



Brainy's Articles on Share Trading**

Position size and calculator

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This article
is NOT free*

Introduction

When setting out on a journey of share trading / investing (or in share market derivatives like CFDs), two people could use very similar strategies, but end up with one person making good profits, while the other one is making significant losses. This can easily happen if the *money management* is unplanned, or somewhat haphazard.

This Article in Brainy's series on Share Trading (number ST-4400) provides information on just one aspect of money management — *position sizing*. When buying shares in a company, the *position size* simply refers to the number of shares that you intend to purchase (also referred to as the *parcel size*). This Article focuses on trading in shares, and does not specifically consider derivatives like CFDs, nor short selling; but the principles and ideas can still apply.

The Overview section of this Article below talks about the relevance and importance of *position sizing*. The following sections provide a step-by-step process to calculate an optimum *position size*, and address the topic in more detail. Traders and investors often use some sort of *position size calculator* to quickly calculate an optimum position size. To support this topic there is a Position Size Calculator available in the Members' section of Brainy's *Share Market Toolbox* (in Excel spreadsheet format), and there is information below that explains how to use that calculator.

NOTE: There are no guarantees of any sort offered with this material. Anyone who uses the spreadsheet calculator does so bearing all risk.

Investor or trader?

The question of how an *investor* and a *trader* are different is often asked, and sometimes debated hotly. In many situations it is easy to classify someone as an *investor*, and someone else as a *trader*. But the boundaries between the two types can be blurred, and sometimes difficult to distinguish.

All of the *position sizing* principles that are described in this Article are equally relevant to both *investors* and to *traders*. Whenever an investor decides to purchase a parcel of shares, it can be called an *investment*, and the act of purchasing the share parcel is actually a *share trade*. Hence, the two terms *investor* and *trader* can often be used rather interchangeably.

Overview

When you buy a parcel of shares, you need to decide how much of your hard-earned money to invest. For example, if you have \$10,000 to invest, should you invest all \$10,000 in one position and put the whole lot at risk? Or should you invest a smaller amount? Also, should you simply invest an equal amount in every open position? Or is there an optimum amount for each position? How can you work out the optimum amount to invest? Or, why bother to work it out? What difference does it make?

It can be very beneficial to consider the “optimum” amount of capital to allocate to a position. By actually risking the maximum amount that you can afford to “risk”, then you are taking maximum advantage of favourable price movements to maximise profits.

The rest of this Article talks in more detail about how to calculate an optimum position size, and the idea of putting only “2% at risk” — known as the “2 Percent Rule” (the “Fixed Risk amount per trade” method). And it shows you a very quick, easy and simple way to work it out using the available *Position Size Calculator* spreadsheet. A quick view of the calculator is included in this Article on page 2 below. Take a quick look at it now. At first glance it looks a little complex, but it's not really.

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The first page of every article is free, and some of the articles are completely free (eg. shorter ones and Table of Contents).

** - The two words *trading* and *investing* are often used somewhat interchangeably.



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NOTE: There is no guarantee of accuracy, nor that this sheet is free of errors or omissions. And there is no guarantee of success.

STEP (1) Your Constraints:

1(a) TODAY's Trading Capital: \$20,000
 1(b) Brokerage rate (%): 0.00%
 1(c) Min brokerage amount: \$18.00

RISK MANAGEMENT
 1(c) Percentage risk (R%): 2.0%
 1(d) Maximum Position Size (%): 20.0%
 Slippage? TBA
 Interest charge (loan part): 8.0%
 (Limit my Margin Amount to) TBA

Calculated (from above):
 1(f) 1-R (amount to risk): \$400
 1(g) Maximum Position Size (MPS): \$4,000

STEP (2) Variables:
 2(a) GST rate (for brokerage): 10.00%
 2(c) Desired Profit Target: 10.0%

STEP (3) Proposed ENTRY:

Stock Code: MOQA
 Likely (Actual) Buy price: \$2,310
 Initial Stop Loss price: \$2,190
 Target Exit price: \$2,500
 Potential Reward (Amount): \$0,190
 so the stop distance (cents) = 12.0
 Amount to risk (on each share): \$0,120

Possible Exit price: \$2,310
 Total Amount at Risk (1-R of your Capital): \$400
 (based on "Percentage Risk R%")
 So, Position size (rounded down) = 3,333
 And this trade will cost: \$7,699,230

BUT, is this greater than your Maximum Position Size (MPS)?
 If so, then "Revised Position Size": 1,731
 And this trade will cost: \$3,998,610

Plus Brokerage and other Costs:
 Margin loan fees (for entry): \$10.00
 Brokerage cost: \$18.00
 GST on brokerage: \$1.80
 Total Entry Costs: \$29.80
 Cost of this Trade: \$3,998,610
 Plus Entry Costs: \$29.80
 TOTAL COST of Entry: \$4,028,410

If you sell immediately, Loss will be: \$0.00
 Plus Entry Costs: \$29.80
 Plus Exit Costs: \$29.80
 Total Loss would be: **-\$59.60**

STEP (4) Over-ride parcel size (optional)

Stock Code: MOQA
 Likely (Actual) Buy price: \$2,310
 Initial Stop Loss price: \$2,190
 so the stop distance (cents) = 12.0
 Amount at risk (on each share): \$0,120

Possible Exit price: \$2,310
 Over-ride Position Size (optional): \$207.72
 (leave blank to use "Revised Position Size")
 And this trade will cost: \$0.00
 Your Position Size = 1,731

Revised Total Amount at Risk (1R) = \$207.72
 Plus Brokerage and other Costs: \$10.00
 Margin loan fees (for entry): \$18.00
 Brokerage cost: \$18.00
 GST on brokerage: \$1.80
 Total Entry Costs: \$29.80
 Cost of this Trade: \$3,998,610
 Plus Entry Costs: \$29.80
 TOTAL COST of Entry: \$4,028,410

If you sell immediately, Loss will be: \$0.00
 Plus Entry Costs: \$29.80
 Plus Exit Costs: \$29.80
 Total Loss would be: **-\$59.60**

STEP (5) Proposed EXIT:

Stock Code: MOQA
 Your actual Position Size: 1,731
 Target Exit price: \$2,500
 Estimate number of calendar days to hold trade: 20
 (used in Trade Analysis below)
 Gross profit (loss) per share = \$0,190

Reward / Risk ratio:
 per share (before costs) 1.6 : 1
 per share (after costs) 0.7 : 1

Gross Proceeds from Exit: \$4,327.50
 Your Position Size = 1,731

Less Brokerage and other Costs:
 Margin loan fees (for exit): \$10.00
 Brokerage cost: \$18.00
 GST on brokerage: \$1.80
 Total Exit Costs: \$29.80
 Gross Proceeds from Exit: \$4,327.50
 Less Exit Costs: \$29.80
 EXIT PROCEEDS (after exit costs): \$4,297.70

(6) TRADE ANALYSIS:

GP — Gross Profit / Loss on this trade (before costs): \$328.89
 NP — Net Profit / Loss on this trade (after costs): \$269.29
 (ie. EXIT PROCEEDS minus TOTAL COST of Entry)

Finance (interest) charges on Margin Loan:
 Position size = 1731
 Entry Price = \$2,310
 Estimate average price = \$2,405
 Interest charge for overnights = 6.0%
 Estimate of Cost per day = \$0.876
 Estimate number of days to hold for = 20
 Estimate of total interest charge = \$17.53

Break even price (based on the Entry price + all costs): \$2,344
 Profit % (ie. Net Profit/Total Cost of Entry): 6.7%
 Target Sale price to achieve Desired Profit Target percentage: \$2,577
 (ie. (TotalCostOfEntry)/(desiredPercent+1)+ExitCosts)/parcel size
 Reward/Risk Ratio after costs (Net Profit / Risk amount = NPNR): 0.673225

Notes:

1(a) Your trading capital as at TODAY.
 1(b) Brokerage, in this worksheet is calculated as the greater of the percent amount, or the "Min brokerage amount".
 1(c) Percentage risk is the amount of capital to risk on any one trade.
 1(d) Maximum Position Size (MPS) as a percentage of TODAY's trading capital.
 1(e) These items are calculated from "Your Constraints" above.
 1(f) This is one "R" value (the amount to risk)
 1(g) MPS=Calculated from the Capital Amount and 1(d).
 2(a) You can change these values if you wish.
 2(b) GST rate.
 2(c) Your Desired Profit Target percentage (for 6(e)).
 3(a) Amount to risk = (Buy Price)-(Buy Price)
 3(b) Amount at risk (= 1R = 1(f))
 3(c) Position Size = R / (Amount at Risk)
 3(d) Trade Cost = (Parcel Size) * (Buy Price)
 3(e) Revised parcel size, and trade entry cost, if you have a margin loan, then there might be fees on each transaction.
 3(f) Enter any value for a revised Position Size.

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 Brainy's Share Market Toolbox
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Figure 1: The Position Size Calculator spreadsheet (version 3).
NOTE: No guarantees are offered with this spreadsheet calculator.

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