



Financial Speculation

Trading financial biases and behaviour

Gerald Ashley



... Sample ...

Financial Speculation

Trading financial biases and behaviour

By Gerald Ashley

HARRIMAN HOUSE LTD

3A Penns Road
Petersfield
Hampshire
GU32 2EW
GREAT BRITAIN

Tel: +44 (0)1730 233870
Fax: +44 (0)1730 233880
Email: enquiries@harriman-house.com
Website: www.harriman-house.com

First published in Great Britain in 2009

Copyright © Harriman House Ltd

The right of Gerald Ashley to be identified as the author has been asserted
in accordance with the Copyright, Design and Patents Act 1988.

ISBN 978-1-905641-99-4

British Library Cataloguing in Publication Data

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

All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of the Publisher. This book may not be lent, resold, hired out or otherwise disposed of by way of trade in any form of binding or cover other than that in which it is published without the prior written consent of the Publisher.

Printed and bound by the MPG Books Group.

No responsibility for loss occasioned to 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, by the Author, or by the employer of the Author.

To the memory of my father

Donald Ashley

Contents

About the author	vii
Preface to the new edition	ix
Preface to the 2003 edition	xi
1. Losers Anonymous	1
2. Past Masters	27
3. Basic Building Blocks	45
4. Mental Curves	75
5. Assorted Killers	107
6. Chartists, Economists And Gurus	127
7. Quantum(ish) Finance	165
8. This Is The First Time Since The Last Time	197
9. The Divine Right Of Failure	219
10. Signposts	239
Bibliography	277
Index	281

About the author

Gerald Ashley has over thirty years experience in international financial markets, having worked for Baring Brothers in London and Hong Kong, and the Bank for International Settlements in Basel, Switzerland. His primary financial market experience is in foreign exchange, currency options, precious metals and money markets.

He is now Managing Director of St Mawgan & Co Limited, a London-based strategy and risk consulting firm. He is also a well-known speaker on the benefits and applications of behavioural economics in decision-making and risk taking, and is a regular columnist in the financial press.

Preface to the new edition

Napoleon's close advisor Talleyrand once remarked of the French peasantry that they had learned nothing and forgotten nothing; in a sense his observation also captures the underlying state of mind of financial markets and its actors. When studying the markets it quickly becomes apparent that the same factors, emotions and activities always drive financial trading. The markets go round and round the same track – there may be different players, new instruments, different regulations and taxes which can change the particular circumstances, but not the overall game.

This may be seen as both a puzzle (why do we repeat the same mistakes in finance?) and also an opportunity (study the past and perhaps profit in the future?)

For example, in the 1920s and 1930s we had a huge speculative bubble followed by economic collapse, frauds by Ponzi and Ivar Kreuger, spectacular trading fortunes won and lost by Livermore, Cutten et al. Now, as the new millennium is well established we have Enron, the Madoff saga, the collapse of Bear Stearns and Lehman Brothers, and the huge fortunes won and sometimes lost by hedge funds. Not to mention the current fear that we might be entering a second Great Depression.

When the first edition of this book came out in the spring of 2003 the hot topics were the fallout from the dotcom crash, the telecom debt fiasco, how gold would struggle to stay above \$300 an ounce and would sterling join the euro? Now at the time of this edition some six years later the big stories are all about the credit crunch, the imminent death of investment banking, why gold is cheap under \$1,000 an ounce and why sterling is doomed, and perhaps we should join the euro!

I have kept the original preface in this edition because what was true then is just as true today. The lessons of markets in the past will serve us well for markets in the future, but will we learn? Somehow I very much doubt it.

Finally, throughout my thirty-plus years in the financial markets, I have had the good fortune to meet many interesting, wise and shrewd characters. Some of my closest market friends have been good enough to offer me suggestions, comments and advice regarding this book. In particular I would like to thank Chris Charlton, Richard Knight, John Norris, Alan Vear, Jim Sharpe, Alla Lapidus, Rosy Chesterman and in particular give special thanks to Juliette Clark and Terry Lloyd for their insights and thoughtful comments.

In addition to the above I would like to also thank both David Furlonger and Henrik Holleufer for their additional comments and observations that I have tried to incorporate in this edition.

As ever any mistakes, omissions or complete stupidities remain entirely my own responsibility.

London, February 2009

Preface to the 2003 edition

'Uncertainty and Expectation are the Joys of Life.'

William Congreve

It may seem simple, but it's not easy – how can we make money from financial trading? This book sets out to examine various aspects of financial speculation and possible routes to success and profits; but if you expect an easy answer, you can look forward to disappointment. The iron law of financial markets is that there is no quick, simple and definitive answer. This is because finance is not static, and any attempt to totally capture its defining characteristics is fruitless. If we are to achieve anything in markets we have to first understand this basic fact.

An enormous amount has been written on this topic already, but I hope to try and examine the subject from a number of different and interesting angles. In particular I want to concentrate on three key elements involved in financial trading: first, the concept of dynamism, not just in terms of price changes and frantic trading rooms, but through the mechanism of positive feedback; second, the importance of looking at financial markets as a whole and not just within narrow asset classes; and third, to question the importance of much of today's use of computers and bandwidth technology.

Financial markets seem to dominate our lives as never before. Whether one works in the industry or not, it is hard to avoid the constant bombardment of information, news and comment about markets. At times the markets seem all powerful, passing instant judgements on politicians, business leaders and policy makers – and forcing even democratic governments to take heed of their opinions, and sometimes change the policies that they were elected to advance. It is perhaps ironic that in an age when governments have anguished about a reduction in nation state sovereignty and the growth of supra-national organisations, it is the financial markets that have steadily grown in importance, and on occasions threatened to become the global masters.

In addition to these worries about the power of global capitalism, there has also grown a tendency to believe that markets have steadily become more sophisticated and cleverer than in the past. In truth there is little evidence to support this assertion. Technology has certainly added a gloss of sophistication to many financial operations, but in many ways the markets remain very conservative, and traditional in their operations. Indeed I think this book will amply show that, in virtually all respects, the characteristics of markets have changed very little with the passage of time.

Obviously methods of transacting business have changed – since the end of the Second World War, the markets have moved from the telegraph, to the international phone call, the telex machine and through to email and high security intranets, but the basic business is still the same. Still buying and selling, and still borrowing and lending.

The names of the players have changed as well, indeed the last decade has seen many famous and eminent financial houses wither away or swallowed up by the new global factories that dominate so much of today's business. Here again, there is little that is truly new – the current crop of behemoths will no doubt change in time and some will fall, only to be replaced by yet others; but the markets will plough ever onwards.

Let's begin with a brief outline of the first major theme. In recent years there has been a growing interest in the idea of behavioural finance – this rejects the received wisdom that markets are purely driven by financial numbers, valuations and statistics. Instead it tries to examine the motives and aims of the market players themselves – to analyse and understand their behaviour. As such it is really an alternative to the competing views of economics and accounting valuations, and the well-worn and somewhat facile path trumpeted by technical analysts. To my mind the behavioural approach has significant merit, and this book will look at some of these ideas, and in particular concentrate on the inner fears of the individual, and also the positive feedback loop of information that seems to influence markets. In other words one should not only concentrate on the asset values and price movements in the

market, but equally follow the reaction and activities of the participants. Such activity is not always rational in the economic sense and one major factor in markets is that many, if not all, players have a flawed sense of value and risk-reward odds. This is a complicated but worthwhile area of study, and hopefully will help to underline two facts that are sometimes discarded; financial markets are not a precise orderly machine with predictable outcomes, and that to pursue a trading approach with that belief is to fall into the trap that can be labelled the fallacy of control. Markets are much more subtle and complex than we often think.

Allied to this behavioural view of the market is the interesting academic work that has been done on risk assessment. Today huge reliance is placed upon risk management and monitoring systems, but they contain a serious weakness in that humans are not very good at making correct risk judgements. So, however good the data, or indeed the computational prowess of the organisation, the weakest link in the chain still remains human judgement. Once again one can observe that despite all the advances in risk management, basic age old problems still lurk. Research work on group behaviour has some interesting insights into how groups assess information and this has much to tell us about the dynamics of market participants. This may seem rather arcane and removed from the business of trading and speculation, but in fact the fickle nature of groups and crowds can be broadly categorised and assessed – and this in many ways is a critical and relevant way to think about financial markets.

The second key factor to my mind is the idea that markets should be viewed and analysed as a whole, not just in terms of separate asset classes, industry groupings or individual instruments. Traditional analysis has tended to look at financial markets in this vertical manner. For example, the equity participant has usually concentrated purely on the stock markets, with the only real decision being whether to use top down analysis or its alternative, the individual stock picking approach of bottom-up analysis. This is a woefully myopic view of how things

really operate and I hope to show that one is operating in the dark without understanding the ebbs and flows in the relationships between different asset classes. It is relatively simple to see the various relationships between stocks, bonds, commodities and currencies and these can be easily tied into giving a wider and deeper picture about the business cycle and the potential path of future prices. Time after time many of these relationships work astonishingly well, and can help both the individual and the institutional player to improve their performance. This is a dangerous claim – and some of the book looks at the fraught subject of price prediction, an area where most soothsayers fail in their forecasts, but still prosper because of the insatiable demand for wanting to know the future. A subsidiary area of interest is the great store set by technical models, and the fluctuating fortunes of so-called black box creators. In recent years massive computing power has given this area a significant boost – and we will take a look at the whole idea of computers beating the market.

The third theme that will weave in and out is the collapse in the price of computer processing power, and the explosive growth in bandwidth availability. The much fabled Moore's Law about the continuous fall in production costs and the rapid increase in the power of micro-processors seems to be acting here with a vengeance. It is these twin forces that have done so much to re-enforce our view of the marketplace. The growth of television alone has been astounding; in Britain it is as recent as 1982 that the country got a fourth terrestrial channel, and research in the US shows that the average household now has access to over 120 TV channels. Bandwidth and hard disk capacity is flooding the world with information. The serried ranks of traders in dealing rooms with endless monitors, the wall to wall television coverage of markets, and the avalanche of research material are all only possible because of these two factors. Arguably these two advances have been amongst the most important and lasting influences on modern day finance. However there is precious little evidence that they have made the markets any easier to interpret – indeed one could forcefully argue they have made trading life more difficult.

Other secondary, but still important, themes that the book looks at include the regulatory cycle, the critical importance of time (market timing is something of a cliché, but nevertheless merits serious attention) and the unbending financial fact that the successful few feed off the unsuccessful many.

Whether financial markets will continue to dominate life as they currently do is a moot point. The current set up is very much driven by cheap computing and global communications, but also by financial de-regulation. Clearly there is a cycle of regulation, de-regulation and then once more re-regulation. Viewed in retrospect it will be clear that the late 1990s marked a high water mark in terms of global financial de-regulation and that in fact now the cycle has turned. The tide has now started to turn back towards regulation and tighter controls and supervision. This may well tame some of the wilder excesses of the markets, and they may slip from their current place in the limelight, but such developments come with attached costs, most of which will, as usual, be borne by the smaller players. Although on occasions some of the market's bigger players have complained about the burden of regulation, it is in fact often a protective shield for the larger and richer participants, and in today's environment of cheap and available technologies, a useful barrier to entry to restrict the smaller fry.

This regulatory cycle is almost clockwork in its manifestations, and it is relatively straightforward to see the various parts of the cycle move in and out of fashion. Indeed the current stage of the cycle, in which news has been dominated by scandals about false accounting and huge leveraged risk, is one that has been seen many times before and doubtless will afflict future generations. What is less clear is the precise nature of the results of regulation; one only has to see the calamitous outcome of the botched regulation of the California electricity market to see that the law of unintended consequences has a large part to play in this area.

Another strong theme in the book is about time, and more precisely timing. Time is the constant imponderable in financial markets. Should I buy now? Can I wait until tomorrow? Do I wait until the stock trades at 100? I wish I had done it yesterday. Time is the nagging doubt, sometimes the inflexible master and then sometimes the painfully slow servant that haunts the speculator. Never enough time, or far too much when it's least required. This whole area again links back into the snake oil zone of prediction, but also more importantly is a key determinant in behavioural ideas. It is clear that market timing is not just about one's own thoughts and actions but intricately tied up with the actions and motives of others – a simple example being the placing and execution of stop loss orders. More money is lost in misunderstanding time within a market than almost any other factor.

For the individual, whether trading on his own account or on behalf of a financial institution, it is important to understand all these elements if one is to trade profitably. It is an indisputable fact of financial markets that few speculators truly succeed – most players lose money or fail to maximise their opportunities. It is a Darwinian process in which the successful few feed off the rest of the market. As a result it is hardly surprising that large parts of the market choose to be intermediaries – market makers, advisors, commentators – all with relatively limited risk and a profit source that is generally fairly stable and activity driven, rather than volatile and results orientated. This is why so much financial advice is entirely worthless. At the end of the day most of the market is more interested in your activity as a customer than if you are actually successful in your trading.

The final chapter of this book is called Signposts – these are some of my own ideas and thoughts on various approaches that seem to work in the market. They may well be flawed, first they are my view of the marketplace and seem to suit my trading style though they may not suit others, and second, the fact that I write and publicise them could diminish their value, as the positive feedback element kicks in once again. Though one could also argue that if enough players do follow

them, they will in fact become a self-fulfilling system. Herein lies one of the conundrums at the heart of market analysis. As a result perhaps all they will illustrate is that it is a constant battle to stay ahead in the marketplace. That said I hope they will stimulate some thought and ideas and perhaps alternatives for the reader.

London, January 2003

1

Losers Anonymous

'It is not the knowing that is difficult, but the doing.'

Chinese Proverb

Woody Allen once famously defined a stockbroker as someone who invests your money until it's all gone. Amusing and probably dangerously close to the truth, but the interesting thing is that Allen used the term 'invests', which makes the barbed outcome all the sharper and somehow more shocking. We all are conditioned to believe that investment is safe and sensible; prudence and considered judgement are the implied virtues within the investment process. The wise man is an investor, who shuns wild speculation and abhors foolish gambling, and follows the steady path of carefully placing his money in sound enterprises. Is all of this received wisdom true?

The "S" Word

In beginning to look at the whole process of financial markets, perhaps we should start with some basic questions. When we deal in the markets, is it investment, speculation or gambling? Do we see ourselves as investors with all those underlying inferences of caution, prudence and informed decision making? Or perhaps as speculators, fearless plungers who are brave and ruthless at exploiting hitherto unseen opportunities in the marketplace? Perhaps, though less likely, some might admit that they are gamblers, out-and-out "chancers" who are hopeless addicts of the rollercoaster of betting, gripped by hope and often wracked by fear, but always confidently expecting the "Big One".

So does it matter what we call financial trading? What's in a name? After all surely it is success and profits that draw us to the business, not philosophical debates about what we call it? In many ways any name or title we give to financial activity can be dismissed as trivial and unimportant, but almost inevitably the three basic definitions of investment, speculation and gambling have a habit of pushing themselves forward.

Frequently these terms get mixed up and often have a political edge to them. Stock markets are nothing but gambling dens according to many left-leaning types. Carefully worded warnings (usually in fine print) to investors often refer to the speculative nature of the instrument (short option positions, and margin trading for example) and the financial rating agencies use the term speculative to act as a dire warning about the likely credit worthiness of an institution. Also, investment fund marketing front men stress how their fund is safe and conservative in its decisions, and seeking ‘favourable investment opportunities’ will dismiss speculative ventures. The financial world is full of blurred distinctions and definitions.

Without wanting to dwell on this subject of categorising for too long, let’s try and make some attempt to define the situation. What really separates investment from speculation is nearly always a subjective measure of risk, and what marks out gambling as really quite a separate activity is pure mathematics and probability. Gambling and games of chance require no skill. It may be a tiresome cliché, but gambling is really about losing money – it’s a rigged market if you like, with all the games having a negative expectation of return. You may win occasionally but in the end the iron rules of gambling games are carefully constructed to part you from your cash. Perhaps the only useful contribution that gambling has made to finance was to act as the spur to understanding probability. A number of famous mathematicians addressed questions of probabilities raised by games of chance, and in particular Jakob Benoulli and Pierre de Laplace stand out as having made important breakthroughs in our understanding of such matters. Probability has become a cornerstone of much of finance and the pricing of risk and weaves in and out of virtually any study of the subject.

We will examine gambling a little further on, but for the moment let’s strip it away from the main body of financial activity and concentrate on the close cousins of investment and speculation. (Some readers may be protesting already – surely the exponential rise in spread betting in

the UK is a classic example of gambling on the stock market? No – for in truth it’s really a speculative activity packaged up to look like a straightforward bet to avoid capital gains taxation.) Many people seem to be uncomfortable with the notion that investment and speculation are virtually the same activity. It seems to offend their sensibilities, not least of all academics and regulators. No doubt cynics will note that these two groups often have the least direct experience of financial markets.

Academics have certainly tried to firmly separate these two activities, and from the point of view of regulators and law makers the distinctions seem to matter. Again there is an overwhelming belief that investment is good, and that speculation is at best dubious; though there is at least a strong body of thought amongst economists that has been generally supportive of speculators, suggesting that they are major providers of liquidity for other participants that wish to hedge future risks.

A number of distinguished economists and even some market operators (one thinks of Benjamin Graham) have sought to explain how to differentiate between investment and speculation. In particular it was John Maynard Keynes, of whom more later, who famously declared in his seminal work *The General Theory of Employment, Interest and Capital* that speculation was ‘the activity of forecasting the psychology of the market’, and defined the speculative motive as ‘the object of securing profit from knowing better than the market what the future will bring’. And that as such, speculation was quite different from investment and the running of a business enterprise.

All of this has suited the marketing arms of the financial industry who have pretty much banished the term speculation as a taboo word; fund managers see themselves as custodians and careful managers of others’ assets, certainly not as hired speculators! Even many of the buccaneering hedge funds have shied away from such a description, preferring to hide behind bland phrases such as absolute returns objectives, seeking positive alpha and employing strategic macro

analysis. So, speculation is often seen as a pejorative term, conjuring up images of 19th century robber barons, wild unregulated markets and sharp practice. Of course, such disturbing images must be kept away from the nervous customer; soothing marketing phrases and impressive (though often woefully misleading) performance statistics are the order of the day, and under no circumstances should there be any mention of the dreaded “S” word.

However, there is an almost endless supply of cases where seemingly solid investments have turned out to be wild speculations, and equally there is a school of thought that says it is sensible and wise to take certain risks. Then there is the rather trite piece of advice that says the biggest risk in life is taking no risk at all. More subtly it can be very difficult to define what financial risk really is, and so whether you have an investment risk, a trading risk or a speculative risk can be an exercise in fruitless taxonomy. It really doesn't matter what we call market activity, either investment or speculation will do. Throughout this book there will be references to both investing and speculating and to my mind they are pretty interchangeable – the only variable is the risk appetite. Though as will be examined later, the initial risk appetite – or what we might term the willingness to take the known risk at inception – is often subsequently changed by circumstances outside the control of the participant. Certainly risk is not static.

Chance Not Skill

Returning to gambling, it's certainly a different animal from financial market operations, and is in fact a rather dull and ultimately depressing affair. It is curious that such a lacklustre and crushing experience can be so successfully marketed as entertainment, surely Las Vegas must be one of the most depressing places on earth – it's full of losers. After all, that's what makes the place exist.

We must remember that gambling is about chance and not skill, and as such offers no real long-term way to win. In contrast financial markets are far more challenging, demanding and potentially much more rewarding, but they demand – and then reward – a degree of skill and mastery. It is quite wrong to term most financial operations as gambling, however speculative they may be. What is equally dangerous is to somehow ring-fence apparently safe investments from so-called speculative adventures. This mind set can be catastrophic if circumstances change. Markets are dynamic in their activity and various financial ventures slide up and down the scale of risk – nothing is risk free. Indeed one could say that risk is in the eye of the beholder, and that it is dynamic and rarely entirely predictable. To master and profit from such conditions is the true challenge of financial markets – terms such as solid and safe, or speculative, are basically misleading and worthless.

Life, Luck and Lotteries

Many believe that life is a gamble, that some of us are just lucky and that the stock market is a casino that favours those of a gambling nature. Much of this thinking is romanticised, or just plainly ill informed. Nevertheless before we can get down to the real business of examining financial trading, perhaps we need to spend a little time looking at gambling.

Luck is a favourite topic in life. The Roman philosopher Terence declared that fortune favours the brave, Mark Twain opined that the harder he worked the luckier he became, and perhaps most famously Napoleon always flatly refused to promote anyone to a senior command unless they were deemed to be lucky.

Although luck and chance are a part of life, they are really a small part in any successful investment strategy. In a sense such terms are just our attempt to rationalise randomness; human nature seems to abhor random events, it seems to be in our nature to want to exercise control,

even if this can lead to endless self-delusion. Luck is often invoked in operations that are doomed from the start – in particular, gambling. If a situation has a mathematically negative expectation then no amount of luck can save you in the long run. This conditional phrase, in the long run, is in fact rather important. One of the most difficult things for gamblers to understand, surely if they did they wouldn't bother, is that chance has no memory. Randomness can seem to throw up imaginary short-term patterns that can fool the gambler into believing there is a lucky streak or that next time heads is bound to come up. But in the long run they will be crushed by the negative mathematics of the game. In this sort of atmosphere of muddled thinking and down right innumeracy it is small wonder that lady luck is often invoked.

It Could Be You!

Perhaps a good way to look at gambling and to compare it with investment is to examine lotteries, and their close mathematical brethren, life insurance policies.

Although the mathematical arguments against lotteries are overwhelming, that is to say taking part not running one, there is a twist in the story – the concept of utility.

First, the bare maths is quite striking. In the UK the National Lottery ('Lotto') involves correctly picking the six balls that are randomly selected out of a total draw of forty-nine. Most games around the world have a very similar set up, with the overwhelming amount of prize money going to the lucky (that word again!) winner(s) who make the right prediction. Usually there is a lot of razzamatazz about how the drawing of the balls is scrupulously fair, and in many countries including the UK the whole business is a major light entertainment TV show. For all the show business, in bald terms there is a 1 in 13,983,816 chance of making the correct prediction!

To calculate this is very simple: there is a 1 in 49 chance of predicting the first ball correctly, to get the second ball correct there is a 1 in 48 chance (as the first ball is no longer in the draw). One repeats this process for the six balls and then you multiply the odds to get the overall probability, so:

$$6/49 \times 5/48 \times 4/47 \times 3/46 \times 2/45 \times 1/44 = 13,983,816$$

This is stunningly awful, in fact a cursory glance at crime statistics suggest all manner of horrible things including being murdered by a close family relative are much more likely than being able to predict which six little balls will come up. (Recent statistics show that in the UK you are more than four times more likely to be murdered than win the lottery jackpot.)

Another, perhaps even more revealing, way to look at the odds is to say there is actually less chance of winning the lottery than rolling the same number on a dice nine times in a row. In fact, for that probability the number is just over ten million to one. (Basically it is six, being the number of sides on a dice, to the power of nine, being the number of throws.) Put in those terms how many people would still believe the promoter's catch phrase that 'It could be you'.

There are gambling tactics that can help at the margin, for example a large number of people select lottery numbers on the basis of family birthdays (good grief!) and so people's selections are skewed towards the numbers between 1 and 31. Although this activity doesn't change the overall odds, it does mean that if winning numbers are not within this biased sub-group you stand a better chance of not having to share the prize with anyone else. No doubt those poor souls who believe thirteen to be an unlucky number, triskaidekaphobics is the impossible label they live under, are also slightly skewing the distribution of number selections. In an activity where the odds are more balanced and not so impossible, such activity could be very important, but in the no hopers game called the lottery it is pretty much impossible to gain much advantage from such tactics. As a point of interest though, the idea of trying to read what other players are doing rather than just concentrate

on the game itself is in fact a critical part of winning in investment strategies – but in gambling the house rules always allow enough profit margin to swallow any such marginal advantages. Remember the rules are constructed to help you lose money.

Clearly the marketing of such games is crucial; the trick is to appeal to the gambler's hope that he stands a chance of winning – whilst avoiding any reference to what a forlorn hope it really is. Also, the prize allocation is structured in such a way that a very large number of players can win a very nominal prize relatively easily. In the UK the minimum win of £10 is often won by around half a million players at each draw, but their chance of the top prize of anywhere between £5 million and £10 million is well protected by the almost 14 million to one odds explained above. This creates the illusion that the player was close to winning, and therefore should carry on playing the game at each successive draw.

Enter Utility

So are all the buyers of lottery tickets foolish – don't they realise the miniscule likelihood that they will win? Well, little in life is purely determined by statistics and probability theory. Another element to consider is that the players are well aware of the appalling odds, but that the small gamble of £1 is well worth the chance to win the huge first prize. This means viewing the gamble in terms of both the probabilities and the consequences of winning – known by economists as utility theory. The first prize would have such a huge impact on the winner's life that it's worth paying out for that opportunity. This is often seen as being the motive of why the relatively poorer members of society are often the most avid players – the lottery ticket becomes a chance to escape their circumstances. Odds and probabilities, even if understood, have little part in such a calculation. Many have pointed out that this is precisely why such lotteries are immoral as they tend to be a flat rate tax on society's lowest earners.

Perhaps one of the most extraordinary, if not depressing, elements of the lottery is the way people study the past form! The oily voice-over on the television show never forgets to remind viewers when a number last came up (this must be the most public example of the gambler's fallacy) and other inane observations including, 'all the numbers this week are even!' Some enterprising characters have even produced software packages that can be used to track previous numbers, and if the punter can't decide on his next choice, a random number generator to help. This repackaging of simple spreadsheets is a triumph of the entrepreneurial spirit over the foolishness of the average gambler.

One final thought on lotteries – over time interest in them tends to fade and often they are eventually scrapped. In fact the popularity of lotteries is not always universal but tends to ebb and flow with social mores of the time, and the financial needs of governments looking to raise easy money. Indeed one of the first recorded lotteries in England in 1569 was organised by an Italian banker, Piero Grimaldi, to help the extremely cash-strapped government of Elizabeth I. Such was the scepticism about buying tickets, which were extremely expensive at ten shillings each, and targeted at the merchant class, that a degree of friendly persuasion was required by government officials, which included all sorts of promises including an offer of amnesty for criminal convictions. Clearly the prospective purchasers saw the lottery as a crude tax-raising measure and being in the business of trading in goods and commodities, saw the obvious flaws in such an "investment".

The UK Lotto is now nearly fifteen years old, with jackpots being reduced as overall ticket sales have drifted lower. In recent years, re-branding, TV advertising and new twists have been tried to boost sales, but the odds remain the same. Perhaps eventually the punters will learn after all.

Let's Hope It's A Losing Ticket

Curiously the maths that makes lotteries such a rotten deal is precisely why it is good value to take out a life insurance policy. In essence, the insurance company grants an insurance policy, payable on the death of the policyholder, that the holder hopes doesn't come to fruition. So in this case the policyholder is really like someone buying a lottery ticket and praying that it isn't a winning combination! Interestingly both parties benefit in this transaction as the holder of the policy "wins" (or at least the beneficiaries of his estate do) if his number does come up; and the insurance company writes the policies with much the same maths in mind as a lottery company – only a certain number of policies will be exercised in a given period of time, and the rest is a simple matter of managing costs, and the income from the policy revenue to cover the claims and return a healthy profit. This may all sound rather macabre, but here at least is a gamble in life you will be pleased not to win.

The Wrong Box

Whilst on the topic of life insurance, gambling and investment ideas it is worth mentioning an interesting curiosity, the investment concept of the Tontine, which once popular is now outlawed in most countries, though lives on in a truncated form as a tax avoidance vehicle in France. It also happens to be central to the plot of a 1960s film starring Peter Cook and Dudley Moore called *The Wrong Box*.

Named after the 17th century Neapolitan banker Lorenzo Tonti, the Tontine is a simple investment fund with an unusual sting in the tail. Every subscriber pays an initial fixed sum into the investment fund, and in return receives annual dividend payments from the capital invested. Then, over the life of the fund, as each subscriber dies his share is divided among all the others until literally the last man standing is paid

out the capital in the fund, and the scheme is closed. Such a vehicle is a curious mix of pure investment, in fact a form of annuity scheme, with the added spice of a side bet that you will outlive your fellow investors – and win the capital in the fund. Needless to say such schemes are open to obvious abuse, in particular foul play amongst the members, and have been deemed illegal in many countries. Before readers wonder if such dark undertakings are a major part of the French investment scene, it should be pointed out that the so-called Tontine schemes in place these days are a way of pooling property ownership rights to avoid or at least manage inheritance tax liabilities. So for example a husband and wife may own a house via a Tontine arrangement, and when one partner dies the other need not pay inheritance tax, as the house is deemed have been in a tax-free joint ownership scheme.

Before we leave the topic of gambling, one final thought. If gambling schemes, betting systems and ways to beat the odds were really worthwhile why is the market unwilling to lend money to finance such ideas? In contrast, casinos and gaming operations have no trouble raising finance; after all they are a positive cash flow business, with a very predictable profit margin, an ideal client for any lending banker or bond issuing house. Indeed such is the consistency of many gaming operations they literally make more money in January than February simply because there are 3 more days in the month for gamblers to chase after the “Big One”. The answer to the question is plain – gambling cannot be consistently profitable (remembering the long run effect) for the participants; in this vital respect it is totally different from financial trading. In the parlance of stockbrokers, clearly it is one to avoid.

Just A Game?

Having considered various definitions for financial trading and settling on the idea that investment and speculation are really the same activity but probably describe different rates of risk, perhaps we can consider another angle on how to understand the markets. Could they be described as a game, an activity with set rules and known inputs that if understood would give us the output, i.e. the market price? Could we study and accurately monitor these factors and somehow start to be able to understand what really drives the price, and perhaps even predict future outcomes?

This looks like being an extremely tall order, for example what are all the factors that govern, say, the price of gold? Obviously there is global mining data, then there is information about the demand for industrial and commercial uses for gold, the overall economic climate, and then the actual activity in the trading of gold both in physical and futures markets; all of which then culminates in a single bid-offer price for bullion. One could add even more factors such as politics, central banks' activities, taxation and regulation. How on earth do we decide what factors are important and what influence they have on that final outcome, the gold price?

Before trying to answer this very difficult conundrum let's wind back slightly and imagine how we would set up such a monitoring and assessment system for a well defined game we already know – for example, chess (we could equally choose bridge or perhaps the Japanese strategy game Go). In basic terms the game of chess is straightforward; it has precisely defined rules, and takes place in a linear time frame where each action (or your move) is directly countered by a counter reaction (your opponent's response). But it is quite apparent very quickly the number of possible moves and different lines of play grows exponentially as the game unfolds. Initially there are only twelve possible chess opening moves, either moving one of the eight pawns or one of the two knights which each have two potential moves. Actually even this is a simplification, as the pawns may move one or two spaces

on their initial move, so in fact the correct number is already twenty opening variations. Very quickly after each player has moved even a few times the variations, the lines of play, and potential complexity has gone through the roof. No doubt, this complexity is one of the reasons why chess is such a popular pastime – but imagine trying to develop a series of rules that can predict future moves in the game. Well, after years of trying it looks now that computing power is starting to have some serious success.

The first attempts to program computers to play chess were developed by scientists at Bell Labs in the 1960s where a celebrated team led by Claude Shannon (a leading pioneer of information theory) collaborated with the then world champion Mikhail Botvinnik to create the first serious chess-playing software. Nowadays the latest generation of computers, most notably the Deep Blue series from IBM, is considered a credible threat to human players. Indeed in a very short series in May 1997 an IBM machine did beat the world champion Gary Kasparov, winning three games, losing two, and with one drawn. (Though apparently the machine did commit one or two very weak moves, and did miss some obvious lines of play.) Whilst extremely impressive, it was hardly an overwhelming victory. In late 2002 the then world champion Vladimir Kramnik held the Deep Fritz computer to a four-all draw, but it now appears that computer software is starting to overtake the human game.

Others have tried to develop fool-proof systems to conquer gambling games but this is a waste of effort unless you can manage to persuade people to buy your supposed secrets. A step away from pure gambling games of chance are those that involve some measure of skill, such as football pools and horse race betting. Attempts to develop systems here have had some limited success, with some examples of professional gamblers being able to live off horse race betting, but there have also been some spectacular failures. One such disaster centred on the attempt of Charles Babbage (the inventor of the difference engine and a mechanical forerunner of calculators and computers) to win a large

sum of money on the 1851 Derby. His system was funded by Ada Byron, the daughter of the famous poet Lord Byron, who hoped to win enough to cover her existing gambling debts. Unfortunately Babbage's mathematical model failed to make the correct prediction at Epsom Downs, and only compounded his backer's financial woes.

Of course the game of trying to understand and then predict our market example of the gold bullion price is even more massively complex than chess, or betting on horses. There is no fixed number of players, their activity is certainly not neatly arranged in time order, and an almost innumerable set of external factors can come into play. So there seems little hope that we can solve the price of gold with computers and cunning mathematics. This hasn't stopped people trying and the advent of massively cheaper computing power has been a significant boost to the variety of methods tried. So far the landscape has been littered with false dawns, but the insatiable demand to see the future is a powerful incentive to crack the problem.

There are a number of well-known games that can be solved by logic, but understanding the games can still cause difficulties. Puzzles such as the prisoner's dilemma, Morra and the Japanese game of scissors-paper-stone all have optimal strategies that can be used to maximise advantage, but many people still come up with the wrong answer, or more subtly adopt the wrong strategy. In such games choosing a wrong strategy is just that – wrong.

In financial markets, however, there seems to be another level of complexity, as every market participant watches everyone else like a hawk, even plainly stupid strategies are sometimes adopted by the crowd. The chess player doesn't have to contend with rumours, whereas the investor is bombarded by half truths and misunderstood comments in what often resembles a gigantic global version of Chinese Whispers. There is huge pressure to cluster around the right strategy, to follow the current fashion, above all not to be left behind, to follow the current trend, however hare-brained. (Never was this more true than during the extraordinary dotcom bubble of the late 1990s.) Economists and

believers in fundamental analysis label this behaviour as over-shooting and explain that eventually markets correct. Of course they do, but the key word is eventually. In this respect, things do have a curious parallel with the gambler's fallacy about short-term runs of luck. Once again the human mind is quite happy to rationalise mathematically irrational arguments. It is an interesting point that during periods of investment madness such as The South Sea Bubble or the UK railway stocks mania in the 1850s, it may be possible to justify the madness on economic utility grounds – in that the investors knew the price they were paying was too high, but still felt compelled to enter the market. Many contrary investors have lost a fortune trying to counter a market's irrational valuation, which is often driven by “the greater fool theory”, in that the holder of an over-valued asset always fondly believes someone else will pay even more.

So plainly financial markets are not just about statistics and probabilities, utility is just as important as cash or monetary values; and success means different things to different people – markets are far more subtle than just a game of logic.

Top Of The Market

An event at the beginning of March 2000 close to the very peak of the US equity bull market, in fact it occurred just a couple of weeks before the absolute high in the NASDAQ Index, is probably one of the best examples of market irrationality in decades. The large American company 3Com Corp., partially floated off one of its most successful ever developments, the Palm Pilot. This hand-held device had taken the world by storm in the previous couple of years, and was a must have purchase for every techno enthusiast. 3Com packaged the product into a separate company called Palm Inc. and a small block, in fact only 6%, of the stock was floated on the stock market. The issue price had originally been considered at around \$14 per share, but in the frenzied

days ahead of the launch the guide price was increased to the \$30-\$32 range. In the event it was actually launched at \$38 a share, and in a bout of uncontained madness hit \$165 at one point during the first day – settling back to finish the day at around \$95, valuing the company at a staggering \$54 billion. This for a company with its previous years profits of just under \$30 million – a valuation of 1800 years earnings!

Even more extraordinary was the fact that the total market capitalisation of Palm Inc. was now greater than that of the parent 3Com (despite 3Com still holding 94% of Palm's shares). This wasn't just a slight mis-pricing but over-valuation on a colossal scale. Investors had driven the price of Palm Inc. through the roof, and ignored the valuation of the company that itself held the lion's share of the Palm stock. Clearly irrational exuberance had finally boiled over; indeed after the first days trading Palm Inc. was deemed to be worth more than either General Motors or the Ford Motor Company. Just as alarming is the fact that many who entered the market on the short side could have lost a lot of money – despite being ultimately correct in their view. No doubt as the stock sailed up through \$100 on the first day there was ample evidence that the price was irrational and unsustainable, but who could have hung on as it rose another 65% before making its fleeting high?

Here was the greater fool theory demonstrated in full flood. What was going on? Why do people and markets seem to want to act in this manner? Well clearly the small amount of Palm stock on offer had helped induce the feeding frenzy for the new issue, but any sense of value and worth seems to have been totally forgotten. Certainly, the fact that 3Com was the biggest beneficiary – by virtue of holding 94% of the Palm stock – was totally lost in the blindness. As a result of this chaos, something was wrong; either 3Com was now grossly undervalued, or Palm was equally grossly over-valued. In time reality set in and there are no prizes for guessing the outcome. Needless to say Palm is no longer mentioned in the same group as General Motors and Ford (notwithstanding the recent woes of these motor companies). The

share price soon plunged back to earth and, whilst still going, the company is a shadow of its glory days at the time of flotation.

This small episode is an ideal leitmotif for an important, if not the most important, element in financial markets – the intertwined factors of crowd behaviour and investor emotion. Whilst we tend to believe that finance is about statistics, valuation and economic theory, that is really only what is going on at the surface level. In addition the Palm/3Com episode calls into question efficient market theory when applied to stocks. The mis-pricing lasted some months after the initial offering. So are there other approaches and ideas that can explain this seemingly irrational behaviour?

The Financial Inner Game

Back in the early 1970s a book about tennis coaching called *The Inner Game of Tennis* by Timothy Gallwey became an unexpected bestseller. Its theme was simple yet revolutionary – to improve your tennis you had to train your mind equally as much as any work done on the practice court. There were two games going on – the outer game on the court and the inner game in your own mind. If you could convince yourself that you would beat your competitor you already had a huge advantage before the first ball was served. Perhaps, rather than look for external reference points to understand financial trading, we need to look within ourselves.

Clearly financial trading is different from tennis or any other competitive sport, but the importance of emotional control by the player in each is very important. As we have just examined, it is wrong to try and label trading as a game. The rules, such as they exist, are dynamic and fluid in their nature, not fixed as in sport. The human reaction to this fluidity – or, if you prefer, uncertainty – is to try and set guidelines and rules. It is through this method that we try to control ourselves and our trading. Unfortunately this human trait to set controls tends to expand so that we think we can control external events as well.

This is where trouble sets in. The internal rules we set ourselves are often changed to suit the external situation and we rationalise our own actions by believing that because things have changed we must change ourselves. After all, aren't we taught to be flexible in our thinking? So when our rules no longer fit the outside world, we change the rules but rationalise this behaviour by pretending that we are in fact being prudent and flexible in our attitudes. So, in a fit of muddled thinking and ill discipline any normal investing rules are junked and we go back to chasing the rainbow.

Curious Inefficiency

The Palm Pilot/3Com story is just an extreme example of these phenomena. It also frequently appears in the inability of investors, whether individuals or institutions, to cut their losses. We frequently rationalise away losses, and tell ourselves that it is right to hang on to losing positions. Clearly whatever games that are going on in the marketplace are also really going on inside our heads. Frequently one hears the term "they" in market conversations. "They" are completely wrong about this stock. Don't "they" realise that the gold bullion price should be lower? "They" are going to like the employment figures later today. Most participants see the market through the prism of an imaginary enemy or counterforce called "they". It's as if the market is secretly ranged against the individual investor or fund manager and that in some sort of Arthurian manner he has to overcome their dark forces to prevail in the marketplace.

Well if there is a battle and there is an enemy, it is within – a silent enemy that picks away at the individual's good judgement and investment plans. It is natural for humans to look for confirmation in their judgements; as a matter of course we swap ideas and opinions about everything in everyday life. We discuss endlessly with one another what TV programmes we like, what's the best value car or why a certain holiday destination is expensive. It is the same in financial markets – all the players are constantly discussing the various merits and de-merits of

certain stocks, commodities and currencies. We also pontificate on economic data, company announcements, chart patterns, newspaper articles and a constant stream of research from economists, analysts and general market pundits.

Joining The Crowd

All of this activity has an influence over our investment judgements, in fact more than we probably realise. It is not just our own judgements that finally decide whether we make an investment decision; we need to cluster around others' opinions for confirmation. In fact we are very influenced by those around us. It is easier to join the crowd than fight it – and after all doesn't it make sense to follow a trend anyway?

In his fascinating book *Butterfly Economics* Paul Ormerod draws attention to some extremely interesting research that shows the importance of such information systems. In particular it appears that insect communities swap information constantly about food sources, and that the information received from other insects is just as important as any primary evidence collected by any individual insect itself. This may seem somewhat removed from financial markets, but as Dr Ormerod demonstrates, it has important lessons for all economic activity, including financial markets.

Essentially the individual actions by investors in the marketplace, or for that matter the actions of insects looking for food, can assume greater importance as they influence others in their actions. This is how trends appear to form. It's not just that we decide ourselves to buy the stock, but we carefully watch our fellow investors to see what they do. This activity can be termed a positive feedback model, as the initial activities get magnified and extended over time. In marketing speak one might say that the early adopters tend to be very influential. The fact that they start to buy a stock can soon be spotted by other me-too investors and then a trend gets underway.

As an historical aside, a good example of this crowd following behaviour is found in the landmark English battle of Bosworth in 1485. King Richard's supposed ally, his stepfather Lord Stanley, kept his men to one side as Richard's forces battled those of Henry Tudor. With the King in trouble and Henry's men getting the upper hand, Stanley finally ordered his men to swoop down the hill, join the winning side and help defeat the Tudor forces. The noble Lord was clearly a trend follower!

So a complex mosaic is starting to unfold; the market is not an easily defined game, glib labels about investment and speculation don't really help us, and the actions, however seemingly irrational, of all the participants can have disproportionate effects at certain times. On top of this, how individuals act in their inner selves, or how they apply their own set of risk and reward values, is absolutely crucial. One could add a further layer of complication for the poor fund manager, who has peer pressure from his own colleagues plus the dreaded comparison with competitors via publicly available league tables. No wonder the investment community seems to huddle together like penguins in an Antarctic ice storm. It may be that being with the crowd is the safest place to be, with the issue of being right rather secondary.

With all of these factors it is little wonder that financial markets are the ultimate test in staying centred and calm in decision-making.

Who Cares Who Wins?

There is no evidence that there is a master plan of the universe that includes the idea that any of us should be rich. Market players may dream, strive and plan endlessly for this happy event, but no one else cares, least of all the market itself.

The nightly stock market round-up on the business TV news often announces that winning stocks beat losers by a ratio of whatever and that big gains or losses were made by investors in XYZ stock, or that players were surprised by a sudden currency devaluation or political

crisis. Pundits and analysts are wheeled out to comment on the news and are always asked ‘What does the market think?’ They nearly always reply by repeating that what has happened was a surprise, and that the market will be very wary in the coming sessions. But the market doesn’t think anything, it gyrates around whatever the latest story or rumour may be.

So what, and who cares? Do I care if you made or lost money today? Of course not. But curiously in the back of my mind I think that the market is interested in me. Here is another fallacy that helps fool the individual or institutional player. Most market players develop a sense of paranoia; how often is a losing position cut at the very extremity of the adverse move – it’s as if the dreaded enemy “they” were watching and planning the humiliating loss and failure.

Nonsense of course, because the market doesn’t know or care about you and your position; but we fret that it might. Almost like someone who has happened upon a secret and is afraid to breathe a word about it, the individual investor hopes to have uncovered a bargain or at least stolen a march on the rest of the market. Of course having established the position we trumpet our cause, and busily tell our friends and anyone that will listen that XYZ stock is going to fly, only fools would be short and the coming results look like being great. All of this is known in the trade as “talking your book”. Do the regulators consider this inappropriate or illegal behaviour? Is it wrong to talk up a stock that you are long of? Why would you do anything else? This is all part and parcel of the positive feedback model touched upon earlier.

One complication in this description of events is liquidity. The market will latch onto players if it is known that they have a very large position. Suddenly that information becomes important and the limelight beckons. This is nearly always extremely bad news. Imagine you are very short in a commodity that has been gently drifting down. Suddenly the news of your large position will almost certainly drive the market higher as other participants attempt to squeeze you out of your position. Liquidity tends to dry up in such a situation (after all, why

should any other players help you cover your trade?) and suddenly the paranoiac concept of “they” becomes a horrible reality. We will examine liquidity and its unpredictability in much greater depth later on.

Perhaps what drives the feelings of paranoia and the obsession with “they” in the marketplace is fear of failure. The simple fact is that many more people fail in financial speculation than succeed; as mentioned earlier it is truly a Darwinian model where the successful few feed off the losing majority. We could term the losers as anonymous, because as with most things in life, more time and space is given to success than failure. Of course, if the failure is of sufficiently spectacular proportions then we hear about it, but in general failed investments and their investors suffer in silence.

Obvious But Hard Advice

It was the successful 19th century English stockbroker, and subsequently highly regarded economist, David Ricardo who was credited with giving the investment advice to run your profits and cut your losses. This is obviously good and sensible advice, but common sense is at a premium in finance. Of course, one would expect to find that investors will seek to maximise their profits and minimise their losses, but in fact it appears people are more worried about minimising their pain than anything else. Losses are painful, so we should expect to see a rush to exit losing positions. But in fact a lot of market activity involves avoiding taking losses, by deciding to simply let them run. This so-called loss aversion, or sunk loss bias, can have the paradoxical effect of actually increasing losses. It's as if the mark to market loss doesn't really matter – it's only a loss when you close the position, and if you avoid closing the position, well you have avoided taking the loss and the accompanying pain. In a way this folds back nicely into Gallwey ideas

on the inner game, except the investor thinks he can shield himself from pain in the real world by retreating to the world of the inner game in his head. It's as if the tennis game is never actually lost until the player admits it is.

This whole area has spawned the new industry of risk management. In financial institutions armies of staff gather statistics about the company's investment and trading positions and carefully calculate a series of measures of risk – all designed to give managements warning signs and levels at which it would be prudent to take a loss. Individuals sometimes use so-called stop loss strategies (surely they should be called take loss strategies?) to try and achieve the same discipline. As we shall examine later, these ideas, whilst worthy, often fall victim to the law of unintended consequences and the actual outcomes can be somewhat unexpected.

So many market players have an almost schizophrenic relationship with the market; wanting to know all that is going on, alternating between secrecy and publicity over their own positions and being constantly influenced by the opinions and actions of those around them. Now we can start to see why trading is a hard way to make money.

Financial Speculation

Trading financial biases and behaviour

Gerald Ashley



Financial Speculation

Trading financial biases and behaviour

Gerald Ashley



Available direct from Harriman House and all good booksellers. To order a copy of the print or eBook edition go to:

www.harriman-house.com/financialspeculation

Paperback: 9781905641994

eBook: 9781906659936