CHAPTER 2

Introducing Futures Contract

2.1 – Setting the context

In the previous chapter we looked at a very simple Forwards Contract example, where in two parties agreed to exchange cash for goods at some point in the future. We inspected the structure of the transaction and understood how the variation in price impacts the parties involved. Towards the end of the chapter, we had listed down 4 key risks (or issues) with respect to the forwards contracts and we concluded that, a futures contract is structured to overcome the critical risks of a forward agreement namely –

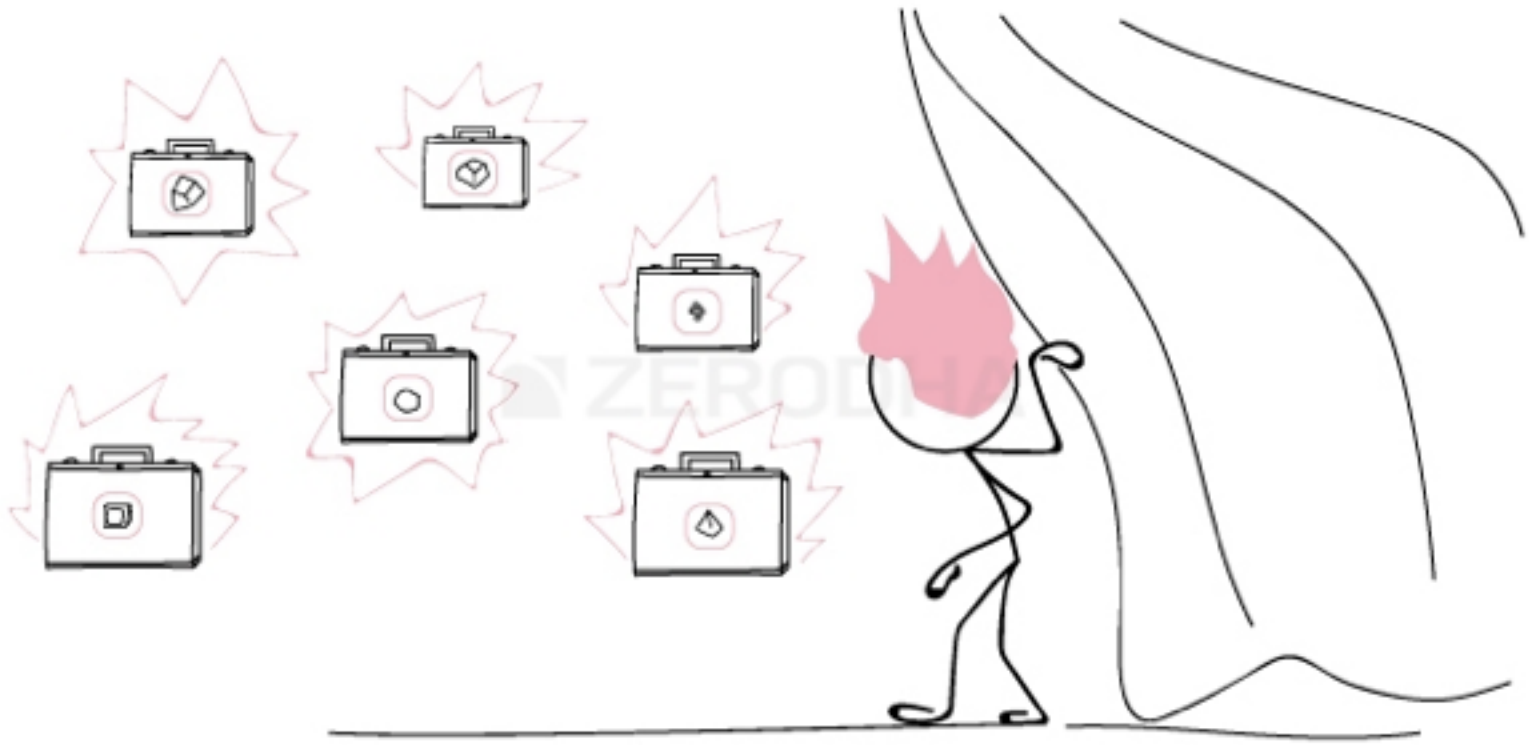
1. Liquidity risk
2. Default Risk
3. Regulatory Risk
4. Rigidity of the transitional structure

We will continue referring to the same example in this chapter as well. Hence you may want to refresh your understanding of the example quoted in the previous chapter.

From the previous chapter one thing is quite clear – **If you have a view on the price of an asset, you can benefit significantly by entering into a forward agreement.** All one needs to do is to find a counterparty willing to take the opposite side. Needless to say, a forward agreement is limited by the inherent risks involved, all of which is overcome by a futures agreement.

The Futures contract or Futures Agreement is an improvisation of the Forwards Agreement. The Futures Contract is designed in such a way that it retains the core transactional structure of a Forwards Market and at the same time, it eliminates the risks associated with the forwards contract. A Forward Agreement would give you a financial benefit as long as you have an accurate directional view on the price of an asset, this is what I mean when I say 'core transactional structure'.

This may seem a bit absurd but think about it – the 'transaction structure' of an old generation car was just to transport you from point 'A' to point 'B'. However, the new generation car comes with improvisations in terms of the safety features – air bags, seat belts, ABS, power steering etc, but it still retains the core 'transaction structure' i.e to help you move from point 'A' to point 'B'. This is the same distinction between the forwards and the futures agreement.



2.2 – A sneak peek into the Futures Agreement

As we now know that the core transactional structure of the futures and forwards is the same, I guess it makes sense to look into the features that distinguishes the Futures from the forwards. We will have a quick sneak peek into these features in this chapter, but at a later stage we will dig into each and every feature in greater detail.

Recall, in the example we had quoted in the previous chapter, ABC jeweler enters into an agreement with XYZ to buy a certain quantity of gold at a certain point in the future. Now imagine this, what if ABC found it really hard to find XYZ as a counter party to the agreement? Under such circumstances though ABC has a certain view on gold and is also willing to enter into a financial agreement, they would be left helpless simply because there is no counterparty to take the opposite side of the agreement.

Now further imagine this, what if ABC instead of spending its time and effort to scout for a counterparty, simply decides to walk into a financial supermarket where there are many counterparties willing to take the opposite view. With such a financial supermarket in place, ABC has to just announce its intention and the willing counterparties would line up to take the opposing stance. What more, a true financial supermarket of this sort would not just have people with a view on gold, but instead will also have people with a view on Silver, Copper, Crude oil, and pretty much any asset class including stocks!

In fact, this is exactly how the Futures Contracts are made available. They are available and accessible to all of us and not just available to a corporate such as ABC Jewelers. The futures contracts

are available to us in the financial (super) market, often called the “Exchange”. The exchange can be a stock exchange or a commodity exchange.

As we know a futures contract is structured a little differently compared to a forwards contract. This is mainly to overcome the risks involved in the forwards market. Let us look at each of these points that differentiate the futures from the forwards agreement.

Note, after reading through the following points you may still not be very clear about futures, that’s alright, just keep the following points in perspective. We will shortly consider a futures example and with that you should be clear about the way in which Futures agreement works.

Futures Contract mimics the underlying – In the example of ABC jewelers and XYZ Gold Dealers the forwards agreement was based on gold (as an asset) and its price. However, when it comes to a Futures Contract, the agreement is based on the ‘future price’ of the asset. The futures price mimics the asset, which is also called the underlying. For example gold as an asset can have a ‘Gold Futures’ contract. Think of the underlying and its futures contract somewhat as twin siblings. Whatever the underlying asset does, the futures contract does the same. Therefore if the price of the underlying goes up, the price of the futures contract would also go up. Likewise if the price of the underlying goes does, the price of the futures contract also goes down.

Standardized Contracts – Again going back to the example of ABC jewelers and XYZ Gold Dealers the agreement was to deal with 15 kgs of gold of certain purity. If both the parties mutually agreed, the agreement could have been for 14.5Kgs or 15.25 Kgs or whatever they would think is convenient for them. However in the futures contract, the parameters are standardized. They are not negotiable.

Futures Contracts are tradable – The futures contract is easily tradable. Meaning if I get into an agreement with counterparty, unlike a forward contract, I need not honor the contract till the end (also called the expiry day). At any point in time if my view changes, I can just transfer the contract to someone else and get out of the agreement.

Futures Market is highly regulated – The Futures markets (or for that matter the entire financial derivatives market) is highly regulated by a regulatory authority. In India, the regulatory authority is “Securities and Exchange Board of India (SEBI)”. This means, there is always someone overlooking the activities in the market and making sure things run smoothly. This also means default on a futures agreement is hardly a possibility.

Contracts are time bound – We will understand this point in detail a bit later but for now, do remember that all the futures contracts available to you have different time frames. In the example

from previous chapter, ABC jewelers had a certain view on gold keeping 3 months in perspective. If ABC were to do a similar agreement in the futures market, contracts would be available to them in the 1 month, 2 month, and 3 month time frame. The time frame upto which the contract lasts is called 'The expiry' of the contract.

Cash settled – Most of the futures contracts are cash settled. This means only the cash differential is paid out. There is no worry of moving the physical asset from one place to another. More so the cash settlement is overseen by the regulatory authority ensuring total transparency in the cash settlement process.

To sum up, here is a table that quickly summarizes the difference between the "Forwards Contract" and "Futures Contract"

Forwards Contract	Futures Contract
Contracts are traded over the counter (OTC)	Futures Contract are traded in the exchange
Contracts can be customized	Future Contracts are standardized
High counter party risk	No counter party risk
Not regulated	Regulated by SEBI (in India)
Contracts are not transferable	Transferable hence easily tradable
Time bound to just 1 time frame	Multiple time frame contracts available
Settlement is flexible (physical or cash)	Cash settled

At this stage, I feel there is a need to stress upon the distinction between the **spot price** and the **future price**. The spot price is the price at which the asset trades in the 'regular' market, also called the 'spot market'. For example if we are talking about gold as an underlying, then there are two prices we are referring to – gold in the regular market also called the Spot market and gold in the Futures market called the Gold Futures. The prices in the spot market and futures market move in tandem, meaning if one goes up, the other also goes up.

With these points in perspective, let us now move our attention to few other nuances of the futures contract.

2.3 – Before your first futures trade

Before we dig deeper and understand the working of a futures contract, we need to understand a few other aspects related to futures trading. Do remember at a later stage we will revisit these points and discuss them in greater detail. But for now, a good working knowledge on the following points is what is required.

Lot size – Futures is a standardized contract where everything related to the agreement is pre-determined. Lot size is one such parameter. Lot size specifies the minimum quantity that you will have to transact in a futures contract. Lot size varies from one asset to another.

Contract Value – In our example of ABC jeweler and XYZ Gold Dealers, ABC agreed to buy 15 kgs of Gold at the rate of Rs.2450/- per gram or Rs.24,50,000/- per kilogram. Since the deal was to buy 15 kgs, the whole deal was valued at Rs.24,50,000 x 15 = Rs.3.675 Crs. In this case it is said that the 'Contract Value' is Rs.3.675 Crs. Simply put, the contract value is the quantity times the price of the asset. We know the futures agreement has a standard pre-determined minimum quantity (lot size). Going by this, the contract value of a futures agreement can be generalized to **"Lot size x Price".**

Margin – Again, referring back to the example of ABC jeweler and XYZ Gold Dealers, at the time of agreement i.e on 9th Dec 2014, both the parties would have had a gentleman's word and nothing beyond that. Meaning both the parties would have just agreed to honor the contract on the agreement's expiry day i.e 9th March 2015. Do notice there is **no** exchange of money on 9th Dec 2014.

However, in a futures agreement the moment a transaction takes place, both the parties involved will have to deposit some money. Consider this as the token advance required for entering into an agreement. The money has to be deposited with the broker. Usually, the money that needs to be deposited is calculated as a % of the contract value. This is called the 'margin amount'. Margins play a very pivotal role in futures trading; we will understand this in greater detail at a later stage. For now, just remember that to enter into a futures agreement a margin amount is required, which is a certain percentage of the contract value.

Expiry – As we know, all futures contracts are time bound. The expiry or the expiry date of the futures contract is the date upto which the agreement is valid. Beyond the valid date, the contract ceases to exist. Also be aware that the day a contract expires, new contracts are introduced by the exchanges.

With these few points that we have discussed so far, I guess we are now equipped to understand a simple example of futures trading.

Key takeaways from this chapter

1. The forwards and futures markets gives you a financial benefit if you have an accurate directional view on the price of an asset

2. The Futures contract is an improvisation over the Forwards contract

3. The Futures price generally mimics the underlying price in the spot market

4. Unlike a forwards contract, the futures contract is tradable

5. The futures contract is a standardized contract wherein all the variables of the agreement is predetermined

6. Futures contracts are time bound and the contracts are available over different timeframes

7. Most of the futures contracts are cash settled

8. The futures market is regulated by SEBI in India

9. Lot size is the minimum quantity specified in the futures contract

10. Contract value = Lot size times the Futures price

11. To enter into a futures agreement one has to deposit a margin amount, which is a certain % of the contract value.

12. Every futures contract has an expiry date beyond which the contact would seize to exist. Upon expiry old contracts cease and new ones are created