

Futures vs Forward Contracts

Futures and forwards are very similar since they both lock in a price to buy or sell an underlying asset at expiry (also called maturity). The differences are summarized below:

	Futures	Forwards
Market	Exchange traded	Over-the-counter (OTC)
Default risk	Almost none	Winner exposed.
Standardisation	Highly standardised	Tailored, not standardised
Liquidity	Highly liquid	Illiquid
Margin	Initial and maintenance margin, marked-to-market daily	None

Forwards: Winners Exposed to Credit Risk

Forward contract winners are exposed to the credit risk of forward contract losers, and the winner may not discover the problem until maturity.

If you buy a forward contract from your counterparty, and the underlying asset price rises more than expected above the futures price at maturity ($S_T - K_T > 0$), you're the winner!

$$V_{T \text{ LongFuture}} = S_T - K_T$$

Your counterparty loser will owe you the difference between the underlying asset price and the locked-in futures price.

$$V_{T \text{ ShortFuture}} = -V_{T \text{ LongFuture}} = K_T - S_T$$

But if your counterparty is bankrupt and can't afford to pay you the winnings, you could end up being paid nothing!

Novation

All **futures** contracts are novated, which means that the **exchange steps in** between the futures buyer and seller so that each has a contract with the exchange, not with each other. Forwards are not novated since they're not exchange traded.

Futures contract winners are exposed to the credit risk of the exchange only - which is negligibly low.

Therefore every future trader's counterparty is technically the exchange.

When futures buyers and sellers find each other and create a futures contract, actually two contracts are created - between

the long trader and the exchange, and between the short trader and the exchange.

If you are the winner in a futures contract, you can rely on the exchange to pay you. They have huge reserves of funds to support their contractual obligations.

If you are the loser in a futures contract, and you can't afford to pay, you can rely on the exchange to take you to court! But the exchange will still honour its payments to the futures contract winner. It's the exchange's problem to recover any losses that the loser can't pay.

Exchanges are also protected from credit risk by making their brokers and their clients submit margin payments.

Exchanges and Brokers

To trade futures you will need a futures broker who will be a member of a futures exchange.

For example, InteractiveBrokers is an online broker who is a member of many exchanges including the ASX.

Exchanges do not let retail clients open direct accounts with them, you must use a broker.

A list of brokers on the Australian Securities Exchange (ASX):

<http://www.asx.com.au/prices/find-a-futures-broker.htm>