

# Credit derivative products and their documentation: unfunded credit derivatives

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## 1. Introduction

The range of credit derivative products, their associated jargon and many acronyms dazzle:

- single name, basket, constant maturity, constant proportion and portfolio credit defaults swaps;
- full and tranching index trades;
- collateralised debt obligation (CDO) squared;
- CDO cubed;
- constant proportion portfolio insurance (CPPI); and
- constant proportion debt obligation (CPDO) transactions.

And these are just a few of the products in the credit derivatives arena.

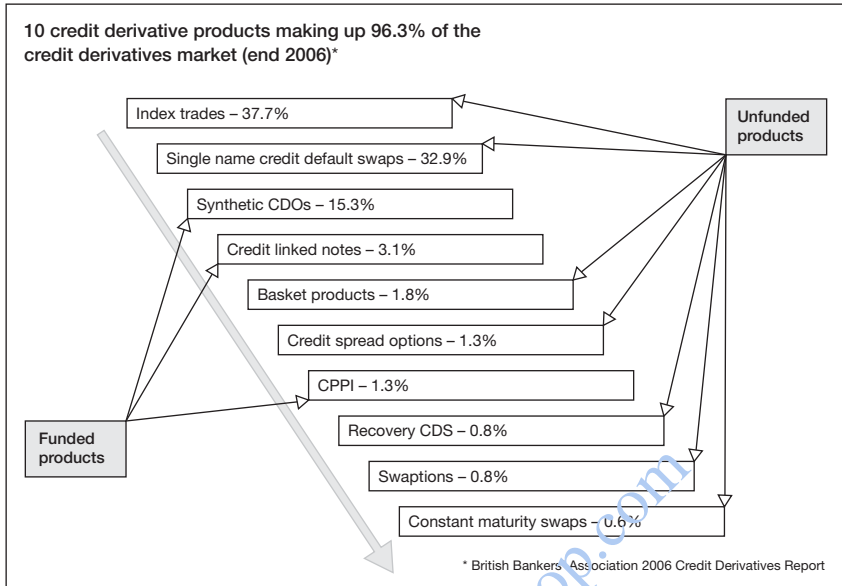
New innovations regularly arrive to market, with trade press each year heralding a 'hot' new thing. *Credit* magazine's 'The 2006 ABC of CDOs' stated that: "The growing popularity of certain types of asset backed securitisation...has given rise to a thriving market in CDOs of ABS". On the arrival of CPPI products, it pronounced that it was "[n]o surprise that [they are] being talked about as 2006's hot ticket". And *Credit* magazine is right: these are exciting times. Keeping up to date with the product universe is difficult, even for the most dedicated practitioner.

This chapter provides an overview of each of the most commonly traded 'unfunded' credit derivatives products in today's market. It also discusses the popularity breakdown of these and their sister 'funded' products. It is followed by a chapter that analyses ISDA's template documentation for unfunded credit derivatives and a further chapter discussing funded credit derivative products, such as credit linked notes, CDOs, CPPI and CPDOs.

## 2. The credit derivative product range

The British Bankers' Association periodically produces a report on credit derivatives market activity, based on survey returns of major market participants. Its most recent release, *The British Bankers' Association Credit Derivatives Report 2006*, lists the key credit derivative products making up the market as of the end of 2006. At the time of publication, these are the most up-to-date figures available.

The report discloses that 10 traded credit derivatives products make up 96.3% of the market. These products are:



- index trades (37.7%);
- single name credit default swaps (32.9%);
- synthetic CDOs (15.3%);
- credit linked notes (3.1%);
- basket products (1.8%);
- credit spread options (1.3%);
- CPPI (1.3%);
- recovery swaps (0.8%);
- swaptions (0.8%); and
- constant maturity swaps (0.6%).

Within these product types are certain sub-categories of products that are becoming increasingly popular, such as credit default swaps on asset-backed securities (CDS on ABS).

This chapter looks at the seven most traded types of unfunded credit derivative product: single name credit default swaps; index trades; basket products; credit spread options; swaptions; recovery swaps; constant maturity swaps; together with the 'hot new product' of CDS on ABS. Where ISDA has produced template documentation for these products, this is discussed further in the following chapter, alongside several bespoke (but significant) other products which ISDA has documented.

At the end of 2006, 87 % of the universe of credit derivative products, by volume, could be divided into three products: single name credit default swaps, index trades and synthetic CDOs. In recognition of this, these products, along with CDS on ABS, are covered in greater detail in Part III.

### 3. Types of credit derivatives: unfunded and funded products

Unfunded credit derivatives are bilateral, privately negotiated credit derivatives contracts. A simple single name credit default swap between two corporates is the most common example. These products are described as 'unfunded' because the seller (or those standing behind it) makes no upfront payment to cover its potential future liabilities.<sup>1</sup>

The seller will make a payment in an unfunded credit derivative only if the conditions to settlement are met. Consequently, the buyer takes a credit risk on whether the seller will be able to pay any cash settlement amount or physical settlement amount. Unfunded credit derivatives include: single name credit default swaps; index trades; basket products; credit spread options; swaptions; constant maturity swaps; recovery credit default swaps; and CDS on ABS. An overlap exists with funded credit derivative products, in that these products are usually embedded into a note structure when creating a funded credit derivative.

A funded credit derivative involves the issue of a debt obligation either by a special purpose vehicle (SPV) or a financial institution, which is purchased by the effective seller – the noteholder. The proceeds of the notes are 'collateralised' by investing their proceeds in highly rated securities, such as Organisation for Economic Cooperation and Development country government bonds; or in a guaranteed investment contract account.

The note proceeds are used to fund the payment of any cash settlement amount or physical settlement amount. This must be either paid pursuant to a credit default swap entered into by an SPV issuer or absorbed by the issuer pursuant to the conditions of the notes.

The structure of funded credit derivatives involves embedding a credit derivative product into the structure of the transaction. The type of credit derivatives embedded may include many of the unfunded derivatives products mentioned above. Funded credit derivatives are generally credit-linked notes; synthetic CDOs; synthetic CPPI transactions and CPDOs.

#### 3.1 Single name credit default swaps

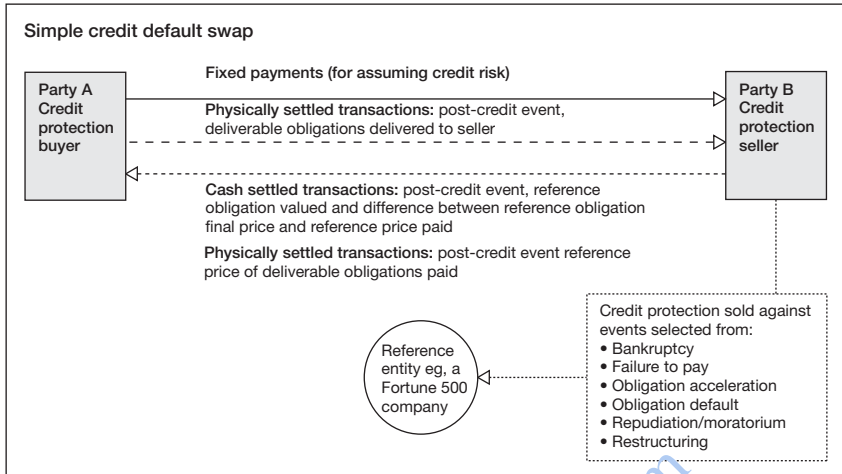
The single name credit default swap is the cornerstone credit derivative product. Most other credit derivative products have been adapted from it and it still makes up 32.9% of the credit derivatives market.

A solid understanding of single name credit default swaps is essential for an understanding of the more complex credit derivative products, such as constant maturity credit default swaps, portfolio credit default swaps and synthetic CDOs. Part III contains a chapter dedicated to single name credit default swaps, which covers the product in more detail.

In a nutshell, the product can be defined as a privately negotiated bilateral contract between a 'buyer' and a 'seller', referencing the third-party credit risk of a single reference entity. In 2004, for example, the most commonly traded reference

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1 Excluding any payments under a credit support annex.



entities included General Motors, Ford, DaimlerChrysler, France Telecom, Italy, France and Japan.<sup>2</sup>

In a standard transaction, the parties agree that the buyer will purchase a pre-agreed notional amount of protection against the credit risk of the reference entity's obligations. The specific obligations against which the seller sells credit protection are decided at the outset. They may be specific named securities of the reference entity such as a \$200 million floating rate note, or they may be a category of obligation, such as borrowed money, displaying certain characteristics (eg, listed bonds with a maximum maturity date of less than 30 years).

The credit risk against which the seller sells credit protection covers only the risk of certain pre-agreed credit events occurring in relation to a minimum amount of the obligations (or, in the case of the bankruptcy credit event, the reference entity itself). Credit events are likely to match a significant deterioration in the reference entity's credit quality; they will be any agreed combination of bankruptcy, failure to pay, the acceleration of an obligation, an obligation default, a repudiation or moratorium of debts, or a debt restructuring. In return for the seller assuming this credit risk, the buyer will periodically pay a premium. This will usually be a percentage of the credit default swap's notional amount, expressed in basis points. The amount of the premium will reflect the credit risk of the particular reference entity, with greater risks reflected in higher premiums.

The parties document their transaction by entering into an ISDA master agreement and schedule, and setting out the transaction's terms in a confirmation incorporating the 2003 ISDA Credit Derivatives Definitions. All of the market standard variables are set out in the 2003 Definitions. The parties select the applicable credit events, business days, conditions to settlement and other variables in accordance with market practice, which in turn may rely on the reference entity's jurisdiction of incorporation and/or its characterisation.

2 Fitch Ratings, "Global Credit Derivatives Survey: Risk Dispersion Accelerates", November 17 2005.

When a credit event occurs the seller (and often the buyer) has the right, but not the obligation, to trigger a credit event. The party triggering the credit event is called the notifying party and the date on which it does so is the event determination date. To trigger the credit event, the notifying party must satisfy the conditions to settlement (usually the delivery of a credit event notice) and (depending on what is specified in the relevant confirmation) a notice of publicly available information, plus a notice of physical settlement, if appropriate.

The credit event notice is addressed to the counterparty, specifies that a credit event has occurred and gives the facts relevant to that determination. A notice of publicly available information is usually incorporated into the credit event notice. It cites publicly available information from public sources (usually two), such as Bloomberg and the *Financial Times*, confirming facts relevant to the credit event's determination.

Credit default swaps can be either cash settled or physically settled. In cash settled transactions, the calculation agent (usually the seller) selects and values a reference entity obligation. Either the reference obligation is specified in the confirmation or the confirmation will provide a selection mechanism similar to that for establishing the reference entity's obligations, in which case the calculation agent will notify the counterparties of the reference obligation in a reference obligation notification notice.

The transaction will detail when the reference obligation will be valued. Usually, this valuation date is sufficiently far from the event determination date to allow a reference obligation's trading price to settle.

On the valuation date (which may be on one date or several dates), the calculation agent will go into the market and ask for quotations from dealers for a pre-agreed amount of the reference obligation. The calculation agent will then calculate the reference obligation's final price. The 2003 Definitions provide numerous options and fallbacks for the number of valuation dates, the amount of quotations that must be sought (and from whom), and how the final price is to be calculated.

The final price is expressed as a percentage (ie, the percentage value of the current value of the reference obligation compared to its nominal amount or a reference price), and is calculated using a pre-selected valuation method. The calculation agent notifies the parties of the final price in a final price notification notice. The transaction is then settled an agreed number of days later. The cash settlement amount paid by the seller will usually be the transaction's notional amount multiplied by the reference price (usually 100%) minus the final price (eg 50%). The transaction will then terminate.

Cash settlement as described above is the applicable settlement method in 23% of single name credit default swap transactions, with fixed amount settlements (ie, a fixed recovery rate) being the applicable settlement method in a further 3% of transactions.<sup>3</sup>

Where the parties have specified that physical settlement applies and the conditions to settlement are satisfied, the buyer has 30 calendar days to serve a notice

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3 British Bankers' Association, Credit Derivatives Report 2006, p7.

of physical settlement. The transaction confirmation will set out either a specific obligation or the deliverable obligation category and the deliverable obligation characteristics which a reference entity obligation must satisfy for it to be a deliverable obligation. The notice of physical settlement sets out the actual deliverable obligations that the buyer will deliver on the physical settlement date. These deliverable obligations will usually be equal in face value to the transaction's notional amount.

The physical settlement date will be either as agreed by the parties or within the longest period customary in the market. On the physical settlement date, the buyer will deliver the deliverable obligations and the seller pays an amount equal to their face value. Physical settlement still remains the dominant form of settlement in the credit derivatives market. It is the applicable settlement method in 73% of transactions.<sup>4</sup>

#### **Hypothetical case study: a single name credit default swap**

Baularte Limited holds €800,000 of floating rate notes issued by a Portuguese drinks distributor, Donnel plc. The company is one of Baularte's largest clients and the debt holding has helped enhance the client relationship. Baularte is reluctant to sell its holdings but has become worried about the size of its exposure and the credit quality of Donnel. Baularte decides to protect itself by entering into a single name credit default swap with Castle Bank, with Donnel as the reference entity. Castle wishes to increase its exposure to the Portuguese beverage market, having had problems attracting clients from this sector to its corporate loan business. Donnel is unaware of the transaction's existence.

Although Baularte was initially looking only to protect itself against the risk of default on the €800,000 bond issue, it has decided that by buying credit protection in relation to a wider range of Donnel obligations it will help to insulate itself against any business disruption should Donnel collapse. The obligations that are the subject of credit protection are defined as being any bond or loan of Donnel.

Baularte purchases €1 million of credit protection on Donnel for a three-year period, so the swap has a notional amount of €1 million and a maturity date three years ahead. The parties select as credit events Donnel's bankruptcy, a failure to pay principal or interest on any of its bonds or loans above €1 million or any debt restructuring.

Donnel and Baularte use an ISDA standard credit default swap confirmation incorporating the 2003 Definitions. The confirmation incorporates a 1992 ISDA Master Agreement (as amended by a schedule), which the parties have also entered into.

To compensate Castle for taking on the Donnel risk, Baularte pays annual credit protection premiums of 2% of the notional amount of the swap. This is

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4 British Bankers' Association, Credit Derivatives Report 2006, p7.

similar to the margin over its lending costs that Castle would have expected to make if it had entered into a loan transaction directly with Donnel.

Unfortunately for Castle, one year later Donnel defaults on an interest payment for an issue of \$100 million 5% bonds due 2012 (the '2012 debt'). Donnel moves into restructuring talks with the creditors of the 2012 bonds. The value of Baularte's bonds plummets from 95% of their face value to 45%.

Several things could now happen. Donnel could restructure its 2012 debt, which could further devalue the value of Baularte's bonds; it could declare bankruptcy; or it could fail to make the interest payment on Baularte's bonds in a few months' time. Baularte is also likely to suffer business disruption in relation to its key client.

Baularte decides to trigger a credit event on its credit default swap and delivers a credit event notice to Castle. The credit event notice refers to their transaction and states that a 'failure to pay' credit event occurred when Donnel failed to pay an interest coupon in relation to the 2012 debt. The credit event notice incorporates a notice of publicly available information and attaches two pieces of publicly available information confirming that a credit event has taken place. One is a report from Bloomberg and the other is an article from the *Financial Times*.

In certain circumstances, Castle might have decided to trigger the credit event itself. This might have occurred if a restructuring had taken place resulting in a relatively small decrease in the value of Donnel securities, but the fear of a bankruptcy still remained.

The settlement process begins. The parties entered into a cash settled credit default swap and decided at the transaction's outset that an obligation of Donnel would be selected by Baularte, five business days after the delivery of the credit event notice. The five business day period had been chosen at the outset to allow the market to settle down following the delivery of any Donnel bad news. Baularte selects the worst performing obligation of Donnel which, by coincidence, happens to be the floating rate note issue that it holds. Baularte using a valuation process set out in the credit default swap confirmation values the obligations at 50% of their face value (a slight recovery in price). The final price of the obligations is 50% and Castle is then required to pay the difference between the notional amount of the credit default swap (ie, 100%) and the final price. Castle pays Baularte \$500,000.

Baularte then decides to sell the \$800,000 of Donnel bonds that it holds and realises \$400,000 for them. It has made \$100,000 over and above the extent of its loss and this helps to compensate Baularte for future business disruption.

If the parties had entered into a physically settled credit default swap, then within 30 calendar days following the delivery of the credit event notice<sup>5</sup>, Baularte would have delivered a notice to Castle stating that it intended to physically settle the transaction. It would deliver eligible Donnel securities with a face value equal to the notional amount of the credit default swap to Castle.

5 See discussions of time periods.