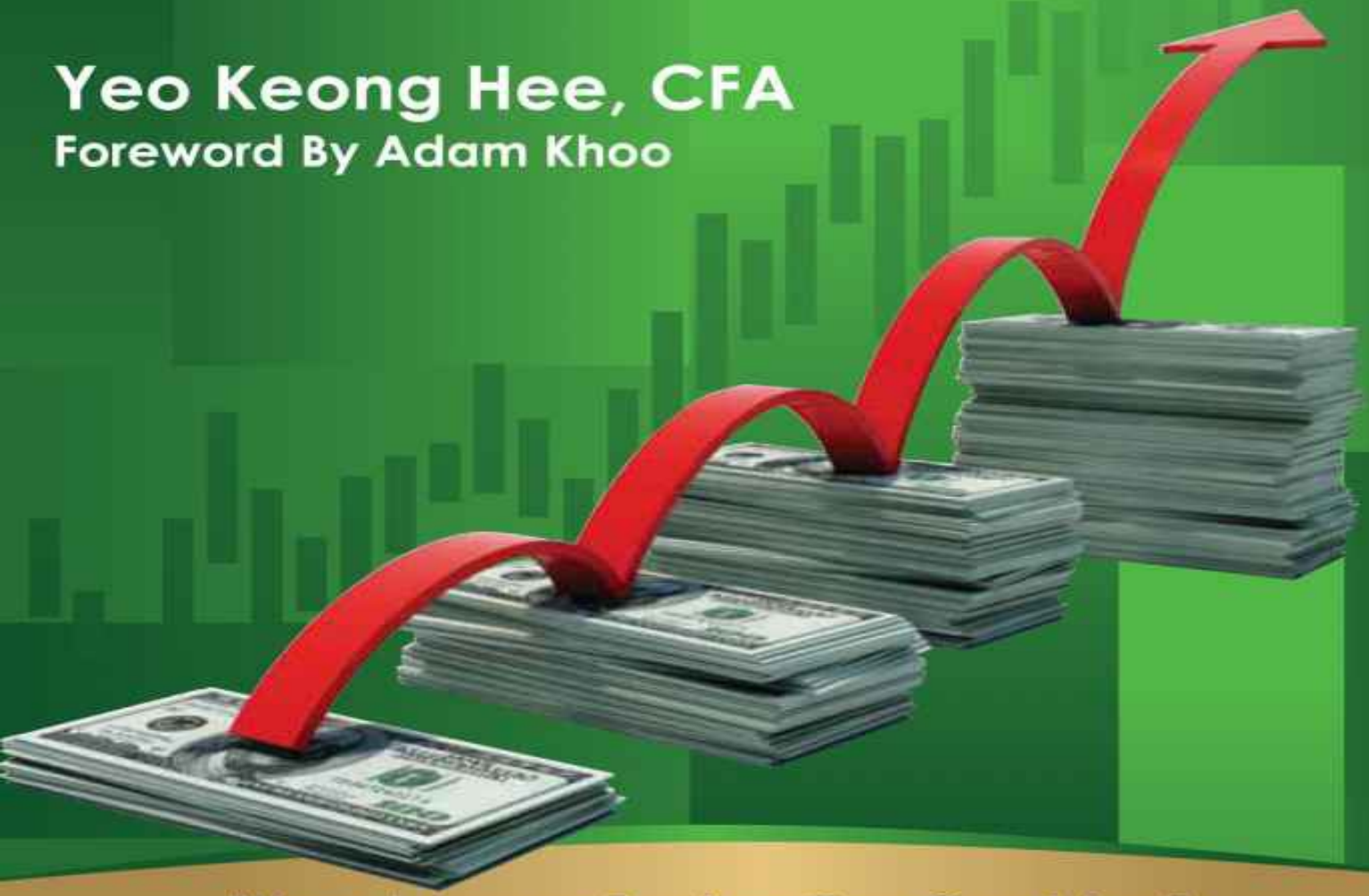
Author of the National Best-Seller 'Secrets of Forex Millionaires'

Peak Performance Forex Trading

Yeo Keong Hee, CFA
Foreword By Adam Khoo



"How Average Traders Can Consistently Achieve Peak Performance In Forex Trading"

Published by Adam Khoo Learning Technologies Group Pte Ltd
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Acknowledgements

Since "Secrets of Forex Millionaires" was published, I have received much favorable feedback from readers who have been inspired to learn how trading the currency market can help them achieve their financial goals. As I continue to actively trade this exciting market, while conducting the Wealth Academy™ Forex training program from time to time, I have become increasingly enlightened on how I should effectively convey to aspiring Forex traders the necessary skill-set required to succeed in the business of Forex trading. The journey of mastering this skill-set may vary from individual to individual. However, I believe that if you are committed to learning it well, you will be far better off than if you depend on a trial-and-error approach and your natural trading instincts. This book serves to outline what it takes to properly and systematically learn the skill of Forex trading.

In putting together this volume, I have gathered many of my personal experiences and the observations I have made while working with traders. As you will realize throughout this book, I make a consistent emphasis on how successful traders think differently from most people. It is hoped that this book, which serves as somewhat a sequel to "Secrets of Forex Millionaires", will inspire serious traders to work on training themselves to achieve consistent peak performance in their trading journeys.

As always, I remain deeply grateful to the good people at Adam Khoo Learning Technologies Group (AKLTG). I would like to especially thank Chris Shia for coordinating the production of this volume. My heartfelt thanks also go to Andrew Ling, Wandy, Daniel Wu, Nick Goh, Aaron Lee, Pearlyn Lim and the many others who have contributed to the success of the Wealth Academy™ Forex training program. Of course, I thank Adam Khoo and Patrick Cheo for continuing to support me in developing this program. As I continue to work with traders from all walks of life, I have been constantly inspired to improve myself, both in my personal trading journey and my effectiveness in teaching what I know about Forex trading.

In this book, readers of "Secrets of Forex Millionaires" will reinforce their inspiration by gaining an even more in-depth perspective of the principles of successful trading. Indeed, all who are keen to build a legitimate and sustainable business from trading Forex will discover how they can indeed do so by freeing themselves from the get-rich-quick hype and truly mastering the skill of Forex trading!

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About Keong Hee



Keong Hee holds a First Class Honours degree in Engineering from the National University of Singapore, where we was among the top 3% of his cohort. As a Certified Professional Trainer (accredited by the International Professional Managers Association, UK), he is also a Chartered Financial Analyst (CFA) charterholder, accredited by the CFA Institute. He also qualified for membership of MENSA Singapore by achieving an IQ score of 156.

After his corporate career in the investment profession, Keong Hee has embarked on a most rewarding journey of mastering the skill of trading the financial markets. As a self-directed investor, his remarkable trading results have helped him achieve independence from the rat race. By trading the Forex market alone, he is now able to consistently generate high triple-digit percentage returns on a yearly basis. One of Keong Hee's most phenomenal achievements in trading was multiplying a USD 10,000 account into well over USD 300,000 in just one year!

Keong Hee is one of the key wealth trainers at Singapore's largest premier training company - Adam Khoo Learning Technologies Group, where he regularly conducts training classes for aspiring traders. He has been featured in the local media (The Straits Times, Channel News Asia and FM958) for his expertise in Forex trading. He is also the author of the national best-seller, "Secrets of Forex Millionaires".

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Foreword by Adam Khoo



Every year, thousands of aspiring entrepreneurs enter the world of business, hoping to achieve financial success and freedom. Unfortunately, less than 10% succeed. The same is true in the business of Forex trading. So, what separates the winners from the losers? As a success coach, I have found time and again that it is not luck or some inborn talent that separates the successful from the failures. Winners are different in the way they think, the habits they consistently exhibit and the strategies they leverage on.

I am really excited and honoured to write this foreword for Keong Hee's new book. Indeed, I have found him to be one of the few highly successful entrepreneurs in the business of Forex trading. When I had the privilege of meeting Keong Hee more than 15 years ago in the Army, he appeared to be a typical person who would not venture beyond the comfort zone of being a salaried employee. Ever since then, he has amazed me with his phenomenal success in the business of Forex trading. What has made him so successful is the tremendous amount of research, hard work and practice he has put in over the years to perfect his professional craft. If he can do it, anyone who is committed to financial success can do likewise!

In this book, he generously shares the psychological and technical strategies that have enabled him to become one of the best in the business. More importantly, he presents the material in an entertaining and easy-to-understand way, so that anyone can learn how to replicate the same level of success.

In his first book, "Secrets of Forex Millionaires", Keong Hee gave valuable insights into how anyone can get started in the business of Forex trading. In this sequel, he goes one step further into showing you how to move from being an average trader to an excellent one. He shares his insights into how new and experienced traders alike can achieve peak performance and consistency in profits.

As a peak performance coach, I can attest to the importance of personal psychology for

anyone who seeks to achieve consistent success in any pursuit. This is particularly true in the business of Forex trading. You can teach two people the same strategies and impart to them the same volume of knowledge, yet they often produce very different results ultimately. One may go on to achieve consistent profits while the other may struggle to make money. The difference in their results lies in their emotional management, focus, discipline, motivation levels, etc. All of these attributes are rooted in how well they manage their psychology.

The technical and mechanical aspects of trading strategies, though important, are often the easiest to learn. This is why there have been many books and courses which are purely focused on a wide variety of trading techniques. Attitudes and mindsets, which are the most crucial factors for success, are often less straightforward to change and master. What makes Keong Hee's books and workshops the most effective in the market is his emphasis on the trader's belief systems and his ability to empower people to adopt the most productive psychological patterns of trading Forex. As such, his trainees have been able to make the most of the trading strategies which have enabled him to achieve phenomenal success in the Forex market.

I am confident you will enjoy this book. The material within this empowering volume, when applied in your trading journey, will bring you immense benefits. Enjoy!

Adam Khoo Asia's #1 Success Coach Best-Selling Author of "Secrets of Self-Made Millionaires"

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Chapter 1: The Get-Rich-Quick Hype in Forex Trading

All too often, when I conduct training workshops where people from all walks of life come to learn how to make money from the Forex market, I realize that the world we live in has somehow conditioned most people to consistently lose money in the market.

Increasingly in these training classes, I have realized the importance of spending more time pointing aspiring traders to the things that really matter in the process of achieving trading success. In recent years, many retail investors have turned to trading currencies in their pursuit of financial freedom.

This phenomenon is, in my opinion, partly due to the recessionary economic climate which we are currently faced with, and partly due to the scores of advertisements and hype about Forex trading being the best way to make money.

The goal of writing this book is to help the aspiring trader to cut through all the hype and myths about Forex trading, and begin to understand the crucial things that separate the winning traders from the losing ones, and also to perceive the reasons why most people find it so difficult to beat the markets.

Indeed, trading the currency market allows the average retail investor to make money despite a declining stock market and a recessionary economic climate. Not only are we able to profit from this market in both bullish and bearish economic scenarios, the rates of return can potentially be significantly higher than what we usually see in other investments.

It is not unusual to hear of amateur Forex traders generating returns of 100% and above in a few months. As such, **Forex trading is often perceived as a very enticing get-rich-quick activity.**

Increasingly over the last few years, many retail investors have considered the Forex market as a very appealing source of additional income, and some have even regarded it as an avenue for generating income on a full-time basis.

To feed this collective desire for making money from the Forex market, we have seen countless online and offline advertisements that package all kinds of training programs and software which promise you a superhighway to financial freedom.

Certainly, I am not against a healthy motivation to get some good education in Forex trading.

Indeed, my purpose of writing of this book and conducting training workshops is to shed light on why mastering the Forex market has been such a challenge for most people, and **how you can position yourself among those who consistently take money out of this market!**

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The "Holy-Grail" Mentality

"The Holy Grail" is a phrase often heard in the trading and investment community. To many traders, it refers to **some mysterious trading system that gives a formula or a secret for generating millions with little or no risk.**

If you are truly serious about making the business of Forex trading work for you, and if this definition of the Holy Grail represents your current belief about trading, please make quite sure that **you need to re-condition your mind to change that belief altogether!**

A large part of the material in this book is meant to get you started in that direction.



For those who believe in a Holy-Grail system, the underlying belief is that the market behaves with a high level of predictability and order which can be manipulated with some well-defined trading rules.

Certainly, we believe that movements in the Forex market are not perfectly random; otherwise, trading this market as a business would be entirely a futile pursuit. However, we need to understand that the kind of predictability and order found in the market is not what we see in the laws of mathematics or physics, i.e. **the market does not behave like a machine.**

Nevertheless, there are certain behavioural patterns with tend to repeat themselves.

The goal of a good trading system, therefore, is not to consistently buy at the bottoms and sell at the tops with absolute or near-absolute precision (as depicted in Figure 1.1).

Such a goal would be asking for a "crystal ball", and is certainly not realistic if you want to make trading Forex a legitimate and sustainable business for yourself.

So, what is a good trading system? There are many who have asked me about my secrets of successfully trading the Forex market over the years. The most common questions I get include "What indicators do you use?", "What timeframes do you look at?", "Which currency pairs do you trade?", etc.

The truth is that the answers to these questions will not make you a successful trader. Certainly, these issues will be covered in this book, and I cover them in great detail in my training classes.

However, these are not the most important elements of successful trading; yet most traders spend most of their time endlessly chasing after the "best" answers to these questions. As I shall be describing in this book, being a successful trader, in summary, involves the following elements:

- Establishing a well-defined trading system (or a few systems) to identify trading opportunities when the odds are in your favour.
- Developing a consistent way of controlling risk in a systematic way, i.e. planning for losses.
- Having the discipline and mental toughness to keep to all trading rules pertaining to points 1 and 2 above.

Most traders will naturally spend most of their time and mental energy on point 1 above. These are the people who will skip directly to Chapter 3 when they pick up this book, and merely gloss over or even ignore the rest of the material covered. There are some basic psychological reasons which explain this common behavioural pattern, which are discussed in Chapter 2.

Having been able to generate consistent rates of return in the Forex market, and compounded relatively small trading capitals to decently large ones, I will quite confidently say that if you do not pay attention to some of the often-ignored concepts related to points 2 and 3 above, you hardly stand a chance of winning consistently in the Forex market.

I apologise for sounding rather blunt in this matter, but I suppose there are not many

ways of bringing across important concepts which are often disregarded.

If you are like many traders, having spent a lot of time (and possibly a lot of money as well) searching for winning strategies, and are still not successful, **it is high time you began paying more attention to the "missing links" in your journey towards trading success.** A large part of this book is specially designed to get you started in doing this.

In case you are wondering why I do not seem to care about trading systems or strategies, I will be quick to clarify that they do indeed matter in the trading process. However, there are many wrong beliefs we have about the market which cause us to spend too much unnecessary and counter-productive time and energy (and money as well!) in searching for trading strategies.

The "Holy-Grail" mentality within the trading community causes traders to believe that once you identify a winning formula, you are all set to consistently take money out of the market, i.e. it is almost like a discovering a cash-dispenser which can help you take money from the Forex market at will!

Many advertisements are cleverly crafted to entice you to reinforce your "Holy-Grail" mentality. Whenever a system that you purchased stops working as claimed, you are likely to look elsewhere for other claims that seem more convincing than the previous one.

For many traders, this becomes a very futile and almost endless process, for they never learn the real reasons underlying the successes and failures of traders.

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Markets Are "Rigged" Against the Average Trader

The legendary trader Jesse Livermore once remarked very aptly that "The market is designed to fool most people most of the time." He has also been quoted in saying that "Markets never change, because human nature never changes."

Although many aspects of this man's life are not worth learning from, his insights into the financial markets are timelessly invaluable to anyone who is serious about achieving success in trading. I believe many readers of this book are quite familiar with some of his famous quotes.

Indeed, whenever I talk about such principles of trading psychology to many experienced traders, many of them say things like, "Yes, I know about such things already: trading psychology is about controlling your emotions. It's basic stuff, isn't it? Just give me the advanced stuff - those secret formulae which help you make serious money!"

Whoever talks or thinks like that - regardless of how many years he has been trading for - simply betrays the fact that he has not truly understood why most people fail in trading the financial markets.

Having seen so many highly intelligent people fail in this pursuit, I am convinced that it is so easy to "pay lip service" to certain principles of trading without truly understanding them "at the gut level". I hope this book can help you begin to achieve this.

If you have ever had some experience in investing or trading, have you ever felt that the market seems to have a way of going against you "most of the time"? For example, if you have traded Forex before, have you ever felt that "it always goes down whenever I buy, and it always goes up whenever I sell"? Is it a matter of bad luck? Or are there some fundamental reasons why most traders lose money?

Think about it. If you do not have a highly systematic and controlled way of engaging the markets, the fact is that the markets are always rigged against you.

It is not unlike going to a casino, where your chances of making money in the long-term are practically zero. In the casinos, all the games are rigged against us in the sense that they always have an edge over us. An "edge" is simply a statistical advantage that ensures that you will lose money if you stay long enough in the game.

So, how do some people devise strategies to take money out of the casinos? They do so by systematically eliminating the "house edge", and establishing "an edge over the

house". Professional gambling syndicates win the games they play by playing only when the odds are in their favor, and knowing when to walk away without allowing the joy of winnings to get them carried away.

In much the same way, the Forex market (and any financial market, for that matter) is rigged against us.

Firstly, we note that we start from a losing position from the very first moment after entering a position. Of course, we know that this is due to the transaction cost of entering a trade. In Figure 1.2, we see that the bid-ask spread immediately shows up as a floating loss from the very first moment after entering a position.

Psychologically, many traders are affected by the floating negative number that is displayed on the trading statement, and spend a lot of time scrutinizing the moment-by-moment increases and decreases of that number!

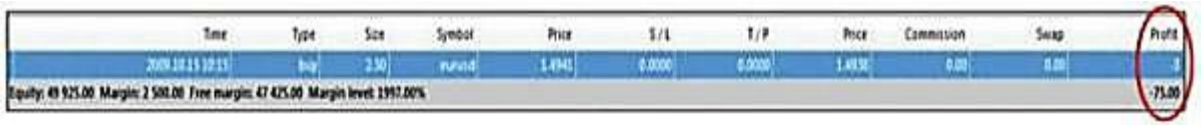


Figure 1.2: After taking a trade, the spread immediately shows up as a floating loss

This is where I want to refer to the second reason why I say the market is "rigged" against us. The first reason I mentioned above can be rather "objective", for it involves a fixed cost which can be easily overcome.

The second reason is psychological and therefore subjective in nature, and is the major cause of failures among so many traders in the world. Our psychological reactions to market movements, and also to the ups and downs of the numbers circled in Figure 1.2 (for open positions) will almost certainly lead us to make counter-productive trading decisions.

The interactions between natural human emotions and price movements naturally cause us to buy high and sell low most of the time!

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Figure 1.3: Psychological reactions leading to bad trading decisions

What we see on price charts is essentially a graphical representation of the ebb and flow of mass market psychology, which involves millions of trading decisions at any one point in time. These trading decisions are the result of human nature at work in the market, involving many instinctive trading habits and attitudes.

The more we understand these and overcome the same habits and attitudes in ourselves, the more we are able to eliminate the market's edge over us and stand out above the majority of traders and win consistently! Successful trading is about **eliminating the market's edge over us, and developing an edge over the market.**

It is only possible if and when you realize how the market is naturally "designed" to beat you. **This involves not only understanding the market behavior, but also understanding your own psychology as a trader.**

In Chapter 2, I will discuss the psychological instincts which are the driving forces behind all kinds of counter-productive behavior in trading the market. Before we move into that discussion, it is important to understand the underlying motivation which has prompted you to consider Forex trading as a means of generating income for yourself.

Why do you want to trade Forex?

Some of you might find it strange that I even bother to ask this question. "It's to make money, of course!", you will likely say. Certainly, there is nothing wrong with that response.

However, one needs to be clearer about one's own money goals and the motivation that drives these goals. Otherwise, your trading is very likely influenced by some negative beliefs and thinking habits when you come face to face with fluctuations in market prices. **The level of success achieved in any pursuit involving money will certainly be related to the individual's beliefs about money.**

For many Forex traders, their beliefs about the Forex market lead them to display sloppy trading behavior and take insane risk levels without realizing that they are in fact doing so. They believe that the Forex market is a get-richquick cash-dispensing "machine"; as a result, **all their perceptions of trading strategies and risk management techniques will be distorted by their counter-productive beliefs about the market.**

Some people believe that financial freedom is about being able to flaunt their ownership of many large cars and houses, even if it involves taking huge loans. As a result, they could be funding their trading accounts with borrowed funds, such that their **trading psychology is distorted by fear and anxiety, leading to a snow-balling of their debt levels, which in turn give rise to a host of negative emotions which are detrimental to trading performance.**

Moreover, many people's attitudes towards money are excessively distorted by greed and laziness. Inevitably, these people **take excessive risk when trading the market, because they are mindlessly driven by a desire to generate quick profits**. As the Bible aptly points out, "The plans of the diligent lead to profit, as surely as haste leads to poverty." (Proverbs 21:5).

I have seen too many aspiring traders falling prey to their own uncontrolled instincts of greed. In addition, traders who allow their laziness to overwhelm their trading behaviour will certainly display bad trading performance. These are the people who will entrust their trading results to black-box systems which they know nothing about, and expect that wealth will come to them on a platter!

We need to start this business with a clear mind with regard to our financial goals and motivations. Regardless of your financial circumstances, there are certainly some worthwhile goals in your life which need money. However, too many of us are negatively conditioned by certain beliefs about money which lead us to mindlessly run after money without being conscious of how our greed tends to distort our ability to act according to sound reason.

As long as we are trading the markets, we cannot escape the fact that we are driven by a desire to make money. In fact, all the emotional mistakes we commit when trading the

markets stem from a sense of insecurity - feelings of uncertainty about how much our trading account balance will increase or decrease in value.

If you think about it, this insecurity is rooted in a psychological attachment to money, which naturally becomes a sense of greed when it is not controlled. **Greed is an excessive desire to acquire greater levels of wealth, and such a desire is often not backed by a rational explanation of the underlying purpose that drives it.**

Certainly, our money-making pursuits in trading the Forex market can be driven by a healthy ambition to acquire wealth, as long as we are able to clearly see that material wealth is rightfully a means to an end, and not an end in itself. In a culture saturated with greed and mindless money-grubbing, **it is important to evaluate our beliefs about money and our psychological relationship with this entity.**

To do a personal assessment of some of our attitudes which are very relevant to our success in trading Forex, we need to ask ourselves questions like the following:

1. Do I consider Forex trading as a form of business?
2. Have I clearly defined my objectives in this business?
3. Do I have a systematic way of ensuring that the probability of achieving my objectives is reasonably high despite all kinds of changes in market dynamics?
4. What are the reasons for my choice of Forex trading as a business?
5. Do I have a regular routine to follow in order to guide my trading process every day?
6. Do I have tested trading strategies that regulate all my trading decisions in all market conditions?
7. Do I really understand the importance of taking losses in the Forex market?
8. Do I have systematic ways of cutting losses short and letting profits run?
9. Do I have a plan for determining how big or small each trading position should be?
10. Do I truly understand the significance of how my beliefs about money and about the market will impact every aspect of my trading process?

If you can emphatically say "yes" to each of the questions above, you are way ahead of most traders!

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Stuff that We All Like to Hear

Ever since trading Forex became so popular among retail investors, we have been constantly bombarded with information about it. Much of it is designed to feed and manipulate our desires, often only to the benefit of the sources of the information.

Certainly, I do not deny that there are also a lot of useful resources and educational information available about trading Forex.

However, the amount of information can be so overwhelming that you might find yourself becoming a victim "analysis paralysis", i.e. being paralyzed by excessive analysis. As described in Chapter 2, **we often mistakenly derive a sense of security from having as much information as possible.**

It is also important to realize that we are all, to varying extents, guilty of "selective perception" of the loads of information presented to us. **Our minds and eyes naturally give more "weight" to the things we like to hear and see, i.e. the things which we hope are true.** In the midst of so much information within countless books and seminars about Forex trading, many people naturally gravitate towards those that present some fanciful-looking indicators and software which seem to pick tops and bottoms with alarming accuracy.

Conveniently, these same people will bypass or give less "weight" to the situations where these indicators and software will fail. At the same time, when you present information about the importance of establishing a well-defined trading plan, risk management strategies and mastering trading psychology, these are the people who will gloss over the stuff about risk control and trading psychology, and spend most of the time on the trading strategies.

Certainly, I acknowledge that it is important to spend time analyzing and testing your trading strategies. However, **most people are excessively focused on the least important parts of trading strategies, i.e. discovering some indicators or chart patterns that seem to give the best entry points.**

As will be discussed in Chapters 4 to 6, exit strategies and risk control techniques are often more important than entry setups. Of course, our mastery of trading psychology will take effect in all these aspects of a trading system.

The world of Forex trading has been very much tainted by advertisements which entice us to believe that the Forex market can easily become a cash-dispensing machine. The wrong beliefs that result from the hype cause many aspiring retail traders to mindlessly strive for quick-fix solutions and simplistic trading methods. As a result, their

uncontrolled desires blind them from the true nature of what successful trading is all about.

In trading the Forex market, our counter-productive psychological preferences are due to our attitudes towards money and the market itself. At the same time, much of the information about Forex trading somehow fulfils these preferences and therefore reinforces our counter-productive instincts. As such, if you do not consciously plan your paths in this business, you will likely find yourself falling prey to a vicious cycle that leads you further and further away from the things that really matter to your journey towards financial freedom as a Forex trader.

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It's a Skill and a Business!

By now, having read the first pages of this book, you should have realized that I am quite concerned about the psychological preparation that an aspiring trader must undergo in order to enhance the chances of succeeding in this business. Yes, I have also repeatedly emphasized that this is a business!

In case you are still having trouble coming to terms with thinking of Forex as a business, please hang in there for the time being. I truly understand that it takes time and commitment to undo the mental conditioning that the world has given us, most of which is not helpful to our financial success in trading the Forex market.

As I always remind aspiring traders who attend my training program, a business involves systematic planning, setting realistic objectives, and establishing a routine based on the trading plan that has been tested to likely achieve the objectives.

This business also involves developing a skill in the sense that consistency results from repetitively following a plan until it becomes second-nature. **This skill is developed when you are able to naturally and habitually overcome your natural psychological instincts which tend to cause bad trading decisions.**

You know that you are no longer largely dependent on luck when you understand that your trading plan, with the necessary risk control measures, can take care of various changes in market dynamics.

Developing the skill of trading Forex is not unlike learning other skills we have learnt; through repetition, we reinforce certain habits which help us get the job done. When learning a skill, we always start from being very conscious of every step that we take according to the blueprint, committing mistakes along the way and making adjustments to minimize mistakes, until our execution of the plan begins to achieve desired results more frequently. Over time, this improved execution of the plan stems from instincts at the subconscious level. **This "unconscious competence" allows us to override, at the gut level, most of the negative psychological conditioning about the market.** This is when you truly avoid the common mistakes people commit, and become a skilful Forex trader!

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Goal-Setting

All worthwhile goals, including the business of trading Forex, involve commitment and effort. However, there are many hardworking people who never get anywhere significant in life. As such, success is not about mindless hard work. After all, if you happen to be moving in the wrong direction, the harder you run, the further away from your destination you will be! **When moving in the right direction, a reasonable amount of work and commitment brings you towards your goal!**

Goal-setting should not merely be relegated into a "feel-good" exercise that involves no commitment. It should also include specific details of the game plan that you intend to follow in order to reach your goal.

As described in greater detail in Chapter 6, a trading plan must involve determining return and risk objectives, and also depends on the level of trading activity which can comfortably fit into your daily schedules. This is why **setting your trading goals right from the outset is of crucial significance.** There are some who will simply say, "My goal in trading is to make a lot of money!" Strictly speaking, that statement does not qualify as a useful trading goal if you are serious about making Forex trading a worthwhile business. A worthwhile business in trading must involve **clear objectives** in terms of the following:

- **How much return you want to generate over a certain period of time**

For example, you might state that you want to generate a return of 100% in one year's time. You should state for yourself the percentage by which you aim to grow your trading account over a stated period of time.

- **How much risk you are willing to take**

Your risk management plan should, at the very least, dictate how many percent of your trading account you are willing to lose in any single losing trade. You should also

Of course, just because we set our trading goals in the well-defined way as outlined above does not mean that they are achievable or realistic. For example, if you state that you want to generate a return of 50% per month, risking only 1% per trade and taking only 1 trade a day, you are not very likely to achieve your goal - at least not on a consistent basis. **Regardless of your trading goals, there are certain principles of market risk which cannot be disregarded.** It is impossible to sustainably increase your returns without increasing your risk levels. When risk levels become too high, you run the risk of blowing up your account even if very few losing trades happen consecutively. This is why it is important to test your trading system using a

representative sample of market data. The market data will tell you whether you are likely to meet your trading objectives in future.

I n Chapter 6, we will deal with the underlying variables in your trading system that determine the return and risk levels you are likely to see in your trading account. Once you have established a trading system that is tested to have a high probability of meeting your trading objectives in future, it is then your discipline that enables you to keep to the trading rules over and over again - trade after trade, week after week, month after month, and even year after year. This is why some traders can multiply their capital manifold with sheer discipline. As illustrated in Figure 1.4, a monthly return of 10%, when compounded on a monthly basis, will triple your capital in 1 year, and multiply your capital by 10 times in 2 years! Such goals seem far-fetched at first sight, but if your trading plan is well-defined enough to allow you break down your goals into monthly goals, and even trade-by-trade goals, you begin to realize how discipline and perseverance will make small goals snowball into big goals!

Month	Capital
0	$10,000
1	$11,000
2	$12,100
3	$13,310
4	$14,641
5	$16,105
6	$17,716
7	$19,487
8	$21,436
9	$23,579
10	$25,937
11	$28,531
12	$31,384
13	$34,523
14	$37,975
15	$41,772
16	$45,950
17	$50,545
18	$55,599
19	$61,159
20	$67,275
21	$74,002
22	$81,403
23	$89,543
24	$98,497

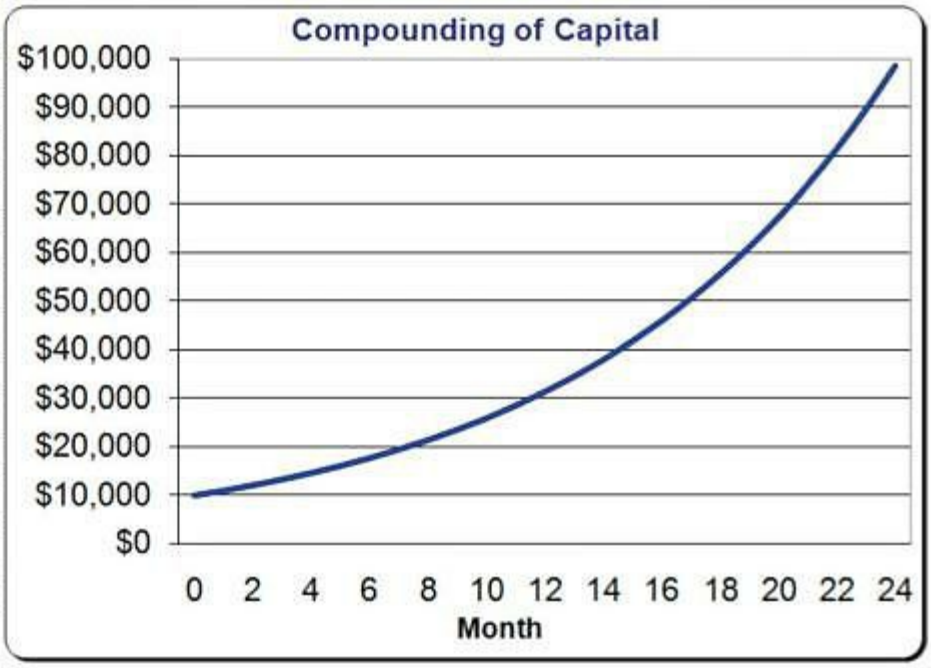


Figure 1.4: Compounding your account involves month-by-month repetition of modest returns

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Do You Want to Be in the Minority?

I sincerely hope you are not dismissing the ideas covered in the first chapter so far. Assuming you have taken the time to thoughtfully read till the end of this chapter without skipping directly to the parts of this book which your instincts draw you towards, I suppose you are beginning to see why most traders fail in their money-making pursuits in the Forex market.

If you are truly serious about positioning yourself within the minority of Forex traders who consistently profit from the market, you need to, first and foremost, understand why most people fail. In addition, you need to acknowledge that you have also made some (if not all) of the mistakes described in this book, and that you are committed to overcoming them. Certainly, you will need a sound education in understanding how the Forex market behaves, and the various ways in which you approach it in order to identify high-quality entry and exit opportunities. You will need to understand what risk control truly involves, and not merely gloss over it as "basic stuff". You will, above all, need to master the demons of trading psychology which invariably sabotage some of the most intelligent traders.

Make no mistake about this! If you are systematically trained to master the important elements of successful trading as outlined in this book, and remain disciplined as you put them to practice, you will be among the minority of people who make Forex trading a very profitable business!

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Chapter 2: Winning Traders Think Differently!

In Chapter 1, we dealt with an introduction of why it seems that human nature is "wired" to consistently make wrong trading decisions and lose money in the market. This is the theme which permeates this entire book, as I attempt to get you started in the right direction towards peak performance in Forex trading.

The legendary trader Jesse Livermore once aptly remarked that "The market is designed to fool most people most of the time." My experience as a Forex trader has indeed reinforced the truth of this statement in my mind. I have been increasingly convinced that **what really separates the winning traders from the losing ones, ultimately, is mostly the ability to think and act contrary to our natural instincts. The structure of the market is naturally rigged against us, because of the way we think, feel and behave.** There is little wonder why many traders feel as if the market is almost "always out to get you", i.e. it seems to go down when you go long, and to go up when you go short!

In response to this observation, some people would say, "Next time when I feel like going long, I'll go short instead; whenever I feel like going short, I'll go long!" Is this ever going to work? I wish things were that simple. Your mind would start playing tricks on you if you ever adopted this "strategy", such that your decision-making would be nothing more than random guessing.

There are some behavioural patterns within human nature which condition us to make counter-productive decisions in the markets. **It is only when we are conscious of these tendencies that we can make conscious efforts to overcome them, lifting ourselves above the vast majority of traders.**

Many principles of trading psychology are closely intertwined. Therefore, it is often hardly possible to deal with one without referring to another. Nevertheless, I will attempt to discuss trading psychology in terms of the following categories of errors which we are all guilty of in different degrees at various stages in our trading journey. The key is to, as thoroughly as possible, **understand how these psychological mistakes influence your trading process at the subconscious level of your mind, and how you should consciously overcome the subconscious impact of these errors.**

1. I have categorized the often-identified psychological obstacles into the following categories:
2. Effects of the Ego – The Need to be Right
3. Impact of the "Law of Small Numbers"

4. Opinions of the Majority – "There's safety in numbers"
5. The Appeal of Sophistication
6. Excessive Need for Understanding
7. Excessive Pattern Recognition
8. Greed & Hope
9. Misplaced Optimism
10. Fascination with Predictions
11. Illusion of Control

Of course, this is not the only way one could categorize the psychological traps that traders tend to fall into. Since many of these categories are closely related to one another, you could combine the discussions of some of them. However, I do believe, based on my review of my trading experiences and observations of many traders' behavioral patterns, that thinking in terms of these categories helps us gain clarity in our perspectives of trading psychology. As I always say, trading psychology has become such a cliché among many seasoned Forex traders. Whenever they are asked to describe what trading psychology means to them, they commonly reduce this important concept to a few very simple words like "discipline", or "greed and fear". While there is nothing intrinsically wrong with these responses, they display an inadequate understanding of the various ways in which our mental conditioning leads to bad trading behavior. As such, I strive to explain the psychology of trading in greater depth. Hopefully, as you undergo proper training to become a skilful Forex trader, you will learn to appreciate the importance of the following concepts, not just rationally, but experientially as well.

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Effects of the Ego - The Need to be Right

Ever since we started going to school, our education systems have almost always measured our success based on how often we are right. In all the examinations we have sat for, the number of right answers we give determines our grades. As such, we live in a culture that thrives on being right as often as possible. Being right has almost become a need, because it seems to be closely tied to how we are measured; our egos seem to be at stake when we make major decisions and are judged based on how right or wrong these decisions turn out to be.

Such a psychological "need" becomes especially apparent when we make financial decisions. I believe this is likely because we live in a money-saturated culture that often measures our worth based on our financial standing. When trading the Forex market, this psychological need is, more often than not, counter-productive to our trading success. **This "need to be right" is rooted in the fact that humans are driven by instant gratification, i.e. we like to delay the pain of taking a loss, and experience the immediate relief of taking a small profit.**

I will attempt to illustrate this phenomenon with two examples, often used in the field behavioural finance to demonstrate our psychological biases.

Imagine you are given a choice between the following two scenarios, which would you choose?

1. A sure loss of 20%, or
2. A 5% chance of no loss at all, plus a 95% chance of a 25% loss.

Most people will prefer the risky bet (the second option) over the sure loss. This is because **most people naturally refuse to "cut their losses short". Taking the risky gamble implies that people naturally "hope that losses will stop" and that the market will turn back in their favour.** This causes most people to hold on to losses even when the market does not turn back. As a result, the loss gets bigger, making it even harder to take the loss. The psychological trap is such that the worse the loss becomes, the more unwilling we are to take it. Many traders are therefore finally forced to take the loss when it becomes too painful. Instead of losing a mere 3% of their account balances, they end up losing much more (20%, 30%, or even more!). If the trader had been "obedient" enough to take that 3% loss based on a pre-specified exit point, he would have been able to catch profitable trades in the opposite direction when the price continued downwards.

Consider another similar example, where you are given a choice between another two

options:

1. A sure gain of 20%, or
2. A 5% chance of no gain at all, plus a 95% chance of a 25% gain.

Which one would you choose?

If you are like most people who do not guard themselves against human psychological biases, you will choose option 1 this time, i.e. you prefer to take a sure gain, rather than to take a risky bet for a greater gain.

Once we have a sure gain in our hands, we tend to be afraid of seeing the profits evaporate away; we take the profits at any signs of reversals, even when our trading strategy has not given us an exit signal. When we develop a habit of taking our profits too soon (before the pre-specified profit target is reached), we end up short-changing ourselves in the long term.

Notice what these two scenarios illustrate.

- The first scenario illustrates how we tend to be more risk-seeking in losing positions; while hoping that losses will turn to small profits or even just reach the break-even point, we are willing to see losses become bigger "for the time being". This behaviour is rooted in a psychological need, for **it delays the immediate pain of taking a loss.**
- The second scenario illustrates how we tend to be more risk-averse in winning positions; we are afraid to see profits disappear, and are unwilling to "take the risk" to maximise our profits when strong trends happen. This behaviour is rooted in our **need to immediately experience the pleasure of taking a profit.**
- Think carefully about what happens when you repeatedly allow these two scenarios to happen in your trading journey. **Inevitably, you will realise that your profits are not going to be enough to pay for your losses in the long run!** This is why some traders can have very high success rates, and yet end up losing money!
- These psychological responses to winning and losing positions are due to our distorted need to be "right" about every trade we do. For most traders, being right naturally means not losing money in the trade. If we do not consciously overcome such tendencies, we find ourselves driven by a very short-sighted desire to force every trade to be a winner. This is why many Forex traders often operate in a "fire-fighting" state of mind, constantly watching their positions and attempting to "salvage" every trade by ensuring it does not become a loss.

We need to understand that **being right does not simply mean not losing money.** Some losing trades can be valid ones, whereas some winning trades can be "wrong" in the sense that they are based on reckless guesses and bad risk management. **Short-sighted concerns about making every trade become a winner (even when the market has invalidated the trade by turning against us by a certain amount) will do more harm than good in the long term. When we learn to think in terms of probabilities, understanding that they work out over a large number of trades, we become far more comfortable about taking a small loss and then moving on to the next trading opportunity.**

Figure 2.1 illustrates the two scenarios above, i.e. how we tend to "cut our profits short and let our losses run" – the exact opposite of what we are supposed to do! As you reflect upon your trading experiences, it is highly likely that you realise you have behaved in this manner before. We all have, haven't we? There is nothing wrong in acknowledging this fact. Do not associate it with your ego! Simply because we are human, with certain psychological failings, we are likely to share similar trading errors if we do not consciously overcome them. The first step in overcoming such errors is to consciously acknowledge them without feeling ashamed at all!

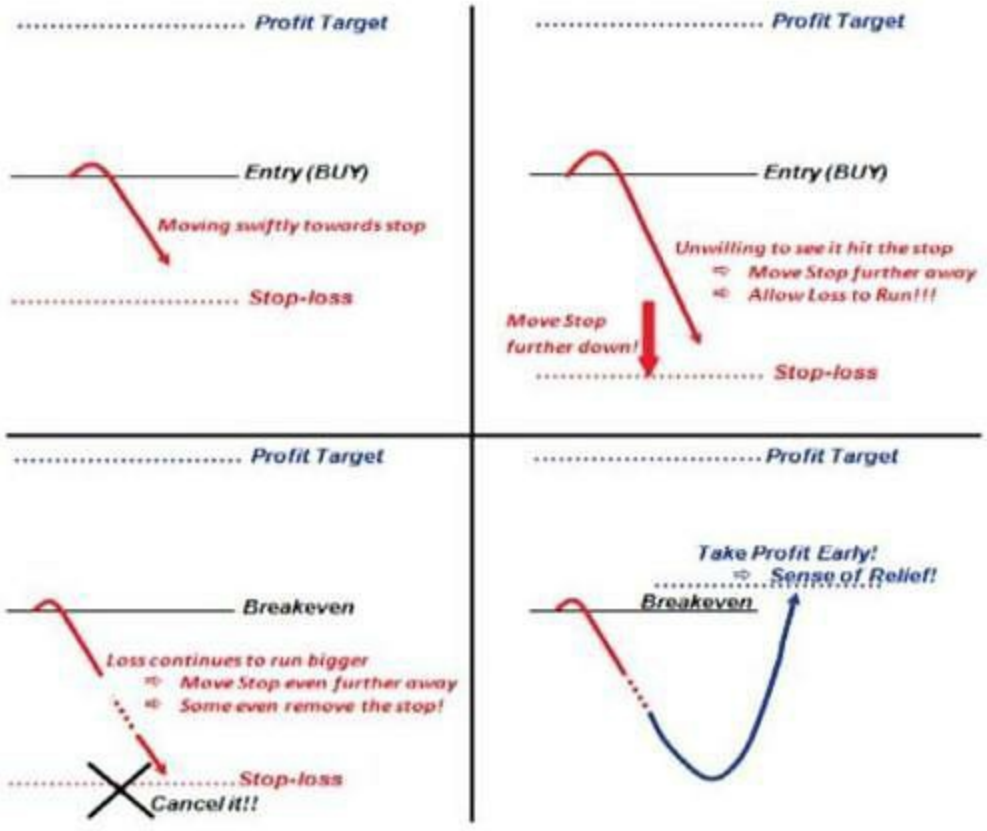


Figure 2.1: Cutting profits short and letting losses run - exact opposite of the right thing to do!

Figure 2.2 shows how you can use a very simple trading strategy involving only 2 moving-average lines, and apply the principle of "cutting losses short and letting profits run". The trading rules can be as simple as

- Go long when the 5-period moving-average crosses above the 20-period moving-average; close the long position when 5-period moving-average crosses back below the 20-period moving-average;
- Go short when the 5-period moving-average crosses below the 20-period moving-average; close the short position when 5-period moving-average crosses back above the 20-period moving-average.

There will be many experienced traders who scoff at this trading method as being too simplistic. This is partly because we tend to think that sophisticated entry techniques are the key to successful trading. However, a lot of statistical research has shown that entry techniques are not as important as most people think, i.e. they account for only less than 20% of overall trading performance. As described in Chapters 4-6, carefully crafted exit plans and risk control techniques can make a world of difference to a simple entry technique like the one in Figure 2.2. Indeed, the simple entry and exit rules indicated above will cause the success rates to be rather low – possibly only slightly more than 50%. This is why it is psychologically challenging to trade a system like this; half the time you will be taking losses. However, when strong trends happen, one winning trade can potentially cover several losing trades. This is how some winning traders become profitable, i.e. by overcoming the need to be right, thinking in terms of probabilities and looking at the "big picture".



Figure 2.2: Cutting losses short and letting profits run - a simple Moving-Average crossover system

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Impact of the "Law of Small Numbers"

In the field of statistics, the law of large numbers tells us that the more times we do something, the more likely we will get results which are consistent with what the system will intrinsically give us. For example, if you toss an "unbiased" coin, the probability of "heads" showing up is 50%, while the probability of "tails" showing up is also 50%. However, if you toss the coin 10 times, you may not get 5 heads and 5 tails; you may get 7 heads and 3 tails, or even 8 heads and 2 tails. If you toss the coin 100 times or even 1000 times, you are then more likely to get about 50 heads and 50 tails, or about 500 heads and 500 tails. This is why you need a sufficiently large sample of data in order to be able to justify the statistical "evidence" you get.

When trading the Forex market, many traders, by virtue of a short-sighted bias and selective perception, easily come to conclusions about market behavior based on a small number of occurrences. For example, after getting 2 or 3 losing trades, some traders will conclude that the trading strategy does not work. Such an "it-doesn't-work" mentality is extremely common among traders who constantly seek after new indicators, strategies and software. This is where the "law of small numbers" works its way into the psychology of traders. It is rooted in impatience and an inability to think in terms of the "big picture".

Likewise, when traders attempt looking for patterns in the behavior of market prices and indicators, this "law" often distorts their analysis. This is where **the tendency of selective perception causes many of us to see patterns and arrive at conclusions based on selected occurrences of these patterns.**

Thinking in terms of probabilities is an important mental habit that all traders must cultivate in order to be successful in this business. In order to overcome the influence of the "law of small numbers", a trader must understand the following principles:

- **Probabilities work out over a sufficiently large number of trades.**

A trader must not only realize this principle at the intellectual level, but at the behavioral level as well. Whenever I tell new traders that losing trades are part and parcel of this business, they typically say, "Yes, of course! I know that I cannot expect winning trades all the time. If I can get a 70% win rate, I will be extremely happy!" However, as soon as they start taking losing trades in "real time", they naturally allow the immediate feelings associated with the losing trades to overwhelm them; they start losing faith, feeling discouraged, or even complaining about their trading strategies. This behavioral pattern is so common because **humans are by nature short-sighted, whereas probabilities involve a "long-sighted" mental attitude.**

Suppose Figure 2.3a represents the outcomes of 100 trades, the red squares representing losses while the blue ones representing winning trades. In this example, the success rate is 70%, i.e. there are 70 wins and 30 losses in this sample of 100 trades. However, in the real-time progression of the 100 trade outcomes, it is very tempting for traders to focus on a small number of occurrences, leading to misguided judgments of the expected success rates. For example, focusing on the 6 trades in cluster A will make a short-sighted trader conclude that the win r ate is 50%. Worse, focusing on the 4 trades in cluster B, where the win rate is 0%, leads one to conclude that this is a very bad trading system! Similarly, one must not conclude, based on a series of consecutive winning trades (cluster C), that this is a "holy-grail" system!

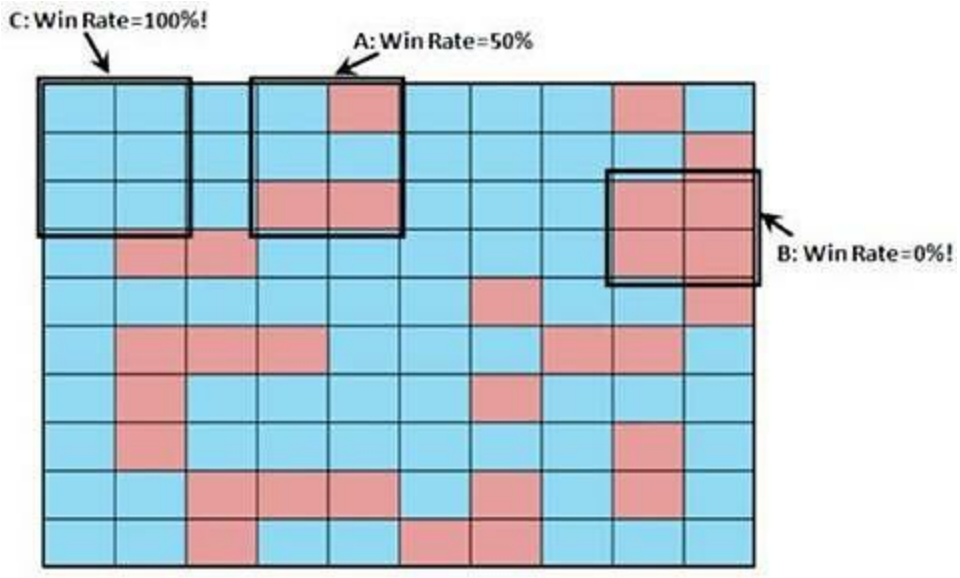


Figure 2.3a: Avoiding the "law of small numbers"

Representative samples of historical data must be used in order to justify probabilities.

There are many software programs and indicators being sold to aspiring traders, displaying extremely promising back-testing results. Sometimes, these back-tests seem to involve reasonably long historical periods. However, many people do not realize that trading rules can be manipulated to fit the market movements in a certain period of time. Figure 2.3b illustrates how different trading systems can be designed to fit different historical periods. Each system is based on optimizing trading rules to ensure that it gives the best results when tested over a certain historical period. This "curve-fitting" process can lead to all kinds of systems with fantastic back-testing results, which are applicable only to the historical periods that they were designed to fit.

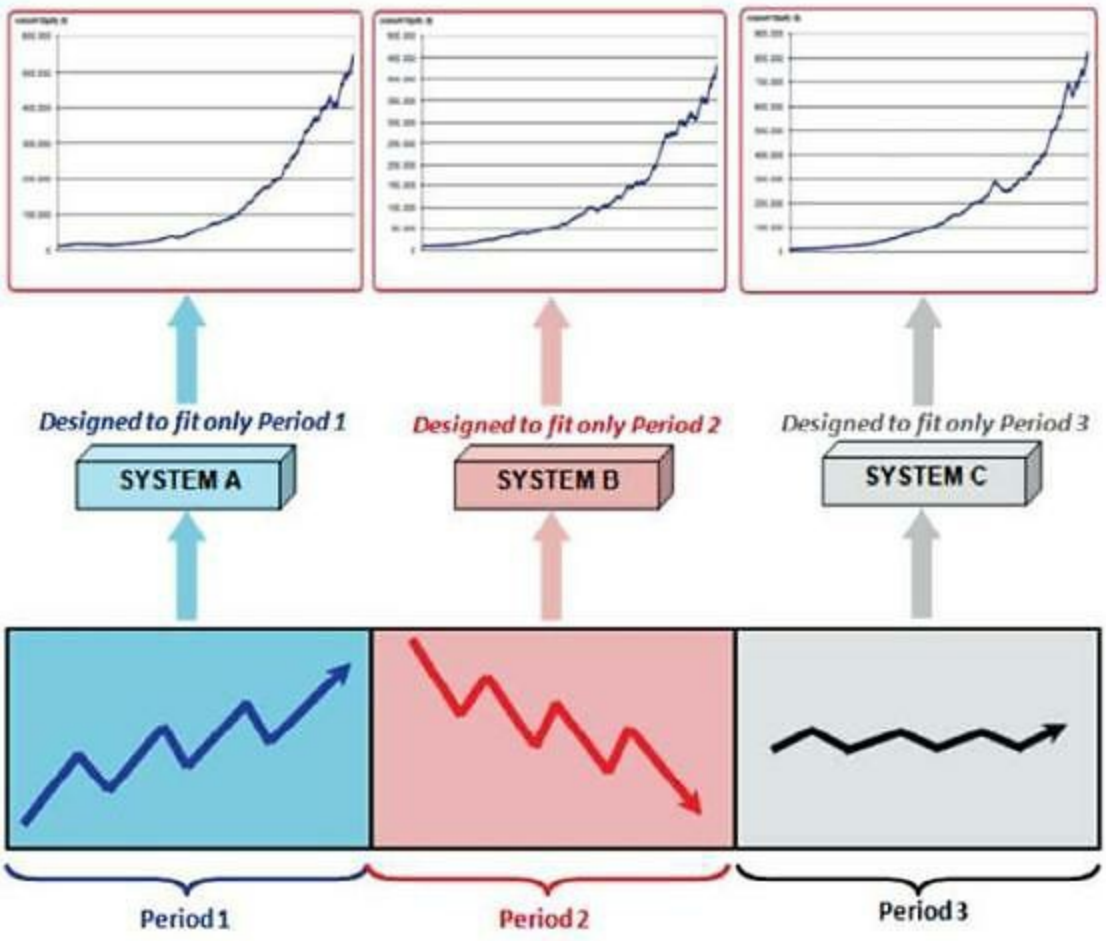


Figure 2.3b: Designing trading rules by "curve-fitting"

When testing systems, the historical data being used need to represent a sufficiently wide spectrum of market patterns. Whenever statistical surveys are done on a certain population in a large country, there is no way for the study to involve every single individual in the population. As such, in order to make the statistical study valid, it must include different facets of the population, e.g. involving selected individuals from various age groups, races, educational backgrounds, etc. Likewise, **a realistic testing of a trading system must involve a wide spectrum of different market scenarios, e.g. trending, ranging, quiet, volatile conditions, even including rare market events.** This will enhance our confidence that a tested trading system is likely to meet our trading objectives when applied in real-time market scenarios in future.

Opinions of the Majority "There's safety in numbers"

There is a lot of overwhelming evidence that suggests that humans have a tendency of becoming less rational when placed under the influence of collective psychology. This is why charismatic speakers like Hitler could induce the masses to subscribe to his beliefs. This is also why **many investors and traders in the financial markets are naturally under the influence of herding instincts which cause them to gravitate towards extremes in market sentiment, leading most people to buy near highs and sell near lows, and therefore lose money in the markets.** Such instincts are rooted in the sense of security that we tend to find when we belong to the majority. In the field of psychology, there have been certain experiments where we clearly see that most people tend to act against reason when they are under the pressure of the opinions of the majority. Such a behavioral phenomenon is especially detrimental to our success in trading the Forex market.

It is natural to feel uncomfortable about being in the minority. However, we need to overcome such a tendency if we want to stand out among most investors and traders in the market. In the Forex market, if you do what everybody else does, you are likely to get what everybody else gets; that simply means you are most likely going to buy near the highs and sell near the lows, and to cut your profits short and allow your losses to run.

How many times have we realized that when almost everybody agrees on a certain course of action in the market, it is the time when you should stay away from that course of action? When the market trends upwards very strongly, most people are likely going to enter long positions near the top of the trend. Likewise, when a strong downward trend happens for a sustained period of time, most people will enter short positions near the bottom of the trend. **The underlying psychology is that it feels most comfortable to enter a trade when most people agree with it, and most people will agree on a certain course of action when it seems clearest to everyone that a strong trend has lasted for quite some time.**

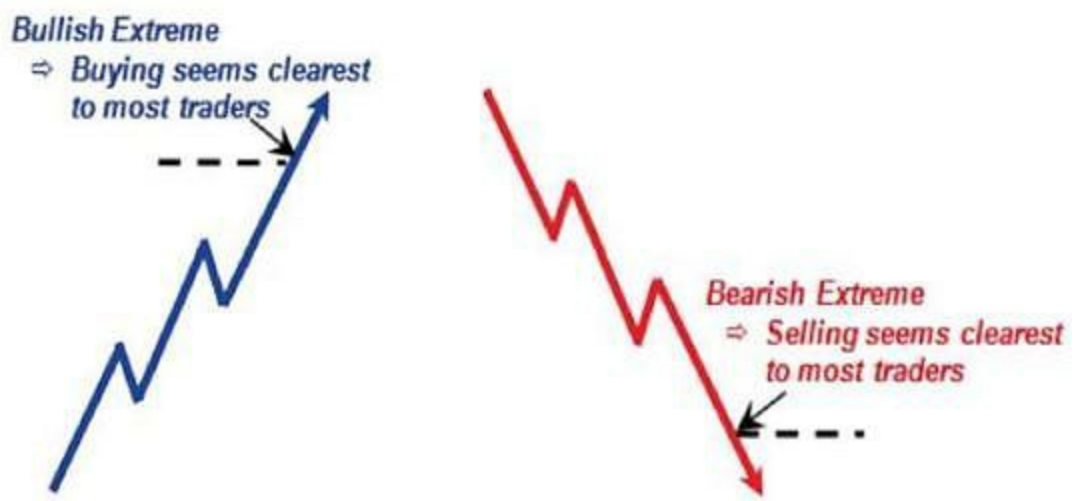


Figure 2.4a: Herding leads to entering near extremes

As the writer Ben Hecht wittily pointed out, "trying to determine what is going on in the world by reading newspapers is like trying to tell the time by watching the second hand of a clock." This is a very enlightening quote that aptly reminds us that public opinions will not, in the long run, help us make wise investing and trading decisions.

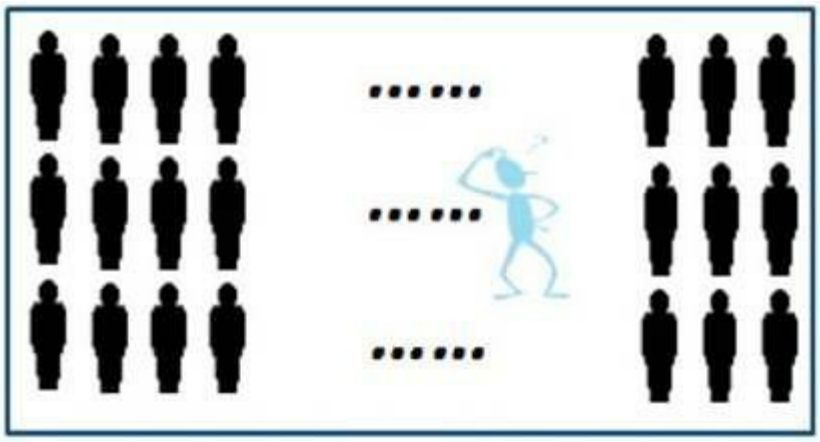


Figure 2.4b: Avoiding opinions of the majority

Is the trend your friend?

Traders commonly say that "the trend is your friend". It is appropriate at this point for me to make some clarifications about the validity of this statement, and how it is often misinterpreted. As stated earlier, for most traders and investors, **a trend becomes clearest after it has lasted some time and is coming to an end soon.** As a result, most traders and investors are psychologically driven to buy near the top of an uptrend, and to sell near the bottom of a downtrend. **Most people find safety in herding behaviour, i.e. what the majority of people say.** Such a psychological tendency will almost certainly cause people to think that the further a trend goes in one direction (be it upwards or downwards), the more it seems like a "friend", and the safer it seems to join

this "friend". As such, most traders and investors have a misplaced confidence in the "friendliness of trends".

Lest you think I am attempting to debunk this age-old axiom of trading, I would like to add that I still believe that the trend is, after all, a trader's or investor's "friend". This statement is true if we apply it properly in the psychology of our decision-making process in trading. **The general idea is to avoid getting onto the trend when it becomes clear to everybody, so that we reduce the chances of joining a trend when it is near its end.**

Therefore, we need systematic trading rules to guide our entry onto a trend when it is in its early stages. It is important, however, to note that while doing so, we must not be obsessed with "second-guessing" whether the trend that we get onto (while it is in its early stages) will indeed be strong enough or whether it will be a "false signal" that reverses its course. The truth is that no entry setups will allow us to capture only the strong trends; our goal is not to predict only the strong trends, because that is unrealistic. A simple entry setup designed to capture the early signs of all potential trends, when coupled with good exit strategies (designed to cut losses short when false signals come and let profits run when strong trends happen) will be very profitable when used consistently. **Those cases when our exit strategies allow our profits to run will truly testify to the truth of the statement "the trend is your friend".**

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The Appeal of Sophistication

Many aspiring traders are constantly chasing after some secret formula (commonly known as the "Holy Grail"). The need for sophistication is rooted in our culture, simply because the world naturally gives more respect to advanced things. In scientific endeavours, complexity is certainly inevitable, as these are dealing with the intricacies of the physical world. However, in the realm of investment and trading, we are dealing not only with the markets, but primarily with ourselves! Much of the complexity in market analysis often clouds our perception of our own psychology when trading the markets. As such, we are naturally driven to be always looking out for new and advanced trading systems. The truth is that this phenomenon will never end. In order to be successful in trading the currency markets, we must focus our mental energies on the things that really matter!

The simplest trading rules can be the hardest to follow, but can bring about long-term profitability if the trader looks at the big picture and thinks in terms of long-term probabilities. In my years of trading, I have been increasingly enlightened on the impact of human psychological tendencies which tend to sabotage our trading. **Overcoming these tendencies is really far more important than devising complex techniques of selecting "ideal entry points".**

The world we live in thrives on complexity. This is why the world of employment rewards those who can perform the most complex tasks with the most complex systems of knowledge and expertise. However, successfully trading the Forex market often requires us to clear our mind of the clutter of sophisticated concepts, which often blind us from the true nature of market behaviour.

Many aspiring retail traders feel that it is surely better to entrust their wealth management plans to investment professionals by investing in mutual funds, simply because these sophisticated professionals are supposed to know better what to do with your money. However, very often we do not realize that the ways in which their funds are operated are not designed to help investors make money.

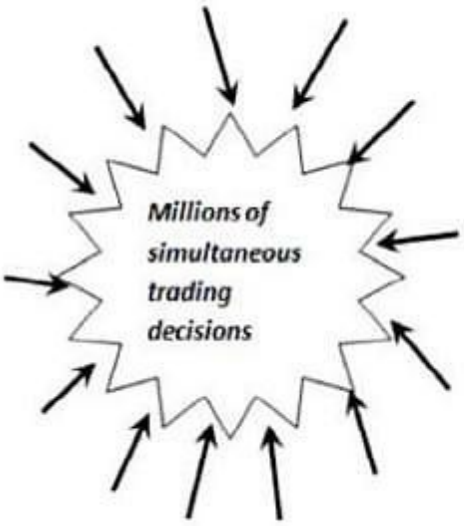
For example, a lot of equity mutual funds allow only long positions, and are mandated to be almost 100% invested all the time. This makes them totally dependent on bullish stock market conditions in order to generate wealth for investors. These funds are often constrained by policies which are not beneficial to investors; in fact, fund managers often get paid bonuses despite losing money, simply because their losses happen to be less than the benchmarks that measure their performance. The point is that we are often not better off entrusting our investments to sophisticated professionals, because investment success is often not about sophistication, but about mastering the psychology

of trading or investing in the markets.

Before recent advances of computer technology, market prices were quoted through very primitive means, e.g. ticker tapes, scribbling on chalkboards. In essence, market prices are really the results of millions of trading decisions; the combined impact of these simultaneous trading decisions at any one point in time will "show up" as every "tick" in the market prices. Some of the traders in past eras, when there were no complex computerised representations of market data, were able to master the ebb and flow of market movements and ride strong trends profitably.

In recent decades, advances in computer technology have given us many tools to help us better visualize the ebb and flow of crowd psychology. Different visual representations of market price movements have given rise to all kinds of analysis methods.

In Figure 2.5a, we see that the moment-by-moment impacts of trading decisions by traders all over the world can be r epresented as a series of price data items at various time intervals. As such, we always talk about the high, low, open and close prices within every time interval. The table on the right shows minute-by-minute changes in these 4 basic price items.



Time	Open	High	Low	Close	Volume
2009.10.16 14:45	1.48695	1.48738	1.48695	1.48722	5
2009.10.16 14:44	1.48706	1.48716	1.48695	1.48696	13
2009.10.16 14:43	1.48686	1.48724	1.48681	1.48705	18
2009.10.16 14:42	1.48645	1.48700	1.48642	1.48690	20
2009.10.16 14:41	1.48674	1.48674	1.48636	1.48653	19
2009.10.16 14:40	1.48705	1.48711	1.48658	1.48675	18
2009.10.16 14:39	1.48700	1.48709	1.48695	1.48704	10
2009.10.16 14:38	1.48744	1.48744	1.48702	1.48702	18
2009.10.16 14:37	1.48746	1.48757	1.48736	1.48736	11
2009.10.16 14:36	1.48746	1.48771	1.48737	1.48763	13
2009.10.16 14:35	1.48767	1.48771	1.48743	1.48745	14
2009.10.16 14:34	1.48761	1.48777	1.48756	1.48766	12
2009.10.16 14:33	1.48759	1.48785	1.48745	1.48770	19
2009.10.16 14:32	1.48775	1.48775	1.48757	1.48763	14
2009.10.16 14:31	1.48786	1.48786	1.48753	1.48753	17
2009.10.16 14:30	1.48813	1.48813	1.48782	1.48782	19
2009.10.16 14:29	1.48853	1.48853	1.48813	1.48814	16

Figure 2.5a: Millions of trading decisions represented by tick-by-tick price movements

Figure 2.5b shows that these numerical data items can be graphically represented on a 2-dimensional chart. The chart on the right shows a series of "candlesticks", each of which is a pictorial representation of price data. As a result, the succession of red and green candlesticks gives a more visual depiction of market trends.



Figure 2.5b: Price movements are represented on a 2-dimesional chart

To help us improve our analysis, there have been numerous technical indicators used by technical analysts. Each of these indicators is really based on some calculations involving historical price data. In fact, there are limitless possibilities as to the number of indicators that can be "invented". Experienced traders seem to enjoy cluttering up their charts with all kinds of colorful lines, as illustrated in Figure 2.5c. Somehow, many of them believe that their success in trading the Forex market is largely dependent on discovering more and more new indicators.



Figure 2.5c: 2-dimesional representations of crowd psychology can become more "sophisticated"

In essence, there are really no new inventions. The basic ingredients of all these technical indicators are always the same, i.e. historical prices (high, low, open and

close). These visual representations of crowd psychology are meant to help us improve our analysis and forecasts of market trends. However, in many cases, **traders get excessively caught up in the increasingly complex web of indicators, and lose sight of the basic picture, i.e. many traders forget that it is the ebb and flow of crowd psychology that drive the market, not the indicators.** Regardless of how m any fanciful and sophisticated indicators we can devise, the market is never obliged to behave according to the indicators. The basic and simple reason is that indicators are always based on historical data; we have no access to "future data"!

Of course, I am not attempting to debunk technical analysis altogether! There is certainly a lot of value in good technical analysis, provided we use the indicators with the right mindset. We know that **certain combinations of indicators can be used and fine-tuned to display appropriate levels of responsiveness to the onset of strong market trends, with decent probabilities of identifying winning trades, while subject to proper risk control.** As described in Chapter 4 and 5, the basic reason why planning for losses is so crucial is that no indicators or strategies can ever fully predict what will happen in the market.

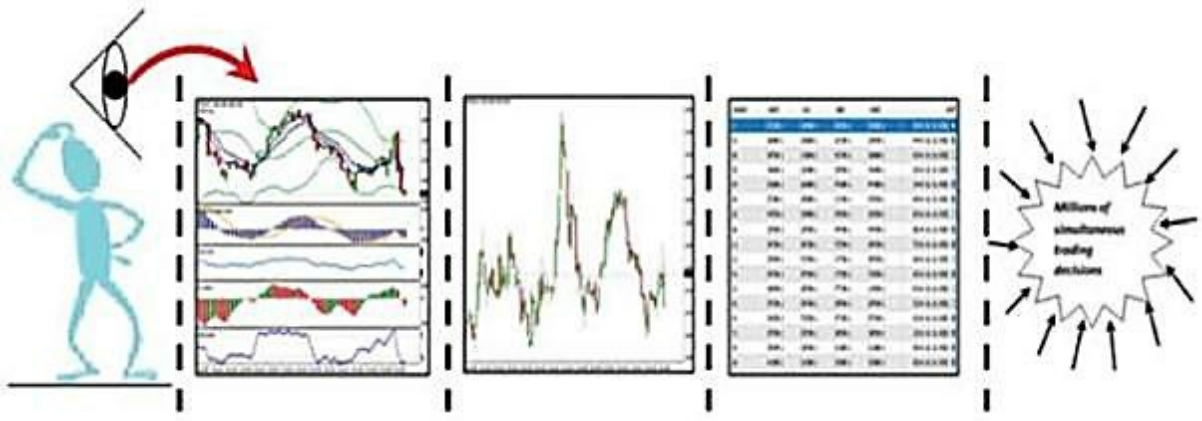


Figure 2.5d: Our mental "shortcuts" lead us to lose sight of what the market really is

As illustrated in Figure 2.5d, various forms of technical analysis help us form "mental shortcuts", so that we can more effectively analyze the market with visual tools on our price charts. These "shortcuts" are useful as long as we do not allow them to become too "messed-up" or "cluttered", so much so that they cause us to lose sight of

the fact that **the indicators do not drive the market.** In essence, we must always be conscious of the reality that **it is the market that "drives" the indicators,** because all indicators are calculated based on historical data. **What really drives the market is crowd psychology.**

Many highly qualified people devise very complex and sophisticated analyses of market

statistics, and somehow convince us that the market follows certain patterns. I am reminded of a rather enlightening comment once made by a computer scientist; having done all kinds of data analysis, he remarked that "if you massage the data enough, it will own up to almost anything!" You could even perform an analysis to conclude that the USD is correlated with the weather! This is what many back-tests are based on. For example, you can optimize your trading rules to ensure that you get the maximum possible returns during a historical 2-year period. This over-optimization is essentially a "curve-fitting" process, i.e. you attempt to "massage" your trading rules to ensure that you get very good returns in the 2-year period; your adjustments of the trading rules are made only with the 2-year market data in mind, leading to spurious conclusions about market behavior.

There are many traders who enjoy seeking after complexity and sophistication, and easily dismiss strategies which sound too simple. The underlying belief seems to be that "after all, if we don't understand it, it must work, right?" As such, they love to have their charts appear very colorful and cluttered with fanciful lines and indicators. It is almost as if they believe that the more lines they plot on their chart, the more equipped they are to make money from the Forex market. However, the irony is that many traders can trade profitably with only 1 or 2 indicator lines (or sometimes even none at all) on their charts. In particular, I have a trader friend who tells me that he merely looks at current price action without reference to any indicators. His experience very much resonates with what I have realized over the years, i.e. the fact that successful trading of the Forex market very often involves being "pure at heart and clear-minded" – not allowing too many presuppositions to cloud our judgment of the market. Such a mindset involves 3 things:

- We are not overly concerned with predicting the future.
- Neither are we excessively influenced by past market behavior.
- We merely are concerned with the present, i.e. what the market is telling us now, and respond accordingly with a valid trade idea, with the necessary exit plan and risk control measures.

It is worthwhile to note that advances in computer technology and sophistication of analysis methods have not improved the success rates among traders in the world. Over the centuries ever since capital markets appeared in human civilizations, we have always seen the same psychological tendencies among traders and investors. Things have certainly become much more sophisticated; computer technology has increased the complexity of our analyses by several orders of magnitude. Yet, we still find that that most traders and investors lose money in all kinds of markets. The fundamental reason

is that human psychology never changes. The psychological biases described in this chapter have always been part of human nature. Unless we make committed and consistent efforts to overcome them in our trading behavior, we are most likely going to be among the majority of traders who are beaten by the markets.

Excessive Need for Understanding

We are often told that "knowledge is power". Certainly, I do not dispute the importance of receiving adequate education in the fields we are involved in. After all, ignorance leads to a high level of risk. However, it is futile to mindlessly seek after greater levels of knowledge without having the wisdom to apply it practically. To put it quite simply, **what we know is not as important as how we use what we know.**

The more facts we have, the better we can understand the workings of the ups and downs in the Forex market. The more we understand how markets tend to trend up and down, the more effectively we can identify high-probability trading opportunities. Yes, there is no doubt about the importance of gaining knowledge about the workings of the currency market. However, many traders are so caught up in the endless and mindless chase for more information that they derive a misguided sense of security from the knowledge they have. Quite bluntly, having more knowledge of facts and figures often leads to an illusion of security. As described earlier, our culture thrives on sophistication. Having lots of data to rely on seems to make us feel more equipped and secure.

Market action is indeed human nature in action. Conventional analysts believe that the market is driven by significant economic or political events As such, we tend to anticipate a certain outcome in the market as a result of a certain event, only to realise that **the outcome could be contrary to conventional logic.**

For example, the US economic stimulus package could be seen as good news for the US economy, and thus motivate some people to buy the USD. However, the USD could also decline as a result of the same news event. We need to realise that economic events can be interpreted in different ways to explain opposite outcomes. In fact, **the financial media often attributes opposite market moves to the same news event!!** For example, on a certain day you may read something like "The USD strengthened due to Economic Event X". The next day, when the USD weakens, you could read something like, "The USD weakened due to Economic Event X"!

So, is it the news events that drive the markets? It is more accurate to say that it is the market's response to the news events that drives the market. What difference does it make? A whole lot of difference! **The market's response to news events is very often irrational, and also very often happens before the actual event!**

Many traders attempt to make sense of how a certain event will impact the market. This attempt is pretty much like shooting a moving target, because there are often opposite ways the market will respond to the same event. The USD could appreciate in response

to a certain report now; a few hours later, it could depreciate in response to the same report.

Very often, Forex traders like to watch for economic announcements, and then act according to their reasoning based on conventional economics. For example, if the GDP in the US for this quarter turns out to be worse than forecasted, many traders expect the USD to weaken, and so might place long positions in the EUR/USD just after the report is released. Often much to their surprise, the EUR/USD might move downwards instead in the immediate moments after the release of the economic data. Feeling both puzzled and frustrated, the common response goes something like, "Why did the Euro move down so much? Is there any other news report which I didn't know about?" Frantically, they might search the internet for any other news report that might explain the unexpected move. Very often, there is none. **It is quite common that we cannot find an event that seems to directly "cause" a certain price movement in a currency pair.** The simple reason for this move is that the market, as a whole, happens to respond to the GDP report in this way now. The response may not coincide with conventional reasoning.

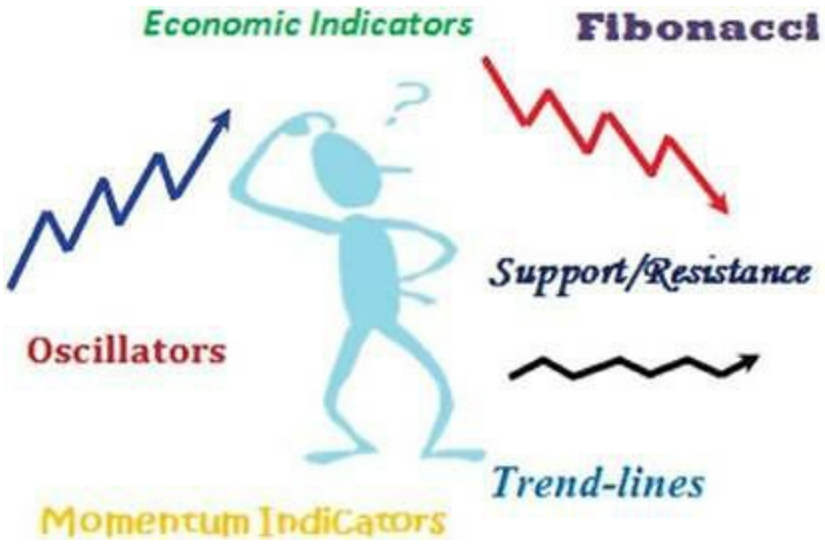


Figure 2.6: Having lots of information may cripple our decision-making

In essence, it is the ebb and flow of crowd psychology that truly drive market price movements, resulting in the trends we see on charts. The common theme that runs in my trading philosophy is that successful trading is often about making decisions which are contrary to our natural instincts. **It is very important to resist the need for perfect or near-perfect understanding of the reasons underlying market movements.**

Overloading ourselves with too much information, based on all kinds of analysis tools, often cripples our ability to make confident trading decisions. Clearing our

mind of the clutter of information overload helps us look at the market without too many unnecessary presuppositions, and to respond aptly to current market behaviour based on clear thinking.

Excessive Pattern Recognition

When we design a trading method based on certain rules, the underlying rationale is that there are patterns embedded within the seemingly random ups and downs in the price movements; we believe there is order within chaos. Certainly, **the existence of such order is what we rely on in order to have a trading method which gives us an edge over the market.**

However, all too often, we overdo it when we attempt to discover patterns within the charts. The human mind is designed to recognise patterns within chaos, causing us to be **too eager and hasty in coming to conclusions about certain patterns on the charts.** As we eye-ball the historical charts, we will be able to find many profitable trades based on some technical conditions, thereby leading us to arrive at conclusions about a trading strategy. We must acknowledge that our visual back-testing is under the influence of **selective perception, i.e. we tend to see the trades that work, and visually bypass those that do not.** The technical analyst is often deluded by illusions of order. In this way, the trading rules that one arrives at tend to be too simplistic. The market is so dynamic that we often need to apply some filters to the trading rules; such filters cannot be clearly seen in our "visual back-testing".

For example, Figure 2.7 shows a simple trading rule where you would take a long position whenever the CCI crosses above the +100 level, and take a short position whenever the CCI crosses below the -100 level. When doing a "visual back-testing" of how this entry rule would have worked out in history, many novice traders who are eager to start trading will be very quick to happily identify the winning examples; more of their visual attention is naturally given to the winning trades, and their attention is likely to bypass the losing examples. **Our mental and visual perceptions are often distorted by our presuppositions and desires without our conscious awareness of the distortions.** As such, visual back-testing can be rather dangerous if conscious efforts are not made to see things objectively. Furthermore, entry setups only account for part of the success or failure of any trading method. **Visual back-testing is not able to systematically evaluate the performance of a trading method in the light of exit strategies and risk control.**



Figure 2.7: "Visual back-testing" - selectively giving more attention to winning examples

Another thing to note is that **correlation does not imply causality.** This means that the often-noticed phenomenon that two currency pairs tend to move in tandem does not imply that movements in one of the pairs "causes" movements in the other. Any strategy based on assumptions of causality cannot work consistently.

We should be reminded that although there are patterns within the ups and downs of crowd psychology in any liquid market, **such patterns do not exist like they do in an exact science (e.g. laws of physics), and are therefore still full of randomness.** This is the reason why we should make allowances for losses in all trade decisions (regardless of how we filter trading signals); such losses occur when the "randomness within patterns" works against us. The fact that such losses occur from time to time does not mean that we don't have an edge over the market. **Having an edge over the market means that in the long run, the wins will more than cover the losses.** Much of the difficulty in trading lies in learning to accept this simple principle.

Too many traders simply overlook or gloss over the importance of discipline and stringent risk management. **When we consistently keep to the rules despite losses, and keep losses to a minimum via stringent risk management, any simple strategy that gives us an edge will be profitable in the long run.**

Greed and Hope

Greed is essentially rooted in a motivation to acquire more money to fulfil whatever purposes we have. Such a motivation can be very healthy, but often leads to bad trading when not controlled. **It leads to an excessive desire for greater profits in our trades, and clouds our judgment, thereby causing winning trades to become losing ones.**

Sometimes, after a winning position is closed at the preset profit target, the price continues to move in the same direction without you! As traders, we must expect this scenario to happen! We must be ready for a scenario where we close out a trade at, say, 50 pips of profit, only to find that the price continues, almost uninterrupted, to move in the same direction for another 200 pips! This causes a sense of regret, which is something all traders must learn to live with!!

Why do I say that? The irony of trading the markets is this: if we do our best to avoid such a sense of regret by extending our profit targets whenever we think the trend is going to be strongly in our favour, we are going to get punished more often than we are going to get rewarded. In others words, our **fear of regret, which stems from our greed, often leads to a greater sense of regret.**

As a general rule, we should pre-determine what our profit target is at the point entering the trade. This helps us avoid the natural trap of saying, "Maybe the trend will continue in my favour. Let's sit and watch the profits increase!!" Generally speaking, we should assume that the market will not move in our favour for too long. As outlined in Chapter 4, **we should establish rules on setting reasonable profit targets, based on volatility and support or resistance levels, and generally keep to these rules.**

Of course, undeniably, there are cases where the trend will continue without you after your profit target is achieved. However, we make such observations always in hindsight, and unnecessarily magnify the sense of regret that comes from this observation. We must realise that **at the point of closing out the trade at the pre-set profit target, and being unable to look into the future, we are far better off relying on the "average scenario", i.e. settling for the pre-set profit target rather than hoping for an "out-of-the-norm" big move!!** Such "out-of-the-norm" big moves always appear good in hindsight, but we should not count on them whenever we are making real-time decisions and unable to see the future!

This leads me to another related emotion, i.e. hope! In many aspects of life, hope is a healthy emotion which keeps us motivated. In making trading decisions, however, it is, more often than not, detrimental! **Hope is what causes us to hang on to losing positions for too long,** saying "Maybe some unexpected announcement will drive the

price up and turn my losing position into a winning one overnight!" Sure, this might happen, but it will serve us well not to assume it is the norm! In all trading decisions, whether it is taking a pre-set profit or accepting a loss at a pre-set stop-loss level, **we must not count on rare occurrences! Our sense of hope makes the hoped-for scenario seem more likely than it really is;** we begin to justify that it is actually quite likely that something will happen soon to benefit our losing position; such a justification is made through a lens of selective perception, which is driven by nothing more than a lame hope. We should all remember that when the market shows signs that our trade is invalidated, we should abandon our ego and accept the loss. In trading, **learning to take losses is an essential part of overall winning. It is not about seeking to boost our ego by trying to be right; it's about boosting our trading account by trading right!**

In our overall trading experience, we will realise that, on average, relying on the "average scenario" and not counting on rare occurrences (big moves in our favour) will benefit us more often than they cause a sense of regret. Trading is a business, where **we are more concerned about the long-run distribution of winning and losing trades, rather than on making any one particular trade work out.** Being able to internalise this principle into the psychology of our trading behaviour will certainly lift us above the majority of traders!

In Figure 2.8, we see an illustration of the right mindset in handling all our trade outcomes. Once we have systematically established our exit rules (involving profit targets and stop-loss exits), we stay disciplined to them without allowing our emotions of greed and hope to interfere with our exit decisions. Even if the market "recovers" after hitting our stop exits, as illustrated in Figure 2.8, this subsequent move can very often be considered as a separate trading opportunity. We should not say things like, "I should have removed the stop-loss order". **In real-time trading, such "I-should-have" statements breed a very distorted and unhealthy mindset, leading to bad discipline. Such statements wrongly assume that every trading decision could have been made with the "benefit of the clarity of hindsight". If you think carefully about such an assumption, you realize it is rather foolish.**



Figure 2.8: Psychology of taking a loss and moving on to another trade opportunity

Misplaced Optimism

As traders, the consistent returns that we aim for are much higher than in any conventional investment. As such, when you tell your financial planner (or anyone who is not a trader) that you aim for a monthly return of 10% or more, you are likely to face remarks of disbelief. It is often said that traders who aim for such returns are either unrealistic or too optimistic.

I ndeed, it takes a healthy dose of optimism to believe that consistent returns can be achieved in trading. However, **such optimism should be applied to our general goal of achieving such consistency, and should not be allowed to cloud our judgment on the outcome of any trade; uncontrolled optimism in managing every trade position causes us to believe what we want to believe, such that we hold on to losing trades too long.**

To put it simply, we should be optimistic about our ability to trade the market when the odds are in our favour, such that our wins will more than cover our losses in the long-run. This means **we are optimistic about being able to trade consistently with an edge over the market, maintaining strict discipline and risk control.**

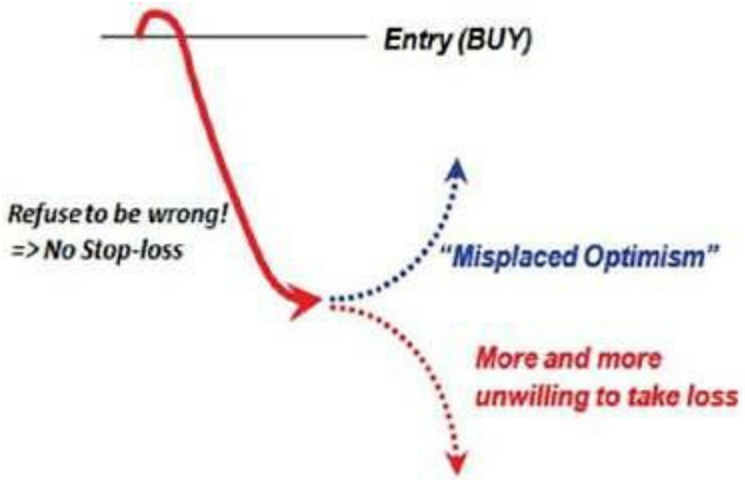


Figure 2.9a: Hanging on to losses and hoping for a recovery

On the other hand, as far as executing any single trade is concerned, we should allow **a healthy dose of pessimism. This is what ensures we plan for the losing scenario by predetermining our stop-loss levels and the appropriate risk exposures.** This is what allows us to have the confidence to say: "My trade is done based on sound reasons; however, I acknowledge that, even so, it could end up as a losing trade. Because I have pre-determined my risk exposure at a low level, I'm confident about this trade!"

As such, true confidence in pulling the trigger for any trade does not come from how sure we are about the outcome of the trade. Such "certainty" cannot be the basis of

confidence, because the market does not respect any claims of certainty by any trader; **no trade has no possibility of losing.**

Rather, true confidence comes from knowing that although the odds are in our favour, the possible losing scenario has already been accounted for by limiting the risk level. **This is what eliminates the nervous hesitation that often cripples a trader at the moment of hitting the "Submit" button for a trade. This is how we can reduce our dependence on the "luck" factor, leading to more consistent performance.**



Figure 2.9b: A healthy dose of "pessimism" leads you to limit your risk

Fascination with Predictions

Much of the investment community is rooted in the reliability of forecasts or predictions about the future direction of price movements. Many traders and investors behave as if such forecasts can be relied on with hardly any room for error, especially when the forecasts come from well-known gurus. The truth of the matter is that no forecasts or predictions can be reliable in the sense of having little room for error. Again, this is why I always say that **there is absolutely no trade that has no possibility of losing, no matter how confident we feel about it.**

Successful traders should not base their trading decisions on attempts to predict the future; rather, **they base their trading decisions on reactions to what is happening to the market.** A good strategy does not look into the future in the way many aspiring traders dream about; what it does is to **react quickly to what the market is doing in the present.**

Indeed, it is true that whenever we make a trade decision based on certain conditions in the market, we are saying something like, "I have good reasons to hope that this will turn out wel**l**." However, such a "hope" should not be allowed to harden into a dogmatic statement like: "The currency pair will definitely go up, because I have done all my necessary analysis, and the market must prove me right!" Many traders subconsciously make the grave mistake of thinking like that. A winning trader must constantly bear in mind that no trading strategy can ever "argue" with the market; although there are times of predictability in the market, there are still a lot of random and unpredictable fluctuations that will often prove us wrong, regardless of what strategies we use. **Successful trading is about learning**

to avoid most of these unpredictable fluctuations, and focusing on times of high (never absolute) predictability.

Quite simply, **traders should live "in the present"** when making trading decisions, **responding quickly to what the market is doing** based on the rules of their trading strategies.

- We should not attempt to "look into the future", because such **attempts at predictions often cloud our judgment and make us less willing to take losses.** It is very important to trade based on what the market is doing currently, rather than what we think is going to happen.
- At the same time, we should not ask questions like, "What has happened in the market to cause this move?" Many traders like to ask this question, without realising that it is quite irrelevant to trading success. **Instead of finding out the reasons for a**

certain move, a good trader responds to the move according to the rules of the strategies used. As mentioned before, attempting to associate a certain price movement to a certain market event which has already happened gives very little value to market analysis. It deceives us into **mistakenly believing in some correlations between an event and the market, leading us to make misguided decisions in the future based on such erroneous correlations.**

Also, the actual events that move prices are not important; it is the market's perception of these events which causes price movements. The same event can produce opposite responses at different points in time. It is counter-productive to attempt shooting this moving target by "predicting" how the market will respond to a certain event.

As illustrated in Figure 2.10a, market forecasts are, at any point in time, merely forecasts. A forecast merely looks at the current market data (support and resistance levels, market sentiment, technical indicators, etc) and arrives at a suggested course of action. Foresight is always a matter of probabilities, such that we act according to the possibility which is deemed to be most likely. **At any juncture, there is never perfect clarity about what the market will be like in future. This is why we must always plan for losses.**

For example, if a strong downtrend has happened for quite some time (at point A in Figure 2.10a), some market analysts can forecast that because the market has hit highly-oversold levels, it is therefore mostly likely to bounce upwards soon. At the same time, some other analysts will also say that because the market has crossed major support levels, a strong downward breakout is underway and will likely bring prices even lower in a continued downtrend. Still, a third group of analysts may argue that strong trends tend to be followed by consolidations, leading to sideway movements after point A. It is worth noting that each of these arguments has its own merits. In fact, from an objective point of view, all three forecasts can be equally convincing and valid.

Figure 2.10a: At any point, foresight is a matter of probabilities. The future is never perfectly clear!

Figures 2.10b and 2.10c illustrate a common response among traders who realise that a certain market forecast was right after all - a "sense of regret" that comes from not having acted according to a certain forecast! If the market indeed trended downwards after point A (Figure 2.10b), some traders who had taken long positions would say something like, "I should have taken that short position! That analyst was so right about the downward breakout. Why did I doubt him?"



Figure 2.10b: Clarity increases with hindsight; we often mistakenly think "we should have seen it"

Even if the uptrend happened after point A (as seen in Figure 2.10c), traders who had taken short positions would likely feel the same way, i.e. "Those analysts were right after all about the market being oversold! I should have heeded their forecasts and gone long instead!"

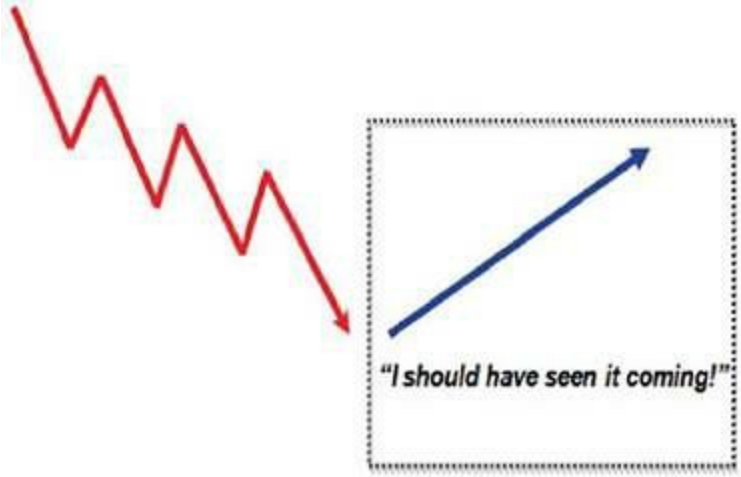


Figure 2.10c: Clarity increases with hindsight; we often mistakenly think "we should have seen it"

What is happening here? Traders often use the information they have from hindsight to judge the quality of the decisions they made when the clarity of hindsight was not yet available. We must never make the mistake of confusing hindsight (which is always perfectly clear) with the decision-making process (which is always a matter of weighing probabilities). To be successful traders, we must clearly acknowledge that our decision-making process is always about having a consistent way of determining high-probability trades, at the same time planning for the scenarios where the market turns against us, such that the losses that result are always small.

As stated earlier, each of those market forecasts can be equally valid. Different

successful traders could be taking different positions in the Forex market at the same time, based on their different trading styles and analysis methods. Each of these styles and methods can be equally valid. In the long term, these different traders can be all profitable. You might ask, "How can they all be successful if they often have opposing views of the market?" I hope you can learn to appreciate the fact that there is no one right way of analyzing the market, so different trading experts can often disagree on their market opinions. All these traders can be equally profitable because they have proper risk control measures to ensure that their losses are, on average, smaller than their profits.

Incidentally, I was quite amused to learn that there is a successful trader who uses a strategy that only enters a trade when the Turtles' trading strategy fails, and that her strategy is known as the "Turtle Soup"! It is really not surprising that **two persons using "almost opposite" trading rules can be both profitable in the long run, as long as they follow stringent rules in their risk control and exit strategies.** Figure 2.11a illustrates the outcomes of a series of trades based on two very different trading strategies. We see that trades done by the two systems happen to be opposite in these few cases; whenever system A enters a long position, system B enters a short position, and vice versa. At the end of 6 trades, each of the systems has a net gain of 3%. This is because each of the system ensures that the losses are smaller than the gains.

System A	System B
+4%	-3%
-3%	+4%
-3%	+4%
4%	-3%
4%	-3%
-3%	+4%
.	.
.	.
.	.

Figure 2.11a: Two different trading systems, both profitable in the long-term

Figure 2.11b shows how a trader could be "getting the worst" of each of strategies A and B. He starts with system B, gets a losing trade while system A gets a winning trade. Based on that one experience, he concludes that system A is better, and then moves to system A in the next trade. This time, it is system A that gets a losing trade while system B gets a winning trade.

Do you see what happens here? **Many traders switch from one system to another based on very recent experiences, i.e. they come to hasty conclusions about which system is better based on a very small number of cases.** This is again the "law of

small numbers" working in a trader's decision-making psychology.

I have seen many seasoned traders often falling into this trap. Because of their great deal of knowledge about numerous analysis methods and tools, it can become quite "addictive" to keep switching between strategies. Since there are so many methods to "choose from", it is almost instinctive to look for another strategy whenever the current one produces a couple of losing trades.

It becomes increasingly difficult for a lot of these traders to get out of this behavioural pattern, until they realise that trading success is achieved through a fundamental shift in mental attitudes.

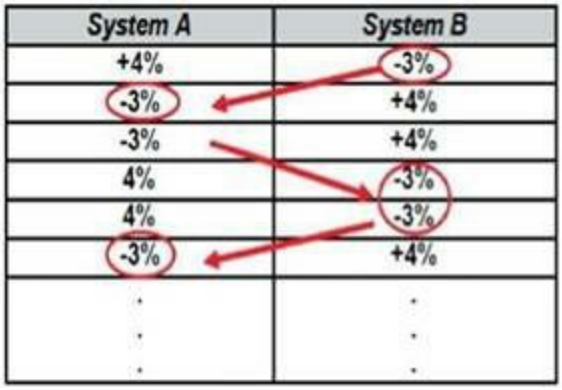


Figure 2.11b: Switching between trading systems, leading to bad trading performance

Traders often allow their memory of recent trading experiences to interfere with their "predictions" of what the next trade will likely turn out. Figures 2.12a, 2.12b and 2.12c illustrate how recent losing and winning experiences can create certain emotions (regret, overconfidence, etc) which lead to distorted attempts at predictions and impulsive trading behaviour.

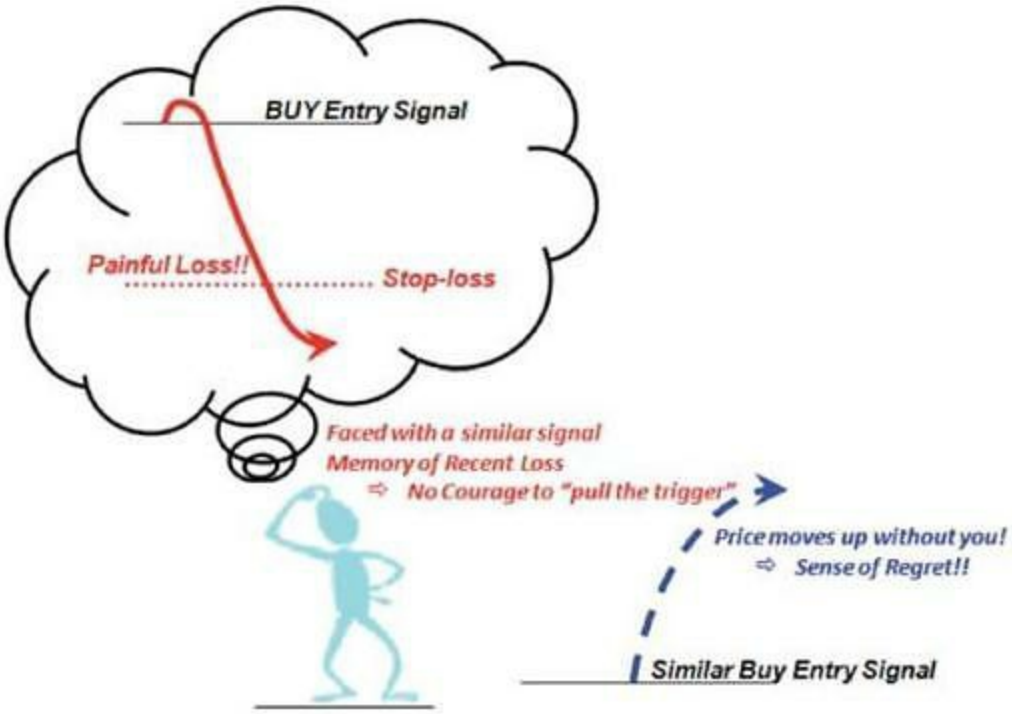


Figure 2.12a: Psychological impact of a recent loss distorting your judgment



Figure 2.12b: Psychological impact of recent "regret" distorting your judgment

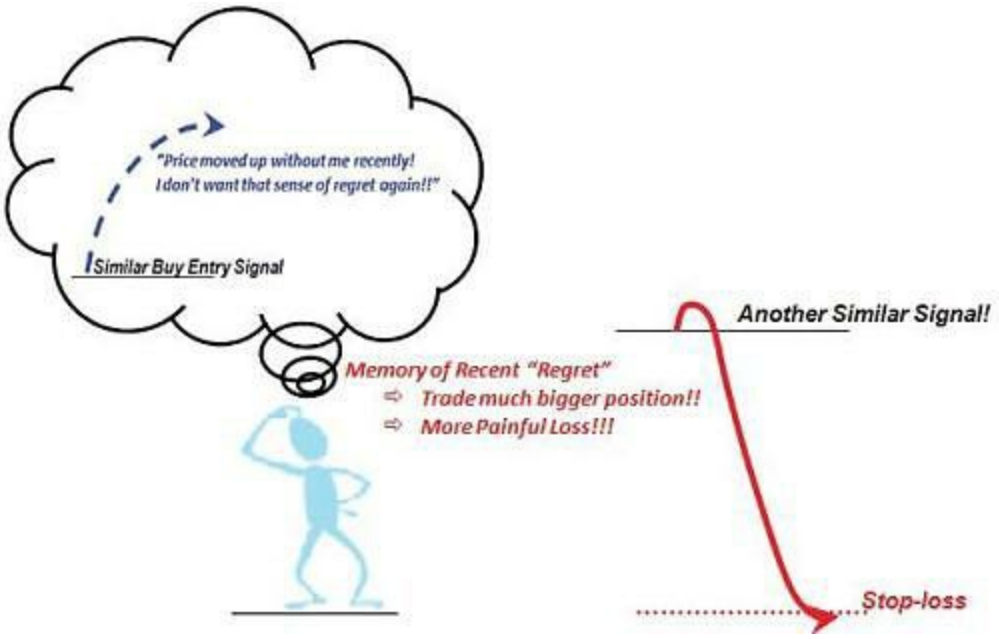


Figure 2.12c: Psychological impact of a recent win distorting your judgment

Illusion of Control

Many investors and traders are influenced by an "illusion of control" which they are hardly aware of. **Such an illusion naturally leads most people to keep themselves preoccupied with many activities that seem to give them more control over their outcomes, whereas these activities often do not improve their chances of success.**

A common example is the way people bet their money on lottery games. In a game where you pick 6 or 7 numbers, and aim to win a million-dollar cash prize when those numbers you pick happen to match a sequence of randomly drawn numbers, the probability of hitting the jackpot is really one in many millions. Yet, many people spend lots of money to regularly bet on many sequences of numbers, thinking that the more they bet, the higher their chances are. Some people design statistical software programs to pick numbers, while others use birthdates to determine which numbers to bet on. All the elaborate methods of picking numbers somehow make bettors feel that they are in greater control. However, they do not realise that because the odds are so grossly stacked against them, their chances of success are practically not improved by all the sophisticated ways of picking numbers.

Likewise, traders like to spend a lot of time, energy and money on sophisticated software packages and seemingly "magical" indicators, largely because doing this gives them a sense of being in greater control of their entry points in the market.

If you can show them a few examples of how an indicator can pick the tops and bottoms in the market, they are often so excited that they are willing to pay thousands of dollars for your "invention"! This phenomenon is also explained earlier in a discussion about the "appeal of sophistication".

In the community of Forex traders, there is a very widespread fascination with new entry techniques. On public forums, there are countless discussions on the "best" indicators, entry strategies, currency pairs to trade, etc. We can be quite certain that the number of such discussions will only increase, because they are fuelled by a basic need for control. We must realise that entry setups naturally give us a sense of being in control, while blinding us from the real reasons why traders cannot make money from the Forex market. A lot of research shows that **exit strategies, risk-control plans and the ability to master our psychology are the things that give us more control over our trading performance.** This is why some traders can use very simple entry techniques involving 1 or 2 indicators (or even none at all) and succeed in generating profits from the market, whereas many other traders consistently lose money despite having elaborate systems and indicators.



There is another common behavioural pattern among traders which gives them a false sense of being in control.

After we enter a position, we naturally like to stay glued to the trading screen and monitor the pip-by-pip price movements, don't we? Why do we do this?

Even if you have a proper trading method which dictates when you should enter the market, where your take-profit and stop-loss levels are, you will probably say that staying in front of the trading screen gives you a sense of being in control.

I would like to suggest that it is largely an illusion. If you have a trading system or method which stipulates your entry and exit points while minimising your risk exposures, you should rightfully be able to walk away after executing each trade without feeling too much discomfort. This is not because you are absolutely certain that the trade will be profitable; no one can be!

Rather, it is because you have determined and minimised your risk exposure, truly understanding that taking losses is part of the game, and confident that your wins will more than cover your losses in the long term.

Some will say that because they do not have a largely mechanical or well-defined trading method, they need to monitor the price movements so that they can exercise discretion in entering and moving out of their trade positions. Such "discretion" gives them a sense of being in control, but is most likely going to be subject to the psychological failings described in this chapter. **If you do not have a properly defined trading plan, your discretion is largely emotional and unreliable.**

Therefore, in order to win in this business of trading the Forex market, we must learn to

identify where our "locus of control" is. This simply means that **we channel our time and mental energies to the things that intrinsically improve our chances of success in the market.**

Entry techniques and indicators have their place in the business of trading. However, as illustrated in Figure 2.13, we must not underestimate the importance of the other often-neglected aspects of trading, i.e. systematic ways of determining exit plans and controlling risk exposures, coupled with the mental strength to overcome our psychological obstacles.

What Successful Trading Really Is

Within the trading community, it almost sounds like a cliché nowadays when you are told that trading success depends on the 3 following elements:

- Trading Strategies – entry and exit setups
- Money Management – risk control and position-sizing
- Trading Psychology – overcoming psychological obstacles

Certainly, it is very right to summarise trading success in terms of the 3 points mentioned above. However, many people make the mistake of "compartmentalising" these 3 points, as if each is a separate task to be accomplished in the trading journey.

If you want to stand out from the majority of traders who struggle to make money, you need to realise that **"trading psychology" is not a separate task; it should regulate everything we do in trading,** including how we choose and design our trading strategies, how we plan our position sizes and control our risk, and certainly how we respond to market movements and our gains and losses.

The 10 psychological phenomena described in this chapter help us understand, at a deeper level, what trading psychology really means in real-life trading.

When we look for entry signals by using a combination of technical or economic indicators, we must be reminded that sometimes the trade will still fail even though the indicators strongly point to a trade signal.

To put things in perspective, let us be reminded of the following principles of profitable trading. If we master and internalise these principles, we need not be constantly seeking after countless trading techniques.

Indicators (whether technical or economic) do not cause price movements

It is crowd psychology that drives all price movements. As such, it would be quite silly to think that just because a series of indicators have lined up to show a "clear signal", the market is therefore "obliged" to move in a certain way. Too many traders somehow think like that without realising it. This explains why they always start wondering why a trade failed despite the fact that they were entirely "obedient" to the trading rules.

All indicators (whether technical or economic) are by nature "lagging"

This is simply because they are always based on historical data. By this definition, the so-called "leading" indicators are then supposed to be based on "future data".

Obviously, that is ridiculous! We all wish we had a crystal ball that looks into the future. However, the fact is that we live in a domain of time where **only hindsight can give us perfect clarity, and "foresight" is always a matter of probabilities, never certainties!**

Whenever some people talk about "leading indicators", what they really mean is that these indicators, which are still based on historical data (we really have no alternatives, do we?), can be used to attempt forecasting the future, and sometimes succeed in doing so. The fact is that all these indicators can only base their predictions on historical data, and that these **forecasts should only be considered in terms of probabilities.** As such, I would rather consider all indicators as lagging (based simply on the fact that they can only rely on historical data). However, **there are many ways of using these indicators to attempt capturing possible trends in the future with high probabilities.**

Therefore, good traders can be profitable over time by doing the following as meticulously as possible:

- Using a combination of technical or economic indicators to identify high-probability trades (not to predict with certainty)
- Planning for the possibility of the trades turning adversely by establishing reasonable stop-loss levels and limiting the position sizes to ensure losses are always small
- Ensuring that the winning trades more than cover the losing trades over time.
- Having the mental strength to think in terms of probabilities and the "big-picture", rather than being driven by instant gratification and wanting to avoid losses in every trade. All the natural instincts and beliefs described in this chapter are to be overcome as much as possible!

Is Automated Trading Any Better?

Among Forex traders, there is an increasing interest in automated trading. This simply refers to software programs which are being written to incorporate trading rules, such that the programs can automatically execute trades in your trading accounts without you lifting a finger! It is certainly very appealing to be able to do that. The underlying rationale is that a computer program can perfectly eliminate the emotional tension of engaging the live markets. As such, once you identify a winning trading system or method, converting it to an automated program is supposed to ensure perfect discipline in executing orders based on a pre-programmed set of trading rules. Moreover, it is hassle-free, and allows the trader to have no worries about tiredness and missing out trading opportunities.

- While I do not totally debunk the concept of automated trading, I believe it will serve you well to think of it in terms of the following points:

- Any computer program is only as good as what the programmer instructs it to do. **The automated trading system merely executes trades based on the programmer's understanding of the markets. As such, any flawed understanding of the market's behavior is programmed into the system.** A trader's psychological weakness does not only exist in the entering and closing of orders; it is indeed rooted in his understanding of how the market functions. The trading rules he uses are based on his beliefs about how the market behaves. As such, if these beliefs are flawed and counter-productive, the automated trading system that is designed based on these beliefs will faultlessly implement a set of wrong beliefs. **This is why automated trading systems often lose money even faster than human traders.**

- Quite strangely, many people derive a sense of security from something they do not understand! Some people would say, "after all, if we don't understand it, it must work, right? This is one reason why the "sense of mystery" from black-box systems is so appealing. It is extremely important to fully understand the underlying strategies within any automated trading software. Nowadays, many black-box software programs are being peddled online and offline, enticing unsuspecting retail investors to believe that financial freedom merely involves purchasing a turn-key package which demands no effort and understanding. The reason why it is dangerous to blindly depend on a black-box system is that changing market dynamics will often require us to make adjustments to our trading methods, and that you would not be able to do that if you merely depended on a black-box system.

Mastering the skill of trading involves learning some basic building blocks of market analysis and risk control (as described in Chapters 3 and 4), and flexibly using them to

handle changing market conditions. If you are able to understand and use them flexibly, automated trading solutions are viable in the sense that they help you minimize manual involvements. Otherwise, it is, more often than not, dangerous to rely on automated trading software programs.

Trading is a business, and involves a mastery of skills in analysis and thinking patterns. We must never assume that trading success is merely about blindly relying on a program that someone else has written.

Chapter 3: Choosing from Forex Trading Systems

Some of you have skipped directly to this chapter. This is quite natural, for we tend to be more interested in what indicators and entry setups we should use. However, may I remind you that focusing on this chapter alone will not make you a successful trader?

A consistent theme throughout this book is that successful traders think differently from the average person. In Chapters 1 and 2, I discussed how our mental conditioning and thinking patterns lead us to lose money when trading the market, and how important it is to overcome such tendencies. Chapters 4 through 6 will deal with the other very important dimensions of successful trading, i.e. planning your exits, risk control and optimizing your long-term returns. Be reminded that Chapter 3 will mostly focus on the entry setups of trading systems.

A complete trading system is simply defined as a set of rules which guide your trading decisions. The rules should, broadly speaking, include the following ingredients:

- When to enter a trade (buy or sell)
- When to get out of the trade (whether it's a winning or losing position)
- How big the trade size should be, i.e. how many lots to enter

A trading system can either be traded manually, or automated via a computer program. There are some pros and cons of automated trading, which was discussed in Chapter 2. Whether you choose to use a trading system on a manual or automated basis, it is certainly important for you to understand the logic behind the system. Otherwise, you will have a hard time maintaining your discipline in following the system if your beliefs are not consistent with its logic. You might think that automated trading can ensure perfect discipline. However, many traders have a hard time seeing an automated trading system take losing trades, and often interfere with it. Whichever trading strategy or system you decide to use to guide your trading decisions, your ability to keep to the rules is dependent on how much you believe in the logic of the system.

For many traders, their faith in a trading system is easily swayed by the occurrences of losing trades. **Our psychological responses to losing trades are rooted in our beliefs about what a good trading system is supposed to be.**

Without realizing it, many traders somehow believe that a winning trading system is one that should not take a losing trade. I know that sounds crazy to some of you. In fact, many losing traders come to me and remark sincerely that they certainly know that losing trades are part of the game!

However, when their trading system takes some losing trades, it is almost quite natural for them to say, "Why did the system place the stop-loss point so near?! The price recovered quite soon after hitting the stop! It would have been a profitable trade if the system had placed the stop further away!"

May I suggest to you that such a thinking pattern is entirely counter-productive, and will certainly lead you to a losing path in your trading journey? Such statements are always made with the benefit of hindsight.

The problem with most traders is that they naturally confuse what they know from hindsight with what the trading system "should have seen beforehand"! With the clarity of hindsight, they "unreasonably" demand that a good trading system should have been able to "see what was coming"! This counterproductive thinking pattern, which was illustrated and discussed in Chapter 2, must be overcome regardless of the kind of trading methods you use!

Different trading systems or strategies can be used to exploit trading opportunities in different market conditions. Broadly speaking, market conditions can be categorized according to one of the following states:

- Trending and quiet
- Trending and volatile
- Ranging and quiet
- Ranging and volatile

Often, the market goes from one of the states to another without much warning. It is not uncommon to realize that the transition from one of the states to another is not very clear. However, **the goal of any trading system is not to pick all the turning points with precision.** Therefore, our goal is not to accurately pick winning trades by buying near the lows and selling near the highs. Rather, we want to ensure that the winning trades will more than cover the losing trades. This goal is achieved through a balance between the following factors:

- Win rate of the trades executed by the system
- Relative sizes of the wins versus the losses, i.e. the return to-risk ratios

There are many, many trading systems that can pick a lot of winning trades under certain market conditions. These trading systems will also capture losing trades when market conditions change. What we really need to realize is that we often are not able to know

beforehand when the market conditions will change. Again, most people have a problem accepting the fact that a trading system "fails" under certain market conditions. **One of the essential attributes of all the winning traders I have seen is their ability to take losing trades and minimize the impact of those losses, preparing themselves to maximize the profits when the winning trades come.**

Foundations of Trading Systems

All our endeavours in trading rest on the basic presupposition that the market cannot be totally random. Even if market movements appear largely random, we must, first and foremost, acknowledge that there are still certain underlying patterns that we can exploit in order to capture winning trades. I have realized that people who believe that markets are random and therefore unbeatable can somehow never find success in using any trading strategy. As a trader, you need to realize that **your beliefs about the market will certain influence the way you trade any system.**

In the following sections, I shall present some entry strategies in 4 broad categories. Certainly, each of these categories could be divided into many sub-categories. However, I prefer to keep things simple. Much of the complexity in the trading community is, in my opinion, unnecessary, and often merely fulfils the need for sophistication and gives a false sense of superiority and security.

In any trading system or method used for trading, there are certain analytical tools that help us gauge the market conditions and determine points of entry and exit. These tools can be broadly categorized as follows:

Price Action

- Trend-lines
- Support and resistance levels
- Bar patterns
- Divergence patterns, etc
- Technical Indicators
- Momentum indicators, e.g. Moving Average lines, ADX, etc
- Oscillators, e.g. Stochastics, Percent Range, etc
- Economic Indicators
- GDP
- Interest rate Policies
- Unemployment
- Retail Sales

- Housing Prices
- Consumer Price Index, etc
- Sentiment Indicators
- Bullish/Bearish positioning of currency futures contracts
- COT Index, etc

These analytical tools can be used to identify high-probability entry opportunities in the Forex market. It does not, however, mean that one needs to use all these tools at any one point in time in order to come to a valid trading decision. **Each tool is a basic "building block" that analyses the market from a certain "angle". There are numerous ways to use various combinations of these building blocks to develop different entry techniques.** The following categories of entry strategies make use of these tools to make trading decisions.

Trend Following Techniques

The goal of trend-following entry setups is to get onto a trend as early as possible, while reducing the impacts of false alarms when they happen. It is important to realize that **our primary objective is not to predict the onset of trends before they happen; the goal is to use several combinations of indicators to detect the early stages of trends.**

Crossovers between Moving Averages

Many traders are familiar with the age-old axiom of trading: "Let your profits run. Cut your losses short." This principle is the basic rationale behind trend-following trading strategies. There are many ways in which one can use some technical indicators to determine whether there is a strong likelihood that a strong trend has just begun.

Once a trading strategy tells you to get onto a trend, be it an uptrend or a downtrend, the exit plan determines how successful that trade will be. A good exit plan must address the 2 following issues:

- Maximizing profits by riding the trend as much as possible
- Minimizing losses in the event that the trend signal was a "false alarm"

Such trading techniques are the simplest, and can be very powerful in the long run if the trader has the discipline to follow the principles stated above. As described in Chapter 2, our natural instinct of being driven by instant gratification often makes it difficult to abide by this principle. Because trend-following strategies are often very simple, they are also often dismissed by experienced traders. This phenomenon is also described in Chapter 2 as the counterproductive need for sophistication.

For example, one could make use of 3 moving-average lines (5-period, 10-period and 20-period) to identify the possible beginnings of a new trend, and then ride on the trend. Your entry rules could be along the lines of the following:

- Buy when the **5-period moving-average** crosses above BOTH the **10-period moving-average** and the **20-period moving-average** consecutively within a short period of time.
- Sell when the **5-period moving-average** crosses below BOTH the **10-period moving-average** and the **20-period moving-average** consecutively within a short period of time.

At this point, some of you who are more seasoned traders will ask, "Are you sure it can

be that simple?!" Quite simply, it can indeed be so simple if you want. As I will be emphasizing at various points throughout the book, the success of simple entry strategies can be much improved by using good exit plans which are designed to cut losses short and let profits run. The more your exit plans can do that, the less dependent you are on your win rates.

It is quite true that the simple entry rules above will not give you a high win rate. For example, you might only get a win rate of about 55%, i.e. out of 100 trades, you have an average of 55 winning, and 45 losing trades.

For most traders, this is psychologically hard to handle! This is why I explained in Chapter 2 that successful traders should overcome the short-term "need for high success rates". I have been able to trade a system like that profitably by fine-tuning the exit plans so that one winning trade can, on average, cover about 2 to 3 losing trades.

Figures 3.1a and 3.1b show examples of using the simple trading rules above. Certainly new traders who seek for decent win rates of about 60% to 70% can find ways to reinforce the quality of the entries by:

- Waiting for retracements
- Using a few other trend indicators to confirm entry



Figure 3.1a: Using 3 Moving-Average lines to identify a downtrend



Figure 3.1b: Using 3 Moving-Average lines to identify an uptrend

Certainly, not all trending scenarios will unfold so nicely like in the two examples above. There are times when the market gives you a "false alarm". However, the truth is that all trading systems will give you "false alarms" from time to time, and we can never know for sure beforehand which trade signal will become a "false alarm". This is why we must have a plan to deal with the times where the trading method gives losing trades. Not only do we want to ensure the low frequency of losing trades; we must also keep the losses small. We shall be dealing with this issue in more detail in Chapters 4 and 5.

A simple trading system like the above can be profitable in the long term only if the trader has the psychological strength to "let profits ride and cut losses short". In fact, such a simple system is psychologically hardest to follow consistently.

Congestions in Moving Averages

Another simple yet useful trade setup can be established by looking out for "congestions" among a few moving-average lines, each with a different parameter. For example, if we plot 3 Exponential Moving Averages (EMAs) based on 10, 20 and 30 periods, we can look out for a "congestion" phenomenon as illustrated in Figure 3.2. Such congestions are indications of the market entering into consolidations or contractions, which are precursors to market expansions or "breakouts".



Figure 3.2: Congestions between 3 Moving-Average lines – often precursors to strong trends

The underlying rationale behind such an entry setup is based what tends to happen after a certain "compression" in market volatility. The price breakout or expansion which tends to occur is not unlike the force being unleashed when a compressed spring is being released.

At this point, I want to warn you against the impact of the "law of small numbers", which was explained in Chapter 2. Here, I have presented the winning examples of the entry setup. Lest you are led to think that breakouts always happen after the congestions described above, I also want to remind you that all entry setups will give you false alarms from time to time! However, you can still be very profitable if you combine the entry setups here with the exit and risk control strategies discussed in Chapters 4-6.

Other trend indicators can be used to identify possible beginnings of a strong trend. There are numerous trend momentum indicators that you can choose from. Some traders think that the more indicators you use, the more information you get from the market about its behavior, and so the more equipped you are to identify high-probability trade setups. We need to realize, however, that cluttering your charts with many indicators does not necessarily increase the strength of the trade setup. Complexity and apparent sophistication merely present an illusion of superiority, and therefore gives a false sense of security in the trading method.

Figures 3.3a and 3.3b show a few trend indicators which I like to use to establish

simple, easy-to-use, and effective trade setups that help determine points of entry.

In Figure 3.3a, we see that an entry can be made whenever the ADX (Average Directional Movement Index) starts to slope upwards. This indicator can be used to identify a trend that is in its early stages of strengthening. It could refer to an uptrend or downtrend. The value of the ADX is not as important as its slope. Note that an upward-sloping ADX does not tell you whether the strengthening trend is an uptrend or a downtrend. As such, we can use another indicator, like the 10-period or 5-period moving-average to determine the trend bias. So, the entry rules can be as simple as:

- Buy when the ADX starts to slope upwards, and the price is above the moving-average line.
- Sell when the ADX starts to slope upwards, and the price is below the moving-average line.



Figure 3.3a: Using trend indicators to identify trends

Regardless of what entry technique you use, you need to have enough faith in it in order to stay disciplined to it. As such, many traders will prefer to add one or two more trend indicators to reinforce the entry setup. For example, Figure 3.3b shows another trend indicator that can be used in conjunction with the ADX and moving-average line.



Figure 3.3b: Using trend indicators to identify trends

As we see in Figure 3.3b, the CCI (Commodity Channel Index) can reinforce a "Buy" signal if it is sloping upwards, and preferably crossing above the +100 level. Likewise, it reinforces a "Sell" signal if it is sloping downwards and crossing below the -100 level.

Trend Reversals

In the Forex market, **tradable trends appear on all time scales.** In fact, the definitions of trending and ranging market conditions are rather fluid, depending on the timeframes we are dealing with. A "ranging" market on a large time scale (e.g. based on the daily or weekly chart) can contain trends which are rather strong and tradable on a smaller time scale (e.g. on a 30-minute chart).

Also, it is common for traders to distinguish between trend-following and counter-trend trading strategies. In my opinion, **the definition of a trend can be broadened to include retracements and reversals.** In Figure 3.4, we see that large trends can be subdivided into smaller trends, each of which can in turn be subdivided further into even smaller trends, and so on. These subdivisions display the "fractal" nature of the market. This means that on various time scales, you will tend to see tradable trends. The difference between these trends of varying degrees is that smaller trends last for shorter periods of time than the larger trends.

Smaller trends do not necessarily result in smaller profits. The sizes of our positions can be scaled up or down to ensure that the risk exposure and profit potential (in terms of percentages of the account balance) do not vary much with whether you are trading trends on a daily timeframe or a 15-minute timeframe.

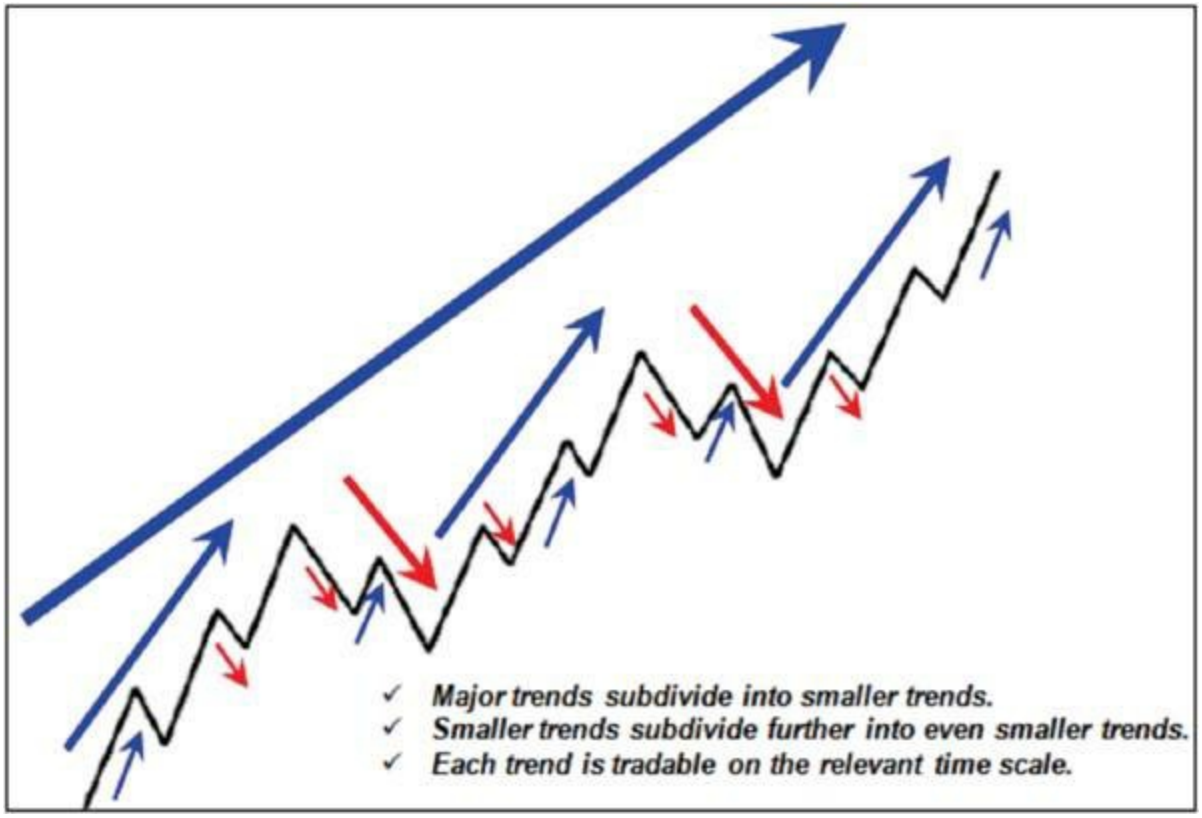


Figure 3.4: Trends exist on all time scales

Now that we have broadened our definition of trends, we note that **trends can also happen after reversals from preceding trends.** As such, the category of trend-following entry setups can also include trading "trend reversals".

Some technical indicators are classified as "oscillators", in the sense that these indicators "oscillate between upper and lower bounds in response to the ups and downs of price movements. Oscillators can often be used to point to potential reversals. Conventionally, traders use oscillators to

- Identify "overbought" conditions, so as to possibly "sell" into downtrends (reversals from "overbought" conditions)
- Identify "oversold" conditions, so as to possibly "buy" into uptrends (reversals from "oversold" conditions)

There are various technical indicators which are considered oscillators, e.g. MACD, Stochastic Oscillator, Relative Strength Index, etc. Figures 3.5a and 3.5b show

examples of using oscillators to identify reversals that tend to happen after overbought or oversold conditions are detected.

Figure 3.5a shows how we can use a moving-average line (e.g. a 5-period or a 10-period moving-average) together with the Stochastic Oscillator to detect the early stages of a potentially upcoming trend. The Stochastic Oscillator is used to identify when the market is emerging from oversold or overbought levels. The moving-average line is used to reinforce the decision to take long or short positions.

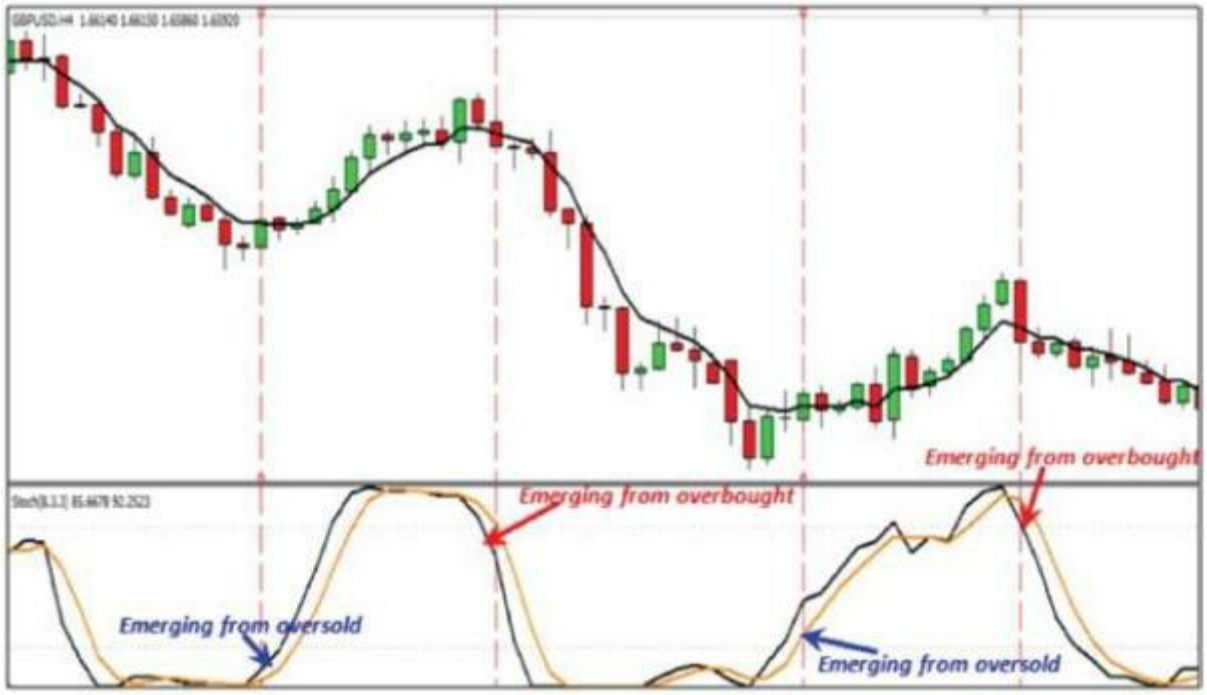


Figure 3.5a: Using an oscillator with a moving-average to identify reversals

Figure 3.5b shows how we can use two different oscillators to detect potential reversals from overbought or oversold conditions. Although these two oscillators (Stochastic Oscillator and Percent Range) are quite correlated, **it is possible to tune their parameters to display different levels of responsiveness to potential trend reversals.**

As such, we could choose to take a trade when both indicators agree, or when either one of the two oscillators indicate a trading opportunity. **When we use two or more indicators to make trading decisions, we are essentially reducing the probabilities of false signals.**

Sometimes, market action causes one of the indicators to respond first; at other times, another of the indicators gives a trading signal first. In this way, **there is some kind of "diversification" between the responses of different indicators.**

By using different combinations of indicators, we make our entries more selective. However, we must not be obsessed with using too many indicators. **There is a limit to how much more "information" we can get by using more indicators.**



Figure 3.5b: Using oscillators to identify reversals, i.e. beginnings of new trends

Each of these indicators can be tuned to be more or less sensitive to potential trends. As illustrated in Figure 3.5c, excessive sensitivity leads to more false signals, although it tends to get you onto a strong trend earlier. On the other hand, indicators tuned to display low sensitivity tend to give less false signals, at the expense of delaying entries onto strong trends. Trading with indicators is always about a balance between these two extremes. Many successful traders are comfortable with taking a lot of false signals, because their average return-to-risk ratios are rather high, leading to high overall profitability despite low win rates.



Breakout Trends

Trend-following also often involves capturing what we call "breakouts". Essentially, breakouts occur when the price breaks a resistance or support level. Figures 3.6a and

3.6b display examples of **entering long and short positions when the market breaks new highs and new lows.**

The blue and red channel lines are plotted to respectively track the highest highs and lowest lows over a recent historical period. For example, a 20-period channel will track 20-period highs and 20-period lows. The upper band is a moving resistance level, while the lower one is a moving support level.

Simple entry rules can be made to enter upon breakouts as seen below. How far you can ride the breakout trend depends on your exit strategies. Certainly, when the market moves sideways or even reverses soon after the breakout, how effectively you minimize your losses also depends on your exit rules.

As I have repeatedly emphasized, exit strategies ensure that losses are minimized and kept small relative to profits, leading to good average return-to-risk ratios. **High return-to-risk ratios will reduce your dependence on high accuracy rates, which may not happen sometimes.**



Figure 3.6a: Successful Breakouts from recent highs



Figure 3.6b: Successful Breakouts from recent lows

Using Trend-lines for Breakouts

Trend-lines can be plotted on the price charts by connecting highs and lows together. **The more touch-points there are on the trend-lines, the more significant the trend-lines are.** These trend-lines can be used as resistance and support levels, where there are tendencies of tradable breakouts.

Figures 3.7a and 3.7b show examples of breakouts that tend to occur when a significant trend-line is penetrated. Breakouts tend to occur at significant support and resistance levels, especially after the market has unsuccessfully attempted to penetrate these levels for a number of times previously. Trend-lines are just one of the possible tools to use when we look for opportunities to trade breakouts.

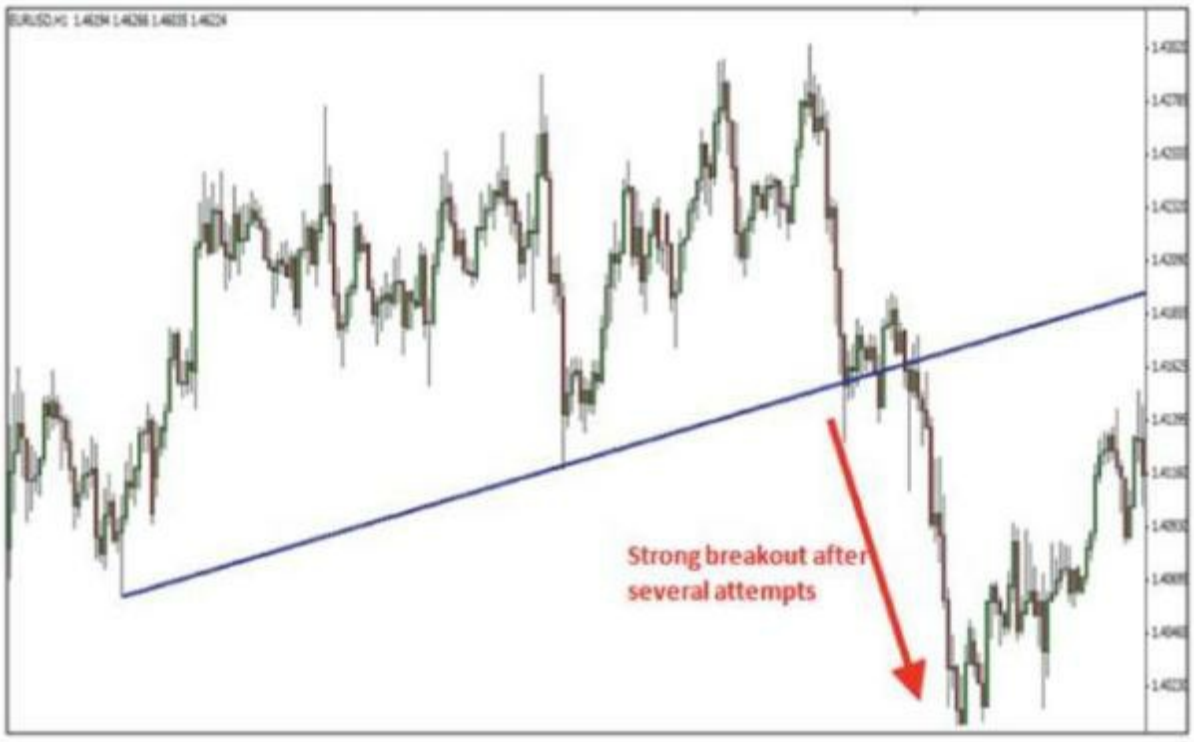


Figure 3.7a: A breakout from an upward-sloping trend-line (support)



Figure 3.7b: A breakout from a downward-sloping trend-line (resistance)

Using Volatility Bands for Breakouts

Support and resistance levels provide important junctures in market movements where strong breakouts tend to happen. We note that support or resistance levels are

psychological barriers in collective market psychology.

As such, when such levels are decisively penetrated, the market tends to continue in the same direction. In Figures 3.8a and 3.8b, we see examples of breakouts that tend to happen as a result of the price penetrating the upper and lower Bollinger Bands. It is also useful to note that successful breakouts tend to happen in the more active hours of the Forex market.

We can establish simple entry rules to get onto a potential breakout like the ones below. For example, we can decide to get onto the potential breakout when the following conditions are fulfilled:

- The first bar closes above the upper band or closes below the lower band.
- The upper or lower band displays a significant steepening of the slope.



Figure 3.8a: Using the Bollinger Bands to identify a "breakout" downtrend



Figure 3.8b: Using the Bollinger Bands to identify a "breakout" uptrend

"Crossover failures"

Certain patterns on some simple indicators can prove to be quite helpful in identifying the possibilities of strong trends. For example, there are times when **a fast moving-average line seems to be on the verge of crossing a slower moving-average, and then fails in doing so.**

A "crossover failure" pattern like those in Figure 3.9 can be a simple and useful entry setup. It tends to give us an opportunity to join a trend during a retracement. It is a situation where **a prevailing trend seems to reverse itself, and then resumes in the original direction.**

In Figure 3.9, the slower moving-average line (the black one) serves as some kind of support or resistance, such that the faster moving-average line (the blue one) bounces off the slower line, pointing to a strong resumption of the original trend. You could use this pattern as one of the conditions for your trade entries.



Figure 3.9: Using Moving-Average lines to identify "crossover failures"

Zero-level reversals

Some indicators oscillate on both sides of a "zero-level". There are cases where **the indicator is on the verge of crossing the zero-level, and then reverses away from the zero-level.** In some cases, it crosses the zero-level by a very small margin, and very soon reverses. Figure 3.10 shows a few such "zero-level reversals" in the CCI (Commodity Channel Index), leading to tradable trends. We note that the trade setup can be reinforced if "crossover-failure" patterns happen to coincide with the "zero-level reversals".



Figure 3.10: Using the CCI to identify "zero-level reversals"

Fibonacci Levels

In Figure 3.11a and 3.11b, we see that when the market retraces a strong preceding trend, there is a tendency for the trend to resume in the direction of the preceding trend after bouncing off certain retracement levels. **"Fibonacci ratios" are often used to determine the extents of these retracements where the market tends to find support or resistance.** Most trading platforms will give you a simple way of generating these Fibonacci retracement levels.

For example, Figure 3.11a shows that when the market retraced the strong uptrend (marked by the diagonal line), there was strong support very near the 38.2%, 50.0% and 61.8% retracement levels.



Figure 3.11a: Fibonacci support levels, where minor to major trends tend to develop

Figure 3.11b shows that during the retracement of a strong downtrend (marked by the diagonal line), strongest resistance was found very near the 78.6% retracement level.

Note that the Fibonacci levels are not to be considered as magical levels where you always expect the market to bounce off to resume a preceding trend. We should consider a retracement as a trend itself. As such, whenever a retracement approaches a Fibonacci support or resistance level, there is also a tendency for "breakouts" to occur. It takes practice to make good trading decisions in anticipating "breakouts" or "bounces". At the same time, you may use a couple of trend indicators or oscillators to help you in making trades in the Fibonacci setups.



Figure 3.11b: Fibonacci resistance levels, where minor to major trends tend to develop

Support and resistance levels

It is important to understand the reasons why support and resistance levels (e.g. those Fibonacci levels shown above) exist on price charts. Some people think that these levels present "magical magnetic fields" that tend to repel price movements away or to cause strong breakouts to occur. **The reality is that the lines that we draw on our charts (whether they are indicators, trend-lines, Fibonacci levels or any forms support and resistance levels) do not "cause" price movements to happen.** It would be ridiculous to suppose so! Rather, it is collective market psychology that leads to patterns in price movements.

Support and resistance levels (in the form of round numbers, recent highs and lows, Fibonacci retracement levels, etc) are collectively perceived by the market as "barriers". As such, when price movements approach such "psychological barriers", there is a tendency for price movements to slow down and **display a general reluctance to "penetrate" these barriers,** leading to ranging conditions and "bounces". There are, of course, also **many cases where market prices decisively penetrate these barriers.**

In essence, when prices linger in the vicinity of such barriers, the market is collectively displaying a battle between the buyers and the sellers. **Generally speaking, repeated attempts at "breaking" these barriers will, in time to come, give way to strong "breakout trends".** Such a phenomenon is due to the market's collective acknowledgement that once a strong barrier has been penetrated, there are less impediments and therefore a stronger basis for prices to continue in the direction of the breakout.

Along the way, of course, **there are more barriers (some stronger than others) that**

lead to the market alternating between bounces and breakouts of various magnitudes, leading to uptrends and downtrends on various scales. At each juncture, the market displays a tussle between buyers and sellers. With some practice and experience, and with the relevant analysis tools, you can tune yourself to the probabilities of the occurrences of bounces and breakouts when prices linger in the vicinity of support and resistance levels.

Divergence Patterns

Divergence patterns often occur when we compare the price trend with a corresponding trend shown on an indicator. For example, Figure 3.12a shows a divergence between the price trend and the trend indicated by the MACD indicator. Such a "conflict" between the price and an indicator often points to a potential reversal of the price trend. Figure 3.12a is an example of **a "bearish divergence" because MACD was displaying a downward trend while the price trend was up in the corresponding period.**



Figure 3.12a: Bearish Divergence between price trend and MACD

Figure 3.12b is an example of **a "bullish divergence", as MACD was trending upwards while the price trend was down in the corresponding period.**



Figure 3.12b: Bullish Divergence between price trend and MACD

To enhance our chances of identifying tradable divergence patterns, we can make use of several oscillators, e.g. MACD, RSI, Stochastic Oscillator. A valid entry setup is identified once we see a divergence between the price and any one of these oscillators.

Range-Bound Trading

As stated earlier, the definitions of ranging and trending conditions in the market can be rather subjective, depending on your perspectives of various degrees of time and price movements. As such, even "ranging" market action includes smaller trends which are tradable. **Range-bound market action tends to be characterized by the prices bouncing off certain "barriers" on the price chart.** There are different ways to make use of oscillators, trend-lines and price action to determine such "barriers", which are known as support and resistance levels in the market. When market action displays tendencies of bouncing off these barriers, we can consider the resultant price movement as a "trend" itself. Thus, we often make use of trend momentum indicators to reinforce decisions to enter trades in the direction of such "bounces".

Peaks and Valleys

There are times when the market moves within ranges. As such, one could make use of the fact that the price movements tend to bounce back and forth between certain "bands" in the market. These bands are essentially considered as support and resistance levels. In fact, the existence of support and resistance levels in the market is one of the most basic and useful phenomena used for trading.

As an example, consider the use of support and resistance levels which are formed by recent highs and lows on the chart in Figure 3.13a. Such "peaks" and "valleys" in the market present trading opportunities when we use oscillators to anticipate price bounces.



Figure 3.13a: Using recent highs and lows as support and resistance

When trading in the direction of an anticipated "bounce" from a support or resistance level, we need to be reasonably confident that the barrier presented by the support or resistance level will hold, at least for the time being. It is important to note how many times the barrier has been "tested" by the market. If the market is coming into the vicinity of the support or resistance barrier for the first time, a "bounce" tends to be more likely, although there are no absolutes in the market.

In Figure 3.13b, we see that sometimes the market displays several touch-points as it approaches support and resistance levels. The more touch-points there are, the more likely a breakout tends to occur. In this example, the resistance shows 4 or 5 touch-points (they do not have to be at exactly the same levels), leading to a strong breakout. At the support level formed by a recent low, we see the market bouncing off the support barrier twice. In real-time trading, it takes practice to judge the likelihood of a bounce or a breakout by looking at the price action and the speed of price movement as it approaches the support or resistance barrier. With practice, it is possible to identify high-probability entry opportunities near support and resistance levels even without the use of indicators.



Figure 3.13b: Repeated testing of support and resistance

Volatility Bands

The market volatility tends to be constrained within certain limits. Therefore, **whenever the price action strays too far away from the average, there is a stronger likelihood for the price to reverse.** Various indicators can be used as volatility bands that serve as support and resistance levels. For example, Figure 3.14 shows how the Bollinger Bands can be used for this purpose, by using also an oscillator (e.g. the Percent Range indicator) to reinforce the decision to buy near the lower Bollinger Band or to sell near the upper Bollinger Band.



Figure 3.14: Using Bollinger Bands as support and resistance to anticipate "bounces"

Figure 3.15 is a customized indicator designed to track the changing volatility of the market. The upper and lower bands are spaced from a moving-average line (the black line in the middle) based on a certain multiple of the market volatility. **This indicator can be tuned to enhance the probability that the price tends to bounce off the upper and lower bands when it approaches either of them.**

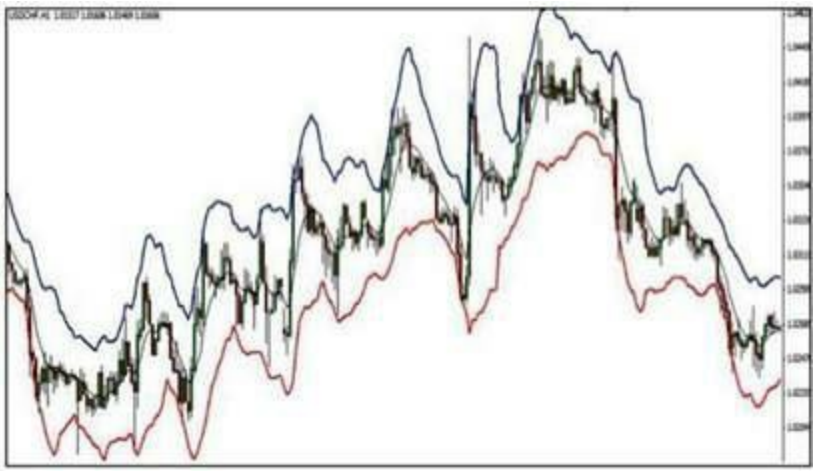


Figure 3.15: Using a volatility channel ("envelope") for trading "bounces"

Trend-lines

As indicated earlier, trend-lines can be used as sloping levels of support and resistance, where there are tendencies of strong breakouts, especially after the trend-lines have been repeatedly touched or "tested". Usually, we ignore the first breakout attempt. As

such, there are opportunities to trade the price action that occurs when the market bounces off the trend-lines. Figures 3.16a and 3.16b show examples of the market bouncing off the trend-lines.



Figure 3.16a: Bounces from an upward-sloping trend-line (support)



Figure 3.16b: Bounces from a downward-sloping trend-line (resistance)

It is important to realize that market is not "obliged" to bounce off the support and resistance levels. In fact, this principle applies to any trading strategy you use. Whether you are using technical or fundamental analysis tools, it is extremely important to resist the temptation to stubbornly hold on to your opinions about market movements for too long. In other areas of life, persistency in your beliefs might be beneficial. However, such a thinking pattern will cost you dearly in the Forex market. Regardless of the analysis tools that we use to identify trading opportunities, we must realize that these tools merely help us identify high-probability trades, not "sure-win" trades! This is why

you should reinforce what you read in Chapter 3 with the exit strategies and risk control techniques in Chapters 4 and 5.

Scalping Strategies

In trading, **scalping refers to taking very short-term trades where small profits are taken within very short periods of time. Likewise, losses should be taken quickly at predetermined levels.** Because of the extremely short-term nature of such strategies, it is important to look out for sufficient market volume before embarking on any attempts to scalp the Forex market.

A scalper should preferably look for a sudden surge in trading volume, because quiet market conditions are not conducive for such a trading style. In the spot Forex market, trading volume is defined as the number of ticks within a certain period of time. Most Forex brokers provide some form of a "tick volume" indicator, which counts the number of ticks that happens within a certain time period. If you are looking at a 5-minute chart, as illustrated in Figure 3.17, the tick volume refers to the number of ticks within every 5-minute period. The Money Flow Index is another indicator of trading volume.

When looking at the price chart, every "tick" refers to the smallest price movement that occurs, either in the upward or downward direction. In the Forex market, every one tick usually refers to 1 pip, since prices tend to move pip by pip. In some extreme cases, e.g. just after a high-impact news report is released, one tick could be equivalent to several pips, i.e. the market can move 5 to 10 pips (or even more) at one go. In volatile times, one tick could happen every 2 to 3 seconds, or even less. In quiet market conditions, the time interval between two consecutive ticks could be as long as 20 to 30 seconds.



Figure 3.17: Tick Volume & Money Flow Index on a 5-min chart

A scalper may decide to take scalping trades when the number of ticks per minute exceeds 20 or so. That means that the average time interval between consecutive ticks is 3 seconds or less. Of course, this guideline may vary from person to person. What a scalper needs to realize is that fast market action is more conducive for effective scalping. At the same time, strong trading psychology is also required. **Since split-**

second decisions have to be made with little time for rational deliberation, the trader's most instinctive trading responses must avoid the typical psychological trading mistakes that people tend to commit.

The general principle of scalping is to stay away from the immediate price action that happens just after a sudden spike. Figures 3.18a and 3.18b illustrate the basic behavioral pattern of a successful scalper. Upon identifying a long and fast-moving bar, we should enter short-term trades in the direction of the initial spike, after a retracement. **It takes psychological strength and discipline to consistently and instinctively close a position when short-term price action shows that we should take any open profits or realise any open losses.**

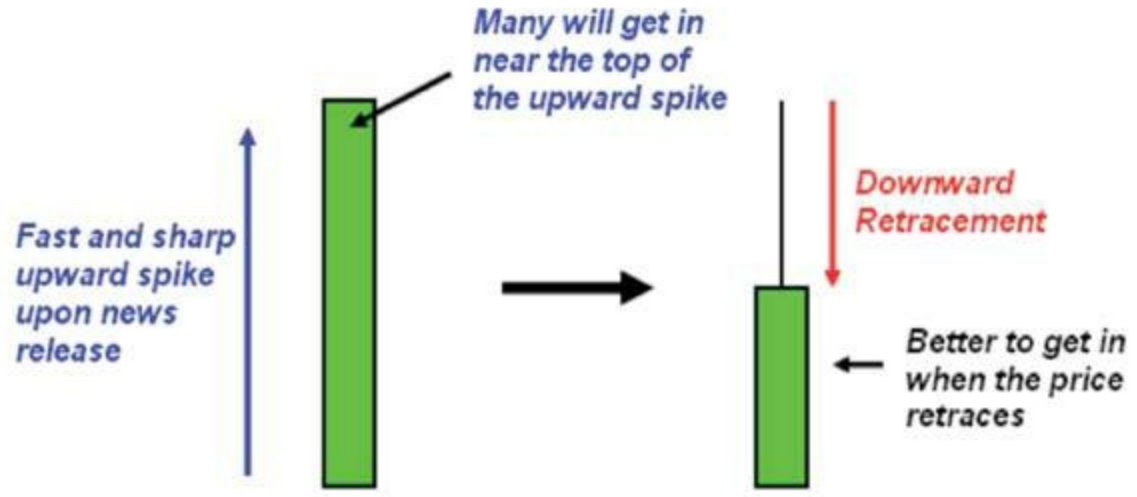


Figure 3.18a: Scalping upon a retracement of a long and quick green bar

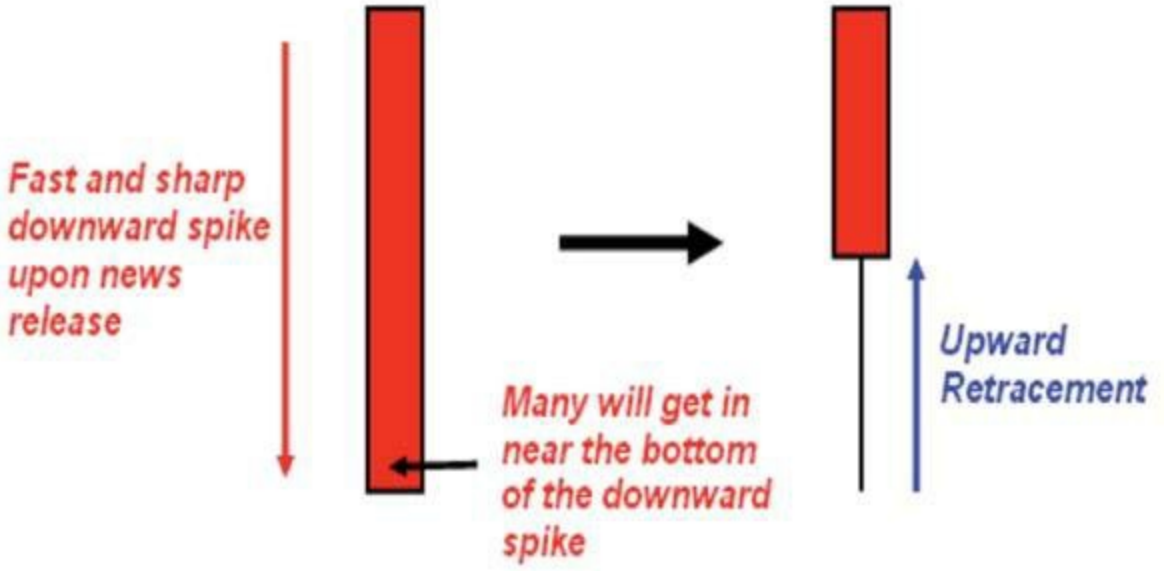


Figure 3.18b: Scalping upon a retracement of a long and quick red bar

Figure 3.19 shows a customized tick indicator which measures the average time interval between consecutive ticks, and also displays the tick-by-tick dynamics of price movements. When used with care and practice, such an indicator can be rather effective in helping us make good entry and exit decisions in scalping. Not every Forex trader will enjoy scalping; some traders find this trading pattern too "exciting". However, it can become a very lucrative style of trading if the trader masters the psychology of making quick trading decisions.

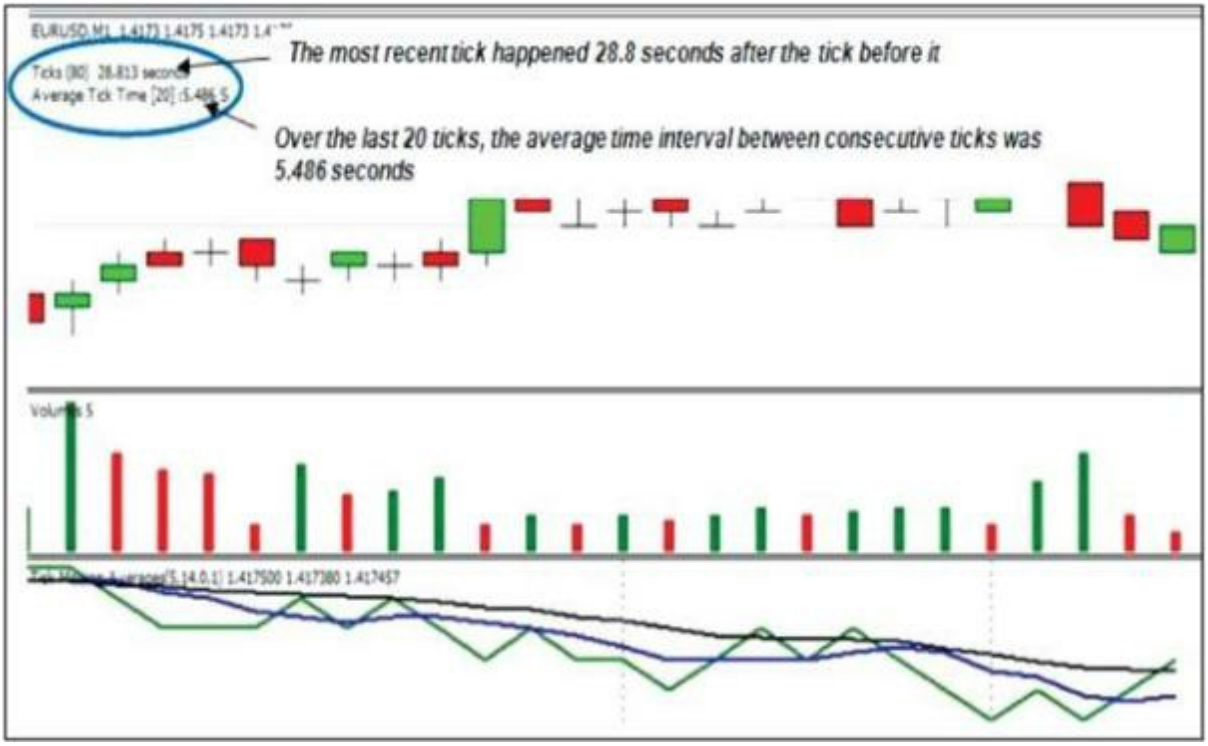


Figure 3.19: Tick indicator that shows tick movements and time intervals between ticks

Fundamental Analysis

In currency trading, fundamental analysis deals primarily with economic indicators which point to various aspects of a country's economy, and how they typically influence the country's currency. It also deals with the market sentiment, i.e. the current state of the relative forces of supply and demand in the currency market.

Incidentally, many traders are under the mistaken impression that fundamental analysts are essentially opposed to technical analysts in the sense that you must either rely solely on supply-demand and economic analysis or on chart-reading. A common question I get is, "Which is better? Technical or fundamental analysis?" There is really no straightforward answer to this question, for the very basic reason that the question is wrongly framed on the basis of a mistaken conception of how markets work. Whether you use technical indicators or fundamental analysis to make trading decisions, your success as a trader really depends on how you use your analytical tools with the right mindset. I know of traders who make a lot of money by using a few very simple technical indicators only; likewise, I also know of very successful traders who solely rely on fundamental analysis for their trading decisions. Of course, there are those winning traders who use a blend of both forms of analysis. Certainly, there are also scores of losing traders whose analytical tools are very similar to those used by the three categories of traders mentioned above.

Despite the varied styles of the most profitable traders, what is really common among them is their **ability to follow their method faithfully with rigid risk control, and a level of mental toughness which most traders do not work on achieving.**

Nevertheless, we shall now look at how one can make use of economic and sentiment indicators to take positions in the Forex market.

Economic Indicators

The market's perceptions of certain significant economic reports often result in short-lived spikes in the relevant currency pairs. **Such perceptions may or may not be rational.** It is quite common to see that after an economic report is released, the market responds in a direction which is contrary to conventional logic. We might think that, for example, the US employment data is much worse than forecast, only to realize that the USD/JPY spiked upwards immediately after the release of the data.

Date	2:15pm	Currency	Impact		Detail	Actual	Forecast	Previous
Fri Oct 2	7:30am	JPY		Household Spending y/y		2.6%	-0.1%	-2.0%
	All Day	CNY		Bank Holiday				
	2:00pm	GBP		Nationwide HPI m/m		0.9%	0.8%	1.4%
	4:30pm	GBP		Construction PMI		46.7	48.2	47.7
	8:30pm	USD		Non-Farm Employment Change		-263K	-179K	-201K
	8:30pm	USD		Unemployment Rate		9.8%	9.8%	9.7%
	8:30pm	USD		Average Hourly Earnings m/m		0.1%	0.2%	0.4%
	10:00pm	USD		Factory Orders m/m		-0.8%	0.2%	1.4%

Figure 3.20: An example of some significant economic indicators

Why do irrational responses happen in the Forex market? Very often, traders like to ask, "Why did the USD move this way? The report is supposed to move the USD the other way! Is there some other report or announcement which I don't know about?" Quite simply, the truth is that the market is not moved by any report; **all market movements, whether sudden or gradual, are due to collective market psychology.** The market can choose to spike upwards or downwards even without any stimulus from announcements or economic reports.

Sometimes, the market begins to respond to an anticipated release of an economic report several hours before the scheduled release. For example, suppose the US Non-Farm Employment Change report is scheduled to be released at 8.30pm. The market can possibly start showing a strong downtrend in USD/JPY several hours before 8.30pm. When the actual released figure implies "bad news" for the US, the USD/JPY could irrationally spike up instead. Such an immediate spike could be due to the market having already priced in the anticipated "bad news" for the US.

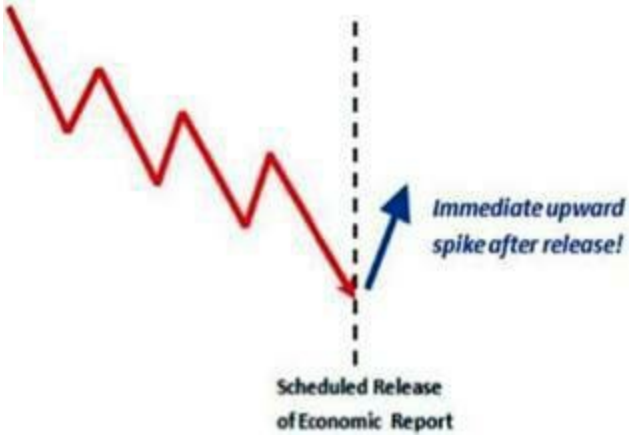


Figure 3.21: Market pricing in anticipated economic data, and then reversing upon release of data

Irrational responses occur frequently at the release of important economic figures. Generally speaking, I prefer not to be too concerned about the "logic" of the figure being released. Rather, I watch what the market is doing in real time just after the release of the announcement or report. **There are often good scalping opportunities just after the release of important economic reports, due to sudden surges in trading volume.**

Sentiment Analysis

There are various ways in which we can gauge the market sentiment, by using sentiment indicators based on the Commitments of Traders (COT) report.

COT Indicators

Since the currency market is decentralized, i.e. there is no one exchange that tracks all trading activities, there is no easy way to gather data on trading volumes. As such, we can refer to the "Commitments of Traders" (COT) report, which can be found on www.cftc.gov (Commodity Futures Trading Commission). This report provides, on a weekly basis, data related to the bullish and bearish positioning in the futures market. By referring to the positioning of the currency futures, we are able to monitor historical trends of the market sentiment. **One of the most useful ways to use the COT data is to look for extremes in the market sentiment, and anticipate potential reversals of market trends in the near future.**

Figure 3.22 is a sample weekly COT report for GBP futures. It provides data on the trading activities of 3 groups of traders:

- **Commercial** - Describes an entity involved in the production, processing, or merchandising of a commodity, using futures contracts primarily for hedging
- **Non-Commercial (Speculators)** - Traders, such as individual traders, hedge funds and large institutions, who use futures market for speculative purposes and meet the reportable requirements set forth by the CFTC
- **Non-Reportable Positions** - Long and short positions that do not meet reportable requirements set forth by the CFTC

It is a rather dull-looking report, with a lot of data which may not be relevant to our trading. Since this report is released weekly, **it tends to be more useful for longer-term position trading when we plot the trends displayed by the weekly data points.**

For our purposes, it is usually more useful to focus on the number of long and short contracts in the "non-commercial" category. The difference between the number of long contracts and that of short contracts is known as the "net positioning".

BRITISH POUND STERLING - CHICAGO MERCANTILE EXCHANGE Code-096742
FUTURES ONLY POSITIONS AS OF 10/06/09

NON-COMMERCIAL			COMMERCIAL		TOTAL		NONREPORTABLE POSITIONS	
LONG	SHORT	SPREADS	LONG	SHORT	LONG	SHORT	LONG	SHORT
(CONTRACTS OF GBP 62,500)						OPEN INTEREST:		111,463
COMMITMENTS								
12,636	74,742	18	81,278	10,406	93,932	85,166	17,531	26,297
CHANGES FROM 09/29/09 (CHANGE IN OPEN INTEREST:					13,258)			
-3,493	10,787	-10	15,221	203	11,718	10,980	1,540	2,278
PERCENT OF OPEN INTEREST FOR EACH CATEGORY OF TRADERS								
11.3	67.1	0.0	72.9	9.3	84.3	76.4	15.7	23.6
NUMBER OF TRADERS IN EACH CATEGORY (TOTAL TRADERS:						79)		
15	38	2	18	14	35	52		

Figure 3.22: COT Report for GBP futures

For the purpose of establishing trading rules for a longterm trading style, one can plot the net positioning of currency futures positions. An example of plotting the trends of the net positioning is shown in Figure 3.23.



Figure 3.23: COT Net Positioning trends for EUR Futures

When looking at a plot like Figure 3.23, **we should also look at the daily or weekly price charts of the relevant currency pair** (EUR/USD in this case), and watch for either of the following:

- **Bullish or bearish extremes**

If the net positioning has been moving up or down for several consecutive weeks, we begin to watch for a top or a bottom, and **enter trades based on potential reversals.** Our goal is not to pick the tops and bottoms with high levels of precision. We can refer to the daily or weekly price charts, together with one or two oscillators, to determine

1' "Sell" entries based on overbought levels (bullish extremes), or

1' "Buy" entries based on oversold levels (bearish extremes).

- **Zero-level crossovers**

When the net positioning crosses above or below the zero-level, we can refer also to the daily or weekly price charts to **determine entries based on price momentum.**

Derived from the data on the COT net positioning, the COT Index can also be used in the same ways as explained above. **The COT Index** measures the percentage of the current COT net positioning as compared to the previous COT net positioning (13 weeks, 26 weeks, 39 weeks, or 52 weeks ago). As such, the COT Index can take on values from 0 to 100.

A reading close to 0 suggests that a bottom is forming soon and a reading close to 100 suggests that a top is forming soon. For example, a reading of 100 on the Euro futures suggests that the EUR/USD is close to a top, i.e. we anticipate a reversal that leads to a downtrend.

Several websites publish data based on the COT report. For example, Figure 3.24 is a tabulated report of the COT Index for the major currencies. Readings of 95 and higher as well as 5 and lower are in bold-red to indicate potential market extremes. Trading rules can be easily established for long-term position trading based on this data.

Week (Data for Tuesdays)	13 Week Index (Current)	13 Week Index (Previous)
US Dollar	**100**	50
Euro	8	75
British Pound	**0**	50
Australian Dollar	58	**100**
NZ Dollar	75	92
Japanese Yen	83	67
Canadian Dollar	67	**100**
Swiss Franc	83	**100**

Figure 3.24: A snapshot of the COT Index for the major currencies

One can determine certain thresholds in the COT Index which help to determine whether to take either of the following courses of action:

- **To enter a position to ride on a prevailing trend**

For example, an increasing COT Index from 30 to 70 may lead to decisions to take long

positions when used together with some trend indicators on the daily or weekly charts. Similarly, a decreasing value of the index can be the basis of short positions.

- **To begin anticipating a reversal from an extreme**

When the index is near an extreme (near 100 or 0), some oscillators on the daily or weekly charts may be used to determine when the likelihood of a reversal is strongest.

USD Index

The USD Index can be used as a measure of the USD sentiment. Since many actively traded currency pairs are quite correlated with the USD sentiment, the USD Index is useful for identifying potential sentiment extremes in these major pairs.

Just as we use stock indices to measure the value of a basket of stocks, the USD Index is a measure of the global strength of the USD, and is calculated based on a geometric weighted average of a basket of the following 6 currency pairs:

/ EUR/USD / USD/JPY / GBP/USD / USD/CAD / USD/SEK / USD/CHF

To be precise, the USD Index is calculated based on the above 6 exchange rates by using the following formula:

USD Index= 50.143481

If you do not understand this formula, just ignore it! You do not need to know or understand the formula in order to use the USD Index effectively. What you need to know is that its value is a gauge of the strength or weakness of the USD, and that the USD sentiment (as measured by this index) is correlated with trends in each of the major pairs (e.g. EUR/USD, USD/JPY, GBP/USD).

Notably, the Euro makes up such a huge portion of the USD Index. This is why the USD Index chart is more or less an inverted image of the EUR/USD chart.

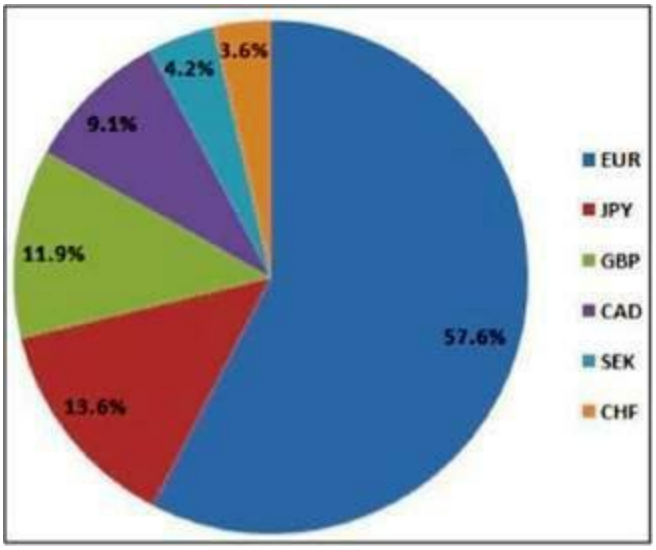


Figure 3.25: Components of the USD Index

One effective way to use the USD Index is to watch for divergences between the USD Index and a major currency pair. For example, Figure 3.26a shows a divergence between USD/CHF and the USD Index. As seen, USD/CHF formed a new low, whereas the USD Index (which is supposed to be correlated with USD/CHF most of the time) failed to form a new low in the corresponding period. This "contradiction" or divergence pointed to a potential uptrend (a reversal) in USD/CHF that was to come rather soon. A similar example of a divergence in USD/JPY (which is also often correlated with the USD Index) is seen in Figure 3.26b.



Figure 3.26a: Divergence between USD/CHF and USD Index



Figure 3.26b: Divergence between USD/JPY and USD Index

The following chart shows another example of using the USD Index to look for a divergence. This divergence is between EUR/USD and the USD Index. Note that EUR/USD is often approximately an inverted image of the USD Index. In most cases, when EUR/USD forms a new high, the USD Index should form a new low; likewise, when EUR/USD forms a new low, the USD Index should form a new high. As such, when we look for divergences between EUR/USD and the USD Index, we compare highs on EUR/USD with lows on the USD Index, and compare lows on EUR/USD with highs on the USD Index. This is what we do with GBP/USD, AUD/USD and NZD/USD as well.

We see in Figure 3.26c that **EUR/USD formed a new high, whereas the USD index failed to form a new low in the corresponding period. As such, this was a bearish divergence for EUR/USD.** Visually, this does not appear to be a divergence, since both EUR/USD and the USD Index show an uptrend. However, we note that this is because EUR/USD is inversely correlated with the USD Index. The divergence is due to the fact that the USD Index failed to form a new low when EUR/USD formed a new high.



Figure 3.26c: Divergence between EUR/USD and USD Index

The above divergence patterns capitalize on the underlying USD sentiment as measured by the USD Index, and the trading opportunities that arise when a major currency pair (e.g. EUR/USD, GBP/USD, USD/JPY, USD/CHF) displays a divergence when compared with the USD Index. When a pattern like this forms, there is a tendency for the USD Index to "forecast" the upcoming trend in the currency pair.

Certainly, there are multiple ways to devise indicators to measure the sentiment in the Forex market and to make trading decisions accordingly. Each indicator looks at the market from a different "angle". It is very possible that any one of these methods is useful enough to achieve profitability in the Forex market when used consistently with discipline and systematic risk control.

This book is not meant to be a definitive "A-to-Z" guide to all possible trading methods. Those presented in this chapter outline a spectrum of various trading styles based on different aspects of market behavior. In fact, I would like to remind all readers once again, especially those who have skipped directly to this chapter, that Chapter 3 only deals with methods of entry into the market. As I have repeatedly emphasized, entry setups only make up one part of a complete trading method or strategy. The entry setups outlined in this chapter can be modified to form your own trading methods suited to your preferences and styles. In addition, reinforcing the setups with high-quality exit strategies and stringent risk control will enhance your chances of achieving above-average profitability in the Forex market.

Which Timeframes?

Traders commonly like to ask whether there is a "best" timeframe to use for chart-reading, in much the same way in which they ask whether there is a best strategy or a best currency pair to trade. Our love for "model" answers is very much rooted in the "Holy-Grail" mentality. No, there is no best timeframe or best strategy that almost guarantees profitability. Different successful traders can be using different timeframes and strategies. Likewise, traders using the same strategies on the same timeframes may produce vastly different results because of sloppy trading behavior and disregard for risk control.

Whether you look for trading opportunities on a 5-minute chart, a 30-minute chart or a daily chart is a matter of personal trading style and preferences, and depends mainly on the following factors:

- **The average intended duration of trades**

Trades which are taken from a daily chart are most likely going to last longer than those taken from a short-term chart, e.g. a 30-minute or a 15-minute chart. The duration of a trade is closely related to how a trader deals with the psychology of the ups and downs in the market while the position remains open. Some traders are by nature more impatient, and prefer short-term action, and possibly realize that they cannot sleep well with overnight positions! On the other hand, some traders prefer their positions to last several days in order to ride multi-day trends. There is no hard-and-fast rule to determine which style is more profitable. There are successful traders who adopt a variety of different trading styles. It is often more important to ensure you execute your plan with the proper risk control and exit strategies.

- **How the time intervals between successive trades affect your trading psychology**

The frequency of trading influences how well a trader overcomes the emotions associated with the previous trade. This is crucial to the trader's ability to think clearly without allowing the current trade decision to be influenced by a recent experience. As described in Chapter 2, both winning and losing trades have a tendency of giving rise to certain emotions which distort our judgment in making subsequent trading decisions.

Dangers of Studying Too Many Systems

If you spend enough time in the community of Forex traders, you will certainly realize that there are countless trading systems available. The number of such systems will only increase over time, because they feed a basic desire prevalent among traders – the desire for sophistication, which is closely intertwined with our need for control and our inability to fully recognize the inevitability of losses. I have seen many seasoned Forex traders delaying their success in this business because of the constant search for a "satisfactory" trading system. The fact that most people have an unrealistic definition of a "satisfactory" system will only ensure that this search will hardly end.

Almost every technical indicator can be tuned to become more or less responsive and sensitive to price trends. As such, there are many indicators we can use to perform the same function of capturing trends. There are often no added benefits in searching for the "latest invention" which appears to be some sophisticated, high-powered indicator or system that is designed to "perfectly" time the market. The key to successful trading certainly does not lie in what indicators or systems we use; it is, more importantly, how we use them that determines our success as traders.

The more systems we study, the less likely we are to reap the maximum benefits from any one of them. You could have studied and used 30 or more different trading

strategies. Whenever one of them produces a couple of losing trades, you will, almost certainly, see that another strategy produces winning trades at the same time. At this juncture, you will naturally identify certain "flaws" in the strategy that you happened to be using, concluding that these flaws "caused" the losses. Therefore, you will shift your attention to that other strategy that produced those winning trades. Sooner or later, this new strategy will get some losing trades as well. Again, you can be quite certain that another strategy happens to give winning trades at the same time. So, do you see what happens? **The temptation to arrive at conclusions based on the "law of small numbers" will easily cause us to be "unfaithful" to any one trading system that is being used, even if it is a valid and sound system that will be profitable over time.**

Back-testing

Back-testing a trading system involves a statistical analysis of how well it would have done in a certain historical period. If our back-testing produces satisfactory results, we have a certain level of confidence that the system being tested will likely produce a similar performance in future. It is true that historical data are all we have to test the statistical validity of a trading method. However, it is possible to become excessively dependent on back-testing, such that it gives a false sense of security about the trading system being used, leading to unexpectedly bad performance in live trading. The following points summarize the common problems faced in back-testing:

- **Over-optimization**

As mentioned earlier, data can be manipulated to ensure that any conclusions or claims can be justified. This is the common problem with statistical analysis. **The complexity and sophistication of the statistical studies can easily mask the spurious nature of the conclusions.** When testing trading systems, over-optimization refers to a deliberate curve-fitting procedure which ensures that the trading rules are adjusted to give the best possible performance in a specified historical period. This means that the trading rules are designed to only fit the market conditions in this period. It is not uncommon to see promising back-test results like the one in Figure 3.27a. It looks too good to be true, doesn't it? It is very possible that a system like this may produce an entirely different kind of performance when used for live trading, as seen in Figure 3.27b.

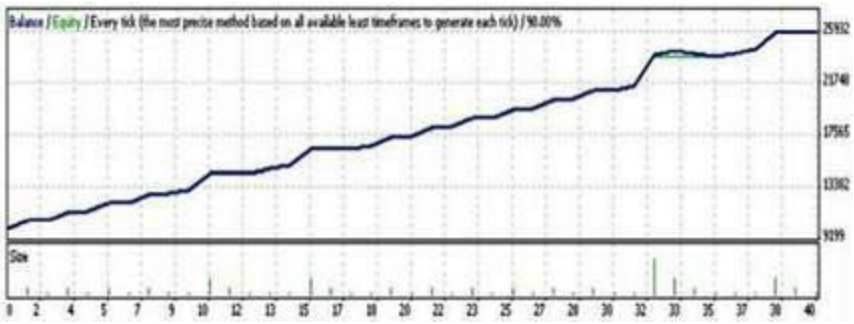


Figure 3.27a: A "promising" back-test of a trading system

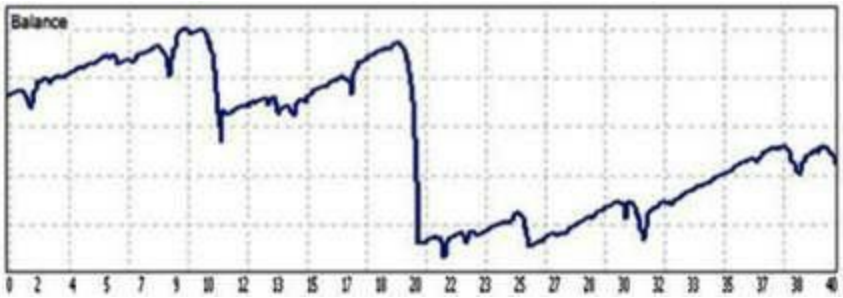


Figure 3.27b: The same trading system showing a dismal performance in live trading

- **Failure to simulate discretion**

Back-testing assumes that mechanical trading rules, as stated in a computer program, are executed with no exceptions. However, most successful traders will tell you that a sound mechanical trading system can be made to perform much better if proper discretion is exercised in addition to the trading rules. Very often, it is hard to exactly replicate such discretion in a computer program for simulation and back-testing.

Moreover, reliable trading systems should be designed based on timeless principles of market behavior, rather than statistical patterns in historical data. Based on my studies and trading experience, I have realized that statistical patterns change from time to time. This is why it is possible to produce systems with fantastic back-testing results on the basis of curve-fitting, and yet realize that the same systems perform badly in real market conditions. On the other hand, timeless market principles (e.g. support and resistance levels, breakout patterns, etc) are based on patterns in mass market psychology, which never change (because human nature never changes). Trading systems will be more reliable in the long term if they are designed based on these, and subject to proper fine-tuning of the basic building blocks of market analysis. Based on my extensive statistical studies and trading experience, I have realized that **the more thoroughly you understand the logic of a trading system, the less dependent you are on statistical testing. This is where discretion improves the performance of trading strategies.**

Chapter 4: The Importance of Exit Strategies

Why Exit Strategies are often ignored

Most traders and investors are very much concerned about picking the right entry points, picking the right stocks to trade and using elaborate screening mechanisms to help them establish supposedly superior entry techniques. However, the fact that more elaborate and sophisticated entry techniques have been developed has not changed the overall success rates among traders.

One main reason for this phenomenon is that people usually do not have any idea when they are going to get out of a position they have entered into. In fact, **a trading system is hardly a complete one if a well-defined exit plan is not available.** A systematic exit plan is needed to ensure you know how to take profits and cut losses. **Quite simply, the cardinal principle in trading, i.e. to cut losses short and let profits run, is all about having a good exit plan.** Most people ignore or underestimate the importance of exit strategies. It is no wonder traders continue to struggle to make money despite being so knowledgeable about all kinds of indicators and entry techniques.

So, why do people underestimate the importance of exit strategies? In Chapter 2, we discussed the various psychological reasons for the trading errors which traders naturally commit. Some of these reasons underlie our natural reluctance to focus on exit plans. Selecting entry points gives us a sense of being in control, which, as explained before, is largely an illusion. In contrast, exit strategies involve trading actions (i.e. getting out of trade positions) which are not immediately executed when a trading opportunity is first identified. **The excitement is the strongest at the point of entry, whereas exits involve actions which can be delayed indefinitely. As such, there is naturally less interest in exit techniques.**

If you think carefully about what trading really is, you will realize that **the outcome of every trade taken is the result of price movements which occur between your entry and exit points.** In the illustration in Figure 4.1, four traders doing the same trade by using the same entry setup (leading to the same entry level) can produce **vastly different outcomes due to different exit levels.** Many traders do not have a systematic and disciplined way of getting out of their positions, and allow their emotions to dictate their exits, leading to bad trading performance regardless of the elaborate and sophisticated entry techniques they use.

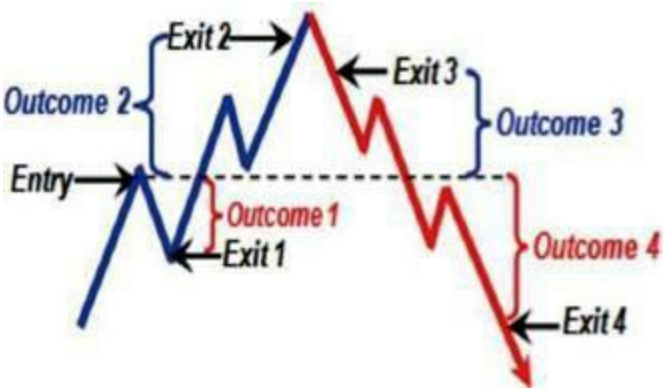


Figure 4.1: Every trading outcome is due to what happens between the entry and the exit

Statistical research shows that exit strategies account for a greater part of overall returns than entry techniques. So, **it is certainly in your interests to pay attention to how you take profits and cut losses.**

Setting Stops

Many losing traders are under the mistaken impression that stop-loss points are undesirable for trading success. The underlying belief that some traders have is that setting a stop and allowing a trade to hit it is like confessing to the market that you are wrong! That is why some traders who take pride in their own courage even go as far as to say that "stops are for sissies"!

If you want to be a winning trader, please make one thing quite clear: **egoistic courage has no place in the market at all!** The market is not a place where you attempt to pit your ego against an enemy, and argue or fight with it when things turn against you! In other pursuits in life, the ability to stand firm in the face of adversity is a desirable quality. However, such a mindset, when applied to how we handle losing positions in the market, will certainly lead to large losses sooner or later. **The ability to strategically place stops for every trade idea simply reflects a mature understanding of the fact that there is no certainty in the markets.**

Setting a stop-loss level is not merely about arbitrarily "plucking a number from the air"; it is not based on how much or how little we think the market will move from current levels. For example, some traders think that the market should not easily move 50 pips against most trade positions, and therefore conveniently set the stop at 50 pips away. Establishing exit plans should be much more systematic than that. The next few sections will outline a few useful ways of establishing where our stops should be placed. Regardless of which methods we use to set our stops, we should note that:

- **Stops are where the market invalidates the trade idea**

If and when the market reaches our stop level, we take it that the market is signaling to us that we should abort the origi nal trade idea, and nimbly move on to the next potential entry signal. As illustrated in Figure 4.2, being mentally nimble enough to take a loss and move on to the next entry opportunity very often results in a profit which is greater than the loss just taken!



Figure 4.2: Stop-loss levels – for exits and moving on to the next opportunity

- **Stops should be placed away from the immediate noise of the market**

Even if we are right about the trend, we can end up being stopped out if the stop-loss level is too near. This is because **currency prices do not move swiftly in a straight line towards our profit target, even if we make the right judgment about the general direction of the market.** Prices always involve short-term ups and downs which are largely random; this is the "noise" factor of market movements. We want to place our stops away from the immediate noise, so as to allow some "room" for adverse movements. If you want to be a successful trader, you need to psychologically come to terms with such adverse movements in every single position you take. Many traders find themselves unnerved by such movements as they monitor the pip-by-pip movements on their trading screen. Such monitoring is almost always counter-productive.

Setting stops should not be a "one-size-fits-all" business. It depends on market volatility, which determines where the immediate noise of the market is likely to carry prices to. The more volatile the market is, the further the stop should be.



Figure 4.3: Higher volatility requires a wider stop in order to stay away from immediate noise

- **The width of a stop depends on the duration of the trade**

The intended duration of the trade determines how near or how far the stop should be. Many traders fail to understand the significance of the distance of a stop-loss point. It is a common mistake among traders to think that a 150-pip stop is riskier than a 50-pip stop, i.e. many traders mistakenly think that a 150-pip stop results in a greater loss than a 50-pip stop. They fail to understand the role played by the size of your trade, i.e. sometimes a 50-pip stop can end up losing more money than a 150- pip one. Position-sizing (as discussed later in Chapters 5 and 6) deals with how we determine the number of lots to trade every time we make a trading decision.

Some trades are meant to last for a couple of hours, while others are meant to last for days. Longer-term positions will involve stops which are further away than shorter-term positions. If we take a trade based on technical conditions on a daily chart, the stop could, on average, be about 150 pips or more. In contrast, a trade taken from a 15-minute chart might give you a reasonable stop of about 40 pips away from entry. Does that mean, therefore, that the first trade is riskier than the second one? No! The first trade has a wider stop simply because it is longer-term in nature. We therefore need to give greater allowances for adverse fluctuations on a larger time scale.

- **Every stop should be evaluated in relation to the profit target**

The width of a stop (in terms of the number of pips away from the entry point) does not, in itself, tell us the quality of the exit point. Every stop should be considered in relation to the profit target. Generally speaking, stops should not be wider than the profit targets. This is why some traders can make a lot of money with a success rate of only about 50%, i.e. they are taking losing trades half the time, and yet are very profitable! At the other end of the spectrum, traders who "cut profits short and let losses run" (doing the

opposite of what traders are supposed to do) may have a 80% win rate and end up losing money!

For example, as illustrated in Figure 4.4, if your winning trades are, on average, 1.5 times that of losing trades, you will be very profitable even if your win rate is only about 55% to 60%. In contrast, if your average losing trade is 1.5 times that of the average winning trade, you need a win rate of about 80% in order to be merely breakeven!



Figure 4.4: Relative sizes of wins and losses determine your profitability

Explicit Stop Levels

The most straightforward way to establish stop exits for a trade is to specify explicit stop-loss levels to the broker whenever a trade is entered. This is usually done based on one of the following:

- **A certain distance (in pips) from the entry price**

This distance can be a function of the market volatility. If the market is trading through larger ranges, this distance is further. In quieter conditions, this distance is smaller. Figure 4.5 shows that at the point of entering a trade, you can calculate and enter your stop-loss level based on a certain number of pips away from the entry price. As explained earlier, the distance of the stop-loss point should not be a standard figure in all your trades. It depends on, among other chart conditions, market volatility and the time scale of your chart analysis.

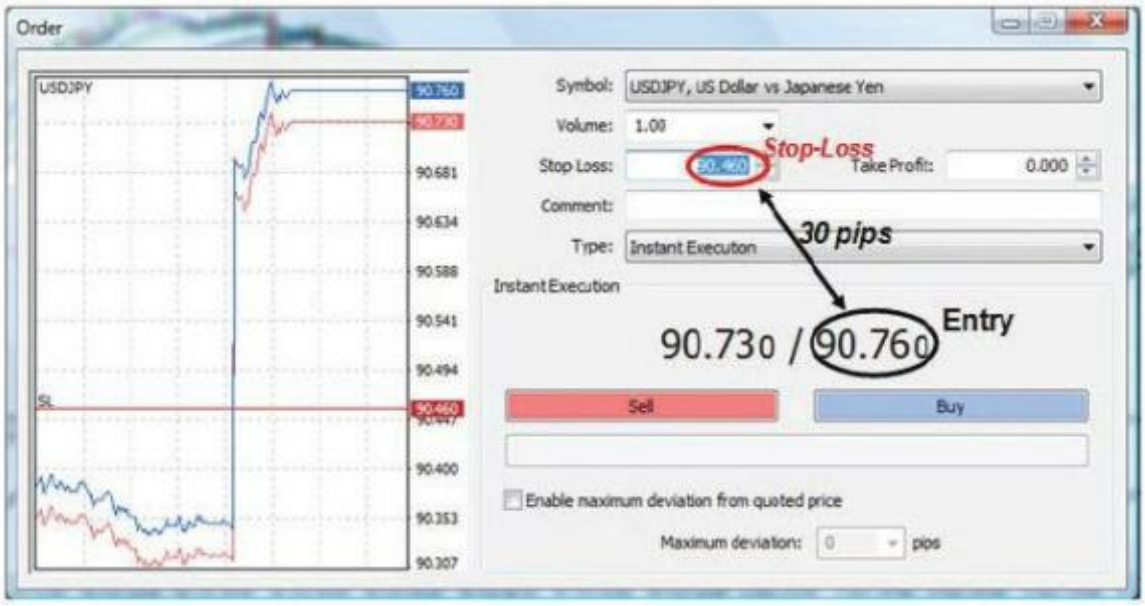


Figure 4.5: Setting an explicit stop when entering an order

- **A recent support or resistance level**

Support and resistance levels can take various forms. These are levels where the market tends to encounter a psychological barrier. For example, when looking at GBP/USD in Figure 4.6a, the level of 1.6000 (a round number) is a natural support level; when a long position is taken, one could place the stop somewhere near the support level.



Figure 4.6a: Setting a stop near a support level

Figure 4.6b shows how you can also make use of a recent high or low to determine where the stop-loss level should be. Recent highs and lows often represent significant

psychological barriers (i.e. support and resistance levels) as well, such that the market tends to collectively display a general reluctance to cross those barriers. If and when the trend turns adversely against our position and crosses a barrier (represented by a recent high or low), there tends to be a collective recognition that because a certain barrier has been crossed, the price will likely proceed further in the same direction. This is why such a barrier represents a level where the original trade position is invalidated and should therefore be aborted.



Figure 4.6b: Using recent highs and lows as resistance/support levels for stop-loss points

Trailing Stops

A trailing stop is a facility provided by most Forex brokers, allowing you to automatically move the stop-loss level as the price moves in your favor. When used properly, a trailing stop can maximize how much you get out of strong trends when they happen. When the market develops into a strong trend, where the retracements within the trend are minimal, using a trailing stop often yields greater profitability than setting an explicit profit target.

You will not know beforehand which trend turns out to be a big winner. This is why it is important to be consistent in keeping to your trend-following exit rules, and not attempt to second-guess whether the current trend is going to be strong or weak.

Figure 4.7 illustrates how a typical trailing stop mechanism works. After you specify an initial stop-loss level, you can also specify to the broker that you want this stop to

"trail" at a certain distance away. For example, if the initial stop is 30 pips away, and you specify the trailing distance to be 30 pips, the stop-loss will start to move up as the position becomes profitable (i.e. moves above breakeven level). During retracements, the stop will not retrace; the stop only moves in the "favorable" direction, i.e. upwards for long positions and downwards for short positions.

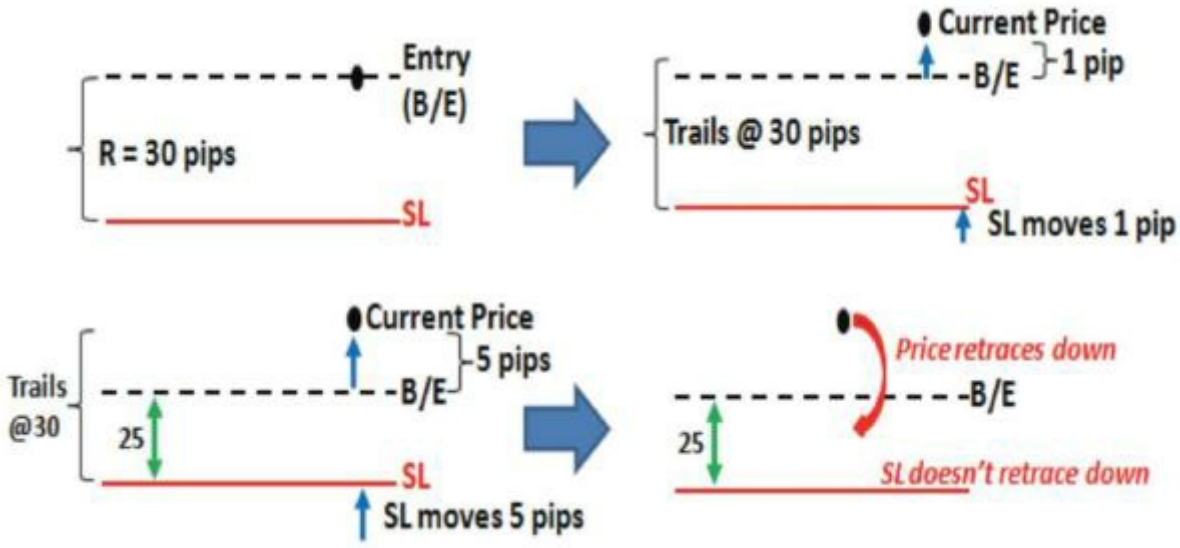


Figure 4.7: Trailing Stop which continuously follows the price

Figures 4.8a and 4.8b show 2 examples of how a trailing stop is hit at a profit after the trend has progressed favorably for some time and "exhausts" itself by going into a retracement that is significant enough to hit the trailing stop. Using a trailing stop is always about a balance between the following:

- Trailing distances which are too close will cause the trailing stops to be hit too soon, leading to premature exits and not allowing us to ride a strong trend long enough.
- On the other hand, if the trailing distance is too far, we end up giving up a large part of the profit when the price retraces to hit the trailing stop.

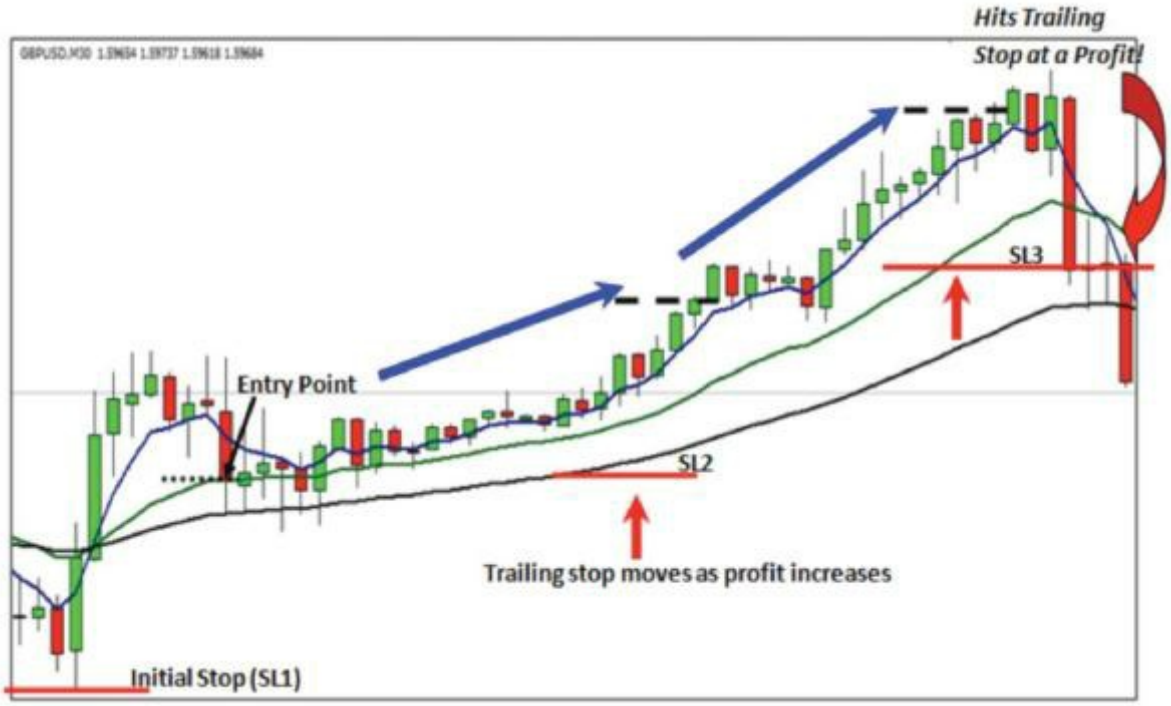


Figure 4.8a: A trailing stop helps in riding a large part of a strong uptrend

"Parabolic" Stops



Figure 4.8b: A trailing stop helps in riding a large part of a strong downtrend

Sometimes, our stops need not be explicitly specified to the broker, i.e. our exits are not necessarily based on a certain pre-specified price level. Instead, **the exits can based**

on certain technical conditions provided by one or more indicators. As such, we will not know beforehand the price level at which we will be stopped out. It is worth noting that such stops may result in a profit when the trend is sufficiently strong. At the same time, such stops will tend to result in smaller losses when the market does not trend strongly.

The parabolic SAR (Stop-and-Reverse) indicator (i.e. the series of "dots that you see in Figure 4.9) is a useful tool to identify reversals in trends. As such, it can be effectively used as a tool to determine when we should abort a trade that was taken to ride an uptrend or a downtrend.

As an impending reversal comes, the distance between the price and the "parabolic dots" will become narrower. As such, you can set a certain rule that stipulates **that when this distance is nearer than a certain threshold, you close an existing position.**

This indicator can be fine-tuned to change the responsiveness to potential reversals. If you make it too responsive, you tend to spot the reversals earlier, at the expense of spotting some "false alarms". If you make it too "slow to respond" to prices, you spot the reversals later, but tend to get less "false alarms". As with all technical indicators, whether you use them for entries or exits, there should always be a balance between the two extremes described above.



Figure 4.9: Using the Parabolic SAR indicator as a dynamic stop

Volatility Stops

A volatility channel indicator can be used to determine where a trade should be stopped out if it turns against us. By definition, the volatility channel, which consists of an upper band and a lower band, will widen or contract in width according to increases and decreases in market volatility.

For example, Figure 4.10 shows a volatility channel indicator, which is dynamically calculated based on a certain multiple of the prevailing volatility at any point in time. This means that the width of the channel changes with time according to recent volatility.

In this example, we can see that if we were to enter "buy" trades based on oversold conditions in the Percent Range indicator (the black line at the bottom), we can use the lower band of the volatility channel (the red line) as a dynamic stop-loss level. Likewise, if we were to enter "sell" trades based on overbought conditions in the Percent Range indicator, we can use the upper band of the volatility channel (the blue line) as a dynamic stop.



Figure 4.10: Using a volatility channel as a dynamic stop

Moving Average Lines

When we enter a trade based on trending market conditions, a moving-average line can be used for a stop signal. As seen in Figure 4.11, when the prices are trending upwards, the candles tend to stay and close above the 10-period moving-average line; likewise, when the prices are trending downwards, the candles tend to stay and close below the

10-period moving-average line. As such, regardless of whatever entry setups we use, we can make use of the moving-average line for exits.

- While we have a long position, the first bar that closes below the moving-average line will be a signal to close that long position.
- Likewise, while we have a short position, the first bar that closes above the moving average will be a signal

Note that closing trades based on this rule may result in a winning or losing trade. The moving-average line acts as a dynamic trailing stop, which results in large profits when the market trends strongly with minimal retracements. **A dynamic stop like this is designed to cut our losses short when the trend is weak or turns out to be a false signal which is quickly reversed. At the same time, it is able to capture a large part of strong trends when they happen.**

Very often, a very simple entry technique can achieve overall profitability by using similar exit rules. It is obvious that you will get a lot of losses when the market moves sideways. However, you can fine-tune the parameters of your entry and exit rules to enhance the probability that the profitable trades will more than cover the losses in the long run.



Figure 4.11: Using a 10-period Moving Average as a dynamic stop

High-Low Channel

A high-low channel consists of an upper and a lower band, which are calculated,

respectively, based on the highest high and lowest low within a specified historical period.

For example, Figure 4.12 shows a 10-period high-low channel, which dynamically tracks the highest high and lowest low over the last 10 bars. The recent highs and lows will thus form a tracking channel, which allows us to determine where the recent support and resistance should be. As we enter trades, this will help us determine where our stop-loss levels should be. If you happen to have a long position open, and the price closes below the red band, it is a possible indication to close the long position. Likewise, an open short position can be closed when the price closes above the blue band. Such an exit rule could end up being profitable after a strong trend. On the other hand, if your entry signal was invalidated by a reversal that happens quite soon after the entry, this exit rule allows you to cut your losing position quickly.

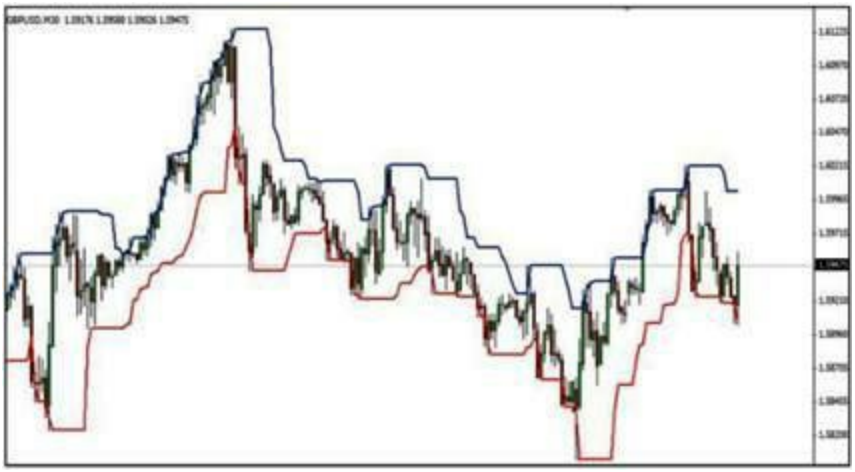


Figure 4.12: Using recent highs and lows as a channel for stops

Taking Profits

Some traders remark that "you can't go broke taking profits!" This is true only if your profits are enough to pay for your losses! Many traders spend most of their time taking small profits, allowing very few large losses to undo the effects of all the winning trades. This is why trading success is not only about achieving high win rates; it is very much about having exit strategies to ensure that losses are more than covered by profits.

Exit plans are all about taking profits and cutting losses. So far, we have dealt with various kinds of stops. However, note that these stops do not necessarily result in taking losses. Most commonly, traders think of "stops" as "stop-loss" points. Of course, when we set an explicit stop level that does not move, the "stop" is indeed a "stop-loss" level, which is for the purpose of loss-taking when the trade is invalidated. However, as we have seen so far, trailing stops can result in a profit-taking situation when we ride a

strong trend long enough. Likewise, there are many ways to use indicators to determine when we can possibly close an open position. Some of these ways have just been outlined in the previous sections. Indeed, these serve the same purpose as trailing stops, such that a position is closed at early signs of reversals, and a strong trend is ridden on as much as possible when it happens.

Explicit Take-Profit Levels

As with taking losses, the most direct way to take profits is to pre-determine an explicit level at which the broker will close your position at a profit. This is usually done based on one of the following:

- **A certain distance (in pips) from the entry price**

This distance can be a function of the market volatility. If the market is trading through larger ranges, we can often afford to set the profit target further away. In quieter conditions, the profit target may be set nearer. Again, the distance of the profit target should not be merely be a standard figure.

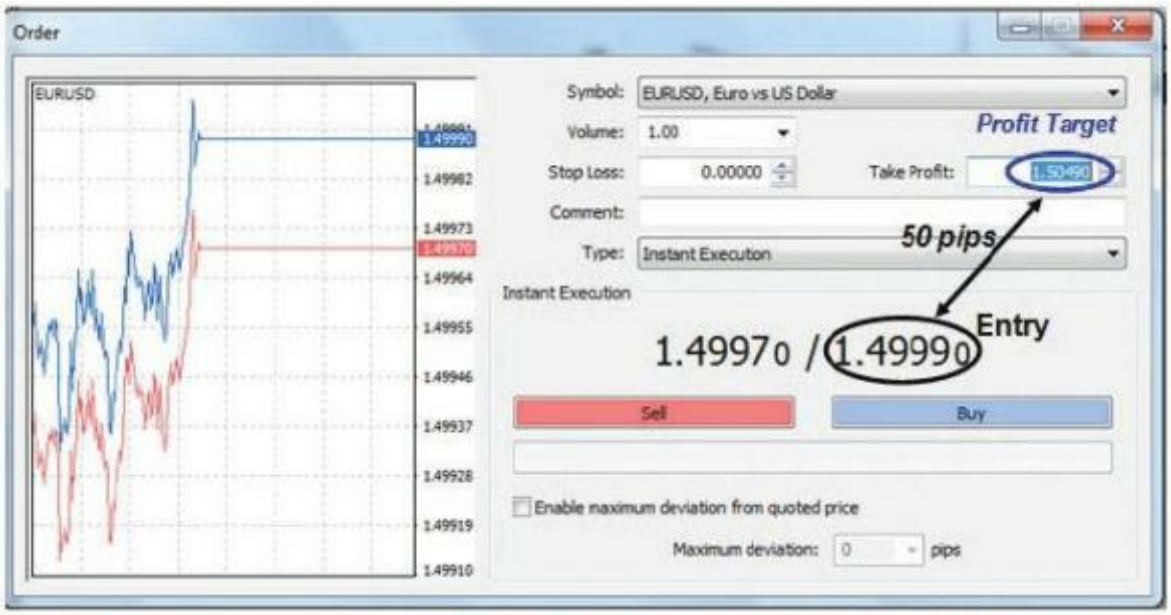


Figure 4.13: Setting an explicit take-profit level

- **Near a recent support or resistance level**

Just like setting stop-loss levels, profit targets can be set near a recent support or resistance level. For long positions, the target can be set just below a resistance level. For short positions, the target can be set just above a support level.

Figure 4.14 illustrates how you could use the Percent Range indicator (black line at the

bottom) to enter short positions when it is overbought and sloping down, and to enter long positions when it is oversold and sloping up. For a long position, a recent high point can be used as a profit target; for a short position, a recent low point can be used as a profit target.



Figure 4.14: Using recent high/low as resistance/support for profit targets

Staged Trailing Stop

In our earlier discussions on establishing stops, it was emphasized that trailing stops can be effectively used to result in profitable positions. This means **that trailing stops have the dual purpose of cutting losses short and letting profits run, although we can never know for certain beforehand which scenario will unfold.** What we know is that if we "tune" the parameters of our trailing stop properly, using it in the long run will help us obey the cardinal rule in trading, i.e. to cut losses short and let profits run. We must remember that it is the "law of large numbers", not the "law of small numbers", that will do justice to the use of trailing stops. Over a sufficiently large number of trades and market scenarios (including ranging and trending conditions), we should be able to allow the winning trades to more than cover the losing ones.

Given the dual purpose of trailing stops, we have actually dealt with a large part of profit-taking strategies in the previous sections. With regard to trailing stops, one could also do a manual "trailing" of the stop in various stages. The following illustrations in Figures 4.15a and 4.15b show how you could manually move the stop every time the

floating profit reaches a certain level.

For example, suppose your initial stop is 30 pips away from entry. When the price moves favorably such that the floating profit is 30 pips, we can manually move the stop to breakeven level. When the floating profit becomes 1.5 times that of the initial stop (i.e. 45 pips), we may move the stop up to protect 40% of the floating profit. When the floating profit becomes 2 times that of the initial stop (i.e. 60 pips), we may move the stop up to protect 50% of the floating profit.

Note that the parameters stated in this example are not hard-and-fast rules as to how we move the stop. The underlying rationale is that **as the price moves increasingly in our favor (the position becomes increasingly profitable), we move our stop up to protect increasing percentages of the floating profit.**

This means that in the earlier stages of the trend-riding, the trailing stop should allow more room for retracements so that we do not easily get out of the game prematurely. As the trend-riding continues to make the floating profit bigger, we move the stop to follow the market price more tightly, i.e. to protect an increasing percentage of the floating profit. **This is so that we do not have to give up a large part of the floating profits when significant retracements happen.**

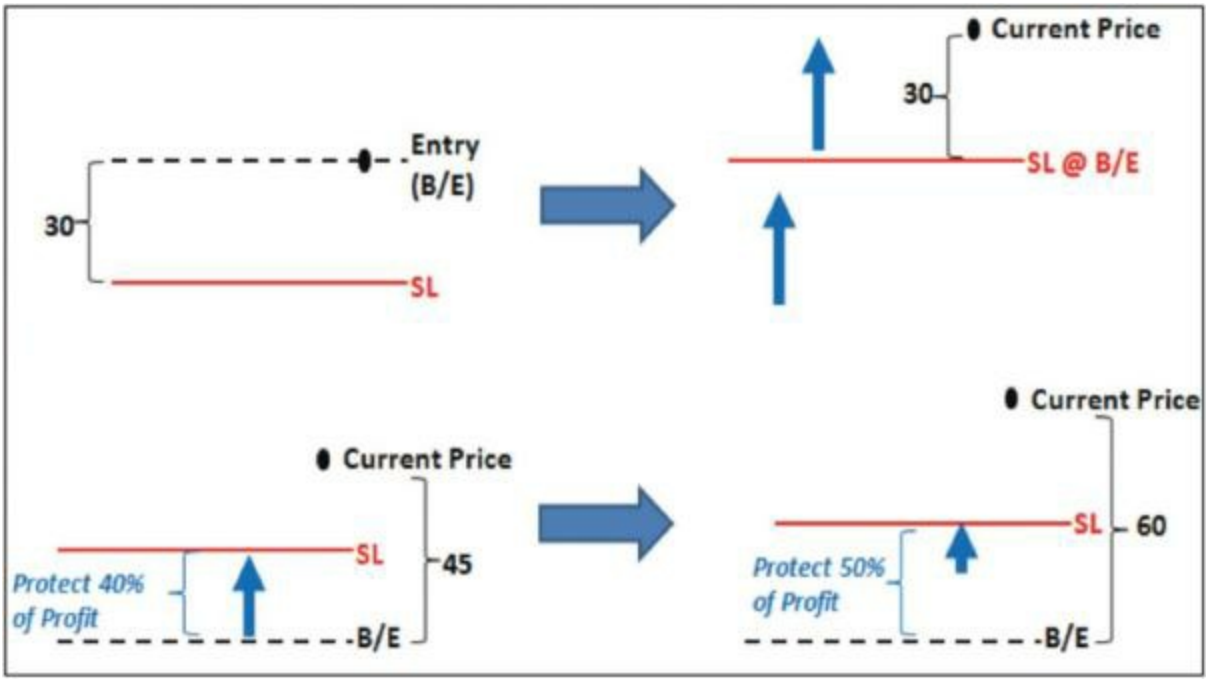


Figure 4.15a: Manually moving a stop in stages to protect increasing percentages of floating profits

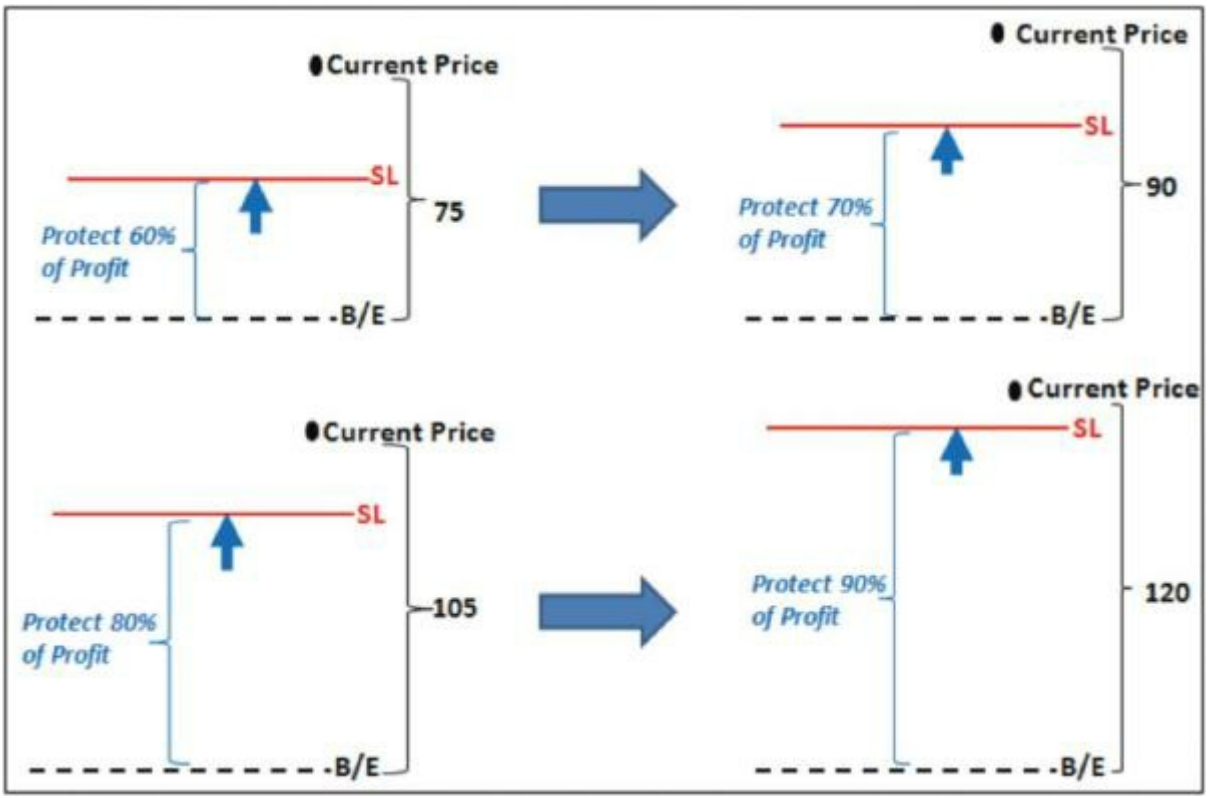


Figure 4.15b: Manually moving a stop in stages to protect increasing percentages of floating profits

Chapter 5: The Essence of Risk Control

Psychology of Risk

In order to remain successful in the business of Forex trading for years to come, regardless of all kinds of changes in market dynamics, one needs to clearly understand the concept of risk. Like many important principles of successful trading, risk management is often taken too lightly by traders. Moreover, most investors and traders either take too much or too little risk, simply because their definitions of risk are unclear and subjectively based on emotional conditioning. It is important to stay clear of either extreme in your trading behavior.

Excessive Risk Aversion

On the one hand, human nature is such that we naturally do not like to think about losing scenarios; our culture conditions us to think on the bright side of things, and to prefer the cozy feelings of security. The truth of the matter is that as long as we are involved in some kind of investments through the financial markets, we are essentially dealing with risk! We live in a culture that is risk-averse, partly because of the fact that humans, by nature, prefer certainties rather than probabilities. However, when you study the behavioral patterns of the most successful investors and traders in human history, you will easily realize that they are all able to accept and live with appropriate levels of risk.

Many people consciously distinguish between investing and trading (or speculation) in the sense that investing is supposed to be less risky than trading or speculation. Most of us would rather think of ourselves as investors rather than speculators. Conventionally, investing is thought of as being more prudent; it sounds safer to adopt longer-term buyand-hold investing strategies in blue-chip stocks, than to be dealing with the short-term movements in the Forex market. In reality, the longer-term nature of some investments often masks the underlying risks, which can be far greater than you consciously are aware of, especially when investment decisions are made without clear exit plans and risk calculations.

The vast majority of people simply over-generalize their definitions of what is risky and what is not. We should not allow ourselves to be excessively conditioned by what most people say about risk. If you are a Forex trader, you are likely to be greeted with advice from well meaning friends who tell you to be careful about the risks in this market. Indeed, they are very right in the sense that you do really have to be careful about market risk in Forex. However, being careful here does not imply staying away from this market altogether and only taking comfort in "low-risk" investments like fixed

deposits. **If you want a serious chance of generating above-average returns over the long term, you do need to take appropriate levels of risk. In a very real sense, the level of risk in any financial activity is proportional to the level of ignorance in that activity**; how much risk you take is not so much about what financial instrument you happen to be dealing with. This is why there are "buy-and-hold" investors who end up being poor, and "speculative" traders who become very wealthy!

Reckless Risk-taking

I have to present a balanced view of what risk-taking is all about, lest you are led to think that the more risk you take, the more successful you will be! After all, haven't we all been told that "the higher the risk, the higher the gains"?

Such a "no-pain-no-gain" philosophy of life, when applied prudently, can be useful to those who are too risk-averse, motivating them to move out of their comfort zones and make plans for above-average returns. However, on the other hand, there are many gung-ho speculators who "over-apply" this principle, taking it to the other extreme! They take pride in their risk-taking personalities; they believe that it is the strength of their personalities that enable them to persevere in the face of adversity. Such an attitude is certainly beneficial in all ventures in life, but is often misused by investors and traders to justify their counter-productive habits of not planning for adverse situations and holding on to losses for too long. This explains why some traders think that "stops are for sissies"!

When you allow your risk-taking capacity (which can be healthy if kept within proper boundaries) to harden into a mindless and reckless kind of investing or trading behavior, you will end up being quite poor sooner or later, whether you are dealing with long-term stock investments or shorter-term Forex trading. Certain principles of market risk simply have to be respected, regardless of your ego about your risk-taking abilities.

Defining Risk

There are various ways in which traders and investors define risk. For example, one could define risk as the probability of experiencing a loss of more than 20%. Many risk management programs in the investment profession are based on similar definitions. In fact, banks and financial institutions are known to spend millions of dollars on sophisticated software packages that compute all kinds of possible risky scenarios, and arrive at a certain figure that reflects how likely or unlikely a financially catastrophic event will happen. Quite ironically, none of them was able to anticipate the housing crisis that led to the financial meltdown in 2008. It is interesting to note that there were

a handful of wise people, armed with merely simple common sense and mental clarity, who could see the crisis coming years in advance. Sophistication often masks the reality of things, which is often plainly seen in the fundamental facts. Even the most sophisticated individuals in the financial world are under the influence of their own selective perception. In my personal opinion, we are currently headed for possibly the worst financial crisis ever, despite all the talk about a recovering economy. Those who allow their beliefs about a recovering economy to harden into major decisions to load up on stocks are likely to be in a risky situation in the coming years!

Most definitions of risk are useful only on an academic or theoretical level, and not very practical for traders. To define risk in a way that is more practical and useful on a trade-by-trade basis, we can think of risk as **the amount of money lost as a result of any trade turning against us.** Such a definition allows us to calculate the level of risk taken in any trading decision that we make, and to concretely know how much a losing position will impact the bottom-line.

For example, each time I enter a position in the market, I will have to decide what my exit points are. In Chapter 4, we dealt with various ways of determining our exit points. In addition, I have to know, at the point of entering a trade, how much money I will lose if the trade ends up hitting the stop-loss point. To be more precise, **I need to know how many percent of my account is lost if the trade is being stopped out, i.e. how much is being risked in any one position taken.** Later in this chapter, I will illustrate a simple way of ensuring that this risk level is properly determined whenever a trade is executed.

Diversification

Some traders like to enter multiple positions involving multiple currency pairs at the same time, often in the name of "diversification". Conventionally, we have been told that diversification is supposed to reduce risk exposure. As such, most amateur investors find themselves holding on to dozens of different stocks, to the extent that they have trouble keeping track of how many stocks they own, let alone their entry levels for each stock. The vast majority of them have no idea at all how much risk each stock imposes on their overall portfolio.

We need to realize that **we should not diversify for the sake of diversifying. If you have no clearly defined idea of how a stock or a currency pair will move from current levels, you should not be taking a position in it.** Whether you are trading stocks or Forex, you need a well defined set of rules to guide your decisions to enter into any position.

Moreover, we often do not realize that **diversification achieves its risk-reducing benefits only if there is little correlation between the things you invest in.** If you invest in 100 stocks, and almost all of them move in tandem (i.e. They tend to go up and down together), your diversification has not reduced your risk; in fact, you are often loading up on your risk exposures by increasing the size of your bets in one direction. You would be far better off focusing on one of those 100 stocks and knowing what your exit points and risk exposure should be.

Likewise, as we trade the Forex market, we are presented with many actively traded currency pairs, e.g. EUR/USD, GBP/USD, USD/JPY, USD/CHF, USD/CAD, EUR/JPY, GBP/JPY, AUD/USD, NZD/USD. Some of my students, upon seeing from my trading records that I often trade only 2 or 3 of these pairs, ask me whether I am missing out on trading opportunities. Some of them even ask, "If you can get a return of about 15% a month trading 2 currency pairs, does that mean that I can multiply my returns five-fold (i.e. 75% a month!) if I trade 10 currency pairs?!"

Certainly, my response is emphatically "no"! Most of the actively traded currency pairs are, to a large extent, either directly correlated or inversely correlated. As such, we often increase our risk levels by entering into several currency pairs at the same time.

Many traders are afraid of "missing out" on trading opportunities, and therefore like to screen through many currency pairs on the same screen, as seen in Figure 5.1a. **There is a tendency of spreading your attention too thin if you have to look at too many things at the same time.**



Figure 5.1a: Screening multiple currency pairs for trading opportunities

In Figure 5.1b, we see a situation where several positions are entered at about the same time. When you get a signal to go long in the EUR/USD, you are likely going to get the same signal in GBP/USD (and possibly AUD/USD and NZD/USD as well) at about the

same time. If all the positions are based on the same strategy (i.e. the same entry and exit rules), all of them tend to end up hitting the stop together, or hitting the profit target together. In this case, it would be better to focus on the one currency pair that gives the clearest entry signal.



Figure 5.1b: Entering correlated multiple positions at the same time

Of course, I am not implying that it is always wrong to have several open positions at the same time. It is possible that while you have an open position, you will happen to get another valid trading opportunity. It is important, however, that **the second position should not be highly correlated with the first one.** This means that if the first one ends up hitting the stop, the second one may end up hitting the profit target; likewise, if the first one ends up hitting the profit target, the second one may end up hitting the stop. As such, the second position can be considered independent from the first one, although it happens to be entered while the first one is still open.

Drawdowns

All traders must be prepared for losses from time to time. There are basically two levels on which losses impact a trader's performance:

- **Drawdowns**

Traders define the percentage decline in the account equity as a "drawdown". To say that I have lost 3% of my trading capital due to one losing trade, or that I have lost 10% of my capital after 4 consecutive losses, is an objective statement with regard to how my losses have created an impact on my bottom-line.

- **Psychological impact of losses**

On another level, every loss creates a psychological impact on the trader. This refers to how you feel about the loss. It is largely affected by some of the psychological obstacles discussed in Chapter 2. For example, consider the 2 scenarios below:



Figure 5.2: Different psychological effects of losing scenarios

In the first scenario, the market moves swiftly towards the stop-loss point, and hits it. In the second scenario, the market moves swiftly towards the profit target, misses it by a few pips, and then reverses swiftly to hit the stop. Suppose that in both cases, the stop-loss level results in a loss of 2% of your account balance. However, which case makes you feel worse? If you are a normal human being, you will feel worse about the second scenario. However, objectively speaking, both cases should be the same, for they result in the same drawdown. **One of the greatest achievements you can have as a trader is to condition yourself to become psychologically indifferent to how the market hits your stop,** i.e. to consider both cases above as identical.

The psychological impact of a loss is also affected by our perception of how large or small a certain loss is. As such, it is also tied to the drawdown, i.e. the objective measure of how much a loss affects the bottom-line.

Larger drawdowns tend weaken a trader's discipline. Figure 5.3a shows us that as the drawdown becomes bigger, it

becomes increasingly difficult to recover from it. When you lose 10% of your account balance, you have only 90% of your original capital to work with. Because of the

smaller capital, you need to generate a slightly higher return of about 11% on the slightly-reduced capital in order to undo (i.e. recover from) that drawdown.

Loss Of Capital (Drawdown)	Return to Recover from Drawdown
10%	11.1%
20%	25%
30%	42.9%
40%	66.7%
50%	100%
60%	150%
70%	233%
80%	400%
90%	900%
100%	∞



Figure 5.3a: Higher Drawdowns Make Recovery More Difficult

However, things get nastier if you allow your drawdown to become too large. If you lose 50% of your capital as a result of reckless trading or excessive risk-taking, you need to "climb back" from a highly reduced capital, i.e. you only have 50% of your original capital to work with. You therefore need to generate a return of 100% (i.e. you need to double your halved account balance) in order to recover from the 50% loss!

Many traders, after losing about 15% to 20% of their capital, begin to trade more and more sloppily – taking higher risks by trading bigger positions, hoping to recover from the drawdown in one fell swoop! **This is why their account balances tend to spiral downwards into a "point of no return"!** It is a vicious cycle of risk-seeking trading to take increasingly bigger risks as the difficulty of recovery increases exponentially to obscene levels! Figures 5.3b and 5.3c, especially the latter, show graphical descriptions of this phenomenon.

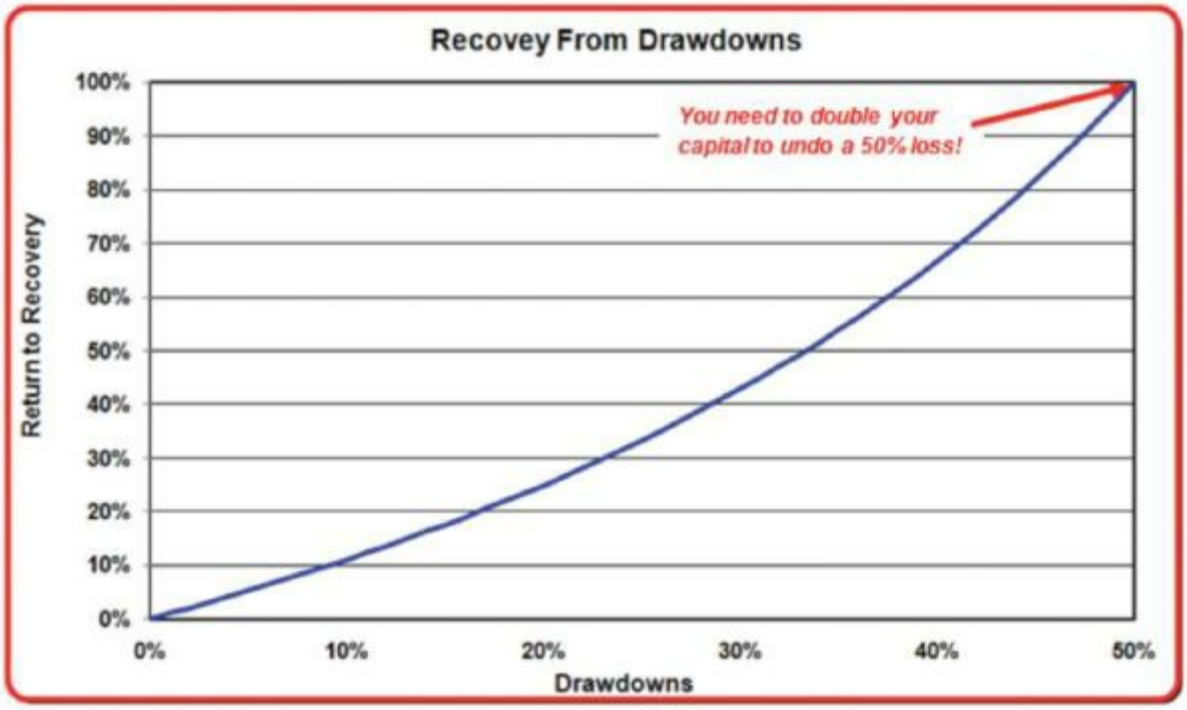


Figure 5.3b: Higher drawdowns make recovery more difficult

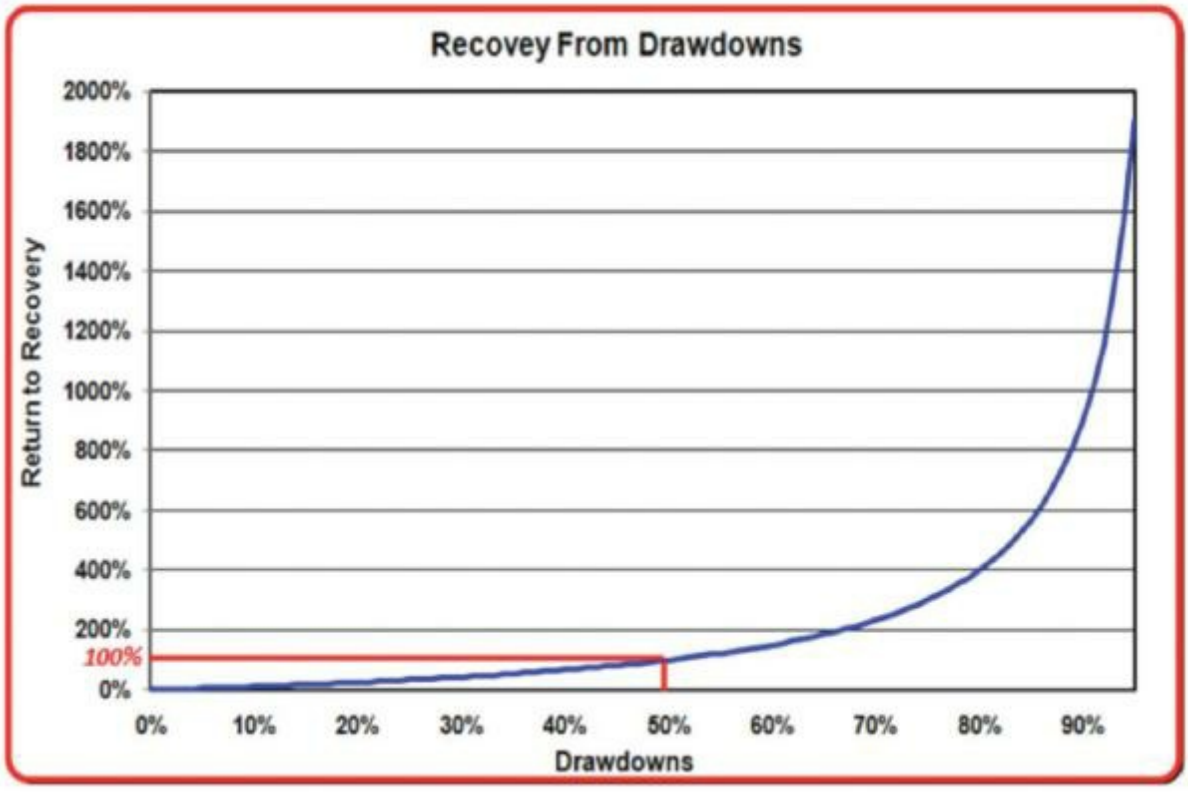


Figure 5.3c: Difficult of recovery increases exponentially with larger drawdowns

Without proper measures to limit our drawdowns, the objective and psychological impacts of losses will almost naturally cause the account balance to go down a

"slippery slope" towards bigger losses. If you look at the curves plotted in Figures 5.3b and 5.3c, you see that the horizontal axis shows the size of the drawdown, i.e. the further you move to the right, the bigger the drawdown becomes. The vertical axis shows the return that you need to generate in order to undo the drawdown, i.e. the further up you go on this axis, the more difficult it becomes to recover from the drawdown.

It is helpful to "invert" the curve to depict a pictorial understanding of how **the difficulty of recovery increases as the drawdown gets larger.** In Figure 5.3d, we see that the further you allow yourself to move to the right, the more "slippery" the slope becomes; you become increasingly likely to fall off into the deeper ends of the "cliff", and it becomes increasingly difficult to climb back up!

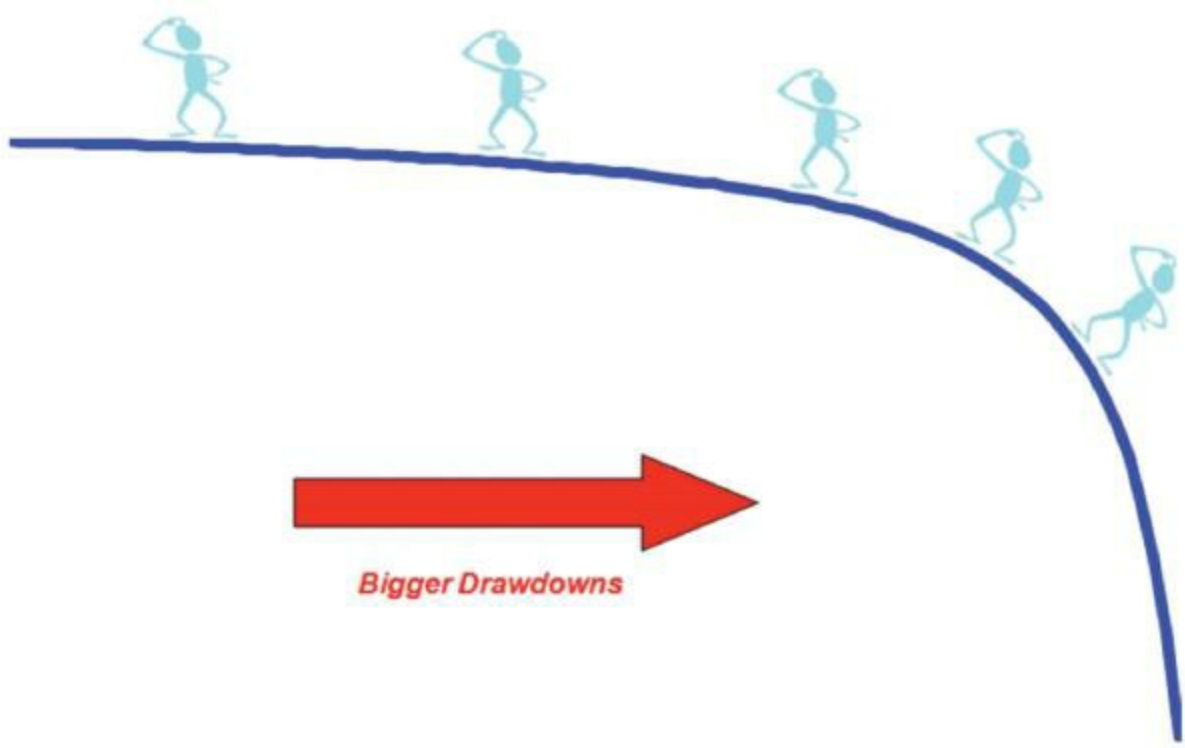


Figure 5.3d: The further you move to the right, the harder it is to climb back up the "slippery slope"!

To retain our discipline and chances of meeting our trading goals, it is extremely important to keep drawdowns low, so that the losses that come (sometimes consecutively) are not likely to have an adverse impact on our trading psychology. If we remain close to the left-most end of the curve, the return that we need to generate in order to undo a drawdown is more or less the same as the drawdown itself. Lower drawdowns are easier to recover, both objectively and psychologically.

How Many Lots to Trade?

To keep drawdowns low, I have to ensure that the loss incurred in any one trade is never more than a small percentage (e.g. 2%) of my account balance. At this point, some readers will naturally ask, "Doesn't that mean your stops are very near, and therefore easily hit?"

Many people do not realize that **regardless of how near or far your stop is (in terms of the number of pips away from the entry point), you can ensure that the risk exposure of every trade remains the same.** This is achieved through various position-sizing strategies, which dictate how many lots you should trade in any one position. In the following example, I shall illustrate a simple, yet effective way of determining the size of a trade.

Suppose my account balance is USD15,000. I identify a trading opportunity to enter a long position in GBP/USD at 1.6570. Based on market volatility and a recent support level, I establish a strong case to set my stop-loss level at 1.6490. At the same time, my targeted take-profit level is at 1.6680.

Upon identifying a clear entry signal with a good returnto-risk ratio, many traders will be excited about entering the trade immediately. As such, they click on a button on their trading platform to bring up the "order-entry" window. The fastest way to get in is to immediately click on the "Buy" button.

At this point, it is very natural to be most excited about the entry level, and to be less concerned about the exit points, i.e. the stop-loss and profit target. After all, the exit points can be entered later after the position is opened first. In the order-entry window shown in Figure 5.4a, we note that the "Volume" field indicates the position size, i.e. number of lots. You do need to key that in first before clicking on the "Buy" button!

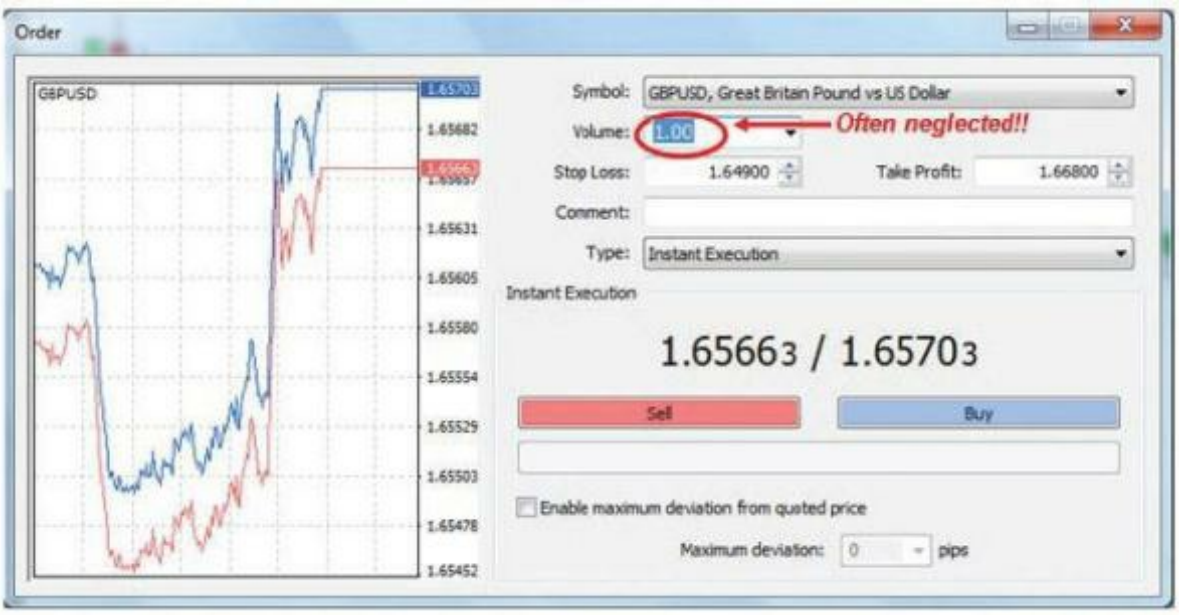


Figure 5.4a: Entering a position in the order window

So, how do you decide what number to key in there? For many traders, they allow their level of excitement and confidence at that point in time to guide their decision as to how many lots to trade. If you happen to be very excited about how clear-cut this entry opportunity is, and also happen to remember a similar case that ended up being a profitable trade recently, you are likely to enter a largerthan-usual position size in the "Volume" field. On the other hand, if you happen to have just taken a loss 2 hours ago, you may instinctively become more "cautious" and trade a small position.

One of the not-so-obvious reasons why traders cannot make money over time, despite having many trading strategies and probably even high win rates, is that they neglect the importance of determining the sizes of our trades. **Allowing our feelings to guide our position-sizing decisions will almost certainly cause us to lose money in the long term.** It will not allow us to determine our risk level, i.e. how many percent of my account balance will be lost if the stop is hit.

In the example above, let's suppose I am willing to risk 2% of my account balance of USD15,000. This means that if the position turns downwards and hits the stop-loss level of 1.6490 (which is 80 pips away from my entry price), I should lose 2% x USD15,000 = USD300.

We know that for GBP/USD, every pip is worth USD10 for every standard lot traded. In this case, I want a loss of 80 pips (the distance of my stop-loss from entry) to correspond to a loss of USD300. Therefore, the position size should be **USD300 divided by 80 pips divided by USD10 = 0.375 standard lots.**

This position size will usually be rounded to 1 or 2 decimal places. However, given that a lot of brokers allow us to specify our position size to 2 decimal places, we can still be quite precise in defining the risk level for every trade we take.

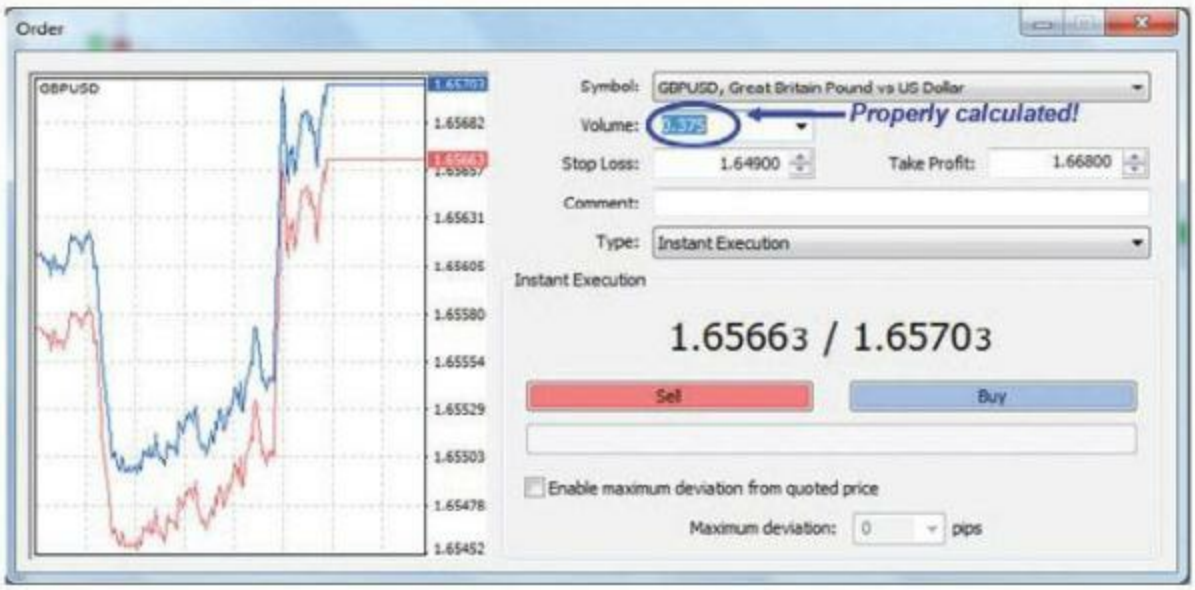


Figure 5.4b: Entering the position size based on risk tolerance

What if we have several positions open at the same time? As explained earlier, it is wiser to ensure that the multiple positions, which are kept open at the same time, are not highly correlated. For example, it is quite possible that I have a long position in EUR/USD based on price action on the 30-minute chart, while having a short position in GBP/USD based on my analysis on the 4-hour chart. These two positions will have different exit levels and durations. Although they are simultaneously open, they can be considered as independent trades. If my risk tolerance per trade is 2% of my account balance, I can be, in this case, risking 2% in the EUR/USD position and another 2% in the GBP/USD position. Note that I am not risking 4% in one trade. It just happens that both trades are open at the same time; they are independent. I am still risking 2% in any one trade.

Size Does Matter!

The way we size our trading positions is far more important than most traders realize. Many traders could be having high win rates, and yet lose a lot of money. This is often largely because of the following:

- Whenever they get a losing trade (or a string of a few losses), they feel "scared" and find themselves in a more "cautious" state of mind, thereby reducing the sizes of subsequent trades. As long as the losing streak continues, they allow their position sizes to remain small. **As a result, when the losing streak ends and they get a winning trade, they realize that the winning trade is done with a small position size.**



Figure 5.5a: Allowing emotions associated with recent outcomes to dictate position sizes

- Whenever they get a winning trade (or a string of a few wins), they feel more "confident" and are psychologically driven to increase the sizes of subsequent trades. Inevitably, **when a losing trade happens subsequently, they realize that the losing trade is done with a large position size.**



Figure 5.5b: Allowing emotions associated with recent outcomes to dictate position sizes

The two behavioral patterns described above are based on emotions associated with recent outcomes, and will certainly lead to large losses and small wins. Most traders allow their emotions to dictate their subjective judgment of the position size which they are comfortable with. **The problem is that what they are "comfortable with" is emotionally driven by memories of recent outcomes, and is not reliable.** This will inevitably lead to bad trading performance in the long term.

Unnerved by "big moves"?

Whenever the Forex market displays strong and long-lasting trends, moving by hundreds of pips in a few short days, it is common for traders to watch with excitement or dismay.

You watch with excitement as the trend becomes clearer and clearer, and you feel increasingly compelled to "jump onto the bandwagon". As I explained in Chapter 2, most traders naturally get onto the trend when it is near its end. At the same time, many traders with no proper risk control strategies will watch large trends with dismay, as they see their drawdowns increasing in an uncontrolled way.

To become successful traders, we should condition our thinking such that there should be nothing "nerve-wracking" about any kind of long-lasting up-trends or downtrends in any major currency pair, as long as you have set your stops, AND determined your risk exposure. As I have just illustrated in the previous section, your risk exposure in any one position can be kept small (a small percentage of your account balance) by way of sizing your trades systematically.

Winning traders think differently compared to how average traders allow their mental perceptions to be conditioned. Most traders think that a 200-pip move is always a "greater event" than a 50-pip move. However, it is not necessarily so, as far your risk exposure is concerned. In order to think systematically as winning traders, **we should think of every price movement in terms of its impact on our trading account,** i.e. how many percent of the trading account is the profit or the loss that results from the move.

For example, a trade that is taken on a larger time scale could have a stop of 200 pips. If your risk exposure in any one position is 2% of your account balance, then you should size your trade to ensure that 200 pips represent 2% of your account size in this case. When taking another trade on a smaller time scale, your stop could possibly be 50 pips away. Therefore, in this case, your position size should ensure that 50 pips now represent 2% of your account balance. It is your position size that regulates your risk exposure regardless of the distance of your stop. **If we think systematically in such terms, we are not unnerved by big movements.**



Figure 5.6: Sizing our positions to ensure that risk exposure is constant

Most traders are unaware of the importance of sizing our trade positions systematically. In fact, there are many ways in which we can devise techniques of position-sizing to

control our risk exposures and to optimize the growth of our trading account. In the next chapter, I will outline some effective ways to control the sizes of our bets as we enter and exit from the market. It is in every trader's interest to pay close attention to this often-neglected aspect of trading.

Chapter 6: Optimizing The Growth of Your Trading Account

A Note on Money Management

We often hear traders talk about the importance of "money management". What exactly does "money management" refer to? These terms are so widely used among traders almost like a buzzword. However, many traders are very ill-informed about what money management really should refer to. Good money management is about optimizing the sizes of your trades, thereby controlling the risk exposure of your trading account. This is how you can limit your losses when your trading strategy gives you losing trades (which will happen, sometimes even consecutively!)

In view of this, a myth often quoted among traders who emphasize the importance of money management is that "even a bad trading strategy can make money with good money management". People who subscribe to this statement essentially downplay the importance of good trading methods (which include good entry and exit strategies) and excessively attribute trading success to good money management.

The truth of the matter is that if you do not have a good trading method that gives you an edge over other market participants, good money management will not make you profitable; all it will do for you is to allow you to lose money more "systematically" and slowly!

Without an edge over the market, a trader is much like a gambler visiting a casino, where the house always has an edge (a statistical advantage) over you. In such a scenario, the longer you stay in the market, the more certain it is that you will lose all your money eventually. In fact, if you do not have a method that gives you an edge, the only way you could make money is to practise extremely bad money management, i.e. by putting all your stakes in one or a few trades, hoping that "luck" might strike in your favour for a very brief period of time and make you profit big-time, and then walking away immediately thereafter! (This is essentially what all gamblers are pinning their futile hopes on!)

The right way to understand the role of good money management is seen in a slight variation of the first statement: **"Even a good trading strategy can lose money with bad money management".**

To win consistently in the market, you need

- A method (or several methods) that gives you an edge (an advantage) over the

market

- Good money management to limit risk and maximise growth
- Psychological conditioning that enables you to systematically execute the above despite the often unnerving market conditions

So far, Chapters 1 and 2 have dealt with the psychological conditioning that all successful traders must undergo. Chapters 3 and 4 have dealt with the various ways of determining our entries and exits when trading the Forex market. In Chapter 5, we outlined the psychology of risk and the basic concept of why risk control is so important. In this chapter, we shall discuss how a good trading system should smoothen the distribution of wins and losses, while ensuring that the wins will more than cover the losses in the long run. We will also discuss why a very important determinant of this process is the way in which we size our trade positions.

Evaluating a Trading System

If you are serious about generating a consistent income from the business of Forex trading, you need to be constantly assured that the quality of your trading system is high enough to meet your trading goals. How does one know whether the trading system is reasonably good? Most people measure the effectiveness of a trading system merely on the basis of its win rate, i.e. the proportion of winning trades. In addition, many amateur traders develop their trading systems based on a small number of trades, and possibly by "visual back-testing", i.e. visually scrolling through historical charts to "decipher" patterns that seem to exist between price behavior and indicators. As described in Chapter 4, a trading strategy that does not have a systematic exit plan is really a very weak strategy. Moreover, a good trading method must not be without a systematic risk management system.

Quite simply, the quality of a trading system can be measured by the following:

- Average rate of return over a certain period of time

Figure 6.1a shows a sample of 30 consecutive trades that were taken over a 2-month period, using a very simple moving-average-crossover entry setup, coupled with an exit plan that involves an initial risk of 2% of the existing account balance and the use of a trailing stop. Despite the market's frequent alternation between ranging and trending conditions, a simple entry technique can be profitable. Much of the profitability is due to the exit plan.

Trade	Return
1	1.6%
2	-1.5%
3	0.5%
4	3.4%
5	3.7%
6	4.0%
7	-1.6%
8	3.1%
9	3.5%
10	-2.0%
11	3.2%
12	3.8%
13	-1.7%
14	1.7%
15	3.1%
16	-0.9%
17	1.1%
18	3.0%
19	1.6%
20	-2.0%
21	4.3%
22	-1.2%
23	-2.0%
24	-2.0%
25	5.1%
26	0.8%
27	-1.4%
28	4.2%
29	-0.8%
30	3.7%
Total	45.1%
Average	1.2%

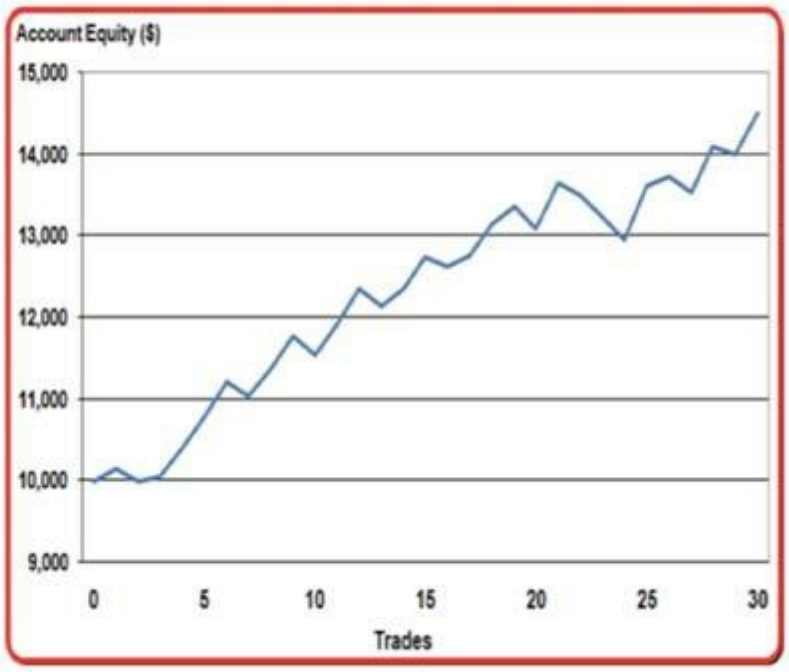


Figure 6.1a: A smooth distribution of trade outcomes, leading to smooth capital growth

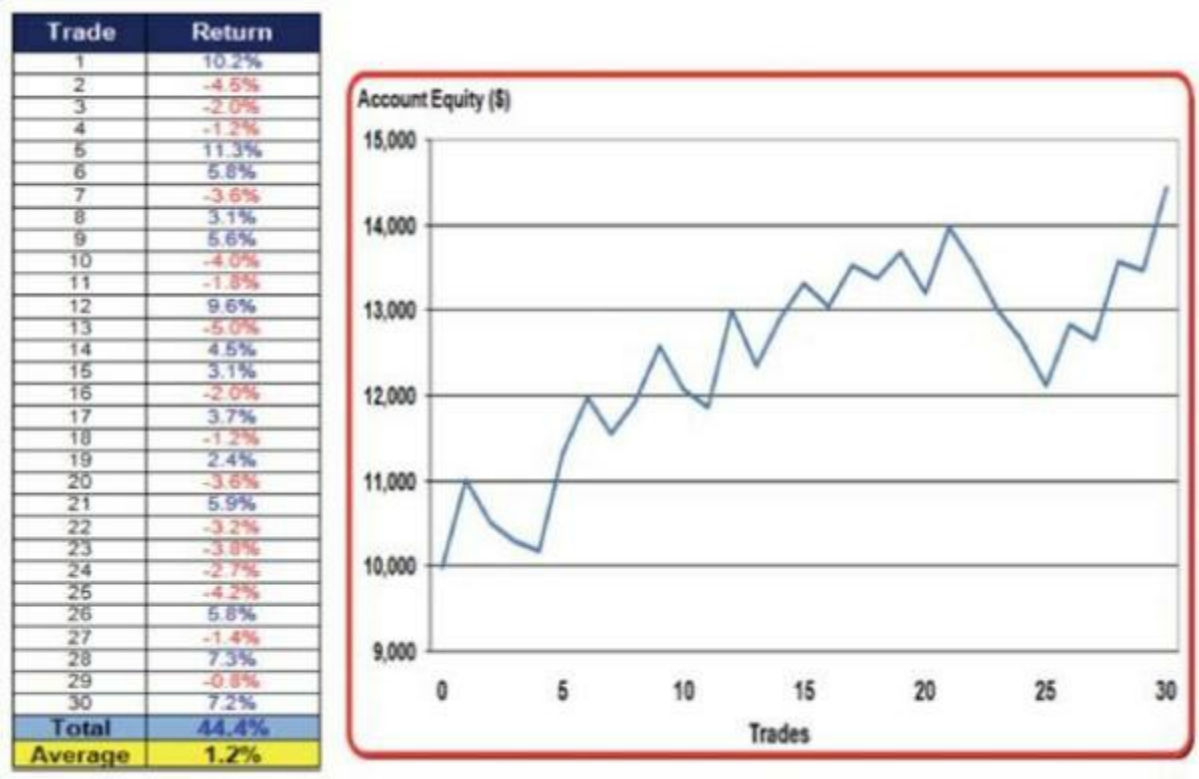
As seen, some of the losing trades resulted in a loss that was less than the initial risk of 2%, due to the effectiveness of using a trailing stop to cut losses short in cases where the trend was likely to reverse. Moreover, some of the profits were greater than the initial risk of 2%. Although the win rate was merely 63% (19 out of 30), the compounded rate of return, after 30 trades, was 45.1%. The average return was 1.2% per trade, i.e. it is as good as having 30 consecutive winning trades, each giving a return of 1.2%.

By testing a trading strategy over a wide spectrum of various market conditions, the average return generated gives us a sense of how reliable this strategy will be when applied to live market conditions in future. As explained in Chapter 2 when we discussed the "law of small numbers", testing a strategy is not only about involving a large number of trades; it is also about putting the system through all kinds of market situations, i.e. trending, ranging, volatile, quiet conditions. As such, if I were to test another trend-following strategy by putting it through 100 trades which happened during a largely trending market, the "average return" figure may be less reliable than the one in Figure 6.1a (which involves only 30 trades, but was the result of testing through a variety of different market conditions).

- **Variability of returns**

Two trading systems may achieve similar results over a similar period of time, but may

give the trader entirely different psychological trading experiences. Figure 6.1b shows another distribution of 30 trades, based on a similar trading system in the same 2-month period, but with higher levels of risk and a different exit plan. Although we see a lower win rate of only 47% (14 wins out of 30 trades), the overall profitability is almost identical to what we saw in Figure 6.1b. In terms of the average rate of return per trade, this system is no different from the previous one. However, in terms of the "variability" of the returns, this system is inferior to the one in Figure 6.1a. The larger losses and profits result in a "roller-coaster" ride of the trader's emotions, as we see the trading account balance going through larger and more erratic swings. Such swings are detrimental to a trader's psychology. Moreover, from a statistical point of view, the average-return figure we see here is actually less reliable than the one we saw in Figure 6.1a. Statistically, we could use the "standard deviation" to measure the variability of the returns. **The lower the variability of returns, the more statistically reliable your trading system is.**



Trade	Return
1	10.2%
2	-4.5%
3	-2.0%
4	-1.2%
5	11.3%
6	5.8%
7	-3.6%
8	3.1%
9	5.6%
10	-4.0%
11	-1.8%
12	9.6%
13	-5.0%
14	4.5%
15	3.1%
16	-2.0%
17	3.7%
18	-1.2%
19	2.4%
20	-3.6%
21	5.9%
22	-3.2%
23	-3.8%
24	-2.7%
25	-4.2%
26	5.8%
27	-1.4%
28	7.3%
29	-0.8%
30	7.2%
Total	44.4%
Average	1.2%

Figure 6.1b: Same end-result, but higher variability of returns (less smooth capital growth)

- **Frequency of Trading**

How soon you reach your trading goals also depends on the frequency of your trades. Some trading systems will do one trade per week, while others might do 5 trades per day. Suppose you have tested your trading strategy reliably over a sufficiently large

number of trades, involving a wide variety of different market conditions, and your testing shows that based on your entry and exit plans in the strategy, your average return per trade is about 1% of the account balance. If your trading method gives an average of 10 trades a month, you can expect an average monthly return of about 10%. Note that this average-return figure does not mean that you expect a return of 1% in every trade; some will fall below 1%, some above. Remember that the law of large numbers entails that we should evaluate the performance of a trading strategy over a reasonably large number of trades, e.g. at least 30 trades involving different market conditions.

Some longer-term trading strategies may give an average return of 3% per trade. However, if it trades only once or twice in a month, the expected return per month will be less than the one described earlier.

It must not be misunderstood that the more frequently you trade, the sooner you will achieve your trading goals. The structure of the market is such that the more frequently you trade, the more susceptible you are to getting false signals; being more selective in identifying high-probability trading opportunities does often mean that we need to wait patiently for the next trade to come. As such, **successful trading is about a balance between trading frequency and selectivity of trading opportunities.**

At the same time, we must not underestimate the impact of trading frequency on the individual's trading psychology. As described before, we must prevent the emotions caused by previous trades from influencing our current trading decisions. High-frequency trading tends to make it difficult for untrained traders to do so. With proper training, however, people of certain personality types are able to achieve this to a large extent. This is why there are very successful "scalpers". On the other hand, low-frequency trading causes some people to get too impatient while waiting for the next opportunity to come.

Return-to-risk Ratios & Win Rates

Successful trading is really about a balance between two factors:

- **Return-to-risk ratios**

These refer to the relative sizes of the profits and losses. Generally, when setting our stop-loss levels and profit targets, we should ensure that the return-to-risk ratio (which is P/L as illustrated in Figure 6.2) is at least 1:1, i.e. the profit target is not nearer than the stop. Of course, this does not mean that we should "force" our profit targets to be 3 times or even 5 times further than our stops. **It depends on what the market conditions tell us at the point of entry.** A good trading opportunity is one that gives a good return-

to-risk ratio. This is consistent with the number-one principle of trading, i.e. cutting losses short and letting profits run.



Figure 6.2: Return-to-risk ratio should generally be better than 1:1

- **Win rates**

The other important factor in your trading strategy is the overall win rate which you expect to get in the long run. Some trading strategies aim for a 90% accuracy rate, while others are very profitable with win rates of only about 50%. We discussed in Chapter 2 that we must not be overly obsessed with being right, i.e. making almost every trade profitable. In fact, very often, successful traders will tell you that you do not even need to be right most of the time. There are traders who achieve win rates of 80% to 90%, and yet end up losing money.

This is why **we need to consider the win rate with reference to the average return-to-risk ratio. The higher your returnto-risk ratios**, the less concerned you should be about being right most of the time. The lower your return-torisk ratios, the higher your win rates need to be.

Figure 6.3a shows an example of a trading system I simulated, based on a return-to-risk ratio of 1:1, i.e. the profit target is always as near as the stop-loss. With a win rate of 70% (i.e. there are, on average, 70 winning trades out of 100), and a per-trade risk exposure of 3%, this trading system is able to approximately multiply a trading capital four-fold in 1 year (by doing 10 trades a month)!

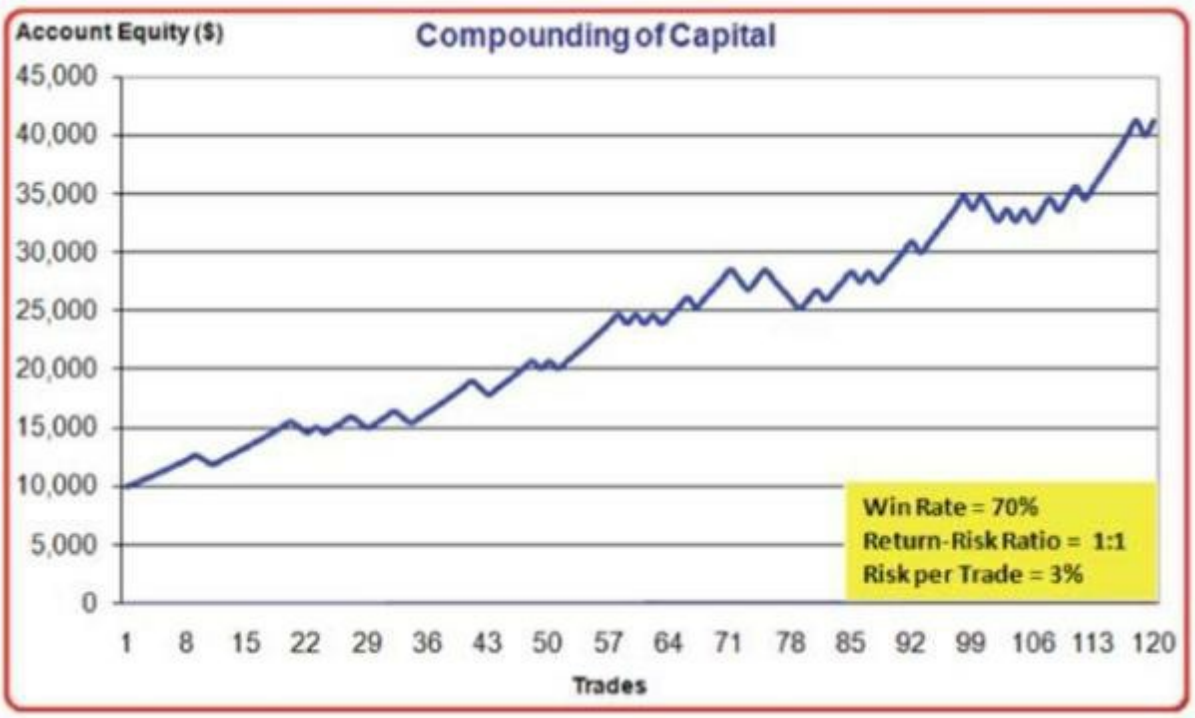


Figure 6.3a: Win Rate = 70%, Return-to-Risk Ratio = 1:1

Figure 6.3b shows another example of a trading system, where the overall accuracy is lower. The win rate is only 60%; however, each trade aims to look for a higher return-to-risk opportunity by riding on a trend longer. Despite the lower accuracy of trades, this system is more profitable than the previous one.

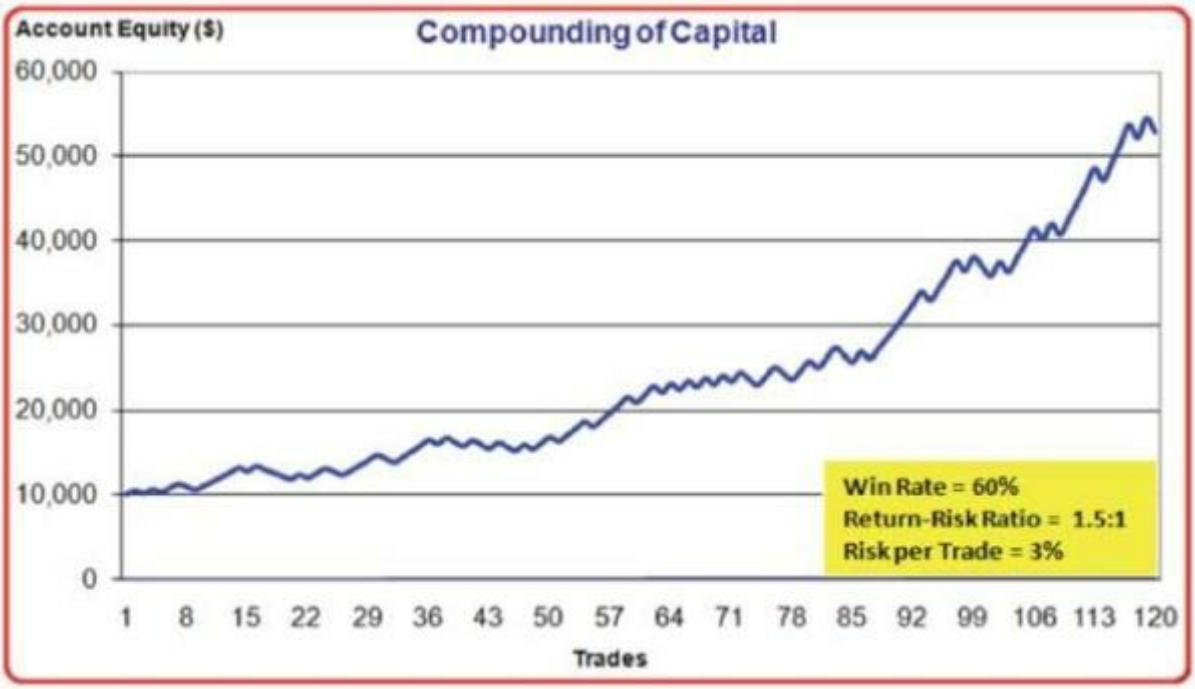


Figure 6.3b: Win Rate = 60%, Return-to-Risk Ratio = 1.5 : 1

Figure 6.3c shows yet another trading system with an even lower level of accuracy; the win rate is only 55%. We note that increasing the return-to-risk to 2:1 makes this less accurate system even more profitable; it compounds the capital nine-fold in the same period of time!

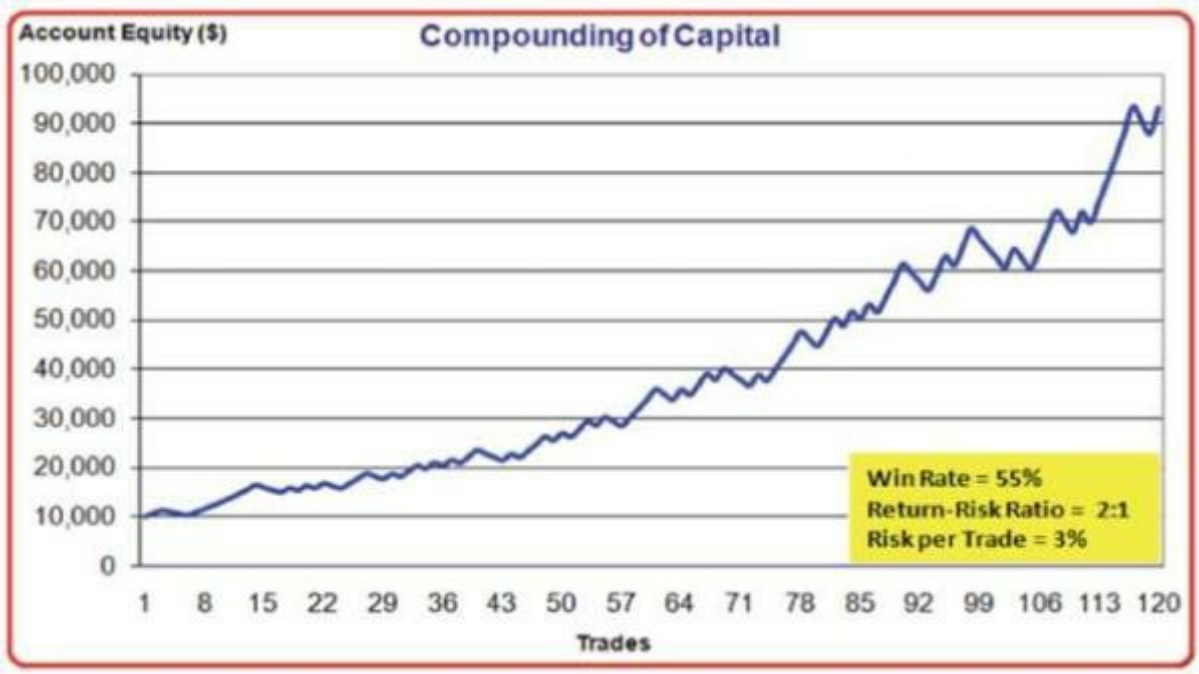


Figure 6.3c: Win Rate = 55%, Return-to-Risk Ratio = 2:1

This is why riding a trend as long as we can is an important attribute of a good trading strategy. **Trend-riding must be balanced with loss-limiting techniques that ensure that the average return-to-risk ratio is as high as possible. We can then reduce our dependence on being right most of the time.**

Most traders prefer to trade strategies that achieve higher win rates, because it is psychologically easier to handle them; it is more difficult to find yourself taking losses almost half the time. If you use trading strategies which give lower win rates, it becomes especially crucial to devise exit plans that cut losses short and let profits run; otherwise, your profitability will be low, or even non-existent! Those who can overcome their psychological obstacles (i.e. the need to be right and instant gratification) will find that they can be very profitable trading such strategies. On the other hand, traders who do not achieve high return-to-risk ratios (due to not fully letting their profits run) will need to trade with higher win rates in order to be profitable overall.

When simulations become unrealistic!

I often like to do simulations of how a small capital can be compounded manifold. Such

simulations can easily be done on a spreadsheet, and can be quite motivating as you change some of the parameters and watch how a small trading account balance can be multiplied several-fold in a short period of time. Of course, although such simulations are lovely to watch, we should always ask ourselves how realistic they really are. To a certain extent, they are realistic. For example, Figure 6.4a shows a realistic simulation of what you can achieve over a period of 1year or so if you risk only 2% of your account in every trade you do, achieve a win rate of about 70% with a return-to-

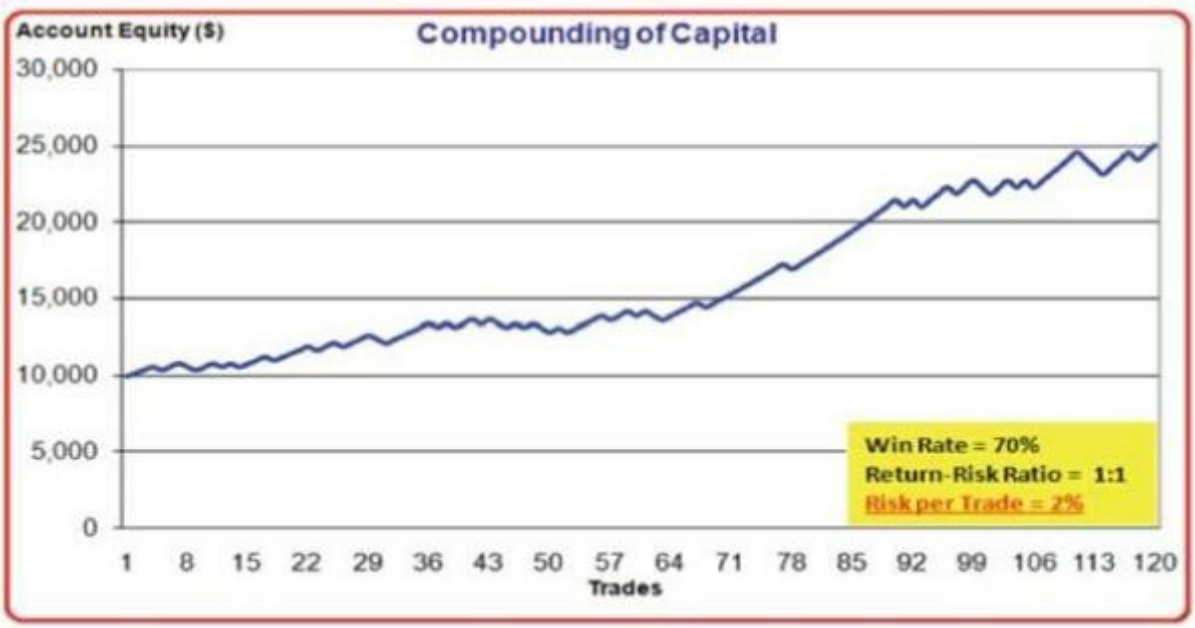


Figure 6.4a: Compounding based on risking 2% per trade

risk ratio of 1:1, and do about 10 trades per month.

The temptation in doing a simulation like this is that we can easily change some of the parameters. In order to see a more spectacular growth of the account balance on this graph, we can simply increase the per-trade risk exposure. Figure 6.4b shows that if you keep everything else unchanged, increasing the per-trade risk exposure to 5% will significantly enhance the power of the compounding

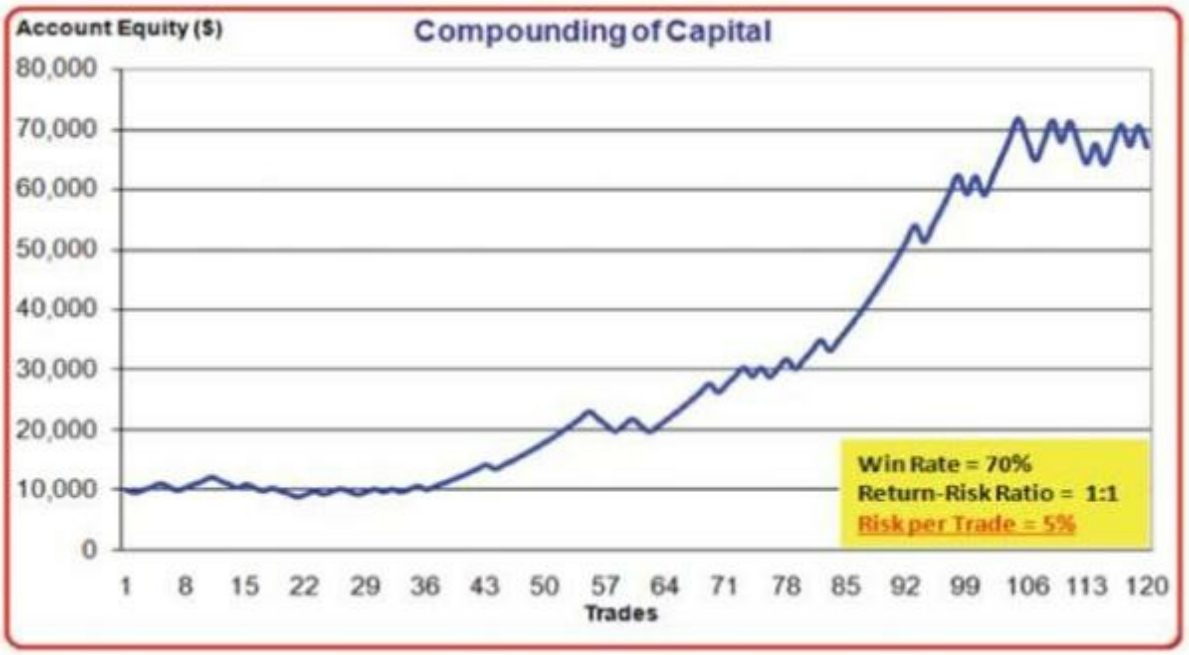


Figure 6.4b: Compounding based on risking 5% per trade

There is nothing that can stop us from increasing that risk figure on the spreadsheet! Increasing it to 10% shows a spectacular picture on Figure 6.4c. Is it too good to be true? Will it happen in real-life trading?

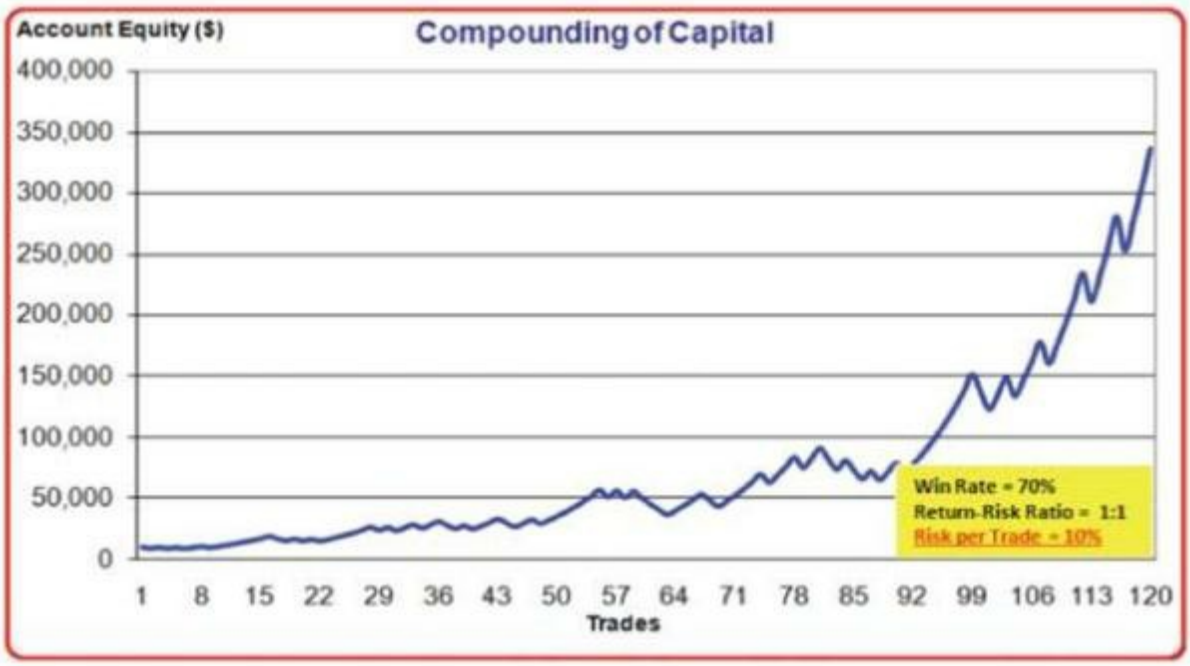


Figure 6.4c: Compounding based on risking 10% per trade!

The short answer is: in most cases, it won't happen!

Although simulations can be realistic, we need to understand when they fail to

simulate real-life effects of the trader's psychology. In simulations, we can change the "risk" figure without changing other parameters, e.g. the win rate. The assumption is that those parameters are independent of each other. Just by increasing the "risk" parameter, we instantly get the entire picture that describes what can happen after doing one year's worth of trades. **In real-time trading, however, the whole picture of compounding will have to unfold over time, involving the trade-by-trade interactions between the market and the trader's psychology, i.e. the compounding does not happen "in an instant" like in a simulation.** As such, higher risk exposures, leading to larger drawdowns, will almost certainly influence the trader's psychology. As described in Chapter 5, it becomes very likely that the trader cannot achieve the same win rates when under the psychological effects of large drawdowns. Therefore, the simulations that involve high risk exposures are most probably not as realistic as those that assume modest risk exposures, which are psychologically more manageable.

In real-time trading, large drawdowns (or those that are subjectively considered large) tend to lead to 2 possible responses:

- **Sloppy risk-taking**

We discussed earlier in Chapter 5 that when a trader attempts to "get back at the market" and recoup losses quickly, higher levels of risk are often taken. These lead to even higher drawdowns, which lead the anxious trader towards more aggressive risk-taking, which in turn leads to even higher drawdowns! It becomes a vicious cycle which feeds on itself, leading to a downward-spiraling of the account balance!

- **Excessive caution and selectivity**

After incurring a string of losing trades, some traders will naturally allow the "law of small numbers" to work in their psyches. Before they started trading, their back-tests might have shown a maximum drawdown of about 20%, and they might have thought that this was acceptable, in the light of the expected returns of, say, 200% in one year. However, many traders realize, in their real-time experiences of the ups and downs in their trading account balances, that their tolerances to drawdowns are far lower than they thought!

As such, when a losing streak leads to a drawdown of, say, 20%, their confidence is shaken, and their focus becomes very myopic. They might say, "Let me exercise some caution and discretion, so that I can be more selective about the trades and reduce my risk." In reality, they are not reducing their risk exposures. Their supposed "discretionary selectivity" often causes them not to take certain trades dictated by their trading rules. As a result, such "second-guessing" behavior, which stems from a sense of

insecurity, causes traders to miss out on the winning trades which their trading method would have given them.

The drawdowns could very well have been an acceptable part of the trading process, but are often subjectively considered "large" due to our feelings of insecurity. By staying disciplined to the trading rules, those drawdowns could often lead to much higher returns!

Position-sizing Techniques

As I have emphasized at various points throughout the book, a large part of our trading performance will be dependent on how we strategically determine the sizes of our bets every time we enter the market. Within the community of Forex traders, **the widespread fascination with fanciful indicators and sophisticated entry techniques has unfortunately masked the importance of how we size our trade positions.**

To enhance the chances of growing our trading accounts to meet our trading goals, we need systematic and effective ways to help us determine the sizes of our bets in the Forex market. I shall briefly outline a few such ways. A comprehensive discussion of the pros and cons of each of these methods is beyond the scope of this book.

Nevertheless, it is helpful for us to gain a basic understanding of the following ways in which we plan our position sizes.

Fixed Percentage of Equity

This is a straightforward position-sizing technique that involves using a fixed percentage of the account equity as the margin for every trade. For example, some Forex traders simply trade 1 standard lot for every USD10,000 in the account equity. Based on this example, an account equity of USD25,000 will imply that the trader will trade 2.5 standard lots; when the account equity is USD28,000, 2.8 standard lots will be traded, and so on.

This position-sizing method is especially beneficial when we use a Forex broker that allows fractional lots to be traded. If you are trading the futures market, where you are only allowed to trade whole numbers of contracts (i.e. 1 contract, 3 contracts etc, but not 1.4 contracts or 3.6 contracts), this position-sizing strategy may not be very effective. If you decide to trade 1 contract for every USD10,000 in your account balance, you will have to wait till your account grows to USD20,000 before you can increase the size of every position to 2 contracts. As such, the effectiveness of compounding is very limited.

In the Forex market, some brokers even allow your position size (number of lots) to be specified to 2 decimal places. As such, if your position-sizing rule is to trade 1 lot for every USD10,000 in the account equity, you are able to trade 1.25 lots when your account balance is USD12,500, 1.47 lots when your account balance is USD14,700, and so on. This kind of position-sizing strategy is intuitive and simple to follow. It is based on the rationale that the larger your account balance, the more lots you can afford to trade.

Certainly, this rationale makes reasonable sense. After all, this is how the effect of compounding is achieved.

However, this position-sizing technique does not adequately take into account the amount of money which is at risk in any one trade position. Each trade position has a different stop-loss distance, as discussed in Chapter 4. For example, if you decide to trade 1 standard lot for every USD10,000 available in the account, it appears to be quite safe. This is because the margin required for 1 standard lot is far less than the account balance of USD10,000, since most Forex brokers typically allow us to use a leverage of 50 to 100 times. However, the risk exposure is often masked by the low margin requirements. For every 1 standard lot, every pip is worth about USD10. This means that the market only needs to turn against you by 30 pips for you to lose USD300, i.e. 3% of your account balance. If your stop-loss happens to be further than 30 pips, you are risking more than 3% of your account without being consciously aware of the risk exposure.

Figure 6.5 shows an example of how the position size is always based on trading 1 lot per USD10,000 in the account balance, i.e. the number of lots traded is the account equity divided by 10,000. As seen in the rightmost column, the risk exposure varies according to the distance of the stop-loss level.

Trade	Account Equity (USD)	Stop-Loss (pips)	Profit Target (pips)	No. of Std Lots	P&L (USD)	Return (%)
1	10,000	30	30	1.00	300	3.0%
2	10,300	40	40	1.03	412	4.0%
3	10,712	50	50	1.07	536	5.0%
4	11,248	60	60	1.12	(675)	-6.0%
5	10,573	55	55	1.06	582	5.5%
6	11,154	60	60	1.12	(669)	-6.0%
7	10,485	65	65	1.05	(682)	-6.5%
8	9,803	70	70	0.98	(686)	-7.0%
9	9,117	30	30	0.91	274	3.0%
10	9,391	50	50	0.94	470	5.0%
	9,860				Compounded Total Return	-1%

Figure 6.5: Allocating lots based on a fixed percentage of equity, causing varying risk exposures

The next position-sizing technique I shall discuss ensures that the risk exposure in every position is kept within a certain percentage of the account balance.

Percentage Risk Per Trade

In Chapter 5, we dealt with a straightforward way of determining how big or small every trade should be, so that we can systematically control the risk exposure in every position taken. As such, a systematic way of sizing our positions is crucial to risk control.

Here, I shall revisit what I briefly covered in Chapter 5, so as to explain how this position-sizing technique ensures that a fixed percentage of the account equity is at risk in any one trade position.

In Figure 6.6, we consider exactly the same trade outcomes (with identical stop-loss levels and profit targets) as those in Figure 6.5. This time, we use a different position-sizing method; **the number of lots traded is no longer based only on the account balance.** Certainly, the account balance still matters; if all other things remain unchanged, a bigger account balance will still allow us to trade bigger positions. However, there are 2 other factors that regulate the sizes of our trades:

- Distance of the stop-loss level
- Risk Tolerance, i.e. how much risk exposure is allowed in any one trade

As such, we see from Figure 6.6 that the risk exposure is always 2% of the account equity. The trader can choose to increase or decrease this exposure according to his risk tolerance. However, as discussed in Chapter 5, this exposure should be kept small so that our drawdowns are always low.

Trade	Account Equity (USD)	Stop-Loss (pips)	Profit Target (pips)	No. of Std Lots	P&L (USD)	Return (%)
1	10,000	30	30	0.67	200	2.0%
2	10,200	40	40	0.51	204	2.0%
3	10,404	50	50	0.42	208	2.0%
4	10,612	60	60	0.35	(212)	-2.0%
5	10,400	55	55	0.38	208	2.0%
6	10,608	60	60	0.35	(212)	-2.0%
7	10,396	65	65	0.32	(208)	-2.0%
8	10,188	70	70	0.29	(204)	-2.0%
9	9,984	30	30	0.67	200	2.0%
10	10,184	50	50	0.41	204	2.0%
	10,387				Compounded Total Return	4%

Figure 6.6: Allocating lots based on fixed risk exposure per trade

Martingale position-sizing

Martingale trading strategies, which are commonly used by traders and gamblers, are

based on the rationale that after you suffer losses, increasing your bet sizes will help you more than recoup your losses.

A most straightforward (and rather simplistic) example used by some naïve gamblers at the casinos involves doubling your bet size every time you lose a bet. For example, you start by betting $1. If you lose, you stake $2 in the next bet, so that you will end up having a $1 profit if you win the second bet. If you lose the second bet, you stake $4 in the third bet; if you lose the third bet, you take $8 in the fourth bet, and so on and so forth. **The underlying rationale is that sooner or later, you will get a winning bet which recoups all previous losses and leads to a small overall win.** However, many gamblers do not realize that the return-to-risk ratio becomes ridiculously lower as the losing streak gets longer. For example, in your fourth bet, you would be betting $8 to win a dollar; if you win the fourth bet, you are up $1 overall; otherwise you are down $15 overall. Suppose you happen to have a streak of 9 consecutive losses. By the time you come to the tenth bet, you would be betting $512 in order to win a dollar; if you win the tenth bet, you are up $1 overall; otherwise you are down $1,023 overall!

The betting behavior outlined above is clearly ridiculous. It assumes that the bettor has deep pockets. Even if that were true, it becomes increasingly "unworthwhile" to risk larger amounts just to have a chance of being slightly above breakeven point. Figure 6.7 shows how such a betting behavioral pattern can cause the drawdown to increase very exponentially. In this example, we see that 8 consecutive losses will lead to a drawdown of 51%. Here, the maximum "length of the cycle" is 8 trades; you cannot go to the ninth trade by the time your drawdown is 51%. At each point in the 8-trade cycle, a profitable trade will end the cycle, leading to a measly return of 0.2%. It is evident in the last columns that an increasingly greater percentage of the account is risked in exchange for a very low positive return.

Starting Equity	Stop-Loss (pips)	Profit Target (pips)
$20,000	40	40

Trade	No. of Lots	Cumulative P&L (USD)		Cumulative P&L (% of Starting Equity)	
		If Profit Target Hit	If Stopped Out	If Profit Target Hit	If Stopped Out
1	0.1	$40	-$40	0.2%	-0.2%
2	0.2	$40	-$120	0.2%	-0.6%
3	0.4	$40	-$280	0.2%	-1.4%
4	0.8	$40	-$600	0.2%	-3.0%
5	1.6	$40	-$1,240	0.2%	-6.2%
6	3.2	$40	-$2,520	0.2%	-12.6%
7	6.4	$40	-$5,080	0.2%	-25.4%
8	12.8	$40	-$10,200	0.2%	-51.0%

Figure 6.7: A simplistic doubling of position sizes to recoup losses, leading to ruin rather quickly

As such, some traders devise milder variations of the above betting style, such that the "cycle" can become longer without increasing the drawdowns too much. An example is shown in Figure 6.8. Note that there are many possible variations of Figure 6.8. Regardless of the variations, **a Martingale-style position-sizing strategy requires that each time there is a losing trade, the cycle proceeds to the next higher position size. The cycle ends once there is a profitable trade, leading to a net overall return.**

We can fine-tune the quality of such a system by changing the following parameters:

- **The exit points**

The distances of the stop-loss and profit target levels, and the return-to-risk ratios, determine how probable it is for any one trade to hit the stop or the profit target. As such, they determine how far down the position-sizeincreasing cycle we tend to go. The further down the cycle you go, the higher the drawdown becomes.

Also, the return-to-risk ratio determines how worthwhile it is to keep increasing the position size as a losing streak continues.

- The higher the return-to-risk ratios, the greater the overall return once a profitable trade "ends the cycle"; however, higher return-to-risk ratios also mean that you tend to get more consecutive losses, i.e. move further down the cycle, leading to larger drawdowns.
- The lower the return-to-risk ratios, the smaller the overall return once a profitable trade "ends the cycle"; however, lower return-to-risk ratios tend to give less consecutive losses, ending the cycle sooner with smaller drawdowns.
- **The rate of increase of the position sizes**

Clearly, we do not want to simplistically double the position size each time we get a losing trade. In Figure 6.8, the example shows that the position size increases in a more gradual manner, so that the drawdown does not increase very rapidly as you get consecutive losses.

Starting Equity	Stop-Loss (pips)	Profit Target (pips)
$20,000	20	80

Trade	No. of Lots	Cumulative P&L (USD)		Cumulative P&L (% of Starting Equity)	
		If Profit Target Hit	If Stopped Out	If Profit Target Hit	If Stopped Out
1	0.1	$80	-$20	0.4%	-0.1%
2	0.1	$60	-$40	0.3%	-0.2%
3	0.2	$120	-$80	0.6%	-0.4%
4	0.3	$160	-$140	0.8%	-0.7%
5	0.4	$180	-$220	0.9%	-1.1%
6	0.6	$260	-$340	1.3%	-1.7%
7	0.8	$300	-$500	1.5%	-2.5%
8	1.1	$380	-$720	1.9%	-3.6%
9	1.5	$480	-$1,020	2.4%	-5.1%
10	2.0	$580	-$1,420	2.9%	-7.1%
11	2.7	$740	-$1,960	3.7%	-9.8%
12	3.6	$920	-$2,680	4.6%	-13.4%
13	4.7	$1,080	-$3,620	5.4%	-18.1%
14	6.2	$1,340	-$4,860	6.7%	-24.3%
15	8.0	$1,540	-$6,460	7.7%	-32.3%
16	10.2	$1,700	-$8,500	8.5%	-42.5%
17	13.0	$1,900	-$11,100	9.5%	-55.5%
18	16.5	$2,100	-$14,400	10.5%	-72.0%

Figure 6.8: An example of allocating increasing position sizes to recoup losses

Certainly, the Martingale position-sizing system shown in Figure 6.8 is a much-improved one compared to the one in Figure 6.7. There are more sophisticated ones which are beyond the scope of this book. **Tradable Martingale systems should be carefully tuned in terms of the exit points, the return-to-risk ratios and how the position sizes increase with losing streaks.** Such systems do have their appeal, in that they can remain profitable for a long time. However, there are two things to note about such systems:

- Regardless of how gradually the position size increases with losing streaks, you cannot escape the problem of living with worse return-to-risk ratios as the losing streak lengthens.
- Such systems are not so concerned about the quality of the initial entry point. The overall success of Martingale systems depends largely on the position-sizing and exit points. Competent statistical analysis can tune these parameters such that the probability of prohibitive drawdowns (due to very long losing streaks) is very low.

However, "extreme events" are often more probable than statistical analysis tells us. Even if such events are indeed very rare, it often just takes one or two such occurrences to wipe out most of your prior winnings.

Scaling-In Techniques

When a position moves in our favor as strong trends happen, scaling-in position-sizing techniques can be very beneficial in enhancing our returns. **It basically involves adding to winning positions, and moving the stops as the price moves favorably.** When adding to winning positions, you will not be increasing the risk exposure too much, since the stops for the original positions will move in the favorable direction at the same time. Such scaling-in techniques are very beneficial to make the most of winning trends which are strong and long-lasting. However, caution must be exercised to limit the number of simultaneously open positions.

Suppose my entry technique is based on signs of breakouts when 3 moving-average lines (5-period, 10-period and 20- period) start to "open up after some price compression" (this was discussed in Chapter 3). Such an entry is meant to ride a potentially strong trend. As mentioned several times in the preceding chapters, the success of this entry strategy (and any strategy, for that matter) depends largely on how your exit plan is designed to let profits run and to cut losses short.

In Figure 6.9, we see the first "buy" signal when the moving-averages start to "open up". Suppose my initial stop is placed at the recent low of 1.6530, and my entry point is 1.6570, i.e. the stop happens to be 40 pips away. If my account is USD10,000, and I only want to risk 2% of my account balance (i.e. USD200), I then choose to trade 0.5 standard lots. You can easily do this calculation yourself based on what was discussed in the section on "Percent Risk Per Trade" several pages ago. This calculation was also outlined in the last section of Chapter 5.

I can choose to use an exit plan that dictates that I will close the long position if the 5-period moving-average crosses below the 10-period moving-average. As you can see from Figure 6.9, my first long position remains "alive" for quite a long time when the trend moves rather strongly with minimal retracements. Along the way, a second "buy" opportunity comes when the entry condition is fulfilled a second time, i.e. the moving-averages start to "open up" again. I can enter a second position, with its own stop at 1.6570 (recent low). The size of my second position is calculated based on my 2% risk exposure too. If the second entry point is 1.6600 (i.e. the stop is 30 pips from entry), the position size is 0.67 lots, assuming the same account balance of USD10,000.

At this juncture, I can choose to move the stop for the initial position to breakeven level, which happens to be 1.6570 too. So, now I have a total exposure of 1.17 lots (0.50 plus 0.67). However, my total risk exposure is still only 2%. This is because my initial position is protected at breakeven level. If the market retraces down to 1.6570, the first position will be stopped out at breakeven point, while the second one will be stopped out at a 2% loss.

However, if the trend continues with minimal retracements, both positions can remain profitable. I can factor a trailing stop to keep protecting a certain percentage of the profits along the way. At the same time, new positions can be scaled in whenever new entry signals appear. Each new position has its own profit target and stop-loss exit points.



Figure 6.9: Scaling in - increasing exposure whenever a new entry signal occurs along the trend

The above is just one example of how we scale in new positions when the trend moves in our favor. This example shows how we add on to winning positions whenever new entry signals appear. There are other ways to determine when you scale in. For example, you can choose to add on to your positions whenever your trailing stop moves to breakeven, and when the profit continues to move to certain pre-defined levels. Based on the trailing stop mechanisms discussed in Chapter 4, we can incorporate scaling-in strategies to make the most of winning trends.

When using such a position-sizing strategy, we should take note of the following considerations:

- **Maximum number of positions allowed**

If and when the trend lasts very long without strong retracements, such that all positions remain "alive", there should be a limit to the number of new positions added. Depending on how you move your stops when exposure increases with additional positions. In

order to limit the total risk exposure, the number of positions should be limited to a certain maximum. This depends on the parameters of your scaling-in position-sizing strategy.

- **Setting profit targets for open positions**

One way to limit the number of positions is to set profit targets for each of the open positions. While having a trailing stop for each of the positions, we can allow the position to be closed out if it hits a certain pre-set profit target before it hits the trailing stop.

- **Psychology of giving up part of open profits**

In the process of scaling in, the size of the new position can be calculated based on a certain percentage (e.g. 2%) of the initial account equity (i.e. the balance before the first position was entered, which is USD10,000 in the above example). However, you may consider calculating the size of the second position based on the current (floating) account balance, although the first position is not closed out yet. If the account balance is USD10,500 by the time your second position is entered, the size of this second position can be calculated based on USD10,500, instead of the initial USD10,000. The underlying psychology is that the additional USD500 is the "open profit" derived from the market, and that **we are willing to risk a certain percentage of that open profit (which is really the "market's money") as well.**

Such a position-sizing pattern involves recognizing the concept of the "market's money". In fact, **effective trend-following (i.e. letting profits run) entails training our psychology to risk part of our open profits in order to have a chance of riding the trend even more.**

For example, Figure 6.10 illustrates a common experience among traders. After a trend retraces itself and hits a trailing stop, many traders feel a sense of regret for losing part of the maximum open profits. However, they do not realize that this mindset "assumes" that they should have known where the maximum profit level would be. Needless to say, it is foolish to think that we can pick tops and bottoms.

If we can understand, at the gut level, what it means to risk the "market's money", we can more effectively profit from strong and long-lasting trends via the strategy of scaling in new positions and risking open profits to maximize our capital over the long term.



Figure 6.10: The psychology of giving up part of the "market's money" upon retracements

Thinking in terms of probabilities

As described in Chapter 1, successful trading entails establishing a trading plan which is based on your trading goals. Moreover, your trading goals involve the extent to which you plan to increase your trading account balance, and the interim drawdowns you are prepared to accept.

These parameters will determine how you plan your entry and exit strategies, and how you determine the sizes of your trades to limit your risk exposures. In this chapter, I have outlined a few ways of determining your trade sizes. Some of these ways are simpler to follow, while others are more aggressive in nature. Certainly, there are other variations of the methods presented here. Nevertheless, they represent the basic building blocks of all kinds of position-sizing strategies. Each trader should make an individual decision as to which one is the most appropriate in order to achieve his or her trading goals.

Regardless of your entry, exit and position-sizing strategies, successful trading involves thinking in terms of probabilities. As the law of large numbers tells us, probabilities work out over a sufficiently large number of outcomes. If you truly intend to build a legitimate and sustainable business out of Forex trading, **you do need to adopt a "big-picture" perspective, such that you become progressively less concerned about the trade-by-trade outcomes of your trading decisions, and become increasingly focused on the quality of every trade decision.** This demands that you understand that good trading decisions may result in losses, and that taking small losses is one very crucial part of overall winning. Becoming a successful trader is about overcoming our shortsighted biases.

Chapter 7: Conclusion

So, what does it take to be among the minority of Forex traders who consistently take money out of the market? We have covered quite a lot of material throughout the book. Assuming you have diligently read through the material, you should have realized by now that successful trading is very different from what many traders will tell you. Indeed, it goes against much of our mental conditioning. In summary, the following points outline the essential ingredients of successful trading:

- **Entry techniques**
    - We can use various combinations of technical, economic, or sentiment indicators to determine entry points. It is also possible to base our entries on price action without the use of indicators. Some techniques were outlined in Chapter 3.
    - Entry techniques help us identify high-probability entry points. There are no certainties. This is why planning for losses is crucial.
    - All indicators are basic building blocks of all kinds of entry techniques. **Each building block can be tuned to be more or less sensitive** to market movements.
    - **Excessive complexity in entry techniques is unnecessary.** Complex methods often merely give an illusion of superiority, without adding information to the analysis or increasing the probabilities of winning.
- Exit strategies
    - **The same entry techniques can result in very different trading outcomes when used by traders with different exit strategies.** Most traders are naturally less concerned with exits than with entries. As a result, they do not achieve consistent success despite having dozens of entry strategies.
    - There are various ways to determine exits:
        - Explicit stops and profit targets can be set near recent support or resistance levels. They can also be set away from the immediate noise of the market by measuring the market volatility.
        - Trailing stops can be used to capture the occasional occurrences of longer-lasting trends.
        - Exits can also be based on certain indicators, e.g. crossovers between moving-average lines. Such exit strategies serve the same function as

trailing stops, i.e. **to maximize the average return-to-risk ratio of trades, so as to "cut losses short and let profits run".**

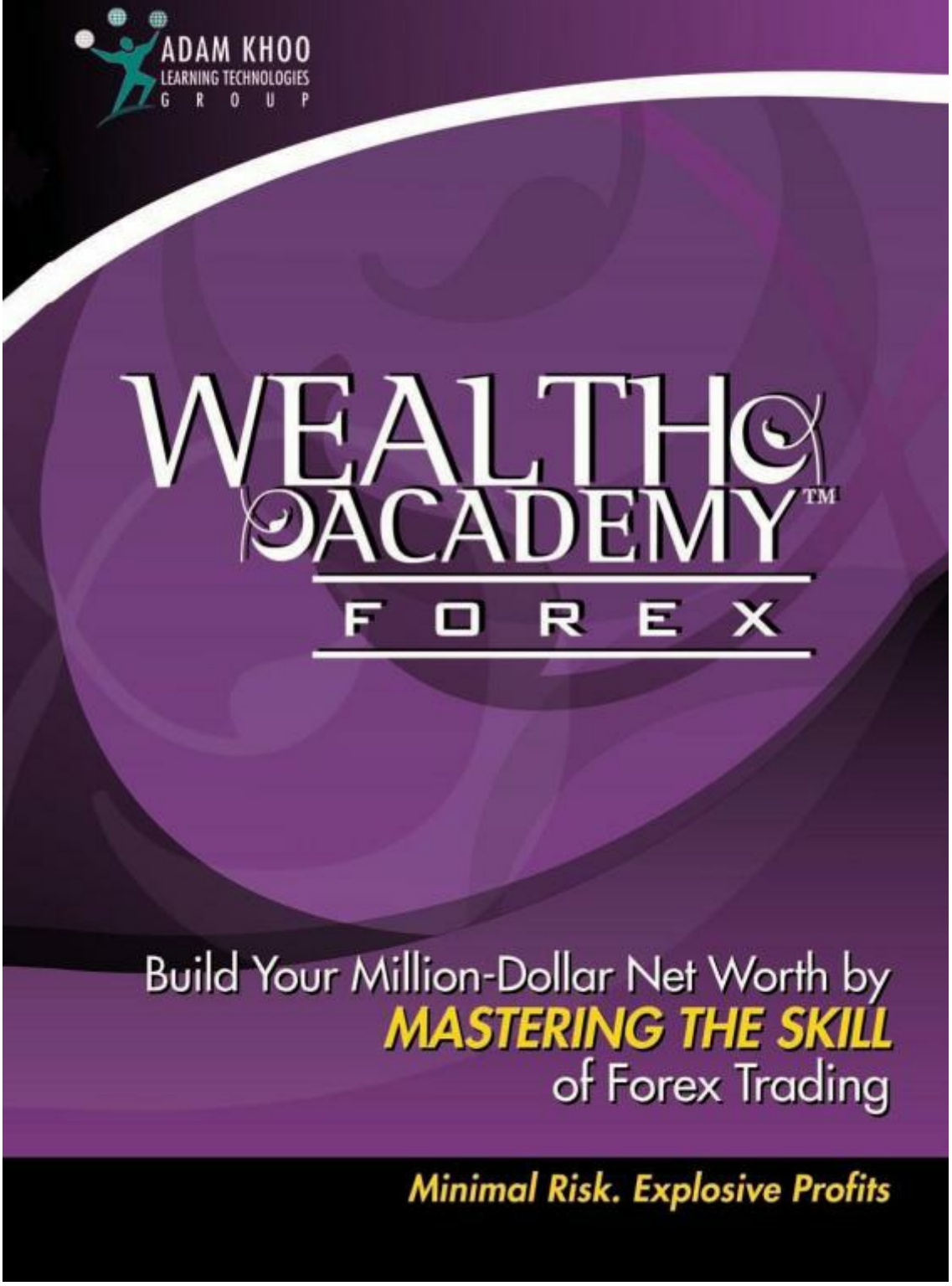
- Risk Control and Capital Growth
    - Risk control involves calculating your risk exposure in any one trade position that you enter. Minimizing drawdowns increases your chances of meeting your trading goals.
    - Systematic sizing of every trade position helps you grow your trading capital over time. In Chapter 6, we dealt with a few important methods of position-sizing. Depending on your target returns and risk tolerances, different variations of these methods can be used to help you achieve your trading goals.
- Trading Psychology
    - Most traders naturally focus on the most concrete aspects of trading, e.g. what indicators to use, which timeframes to look at, choosing the best entry points, etc. As a result, they devote most time and energy to the least important things. The impact of trading psychology is much less concrete compared to these things; yet, it influences every single decision we make in our trading journey.
    - All trading outcomes are ultimately the result of mastering yourself. We need to develop mental strength to think in terms of probabilities, and to avoid being driven by instant gratification.

It is important to realise that the various aspects of trading success, as outlined above and discussed throughout this book, should not be considered as separate or "compartmentalized" components of your trading process. For the purpose of systematically training ourselves to become successful traders, we consider the trading process to involve principles related to these 4 areas. However, as illustrated in Figure 7.1, **these components are to be integrated to form a consistent pattern of managing our trading routines and decision-making processes.** In a very real sense, the psychological patterns of trading regulate everything we do in our entry and exit strategies, as well as the way we control our risk exposures.



Figure 7.1: Integrating various components of trading into a consistent trading pattern

After mastering various strategies, successful traders devote more of their mental energy to **conditioning their minds to the "big-picture" perspective** of the trading business. As your focus shifts away from the hype of endless indicators and strategies, you will become **less influenced by the short-term impacts of individual trade outcomes;** you will realize, not just intellectually but at the behavioural level, that your trading plan is designed to obey the cardinal principle of trading – **to cut losses short and to let profits run!** You will then discover for yourself how profitable the business of Forex trading can be, **and will be on your way to becoming a peak-performance Forex trader!**


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Keong Hee holds a First Class Honours degree in Engineering from the National University of Singapore, where he was among the top 3% of his cohort. Keong Hee is a Certified Professional Trainer (accredited by the International Professional Managers Association, UK), and is also a Chartered Financial Analyst (CFA) charterholder, accredited by the CFA Institute. He also qualified for membership of MENSA Singapore by achieving an IQ score of 156.

After his corporate career in the investment profession, Keong Hee has embarked on a most rewarding journey of mastering the skill of trading the financial markets. As a self-directed investor, his remarkable trading results have helped him achieve independence from the rat race. By trading the Forex market alone, he now consistently makes profits of USD 15,000 to USD 20,000 on a monthly basis.

One of Keong Hee's most phenomenal achievements in trading was multiplying a USD 10,000 account into well over USD 300,000 in just one year!

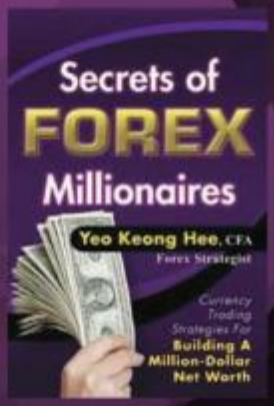


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