
From: "Raj Thamotheram"

Sent: 8. feb. 2015 22.59

To: "Kommunikasjonsenheten"

Cc: "Erlandsen, Espen"

Subject: Public hearing - investments in coal and petroleum companies - a personal submission

Dear Sir/Madam

Thank you for inviting comments on the report by the Expert Group. It is a serious and very valuable piece of work and I agree with it in many places.

I would like to focus my personal response (I have also contributed to a group submission) on one issue where I hold a different opinion, namely the assertion that prevailing market price can be assumed to be an adequate compensation for investment risk, a view which was reported in IPE:

<http://www.ipe.com/news/esg/norwegian-oil-fund-should-divest-firms-harmful-to-global-climate-report/10005429.fullarticle>

The Fund will be fully aware of the considerable debate in academic and practitioner circles about the validity of the Efficient Market Hypothesis even with regard to core financial matters.

<http://www.the300club.org/newsevents/tabid/79/vw/1/itemid/16/press-release-the-death-of-common-sense.aspx>

With regards to non-financial matters, the quoted assumption is on even more shaky grounds and Tesco provides some pointers of how this might work out in practice.

There is growing awareness that the markets ignored this "preventable surprise" and that claims that this is "exogenous event" are inaccurate: <http://www.ipe.com/analysis/long-term-matters/long-term-matters-lost-on-tesco/10004110.fullarticle>

The discontinuous shifts in pricing that followed when markets switched from being inefficient to efficient also meant that managers who were heavily exposed to the stock were unable to sell quickly enough to avoid significant loss. This appears to have contributed to a significant under-performance by the Fund's Tesco position: [UPDATE 1-Tesco woes drag down Norway's \\$860 bln wealth fund in third quarter | Reuter](#)

This is a single stock and micro example of the type of risks that are not adequately priced by the market when it comes to fossil fuels (and in Tesco's case the core risks were actually financial).

Part of the challenge is that we are at a point of high uncertainty about the future course of global warming. If a strong political agreement is forthcoming later this year, warming may be restricted to 2°C above pre-industrial. If not it may reach 4° or more by the end of the century. The probability of 4° warming this century cannot be ignored. Research prepared for the World Bank places it in the range of 20% to 40% depending on the success of the effort to reduce emissions.

Much of the uncertainty will be resolved in due course as we see whether or not emissions start falling and a better understanding is gained of how strongly the climate is reacting to increased atmospheric greenhouse gas concentrations. One might guess that 2030 is a plausible earliest date for knowing with something approaching certainty that we are, or are not, headed towards 4° this century.

There is also great uncertainty about the damage that 4° warming will cause to the global economy. The standard model of climate damage that economists use projects damage at around 4% of world GDP by the time 4° warming is reached. Although damage at this level would be locally disruptive it is effectively negligible in the global context of continuing 2% to 3% annual growth. This level of damages is, however, likely to be a best case.

Recent economic work, that reflects more closely the possibly high impacts that concern climate scientists, experiments with damage rising to a much more daunting 50% of world GDP by 4°. Damage at this level would have widespread effects and would tip long-term economic growth into lasting decline. The possibility of this level of damages cannot be overlooked and is arguably a plausible worst case.

A connection between equity value and future economic growth may be made through the assumptions that over the long-term the dividend income from a diversified equity portfolio grows at the same rate as world GDP and that the value of the portfolio is the present value of expected future dividends. By assuming that 4° warming is reached in a range of years during the second half of this century, the present value of the change in dividend income due to climate damage can be calculated.

In this way it is readily estimated that by 2030, if we then know that we are headed towards 4°, the value of a diversified portfolio will, in the worst case, be 5% to 20% lower than in an economy without warming. This reduction is the equity 'value at risk' due to future climate damage. In the best case, the value at risk will be negligible.

Additional discounting between 2015 and 2030 combines with uncertainty about the future course of warming to imply that the value at risk in 2015 is negligible for both the best case and the worst case damages. This result, the low estimate of damages by the standard model and the current uncertainty about the future course of both warming and damages explain why investors currently pay little attention to climate risks. As we have just seen, however, by 2030 the position may be quite different.

Because the value at risk could be large and increasing by 2030 if warming is heading towards 4°, the only practicable way to deal with the financial risk of climate damage is to reduce emissions by a rapid energy transition to decarbonise energy supply. The consequences of this transition for the value of a diversified portfolio as a whole would be negligible if it is begun soon, although it would shift value within the portfolio away from fossil fuel investments towards clean energy and engineering investments. If delayed for too long, the transition might negatively impact portfolio value.

Since the potentially severe economic damage that may be caused by promoting the use of fossil fuels puts at risk a significant portion of the value of a diversified portfolio, there is a conflict of interest between investors in, and directors of, fossil fuel companies on the one hand and diversified investors on the other. This conflict could be significantly reduced if investors used their voting rights to require publicly listed fossil fuel (and other) companies to move towards adopting business plans that not only enhance shareholder value but are also consistent with only 2° warming. To achieve this, investors would need collectively to vote in favour of changes to corporate behaviour. Howard Covington and I have called this 'Forceful Stewardship' to contrast it with the rather less urgent form of engagement that has been tried over several decades.

Voting in favour of business plans that enhance shareholder value but move companies towards consistency with 2° warming is something diversified investors can do without expense and risk but in practice this is quite counter-cultural. That so many investors voted with management and against the candidacy of Ian Dunlop at BHP Billiton is just one example of this trend: <http://www.abc.net.au/news/2013-11-13/bhp-criticised-for-backing-carbon-change/5088774>

Returning to the case of Tesco and many other cases of dysfunctional corporate behaviour, it seems clear, at least in hindsight, that shareholders were less assertive than they could and should have been: <http://www.ipe.com/analysis/long-term-matters/every-lesson-helps/10005489.fullarticle>

At the core of this challenge is a poorly recognised and systemic conflict of interest.

Company directors have fiduciary obligations to manage their businesses in the interests of shareholders while recognising broader interests. In English law, for example, a director must act in a way he considers in good faith would be most likely to promote the success of the company for the benefit of its shareholders having regard to the long term consequences of decisions and the impact of the company's operations on the environment.

Directors' obligations are in practice often interpreted quite narrowly as being primarily to manage the business in the interests of short-term value creation for shareholders. The recognition of broader and long-term interests comes well behind this in importance, especially if the company's actions are legal, its peers behave in similar ways and its business strategy has broad investor support.

Directors of fossil fuel companies can create value for investors in the short-term by seeking to maximise the sale of their products. These directors therefore oppose strong restrictions on greenhouse gas emissions and attempts to set a high price on emissions. This has the effect of frustrating government efforts to bring about a rapid energy transition by so-called corporate capture of climate policy. Australia serves as a good example of how this works in practice but the same trends are present in all countries, especially where extractive industries are important: <http://www.theguardian.com/commentisfree/2014/jul/16/history-will-condemn-climate-change-denialists>

If investors presume that effective long-term performance results from aggregating a series of successful short-term outcomes, they can argue that their long-term objectives will be met by investing in companies that are run for the short term. Although increasingly criticised, this investment approach is still dominant in practice even though it contributes to weak board performance <https://hbr.org/2015/01/where-boards-fall-short>

The connection here is that climate damage makes this presumption even more questionable when applied to investments in fossil fuel companies.

Moreover, investors have reinforced the fiduciary obligations of the directors of fossil fuel companies to increase short-term value by agreeing to remuneration arrangements linked to short-term profit or share price performance creating strong personal financial incentives for directors and senior management similar to those of undiversified investors in fossil fuels: http://irrinstitute.org/news/Institutional-Investors-Proxy-Advisors-Fail-To-Use-Economic-Value-Creation-As-Major-Factor-In-Say-on-pay-Voting_pr_12-22-14.php

It is for these reasons that I conclude that it is highly risky to assume that the real risks of climate disruption are priced in today.

You can find the data and models underpinning the above at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2551478

Part 2, which consider what investors should do, is available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2551485

This is an area of active research for my co-author on these last two papers, Howard Covington (formerly a senior investment banker and CEO of an asset management firm) and I, and we would greatly welcome the opportunity to share views in person.

Once again, thank you for this opportunity to comment.

Yours sincerely

Raj Thamotheram

CEO, Preventable Surprises
Visiting Fellow, Smith School, University of Oxford