



Challenges

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Derivatives can reduce many risks, except the human kind

IN MANY people's minds, derivatives—those obscure financial contracts peddled by the maths wizards of Wall Street and the City of London—have become synonymous with financial risk. That seems odd when you consider that they are designed to shift risk precisely from one party to another. In theory, that should help to make investors safer from financial storms.

Derivatives hit the headlines in the 1990s when Orange County, an upmarket suburb of Los Angeles, went bust because it had used them inappropriately. Procter & Gamble, a staid maker of household goods, and Gibson Greetings, a mid-western greetings-card maker, also lost heavily on derivatives. And those were only the biggest debacles.

The use of derivatives by governments, in particular, carries risks that have received too little attention, says Benn Steil of America's Council on Foreign Relations. Governments have employed these instruments mainly to tap cheap capital, but it all depends on how they set about it. Sweden is known as an active and sensible user of such programmes. The Italian government, on the other hand, has recently been criticised for its highly creative use of an interest-rate swap. According to a report for the International Securities Market Association (ISMA) by Gustavo Piga, the government seems to have used derivatives to mask the size of its debt.

Last year, Warren Buffett, America's most famous investor, launched a new tirade against derivatives, calling them "financial weapons of mass destruction." He was joined by Bill Gross, the manager of PIMCO, a multi-billion-dollar bond fund. They and other critics charge that derivatives contracts contain dormant losses that will come to haunt their owners, typically insurance companies and banks. The critics also claim that derivatives enable corporate treasurers to gamble with shareholders' money.

There is something in this. Only last summer, Freddie Mac, America's giant government-chartered and shareholder-owned mortgage firm, announced that it was restating its profits for the past few years. The culprit turned out to be the derivatives the firm had used, ostensibly to smooth the effects of see-sawing interest rates on its mortgage business.

The good, the bad and the ugly

Derivatives are not exactly new—Japanese rice traders, for example, used futures in the 17th century—but they have become much more sophisticated in recent years. The modern toolbox consists mainly of futures and forwards (agreements to buy an asset in the future at a fixed price), options (which give you the right, but not the obligation, to buy an asset, say a share or a lump of foreign currency, in the future at an agreed price) and swaps (which enable you to exchange a future string of payments in one currency for one in another).

Such financial instruments, and combinations of them, come in two types. The first is the listed variety, such as call options (the option to buy) and put options (the right to sell) written on shares in the stockmarkets. The second, and by far the biggest, group is over-the-counter (OTC) derivatives, which are arranged between two parties. The outstanding value of OTC derivatives has been growing rapidly for the past 20 years (see chart 5).

Those that have caused most of the trouble make up only a small part of the total market. They are called exotic options, and have been responsible for many of the debacles in the 1990s, as well as for the troubles at Freddie Mac today. They are often so complicated that it takes a PhD in maths and days of computer time to find out whether you have made a fortune or gone bust. Perhaps as a result, the popularity of exotics has waned somewhat.

What makes derivatives so useful, despite the dangers, is that they allow an ever widening array of risks to be traded. Weather derivatives, for example, can be written so that they will pay out if the temperature rises above a certain figure, which could be a boon for an electric utility in the summer, or if snowfall during the winter is lower than expected, which could help a ski resort.

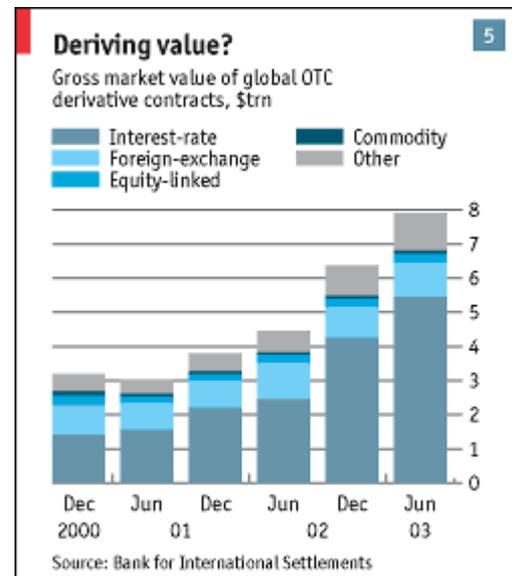
In 2002, Goldman Sachs and Deutsche Bank set up a scheme to trade economic derivatives, which give punters a chance to take bets on the direction of macroeconomic variables such as unemployment and inflation. Speculators may view this as just another opportunity to take a punt, but the longer-term hope is that such markets can help lay off more fundamental economic risks. Trade unions, for instance, might buy an unemployment derivative to protect themselves against the consequences of their members losing their jobs. Robert Shiller, of Yale University, wants to see that kind of derivative widely used (see box).

However, bankers have become very concerned about financial derivatives again, much as they were in the mid-1990s (see table 6), according to a poll from the Centre for the Study of Financial Innovation. Like Messrs Buffett and Gross, they are particularly bothered about credit derivatives, more than about bad lending and poor bank management, the more usual banker's nightmares.

A credit derivative is a corporate contract that pays its holders if a certain company goes bust. The idea is that if you own a credit derivative for, say, General Electric (the "name"), and GE declares default on its debt, you will get paid. This is especially handy if you already own some of GE's bonds: the credit derivative can help limit your losses, in the same way that an insurance policy would. Such contracts have been booming in the past five years.

But will they pay up?

One particular cause for concern is counterparty risk—the possibility that people holding credit derivatives will not get paid by those who issued them. Credit derivatives are largely unregulated, so no one knows what would happen if there were lots of defaults. Another worry has to do with the legal structure of credit derivatives. They often fail to lay down clearly what would constitute a default for the purpose of triggering payment to holders of such derivatives. Mr Gross—along with the bankers—fears that credit derivatives could make the markets for



corporate debt more jittery rather than stabilise them.

Mr Buffet's grouse is more practical and immediate. A few years ago Mr Buffett's firm, Berkshire Hathaway, bought General Re, an insurance firm, which like other big insurers and reinsurers had piled eagerly into the credit-derivatives market. But when the economic downturn came, such firms found they had to pay out billions, and General Re was hit especially hard.

Alan Greenspan of America's Federal Reserve, however, was having none of Mr Buffett's complaints. He quickly stepped in to praise credit derivatives for shoring up the stability of the global financial system. If insurance companies had chosen to sell protection on corporate debt of their own free will, that was their business.

Some derivatives, however, do seem to lend themselves particularly well to nefarious purposes. Their very complexity makes them perfect for foiling the rules of the equally complex tax codes of most rich countries. For example, they can be used to turn a capital gain into a temporary loss, a dividend or any other type of income that the taxman treats leniently. America's tax police are trying to crack down on this kind of thing.

America's accounting watchdog, the Financial Accounting Standards Board (FASB), has introduced a new rule requiring companies to show whether they are using derivatives to hedge risks connected to their business, or whether they are just taking a risky bet. Genuine hedging, such as an airline buying forward against a rise in the price of jet fuel, is spared scrutiny, but less obvious hedges have to be carried on a company's books at their market value. This can cause wild fluctuations in a firm's income, so the rule should discourage the sort of punts that lack any clear economic logic.

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