Not all hedges are created equal

One of the key lessons risk managers should take from the global financial crisis is that apparently sound hedges may not do the job in all conditions, argues ***David Rowe***

It is often said that the four most dangerous words in the English language are: "This time is different". Having begun a career as a would-be economic forecaster on September 1, 1973, I learned this lesson early. At the time, forecasting had a good track record, encouraging some practitioners to boldly proclaim the end of boom-and-bust business cycles, but – six weeks after I entered the profession – the first successful Arab oil embargo ushered in what was then the worst recession since the Great Depression. There are few better teachers than harsh experience.

I now propose to nominate a candidate for the two most dangerous words in the English language: "It's hedged". This tends to be every trader's catch-all defence when questioned on a particular position or trading strategy – and one of the first lessons risk managers learn is to be sceptical of such claims, even when they are made in the context of typical day-to-day fluctuations.

Beyond this habitual scepticism, however, the ongoing financial crisis has taught us the importance of a simple distinction – between what could loosely be called value-at-risk and black swan situations. Hedges that are legitimate and effective in the context of VAR-type exposure may be useless or even counterproductive relative to black swans.

One of the most instructive examples of this is told by Michael Lewis in his book, *The Big Short*.[1] It is the story of how a senior trader at Morgan Stanley anticipated a major correction in the subprime collateralised debt obligation (CDO) market but still managed to create a $9 billion loss for his firm.

To leverage his bearish view, the trader had purchased $2 billion in credit default swap (CDS) protection on the mezzanine tranches of subprime CDOs. He firmly believed that eventually he would realise a profit equal to a substantial portion of this $2 billion position when the underlying securities collapsed in value, Lewis claims – but there was one problem. Maintaining the position was costing Morgan Stanley $200 million a year in fees. This represented about 10% of the asset-backed bond unit's annual profit target, and even the most staunch subprime sceptics were not sure exactly when the collapse would occur.

To relieve the pressure on his running costs, the trader decided to sell some subprime protection to generate offsetting fee income. It would have made no sense to sell protection on mezzanine tranches, since these were the very securities he expected to collapse in value. Selling that kind of protection effectively would have cancelled his cherished short position, which he was sure would pay off in the near future. Instead, the book describes how – in a handful of massive trades with Goldman Sachs, Deutsche Bank and others – he sold CDS protection on a series of AAA-rated senior tranches. The problem was that the fees for this type of protection were much smaller, relative to the notional amount guaranteed, than the protection Morgan Stanley owned on mezzanine tranches. This meant that to generate fee income to offset his mezzanine protection costs, the trader had to sell AAA protection on roughly 10 times the $2 billion face amount of his original short subprime bet. In the end, before he was finished, Lewis claims the trader had sold CDS on around $16 billion of senior CDO tranches, which

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collapsed dramatically in value after losses of around 8% on the underlying subprime mortgage collateral.[2]

When this reckoning finally arrived, the mezzanine protection the trader had bought paid off – but the correction was so much worse than expected that Morgan Stanley suffered even larger losses on the protection sold as a hedge on the original position.

In late 2007, Morgan Stanley reported a $9.2 billion trading loss, which the bank's then chief executive was forced to explain to analysts. Some of the bank's hedges against subprime mortgage risk "didn't perform adequately in extraordinary market conditions of late October and November", he said[3].

It would be hard to find a better parable to hammer home the need for scepticism about claims that a position is hedged. Even when a hedge offers perfectly legitimate protection against small movements in rates or prices – which should also not be taken for granted – it may be worthless or even positively dangerous in the face of a genuine systemic crisis. ■

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[1] *Lewis, Michael, The Big Short, WW Norton & Company, 2011, pages 200–219*
[2] *Ibid, page 206*
[3] *Ibid, page 217*