

From the author of the best selling  
*Financial Spread Betting Handbook*

# 7 CHARTING TOOLS FOR *SPREAD BETTING*

A practical guide to making money from  
spread betting with technical analysis

Malcolm Pryor

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# 7 Charting Tools for Spread Betting

A practical guide to making money from spread betting with technical analysis

by Malcolm Pryor

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First published in Great Britain in 2009 by Harriman House.

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978-1-905641-84-0

*British Library Cataloguing in Publication Data*

A CIP catalogue record for this book can be obtained from the British Library.

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Printed in the UK by CPI William Clowes, Beccles NR34 7TL

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For Karen



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## About the author

Malcolm Pryor is an active spread bettor and investor, a trading coach, and the author of two previous books on spread betting, *The Financial Spread Betting Handbook* and *Winning Spread Betting Strategies*. He is also the author and presenter of the DVD *Malcolm Pryor on Short Term Spread Betting*.

He comments regularly on spread betting issues and on the markets at [www.spreadbettingcentral.co.uk](http://www.spreadbettingcentral.co.uk), and runs training seminars on spread betting (details at [www.sparkdales.co.uk](http://www.sparkdales.co.uk)).

He is a member of the Society of Technical Analysts in the UK and has been designated a Certified Financial Technician by the International Federation of Technical Analysts.

He is an expert at several games, including bridge where he has held the rank of Grandmaster or higher for over a decade.



# Preface

## What this book covers

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In this book I explain seven technical analysis tools which can really make a difference to spread betting performance. The seven tools covered are:

1. ATR
2. Directional movement
3. Moving averages
4. Support and resistance
5. Oscillators
6. Relative strength
7. Momentum

The focus is on practical use rather than academic theory. So I show how each tool can help improve performance and how to use it to best effect. There are many charts in this book illustrating each tool. Each tool has its own individual role to play in the trader's methodology, either on its own or in combination with some of the other tools.

## Who this book is for

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The book is for people with any level of technical analysis skills, from virtual beginners to advanced users. The beginner may want to supplement their reading by reading various free online resources referred to in the text. All readers are also referred to further research by way of a recommended reading list.

Although the book is primarily for spread bettors it is not necessary for the reader to have any previous spread betting experience, the concepts discussed are of potential interest to all traders.

The focus of the book is mostly on daily charts, and as such will be of interest to traders whose trades last from a couple of days to say 30 days. However the tools can be applied to all time frames. So the day trader can use the basic principles on, say, a 10 minute chart, while the longer-term investor can use the basic principles on weekly charts.

## How this book is structured

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After this preface there is a short introduction – the main purpose of which is to explain the reasons for writing this book.

Then we get to the heart of the book. Each of the seven charting tools is explained in a separate chapter, all of which have the same structure:

1. **Background and construction.** Each chapter starts with a brief introduction, followed by a first look at the tool in action, illustrated most of the time with an annotated chart of the FTSE 100. This leads on to a detailed look at how the tool is constructed. In a number of cases the more complicated arithmetic can be found in the Appendices.
2. **Overview of tool.** In this section we look at the main purpose of the tool, its strengths and its weaknesses.
3. **Settings.** For each tool where the user has a choice of settings we look at both the standard settings and the ones used in this book.
4. **How to use this tool.** This section focuses on how the tool is used in this book.
5. **Example.** Each chapter contains a detailed worked example of the tool in action.
6. **Alternatives.** In some cases the user can get similar benefits from other tools, which are discussed here.
7. **Conclusion.** Each chapter finishes with a very brief final comment on the tool.

Following this there is a chapter on how the tools can be combined to build, or complement, a trading methodology.

Finally, the Appendix lists books and internet resources that I recommend as useful for spread bettors, and also provides further notes on the detailed calculations of the indicators.

## Acknowledgements

I have many people to thank for providing support advice and encouragement while writing this book. I shall not be able to name them all – but many thanks everyone!

I would like to thank Harriman House for their help in publishing this book; a really great team. In particular, Stephen Eckett, who provides unique editorial wisdom with a light touch.

I would like to take this opportunity to thank Martin Stamp, the creator of the ShareScope software, and the entire ShareScope team, both for creating the software and for allowing me to reproduce charts from it in this book.

I would like to thank Dr Van Tharp, friend and mentor.

I would like to thank my parents, Maurice, who passed away in 2008, and Marjorie.

And most of all I would like to thank Karen, to whom this book is dedicated.



## Risk warning

No responsibility for loss incurred by any person or corporate body acting or refraining to act as a result of reading material in this book can be accepted by the Publisher or the Author.

The information provided by the Author is not offered as, nor should it be inferred to be, advice or recommendation to readers, since the financial circumstances of readers will vary greatly and investment or trading behaviour which may be appropriate for one reader is unlikely to be appropriate for others.





# INTRODUCTION



# Introduction

Spread betting using a structured approach

**M**y first book looked at the differences between people who win at spread betting and those that don't. One of the big differences is that the winners use a structured approach. They plan their trades and use systems and techniques that in the long run give them an edge. They also keep their bet size at a level which will give their longer-term edge a chance to play out while still keeping them in the game during the inevitable shorter-term volatility.

In the winner's enclosure you find a surprisingly large number of diverse approaches. Some people perform detailed analysis of company results, poring over balance sheets, profit and loss statements, cash flow schedules and the like. Others have expertise in strategic planning, marketing and sales, and can spot a company that seems to be going places. Others have corporate finance skills and try to make money by guessing the next takeover target.

The technical analysis community believe that the study of price action alone can provide an edge – that certain patterns of price movement have predictive value which can be exploited.

In my view technical analysis is ideally suited for spread betting, where one can bet on short-term price movements with leverage, and where part of the game is identifying logical places to enter and exit a bet.

Which technical analysis tools to select?

The difficulty facing many spread bettors is that there is a vast array of technical analysis tools available, many of which are now easily accessible either via the spread betting firms themselves or through third party trading and investment software, including many free online services. For most spread bettors the process of selecting which technical analysis tools to use is largely a matter of trial and (expensive) error.

So many parameters...

Even after selecting potentially useful tools, the spread bettor is then faced with a multitude of choices about which parameters to use on the selected tools. Once again this often involves further research, time and money.

The reason for this book

I like to focus on a relatively small number of technical analysis tools which I have learnt how to use in a way that helps me. I get so many questions on this that I thought it might help others if I documented how I use various tools. This book is about the technical analysis tools which I believe give me an edge and the parameters I use for them.

## Background information

---

Before we start I want to talk briefly about:

- charting software, and
- technical analysis concepts.

### 1. Charting software

This book uses ShareScope software to illustrate the tools we look at. I have used the software for many years and all my books have featured it. I like it.

If you don't have ShareScope you will find that you can get access to many of the tools in this book through free sites on the internet. I personally don't find this route as convenient (and so I am prepared to pay both for the convenience and for the full functionality of the ShareScope software), but the free sites may work for you. Try the following:

[www.uk.finance.yahoo.com](http://www.uk.finance.yahoo.com)

[www.money.uk.msn.com](http://www.money.uk.msn.com)

[www.advfn.com](http://www.advfn.com)

[www.digitallook.com](http://www.digitallook.com)

Alternative suppliers of software you have to pay for include:

[www.equis.com](http://www.equis.com) (Metastock)

[www.esignal.com](http://www.esignal.com)

[www.simplychart.com](http://www.simplychart.com)

[www.trackdata.com](http://www.trackdata.com)

This is far from an exhaustive list. If you search the internet for investment software or trading software you will find more suppliers.

The spread betting firms themselves also supply technical analysis functionality, but the quality varies quite a bit, and often the data is based on the firms' own prices rather than the underlying market.

### 2. Technical analysis concepts

I have written this book so that it can be read both by people with very little prior knowledge of technical analysis and by seasoned technical analysis practitioners. I try to explain the various concepts in each chapter but there are one or two which deserve a comment up front.

## User defined

You will come across the expression “user defined” quite a bit in the text. For example, in “user defined number of periods”. What this means is that typically there are a number of different settings which traders favour when using the tool, and that typically the software allows the user of the software to alter these parameters according to preference.

Take for instance the indicator RSI which we will be having a look at: the standard setting for this indicator is 14 days, but you should be able to change this on your software to another number.

*What number?*

Well, that’s for later...

## Fractals

A nice name for quite a simple phenomenon. A three bar pattern, which comprises either:

- a bar with a low that is lower than the bar on either side of it, or
- a bar with a high that is higher than the bar on either side of it.

In the first case that low represents the point at which the bears were no longer able to push prices lower, and if price comes back to that point again, maybe they will fail to push prices lower again.

In the second case that high represents the point at which the bulls were no longer able to push prices higher, and if price comes back to that point again, maybe they will fail again at that point to push prices higher.

I explain this some more in the text, but I mention it up front because for me it is one of the most powerful trading concepts I know.

In the literature these points are often named differently (e.g. pivot points) but I like fractal.

## Further research

Various online resources are recommended if you want to research the topics in this book further and an extensive reading list is in the Appendix.

There is a great site, [www.stockcharts.com](http://www.stockcharts.com), which has a good, free instructional area.

And you can consult with the user community of [www.spreadbettingcentral.co.uk](http://www.spreadbettingcentral.co.uk) by posting on the forum there.



# THE SEVEN TOOLS





# **TOOL 1: ATR**



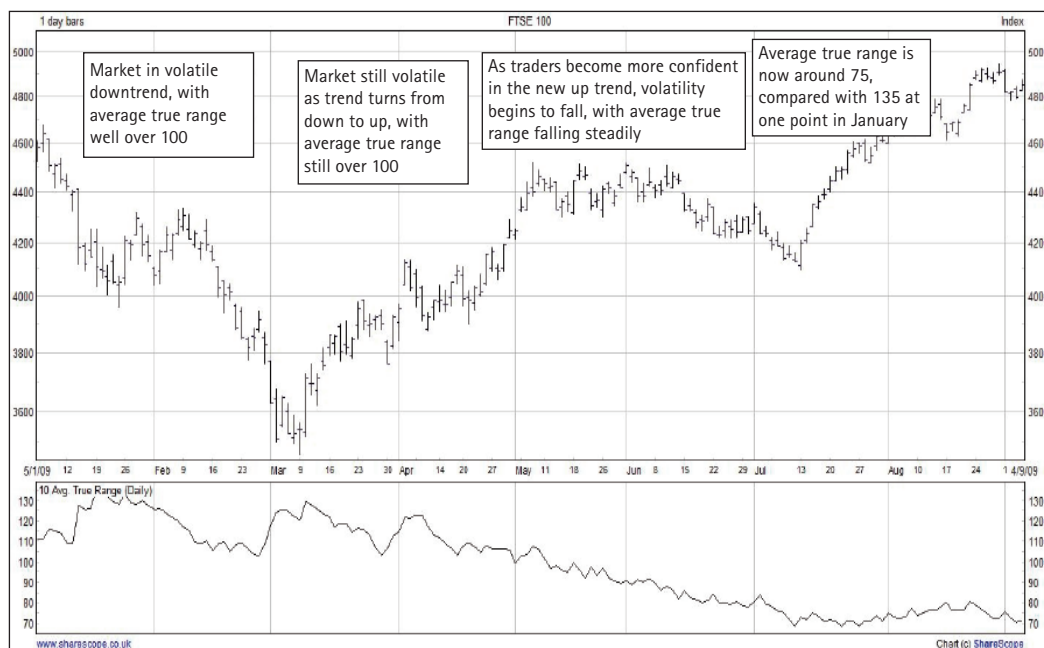
## Background and construction

**A**TR is one of a number of indicators which measure volatility. Volatility can be described as a measure of the state of instability. In trading, volatility is a measure of the instability of the price of a financial instrument. Traders need some volatility in the financial instruments they trade, for without it there would be no price movement to take advantage of. Having a tool to measure volatility allows the trader to adapt to varying volatility, for instance by having wider stops when volatility increases and tighter stops when volatility decreases.

ATR is short for Average True Range, a concept described by Welles Wilder in his groundbreaking book *New Concepts in Technical Trading Systems*.

Here is a chart of the FTSE 100, with ATR added. It is a great example of high volatility, in this case associated with uncertainty as the market direction changed from down to up, moving to lower volatility, as the new trend up became more established. (You can see my interpretation of this transition in the notes I have put on to the chart.)

### ATR – FTSE 100



Here is a much simplified example of calculating the average range over the last 10 days of the period covered by this chart.

High	Low	Difference
4859	4737	122
4911	4869	42
4923	4864	59
4927	4872	55
4906	4855	51
4944	4891	53
4921	4820	101
4822	4777	45
4842	4789	53
4874	4828	46
Total:		627

Total of differences = 627, divided by 10 = 63.

Actually the calculation is more complicated than this, for two main reasons:

1. Adjustments are made for gaps. A gap occurs if for instance the low of today is higher than the high of yesterday. In this case the size of the gap is also factored in to the calculation. The adjusted figure is called the “true range”.
2. To get the average true range from a set of true ranges is not just a matter of adding them all up and dividing by the number in the set, there is a unique averaging process which takes the previous average true range and then adjusts it based on the most recent true range.

The average true range for the last day in the chart was actually 71, rather than the 63 produced by our simple calculation of the differences between the highs and the lows.

That’s probably as far as many readers will want to go on the arithmetic front, but for those that are interested there is some more detail in the Appendix.

## Overview of tool

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Unlike some tools which measure volatility the concepts behind ATR are fairly easy to understand. In essence, if the range of price movement within each period increases then ATR will increase, if the range of price movement within each period decreases, then ATR will decrease. Over time the volatility of each instrument thus measured will vary.

One benefit of this particular tool is that it provides an objective measure of current volatility for an instrument which can be compared to volatility for the same instrument in other periods. In addition, by dividing the volatility measure by the price of the instrument it is also possible to compare volatility across instruments.

When using ATR we have to decide how many periods to include in the averaging process. Do we want the average of the true range of 5 periods, or of 10 periods or of 14 periods, etc? Most, though not all, trading software packages let the user choose the number of periods.

The strengths of ATR as a volatility measuring tool are:

- simplicity of concept
- objectivity of measurement
- ease of use
- easily programmed and therefore available in most investment/trading software
- applicable on all time frames
- well established and accepted as an analysis tool

A minor weakness of ATR is that because it takes an average over a number of periods, in common with all moving averages it is a lagging indicator. However, this tends not to be a problem in practice, particularly if the user takes care not to select too large a number of periods.

## Settings

---

Partly based on Welles Wilder's book, a commonly used setting for ATR is 14 periods. Other favoured settings include 20 periods, 10 periods and 5 periods. I tend to use a 10 period setting on a daily chart, not only for trades which last from days to weeks but also for day trades. For day trading I like to look at the 10 day ATR, and then use some percentage of it, rather than using for instance the 10 period ATR of a ten minute chart, which is an alternative and perfectly valid approach.

## How to use this tool

---

This tool can help spread bettors as ATR works on two key trading concepts:

1. where to place stops, and
2. how much to bet on a specific trade.

### 1. Placing stops

There are many techniques to assist stop placement. Here are a selection of places that traders like to put stops:

- below support if long or above resistance if short
- below a moving average if long, or above it if short
- below the low of the last X periods if long, or above the high of the last X periods if short
- using specialist techniques such as Welles Wilders Parabolic

If using ATR for stop placement, the technique is this:

- if **long** the stop goes a multiple of ATR *below* a selected point in the last period
- if **short** the stop goes a multiple of ATR *above* a selected point in the last period

There are two obvious questions to raise here, and one less obvious one.

*First of all, which point in the last period should be chosen?*

There are at least three options:

1. the **close** of the last period
2. the **high** of the last period (for shorts) or the **low** of the last period (for longs)
3. the **typical price** of the last period (typical price is calculated as the average of the high the low and the close)

*Secondly, what multiple of ATR should be used?*

Here there is no simple one-fits-all solution; it will depend on the length of trades being considered, which point in the last period is selected, the type of system, user preferences and

the risk profile and objectives of the trader. Here are some options to consider, all based on a 10 day ATR:

- trades expected to last **up to an hour**: 0.1 to 0.2 ATR.
- trades expected to last **up to a day**: 0.2 to 0.5 ATR
- trades expected to last a **few days**: 0.5 to 1.25 ATR
- trades expected to last a **few weeks**: 1.25 to 2.0 ATR
- trades expected to last **several months** at least: 2.0 to 3.5 ATR

Some additional comments need to be made on these options:

1. Stops on trades lasting a few weeks should not be so close to the price that they get hit by normal daily price movement up and down. By definition this daily price movement up and down will average 1 ATR. So for such trades a stop say 1.0 ATR from the close or the typical price is likely to be too close.
2. For a trade lasting a few days the target is usually one move in the right direction with little retracement, so a tight stop (less than 1.0 ATR) can work.
3. When using ATR for stop placement on a day trade it is common to use the entry price as the start point for the calculation.
4. Different ATR figures can be used during the lifetime of a trade; initially quite wide stops can be used, then as the trade comes to its conclusion much closer stops can be used. For instance, on a trade lasting several months the initial stop might be 3.0 ATR from the close, giving the trade room to develop; but then after a large profit has already been obtained the trader might move the stop to say 1.25 ATR away, still allowing the trade to continue if more profit is available, but giving up less profit if the trend reverses.
5. Stop placement should be reviewed on a regular basis – if the trader finds for instance that trades have been getting stopped out too quickly, then a larger ATR multiple should be considered.

6. It is a good idea to use ATR to compare risk to reward – for instance on a trade lasting about a day one might be aiming to capture a 0.5 ATR move with 0.25 ATR risk; or with a trade lasting a few weeks, a 2.5 ATR move with a 1.25 ATR risk. With many successful systems the target reward is at least double the risk.

*Thirdly – and this is the less obvious point – the trader has to make a decision whether to move the stop once the trade moves favourably.* There are two main techniques here:

1. The initial stop is left at its original spot and if the stop has not been hit the trader picks from a range of exit techniques at the appropriate point in time, for example exiting at a target, exiting at support or resistance, exiting after a certain period of time, to quote just three.
2. The stop is moved during the life of the trade – this is known as a trailing stop. The key technique here is never to move a stop further away from price than it was previously; the stop can only be moved in the direction of the intended trade (i.e up if long, down if short). Each time the stop is moved risk is reduced and, once in profit, more and more of the profit is locked in.

## 2. Determining bet size

Bet size should be a function of two variables:

1. the distance from the entry point and the initial stop,
2. the percentage of speculative funds the trader wishes to risk on the bet.

We have already seen how the trader can use ATR to determine initial stop placement.

The percentage of speculative funds to be risked on any given bet should be predetermined, taking into account the objectives and risk preferences of the trader, and the profile of the system being used. I have commented in my earlier book, *The Financial Spread Betting Handbook*, on the tendency of spread bettors to risk significantly too high a percentage of their speculative funds on each trade, and this is a common cause of account closure. A well known quote from a US trader suggests that any trader who risks 3% (or more) per trade is “gunslinging”.



With these two variables determined, bet size should be calculated automatically. For example:

Variable	Value
Entry	100
Stop	90
Distance from the entry point and the initial stop	10
Speculative funds	£4000
Predetermined risk per spread bet	1% (i.e. £40)
Bet size	£4 per point (£40 divided by 10)

A skilled spread bettor should know this methodology inside out.

## Example

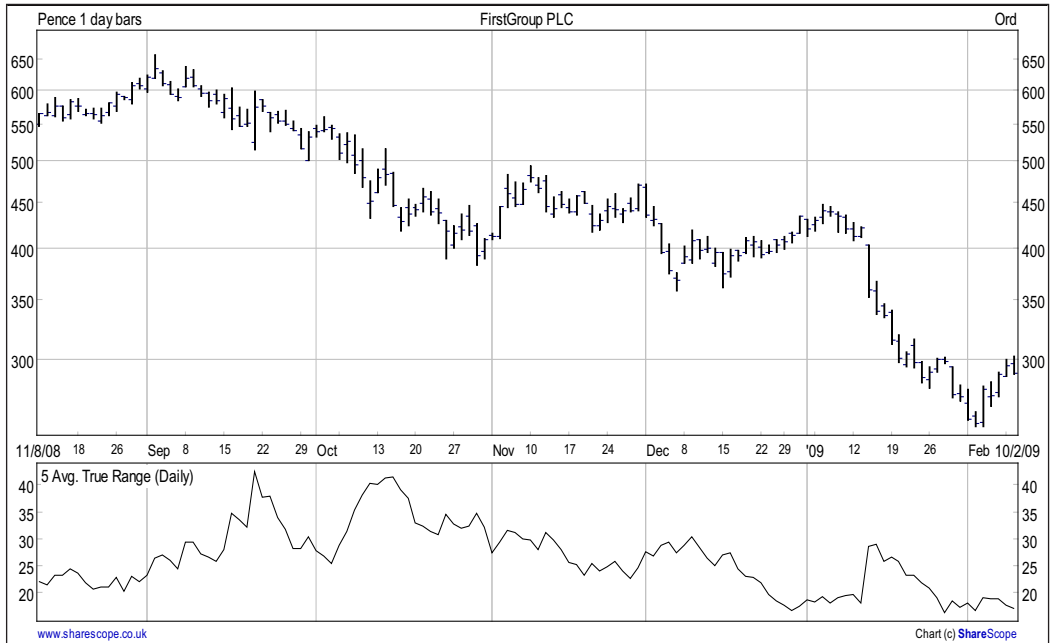
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We are going to look now at a setup for a short trade in First Group.

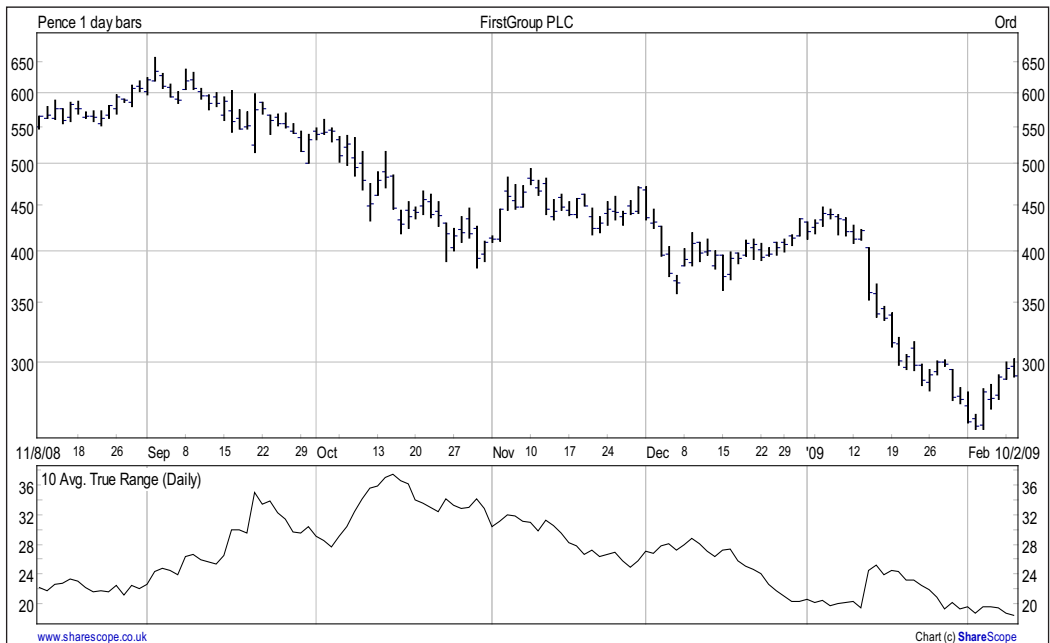
### ATR charts

Each of the following three charts shows six months of daily price data ending on 10 February 2009. The first chart includes a 5 day ATR, the second chart a 10 day ATR and the third chart a 14 day ATR.

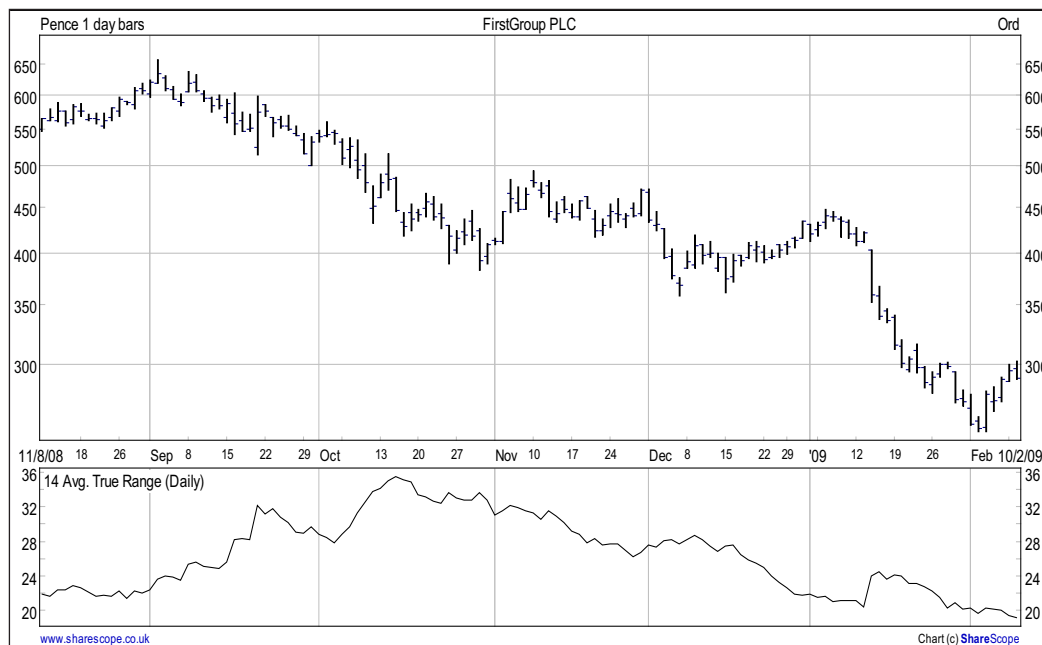
### First Group – with 5 Day ATR



### First Group – with 10 Day ATR



## First Group – with 14 Day ATR



First of all note the difference in range of each ATR indicator across the six months:

- 5 day ATR range: 16.2 to 42.5
- 10 day ATR range: 18.3 to 37.5
- 14 day ATR range: 19.2 to 35.5

The smaller the ATR range the wider the fluctuations in its value since it is more sensitive to daily changes in volatility.

Note however that the three ranges are not very different.

Note finally that across the six months the difference within each range between the lowest and the highest value is wide; with both the 5 and the 10 ATR the highest value is more than double the lowest value, with the 14 day ATR it is not far off double. It makes sense to adjust one's bet size and stop placement to reflect this, so that in times of greatest volatility stops are further away, and bet size is correspondingly smaller.

### The trade

Moving on to the short trade, this was a classic pullback setup. Visual inspection shows the stock had been in a powerful downtrend for several months. Over the last five days on the chart the stock had retraced some of that downtrend, with a series of higher highs each day.

At this stage the trader was looking for a sign that the downtrend was reasserting itself, to trigger the short trade. One such trigger was if the stock moved below the low of the previous day.

The low of 10 February 2009 was 288.25, so on this occasion the trader went short when on the next day the price hit 288.0.

This was a short-term trade expected to last just a few days and the initial target was to ride the price down to the most recent low. The trader decided to use an ATR stop, and given the time frame and objectives of the trade selected a stop of 1 ATR from the entry price. The trader decided not to trail the stop until the initial target was hit.

The trader had £20,000 speculative funds dedicated to spread betting and consistently risked 1% of those funds on each trade (i.e. £200).

Let us now see how the 1 ATR stop should have been implemented with each value of ATR, and the impact that had on bet size.

#### 5 day ATR

With the 5 day ATR, 1 ATR (at the time the trade was made) was 17.0, so the stop should have been at 305.0 ( $288 + 17$ ). The trader should have bet £12 per point, which means if the stop had been hit the loss would have been  $(305 - 288)$  times 12 (i.e. £204, in line with the predetermined risk per trade).

#### 10 day ATR

With the 10 day ATR, 1 ATR was 18.3 (price for this stock moved in 0.25p increments, so this was rounded up to 18.5). So the stop should have been at 306.5 ( $288 + 18.5$ ). The trader should have bet £11 per point, which means if the stop had been hit the loss would have been  $(306.5 - 288)$  times 11 (i.e. £203.50), again in line with the predetermined risk per trade.

#### 14 day ATR

With the 14 day ATR, 1 ATR was 19.2, which was rounded up to 19.25. So the stop should have been at 307.25 ( $288 + 19.25$ ). The trader should have bet £10 per point, which means if the stop had been hit the loss would have been  $(307.25 - 288)$  times 10 (i.e. £192.50). Some traders might take a view that they would have been comfortable with £11 per point, giving a loss of £211.75 if the stop was hit. For me personally that would be a little too much over the £200 predetermined risk per trade.

At some point in the future, the spread betting firms will allow fractions of a pound per point for bets, and then we will be able to risk exactly the amount we want to risk per trade.

## Summary of trade calculation for different ATRs

	5 day ATR	10 day ATR	14 day ATR
Trade entry price	288	288	288
ATR (at trade entry)	17.0	18.5	19.25
Stop	305 (208+17)	306.5 (288+18.5)	307.25 (288+19.25)
Bet size (£ per point)	12	11	10
Potential loss (£)	204 (12 x 17)	203.5 (11 x 18.5)	£192.5 (10 x 19.25)

So stop placement and bet size will vary slightly depending on which (period) parameter for ATR is used, but not hugely. I am happy to use the 10 period ATR all the time.

### Stop placement – reality check

One final point. One should always do a reality check on where that ATR stop will be. With each ATR value selected above, the stop was above the highest point of the retracement, which was 303p. So that is realistic and consistent with the basic idea behind the trade. If the ATR stop was hit this would also mean that the high of the retracement had been exceeded, which in turn would be a warning sign that perhaps the retracement was not yet over, or even that the downtrend itself was stopping.

For those that want to know the end of the story: the trade was a success, but took longer than originally anticipated. The previous low of the move was hit on the 15th day of the trade, at which point the trader had to make a decision whether to exit the trade, or to move the stop much closer to the latest price.

## Alternatives

If you like the idea of ATR, but your software package doesn't have it, here is a simple work around to get a proxy figure. It's not perfect, but workable.

To get a rough equivalent of the 5 period ATR, just calculate the difference between the high and the low for each of the last 5 periods, and average the differences. For the 10 period ATR do a similar calculation for the last 10 periods. You will recall that is exactly what we did

earlier in this chapter for the last ten days of the FTSE 100 chart we looked at. If you have spreadsheet facilities on your computer it should be a simple task to build a spreadsheet to do the calculations for you; all you will need to do then is input the highs and the lows for each period.

## Conclusion

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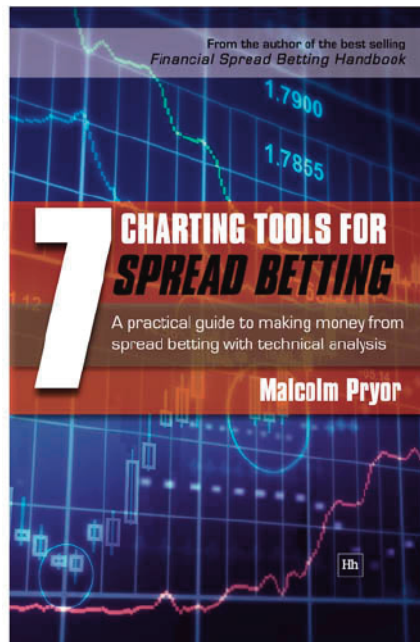
ATR is:

1. simple and easy to use,
2. can help with stop placement and bet size determination.

# 7 Charting Tools for Spread Betting

A practical guide to making money from spread betting with technical analysis

Malcolm Pryor



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