The Coal Trading and Risk Management

Training Course Dictionary

A taster of key concepts and core course content.

ARBITRAGE

This is a concept that we will develop at length during the course as it is a very common trading strategy in commodity trading and coal trading in particular. An arbitrage is the simultaneous buying and selling coal or commodity contracts in order to profit from a difference in price perceived as abnormal.

BASIS RISK

A concept we develop during our hedging sessions and in the group case studies is Basis Risk i.e. the fact that in some circumstances the hedge doesn't work properly, often because not enough quantitative analysis has been produced before its implementation.

A key tenet of the Coaltrans course philosophy is never to "embellish" reality and give a false impression that hedging works perfectly. Financial swaps exist to help solve issues in physical trading positions but there are also pitfalls to avoid in the implementation of hedging.

This session serves as an introduction to other related sessions in the course which will look at calculation of volatility and correlation coefficient.

BLACK SCHOLES MODEL

A model used to calculate the cost (premium) of an option. We run various simulations using a Black Sholes model for coal options so that delegates can gain an in-depth understanding of the pricing and trading of options.

DARK SPREAD / SPARK SPREAD

This concept largely applies to European utilities that use coal and gas and often switch between the two fuels to generate electricity.

The generation margins vary with the changes in the fuel cost, power prices, but also the cost of CO2 emissions.

Such concepts are less developed in emerging countries due to the relatively low levels of gas generation and the absence to a large degree of power and CO2 markets.

EXCHANGE TRADED COAL

Today, about 80% of coal financial transactions are concluded via exchanges or more precisely via a clearing house. It is probably the best way to avoid potential default or credit issues.

We welcome a guest speaker from one of the main exchanges in the coal market– this year we welcome CME Group - to discuss the latest machinations of such an exchange but also to explain the necessary set-up for a company to be able to trade on exchange.

FORWARD CURVE

We will spend a significant amount of time on Day 2 on the forward curve concept, which is sometimes misunderstood. We emphasize in particular the difference between forward curve and price forecast.

You should finish the day with a thorough understanding of the two types of forward curves, contango and backwardation and we explain the reasons that these develop, as well as the critical time when the forward curve switches from one shape to another.

Using the significant database at our disposal, we also track the historical changes in the shape of the forward curve for the main coal contracts based on the supply-demand fundamentals and expectations at that time.

HEDGING

During Day One we develop numerous real life coal hedging examples from the perspective of end users, mining companies and traders. We have built these case studies based on our longstanding and varied experiences of the coal market.

Additionally, these case studies are used as an introduction to broader and complementary topics that we will address later in the course, such as operations, mark-to-market, risk management and implementation.

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OPTION

The trading volumes of coal options has increased significantly in recent years, reaching 514m tonnes in 2014 from just 45m tonnes in 2011. This demonstrates the great need for risk management tools, and also shows the increased level of activity from hedge funds since 2012. After 15 years of existence, the development of a sizeable option market signals that coal's financial market has reached another key milestone.

Options are a particular form of derivatives, slightly more complex than the swap. Hence we study them during the second day of the course, after the basics have been digested. Options give the right to buy or sell coal derivatives at a pre- agreed price. We provide detailed examples of typical call (right to buy) and typical put (right to sell) options and explain how they can be used for risk management and position taking.

OVER THE COUNTER (OTC)

This is one way of trading financial (or physical) assets whereby two principals trade directly outside of an exchange.

It is often an OTC broker that facilitates such transactions and we have invited an OTC broker as a guest speaker; this year we welcome Marex Spectron. This is a prime opportunity for delegates to get first-hand information about the latest OTC developments in the market. It is also an introduction to potential set-ups that can be used to trade financial coal.

SWAP-DERIVATIVES

Most financial coal contracts are financial swaps. Technically speaking a swap is an exchange of fixed price against floating price. The main advantage of swap trading between two parties is that the purchase and sale are simultaneous and bilateral. For instance, the party buying the swap will not necessarily have to sell it to a third party before the expiry of the contract, as is often the case in the physical market. It can let the contract expire and settle against the index with the first counterparty.

We develop examples of simple swap trading early in the course (on Day One) so that participants can acquire the building-blocks of knowledge for later sessions.

VALUE AT RISK

We work on this concept on the third and final day of the course as it requires some mathematical and statistical understanding. It also refers to concepts we have developed earlier in the course.

There are different ways to calculate a Value At Risk such as "closed formulas" or "Monte Carlo simulation", which we will work through and explain with you.

ADDITIONAL DEFINITIONS

CLEARING

Clearing is usually performed by a 'clearing house' and it is the process by which a clearing house acts as an intermediate party between buyers and sellers. Transaction payments are made between each buyer or seller with the clearing house, rather than between buyer and seller directly. The clearing house reconciles the order transactions and matches market players who want to perform transactions in the first place.

COMMODITIZATION

A situation when there is little ostensible difference between goods, meaning that the buyer tends to seek the lowest possible price rather than looking for a specific quality or attributes. As a result, producers of a commoditised product tend to have fairly narrow margins and such products are not considered ripe for 'brand' differentiation.

ELECTRONIC TRADING

Electronic trading, sometimes called etrading, is a method of trading securities, currency or financial derivatives electronically, as opposed to the traditional floor trading or phone trading. Etrading has reduced transaction costs, and increased liquidity and transparency in trading. On the other hand electronic glitches can occasionally occur, and the 'spread' i.e. profit made by the market makers, has become 'tighter' or narrower.

Source: Guillaume Perret, Founder & Director, Perret Associates

Coaltrans Conferences