

BURIED TREASURE

Jan-Peter Onstwedder and **Professor Michael Mainelli** explain why 'confidence accounting' has a particular relevance to companies whose value depends on natural resources



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Accounting supports decisions, both internal to an organisation and external for investors, lenders, customers and other stakeholders. Current accounts have a major shortcoming – they have little to say about the uncertainty surrounding values of assets and liabilities, or expenses and revenues. Yet, almost every decision worth considering involves uncertainty.

Confidence accounting is a proposal to use distributions, rather than discrete values, where appropriate, in auditing and accounting. In a world of confidence accounting, the end results of audits would be presentations of distributions for major entries in the profit and loss, balance sheet and cashflow statements. The proposed benefits of this include a fairer representation of financial results, reduced footnotes, more measurable audit quality and a mitigation of mark-to-market perturbations.

In July 2012, the Association of Chartered Certified Accountants, the Chartered Institute for Securities & Investment and Long Finance published a landmark report *Confidence Accounting: A Proposal* (see panel, below).

Andy Haldane, executive director for financial stability at the Bank of England, welcomed the proposal and wrote in the foreword: "My hope is that this proposal moves our thinking a step closer towards a set of accounting standards for major entities that put systemic stability centre stage. In the light of the [financial] crisis, anything less than a radical re-think would be negligent."

The report introduces confidence accounting, and features two examples showing how it could be implemented for the accounts of a bank and for a small professional services firm. However, there are other types of companies where it is even more important that major uncertainties are more transparent in the accounts, and not buried in the management discussion or footnotes.

For example, natural resource companies hold a significant part of their value in physical reserves. Reserve valuation is a combination of art and science. Exploration and production companies, as well as their lenders, investors and potential merger or takeover targets, all spend a great deal of effort understanding the physical reserves. But they cannot look to the financial accounts for much help – those give a "conservative" value based on guidelines generally set to assure lenders about the minimum amounts that can be extracted using today's technology and brought to market economically at today's prices.

So what's wrong with that number? Everything. Even lenders barely use it – they

assess recoverable reserves using industry standard methods, which are different from those used for the accounts. They combine these with their own price forecasts and, crucially, their own estimates of those values in a "base" case, in various "downside" cases, and generally in "upside" cases as well.

Why? Before lending, lenders need to understand the range of possible outcomes – what might go wrong, and what might go well. After lending, lenders need to refresh those assessments periodically, and they find management or published accounts of little help. Such assessments allow better individual credit decisions, but also meaningful comparisons across a portfolio through an understanding of which risks are unique to each firm, and which are common to an entire sector.

Equity investors do not use the accounting valuations either as anything other than a starting point for their own analysis. They also want to understand how values might change in future. That means understanding price sensitivities, the range of recoverable amounts – not just with current technology but also with emerging technologies (the impact of shale gas shows how new technology can rapidly affect valuations) – and numerous other environmental factors.

Consider climate change. In *Unburnable Carbon – Are the World's Financial Markets Carrying A Carbon Bubble?*, published in July 2011 by Carbon Tracker (see panel), author James Leaton writes: "Research by the Potsdam Institute calculates that to reduce the chance of exceeding 2°C warming to 20 per cent, the global carbon budget for 2000-2050 is 886 GtCO₂ [gigatonnes of CO₂]. Minus emissions from the first decade of this century, this leaves a budget of 565 GtCO₂ for the remaining 40 years to 2050. The total carbon potential of the Earth's known fossil fuel reserves comes to 2,795 GtCO₂. 65 per cent of this is from coal, with oil providing 22 per cent and gas 13 per cent. This means that governments and global markets are currently treating as assets, reserves equivalent to nearly five times the carbon budget for the next 40 years. The investment consequences of using only 20 per cent of these reserves have not yet been assessed."

In other words, if the world does restrict the use of fossil fuels to help limit global warming to around 2°C, only a fraction of the reserves currently on companies' balance sheets can actually be used. However, all those reserves are currently valued confidently at today's prices for the total amount technically recoverable. We accept uncertainty about technical recovery

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WITH NATURAL RESERVES ACCOUNTING, A LACK OF INFORMATION ON POTENTIAL UPSIDES COULD LEAD LENDERS AND EQUITY INVESTORS TO LEND OR INVEST LESS THAN IS WARRANTED, AND LEND AND INVEST MORE IN OTHER PROJECTS. THIS DISTORTION CAN BE REDUCED THROUGH CONFIDENCE ACCOUNTING



IF THE WORLD RESTRICTS THE USE OF FOSSIL FUELS TO HELP LIMIT GLOBAL WARMING TO AROUND 2°C, ONLY A FRACTION OF THE RESERVES CURRENTLY ON COMPANIES' BALANCE SHEETS CAN ACTUALLY BE USED



in the accounts, but not uncertainty about the economic ability to recover asset values.

People can, and do, argue about the likelihood of political will to implement regulations or other measures that will restrict greenhouse gas emissions consistent with the recommendations of climate scientists. Depending on your political persuasion, and your level of scepticism or confidence in complex and emerging science, you may disregard this factor as a triviality, or you may put it front and centre in your analysis of a company's value.

In neither of those cases, however, do the accounts give the user much insight about the uncertainty that everyone knows is there. Confidence accounting proposes that the accounts show ranges of values, with a clear and concise explanation of the assumptions used to generate the expected value.

This could be a full-blown distribution range, rather like the Bank of England's inflation "fan" charts. It could also mean some simple downside and upside ranges at, say, the 5 per cent and 95 per cent confidence ranges, as assessed by management.

Ranges could be expressed using something graphical in between, such as in "candlestick" diagrams that are typically used to show the

CARBON COPIES

Confidence Accounting: A Proposal is free to download from bit.ly/confidenceZYen
Unburnable Carbon - Are the World's Financial Markets Carrying a Carbon Bubble? published in July 2011 by Carbon Tracker is free to download from bit.ly/unburnable-carbon

range of price movement over a given time interval. Is this too difficult? As we noted before, equity analysts, corporate financiers and lenders already do this analysis today, just with their own estimates, which are no doubt less accurate than those of management.

Company managers should have the best views on technology and resource recovery prospects. It seems reasonable that, as these views constitute a major part of the valuation, the inherent uncertainties of management should be shared. This kind of analysis is conducted before committing billions to new exploration projects, so sharing it is not that difficult a step.

The current bias in accounting is towards "conservative values" and it leads, like any systematic bias, to a misallocation of resources. In the case of natural reserves accounting, the

lack of information on the potential upside could lead lenders and equity investors to lend or invest less than is actually warranted – and, therefore, lend and invest more in other companies and projects. This distortion can be reduced by incorporating the potential upside in a clear and consistent manner, through confidence accounting.

Ranges should help outside parties to evaluate not only the best estimate of reserve values (instead of the conservatively biased estimate they currently get), but also the views and beliefs management holds. These views and beliefs would not be muffled in the woolly marketing phrases of the management discussion, but in quantitative charts and tables complete with assumptions and methodologies. Further, these management opinions can be tested over time, to see how their views of uncertainties evolve.

Bertrand Russell wrote: "The whole problem with the world is that fools and fanatics are always so certain of themselves, but wiser men so full of doubts."

Uncertainty is everywhere. Dealing with uncertainty is what analysis is all about. Uncertainty is part of every decent financial analysis today. Shouldn't it be part of accounting, too? ■