

# FINANCIAL MARKETS

This module contains a synopsis of different types of financial markets and explains the difference between cash and future markets. The module also looks at pricing and how the fair value of a future is calculated.



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# FINANCIAL MARKETS

One of the strengths of spread betting is its versatility. It can be applied to just about any financial market and, as a result, we offer you the chance to take a position on thousands of global financial products. Because all of these can be accessed in a single place, in generally the same way and in a currency of your choice, you gain quick and efficient access to an incredible diversity of markets.

Many people find spread betting to be more accessible and user-friendly for the average retail investor than the underlying financial instruments against which the spread bets are settled, such as exchange-traded futures. Even so, it is worth taking a look at, and gaining an understanding of, these underlying markets.

Spread bets are a type of derivative: the price on which you are dealing is derived from the price of another instrument. A single spread betting price may be informed by a variety of sources and governed also by the sentiment of the market-makers at the spread betting firm, but bets are always settled against a single, specific underlying market.

What follows is an introduction to the most popular bets we offer with some explanations of the underlying markets that influence the price and against which the bets are settled.

Those underlying instruments can be split into two broad categories: cash markets (where the price of the instrument reflects the level for immediate dealing) and markets with deferred delivery (where the price is agreed today for a trade that is occurring at some date in the future; quite often this means exchange-traded futures).

# STOCK INDICES

**An index value is created by compiling a number of stock prices into one total value, and expressing the value against a base value from a specific date, thus allowing investors to easily follow the performance of certain groups of stocks (usually a certain number of leading stocks from a given stock market).**

The Dow Jones Industrial Average (DJIA) is, like all cash stock index prices, not a tradable instrument in its own right: you cannot directly buy or sell the DJIA itself (although it is possible to buy funds that track the performance of the index).

This is because it is simply a benchmark (produced as a composite of 30 leading stocks on the New York Stock Exchange), designed to indicate how the US stock market is performing. Markets that can be traded, such as Dow Jones futures and S&P 500 futures, will react much faster to economic news than the equivalent cash index.

Cash indices tend to lag behind slightly, particularly when trading is beginning for the day, as they are simply a reflection of the prices of the components of which they consist – if half of the components of the Dow Jones have not traded ten minutes after the opening of the trading day, the index is unlikely to reflect the true current situation. The futures will give a far better picture in such a scenario, and for this reason, we use a variety of sources in order to price our stock index DFBs. Consequently, the price of our FTSE® 100 or Wall Street, for example, may often be at a different level to the cash FTSE 100 or DJIA.

# STOCK INDICES

## CONTINUED

### DAILY FUNDED BETS

Our daily funded bets (DFBs) are long-term bets but you can choose to close your position whenever you wish. If your bet remains open past 10pm (UK time) on the day that you open it, a funding adjustment will be made to your account to reflect the charge incurred for holding the position overnight. For indices, this will be calculated using the current LIBOR rate, plus or minus an annual charge of 2.5%.

### DAILY FUTURES BETS AND ROLLOVER

Our stock index daily futures close against the daily closing price of a specific futures contract.

Many clients choose to roll daily futures bets over to the next day. Rollover basically entails opening a new position with the same size and direction as an expiring bet for the next trading period as soon as that bet expires.

Because of the frequency with which a rollover opportunity occurs with daily futures bets, quite a lot of people opt to have this type of bet automatically rolled over (known as autoroll). An autoroll instruction can be given or amended over the telephone or internet; more details can be found in the 'My Account' section of our classic platform, by navigating to 'settings' and then 'rollovers'.

# STOCK INDICES

## CONTINUED

### FUTURES BETS

We also offer stock index futures bets which, if held to expiry, settle based on futures contracts which trade on exchanges. Futures contracts have specific rules, laid down by the exchange they trade on, about how the expiry price is calculated.


For example, our June US Tech 100 is a bet that settles based on the June Nasdaq 100 futures which trade on the Chicago Mercantile Exchange (CME). If you hold your bet to expiry, it will close out based on the Special Opening Quotation that the CME uses to close the June Nasdaq futures.

It's important that you know when is the last time that you can deal on a contract and how the bet actually expires.

Complete details of last dealing days and expiry rules can be found in the indices spread bet costs and details page of our website.

In our dealing platform you can find more details on this subject by selecting the information icon in the deal ticket.

This launches an information window which contains useful data about the bet in question, including the last date and time the bet can be dealt and when (after the last dealing time if the position is still open) it expires. An explanation of how futures work in general is given further on in this module.

Deal	Order	Alert	
<b>Dealing</b> —			
Minimum size	GBP 0.50		
Margin factor	0.5%		
Minimum stop distance	10		
Minimum guaranteed stop distance	50		
Slippage factor	50.0%		
<b>Expiry</b> —			
Expiry date	16/06/17		
Last dealing date	16/06/17 13:30		
Settlement	Settles based on the Nasdaq Official Opening Price (NOOP), as reported by CME +/- IG dealing spread.		
<b>Rollover</b> —			
Last rollover time	16/06/17 13:15		
Rollover info	Usually, initial position closed at official closing level of day before last dealing day +/- closing spread; new position in next contract opened at official closing level of the new contract from same day, +/- 60% opening spread.		
<b>Margin requirements</b> —			
Margins are calculated according to tiered margin factors, based on the size of your aggregate position:			
Tier	Position Size (USD)	Deposit Factor	
1	0 - 300	0.5%	
2	300 - 1500	1%	
3	1500 - 3000	2%	

# SHARES

**Shares are a popular form of investment that most people are familiar with and consequently are one of the most popular types of bet that we offer. We cover bets from most of the major territories, including the UK, US, Canada, Australia and most of Europe.**

As with indices, our DFBs for shares are long-term bets which you can choose to close at any time.

For those taking a longer view, shares futures allow you to trade up to nine months forward.

Contract months are offered on a quarterly basis (March, June, September and December) and, at any one time, we offer three different expiries. If it was April, for example, we would be offering bets for June, September and December. Bets expire based on the closing bid/offer of the relevant shares on a specific day in the contract month.

# FOREX

**The forex (FX) market is the biggest market in the world, with a daily turnover approaching \$5 trillion.**

There is no formal exchange for currency transactions; transactions are instead conducted over-the-counter (OTC) and rates at any one time are defined by the Interbank rate (which comprises the FX bid/offers that large international banks are quoting to their counterparties).

Our bets offer a simple and easy way to speculate on how one currency will perform against another.

## SPOT FOREX

The spot market is the market for immediate currency trades. In the underlying market, transactions are ostensibly made for delivery two business days after the transaction date. A forex DFB held past 10pm (UK time) will result in a funding adjustment to your account to reflect the cost of holding the position overnight. This is calculated using the tom-next bid/offer for the currency pair concerned including an admin fee of 0.0022% per day.

## FORWARD FOREX

In the underlying markets, a forward currency is an agreement of a rate today at which currencies will be exchanged on an agreed date in the future. Our forward forex bets are very similar, except rather than exchanging currencies, bets are simply expired based on the spot rate at 8pm London time on the date in question (our forward forex bets always expire on the Friday before the second Wednesday of the contract month).

Our forward rates are calculated as a mathematical result of the difference in interest rates in the two countries.



# FOREX

## CONTINUED

### Example

Let's say the spot rate of GBP/USD is 1.5995 and that UK interest rates are 2.0% and US interest rates are 1.0%. To calculate a rate for three months forward we could consider what would happen over the three months to an investment of equal value basis today's spot rate in each currency.

If we have £1000 we could invest it for three months in the UK receiving the following:

	<b>1000</b>	INVESTMENT
x	<b>2.0/100</b>	UK INTEREST RATE
x	<b>3/12</b>	MONTHS
	<hr/>	
	<b>£5.00</b>	INTEREST
+	<b>£1000</b>	ORIGINAL INVESTMENT
	<hr/>	
	<b>£1005</b>	

If we had instead converted the £1000 to dollars at the outset it would have been worth  $1000 \times 1.5995 = \$1599.5$ .

If we invested that in the US for three months we would receive:

	<b>1599.50</b>	INVESTMENT
x	<b>1.0/100</b>	US INTEREST RATE
x	<b>3/12</b>	MONTHS
	<hr/>	
	<b>\$4.00</b>	INTEREST
+	<b>\$1599.50</b>	ORIGINAL INVESTMENT
	<hr/>	
	<b>\$1603.50</b>	

Therefore if  $£1005.00 = \$1603.50$ , the rate implied is 1.5955

With interest rate differentials as defined above, the three-month forward rate is 1.5955 compared with a spot rate of 1.5995

# FOREX

## CONTINUED

### Example

A quicker way to work out the forward rate is:

$$\frac{1+r1}{1+r2} \times \text{SPOT RATE} = \text{FORWARD RATE}$$

US INTEREST RATE  
UK INTEREST RATE

r1 = the interest rate for the second-named currency over the period (dollars in the example)

r2 = the interest rate for the first-named currency over the period (sterling in the example)

So in our example:

$$\frac{1\% \times \frac{3}{12}}{0.0025} \times \frac{2\% \times \frac{3}{12}}{0.0050} \times 1.5995 = 1.5955$$

ANNUAL DOLLAR RATE  
MONTHS  
R1  
ANNUAL STERLING RATE  
MONTHS  
R2  
SPOT RATE  
FORWARD RATE

Spot forex bets are available on tight spreads, making them ideal for short-term trades. Our forward forex bets suit longer-term views: you can bet up to six months in advance.

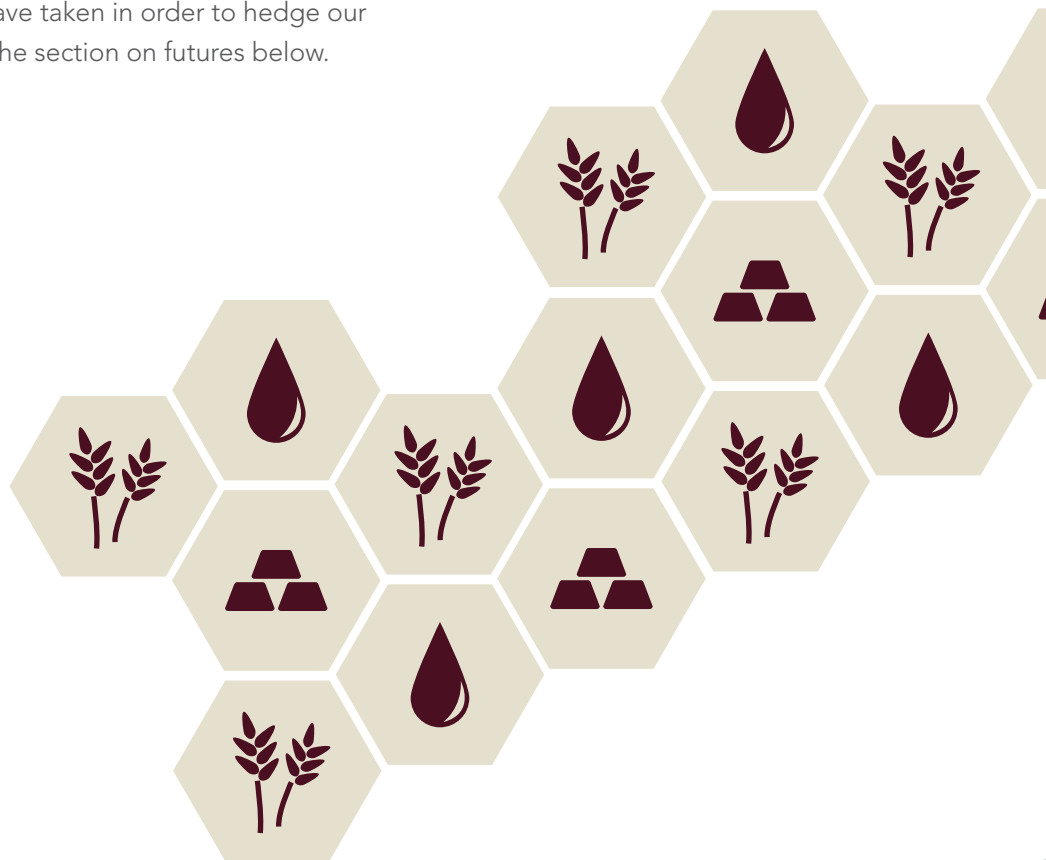
# COMMODITIES

Our commodity bets cover an extensive variety of products, including grains, metals, oils, softs and livestock. The prices of these products can sometimes move wildly because of supply and demand issues. For example, bacterial disease in Florida drove orange juice prices to a record high in November 2016, owing to a reduced crop.

Nearly all our commodity bets are settled based on exchange-traded futures contracts.

Many commodity bets expire in the month before the named contract month, for example March Silver expires in February.

This is so that we do not end up with an obligation to buy or sell the physical underlying for any positions that we have taken in order to hedge our exposure. This is explained further in the section on futures below.



# AN EXPLANATION OF FUTURES

**A lot of our bets settle at some future date and are analogous in many ways to underlying futures contracts, albeit with certain differences.**

The most important similarity between the two is the pricing: futures trade at a different price to the cash price.

The definition of a future is that it is an agreement to buy or sell a standard quantity of a specified asset on a fixed future date at a price agreed today.

Futures that trade on an exchange are traded in standard quantities known as contracts. You can only trade in whole contracts when dealing on such exchanges; with bets, however, you can deal in whatever size you like, provided it is at least our minimum bet size.

For example, if you were dealing FTSE 100 futures on LIFFE (the main London futures exchange), one contract is defined as being £10 per index point. If you wanted to deal more than that, you would have to deal two contracts (equivalent to £20/point). If you were betting, however, our normal minimum bet size is £1/per point. If you wanted to bet £1.35/point, that would be fine – you do not have to deal in multiples of the minimum bet size.

# AN EXPLANATION OF FUTURES

## CONTINUED

### COMMODITY FUTURES

The reason futures came about in the first place was to allow producers of agricultural products to offset risk.

For example, a corn farmer will have to invest money in order to grow and harvest his crop, paying for such necessities as seeds, labour, fertiliser, etc. Whilst the farmer is outlaying these costs, there is a risk that the price of corn may drop to a level insufficient to cover the outlay at the time that the corn is sold.

Because futures allow a price to be agreed today for a sale at some time in the future, the farmer would be able to utilise futures in order to achieve a sale price for the crop and thereby remove any exposure to variations in the price of corn. With the knowledge of how much the sale proceeds will be, the farmer can go ahead and make a sensible business plan.

On the other end of the futures transaction may well be a speculator – someone who thinks the price of corn is going to go up, and is willing to take on the risk that the farmer is seeking to lay off.

# AN EXPLANATION OF FUTURES

## CONTINUED

### SETTLEMENT

The delivery of futures contracts occurs on a fixed date that is known as the delivery day; for most commodities this means that on this date, money is exchanged for goods, and the goods are physically delivered. Many financial futures, such as stock index futures, are cash-settled, which means that no asset is actually transferred and instead the difference between the price of the future and the price of the underlying asset is settled in cash.

All spread bets are cash-settled. We hedge extensively in the underlying futures markets in order to cover our exposure on the bets we take, but obviously do not want to take delivery of platinum or oil, for example. For this reason, bets on futures that have physical delivery are always settled well in advance of the delivery date. This means that a bet on, say, December Silver might expire in November rather than in December.

### PRICING FUTURES

An essential feature to understand about futures is how they are priced.

If we compared the cash price (also known as the spot price) of gold in early October with the futures price of gold for delivery in December, we might note the prices in figure 1:

As you can see, the December Gold price is higher in this example than the cash price. What is the reason behind this? It is easy, but generally wrong, to assume it's because the price of gold is due to rise.

In reality the price of a future is affected by a number of factors that take into account the cost that would be involved in holding the physical to the expiry date (the so-called 'cost of carry') as well as market sentiment.

<b>SPOT GOLD</b>	
<b>\$1265</b>	PER TROY OUNCE
<b>DECEMBER GOLD</b>	
<b>\$1267</b>	PER TROY OUNCE

Figure 1

# AN EXPLANATION OF FUTURES

## CONTINUED

### FAIR VALUE

The 'fair value' is the theoretical price that a future should be trading at given the cost of carry and working from the cash price (it therefore does not take into account such factors as sentiment or squeezes in the market, etc).

If we continue to use gold as an example, consider the case of a jeweller who has been commissioned to design and construct a collection of gold jewellery for a customer's birthday in four months' time. He knows he will require 100 oz of gold – but only four months hence – in order to make the jewellery.

Unless he wants to take a risk with the price of gold (and potentially end up paying more to buy the gold at the time than he has accepted for the commission), he can guarantee the price of the raw material in one of two ways. He can either buy the physical gold now, or buy gold futures for delivery in four months.

If he chooses the former, he will have to outlay the cost straight away. Doing so will require financing, and this will incur costs: either the jeweller will have to take out a loan and pay interest on that sum over the period, or he will have to withdraw the funds from his savings account, thereby sacrificing any interest that he would receive on the credit balance over the period. Additional costs will be incurred in the form of insurance and storage costs for the gold until he sells the jewellery.

# AN EXPLANATION OF FUTURES

## CONTINUED

Choosing to buy the futures contract will mean that the gold will only have to be paid for in four months' time, thereby requiring no interest, storage or insurance costs. The futures price will take into account these costs (if it is fairly priced).

In an efficient market, the real futures price should trade at the same level as the theoretical fair value of the future. If the futures price diverges too far from the fair value, arbitrageurs will trade the future in the opposite direction to which it has diverged (ie selling if the value has risen above the fair value and vice versa), whilst also taking an offsetting trade in the cash market. Because of this arbitrage, the value of futures will always eventually return to the fair value.

An example of fair value for gold (and other commodities):

$$\begin{aligned} \text{FAIR VALUE} &= \\ &\text{CURRENT CASH PRICE} \\ &+ \text{COST OF CARRY} \end{aligned}$$



# AN EXPLANATION OF FUTURES

## CONTINUED

### PRICING STOCK INDICES AND SHARE FUTURES

The fair value for stock indices is similar to the formula described previously, except the carrying charges are different.

There are no storage costs to consider in the cost of carry and the underlying may pay out dividends, whereas the future does not.

Therefore the cost of carry is the interest cost less any dividends.

For shares, the fair value calculation should in theory be the same as for indices. In practice, however, we do not price in dividends for our shares futures because of the difficulty of accurately and consistently predicting dividends so far forward.

For this reason, dividend adjustments are made to your cash balance should you have a position in a share when it goes ex-dividend (basically this is the point at which a dividend is removed from the price of a share).

An example of fair value for stock indices:

$$\begin{aligned} &\text{FAIR VALUE} = \\ &\text{CURRENT CASH PRICE} \\ + &\text{INTEREST COSTS OVER THE PERIOD} \\ - &\text{DIVIDENDS OVER THE PERIOD} \end{aligned}$$

The interest rate cost, less any dividends for stock indices:

$$\begin{aligned} &\text{CASH} \\ \times &\text{ANNUAL INTEREST RATE} \\ \times &\text{DAYS TO EXPIRY} \\ / &365 \end{aligned}$$

(The divisor is usually 365 for UK products and 360 for the US)

# AN EXPLANATION OF FUTURES

## CONTINUED

For example, let's look at the price of a December Diageo future, when the share price in mid-October is, say, 1804.8p and there are 60 days until the expiry of the December futures.

As you can see from the calculations (right), the effect of interest puts the forward price of the share at a premium to the cash. The further forward you go, the greater that premium will be.

Now let's say that you take a long position, buying £20/point of the December future, and keep the bet open past the ex-dividend date.

The share goes ex-dividend overnight, paying a dividend in this case of 22p per share. We adjust your cash balance, crediting you money to reflect the effect of this dividend (if you had been short we would debit your cash balance).

When you bet on shares, one point is one penny, so that a 22p dividend can be viewed as 22 points being paid out of the share price.

The amount credited in our example is therefore: 22 points x £20/ point = £440. This money is added to your account. All other things being equal, we would expect the share price to drop by 22p after going ex-dividend.

Calculating the December price

	<b>60</b>	DAYS TO EXPIRY
	<b>0.5%</b>	INTEREST RATE
	<b>1804.8</b>	CASH
<b>x</b>	<b>0.5%</b>	INTEREST RATE
<b>x</b>	<b>60</b>	DAYS TO EXPIRY
<b>/</b>	<b>365</b>	DIVISOR
	<b>1.5</b>	INTEREST RATE COST
<b>+</b>	<b>1804.8</b>	CURRENT CASH PRICE
	<b>1806.3</b>	DECEMBER PRICE

## SUMMARY

By now you should:

- Be more familiar with the main types of bet that we offer and the underlying markets by which they are influenced
- Understand how a forward forex rate is calculated
- Understand the concept of futures
- Know how fair value is calculated

Spread bets and CFDs are leveraged products. Spread betting and CFD trading may not be suitable for everyone and can result in losses that exceed your deposits, so please ensure that you fully understand the risks involved.

Please note that although the material contained within our introduction programme is updated regularly to ensure accuracy, the information given is subject to change, often without notice, and therefore may not reflect our most current offering. Our examples are for illustrative purposes only and do not reflect events in the markets. The information is for guidance only and we accept no liability for its accuracy or otherwise.

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