Agenda Item 4.

Address to the WODC Finance and Management Overview and Scrutiny Committee, 2 October 2019

Justin Bowles, CFA

Thank you for giving me the opportunity to speak in front of the committee. I want to address the issue of climate change, but probably from a rather different angle than usual. As a Chartered Financial Analyst, I want to approach it from the angle of risk.

So my last corporate job was as a hedge fund manager in Japan. My team was pretty successful, and in 2009 I won the Japanese hedge fund manager of the year award.

One key to running a successful hedge fund is to pick good shares, but that is not actually the most important role as a fund manager. Your biggest challenge is to control risk. So you spend a huge amount of time gaming out worst-case scenarios. You want to know what would happen to your fund if you are hit by something really bad: like a worldwide great recession.

The big question is this: Will a low probability, high impact event blow you out the water?

So what do we mean by low probability? If you remember your school stats, that's a two or three standard deviation event, or worse. A two-standard deviation event has a 5% probability of happening, that's one in twenty in betting odds, and a three-standard deviation event has less than a 1% probability of happening, that's less than one in one hundred.

Your risk manager at head office and your clients also want to know how your fund will perform if hit by these kinds of one-in-twenty or one-in-one hundred type events. If you can't answer that question, you would be sacked for being reckless or incompetent.

Given my professional experience, and post-graduate academic background in statistics, finance and economics, over the years I've developed a wider fascination with risk in general. So, about 10-years ago, I decided to take a look at climate change risk. I was shocked. The level of risk policy makers accept with respect to climate would get them sacked in the fund management or insurance industry.

I don't know if you saw the BBC documentary "Climate Change: The Facts" a few months ago. In that documentary, Sir David Attenborough said we potentially faced the collapse of civilisation. I'm a numbers guy, so when Sir David says we "could" face the collapse of civilisation, you have to ask what kind of probability are we looking at here?

A number of scientists and economists have had a shot at coming up with a percentage number. Jochim Schellnhuber, the Nobel-prize winning atmospheric physicist and climate change advisor to the Angela Merkel and the Pope puts odds for the collapse of civilisation at 50%. That's about the worst-case scenario I've seen. The famous climate economist Martin Weitzman puts the odds at around 5 or 10 percent. Others are around one percent.

As a statistician, I know it is difficult to come up with a precise risk number for catastrophic climate change. But we have probability ranges that start at one percent and go way, way higher. I've got two kids aged 18 and 22, who both could live to the end of this century, so I am really unhappy about that level of climate risk.

And let's put that risk in perspective. What odds make you buy fire insurance? The chance of your house burning down, a pretty catastrophic event, but not as catastrophic as the collapse of civilisation, is actually about one in 3,000. Yet we buy fire insurance.

So if catastrophic climate risk has a far higher probability than your house burning down, are we doing everything we can to get the risk lower?

Well, we are not. I'll just give you one example. Here is Shell's Annual Report. It contains Shell's business plan. The business plan sees Shell finding and producing more oil for decades to come. Shell is not in line with the Paris accord to prevent dangerous climate change, nor is it in line with the UK government's 2050 net zero carbon emission target. Shell, therefore, is increasing the risk of catastrophic climate change by helping to pump out carbon into the environment for the foreseeable future.

So, obviously, any person with a fiduciary duty over allocating pension fund money should not be investing in Shell. If you accept the need to control the risk of catastrophic climate change but then allow a pension fund you have oversight over to invest in Shell, you are engaging in magical thinking. You can't do both. That's why, as a numbers guy, I support the fossil fuel divestment movement and am a member of the group Fossil Free Oxfordshire. That is not an emotional decision, it's a decision led by statistics.

So now I come to you, the Finance and Management Overview and Scrutiny Committee. That's a risk management role.

The Economist Magazine touched on climate change responsibilities in their climate change issue last week, to coincide with the school student strikes in 160 countries around the world that saw 7 million people take to the streets to protest over the risk of dangerous climate change. The *Economist*'s lead article said this:

"Climate is a matter for the whole government. It cannot be shunted off to the minister for the environment whom nobody can name."

I'll paraphrase that:

"Climate is a matter for the whole of local government. It cannot be shunted off to the cabinet member for the environment."

In other words, anyone connected with finance in local government needs to incorporate climate risk considerations in all, and I stress all, their decision-making processes. You owe it to your kids and your grandkids to do that.

Thank you

Justin Bowles, CFA