only automaker to sign the Climate Declaration, a campaign organized by Ceres and its Business for Innovative Climate & Energy Policy. Toyota said in a statement this quarter that it will release new engines that are expected to increase fuel efficiency by ten percent (Sustainable Insights: Edition 37).

Southwest Airlines also operated its first revenue flight equipped with new winglets, designed to increase annual fuel savings approximately 3.5 percent per aircraft. In an effort to cut its CO2 footprint, Maersk has increased sustainability initiatives, including maximizing fuel consumption by making slower journeys and maximizing capacity. The company reported savings of USD 764M on fuel in 2012. Statoil, an oil and gas production company plans to decrease CO2 emissions from its Canadian oil-sands projects by 20 percent by employing new technology. This announcement comes after the Alberta's oil sands have been heavily criticized by the opposition of the Keystone XL pipeline (Sustainable Insights: Edition 37).

Likewise, in a report issued by Greenpeace this quarter, Facebook and Apple received their highest grades yet across several sustainability measures. While Facebook received high marks for transparency and energy efficiency, Apple was praised directly by Gary Cook, Greenpeace's legislative director, for "making good on its commitment" to switch to fully renewable energy sources to meet their operating needs. After developing a "Clean Energy Index" based on the portion of the company's internet infrastructure that operates using renewable energy, Greenpeace awarded each company a "Clean Energy Index" score of 1 to 100. While Apple scored a 100, Facebook and Google received a 49 and 48, respectively. Greenpeace also gave good grades in the area of transparency to Facebook and Amazon (Sustainable Insights: Edition 36).

However, not all fossil fuel companies are concerned by the threat of stranded assets. Despite recent reports highlighting risk of stranded carbon assets, several coal, oil, and gas companies are expanding fossil fuel holdings. BHP Billiton and AGL Energy are expanding fossil fuel holdings despite some discussion on requiring companies to report on carbon stranded asset risk. The Carbon Underground's list of the largest public fossil fuel companies found that from 2010 to 2013 the top 200 fossil fuel companies increased potential total greenhouse gas emissions from proven reserves by 8.4 percent. BHP Billiton is holding 13.47 gigatonnes of potential carbon dioxide reports Carbon Underground. Coal companies high on the list include Adani, Coal India and Shenhua Group. The report–which highlights the potential of stranded assets and the existence of a carbon bubble– is timely given the release of a new broker report from Kepler Cheuvreux finding that fossil fuel firms face the potential of USD 28tn in revenue losses over 20 years (Sustainable Insights: Edition 40)