



Futures - Booking

Futures are derivative products based on an underlying which can be an index (index futures), a bond (interest rate futures), a commodity (commodity future), etc. The purchase or the sale of futures simply means that the price (level) of the underlying is recorded on that moment and that the variations of the underlying relative to this price will result in gains or losses on the futures. If futures are purchased, a higher price of the underlying will result in a gain and a lower price in a loss. On the contrary, when futures are sold, a higher price of the underlying will result in a loss and a lower price in a gain. A futures' contract has a multiplying factor of the underlying's variations. For example a standard contract of futures on the SMI has a factor of 10, which means that the gain or loss on the contract is 10 times the variation of the SMI. Standardized futures have a fixed maturity date.

The booking of futures is simple, since only the fees are booked on the opening and the closing of the futures. The gains and losses are actually transfers between the realized gains/losses accounts and the bank accounts. Unfortunately, the booking of gains and losses on futures is not handled in the same way by all banks. Let's first see the two booking methods called *mark to the market*, where the gains and losses are debited or credited on a daily basis. In both cases the market value of the futures is always of zero and no value adjustment is required.

1. When the purchase or the sale of futures is opened, fees are debited from a cash account. A margin account (bank account) is opened if necessary and an initial margin amount is transferred - depending on the size of the futures' contract - from the bank account. The booking of gains and losses occurs on a daily basis - mark to the market - with a debit or a credit on the margin account. If the balance of the margin account falls under a certain amount, a margin call is done, which means that a new transfer is executed from the cash account to the margin account. When the position is closed, the gains or losses on its last day are booked, the balance of the margin account is transferred back on the cash account and the closing itself is booked, as debited fees of a cash account.
2. The only difference compared to the previous method is that no margin account is opened, the gains and losses transactions are booked directly on a cash account.

With the two following cases, the gains are losses are not directly debited or credited. Consequently, the futures have a market value different from zero and therefore are subject to a value adjustment when valuations are made.

3. When a contract for the sale or purchase of futures is opened, the fees are debited from a cash account, a margin account (bank account) is opened if necessary, and an initial margin amount is transferred - depending on the size of the futures' contract - from the bank account. The booking of gains and losses is indirectly done with a transfer from a cash account to the margin account for a loss and from the margin account to the cash account for a gain. We can consider these transfers as *provisory* bookings of gains and losses. Note that those transactions will have no influence on profit and loss. When the position is closed, the cumulated gains or losses are booked as such, the balance of the margin account is transferred back on a cash account and the closing itself is booked, as debited fees of a cash account.
4. When a contract for the sale or purchase of futures is opened, the fees are debited from a cash account. No gain or loss is booked during the lifetime of the futures'

contract. When the position is closed, the cumulated gains or losses are booked as such and the closing itself is booked, as debited fees of a cash account.

In cases 3 and 4 where the booking of gains or losses is not performed daily in profit and loss, futures will normally have a market value different from zero at closing date. It is therefore crucial to do a value adjustment to the value of the cumulated gains and losses which have not been booked yet.

There are also some cases where the gains and losses are not booked daily, but with fixed intervals. The booking of the gains and losses themselves is done as in case 1 and 2. By a closing, a value adjustment is required if the gains and losses have not been booked on the closing day.

Terminology

The acquisition of futures is often called "Purchase (to open)" its liquidation "Sale (to close)". Similarly, the opening of a sale of futures is often called "Sale (to open)" and its liquidation "Purchase (to close)".



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