

Delivery options

Originally, delivery options refer to the options available to the seller of a bond futures contract, including the quality option, the timing option, and the wild card option. Delivery options make the buyer uncertain of which Treasury bond will be delivered or when it will be delivered. More broadly speaking, delivery options exist also for commodities futures, where the seller has also various choices in term of the deliverable to provide to the buyer of the futures contract.

The Clearing house plays an important role in clearing all the outstanding position, notifying to the buyer the seller's intention to deliver and assigning to the seller of the futures counterparty. Depending on the type of notice, transferable or not, the futures contract buyer can settle the contract by offsetting his/her transactions or by taking delivery of the underlying.

Moreover, the contract can be closed by an exchange of cash (cash settlement) or physical goods (physical settlement).

According to a recent survey by Futures Industry Association, approximately 3% of all transactions are actually settled by a customer making or taking delivery of physical commodities.

In all commodity contracts, except currencies, sellers can do the delivery to buyers at any time during the delivery period, while buyers cannot request

delivery from sellers. There are important dates for the schedule of the delivery:

- **First Notice Day:** Every commodity exchange designates the first day on which a seller may tender a notice to a buyer, and this is called First Notice Day. For most commodities, first notice day is one to three days before the first business day of the delivery month. To avoid taking delivery, you must be out of your long by the close of the business day prior to First Notice Day. Delivery can take place commencing with first notice day. In some contracts, first notice day occurs after last trading day.
- **Last Notice Day:** the last day of the delivery period on which sellers may tender a delivery notice to buyers is called the Last Notice Day. In most cases, last notice day is from two to seven business days prior to the last business day of the month. There are, of course, exceptions to this rule which are reflected on the delivery schedule
- **Last Trading Day:** the last day a commodity may be traded is called the Last Trading Day. All futures contracts outstanding after the last trading day must be satisfied by delivery. Last trading days vary from commodity to commodity, however, most occur during the latter part of the delivery month.

DELIVERIES BY CASH SETTLEMENT

Some commodity contracts are closed out by cash settlement on the last trading day. This procedure takes the place of actually receiving delivery or making delivery.

The cash price is determined by the Exchange and added to the customers' account to offset the expiring futures contract. These particular contracts pose no threat to receiving deliveries and may be carried to expiration with no margin or procedural penalties. This does not mean there is no risk. In most cash settled commodities, the settlement price is determined the following trading day based on whatever criteria have been decided on. For example, in the S&P 500, the settlement is based on the composite of the next day's opening prices in the underlying stocks in the index. If there is overnight news in the market, gains or losses from the final trade price may be dramatically reversed. Since options on most cash settled futures also expire using the same calculation, options, which appeared worthless, may suddenly have value and vice versa.

Broadly speaking, many contracts are cash settled as shown by table 1

EXCHANGE	COMMODITIES
Chicago Mercantile Exchange	S&P 500 FEEDER CATTLE EURODOLLARS NIKKEI 225
CBOT	MUNI BOND
New York Futures Exchange	NYSE INDEX CRB INDEX
Chicago Board Of Trade	VALUE LINE INDEX MINI VALUE LINE INDEX COTTON DOLLAR INDEX

Table 1: List of popular contracts with cash settlement.

In the case of bond futures, the seller has the right to decide which Treasury bonds he wants to deliver. Because the bond futures is a futures on a synthetic bond, the seller of the bond futures has the right to choose within a basket of Treasury bonds which one he will deliver. Obviously, the seller will choose the Treasury bond, which is the cheapest to deliver and is called subsequently the Cheapest To Deliver. At maturity, the seller will deliver the notional times the conversion factor of the Cheapest to Deliver (see bond futures). The idea underlying the conversion factor is to compute the “fair price of the bond” assuming a yield equal to the one of the bond futures. However, the conversion factor is obviously making the simple assumption of a flat curve and therefore, will not, take into account the correct difference of price between the various deliverable Treasury bonds. (*See bond futures*)

Last but not least, the delivery option should take into account liquidity risk. There can be no ironclad assurance that, at all times, a liquid market will exist

for offsetting a futures contract that you have previously bought or sold. This could be the case if, for example, a futures price has increased or decreased by the maximum allowable daily limit and there is no one presently willing to buy the futures contract you want to sell or sell the futures contract you want to buy. Even on a day-to-day basis, some contracts and some delivery months tend to be more actively traded and liquid than others are. Two useful indicators of liquidity are the volume of trading and the open interest (the number of open futures positions still remaining to be liquidated by an offsetting trade or satisfied by delivery). These figures are usually reported in newspapers that carry futures quotations. The information is also available from your broker or advisor and from the exchange where the contract is traded.

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¹ The views and opinions expressed herein are the ones of the author's and do not necessarily reflect those of Goldman Sachs

References

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