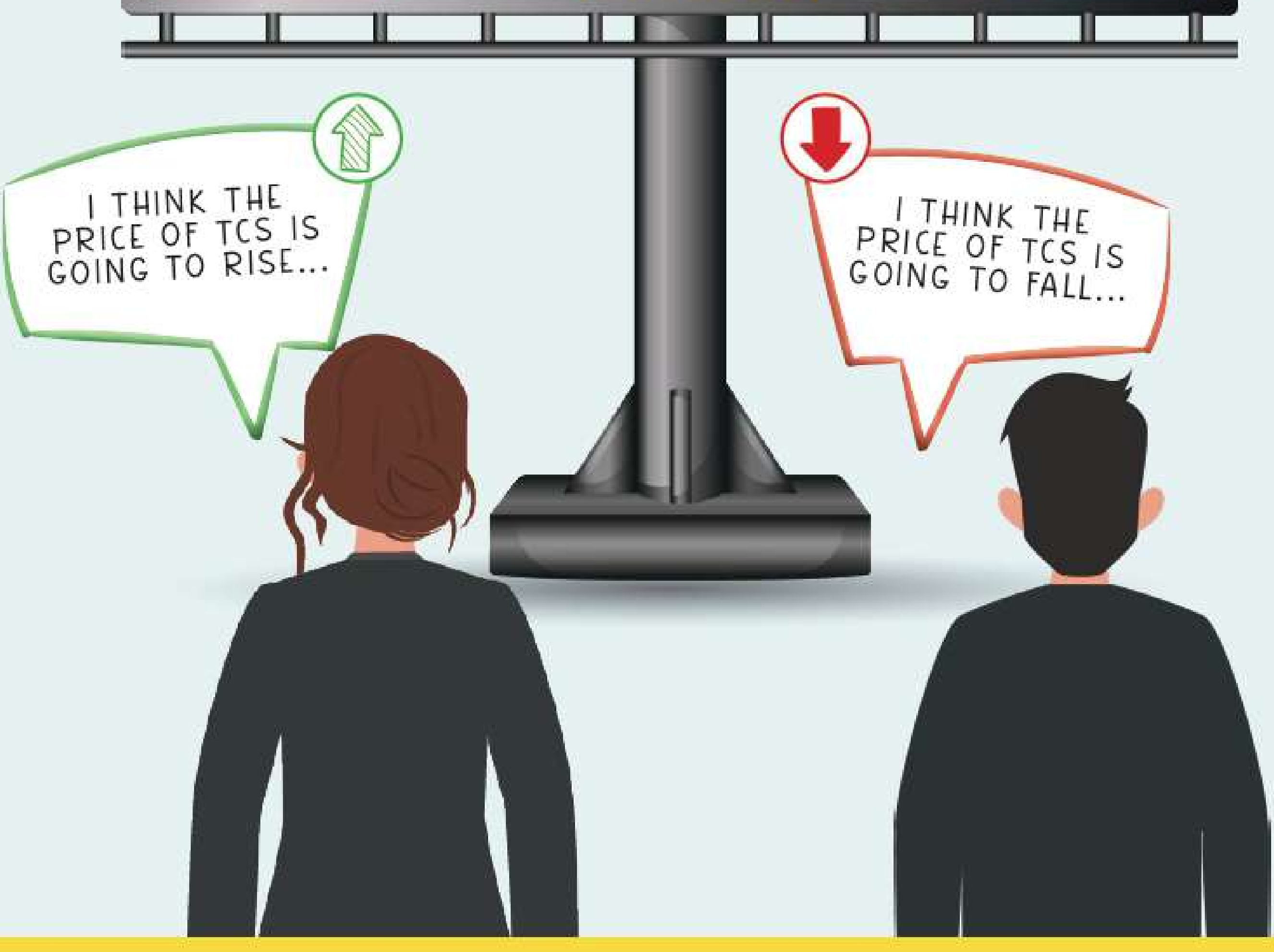
3.7 WORKING OF FUTURES CONTRACT

Explainer Video

Let us understand the practical working of futures in-depth with a practical example or scenario of a futures contract.

DATE	WIPRO	TCS	INFOSYS	TECH MAHINDRA
29th Jan,2022	408	2914	1621	1076
23rd Feb,2022	428	2990	1638	1088
30thMarch,2022	432	3000	1635	1080
28th April,2022	420	2920	1612	1085
25th May,2022	412	2900	1606	1078



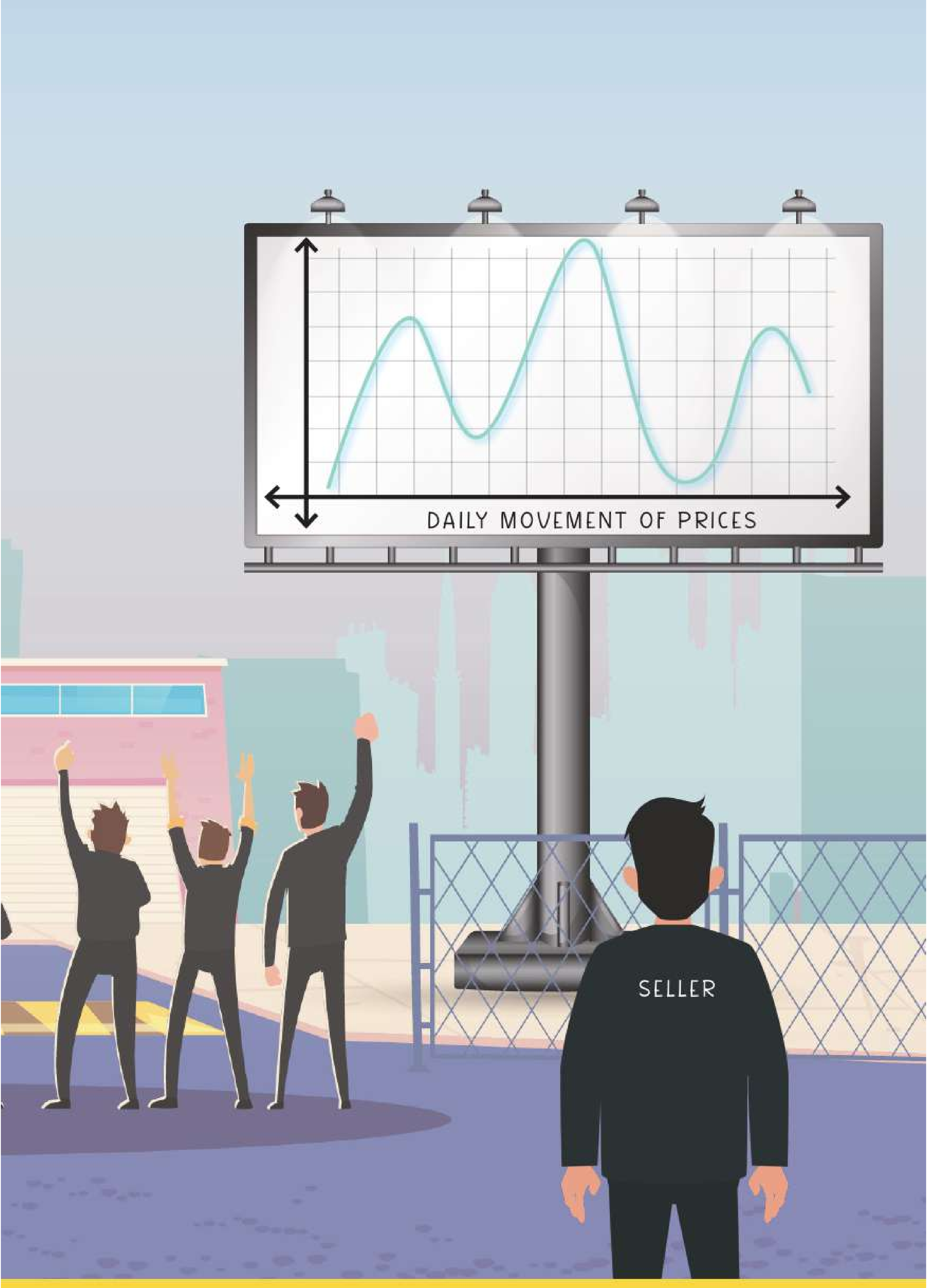
DATE OF ENTERING INTO THE CONTRACT	25th October
DATE OF EXPIRY	25th November
CURRENT MARKET PRICE OF TCS	₹2900
THE LOT SIZE STATED BY THE EXCHANGE FOR THE CONTRACT	100 shares
THE FUTURES PRICE OF TCS	TCS 22 NOV FUT = ₹3000.
TOTAL LOT VALUE	Futures price x Lot size, i.e., ₹3000x100 = ₹3,00,000.

The **Initial margin** required is 20% of the lot value, i.e., 20% x ₹3,00,000 = **₹60,000**.

The **Maintenance margin** is same as Initial Margin i.e. **₹60,000**.

(Note: In India, generally, the initial margin and maintenance margin is the same.)


The buyer of the contract is taking the Long Position in the contract based on his Analysis. We can see that the buyer is assuming that the price will increase i.e. they are bulling on the underlying stock.
The seller of the contract is taking the Short Position in the contract based on his Analysis. The seller is assuming that the price of the underlying asset will decrease i.e. they are bearish on the asset.
BUYER


DAILY MOVEMENT OF PRICES
SELLER

Note that the buyer and the seller are unaware of each other's existence or position. They have both entered the contract with the exchange (NSE or BSE). The counterparty to both the position holders is the exchange itself. Both parties are required to maintain the margin with the broker.

To get an exposure of ₹3,00,000 through Futures market, the parties needed ₹60,000 as margins.

To get the exact same exposure via spot market, the parties would have required ₹2,90,000 for 100 shares.

That is why with less capital, they could take larger positions. This increases both risks and returns for both the parties. We can say that Futures market uses Leverage to increase risk and return potential for both the parties.

The price of the asset keeps on changing on an everyday basis. Based on the change in price of asset, the price of the future contract will also change.

DAY 1 The price goes up by 10%

Say on Day 1, the price of the underlying asset TCS goes up by 10%.

	SELLER	BUYER
Initial Margin	₹60,000	₹60,000
+ 10% (₹3,00,000 x 10%)	(₹30,000)	₹30,000
Balance	₹30,000	₹90,000

SELLER

Since the price has gone up, the buyer of the contract stands at a profit of ₹30,000 (hypothetical). The account balance of buyer stands at ₹90,000. He may withdraw the surplus from the account.

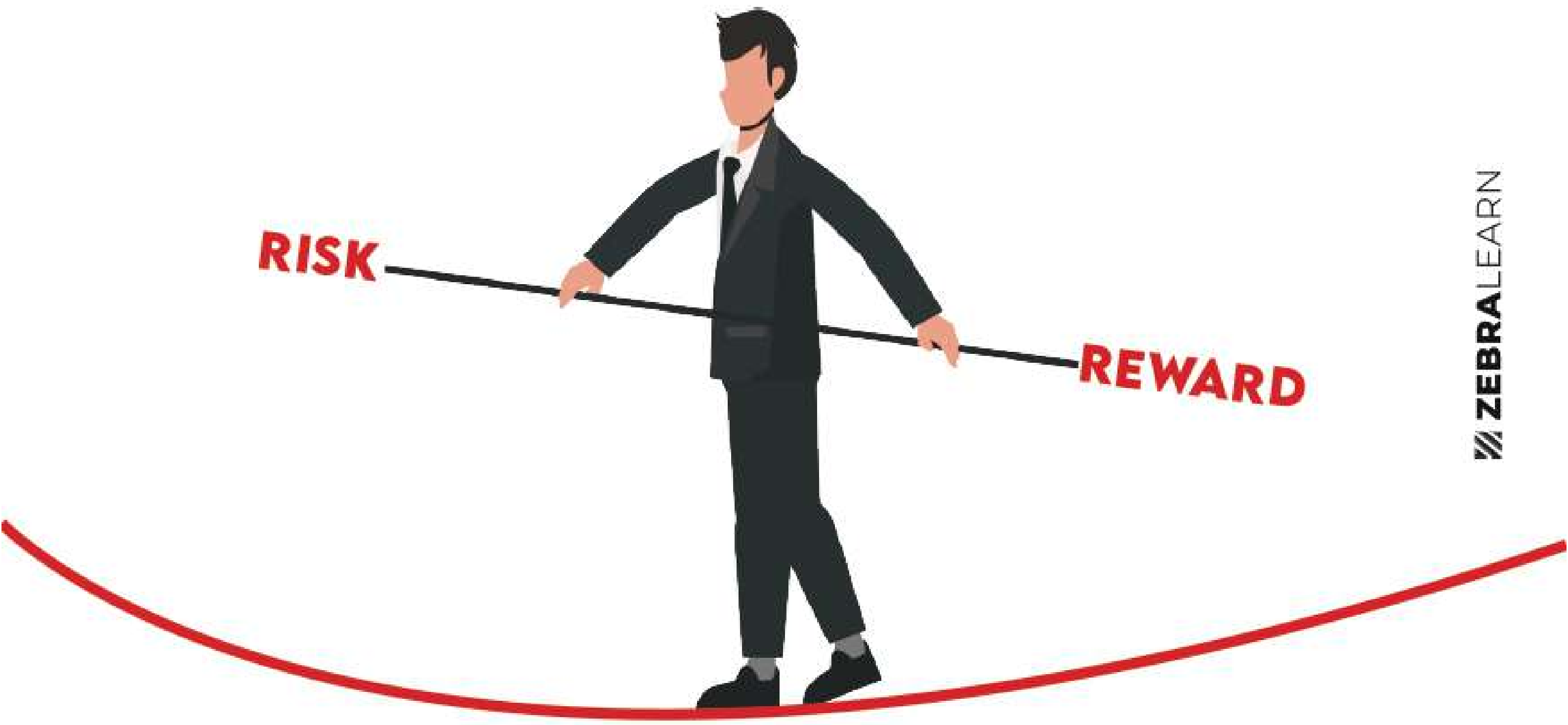
To compensate the Buyer for this profit, the seller will be debited with ₹30,000, his account balance now stands at ₹30,000.

BUYER

THE ACCOUNT OF THE SELLER WILL HEREBY GET A MARGIN CALL TO ADD MORE FUNDS TO HIS ACCOUNT AS THE BALANCE HAS GONE BELOW THE MAINTENANCE MARGIN.
IF THE SELLER DOES NOT ADD MORE MARGIN HERE, THE POSITION WILL BE SQUARED OFF BY THE BROKER.

That is typically how the futures contract is marked to market. The contract will be settled for the price movement each day.

You see how the margin amount increased by 50% and reduced by the same for the buyer and seller respectively. This is because of the high risk and high reward nature of future contracts.



DAY 2 The price goes down by 30%

Say on Day 2 now, the price of the underlying asset TCS has gone down by 30%. Assuming both stands at the initial margin balance of ₹60,000 each.

	SELLER	BUYER
Initial Margin	₹60,000	₹60,000
- 30% (₹3,00,000 x 30%)	₹90,000	(₹90,000)
Balance	₹1,50,000	(₹30,000)

SELLER

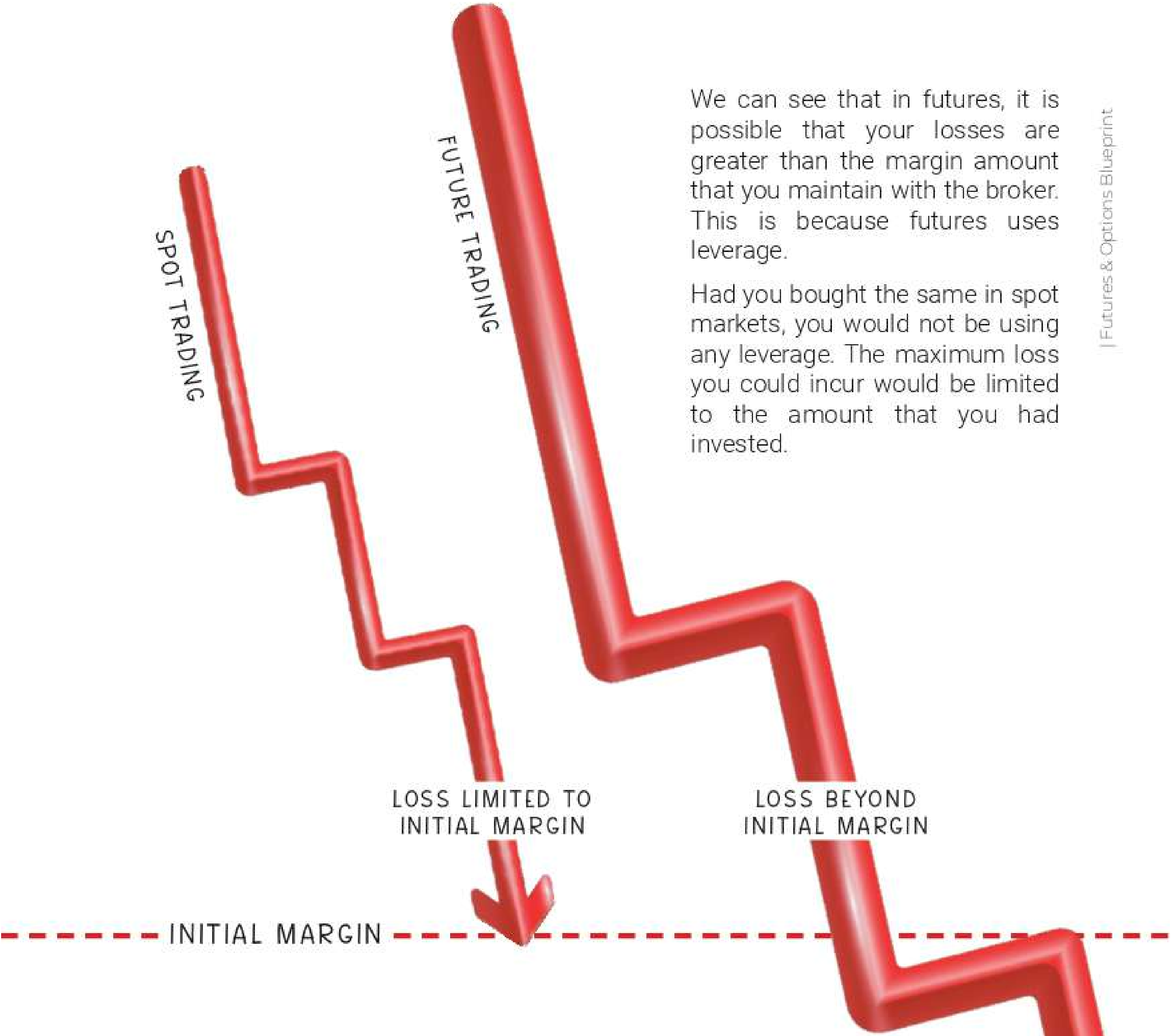
Since the price has gone down, the seller now stands at a profit of ₹90,000 (hypothetical).

BUYER

To compensate the Seller for this profit, the buyer now will be debited with ₹90,000, his account balance now stands at (₹30,000). The buyer now has an obligation to pay additional ₹30,000 for their losses. If they wish to continue holding the position, they will have to pay the margin amount again too.

We can see that in futures, it is possible that your losses are greater than the margin amount that you maintain with the broker. This is because futures uses leverage.

Had you bought the same in spot markets, you would not be using any leverage. The maximum loss you could incur would be limited to the amount that you had invested.



Your losses with spot trading cannot be more than your initial capital while with futures you may have losses over and above your initial margin. As a result, we can see that the futures have higher risk and reward potential as compared to purchasing from spot markets.