

We've all read about climate change, but have you considered what could happen to your company's bottom line in the event of extreme weather conditions and temperatures? If you work for a corporation that is dependent on crop commodities, for example, then the failure, delay or poor quality of that crop could damage profits. The question is: what can you do about it?

Weather Risk

Is it Time to Cover Up?

Treasurers are coming round to the idea that it is possible and necessary to look at ways of measuring and hedging their exposure to weather risk using financial products. One German brewery found this out for itself in 2006 when a heat wave greatly damaged its barley crop. The supply of high quality barley used in traditional German beer fell from 1.6 million tons to 1.2 million tons resulting in a price rise of over 40%. Companies working in food and brewing, agriculture, energy production, transport, tourism and entertainment, as well as construction, should all be aware of their weather risks.

What is the size of the problem?

In 2008, WeatherBill, a San Francisco-based weather coverage provider, published some research that found countries with extreme temperature variations combined with high levels of mining and agricultural output are the most sensitive to the weather. The research also identified the total weather sensi-

tivity in US dollars by country. The US was found to have the largest total weather sensitivity, estimated at \$2.5 trillion, or 23 per cent of the national economy. Western Europe (using figures from Germany, UK, France, Italy, Spain and The Netherlands) came a close second at \$2.4 trillion.

This research confirms that the numbers at stake are high and should not be ignored by corporates, rating agencies, banks or other financial parties. Failure to hedge financial risks leads to lower ratings and can seriously penalise a company's share price.

So what can be done?

The first step is to measure your company's exposure to the weather as accurately as possible and to establish a link between the weather and cash flows. Studying weather patterns from previous years and correlating these against turnover will help to form a picture. You will be surprised at just how much data is available on rainfall, temperatures and wind speed from organisations and trade bodies.

It might also surprise you to discover that weather can be traded like any other financial instrument. Weather derivatives are bilateral futures contracts that are accounted for based on atmospheric conditions, wind speed or rain. Typically these instruments are used for managing the financial exposure of a

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company to weather conditions and this can include the financial gain or loss arising from movements of daily weather. The cash flows resulting from weather derivatives are based on weather conditions specified in the contract. For instance, the company will receive a payment if the number of sunny days in a given period is less than 20. This might offset the loss that a brewing company will incur from a cold summer, for example.

The derivative transaction can be a forward, future, swap or option contract. Such products have been around for at least 10 years and are offered by banks, insurance companies and specialist providers such as SwissRe, RenaissanceRe and Galileo Weather Risk Management, to name but a few. Large insurance companies also offer policies covering financial loss due to adverse weather conditions.

In the last couple of years WeatherBill has begun to make a name for itself by selling coverage that pays out solely on the basis of weather measurements. Unlike an insurance contract, there is no claims process and no proof of loss is required. This service allows businesses of any size to price weather risk online. In the past it was a very cumbersome process to hedge weather risk, and derivatives contracts were usually only available to very large companies able and willing to hedge millions of dollars.

Why the slow take up?

So, there are a number of cost effective ways of hedging weather, but some challenges remain. One obstacle is that many treasurers are just not aware of the products available and have not measured the potential weather risk for their company. Another problem is in the accounting of weather risk hedging. Treasurers of public companies need to show that the purchase or sale of a derivative instrument is a true and fair hedge and not speculation. At the moment we have a situation where economics are dictating that weather needs to be hedged but, on the other hand, accounting boards have not yet caught up with this by generating standards to apply. The IASB urgently needs to provide a set of procedures to account for weather exposures and weather hedging products. <



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