Module 4

Leverage and margin

TradeSense

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

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Leverage & 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 AMP Ltd at a price of $4.98. Ignoring commission, you would have to pay 2000 x $4.98 = $9960 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 dealing; this doesn't only apply to trading on shares). 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 deposit).

In the case of AMP, the deposit required is just 5% (the initial margin is 5% for a selection of the more liquid stocks from around the world, including some of the largest companies in the ASX 200. Most ASX 200 shares require a deposit of 10%, while less liquid shares will require higher deposits).*

So for the same value of AMP shares, if you were doing the deal as a CFD instead, you would only need to put up 5% x $9960 = $498 as a deposit.

To reiterate:

With the physical share deal you take ownership of 2000 shares and pay $9960.

With the CFD you take a position of equivalent size and deposit $498.

Both deals offer you exactly the same exposure: if AMP goes up by 1c, both deals make you $20 (the 2000 shares are worth 1c more: 2000 x 1c = $20).

**Subject to your total position in 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. AMP Ltd is margined at 5% provided your total size is smaller than 140,000 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.*

Leverage & margin
(continued)

The CFD 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 cost a much more expensive asset.

Gearing has the effect of magnifying profits and losses and 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: AMP goes up

Let's say that AMP rises in price, as you had hoped, and you decide to take your profit, selling at $5.40, after a net rise of 42c.

With the physical holding, you dispose of your 2000 shares, receiving $5.40 for each share that you sell. The proceeds from the sale are therefore 2000 x $5.40 = $10,800.

The shares cost you $9960 in the first place, so that you have realised a profit of $10,800 – $9960 = $840.

Expressed as a percentage of your initial investment this is: $840/$9960 x 100 = 8.4%. So, you made a return of just over 8%. Not too shabby, but not particularly spectacular either.

Let's compare this with the CFD. A 42c gain for a trade of 2000 shares equals a profit of $0.42 x 2000 = $840, 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, however, the difference is marked.

The deposit required was $498.
$840/$498 x 100 = 168.7%.

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

Scenario 2: AMP 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 22c 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 approximately a 4.4% loss on your investment placed through the stockbroker ($440/$9960) but a much larger 88.4% loss of the deposit placed for the CFD.

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, are CFDs more risky than buying and selling shares in the conventional manner?

From a certain point of view, yes they are.

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

It should be pointed out, however, that both trades in the examples above – the physical investment and the CFD – had exactly the same exposure. The ultimate downside for both was $9960. Neither trade could lose more than that amount. The CFD simply required a smaller outlay in order to achieve that exposure. From this point of view, you could argue that the CFD was no more risky than the conventional share trade.

If you were to compare the CFD position of 2000 shares that you could take for a $498 deposit with buying $498 worth of shares, however, the CFD would be more risky. In this setting there is no comparison. The CFD is a trade 20 times larger, owing to the leverage bestowed by the 5% deposit requirement.

For this reason you should always make sure that you are fully aware of what your total underlying exposure is. With most CFDs your potential losses are not restricted to the deposit you have put down.

Margin

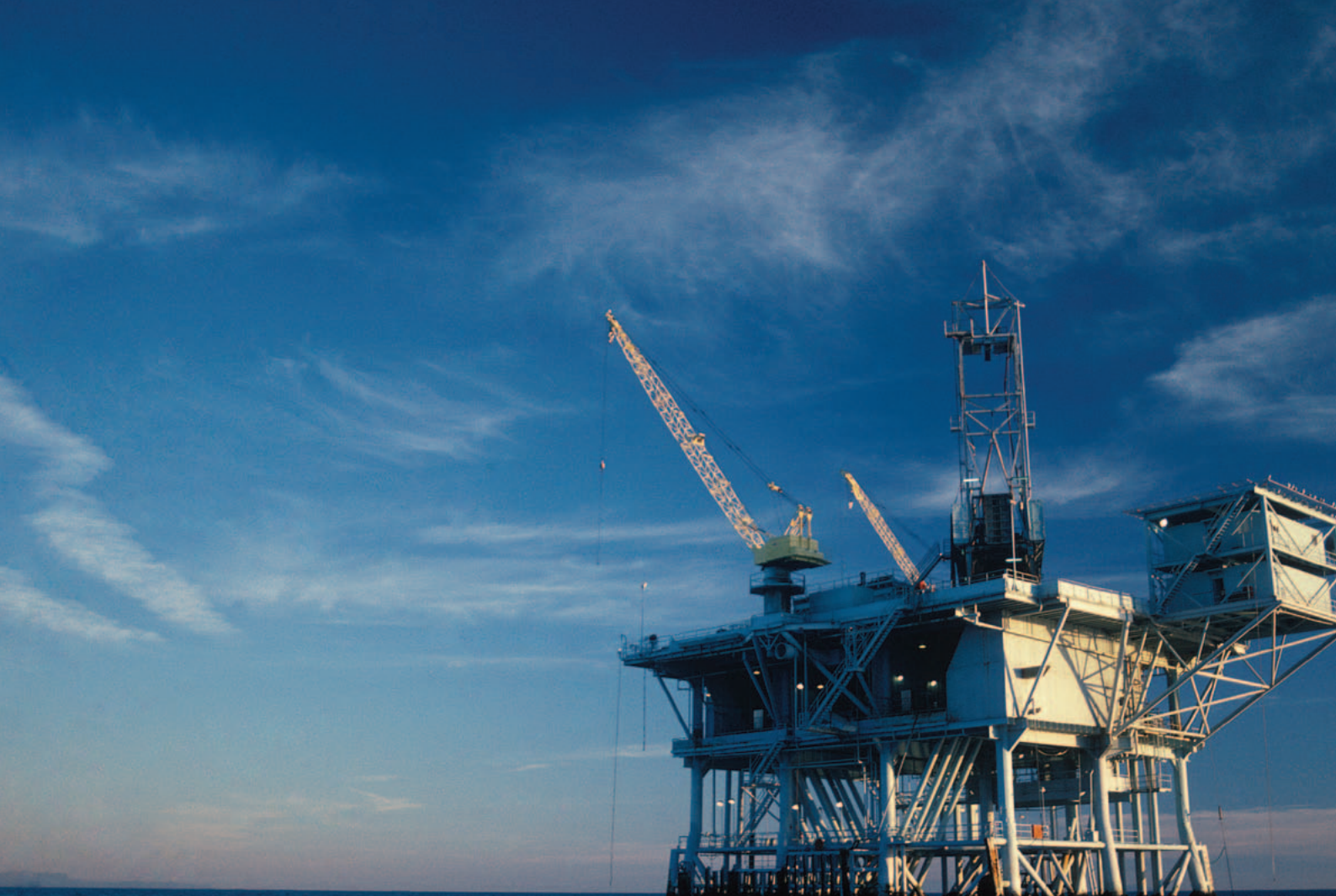
Precisely because it is possible to accrue losses that exceed the amount you have deposited with us, when a position moves against you, you may often be required to send us more money. This is more properly known as variation margin, but is often simply referred to as margin.

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 **www.igmarkets.com.au)**.

So, if you are only ever placing Limited Risk trades or buying Options, life is simple: whenever you place a trade 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, even in the worst case scenario.

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



Example: buying Australia 200 with Limited Risk

You have been watching the ASX 200 fall steadily for the last few weeks. Checking your charts, you can see that at 3653 it is at its lowest point for over a month. Volumes were dropping on the last sell-off, however, and in your consideration 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 you are opposing the long-term trend, and consequently don't want to commit yourself too heavily. A trade with Limited Risk protection seems like a good way to profit from the value in the market that you see without facing too much risk if you've got it all wrong.

Our Australia 200 market allows you to speculate on the performance of the leading stocks in Australia (and can be nominated to expire at the end of the day at the closing level of the S&P/ASX 200). Our quote for Australia 200 is 3652/3654 and you decide to buy one mini-contract. One contract of Australia 200 has the value of $25 per point movement in the level of the market and the mini-contract is 1/5th the size of the standard contract (in other words, the mini-contract is $5 per point).

The Limited Risk premium for the Australia 200 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).

You open your trade at 3657 (the offer of 3654 plus the Limited Risk premium of 3), placing your Guaranteed Stop 50 points away at 3607. Your maximum risk is $250 – that's guaranteed—but there is no ceiling on your profit. This way, if the market drops 200 points you'll only lose your $250, but if it moves 200 points the other way you stand to make several times that.

The deposit required for the trade is equal to the risk: $250. You have previously transferred over $250 into your account using BPay so that now – unless you move your Stop further away – you cannot be margined further, as your $250 covers everything.

Over the next few weeks, the downward trend of the markets in general – including the ASX – continues. Eventually the Australia 200 plummets through your Stop, quickly establishing lows at 3217.5. Your Stop is closed at your Stop level and you lose the $250 that you deposited.

As we saw in Module 3, as well as Limited Risk trades which have Guaranteed Stops, we also offer 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 (obviously if you remove the Stop you may be asked to send margin). How 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 and margin calls

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 share CFDs, which are a set percentage (dependent on which share you are dealing) of the underlying value. Usually this Margin Percentage varies from 10 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 trades, Spot Gold and Spot Silver also work in this way: the normal Margin Percentage for a Foreign Exchange transaction is 2% of the position value, with 3% the percentage for Gold and 5% 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 Contract Details section of **www.igmarkets.com.au**.

**For Trader Accounts.*

Deposit examples

- You buy two contracts of US Tech 100 (a market that is influenced by the leading 100 technology stocks in the US and that can be nominated to settle against the price of the Nasdaq100). The margin requirement for our US Tech 100 is US$2000 per contract. You therefore need to have deposited 2 x US$2000 = US$4000.*
- You 'buy' two mini contracts of US Tech 100. The margin requirement for mini contracts is 1/5th of the standard contract, which is therefore US$400 per mini contract. You therefore need US$800 (2 x US$400) free on your account.*
- You go long 800 shares of Microsoft with our CFD trading service at a price of US$20.25. Microsoft is margined at 5%. The underlying value of your trade is US$20.25 x 800 = US$16,200. The margin requirement is 5% of US$16,200, which is US$810.

- You sell one contract of AUD/EUR at 0.5165. 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 AUD/EUR is AUD100,000. Your transaction is therefore equivalent to selling AUD100,000 at 0.5165 (and therefore buying EUR51,650). 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 FX trades is 2%. Your trade therefore requires 2% of EUR51,650 which is EUR1033.

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).

Example:

You open a position buying two contracts of Spot Gold at a price of US$945 per troy ounce. One contract of Spot Gold is equivalent to a position of 100 troy ounces, so that the underlying value of your position is 2 contracts x 100 troy oz/contract x US$945/troy oz = US$189,000.

The margin percentage for Spot Gold is 3%.

The margin required is therefore 3% of US$189,000, which is US$5670. You have US$6100 deposited on your account already. This covers the margin requirement and leaves you with a surplus of US$430.

Gold drops to a price of 943. This is two points lower than your opening level, meaning you have a running loss of US$200 per contract, or US$400 in total. The surplus on your account covers this, so that no extra funds are required at this point.

Initial Margin and margin calls
(continued)

Overnight, the price of Gold drops further and in the morning is standing at 939.5. The running loss on the position is calculated as follows: US$(945 – 939.5)/troy oz x 2 contracts x 100 troy oz/contract = US$1100

As the underlying value of your position has decreased slightly, your margin requirement has also decreased. The underlying value is now 2 contracts x 100 troy oz/contract x US$939.5/troy oz = US$187,900. The margin required is therefore 3% of US$187,900, which is US$5637. This means your account stands as follows:

Balance:	**US$6100**
Margin Requirement:	**-US$5637**
Running Loss:	**-US$1100**
Surplus:	**US$637**

Your account is US$637 in deficit and we require that amount as variation margin. You instruct us to take the money from your credit card and we transfer over the US$637.

You can monitor the state of your account, (including your cash balance, margin requirement and running losses) in real time using PureDeal.

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).

Initial margin and margin calls
(continued)

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 (i.e. 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 deposit'.

We also found that if you take a position without a Stop that there is an initial margin required (calculated either as a product of the margin requirement per contract and the number of contracts or by taking a set percentage of the underlying value of the contract).

Because non-guaranteed Stops may be subject to slippage, the margin requirement for a position with such a Stop requires more deposit than just the risk deposit. 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 deposit'.

So, for positions with non-guaranteed Stops:

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

The slippage factor is a percentage and is set at 20%, except for shares where it varies according to which share you are trading. For most shares it is 30% (the slippage factor can be looked up in PureDeal by clicking on the dropdown menu next to a markets price and then selecting 'Get Info').

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

You buy 5000 shares at $2.90. Paladin Energy is margined at 10% so that the initial margin requirement is therefore 10% of 5000 x $2.90 which is $1450.

You then place a non-guaranteed Stop 10 cents away at $2.80.

With 5000 shares, the exposure per unit movement is $50, as a one cent movement in the share price means a change in profit/loss of 5000 cents (which is $50).

The risk deposit = exposure per unit movement x Stop distance = $50 x 10 = $500

The slippage factor for Paladin Resources is 30%

Slippage deposit = slippage factor x normal initial margin = 30/100 x $1450 = $435

Margin requirement = risk deposit + slippage deposit

= $500 + $435

= $935

So by placing the non-guaranteed Stop 10 points away you have reduced the margin requirement from $1450 to just $935 – a substantial reduction.

Summary

By now you should:

- Know what is meant by gearing and leverage
- Be able to work out what the underlying exposure is for a given trade
- 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

Remember that CFDs are a geared product and can result in losses that exceed your initial deposit. Trading CFDs may not be suitable for everyone, so please ensure that you fully understand the risks involved.

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