Responding to

IHS and IPIECA

Focus on Oil and Gas Capex

January 2015
About Carbon Tracker

The Carbon Tracker Initiative is a team of financial specialists making climate risk real in today’s financial markets. Our research to date on unburnable carbon and stranded assets has started a new debate on how to align the financial system with the energy transition to a low carbon future.

You can download this report from:

Acknowledgements

This report was authored by:
CTI: Andrew Grant, James Leaton
ETA: Paul Spedding, Mark Fulton

Analyst Profiles

James Leaton, Research Director at Carbon Tracker

James Leaton has been leading Carbon Tracker’s Research since 2010. He has fifteen years sustainability experience across responsible investment, NGO policy and private sector consultancy. James was a senior policy advisor at WWF-UK focusing on the oil and gas sector and related finance. He worked as consultant at PwC and is lead author of the Unburnable Carbon series of reports which have introduced the concepts of carbon bubble, unburnable carbon and stranded assets.

Mark Fulton, Founding Partner at Energy Transition Advisors (ETA) and Advisor to Carbon Tracker

Mark Fulton has had 35 years experience in financial markets spanning three continents in London, New York and Sydney. As a recognised economist and market strategist at leading financial institutions including Citigroup, Salomon Bros and County NatWest, he has researched international economies, currencies, fixed income and equity markets. Mark was head of research at DB Climate Change Advisors at Deutsche Bank from 2007 to 2012. From 2010 to 2012 he was Co-chair of the UNEP FI Climate Change Working Group and in 2011 and 2012 was part of the technical committee of the UN Secretary General’s Sustainable Energy for All.

Paul Spedding, Advisor to Carbon Tracker

Paul Spedding joined Dresdner Bank (then Grieveson Grant) analysing the financial performance of UK oil companies quoted on the London Stock Exchange. In 2005, he moved to HSBC, where he was Global Co-Head of Oil And Gas Research. He retired from HSBC in 2013, after 33 years as a financial analyst.

Andrew Grant, Financial Analyst at Carbon Tracker

Andrew Grant formerly worked at Barclays Natural Resources Investments, a private equity department of Barclays that invests in the natural resources sector. He has previous experience in HR at Barclays Capital and as a consultant specialising in executive remuneration and corporate governance at New Bridge Street.
Key takeaways and recommendations

1. Carbon Tracker’s “Carbon Supply Cost Curve” analysis has focused on the break even prices of high cost capital expenditures and why these can potentially become wasted capital in a demand constrained world.

2. IHS and IPIECA have taken this into what we see as a narrow focus of the implications for proven reserves and short term company valuations.

3. In response, we have shown that whilst the majority of a company’s NPV may be due to near-term (the next 10-15 years) cash flows from proven reserves, if these cash flows are recycled and invested in new future production then the value is simply rolled over with greater risk.

4. Further, even using the IHS approach of no reinvestment and looking at current proven reserves only, deterioration in the oil price driven by expectations of future demand weakness could cause cash flows to weaken and valuations to fall.

5. We expect the transition towards a 2°C scenario to be driven by efficiencies, falling renewable energy costs and climate regulation, with or without a “global deal”. The impacts for fossil fuel company business models should be seriously considered.

6. The key point is that, rather than diluting performance by investing cash flows from historic high-return projects into newer low-return projects, companies might improve returns and lower risk for shareholders by boosting dividends and buying back shares.
Executive Summary

During 2014, following opinions from major oil companies on the same topic, consultants IHS Herold ("IHS") and industry association IPIECA published reports on carbon risk. We believe that these reports are complacent about the future for oil and gas, and underestimate the risks to industry business models. The major shortcomings of these analyses are as below:

1. **Ignoring Price Risk**
   - The reports conclude that action on carbon emissions, although necessary, is unlikely to lead to much change in demand over the next 10-15 years. They assume therefore that proven reserves are at little risk from policy changes. But the greatest threat to the industry comes from oil price changes impacting the cash flows coming from proven reserves. As we have seen in late 2014 (and 1986 and 2008), even small changes in the supply/demand balance can lead to violent shocks in oil prices causing material loss of value. And the further out one looks, the greater the potential reduction in oil demand (and prices) could be.

2. **Relying on growing demand**
   - In the IEA 450ppm scenario, 2035 oil demand is 2.5% below the BAU case.

3. **Ignoring reinvestment risk**
   - Reinvesting cash flows into future project rolls value forward at higher risk.

4. **Blaming coal**
   - Oil is the largest source of primary energy and much of it is used inefficiently.

The world still needs fossil fuels

Another theme of the reports is that decline rates mean the world will continue to need new oil and gas projects. True, but if meaningful climate action is taken, it will need far less. The IEA 450ppm scenario sees 2035 oil demand 25% below the business as usual case. This means fewer new projects – and hence less capital investment.

Blaming coal

Oil is the largest source of primary energy. CTI agrees that action is needed on coal but believes oil is an easier target for efficiency. Personal transport is inherently inefficient; just because action on coal is crucial does not mean that oil gets a free pass.
Whilst we continue to consider it worthwhile responding to and rebutting more detailed points such as those raised by IHS and IPIECA (which we will cover fully in this note), in our view, the oil & gas industry moving the conversation to debates on the minutiae of reserve definitions, valuation techniques and so forth is a distraction from the big picture. Carbon Tracker has always taken a long-term view, beyond the 10-15 year reserve lives contemplated by IHS and IPIECA.

This is because we are considering the implications of long-term carbon budgets, rather than valuing companies. And the key lead indicator of carbon is capital expenditures on new projects – the major focus of our “Carbon Supply Cost Curves”.

It is well established that there is a far greater amount of fossil fuels than we can afford to burn if we (as a society) are going to keep global warming below the 2°C obligation that has been set internationally. If business as usual continues, we will have emitted enough carbon to break this red line well within the next two decades. And yet – cash flows from current oil, gas and coal production are recycled into future projects, and exploration continues. The risks and limitations are clear; why do fossil fuel companies continue to steer a path that has a high risk of being untenable, rather than reduce capex on high-cost projects and return capital to shareholders?

We accept that, as turkeys may wish not to vote for Christmas, the fossil fuel and related industries will continue to promote scenarios of ever-increasing fossil fuel use, despite trends in economic growth, efficiency, renewables costs and increasing action on climate.

We would point out that one of the more reliable trends in the history of oil production has been companies’ consistent failure to predict periods of low demand. As Aldous Huxley wrote, “That men do not learn very much from the lessons of history is the most important of all the lessons that history has to teach.” We very much doubt that the fossil fuel industry will (at least publicly) predict the ultimate period of falling demand for their products, from which there will be no recovery.

The recent turmoil in oil markets reflects many of the trends we have been exploring. Demand was weaker than expected in the last several months, Saudi Arabia has some of the world’s lowest cost oil and the ability to challenge high cost producers. These trends are not going away any time soon in our view.

Investors must question industry assumptions and challenge capital expenditure at the wrong end of the cost curve. It is not too late for the transition to a lower-carbon economy to be an orderly one, with fossil fuel companies steadily shrinking overall but delivering the best results for their shareholders by focusing on returns and per share metrics. Some companies are now starting to show such capital discipline, for which the market is rewarding them. Carbon Tracker believes that only by curtailing new investment, especially in high cost fields, and increasing shareholder distributions or diversifying in some way,
Find out more about the Carbon Tracker Initiative:

www.carbontracker.org
www.et-advisors.com
@carbonbubble