Credit Default Swaps

In a recent article in London's Evening Standard newspaper, City Editor Anthony Hilton wrote about the potential problems with Credit Default Swaps - "All Geared Up for an Economic Disaster". This article explains the mechanics of these instruments and also how they are used by institutional investors today.

Unfortunately, Credit Default Swaps are badly named; they are not a swap - such as an interest rate swap - and they are triggered by more events than simple defaults. A more accurate name would be 'Credit Event Insurance Policies'.

During the 2000-2003 bear market in equities, institutional investors were advised by their actuarial consultants to move their portfolio weightings away from equities and into bonds. Bond prices moved higher and therefore their yields moved lower. The total return on bonds proved to be much lower than the usual returns that had been experienced by investors in equity markets in the Nineties - and when the bear market ended, also proved to be lower than the annual returns actually experienced in equity markets after March 2003. Not wanting to reverse the asset allocation decision, institutional investors sought ways to increase returns from their bond portfolios. A move from risk-free bonds such as Governments into Corporate Bonds increased the yield on the portfolio, because of the increased credit risk of the corporation issuing the bond. However, an increase in yield of one percent is small benefit if the bond defaults and the owner loses 100 percent of the capital invested in that bond. Therefore, the market for "insuring" these credit-risky Corporate Bonds against "default" grew dramatically. A "Credit Default Swap" is the formal version of this insurance policy.

In a similar manner to life insurance, this insurance policy is set up between a "protection buyer" and a "protection seller". The former typically owns a Corporate Bond and wishes to insure against its default; the latter believes that the default will not occur, or believes that if he builds up a portfolio of these insured risks, he will have reduced his total risk via diversification. The protection buyer pays an annual insurance premium to the protection seller for the duration of the insurance policy.

In the event of a default, the protection seller guarantees that he will buy a specified amount of a specified bond from the protection buyer at the maturity price (typically 100 or par), even if those bonds are worthless.

These insurance policies can be purchased on an individual corporation, covering just its own bonds, or an index of corporations, covering a specified group of their bonds.

After a short period of buying such insurance, paying annual premiums to protect their credit-risky bond portfolios, institutional investors realised that they could further increase the return on their portfolios by selling such insurance and receiving the annual "insurance premiums". As a result, nowadays, the total expected return of a bond portfolio might consist of not only any expected increase in the price of the individual bonds as yields continue to fall; not only the coupon (interest) payments from the individual bonds; but also the annual insurance premium. Of course, the selling of such protection introduces far more risk into a portfolio, as well as far more return.

Credit Default Swaps now constitute the most rapidly growing part of the world-wide derivatives market. As the market has developed, it has become divorced from its original intention, so that now an investor can buy or sell, transfer or manage, pure credit risk, without necessarily holding any underlying corporate bonds. To return to our earlier analogy of life insurance, it is like being able to buy and sell life insurance policies regularly on certain well-known people and so take advantage of - ie. make a financial profit from - any news that they have become ill, or that they have recovered from an illness.

Investment Banks have built a large business in packaging Credit Default Swaps into financial instruments called CDOs - Collateralised Debt Obligations - and selling them as investments to institutional investors. These CDOs contain cash plus lots of the above sold insurance policies. The interest payments ("coupons") on these CDOs come from the insurance premiums received plus interest on the cash. If there are no defaults during the life of the CDO, the CDO pays out to its buyer a high annual return and then, at the maturity date, also pays back his full initial investment; if there are defaults, a high annual return is still paid out by the CDO, but some of the cash in the CDO is paid to the protection buyers because of the default and therefore less cash is available in the CDO at the maturity date.

Typically these CDOs are geared, or leveraged, so that still more insurance policies can be sold, still more annual insurance premiums received, and still higher annual returns paid out by the CDO. Unfortunately, the higher the number of insurance policies sold, the higher the chance of a default reducing the capital value paid back on maturity. In this way, a default affecting one corporation in a CDO portfolio which contains 100 corporations might not have a one percent adverse impact on the value of the CDO, but a ten percent adverse impact.

Having now learnt something about these new derivative instruments, you might ask, "How does an investment institution, such as a pension fund, keep track of its risk and reward when selling such insurance policies via CDS or CDOs?" The quick answer is that these instruments are "risk-analysed" in terms of "Value at Risk" (VaR) parameters by specialised computer models. In our opinion, these models are sharp instruments if small changes occur in markets, but blunt instruments if large changes occur. In a "perfect storm" in financial markets, VaR models will be useless.

However, a more important question might be "Why do pension funds want to transform themselves into insurance companies by selling insurance on corporate defaults?". That is a question that bewilders us also!

Trevor Robinson

Trevor Robinson is an independent consultant specialising in derivatives.

He is an Associate of AllenbridgeEPIC Investment Advisers and can be contacted via his website www.trim.co.uk.