

LEVERAGE AND MARGIN

This module explains leverage and gearing and compares CFDs with non-g geared investments. Additionally, there are a number of worked examples of how our margin requirements work and we explore how Stops can be used to reduce margin.



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LEVERAGE AND MARGIN

If you were to buy shares, through a stockbroker or any other traditional share dealing service, you would have to pay the full purchase price of the shares.

For example, let's say that you decided to purchase 2000 shares of HSBC at a price of £5.91. Ignoring commission, you would have to pay $2000 \times £5.91 = £11,820$ in order to make the purchase – in other words, the full value of the shares.

With CFDs this is not the case: you do not have to put up the full value of the underlying shares (or the underlying value of whichever instrument you are taking an exposure to; this doesn't only apply to trading with Share CFDs). Instead, you typically put up only a small portion of the underlying value. This is known as the initial margin (sometimes also referred to as margin).

In the case of HSBC, the margin required is just 5%. This is the initial margin for a selection of the more liquid stocks from around the world, including more than 50 UK shares. Most FTSE 100 and FTSE 250 shares require a margin of 10%, while less liquid or more volatile shares may require higher margins.*

So for the same value of HSBC shares, if you were doing the deal as a CFD instead, you would only need to put up $5\% \times £11,820 = £591$ as a deposit.

TO REITERATE:

With the physical share deal you take ownership of 2000 shares and pay £11,820.

Using CFD trading you take a position of equivalent size and deposit £591.

Both deals offer you exactly the same exposure: if HSBC goes up by 1p, both deals make you £20 (the 2000 shares are worth 1p more: **$2000 \times 1p = £20$**).

*Subject to the total size of your trades on a given share being below a certain (substantial) size. We margin higher rates once the total size of your position for a given share exceeds a certain threshold. HSBC is margined at 5% provided your total size is smaller than 190,000 shares. In other words, this tiered system of margining tends to affect those dealing in very large sizes only. More details can be found on our website.

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CFD trading is geared: it offers a greater exposure for the amount of money that you invest. To put it another way: gearing allows you to control, for a low outlay, a much more expensive asset.

Gearing has the effect of magnifying profits and losses. This is better illustrated by continuing with the example to see how the profit or loss of the position, relative to the initial outlay, is affected by movements in the share price. Throughout the example, commission and spread will be ignored for simplicity's sake.

SCENARIO 1: HSBC GOES UP

Let's say that HSBC rises in price, as you had hoped, and you decide to take your profit, selling at £6.44, after a net rise of 53p. With the physical holding, you dispose of your 2000 shares, receiving £6.44 for each share that you sell. The proceeds from the sale are therefore $2000 \times £6.44 = £12,880$.

The shares cost you £11,820 in the first place, so you have realised a profit of $£12,880 - £11,820 = £1060$.

Expressed as a percentage of your initial investment this is:
 $£1060 / £11,820 \times 100 = 8.97\%$. While this is a solid return, it's not particularly spectacular.

Let's compare this with CFD trading. A 53p gain for a trade equivalent to 2000 shares equals a profit of $£0.53 \times 2000 = £1060$, the same amount of profit in absolute terms as the physical purchase. When we consider this as a percentage of the amount of money that was required to place the CFD trade, however, the difference is marked.

The margin required was £591.
 $£1060 / £591 \times 100 = 179.36\%$.

When the profits are considered as a percentage of the outlay, the CFD trade offers returns that are vastly greater than the ungeared physical investment.

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SCENARIO 2: HSBC FALLS IN PRICE

Let's say that you don't grab your profit as in the first scenario, but instead decide to hold your position. The share price gives back its gains little by little, until eventually the position moves into the red. After it has gone 22p against you, you decide that you have had enough and cut your losses. You sell out to close your position.

The amount of loss for both types of trade is £440 (2000 shares x £0.22/share).

This represents a loss of 3.7% on your investment placed through the stockbroker (£440/£11,820) but a much larger 74.5% loss of the margin placed for the CFD trade.

This effect, whereby losses and gains are effectively magnified relative to the amount of money that you have outlaid, is also known as leverage.

So, is CFD trading more risky than buying and selling shares in the conventional manner?

From a certain perspective, the answer is yes.

In scenario 2 above, had you been gearing up beyond your means, using all your disposable income as the margin, you would undoubtedly have been taking a significant risk.

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It should be pointed out, however, that both trades in the examples above – the physical investment and the trade placed through our CFD service – had exactly the same exposure. The ultimate downside for both was £11,820. Neither trade could lose more than that amount. The CFD trade simply required a smaller outlay in order to achieve that exposure. From this point of view, you could argue that the trade using our CFD service was no more risky than the conventional share trade.

If you were to compare the exposure that you could take through our investment service for a £591 deposit (this would give you a trade equivalent to 2000 shares) with buying £591's-worth of shares, however, the CFD trade would be more risky. In this setting there is no comparison. Using our CFD service in this incidence gives you a trade 20 times larger, owing to the leverage bestowed by the 5% margin requirement.

For this reason you should always make sure that you are fully aware of how much your total underlying exposure is. With most CFD trades your potential losses are not restricted to the margin you have put down.

MARGIN

Because it is possible to accrue losses that exceed the amount you have deposited with us, when a position moves against you we may often have to ask you to send us more money. This is more properly known as variation margin, but is often simply referred to as margin.

Before we move further into discussing such issues as when and how much money needs to be sent as margin, let's first consider the case of trades that sidestep this issue.

You can only be asked for margin on positions for which your deposit does not cover the total risk. That is to say, there are certain types of trade for which there is a set limit on your risk; as long as you have deposited enough to cover that risk, it follows that you cannot be margined any further. Specifically, these are trades for which a Limited Risk premium has been paid or any long contract on an option (an option is a type of derivative. We offer CFDs on a wide range of options and you can find more information on our website **IG.com**).

So, if you are only ever placing Limited Risk trades or 'buying' options, it will require a certain deposit, which is equal to the maximum loss possible on that trade. As long as you have that amount on your account, you will never be asked to send further funds to cover the risk on the position, even in the worst case scenario (it should be pointed out that dividend payments for short positions and any funding costs will incur debits to your balance; these may require you to further fund your account if you have deposited only enough to just cover the trading risk of the positions).

Let's look at a quick example of a trade with Limited Risk protection, in order to illustrate this point.

EXAMPLE 1

GOING LONG GERMANY 30 WITH LIMITED RISK

The DAX is near recent lows at 5949.5 and you think the index looks like a good buy from a technical point of view. You make up your mind to take a long position, but are wary of the fact that the trend has generally been in the other direction of late, and therefore don't want to commit yourself too heavily. A trade with Limited Risk protection seems like a sensible strategy to employ in order to limit the downside risk involved.

Our Germany 30 is a stock index CFD that allows you to speculate on the performance of the leading stocks in Germany (and can be nominated to expire at the end of the day at the closing level of the DAX). Our quote for Germany 30 is 5949/5950 and you decide to buy one contract. One contract of Germany 30 has the value of €25 per point movement in the level of the market.

The premium charged for taking a Limited Risk position with the Germany 30 is 3 points. This is the extra value you pay in order to receive the added benefit of a Guaranteed Stop (we do not charge commission for stock index contracts: all the charge is in our dealing spread). This 3 point charge is only applied to your account if your Guaranteed Stop is triggered; in cases where the stop is not used no extra charge will be applied on account.

You open your trade at 5950, placing your Guaranteed Stop 40 points away at 5910. Your maximum risk on the trade is €1000, plus the €75 in premium if your Guaranteed Stop is triggered, making a total of €1075. However there is no ceiling on your profits. This way, if the market drops 200 points you'll only lose €1075, but if it moves 200 points the other way you stand to make several times that.

The margin required for the trade is equal to the risk: €1075. You have previously transferred over €1075 into your account so that now – unless you move your Stop further away – you cannot be margined further, as your €1075 covers everything (ignoring roll charges, and/or dividend adjustments, which may cause debits to be made to the balance of your account).

EXAMPLE 1

GOING LONG GERMANY 30 WITH LIMITED RISK

CONTINUED

Over the next few weeks, the downward trend of the markets in general – including the DAX – continues. Eventually our Germany 30 price sails through your Stop, quickly establishing new lows at 5650. Your position is closed at your Stop level and you lose the €1000 that you deposited. Even if the Germany 30 had ‘gapped’ (e.g. closed at a level above your stop but then re-opened at a price below it - effectively creating a gap between the two price levels), your trade would still have been closed out at the level you specified with your Stop.

As we saw in Module 3, as well as Limited Risk trades which have Guaranteed Stops, we also offer trading with Stops which are not guaranteed. The situation is a little bit more complicated for a position which has a non-guaranteed Stop. The basic information is that the margin required is larger than the margin that would be required if you were using a Guaranteed Stop. The maximum possible loss is not restricted to the initial margin, although you will not be asked for variation margin whilst the trade is open (provided the Stop is close enough to reduce the margin requirement below the amount that would be required if the position had no Stop). How we calculate the margin required for deals placed with non-guaranteed Stops is looked at in more detail after the next section in this module.

INITIAL MARGIN

We have looked at trades where you won't be asked for funds beyond your initial margin. Let's now focus on all the other types of deal, for which you put up an initial deposit representing only a portion of your total risk.

We have touched on the margin requirements for trading shares, which are a set percentage (dependent on which share you are dealing) of the underlying value. Usually this margin percentage varies from 5% to 50%, but for very illiquid shares, or special cases such as unusually large deals, the percentage may be higher (such incidences are extremely rare).

FX, Spot Gold and Spot Silver also work in this way: the normal Margin Percentage for an FX transaction is 0.5% of the position value, with 0.7% the percentage for Gold and 1% for Silver (some of our more popular FX pairs are margined at just 1%).

Other types of trade generally work in a slightly different manner in which we specify a margin requirement per contract.

Margin requirements are determined by the volatility of the market in question, as well as by the amounts that exchanges demand for contracts of a similar kind in the underlying markets.

Lists of the margin requirements for our contracts can be found in the Margins section of **IG.com**.

INITIAL MARGIN

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MARGIN EXAMPLES

- You 'buy' two contracts of US Tech 100 (a Stock Index CFD that offers an exposure to the leading 100 technology stocks in the US and that can be nominated to settle against the price of the Nasdaq 100). The margin requirement for our US Tech 100 is 0.5% of the trade value. Let's assume you are buying at a price of 4330. Each contract is worth an equivalent exposure of \$100 per point of the underlying index. For a two contract trade you therefore need to deposit $(2 \times \$100 \times 4330 \times 0.005) = \4330^* .
- You 'buy' two mini contracts of the US Tech 100. The margin requirement for mini contracts is again 0.5%, though the total exposure involved will only be 1/5th of the exposure if trading standard contracts. You therefore need $(0.2 \times \$4330) = \866 free on your account to be used as margin.
- You go short one contract of EUR/USD at 1.2910 using our CFD trading service. One standard contract for an FX currency pair is always 100,000 units of the base currency (the first named currency) with us. Therefore, one contract of EUR/USD is EUR100,000. Your transaction is therefore equivalent to selling EUR100,000 at 1.2910 (and therefore buying USD129,100). Your exposure on a currency trade is always in the second named currency (also known as the quote currency or counter currency) and we therefore ask for margin in the quote currency. The margin percentage for this FX trade is 0.5%. Your trade therefore requires 0.5% of \$129,100 which is \$646*

Because the initial margin represents only a portion of your total risk, it is important for you to provide additional funds swiftly in the event of your positions moving against you (if you do not have surplus funds on your account that cover the adverse movement).

*the margin factors shown in these examples apply to Trader Account holders.

INITIAL MARGIN

CONTINUED

EXAMPLE

You open a position 'buying' a contract of Spot Gold through our CFD trading service at a price of US\$1200 per troy ounce. One contract of Spot Gold is equivalent to a position of 100 troy ounces, so the underlying value of your position is 100 troy oz/contract x US\$1200/troy oz = US\$120,000.

The margin percentage for Spot Gold CFDs is 0.7%.

The margin required is therefore 0.7% of US\$120,000 which is US\$840. You have US\$2100 deposited on your account already. This covers the margin requirement and leaves you with a surplus of US\$1260.

Gold drops to a price of 1199. This is one point lower than your opening level, meaning you have a running loss of US\$100. The surplus on your account covers this, so no extra funds are required at this point.

Overnight, the price of Gold drops further and in the morning is standing at 1194.5. The running loss on the position is calculated as follows: $\text{US}\$(1200 - 1194.5)/\text{troy oz} \times 100 \text{ troy oz/contract} = \text{US}\550

As the underlying value of your position has decreased slightly, your margin requirement has also decreased. The underlying value is now 100 troy oz/contract x US\$1194.5/troy oz = US\$119,450.

You can monitor the state of your account, (including your cash balance, margin requirement and running losses) in real time using our dealing platform. If you do not fund your account sufficiently, we reserve the right to scale back or close your positions as appropriate to market circumstances (the above is a general guide aimed at giving you a feel for our margining process. For a definitive, legal account of our margining process, please see our Customer Agreement).

The margin required is therefore 0.7% of US\$119,450 which is US\$836.15. This means your account stands as follows:

BALANCE	US\$2100
MARGIN REQUIREMENT:	-US\$836.15
RUNNING LOSSES:	-US\$550
DEFICIT	US\$713.85

VARIATION MARGIN

We may contact you by email to request margin, but responsibility for ensuring your account is adequately funded ultimately lies with you.

It is in your interest as it keeps you aware that a position is moving against you and that you are trading on a geared basis – in short, you are less likely to let a position become a runaway loss if you are being asked to hand over the funds for it.

It is also in your interest for us to behave in a responsible manner in obtaining margin using the same approach for our other clients. You could be dealing with the most reliable counterparty in the world, but if markets have trended strongly in one direction and your counterparty is not collecting margin from clients who have losing positions, you should be worried: somewhere along the line something will have to give. This is why all exchanges – and all good CFD providers – operate with reasonably tight, sensible margining policies.

It is in our interest to make sure that clients are trading within their means – the last thing we want is for someone to get themselves into a losing position that they cannot afford, and hence the need for ongoing margin if a position moves against you.

If you have paid us margin, and the position moves back in your favour, you are, of course, entitled to take back any surplus funds on the account.

MARGIN REQUIREMENTS WHEN USING NON-GUARANTEED STOPS

We have established that when using Guaranteed Stops (ie Limited Risk), the margin requirement is the total risk – your exposure per unit movement multiplied by how many points the Stop has been placed from the opening level of the trade.

Exposure per unit movement multiplied by Stop distance is also a component of the margin requirement for positions with non-guaranteed Stops. Let's call this component the 'risk margin'.

We also found that if you take a position without a Stop, there is an initial margin required (typically represented as a percentage of the underlying value of the position).

Because non-guaranteed Stops may be subject to slippage and market gaps, the margin requirement for a position with such a Stop requires more margin than just the risk margin. The extra amount is a percentage of the initial margin that the position would have required if it did not have any Stop at all. Let's call this component the 'slippage margin'.

So, for positions with non-guaranteed Stops:

Margin requirement	= risk margin + slippage margin where:
Risk margin	= exposure per unit movement x Stop distance
Slippage margin	= slippage factor x normal initial margin

The slippage factor is a percentage and is set at 30% for most shares and can be up to 50% for other markets. You can look up the slippage factor on our dealing platform by clicking on the dropdown menu next to a market's price and then selecting 'Get Info'.

MARGIN REQUIREMENTS WHEN USING NON-GUARANTEED STOPS

CONTINUED

EXAMPLE

Let's look at dealing on Citigroup and how placing a non-guaranteed Stop on the position can reduce the margin requirement.

You go long 1000 shares at \$35.14. Citigroup is margined at 5% so the initial margin requirement is therefore 5% of $1000 \times \$35.14$ which is \$1757.

You then place a non-guaranteed Stop 64 cents away at \$34.50.

With 1000 shares, the exposure per unit movement is \$10, as a one cent movement in the share price means a change in profit/loss of 1000 cents (which is \$10).

The risk margin = exposure per unit movement x Stop distance
 = $\$10 \times 64 = \640

The slippage factor for Citigroup is 30%

Slippage margin = slippage factor x normal initial margin
 = $30/100 \times \$1757 = \527.10

Margin requirement = risk margin + slippage margin
 = $\$640 + \527.10
 = \$1167.10

So by placing the non-guaranteed Stop 64 points away you have reduced the margin requirement from \$1757 to \$1167.10.

SUMMARY

By now you should:

- Know what is meant by gearing and leverage
- Be familiar with the term margin
- Understand how our margin requirements are calculated
- Have an understanding of our margining process
- Have a feel for how Stops can be used to reduce margin requirements

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.

IG is a trading name of IG Markets Limited.

IG
Cannon Bridge House
25 Dowgate Hill
London EC4R 2YA

0800 409 6789
+44 20 7633 5510
IG.com

