

# The Guide to Risk and Leverage

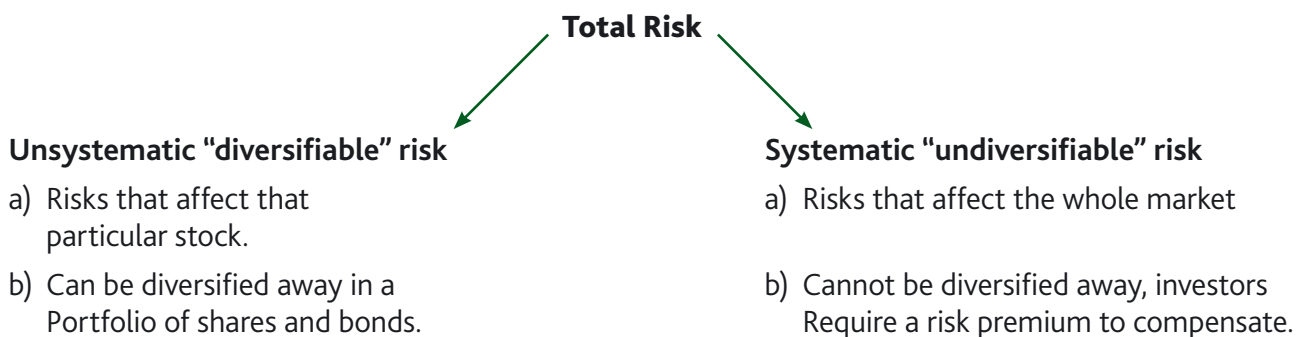
- **What is Risk in the context of equity investments?**
- **What is leverage and how does this impact portfolio investment and CFD trading?**
- **How do we manage the two?**
- **Conclusion**

## What is risk in the context of equity investments?

“Risk” according to the Oxford dictionary is; “hazard: a source of danger, a possibility of incurring loss or misfortune.”

With investments, risks are accepted in the expectation of a positive outcome.

Total Risk in investment is a combination of two forms of risk:-



A fully diversified investor holding a diversified portfolio is taking systematic risk but a negligible amount of unsystematic risk.

An investor holding a portfolio with a small number of shares i.e. less than five is holding far more unsystematic risk and taking more total risk. Such a portfolio could be considered more risky if invested in the same industry sector, such as mining or banking.

Studies have shown that market risk fluctuates year on year, but that over 30+ years it has averaged 8% pa. Market risk is a bit like investing in wine. Some years are better than others. Some are vintage years, some are average years and some are, well pretty awful years.

A wise man once said; “It is alright to speculate, you have just got to know when you are doing it, how much you are risking, and for what reasons”.

The concept of risk is that the investor needs to be compensated, and should be paid by receiving higher returns for taking higher risk in the portfolio than risk free investments.

## What is leverage and how does this impact portfolio investment and CFD trading?

When an investor borrows money, which happens automatically when a Long CFD trade is placed, the investor is increasing his portfolio's exposure to risky assets.

Adding CFD positions to an existing portfolio increases exposure to the market as the full value of the CFD position is added to the net exposure.

An example of this, not taking into consideration additional trading fees and charges:

### Step 1: Client Mr Low Leverage

Client has a low attitude to risk regarding CFDs i.e. a leverage requirement of 1-2 times account value. This is the amount of leverage we would suggest inexperienced clients may wish to expose themselves to.

His current stock portfolio is as follows:

STOCK	Quantity	Price	Consideration
British Petroleum	1000	4.50	£4,500
Compass Group	3000	5.50	£16,500
Intercontinental Hotel	1000	11.20	£11,200
Vodafone	4000	1.35	£5,400
Portfolio Value /Exposure			£37,600
Cash			£5,000
Account value			£42,600

If the market dropped by 10% you could expect this client to lose £3,760 from his account value (£37,600 x 10% = £3,760). Not taking into consideration other fees and charges.

These 'if the market...' are the sought of questions that the broker and client must consider constantly when decide on what investments to make or recommend.

### Step 2: Client then adds some Long CFD positions for his portfolio.

CFD	Quantity	Price	Consideration
Glaxo	500	12.00	£6,000
Home Retail	2000	2.50	£5,000
Marks and Spencer's	4000	3.50	£14,000
Sainsbury	2000	3.20	£6,400
Xstrata	1000	10.00	£10,000
CFD Portfolio Value/Exposure			£41,400

Exposure to Stocks = £37,600

Exposure to CFDs = £41,400

Total Market exposure = £79,000

Total leverage =  $\frac{\text{Total Market exposure (£79,000)}}{\text{Account value (37,600 + 5,000 cash = £42,600)}} = 1.85$

Thus the client has a leverage factor of 1.85 times.

If the market were to move up 10% the effect on the clients account would be as follows:

Exposure to Stocks	= £41,360
Profit on CFDs	= £4,140
Cash	= £5,000
Total Account value	= £50,500 an increase of £7900 or 18.5%

If the market were to move down 10% the effect on the clients account would be as follows:

Exposure to Stocks	= £33,840
Loss on CFDs	= £4,140
Cash	= £5,000
Total Account value	= £34,700 a decrease of £7900 or 18.5%

### Step 1: Client Mr High Leverage

Client has a high attitude to risk regarding CFDs i.e. a leverage requirement of 4-8 times account value. Clients who opt for high leverage as usually experienced traders.

His current stock portfolio is as follows.

STOCK	Quantity	Price	Consideration
British Petroleum	1000	4.50	£4,500
Compass Group	3000	5.50	£16,500
Intercontinental Hotel	1000	11.20	£11,200
Vodafone	4000	1.35	£5,400
Portfolio Value /Exposure			£37,600
Cash			£5,000
Account value			£42,600

Step 2: Client Mr High Leverage then adds some Long CFD positions for his portfolio.

CFD	Quantity	Price	Consideration
Glaxo	4000	12.00	£48,000
Home Retail	20000	2.50	£50,000
Marks and Spencer's	10000	3.50	£35,000
Sainsbury	10000	3.20	£32,000
Xstrata	5000	10.00	£50,000
CFD Portfolio Value/Exposure			£215,000

Exposure to Stocks	= £37,600
Exposure to CFDs	= £215,000
Total Market exposure	= £252,600
Total leverage =	$\frac{\text{Total Market exposure (252,600)}}{\text{Account value (37,600 + 5,000 cash = £42,600)}} = 5.92$

Thus the client has a leverage factor of 5.92 times.

If the market were to move up 10% the effect on the clients account would be as follows:

Exposure to Stocks	= £41,360
Profit on CFDs	= £21,500
Cash	= £5,000
Total Account value	= £67,860 an increase of £25,260 or 59.2%

If the market were to move down 10% the effect on the clients account would be as follows:

Exposure to Stocks	= £33,840
Loss on CFDs	= £21,500
Cash	= £5,000
Total Account value	= £17,340 a decrease of £25,260 or 59.2%

In both these examples we have assumed a long only portfolio and assumed all stocks are moving up or down in correlation to the % market move. In practice each stock will move independently of the market and clients may have long and short positions on at the same time.

Stocks with a high beta value (the beta measures the volatility of a stock in relation to the market) such as banking or mining stocks will tend to move greater than the market move. For example on the 3rd of June 2010 Barclays Banks shares had a beta value of 2.72 if the market moved 2% in either direction then you would expect Barclays shares to have moved by 5.44%. This does not always occur, but should be considered when trading.

What does adding CFD transactions to a portfolio mean?

- All CFD open positions are treated as debt for the purposes of calculating portfolio leverage. By adding CFD exposure we are increasing market exposure and introducing leverage into the portfolio.
- Total exposure rises when we add CFD exposure but until the CFDs are in profit they do not add to the account value.
- The CFD exposures are like a separate portfolio, with either a positive or negative value moving independently to the stock portfolio.

## How do we manage the two?

Managing risk is an ongoing process for both the broker and client. Clearly the broker should inform the client when the leverage multiple on the account has moved significantly in either direction as this means the client is taking a lot more or a lot less risk. But the client also needs to understand the potential for leverage to increase or decrease returns.

But both client and broker must be conscious of the movement in total exposure (i.e. CFDs and equities) as portfolio returns will directly be impacted by the ratio of total exposure to account value and the higher the leverage multiple the higher the sensitivity to market movements.

If for example you have cash plus CFD positions that amount to a leverage of 5x the account value you should be aware that a 5% negative market movement is likely to result in a loss of 25% in the account value.

Broadly leverage is defined in terms of the multiple of net exposure to net account value.

- “Very low leverage” is defined as CFD/ FX positions worth between 0-1x the account value.
- “Low leverage” is defined as CFD/FX positions worth 1-2x the account value.
- “Medium leverage” is defined as CFD/ FX positions worth 2-4x the account value.
- “High leverage” is defined as CFD/FX positions worth 4-8x the account value.
- “Very high leverage” is defined as CFD/FX positions worth in excess of 8x the account value.

In rising “bull” markets we would want to add CFD exposure – but be ready to reduce the leverage multiple quickly on signs of a market turn.

In declining “bear” markets we would want to reduce CFD exposure to a minimum but also be ready to add leverage quickly on signs of a market turn.

Holding CFD positions has implications for cash levels in the portfolio. It is advisable to hold more cash in a portfolio with CFDs than in a pure stock portfolio to finance CFD positions and margin requirements.

## Conclusion

Trading CFD's require investors to be aware of the workings of leverage and how it works to magnify market movements and changes to account values. CFD's and in fact all derivative products that use leverage are high risk investments and you can lose more than your initial margin (or deposit) if the position goes against you. You should also take into consideration the additional fees and charges that will affect your bottom line.

## Summary

Our guide is intended to give you a flavour but "you can only learn by trying!"

Feel free to sign up on our website at [www.css-investments.com](http://www.css-investments.com)

We hope this guide has been informative and clarified some of the more technical points to CFDs. Please send us any questions you might have.

## General Risk Warning

The market information relating to the past performance of an investment is not necessarily a guide to its performance in the future. The value of investments or income from them may go down as well as up. As stocks and shares are valued from second to second, their bid and offer value fluctuates sometimes widely. The value of investments may rise or fall due to the volatility of world markets, interest rates and capital values or, for investments held in overseas markets, changes in the rate of exchange in the currency in which the investments are denominated. You may not necessarily get back the amount you invested.

You should carefully consider in the light of your financial resources whether investing in stocks and shares is suitable for you.

## CFD & Spread Bet Risk Warning

You should not deal in CFDs or Spread Bets unless you understand their nature and the extent of your exposure to risk. You should also be satisfied that the product is suitable for you in the light of your circumstances and financial position. Although CFDs/Spread Bets can be utilised for the management of investment risk, it may not be suitable for some investors. In deciding whether to trade in CFDs/Spread Bets, you should be aware of the following points.

CFDs/Spread Bets can only be settled in cash. Investing in a CFD/Spread Bets carries the same risks as investing in a future or an option or other derivative product. Transactions in CFDs/spread Bets may also have a contingent liability and you should be aware of the implications of this as set out below.

Contingent liability investment transactions, which are margined, require you to make a series of payments against the purchase price, instead of paying the whole purchase price immediately. If you trade in contracts for differences, you may sustain a total loss of the margin you deposit with your firm to establish or maintain a position. If the market moves against you, you may be called upon to pay substantial additional margin at short notice to maintain the position. If you fail to do so within the time required, your position may be liquidated at a loss and you will be responsible for the resulting deficit. Even if a transaction is not margined, it may still carry an obligation to make further payments in certain circumstances over and above any amount paid when you entered the contract.

Before you begin to trade, you should obtain details of all commissions and other charges for which you will be liable. If any charges are not expressed in money terms (but, for example, as a percentage of contract value), you should obtain a clear and written explanation, including appropriate examples, to establish what such charges are likely to mean in specific money terms. In the case of futures, when commission is charged as a percentage, it will normally be as a percentage of the total contract value, and not simply as a percentage of your initial payment.