WHITEPAPER

HEDGING 101: Hedging with futures

An insurance method for commodity traders, producers and end-users to over themselves against negative price movements

INTRODUCTION

Risk Management is an important part of commodity trading. We've made little secret of that, as our flagship software Agiblocks is a CTRM solution: Commodity Trade and Risk Management. Our software supports commodity traders, processors and purchasers in all the various business processes associated with commodity trading – risk management being one of them.

In a previous article regarding hedging (hedging 101: agricultural options) we've already talked about options, one example of a derivate often used when trying to limit risks in financial assets. Options give holders the right – but not the obligation – to buy or sell an underlying asset at a pre-determined price, somewhere in the future. With futures contracts, the holder does have an obligation to act. That is not only the main distinction between options and futures, but also the reason why investors tend to confuse the two. That's why we present our second instalment in this series: hedging with futures.

We will briefly talk about hedging and various derivates – securities used for hedging – in general, and then circle back to futures specifically. What are they, what are the pros and cons compared to options, and how can you start hedging with futures by using Agiblocks.

HEDGING

Hedging is an insurance method for commodity traders, producers and end-users to cover themselves against negative price movements. It's not a financial tool used to make profits but rather to prevent or at least minimize possible losses.

When we are talking about hedging in the context of (commodity) trade, we are talking about the use of derivates as a financial instrument. A derivative is a financial security, of which futures are an example. Others include forwards, swaps and the aforementioned options. Their value is determined by an underlying asset on which it is based. In other words, the underlying asset determines the price and if the price of the asset changes, the derivative changes along with it. The design of these securities is to give producers and manufacturers the possibility to hedge risks.

For the purpose of hedging in the agricultural commodities market, there are essentially two ways to go about that, as the two most common derivates are options and futures. By using derivatives both parties agree on a sale at a specified price at a later date. Various properties are documented such as the relation between the derivative, type of underlying asset and the market in which they are traded. It is essential to understand the strengths and weaknesses of each derivative to employ them to their fullest potential.

FUTURES

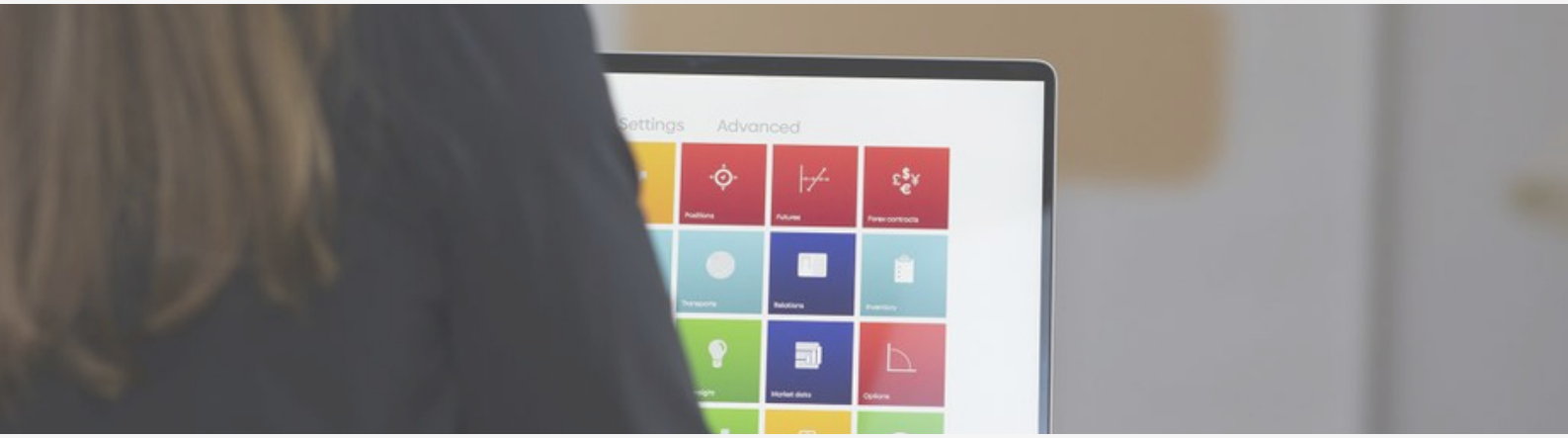
The Oxford Dictionary defines futures as goods or shares that are bought at agreed prices but that will be delivered and paid for at a later time. More specifically, they are financial contracts obligating either the buyer to purchase an asset or the seller to sell an asset at a predetermined date and price in the future. Futures contracts (futures and futures contracts are one and the same, and are used interchangeably) are standardized for quality and quantity to facilitate trading on a futures exchange.

Zooming in further still, we have commodity futures contracts: an agreement to buy or sell a given amount of a commodity at a predetermined date and price in the future. Commodity futures can be used to hedge an investment position. They let you predict the direction of a commodity or security, short or long, using leverage – allowing you to control the price movement of the underlying asset, thereby allowing you to avoid losses in the event of unfavorable price changes.

Futures are exchange organized contracts which determine the size, delivery time and price of a commodity. Futures can easily be traded because they are standardized by an exchange. As such, futures have several advantages over options.

In general, futures are usually easier to understand as well as value (eg. setting the right price). They have greater margin use, and are often more liquid. At the same time, these legal contracts are more complex than their underlying assets, so it's very important to understand all risk involved. Unlike options, futures contracts are obligations – which we can't stress enough. Moreover, the degree of leverage can amplify gains – as well as losses. It's a game for the experienced. 'Loop geen onnodig risico', as the generic risk warning in Dutch banking commercials goes; 'Avoid unnecessary risks'.

HEDGING WITH FUTURES
IN AGIBLOCKS



By using derivatives such as futures, both parties agree on a sale at a specified price at a later date. In each derivative certain features are documented, such as the relation between the derivative, type of underlying asset and the market in which they are traded.

Per commodity traded there are different aspects specified in a futures contract. First of all is the quality of a commodity. For a commodity to be traded on the exchange, it must meet the set requirements. Second is the size of a single contract. The size determines the units of a commodity that is traded per contract. Thirdly is the delivery date, which determines on which date or in which month the commodity must be delivered. Thanks to the standardization of futures commodities can easily be traded and give manufacturers access to large amounts of raw materials. They can buy their materials on the exchange and don't need to worry about the producer or the need to take on contracts with multiple suppliers.

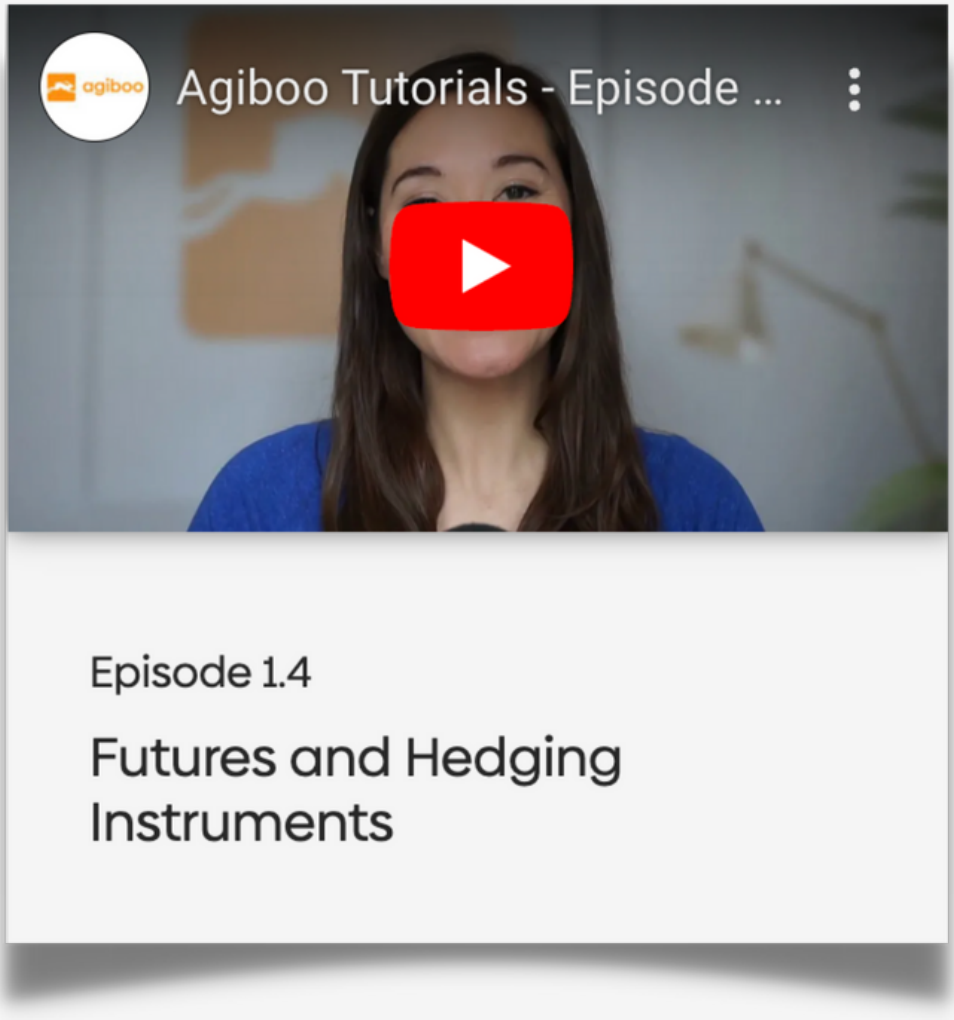
The futures exchange is commonly used to hedge against price risk; market participants obtain derivatives on the exchange to cover themselves against price movements.

Futures contracts and options on these exchanges are rarely executed. The position will be offset, which means obtaining an opposite contract to settle the contract. The commodity will then be sold on the cash market and the profit or loss made by offsetting the futures position will be added to the final cash price. The possible profit or loss is then covered by the profit or loss made by the futures contract.

PRICING OF
FUTURES CONTRACTS

The price of the commodity is obvious an essential part of a contract. The other sections of the contract all generate input for determining the price. A price can be settled in many different ways, ranging from a fixed price to a market related price.

An important factor in determining the eventual price, is the basis. The basis is calculated by deducting the futures price from the spot price (or current price in the marketplace). By successfully predicting the basis of a commodity, the eventual price of a commodity can be calculated at the moment the hedge is placed. Hedging with futures can be done by long hedging or short hedging; positions can be taken in either direction, meaning investors can go long (buy), as well as go short (sell). We will give you examples of both.



LONG HEDGING:
FOR END-USERS

Formula for pricing:

futures price – basis + broker commission = net purchasing price

End-users take a long position when they are hedging their price risks. By buying futures contract, they agree to buy a commodity at some point in the future. These contracts are rarely executed, but are mostly offset before their maturity date. Offsetting a position is done by obtaining an equal opposite on the futures market on your current futures position. The profit or loss made on this transaction is then settled with the spot price, where the producer will buy his commodity.

The following example explains the execution of a long hedge. A producer expects to need a wheat delivery in March. In October he purchases what is called an April Wheat contract to cover his price risk on the spot market in March, when he plans to buy the wheat.

He predicts the basis to be – $ 0,30 which means the April futures price will be 30 cents higher than the March cash price. He can now calculate the expected purchase price for the commodity, using the aforementioned formula. Which leaves the following calculation to give you an idea of the realization of the purchasing price: $ 3,50 – $ 0,30 + $ 0,01 = 3,21.

This demonstrates the effect of successful hedging. Should the producer have decided not to hedge he would have been forced to pay the spot price of $ 4,30, instead he can purchase the commodity for $ 3,21.

SHORT HEDGING:
FOR PRODUCERS

Formula for pricing:

futures price + basis – broker commission = net selling price

Producers of commodities take a short position when hedging their price risks. They sell their product using a futures contract, for a delivery somewhere later in the future. They hedge their price risk similar to long hedgers. They sell a futures contract, which they offset come the maturity date by buying an equal futures contract.

The profit or loss made by offsetting the position is then settled with the price obtained at the spot market. This will be the actual price the producer has obtained for selling their product. Just like a long hedge, the prediction of the basis is a crucial factor for determining the price a producer will receive before hedging the commodity.

Of course, Agiblocks can help you with all those steps, as physical contract management is where it excels; it supports trading management as well as financial management from the same source of data and within the same easily accessible application. Designed by traders, Agiblocks enables its users to focus on the essence of their trading.

Moreover, Agiblocks provides your position in one view, allowing you to easily check if you are long, short, hedged or not hedged – regardless of the amount of physical or derivate contracts.

Agiblocks: a truly unique CTRM platform

Commodity traders – as well as most other traders – tend to be risk averse. That is to say, they prefer situations with low uncertainty over situations with high uncertainty. Or better yet, no uncertainty at all. However, in economics and finance, as well as in life, things are never one hundred percent certain, nor do the most certain outcomes yield the best results.

Luckily, there are tons of tools to deal with uncertainty as a solution to your risk aversion. And all of them – including hedging with futures – can be wielded from the comfort of your Agiblocks dashboard. Because it is not just the next generation of CTRM systems, but a solution that truly meets all technical as well as business needs for anyone working in soft or agricultural commodities. That's why anyone looking for CTRM software for the commodity trade – whether you are a trader, buyer or seller dealing with single or multiple soft and/or agricultural commodities – should look no further.

REQUEST A LIVE DEMO IF YOU ARE:

01

A trader in soft and/or agricultural commodities

02

A buyer or importer of soft and/or agricultural commodities (for instance: a producer purchasing raw materials)

03

A seller of soft and/or agricultural commodities

.. or if you are simply interested in our next-generation CTRM solution

Request Demo

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