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Ashwani Gujral

Prasanna Khemariya

NEW CHAPTER

TRADING THE RAILWAY-LINE THEORY

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About the Book

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A top trader shows you how to make money in any type of market using price charts

Knowledgeable traders are able to make money using their skillful reading and interpretation of price charts, irrespective of whether the market is rising or falling — or simply moving sideways.

In this bestselling book, Ashwani Gujral shows how you too can make money in any type of market by correctly identifying the market's mood from the various typical patterns that are formed on charts — and by using appropriate trading methods for each pattern:

- How to make big profits by identifying a trend and trading with it
- How to make mega profits by identifying impending trend reversals and catching big moves in the opposite direction
- How you can reap windfall profits by identifying and trading breakouts from continuation price patterns on charts
- How to use volume to confirm price action
- How to use momentum indicators in conjunction with charts to finesse profitable entries and exits
- How to improve your trading success rate and protect your capital using proven methods of money management
- How charts can help you identify hot sectors and stocks to trade
- Trading rules for different chart patterns
- PLUS: New chapter — Trading the Railway-Line Theory.

With real-life examples and 175+ charts from Indian markets, this pioneering and comprehensive book on chart patterns and chart analysis explains every significant tradable pattern, buy and sell signal, and the use of important technical indicators.

Novices and professional traders alike will profit from this book, and the lessons it offers are equally applicable whether you trade stocks, derivatives, commodities, currencies, etc.

“A must read for anyone interested in trading the Indian markets.”

– *Technical Analysis of Stocks and Commodities Magazine*, USA

About the Authors

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ASHWANI GUJRAL is one of India's most famous market analysts and trading experts. He is the Chief Market Strategist and Fund Manager of ashwanigujral.com and a regular market commentator including on CNBC TV18 business channel. He has written on trading and technical analysis for leading US specialist magazines and journals, including *The Active Trader*, *Stock Futures and Options, Futures*, *Trader's Source*, and *Technical Analysis of Stocks and Commodities.* Ashwani has been a full time trader of stocks and derivatives since 1995. His activities include running a technical analysis plus trading chatroom and newsletter.

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Ashwani Gujral's other two books, *How to Make Money Trading Derivatives* and *How to Make Money in Intraday Trading* are runaway bestsellers. You can catch up with his trading thoughts and ideas on his Twitter handle @GujralAshwani.

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Other Trading Books
by
Ashwani Gujral

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How to Make Money Trading Derivatives

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How to Make Money in Intraday Trading

HOW TO MAKE MONEY TRADING WITH CHARTS

3rd Edition

Ashwani Gujral
Prasanna Khemariya

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Dedication

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Dedicated to the two bullish candles that light my life, my wife Anubha and daughter Rtunjya.
– Ashwani Gujral

~

Dedicated to my wife Nilusha and our children, Ishita and Pravar — the three most special people in my world. They always inspire me to remain bullish on life.
– Prasanna Khemariya

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Disclaimer

The author and the publisher disclaim all legal or other responsibilities for any losses which investors may suffer by investing or trading using the methods suggested in this book. Readers are advised to seek professional guidance before making any specific investments.

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Preface to the Third Edition

More than ten years have passed since this book was originally written. In this period the Indian market, the traders, the investors, the economy, much has changed. The market has increased in depth with domestic institutions balancing out foreign institutional investors. Individual investors are increasingly using mutual funds to invest in the markets. Traders are trading more knowledgeably with many practitioners holding conferences. Demonetization and formalization of the economy have led to Indian investors looking at the market as a more favorable avenue of investment. Social media has become a rage and many hitherto unknown but successful traders are coming to the fore. My own workshops on day trading are filled to capacity and it's great to see that skill education is finally being recognized instead of useless degrees. It is in this context that this new edition is being published.

Equally, **a lot of traders are realizing the limitations of mere market analysis without the commensurate confidence to actually trade the markets.** Ever since I have started putting my trading results on social media, it has forced others to do so as well. This has made it increasingly clear that many *gyanis* (gurus) do not have much profits to show. I am sure they are much better analysts than I am but I make more money. Why does this happen? It happens because **most analysts do not know where analysis must stop and money management take over.** An analyst often falls in love with his analysis and is unable to see that the market is not moving in sync; as they say, love is blind, and self-love and love for one's own analysis can

be totally blinding. I strongly suggest that readers should use the charting methodology as a tool and not get used by it or fixated on it as an end in itself.

Even after learning the best methodology available, there remains a fundamental underlying uncertainty to the market which must be respected. Thus, for example, learning where to get in is easy, learning to look for signs of an exit is equally important. Developing skills of risk management and trade management is vital for making large profits. Just learning how to enter the market is planning for failure, like the valiant Abhimanyu in the *Mahabharata*. **You must understand that trading is essentially a business of risk management and not so much of being right about the next market's move.**

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India has changed dramatically in the last two decades. The country now boasts the fifth largest economy in the world and, more importantly, it is among the fastest growing in the world, if not the fastest. This is a dramatic turnaround from the country's dreary socialist past till the 1980s. The abolition of the license raj system and other strangulating laws such as FERA and MRTP, etc., the opening up of India's economy, the liberalization of its foreign trade, and the entry of foreign direct investment from the 1990s resulted in the Indian economy clocking double-digit growth.

A vibrant democracy, a large pool of trained and skilled human resources, a sizeable number of English-speaking people together ushered India into the information economy. The reforms initiated since the early 1990s have paid rich dividends. Commentators who earlier felt that the country couldn't achieve a sustainable growth without an industrial revolution are now witnessing the emergence of a resurgent India.

The policy changes, albeit in fits and starts, impacted many other things. The opening of India's capital market to foreign institutional investors, the option of raising money through global depository receipts, the introduction of screen-based trading in India's stock markets, the dematerialization of physical shares, etc., increased the market's transparency and attracted many new investors. The new money, in turn, enhanced the liquidity in India's

financial markets. All this resulted in a secular bull run in India's financial markets from 2003 to January 2008 which attracted lots of new traders, investors, and speculators into the market.

The bull run was not all smooth sailing, however. India witnessed some of the sharpest and deepest falls in between when most individual investors lost money. Then, too, the fall of January 2008 was a secular one in the sense that it hit a majority of market participants. All categories of players, whether individuals with small pockets, or the deep-pocketed, lost huge amounts of money largely as a result of overtrading in future contracts. Trading in the futures market is a zero sum game where one person's loss is another's profit. Only a minority of traders wins in the end; the majority lose money. The losses not only drain you financially, they inflict significant emotional harm as well.

Rises and falls are intrinsic to the market and they teach us lessons that are, alas, promptly ignored no sooner the next bull is espied in the distance. Investors happily forget that every party must come to an end and no rise in the market can forever defy the law of gravity. Are there lessons to be learnt? Can we avoid losses, overtrading, irrational exuberance and excesses? Can technical analysis, charting and chart reading give us a forewarning of impending reversals of trends? Can sudden and sharp falls be anticipated so that market players can make a safe exit, or at least jettison the excesses and prevent both needless pain and protect their profit and capital? The answer to all these questions is a resounding yes.

Chart reading can help us anticipate such things in time. As that most famous of traders, Jesse Livermore, said in 1923, "Wall Street never changes . . . the players change, the stocks change, but the nature of Wall Street itself never changes, because human nature never changes." Replace Wall Street with Dalal Street and Livermore's remark still holds true.

The purpose of this book is not to debate the virtues of technical analysis over fundamental analysis. The purpose is to show you how to make money by identifying different patterns on price charts and analyzing them in order to trade with risk reward ratio in your favor. The markets comprise of different kinds of players — big and small, smart and not-so-smart — and their combined actions leave an indelible print on the charts. In a way, charts

are like footprints in sand. “All through time, people have basically acted and reacted the same way in the market as a result of greed, fear, ignorance, and hope — that is why the numerical formations and patterns recur on a constant basis.” This is another quote from Jesse Livermore which highlights the importance of charting.

Charting is like driving a vehicle where you look at the rear view mirror 80% of the time and look ahead the other 20% so that you move forward safely. Charts can be used for foreseeing the reversal of a trend. They also forewarn us about the emergence of any silver lining after dark clouds — and on sunny days warn us about the darkness that might lie ahead. The purpose of this book is to empower you to take independent decisions on your own about when, how and which stocks to trade.

Most great traders around the world have made money by following charts as, indeed, I have too. While there are various books available in the market on charts but there are very few books which explain patterns and analysis using charts of Indian stocks. This book explains every pattern, buy or sell signal, or use of technical indicator, tradable patterns on chart of Indian stocks so that you can relate it with your familiar stocks. The book can, accordingly, be used by novices and professional traders alike. We Indians understand cricket well, therefore cricketing analogies are used at some places to bring more clarity to the subject.

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This third edition book is divided into fourteen chapters.

The first chapter is a general introduction to Indian financial markets and an overview of the different kinds of tradable instruments available. It also explains the importance of knowing one’s profile and objectives. In order to be successful in the market, you must first know who you are — whether you are an investor, short term or day trader, etc. — and your objectives should never be confused. It’s often seen that people buy a stock to trade it for intraday but when it doesn’t move in their favor they hold on to it for the “short term” — and when the trade does not work out even in the short term they get married to it and justify it to themselves as an investment! Lesson: if you don’t know your profile, the stock market is a costly place to find out.

The first chapter also throws light on some basics of technical analysis and charting.

The second chapter deals with ADX, one of the most powerful indicators available for judging the strength of a trend. This chapter also elaborates how ADX is used as an early indicator of the end, or pause, in a trend.

The third chapter encompasses one of the first and foremost fundamentals of trading — identification of trend. Trends are identified by the use of trend lines. How trend lines are drawn, their significance, and the use of trend lines with candlesticks are the main components of this chapter. Big money can be made if you trade with the trend.

Reversal patterns like head and shoulder patterns, basing formations and broadening formations are dealt with in the **fourth chapter**. Identification of the reversal of a trend can enable you to jettison the ship before it starts sinking. It also allows you to catch the move in the opposite direction. Riding even a few such reversal moves can give you mega profits for the whole year.

Chapter 5 is concerned with key reversal patterns other than the head and shoulder pattern. Thus, it tackles ascending triangles, descending triangles, and symmetrical triangles — and how these patterns can be traded profitably.

Chapter 6 discusses important continuation patterns — flags, pennants, and wedges. These have been discussed in great detail. In a strongly up trending market you can reap windfall profits by trading breakouts from the frequently formed flag patterns.

Chapter 7 builds on Chapter 6 but tackles different continuation patterns, such as head and shoulders, and ascending and descending triangles. These patterns have been explained in a simple manner with many chart examples.

Volume and open interest, two most commonly used but least understood concepts, are discussed in **Chapter 8.** Volume provides evidence and confirmation — or otherwise, — of trends and is a most important tool. An understanding of the importance of the price and volume relationship can help you win the trading game.

Chapter 9 introduces you to technical indicators and focuses on momentum. It deals with moving averages which are like moving pictures on

charts. Moving averages help you to ride a trend and keep your trade in the trend for a longer time. Fortunes can be made if you can use moving averages effectively.

Chapter 10 deals with some well-known, time-tested strategies that have been used by many traders, and which we also used in our trading. Some real trades we took using momentum setups have been described in detail with the help of charts.

Chapter 11 covers one of the most important and least used aspects of trading — money management. Most investors and traders are very possessive by nature. They don't part with their positions easily. In life, if you hire two employees and find after a month that one of them is performing well while other is not performing at all, you will throw the non-performer out and continue with the performer. When it comes to investing and trading, however, people often do the opposite. If they buy two stocks, they exit from the one which is giving them profit and stick with the loser. This chapter also deals with risk management. You must have heard many stories about people making a fortune only to lose it and become paupers. Overleverage and over-trading kill traders. When people make good money, they put all the money back into the market. Protection of your capital is the mantra and this chapter tells you how to do so. It also presents the concept of stop loss and how and where to apply it so that it doesn't become "spot loss" but takes care of your trading capital with allowable risk.

Chapter 12 pulls all the earlier aspects together. It emphasizes the importance of sector selection in picking stocks that offer you the best chances for making money. This chapter also emphasizes the importance of sector rotation and how to identify its occurrence on charts.

Chapter 13, "Trading the Railway-Line Theory," is a brand new addition to this edition. Often the very first mistake people make is that they choose the wrong stocks to trade. My research shows that a lay trader using the railway-line approach can ride big long term trends because big trends are likely to sustain. Adding appropriate trade management methods, namely relevant position size and risk management, this trading technique can be a gold mine for multi-day positional trading. Often themes tend to play out in a multi-year format, so arriving at a broad idea of the theme and then verifying

it with the chart is a suitable methodology.

Chapter 14 titled, “Mind of the Successful Trader,” deals with the single most important determinant of whether you will succeed at trading. **I firmly believe that it is mental discipline and psychology that finally make or break a trader.** I would go so far to say that a trader is doomed to failure without mental discipline and proper management of emotions. In fact, we have seen that most successful people in most endeavors in life are mentally strong people. This is particularly true of people in performance disciplines, such as sport or trading. In these disciplines, overcoming adversity or losses have to become second nature. Only continuous improvement builds the temperament to play and excel at the highest level. So, do read and reread this important chapter.

Success in any performance discipline is as an average of many discrete outcomes. Anyone who looks for certainty is bound to fail, and which is why we see only 5 per cent succeed in such fields, and indeed in life. If trading can impact your real life in any meaningful way, it is because of lessons that the market teaches you. I am surprised how I myself have changed mentally during the course of these last twenty years of trading. I have become a stronger person and my life and trading have also improved. So trading not only requires learning its specialist skills; in turn, it also changes the person who is trading. This is because **the technique does not make money, the person does.**

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I hope that this book will instill in you the confidence to take decisions based on charts and their patterns along with the use of some simple indicators. Once you gain confidence in your ability to analyze charts, you won’t then have to rely on hunches, or someone else’s opinion, or tips to trade successfully. If you follow the simple rules of the game, you will reap market profits. In this game, nobody is a master; every one is always a student — and that is the only way to improve. The moment you think you know it all, the market punishes you severely. Here is wishing you every success in your trading.

New Delhi
21 May 2018

ASHWANI GUJRAL

List of Abbreviations

ADX	Average Directional Index
ATV	Average Trading Volume
BSE	Bombay Stock Exchange
CCI	Commodity Channel Index
CDSL	Central Depository Services Ltd.
DI	Directional Indicator
DP	Depository Participant
DM	Directional Movement
DMA	Day Moving Average
DMI	Directional Movement Indicator
EMA	Exponential Moving Average
FII	Foreign Institutional Investor
IOC	Indian Oil Corporation
IPO	Initial Public Offer
MA	Moving Average
MACD	Moving Average Convergence Divergence
MACD-H	Moving Average Convergence Divergence Histogram
MTM	Mark to Market
NEAT	National Exchange for Automated Trading
NSDL	National Securities Depository Ltd.
NSE	National Stock Exchange of India Ltd.
OI	Open Interest
OBV	On Balance Volume

RSI	Relative Strength Index
SMA	Simple Moving Average
SEBI	Securities and Exchange Board of India Ltd.

Chapter 1

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Introduction

Indian Stock Markets — A Quick Overview

The Bombay Stock Exchange (BSE) and the National Stock Exchange of India Ltd. (NSE) are the two premier exchanges in India. You can find detailed information about these exchanges on their websites, www.bseindia.com and www.nseindia.com respectively.

The NSE and BSE are equal in size in terms of daily traded volume. The average daily turnover at these premier Indian exchanges grew nine-fold to more than ₹ 77 billion in the nine-year period between 1998 and 2007, and further grew another 70-fold by the first four months of 2018 which saw an average daily turnover of ₹ 5,700 billion. Most key stocks are traded on both the exchanges and an investor can buy them on either. The two exchanges have different settlement cycles which allows investors to shift their positions from one bourse to the other.

BSE's primary index is the BSE Sensex comprising thirty stocks. Correspondingly, NSE has the S&P NSE 50 Index (Nifty) which consists of fifty stocks. These thirty and fifty stocks, respectively, are selected from different sectors. Nifty can also be compared to a chariot driven by fifty horses. You can also trade in index futures. BSE Sensex is the older and the more widely followed index of the two, not the least because it embeds a longer history.

Both the exchanges have fully computerized systems of trading, respectively known as BOLT (BSE On Line Trading) and NEAT (National Exchange Automated Trading), which facilitate efficient order processing, automatic matching, faster execution of trades and transparency.

The scrips traded on the BSE have been classified into 'A', 'B', 'T' and 'Z' groups on certain qualitative and quantitative parameters.

'A' Group represents shares that are in the carry forward system.

The ‘F’ group represents fixed income securities.

The ‘T’ group represents securities which are settled on a trade-to-trade basis as a surveillance measure.

The key regulator governing India’s stock exchanges, brokers, depositories, depository participants, mutual funds, foreign institutional investors (FIIs) and other participants in India’s secondary and primary markets is the Securities and Exchange Board of India Ltd. (SEBI).

Working of the Indian Stock Markets

If you want to buy / sell shares on the India stock market, you have to first place your order with a broker. Once your buy order is communicated to the broker, he then routes it through his online system to the concerned exchange. The order stays in the exchange system's queue and gets executed when a sell order for the same security is logged into the system within the buy price limit that you have specified. The shares purchased are then sent to the purchaser by the broker, either in physical or demat form.

Understanding Dematerialization or Demat

Dematerialization, demat in short, is the process by which an investor can get his or her physical certificates converted into electronic form maintained in an account with a depository participant. Investors can dematerialize only those share certificates that are already registered in their name and which belong to the list of securities admitted for dematerialization at the depositories.

Depository

A depository is an organization responsible for maintaining an investor's securities in the electronic form. A depository can be conceived of as a bank for securities in that the depository concept is similar to the banking system with the exception that banks handle money whereas a depository handles the investor's securities.

In India, there are two depositories, namely National Securities Depository Ltd. (NSDL) and Central Depository Services Ltd. (CDSL). An investor wishing to utilize the services offered by a depository has to open an account with the depository through a depository participant.

Depository Participant (DP)

The market intermediary through whom investors can avail of depository services is called a depository participant (DP). As per SEBI regulations, DPs

are organizations involved in the business of providing financial services such as banks, brokers, custodians and financial institutions.

How to Open a Demat Account

Opening a depository account is as simple as opening a bank account. You can open a depository account with any DP convenient to you by following these steps:

- Fill up the account opening form, which is available with the DP.
- Sign the DP-client agreement which defines the respective rights and duties of the DP and the person wishing to open the account.
- You then receive your client account number (client ID). This client ID along with your DP ID gives you a unique identification in the depository system.

Why People Invest

Everybody wants to save and invest. You invest to make your money grow so that it will shield you against inflation. If your invested money gives returns that are more than the rate of inflation, only then can you have a surplus. For every investment, then, the end goal is the creation of wealth. You can invest in fixed deposits, bonds, gold, property, mutual funds or in shares of companies. Investment decisions should be based on your risk profile, available savings and time horizon.

You should always remember that risk and returns are directly proportional to each other, namely the higher the risk, higher the returns.

Know Your Profile

People invest in the stock market to grow their money. You can buy or sell shares from the secondary market. You can also buy shares in the initial public offers (IPOs) made by various companies from time to time. During bull phases, many people apply for shares through IPOs, therefore your chances for getting allotments are very slim. Buying stocks from the secondary market is delivery based. You need to pay the price of the shares in cash within two days of the purchase date. You also need to pay brokerage which ranges from 0.005% to 0.0025% for delivery based buying.

Before you step into the stock market arena to create wealth, you must identify your profile which means you should determine whether you are an investor, a day trader, a swing trader, etc. These three categories can be likened to marriage, one-night stand, and a short term affair, respectively!

When you select a girl to marry, you look at the family profile, her education, her looks and her personal qualities. Similarly, when you want to invest your money in a company you should look at its management, earnings, dividend history and future growth possibilities.

If you want to trade for a day and are ready to live with the wild swings, sudden swerves and impulsive moves of the index, you can opt for day trading. Day trading is a risky venture as the index gyrates either way during the day and often catches a day trader unaware with its unpredictability.

Swing trading is catching the short term, 2 to 3 day, upswing or downswing movements of the market. The method you adopt depends on your personal preference and profile.

Derivatives

A derivative is a security whose value is derived from the value of another underlying asset, index or reference rate. The underlying could be equity, forex, commodity or any other asset.

You can understand the difference between the underlying and derivative by the example of milk and paneer. Paneer is a derivative of milk, which is the underlying. The price of *paneer* is determined by the price of milk. In summers the price of milk typically goes up, so you also have to shell out more money to buy paneer.

Similarly, if the settlement price of a derivative is based on the price of a share which frequently changes on a daily basis, e.g. Tata Steel, then the derivative risks are also changing on a daily basis.

Derivatives are used to transfer risk and act as a form of insurance. This shifting of risk presupposes that each party involved in the contract should be able to identify all the risks involved before agreeing upon the contract. Also, since derivatives are derived from an underlying asset, risks in trading derivatives may change depending on what happens to the underlying asset.

Most people think derivatives require complex numeric calculations and speculative dealings, and that it is an instrument suitable for only a few “smart finance professionals.” In reality, this is not so. Even an individual can trade in derivatives and profit from it.

Derivatives are basically of two types:

- Forwards and futures, and
- Options.

Futures Contracts

A forward, or futures, contract is the simplest mode of a derivative transaction. It is an agreement to buy or sell a specified quantity of an asset at a certain future date for a certain price. No cash is exchanged when the contract is entered into.

Let us take an example of a simple derivative contract.

Suppose you buy a futures contract of Tata Steel. You will make a profit of ₹ 50 if the price of Tata Steel share rises by ₹ 50 in the time specified. If the price remains unchanged, you will receive nothing. If the stock price of Tata Steel falls by ₹ 50, you will lose ₹ 50.

As you can see, the above contract depends upon the future price of the Tata Steel scrip, which is the underlying security in this example. Similarly, you can also trade index futures. The underlying security in that case would be either the Nifty index or Sensex.

Another example: suppose you want to buy a camera which costs ₹ 20,000 and don't have immediate cash to buy it but expect to have it one month hence. You fear, though, that the price of the camera might rise by then. In order to protect yourself from a likely rise in price, you enter into a contract with the camera dealer that you will buy the camera a month from now for ₹ 20,000. What you are doing is freezing the current price of the camera with the help of a forward contract. The forward contract is settled at maturity. The dealer will deliver the camera to you at the end of one month, and you will pay the camera's price on delivery.

The difference between a share and derivative is that while a share is an asset, a derivatives instrument is a contract.

Futures contracts are standardized in terms of quantity and delivery time.

Lot Size

Just as the minimum lot size in equity market is one share, the minimum lot

size in the Indian derivatives market is also one contract. However, each derivative contract corresponds to different lot sizes of the underlying asset. In India, SEBI decides the lot sizes for trading in derivatives. So you need to know the lot size of whichever scrip you wish to trade, i.e. the minimum quantity you need to buy or sell. You can only trade in multiples of lot sizes.*

Open Positions

Again unlike the equity market, in the derivatives market you can take a position and keep it open till the end of one, two or three months. The exchange allows a trader to take a position in all or any of the three different month contracts available. Let's say today is 1 March. You then have a choice to take a buy or sell position for contracts that expire in March, April or May. Every open position would have to be closed by the last Thursday of that particular month.

In India all derivative contracts are cash settled, which means that at the end of the contract there is no delivery of shares, but the exchange would just calculate your profit and loss position and would credit or debit money to your account accordingly.

Futures trading requires payments of margins and are leveraged positions; therefore both profit and losses are unlimited.

Mark to Market Settlement (MTM)

In India, exchanges run a daily MTM (mark to market) with regard to all open futures positions. Accordingly, all profits (losses) are credited (debited) from your account on a daily basis. Thus, if you execute a buy futures order at ₹ 100 during the market hours and the closing price of the underlying stock market is ₹ 105, the exchange would credit ₹ 5 to your bank account on "T+1" day. The next day, your base price would then be ₹ 105 instead of ₹ 100. In this manner the base price would go on changing every day based on the previous day's closing price.

Closing Position

You can close your futures position by squaring off at any time even before the last Thursday of the concerned month. In case any position remains open till the last Thursday, the exchange automatically closes it taking into consideration the closing price of the underlying in the equity market. So if the closing price is ₹ 210 and your base price was ₹ 200, the exchange would give you a credit of ₹ 10 and debit the seller's account by the same amount.

Options Trading

An option confers on the holder, i.e. the buyer of the option, the right to buy or sell specified assets at a specific price on or before a specific date. The seller or writer of the option has an obligation to fulfill the contract if the buyer or holder were to exercise this option.

Technically, an option is a contract between two parties by which the buyer receives a privilege for which he pays a premium. The seller accepts an obligation for which he receives a fee.

There are two kinds of options:

- Call options, and
- Put options.

Call options are like security deposits. If, for example, you wanted to rent a house and leave a security deposit for it, the money would be used to ensure that you could, in fact, rent that house at the price agreed upon within a certain time period. If you don't actually rent the house, you would forfeit your security deposit but would have no other liability.

Call options usually increase in value as the value of the underlying instrument rises.

When you buy a call option, the price you pay for it is called the **option premium.** If you decide not to exercise the option of buying the underlying stock, and you are not obligated to do so, your only cost is the option premium you paid.

Put options are options to sell a stock at a specific price on or before a certain date. In this way, put options are like insurance policies.

If you buy insurance on a car, you pay a premium and are then protected if the car is damaged in an accident, because you can use your policy to regain the insured value of the car. In a similar way, the put option gains in value when the value of the underlying instrument falls. If all goes well and the insurance is not needed, the insurance company pockets your premium in return for taking on the risk.

With a put option you can similarly "insure" a stock by fixing its selling price. If something happens which causes the stock's price to fall and thus "damage" your asset, you can exercise your option and sell it at its "insured" price. If the price of your stock goes up and there is no "damage," then you do not need to use the insurance and, once again, your only cost is the premium you paid.

This is the primary function of listed options, namely to provide investors ways of managing risk.

Important Options Terminology

Spot Price

Spot price is the price of the underlying in the open market.

American Option

An American option is one which can be exercised any time on or before the expiry date.

Taking the earlier car example, let's say we enter into a one-month contract on 1 August and if we find the rate of the car to be profitable on 10 August, an American option would allow us to go to the option seller and exercise our right at any time on or before the expiry period.

All stock options are American in nature and can thus be exercised any time on or before the expiry.

European Option

A European option can be exercised only on the expiry date.

Again using the car example, let's say we enter into a one-month contract on 1 August and find the rate of the car is profitable on 10 August. But the European option would not allow us to go to the option seller and exercise our right before the expiry period. We can go to the seller only on the expiry date.

All index options are European in nature and can therefore be exercised only on the expiry date.

In-the-money / Out-of-the-money / At-the-money Contacts

In-the-money, at-the-money and out-of-the-money contracts are always with respect to the buyer of an option.

The Indian exchanges stipulate that at all points of time there should be at least two in-the-money, two out-of-the money, and one at-the-money contracts available for every expiry period. So based on the market movement, there can be numerous contracts available for various underlyings.

Square Off

Square off can be done in case of any open option contract. Squaring off would ensure that you get your desired rates and is always traded in terms of the premium amount.

As an example, suppose you sold a call option and received ₹ 100 as premium per share. Now if the rate for that same contract goes down to ₹ 80, you can square off at market, or limit, rate and get the desired profit.

Review of Options Pricing Factors

Options are used as risk management tools and the valuation, or pricing, of the instruments is a careful balance of market factors.

The intrinsic value of an option is defined as the amount by which an option is in-the-money, or the immediate exercise value of the option when the underlying position is marked-to-market.

For a call option:

Intrinsic Value = Spot Price – Strike Price

For a put option:

Intrinsic Value = Strike Price – Spot Price

The intrinsic value of an option must be either positive or zero. It cannot be negative.

For a call option, the strike price must be less than the price of the underlying asset for the call to have an intrinsic value greater than zero.

For a put option, the strike price must be greater than the price of the underlying asset for it to have intrinsic value.

Factors that Determine the Option Premium

There are four major factors which affect the option premium:

1. Price of the underlying (spot price),
2. Time to expiry,
3. Exercise price at the time of maturity, and
4. Volatility of the underlying.

Two lesser important factors are:

1. Short-term interest rates, and
2. Dividends.

Price of the Underlying

The option premium is affected by the price movements in the underlying instrument.

In the case of call options which give you the right to buy the underlying at a fixed strike price, the premium rises as the price of the underlying rises.

Conversely, as the price of the underlying falls, so does the cost of the option premium.

For put options which give you the right to sell the underlying at a fixed strike price, as the underlying price rises, the premium falls. Conversely, as the underlying price falls, the premium cost rises.

Time Value of an Option (Time to Expiry)

Generally, longer the time remaining until an option's expiration, the higher would be its premium. This is because the longer an option's life is, the greater is the possibility that the price of the underlying share might move so as to make the option in-the-money.

All other factors affecting an option's price remaining the same, the time value portion of an option's premium will decrease (or decay) with the passage of time.

Volatility

Volatility is the tendency of the underlying security's market price to fluctuate either up or down. Volatility reflects the magnitude of price change; it does not imply any bias in the movement of the price whether in one direction or the other.

Volatility is a major factor in determining an option's premium. The higher the volatility of the underlying stock, the higher the premium because there is a greater possibility that the option will move in-the-money. Generally, as the volatility of an underlying stock increases, the premiums of both its call and put options increase — and *vice versa.*

Higher volatility = Higher premium

Lower volatility = Lower premium

Interest Rates

In general, interest rates have only a small influence on options and equate approximately to the cost of carry in the case of a futures contract. If the size of the options contract is very large, then this factor may take on some

importance.

All other factors being equal, when interest rates rise, the premium costs fall — and *vice versa*.

The relationship can be thought of as an opportunity cost. In order to buy an option, the buyer must either borrow funds or use funds on deposit. Either way the buyer incurs an interest rate cost. If interest rates are rising, then the opportunity cost of buying options increases and to compensate the buyer, premium costs fall. Why should the buyer be compensated? This is because the option writer (seller) receiving the premium can place the funds on deposit and receive higher interest than was previously anticipated. The situation is reversed when interest rates fall — premiums then rise. This time it is the option writer (seller) who needs to be compensated.

Strategies for Using Options

There are various strategies for using call and put options for profitable trading. These are summarized in Table 1.1.

Table 1.1
Strategies for Using Options for Trading

Your View of the Market	*Call Option*	*Put Option*
Bearish (fall in price)	Sell	Buy
Bullish (rise in price)	Sell	Buy

Call Option Buyer	*Call Option Seller*
▪ Pays premium ▪ Right to exercise and buy the shares ▪ Profits from rising prices ▪ Limited losses, potentially unlimited gain	▪ Receives premium ▪ Obligation to sell shares if exercised ▪ Profits from falling or neutral prices ▪ Potentially unlimited losses, limited gain
Put Option Buyer	*Put Option Writer*
▪ Pays premium ▪ Right to exercise and sell shares ▪ Profits from falling prices ▪ Limited losses, potentially unlimited gain	▪ Receives premium ▪ Obligation to buy shares if exercised ▪ Profits from rising or neutral prices ▪ Potentially unlimited losses, limited gain

Speculation

Speculators are those traders who do not own the underlying security for which they enter into futures or options contracts. Such players only have a particular view on the market, stock, commodity, etc., as the case may be. In short, speculators put their money at risk in the hope of profiting from an anticipated price change. They consider various factors, such as demand and supply, market position, open interest, economic fundamentals and other data to take their positions.

Example

Ashok is a trader but has no time to track and analyze stocks. However, he fancies his chances of predicting the market's trend. So instead of buying different stocks, he buys Nifty futures.

On 8 March, he buys 100 Nifty futures @ ₹ 3,600 in the expectation that the index will rise. On 9 March the Nifty does rise to 3,700 whereupon he sells an equal number of contracts to close out his position:

Sale Proceeds: ₹ 3,700 × 100 = ₹ 3,70,000

Less Purchase Cost: ₹ 3,600 × 100 = ₹ 3,60,000

Net gain = ₹ 10,000.

Ashok thus makes a profit of ₹ 10,000 by taking a call on the future value of Nifty. However, had Nifty fallen he would have made a loss. Conversely, had he a bearish view of the market, he could have sold Nifty futures and made a profit from a fall in the index. Index futures provide traders an opportunity of taking a long term view of the market of up to three months.

Arbitrage

An arbitrageur is basically risk averse. He enters into only those contracts where he believes can earn riskless profits. When markets are imperfect, buying in one market and simultaneously selling in another market can give riskless profits. Arbitrageurs are always on the look out for such imperfections.

In the futures market, one can take advantage of arbitrage opportunities by buying in the lower priced market and selling the same security in a higher

priced market. In the case of index futures, arbitrage is possible between the spot market and the futures market. For this purpose NSE has provided special software for buying all 50 Nifty stocks in the spot market.

Thus:

- Assume that Nifty is at 3,600 and the 3-month Nifty futures is quoting at 3,630.
- The fair value of Nifty futures can be worked out by taking into account the interest cost for three months.
- If there is a difference, then an arbitrage opportunity exists.

Let us understand the concept of arbitrage with the help of the cost of carry model.

Cost of Carry Model for Working Out Futures Prices

The cost of carry model helps us work out the futures price as follows:

F = S + C

Where,

F = Futures price

S = Spot price

C = Holding cost or carry cost.

Arbitrage opportunities would exist whenever F is either less than or more than S + C. In other words, whenever the futures price moves away from its fair value, there would be an opportunity for arbitrage.

These kinds of imperfections exist in the markets most of the time but one has to be alert to the opportunities as they tend to get exhausted very fast.

Moreover, one has to remember that the components of holding cost vary with contracts on different assets.

Let us take the example of a single stock futures to understand the concept better.

Example

If Infosys is quoted at ₹ 2,000 per share and the 3-month futures of Infosys is quoted at ₹ 2,100, then one can purchase Infosys shares at ₹ 2,000 in spot by borrowing @ 12% annum for 3 months, and simultaneously sell Infosys 3-month futures at ₹ 2,100. The interest, i.e. the holding cost, or carry cost, would then be ₹ 60.

Here F (2,000 + 60 = 2,060) is lower than prevailing 3-month futures price and hence there are opportunities for arbitrage:

Sale Price	=	₹ 2,100
Cost = (₹ 2,000 + 60)	=	₹ 2,060
Arbitrage Profit	=	₹ 40

Technical Analysis

Technical analysis is the forecasting of price by using the data generated in the process of trading over a period of time. Technical analysis relies on the assumption that the market discounts everything in the security's current price, be it hopes, fears, and knowledge, including reasonable future expectation. In other words, "Technical analysis is the process of analyzing a security's historical prices in an effort to determine its probable future prices."

In technical analysis a security's trading history is recorded by maintaining price changes and volumes traded in a chart, or a pictorial graphic, form. By analyzing this pictorial depiction, probable future trend is predicted. Technical analysis is thus the study of market action.

Even as late as the beginning of 2000, there were only a few trading software available in India and the use of computers was also very limited. Since then everything has totally changed. Computers and easy Internet access now enable traders to analyze a whole lot of data very quickly and thus take trading decisions that work in their favor. Influx of new entrants into the stock market has also enabled brokerage houses to reduce brokerage charges, and with the spread of Internet to smaller towns it is now possible to trade from the comfort of your home. There are various software and trading platforms available that have led to advances in market quoting system.

Even as the use of computers has made technical analysis easier, the steady rise in the Indian share market since 2003 drew in many new investors into the market — comprising of people from different walks of life including housewives, retired and employed professionals, students, etc.

Many of the new breed of investors and traders are computer savvy and are comfortable using different software to generate technical chart patterns which can be profitably traded. But these new entrants often can't use the information to their advantage. Most people, in fact, rely on broker's advice and other tips and are unable to take buy or sell decisions on their own. As a result they either miss the opportunity of making money, or lose money. This

new breed of a mix of traders and investors also tasted blood in the sense that they made some money in the secular bull run in the Indian market between 2003 and 2007. Some also burnt their fingers and lost a considerable amount of money. We have found these new entrants to be somewhat confused. Sometimes they behave like investors by holding their positions for long; at other times they trade in futures and options like traders do. They have computers, laptops, software and access to data but are unable to use this computer generated information to their advantage. Often they find that their patterns don't work when it comes to the real market. They forget that what counts more is the man behind the machine. You can have sophisticated charting software at your finger tips that can generate various buy and sell signals in a jiffy but you can still lose money in the market.

Successful trading is based on three Ms — Mind, Method and Money. Technical analysis, no matter how clever, can thus contribute at most only one-third to your success. You also need to have a sound trading psychology and proper money management, which we shall discuss in later chapters.

Investing or trading in the market is an altogether different ball game. Each trading day is a fierce fight between the bulls and bears. There are numerous categories of market players; large institutional investors, foreign institutional investors and hedge funds with deep pockets, people with insider information, each vying with the other to snatch away your money. Please remember that the principle of cooperation — "All for one and one for all" — does not apply in this arena. Here, everyone is against you and you are against everyone. You are for no one and no one is for you. Remember that there is always a trader on the other side of the trade doing the exact opposite of what you are doing. Only one of you can be right. Novices and new investors or traders are often caught in helpless confusion in the cross-fire of this battle between bulls and bears.

How then can one avoid being killed and emerge victorious in this battle? If you use the knowledge of charts and their patterns correctly, you can greatly increase the odds of emerging a winner in this battle. A chartist's objective is to discover the balance of power between the bulls and the bears — and be on the winning side. You too can profit from this battle with the

right mix and understanding of charts, price patterns, and volume and open interest which you can deploy as your armor while using your capital as your gunpowder. Charts are the foot prints of the bulls and bears prowling in the market. They show you the respective strength and / or weakness of the two warring sides.

Using cricketing analogy, investing or trading in the stock market without any knowledge of technical charts and chart patterns is akin to facing the very first ball of a match without any protective gear like helmet, pads, gloves, etc. With protective gear, even if you are out in the first over, at least you will not hurt yourself.

A trader can think through and plan different winning strategies and can also use risk and reward ratio in his or her favor by the use of technical analysis. The subjects covered in this book will not make you an expert overnight but with practice and patience you will be able to discover the profitable use and application of chart analysis. Analysis of technical charts should be like sailing on smooth waters — effortless, with natural flow and rhythm. Have you seen fish swim in an aquarium? How effortlessly they do so without any trace of tension or stress. Similarly, with practice you will be able to effortlessly recognize price trends and patterns. What you need to apply is your common sense, which is anything but common.

Technical analysis makes the assumption that history repeats itself. Any trading method or system that works well on a broad sample of historical data may have validity when applied to future trading environments. However, one should keep in mind that the markets are dynamic. The forces that trigger price movements are dynamic, as are market participants. Therefore any system that has performed well on past historic data may decline in value as the evolving dynamics of the markets change over time.

Trading results can be improved when trading skills are sharpened. This requires practice, and time spent learning to trade on past historical data will not be wasted when it comes to real-life trading.

Basic Assumptions in Charting and Technical Analysis

- **The market discounts everything:** This assumption signifies that the

price at which a security is quoted represents the sum total of hopes, fears, inside information, muscle power, *et. al.* of all the market participants. The buyers generate demand for a scrip and the sellers create its supply. Whatever reasons prompt a buyer to buy and a seller to sell get represented, namely discounted, in the price that the buyer pays for the scrip and the seller gets for it.

- **The market moves in trends:** This signifies that the market movement is orderly and not random. The market moves in trends and the trend when established has a tendency to continue further in time — and then reverse at some point of time.

- **History repeats itself:** This assumption arises from the fact that human psychology does not change. In a bull market, the psychology that drives the prices upwards will be seen over and over again in subsequent bull markets as well. The same is the case with bear markets.

The Importance of Charting and Technical Analysis

There are many reasons why technical analysis is important for investing and trading. Some of these are:

- Technical analysis of charts helps you in getting into better risk reward trades. It helps in timing one's market entries and exits.

- With the help of charts it is possible to identify periods wherein one can expect a quick rise, or a quick fall, in price in a short span of time.

- Technical analysis can help in accelerating the return on your investment.

- With the use of charts it is possible to arrive at the probable price and time targets so that one can have a framework within which one can trade or invest in the market.

- Technical analysis helps you in identifying stocks that will rise or fall faster than the market, or other stocks. Charting can be applied to various markets — the stock market, metal market, commodity market,

currency market or anything that has a price history.

Charting

Charting is the foundation of technical analysis. Charts are objective and do not lie. Chart reading, on the other hand, is subjective and may lead to unintended or incorrect forecasts due to human error. Through perseverance and understanding, however, one can master the art of predicting possible future trends.

A chart is the pictorial representation of a stock's demand and supply over a period of time. The time frame can be minutes, hours, days, weeks, months, etc. The high and low of the price range of any time frame is recorded as a vertical bar where the top is the highest price and the bottom is the lowest price. This bar is drawn with the use of the chart's x-axis and y-axis. The x-axis (horizontal axis) represents time and the y-axis (vertical axis) represents price. The increase in the number of bars over time leads to the formation of some typical patterns which chartists make use of in forecasting future trends and prices.

A chart, therefore, has three parameters — time, price, and the resultant pattern. A good trader can use charts to make forecasts of the future trend. As noted earlier, technical analysis is based on the assumption that what had happened before will repeat itself again. In other words, stocks move in cycles. Chart reading skills are acquired over time by studying how prices behaved at certain junctures of earlier cycles; for example, by noting price action at earlier market tops and market bottoms. Studying the time periods of past cycles and price actions at specific times within past cycles provides an indication of future price action. By studying past price cycles and patterns a trader may thus be able to make an accurate forecast. Any security with price data over a period of time can be used to form a chart for analysis.

Time Frames for Charting

Charts can be formed by using different time frames so that one gets a history of the price pattern over a reasonable period of time. Traders can use these time frames to their advantage whether for day trading or swing trading.

Generally, the time frames used are intraday, daily, weekly, monthly, quarterly or yearly.

A daily chart is made up of the intraday price range that has been compressed to show each day as a single period. A weekly chart is made up of daily price ranges that have been compressed to show each week as a single period.

Traders usually concentrate on charts of daily and intraday data to forecast short term price movements.

While long on detail, short term charts can be volatile and contain a lot of noise. Large and sudden price movements, wide high-low ranges and price gaps lead to volatility and can distort the overall prediction.

Investors, on the other hand, usually focus on weekly and monthly charts to spot longer term trends for forecasting long term price movements. Because long term charts cover a longer time frame with compressed data, price movements do not appear as extreme and there is often less noise.

You can also use a combination of longer and shorter term charts. Long term charts are good for analyzing the big picture and to get a broad perspective of the historical price action. Once the big picture has been analyzed, a daily chart can be used to zoom in on the latest few days or weeks.

How Charts Are Formed

Before we get into analysis of charts it is important to understand the four types of prices which are used in charting. These are:

- Open price,
- Low price,
- High price, and
- Close price.

Open prices are a reflection of actions by amateurs who watch overnight developments, global cues, gather information from newspapers and make up

their mind even before the opening of the market. They jump in to execute their buy or sell orders the moment market opens.

High prices reflect the strength and power of the bulls.

Low prices show the strength of the bears, while closing prices show the mood of the professionals.

Types of Charts

There are different types of charts, such as line charts, bar charts, candlestick charts, etc.

We now turn to the construction of line, bar, candlestick and point and figure charts. Although there are other methods available, these are four of the most popular methods for displaying price data.

Line Charts

A line chart is drawn by plotting only the closing price of the day *(see* Figure 1.1). Some investors and traders believe that the closing price is the most important price of the day and choose to ignore the open, high and low prices. They believe that by considering only the closing price, intra-day swings can be ignored.

Line charts are also used when open, high and low data points are not available. Sometimes only closing data are available for certain indices, thinly traded stocks and intraday prices.

Line charts are, however, not very commonly used.

Figure 1.1: **Line chart of Bharti Tele plotted using only the closing prices.**

The black line is the price. The red and blue lines show moving averages, an indicator that follows price and which will be discussed later in the book. In the lower window, the blue vertical lines are volumes traded on that particular day.

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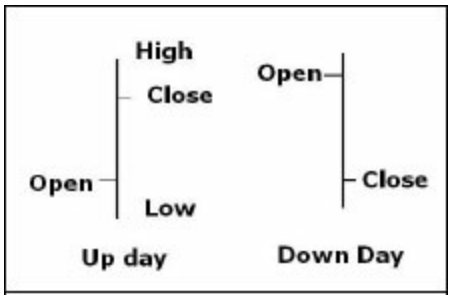
Bar Charts

Perhaps the most popular charting method is the bar chart where all four prices are plotted *(see* Figure 1.2). The high, low and close are used to form the price plot for each period of a bar chart. The high and low are represented by the top and bottom of the vertical bar, and the close is the short horizontal line crossing the vertical bar:



Bar chart

Figure 1.2: **Bar chart**

The black line is the price. The red and blue lines show moving averages, an indicator that follows price and which will be discussed later in the book. In the chart's lower window the blue vertical lines are volumes on that particular day.

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On a daily chart, each bar represents the high, low and close for a particular day. Weekly charts would have a bar for each week based on Friday's close and the high and low for that week.

Bar charts can also be displayed using the open, high, low and close. The only difference is the addition of the open price, which is displayed as a short horizontal line extending to the left of the bar. Whether or not a bar chart includes the opening price depends on the data available.

If you are not interested in the opening price, bar charts are an ideal method for analyzing the close relative to the day's high and low. On the other hand, bar charts that include the open tend to get cluttered quicker.

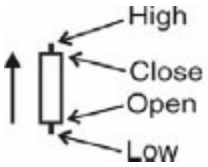
If you are interested in the opening price, candlestick charts probably offer a better alternative.

Candlestick Charts

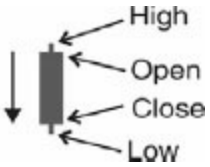
Originated in Japan by rice traders over 300 years ago, candlestick charts have become quite popular in recent years. For a candlestick chart, the open, high, low and close are all required. A daily candlestick is based on the open price, the intraday high and low, and the close. A weekly candlestick is based on Monday's open, the weekly high-low range, and Friday's close.

Many traders and investors believe that candlestick charts are easy to read, especially in regard to the relationship between the open and the close.

Blue (clear or empty) candlesticks are formed when the close is higher than the open, while a red (solid or filled) candlestick is formed when the close is lower than the open.



Blue Candlestick (up day)



Red Candlestick (down day)

The blue and red portion formed between the open and close is called the body (blue body or red body). The lines above and below are called shadows and represent the high and low *(see* Figure 1.3).

You can use other color combination as well. Personally, we rely mostly on candlestick charts together with some more indicators for our chart interpretations.

Figure 1.3: **A candlestick chart. Blue (green) candles show an up day while red candles indicate a down day.**

Point and Figure Charts*

The three charting methods discussed so far plot one data point for each period of time. Irrespective of the extent of the price movement, each day or week represented is one point, bar, or candlestick along the time scale. Even if the price is unchanged from day to day or week to week, a dot, a bar, or a candlestick is plotted to mark the price action.

Point and figure charts, on the other hand, are based solely on price movement, and do not take time into consideration. While there is an x-axis but it does not extend evenly across the chart.

The beauty of point and figure charts is their simplicity. Little or no price movement is deemed irrelevant and therefore not represented on the chart. Only price movements that exceed specified levels are recorded. This focus on significant price movement makes it easier to identify support and resistance levels, bullish breakouts and bearish breakdowns.

Which Type of Chart to Use

Even though many different charting techniques are available, one method is not necessarily better than the other. The data may be the same but each method will provide its own unique interpretation, with its own benefits and drawbacks. For example, a breakout on the point and figure chart may not occur in unison with a breakout on a candlestick chart. Similarly, signals that are available on candlestick charts may not appear on bar charts.

In a nutshell, it is the correct analysis of the price action that separates a successful trader from the not-so-successful one. The choice of which charting method to use depends on personal preferences and trading styles. Once you have chosen a particular charting methodology, it is probably best to stick with it and learn how best to read its signals. Switching back and forth between different charting methods causes confusion and undermines the focus of your analysis. We prefer candlestick charting and rely on these charts for our analysis. These charts rarely lead to faulty analysis. Before blaming your charting method for missing a signal, always, first look at your analysis.

Keys to Successful Chart Analysis

The keys to successful chart analysis are application, concentration, and regularity.

Application

Learn the basics of chart analysis, apply your knowledge on a regular basis, and continue learning all the time.

Concentration and Consistency

Limit the number of charts, indicators and methods you use. Focus only on a few and learn how to use them well.

Regularity

Update your charts on a regular basis after market hours and study them

diligently. It has been a ritual for us to update our charts and analyze them after the market hours every day.

Broad Classification of Chart Patterns

The tug-of-war between the demand and supply of a particular security gets reflected as patterns — or formations — on price charts. Such patterns, if read correctly, can be used by a shrewd trader to his or her advantage. These patterns are graphical depictions of the fear and greed present in the market. Remember, chart patterns are the footprints of the bulls and bears of the stock market.

Charts pattern can be analyzed by looking at support, resistance and trend lines. Traders all over the world use chart patterns to identify trends. An old stock market saying goes: “The trend is your friend.” Accordingly, traders attempt to recognize the trend early by analyzing chart patterns.

Chart patterns can be classified into three general categories, namely:

1. Reversal patterns,
2. Consolidation or continuation patterns, and
3. Trend patterns.

Reversal Patterns

These are patterns that show imminent tops in bull market and bottoms in bear market and are analyzed by also taking into account the volume of trade. Some of the well known reversal patterns are head and shoulders pattern, rounded bottom / top pattern, double bottom / top pattern, wedge top, diamond reversal pattern, etc.

Consolidation or Continuation Patterns

These patterns indicate an indecisive tug of war between bulls and bears. These patterns reveal a temporary pause in the advancing, or declining, price and indicate that the market / security is taking a breather before starting its next move. Volume is usually low during periods of consolidation. Some

common consolidation, or continuation, patterns include symmetrical triangles, ascending and descending triangles, wedges, flags and pennants, rectangles, etc.

Trend Patterns

Trend patterns highlight the areas of support and resistance. Some of these patterns are fan lines, gaps, trend lines and channels.

Some chart patterns have a high rate of success in trading. Chart patterns are useful gauges of momentum, support and resistance, and other indications of strength or weakness in a security. Chart patterns also help traders determine market direction and in timing their entries and exits. A trader must be able to correctly identify chart patterns. They are your road map in the jungle maze that is the stock market. If you can read your map correctly, you can find your way to success. Chart patterns provide us a concise picture of all the buying and selling forces active in the market.

Have you ever watched the replay of any cricket match on television? When you watch the first replay, it will only give you limited information but if you watch it again and again you will notice the strength and weaknesses of individual players, and you will also be able to figure out at what point the match slipped away from the losing team. You will be able to see some characteristics of a particular player; for example, the strength of Sourav Ganguly in timing balls pitching around the off stump. Similarly, if you watch your charts again and again you will be able to recognize the various patterns and different trends and you will find that different charts have different characteristics.

Chart patterns provide a framework for analyzing the battle raging between the bulls and bears by providing a complete pictorial record of all trading.

The first pre-requisite for chart analysis is the use of your visual faculty. You should first train your eyes. Most often we fail to see the obvious which is right in front of our eyes and look for complex things instead.

As we all know, Sachin Tendulkar is one of the greatest batsmen we have ever had. But to strike the ball he has to see it first — and also see it early.

Only then will he be able to strike. That should be your objective too; train your eyes to see the charts. Charts speak to you. Look at the charts to understand their language; if you are able to decipher it properly you will be able to decide your trading strokes, otherwise you will be out of the game.

We shall discuss chart patterns in detail in Chapters 4, 5, 6 and 7.

Use of Multiple Time Frames

Use of multiple time frames can prevent a trader from getting swayed by whipsaws and noise accompanying the short, intermediate and long term trends.

By multiple time frames we mean plotting of two different time frames on a single price chart. When both the longer time frame and the shorter time frame charts are moving in the same direction, they are said to be in “gear.”

The higher time frame price activities are used to define the tradable trend as well as potential support and resistance levels.

Markets exist simultaneously in several time frames. They exist on a 5-minute chart, 30-minutes chart, an hourly chart, a daily chart, a weekly chart, and so on. When charts of different time frames are in harmony, it’s easy to trade. The challenge arises when one encounters two different patterns on two different time frames. The signals in different time frames of the same security often contradict one another; for example, a trader may come across a sell signal on the weekly chart and a buy signal on the daily chart.

In our trading, we use a weekly chart to identify the underlying trend, a daily chart to see the breakouts, and a 5-minute or a 30-minute chart for making entries and exits. Weekly charts are also good for identifying long term support and resistance areas as these charts filter out the random intraday movements. One should use at least two time frames to get a feel of the market’s direction.

Summary

- Identify your profile as investor / day trader / swing trader, short term trader.
- Identify the instrument you are comfortable with, whether equity, individual stock futures, index futures, options, arbitrage opportunities, etc.
- Widespread use of computers has made charting and technical analysis much simpler.
- Learn to identify chart patterns by visual inspection.
- Use at least two or three time frames to analyze the market's direction.

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* Updated information about these is available at SEBI's website www.sebi.gov.in and on the sites of the stock exchanges.
* For a detailed explanation on the use of point and figure charts, see *A Complete Guide to Point and Figure Charting* by Heinrich Weber and Kermit Zieg, Vision Books (www.visionbooksindia.com).

Chapter 2

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The Average Directional Index (ADX)

Finding Out if the Market is Trading or Trending

Technical indicators can broadly be classified into two groups. **The first group is known as trend following, or lagging, indicators** and comprises of moving averages (MA) and moving average convergence divergence (MACD).

The second group, also called oscillators, comprises leading indicators and includes momentum, relative strength index (RSI), stochastic oscillator and Williams % R.

Before deciding about the type of indicator to use, it is necessary to know what kind of market we are dealing with; namely, is it a trending market or is it a trading market. A trading market is one when the index moves sideways between two ranges without any clear trend up or down. Such a market is also called a consolidation stage.

In cricket, some players perform well in test cricket while others are better for one-day matches, and yet others for the latest T20 format. A handful are versatile enough for all three types of matches. When selecting a player, therefore, it is important to know the type of match to be played. In technical analysis, indicators are like the players and markets are akin to matches. Accordingly, before selecting indicators for trading it is necessary to know the type of market you are in. It's important to ascertain whether the market is trending or trading (moving sideways), because different indicators give more useful results depending on whether the market is trending or trading.

J. Welles Wilder developed the Average Directional Index (ADX) to evaluate the strength of an ongoing trend, be it up or down. Average directional index (ADX) is thus used to determine the nature of the market. Once we know what type of market we are dealing with, we can select the appropriate indicators for trading it.

What Average Directional Index (ADX) Is

The ADX is an oscillator that fluctuates between 0 and 100. Even though the scale is from 0 to 100, readings above 60 are relatively rare.

Low readings, namely readings below 20, indicate a weak trend — in other words, a sideways trading market, while high readings above 40 indicate a strong trend.

ADX does not grade the trend as bullish or bearish, i.e. it does not tell us whether the trend is up or down but merely assesses the strength, or degree, of the current trend. The ADX is used to determine whether or not a market is trending regardless of whether it's up or down. Thus a reading above 40 can equally indicate a strong down trend as well as a strong up trend.

ADX can also be used to identify potential changes in the market from a trending to a nontrending phase. When ADX begins to strengthen from below 20 and moves above 20, it is a sign that the trading phase of the market is ending and a trend is developing.

ADX is calculated by smoothing the directional indicator (DI) with a moving average, such as a 13-day exponential moving average.

What ADX Indicates

- A low ADX value, generally less than 20, indicates a non-trending market with low volumes.
- ADX value crossing above 20 may indicate the start of a trend — it could either be a down trend or an up trend; as noted earlier, the ADX does not tell us which.
- When the value of ADX begins to weaken from above 40 and then drops below 40, it is a sign that the current trend is losing strength and that a trading range could develop.

ADX can also be used to identify non-trending markets, or a deterioration in an ongoing trend. Although market direction is important in its calculation,

the ADX is not a directional indicator.

Directional Movement (DM)

Directional movement is defined as the difference between the high and the low of a particular bar on a chart that falls outside the range of a previous bar.

In terms of a daily chart, price action above the previous day's high is termed as positive directional movement (+DM), while anything below the previous day's low is negative directional movement (–DM). This analysis can equally be applied to monthly, weekly, daily or intraday charts.

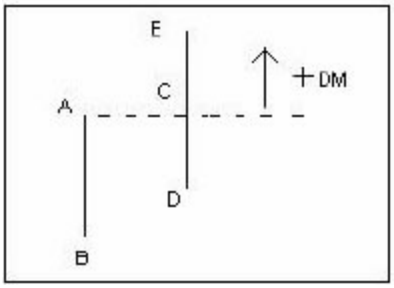

Figure. 2.1: **Positive Directional Movement (+DM)**

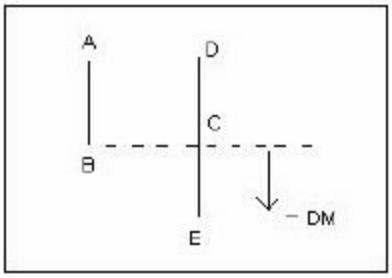

Figure. 2.2: **Negative Directional Movement (–DM)**

In Figure 2.1 and Figure 2.2, the range of Day 1 is line AB while line ED represents the price range of Day 2. Line CE represents the directional movement (DM).

The difference between point E and point A in Figure 2.1 is called positive directional movement (+DM) because this price action is above the previous day's range.

Correspondingly, negative directional movement (–DM) is the distance between the current day's low and the previous day's low (CE in Figure 2.2).

We can also have zero DM when prices remain either within — or completely outside — the previous day's range *(see* Figure 2.3 and Figure 2.4).

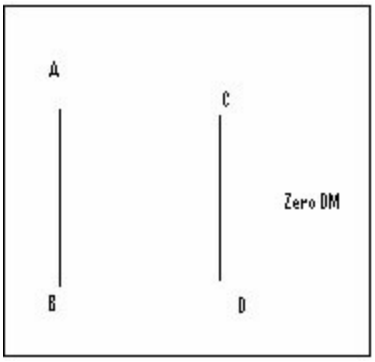

Figure 2.3: **Zero DM**

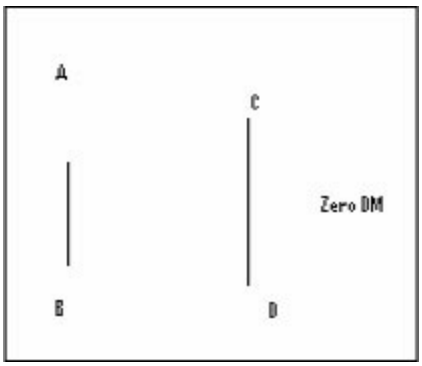

Figure 2.4: **Zero DM**

Price movement is best measured in proportions rather than as absolute change. DM which measures the absolute directional movement alone is not sufficient to measure the true price range. For example, if Stock A makes a move of ₹ 10 in a day from its previous day's close of ₹ 600, it is a 1.6% move. On the other hand, if Stock B makes a move of ₹ 3 from a close of ₹ 30, it is 10% move. Thus, though the price of Stock B changes by only ₹ 3, it is actually a change of 10% while Bharti's higher desolate price change of ₹ 10 is a change of only 1.6%.

Wilder overcame this problem by comparing the positive and negative DMs with the true range. For this, he devised the directional indicator (DI) by dividing DM by the true range. We will now discuss how DI can be used to gauge the trend.

Positive and Negative Directional Indicator (DI)

ADX helps us in determining the strength of a trend. It's like determining how strong or weak a batsman or bowler is. Recall again, however, that ADX doesn't tell us whether the trend of the market is downward or upward.

The ADX, in turn, is derived from two other indicators, also developed by Wilder, called the Positive Directional Indicator (+DI) and the Negative Directional Indicator (–DI), which are described above.

The directional indicator is a momentum indicator that attempts to quantify the trending, or directional, behavior of a market. It is one of the best trend following indicators in technical analysis. It helps both identify trends, and determine whether or not price is moving quickly enough to be worth a long or short play. It also helps traders book profits while the trend is in place.

Directional indicator is defined as the largest part of the current period price range which lies outside the previous period price range:

- If the larger part of the current range is above the previous period's high, it is considered a positive directional indicator, or +DI.
- If the larger part of the current range is below the previous period's low, it is considered a negative directional indicator, or –DI.

Directional Indicator Trading Rules

In its most basic form, buy and sell decisions can be taken by +DI and –DI crossovers:

- One can go long when +DI moves above the –DI line, and
- Sell short when the –DI line moves above the +DI line.

But it's important to remember that when a stock is in a sideways trading range, this system may produce many whipsaws. Using DI line crossovers at such times will result in losses as both up and down moves are short-lived.

As with most technical indicators, +DI / –DI crossovers should be used in

conjunction with other tools of technical analysis. The ADX can thus be used as an early indicator of the end, or a pause, in a trend. When the ADX begins to move lower from its highest level, the trend is either pausing or ending, signaling that it is time to exit one's current positions and wait for a fresh signal from the +DI / –DI crossover.

The ADX combines +DI with –DI, and then smoothens the data with a moving average to provide a measure of the trend's strength. Because it uses both +DI and –DI, ADX does not offer any indication whether the direction of a trend is up or down, but simply of its strength. Generally, readings above 40 indicate a strong trend and readings below 20 a weak trend. To catch a trend in its early stages, you might look for stocks with ADX advancing above 20. Conversely, an ADX decline from above 40 might signal that the current trend is weakening and a trading range is developing.

Many traders who use ADX on a regular basis use a 14-unit ADX (meaning 14 trading days) and end-of-day data, namely the closing prices of the security being studied. It is important to use the same parameters in each analysis to arrive at consistent findings. Make sure that you never have more than two or three indicators in your analysis; a limited number allows for quick decisions to be made when the market or a security makes a strong move in either direction.

ADX value above 30 indicates a strong trend in that particular time frame. **You should always keep in mind that momentum precedes price.** Therefore when using ADX in your analysis, note that when ADX forms a top and begins to turn down, you should look for a retracement that causes the price to move toward its 20-day exponential moving average (EMA). Thus, in an up trending market, traders can go long when the price falls to or near the 20-unit EMA, and in a down trending market traders should look to sell when the price rises to, or near, its 20-unit EMA. In this manner, ADX can be used in conjunction with lagging indicators such as MACD and moving averages. ADX can also be used with momentum oscillators such as relative strength index (RSI) and the Stochastic.

You should also remember that ADX does not function well as a trigger. Prices will always move faster than does the ADX since there is too much of a smoothening factor in-built into the ADX which causes it to lag the price

movement.

Interestingly, when ADX drops below 18 it often leads to a sideways or horizontal trading pattern, and the moving averages start to cluster around the security's price. This signifies basing action within a trading range from which it is possible to draw support and resistance lines. Classical technical analysis tells us that longer the price action moves horizontally, the more likely it is that the chart pattern will be a reversal pattern rather than a continuation pattern. When ADX moves down that low, you are in a breakout mode and once the price breaks out, we could be seeing a new trend. In Chapter 3 we will study trend lines. By drawing trend lines, breakouts described above can be traded profitably.

Weaknesses of ADX

Each indicator has its weaknesses and the ADX is no exception. Charles LeBeau, a long time trader and writer had this to say in an interview a number of years ago:

> "Imagine that we have a nice long base. We jump on board when ADX starts rising from a low level. We successfully carry this trade all the way up to a high ADX level, somewhere above 30, and then the market turns down. The ADX will start to decline showing an absence of trending direction, but the price does not have an absence of direction, it is moving down!"

Trends can also be confirmed by using DMI with other trend following tools. For example, using the DMI with trend lines eliminates the guesswork involved in spotting trends, and can also provide confirmation of trends.

Figure 2.5: **The upper window depicts price in bar form. The lower window is depicting ADX and DI. The bold black line is ADX. Green line is +DI and brown line is –DI. The trend is deemed to be up when +DI is above –DI.**

The ADX plotted in the lower portion of the chart in Figure 2.5 shows how the up trend in Bongaigaon Refinery lost strength during May and June as the ADX dropped below 40. This showed that the stock had gone into a sideways trading phase.

The ADX then fell below 20 in July. By then the stock had clearly gone into a down trend.

The ADX value crossed above 20 in August indicating the development of a trend. As the ADX rose higher and crossed above 40 in September, it confirmed the existence of a strong trend, in this case a strong down trend as can visually be noticed in the price chart. Note, however, that the ADX itself does not indicate whether the trend is down or up — simply whether there is a trend or not.

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Figure 2.6: **Price chart of Chambal Fertilizers plotted along with ADX. The upper window represents the price in bar form. The lower window is depicting ADX and DI. The bold black line is ADX, the green line is +DI and the brown line is –DI. The trend is deemed to be downward when +DI (the green line) is below –DI (the maroon line).**

As you would note from the price chart in Figure 2.6, the stock of Chambal Fertilizers was trending upward till January.

Correspondingly, the ADX crossed above 20 in November — indicating a trending phase — and went on above 40 in the same month, indicating a strong trend in the stock.

The price then pretty much moved in a sideways trading range between March and end-May. During this period the ADX also remained below 20, having fallen below 20 early in March. Then as the price again began to trend the ADX went up to reach above 40 in early-September. As you would note from the price chart, the stock was trending (in this case upwards) during this period. The weakening of the trend — and the sideways movement of the stock — from September is also accurately reflected in the ADX value first dropping below 40 in the beginning of September, and lately even below 20.

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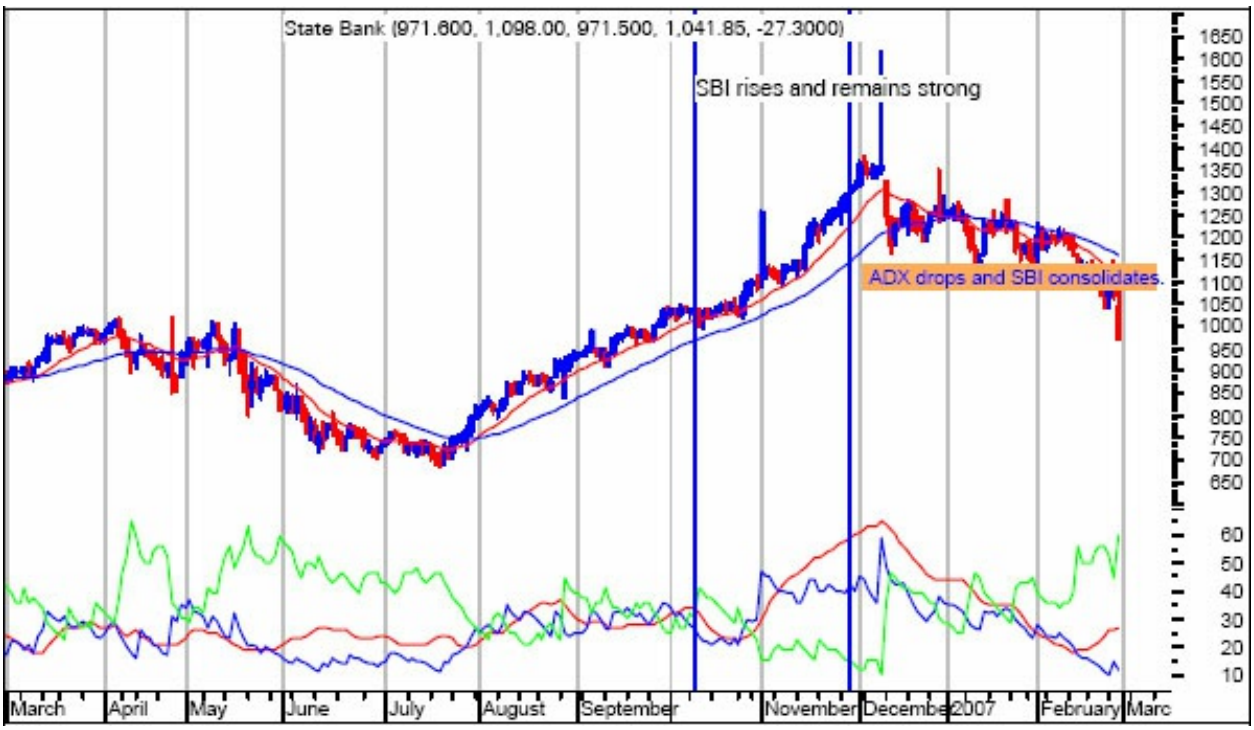

Figure 2.7: **ADX showing strong up trend in State Bank of India**

This daily candlestick chart of State Bank of India in Figure 2.7 shows that the stock was in a strong up trend from late July as ADX (red line in the lower window) was above 30. ADX values above 20, and rising higher, offer good opportunity for buying. You can see the continuation of the up trend from July and then the sudden rise of ADX (red line in the lower window) in late October and a high in December. SBI also made a new high of ₹ 1,617 on 8 December 2006. You can then see the ADX dropping from the peak in December when the readings were above 55. ADX at an extremely high level of 45 or above is interpreted as a stock in a strong trend but with a consolidation expected anytime. You can see the consolidation of the stock from December onwards corresponding with the dropping of ADX.

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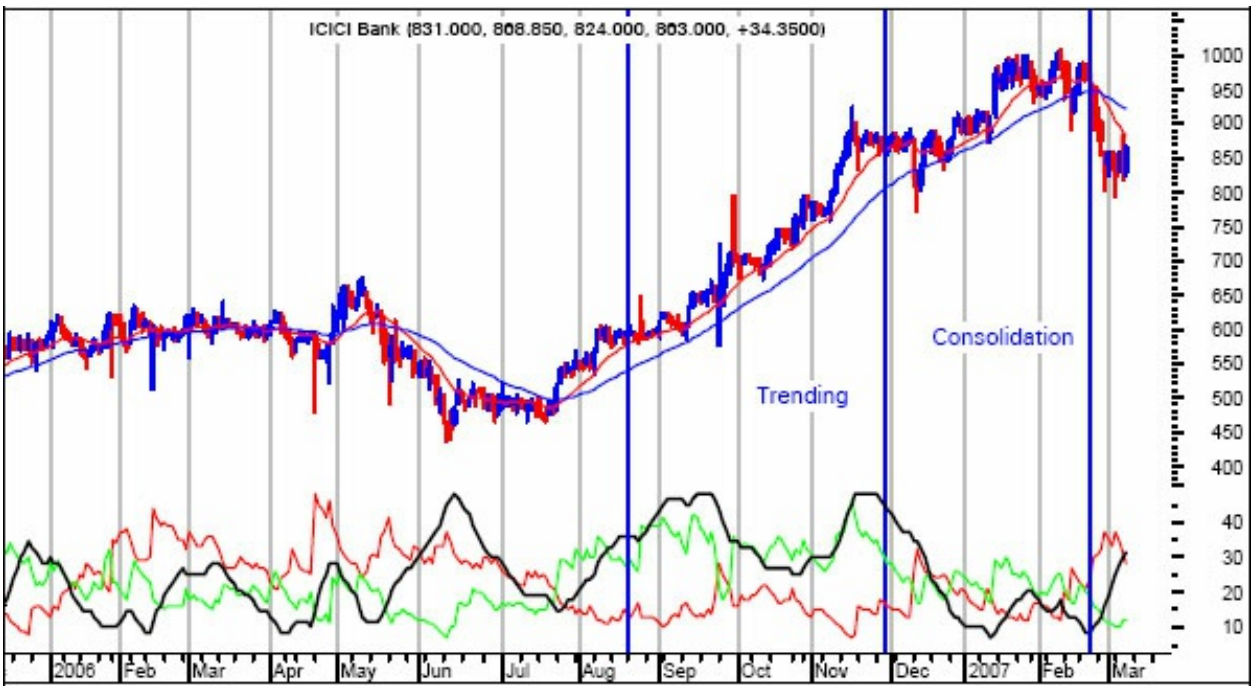

Figure 2.8: **ADX showing both trending and trading phases in ICICI Bank**

You can see the rise of ADX value (black line in the lower window) on ICICI Bank's daily candlestick chart in Figure 2.8. The ADX value is above 20 and rising. Please also note the +DI (green line) has also crossed over the –DI (red line) at the same time. ICICI Bank made new highs and was then in a strong up trend. ADX value also reached around 45. You can then see the fall in ADX as ICICI Bank went into a consolidation phase from December 2007 onwards. You should not consider a stock to be trending if its ADX is under 30 and declining towards 20, or if it is below 20. It would, at best, be a consolidation phase. As a trading rule, whenever the ADX is higher than 30, all pullbacks can be used to enter the trend.

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Summary

- If ADX is between 0 and 25, then the security concerned is in a trading range. In other words, it's most likely just moving about sideways, or is in a weak trend. Use oscillators to trade such stocks or markets, if you must.
- Once the ADX rises above 25, it is probably the beginning of a trend. Big moves (up or down) tend to happen when the ADX is above 20. In such a situation, start using trend following indicators.
- When the ADX indicator reaches above 30, then you are staring at a stock that is in a strong trend. These are the securities that you should be trading.
- If you own stocks with ADX above 40, you must lighten your position because it is a signal that the trend may be coming to an end. A trading range is then likely to develop.
- When ADX starts falling below 30, it signals consolidation. You should start trading the emerging range through options.

Remember, the ADX indicator does not give you buy or sell signals. It does, however, give you some perspective about where the stock is in the trend. Low readings and you have either a trading range or the beginning of a trend. Extremely high readings tell you that the ongoing trend is likely come to an end.

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Chapter 3

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Trend Lines

“The trend is your friend”

What Are Trend Lines?

The old saying that “the trend is your friend” is a most valuable piece of advice for any trader. A basic building block for successful trading is determining what the market’s trend is — and when it might change, or has changed. A trend line both helps identify the trend as well as potential areas of price support and resistance.

Technical analysis is built on the assumption that prices trend or, to put it in other words, prices move in trends. Trend lines are an important tool in technical analysis for both trend identification and confirmation.

A trend line is a straight line that connects two or more price points and then extends into the future to act as a line of support or resistance as the case may be. Thus, a trend line is formed when you draw a diagonal line between two or more price pivot points.

Trend lines also offer a simple and widely used technical analysis approach for timing entries and exits when trading. To establish a trend line, historical data, typically presented in the format of a chart such as the one shown in Figure 3.1, is required. Earlier, trend lines used to be drawn on paper charts by hand but it is now more common to use charting software that enables trend lines to be drawn on computer based charts. Some charting software automatically generate trend lines. Most traders, however, prefer to draw their own trend lines.

How Trend Lines Are Drawn

Trend lines connect a series of high or low price points in order to define or confirm a trend. The trend may be an up trend or a down trend, but in all cases at least two relative price highs or lows are needed to draw a trend line.

Trend lines may be horizontal or slanted. Trend lines are often used by traders to initiate trading positions with a low risk entry because a penetration of the trend line signals a break of trend which, then, provides an exit signal.

You should always remember that the more number of times the price touches a trend line, the more significant and valid that trend line becomes.

When trend lines first begin to form, they may require redrawing in order to connect significant lows and highs, but as a trend line matures it will rarely need to be adjusted.

The steeper a trend line’s angle, the less reliable it becomes. As they evolve, trend lines also develop some patterns which we will discuss in later chapters.

Up Trend Line

As demonstrated in Figure 3.1, an up trend line has a positive slope and is formed by connecting two or more low price points. The second low must be higher than the first one for the line to have a positive slope. Up trend lines act as support for the price and indicate that the power of the bulls is increasing. A rising price combined with increasing demand is signal for initiating long positions as it shows that the bulls are strongly entrenched.

So long as the price remains above the trend line, the up trend is considered solid and intact.

A break below the up trend line indicates that the bulls are growing weaker and a change in trend could be imminent.

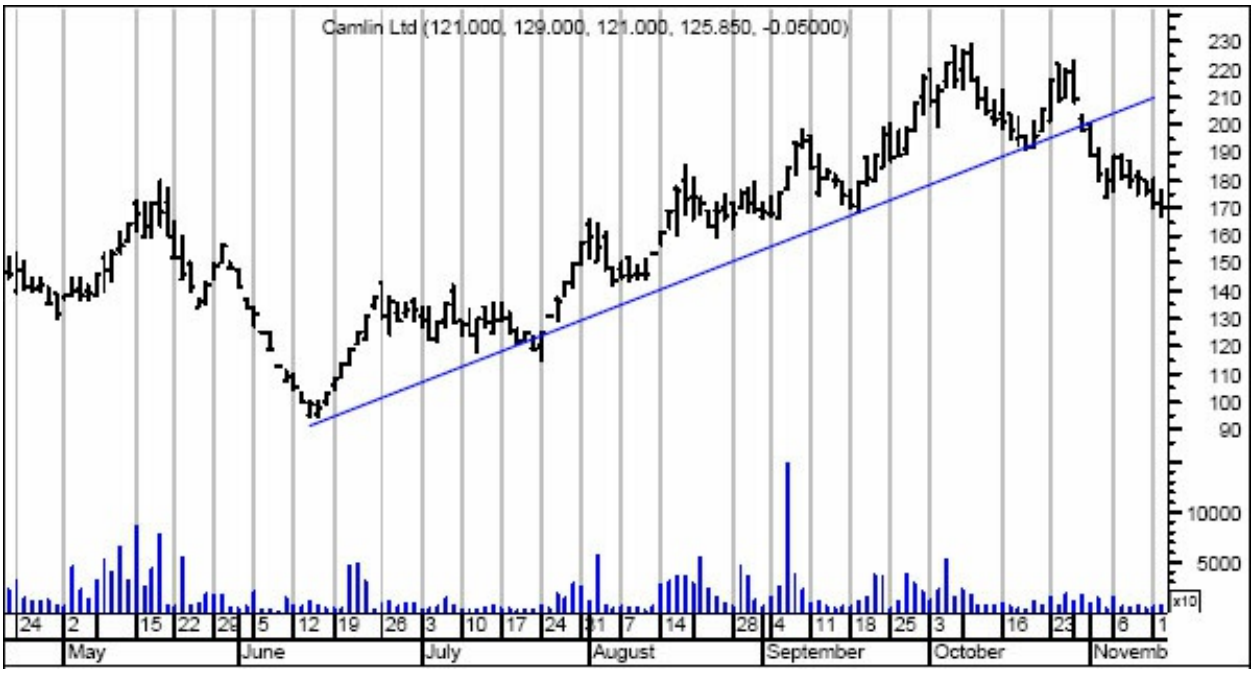

Figure 3.1: **Up trend line for Camlin Ltd.**

You can see that four price points (lows) have been used in drawing this trend line (upward sloping blue line in this chart). The starting point of the line was the stock's price level in June 2006 around ₹ 90. Camlin then rallied all the way up to ₹ 226 by October 2006 with price touching the trend line three times. An increase in volume (blue vertical lines in the lower window) in September further confirmed the interest of bulls in this stock.

Down Trend Line

A down trend line has a negative slope and is formed by connecting two or more high price points. The second price high must be lower than the first one for the line to have a negative slope.

Down trend lines act as resistance to the price from moving higher, and indicate that the net supply of the security (supply minus demand) is increasing even as the price declines. A declining price combined with an increasing number of sellers is very bearish, and shows a strong presence of the bears.

As long as prices remain below the down trend line, the down trend will remain solid and intact.

A break above the down trend line indicates that net supply is falling and that a change of trend could be imminent.

You can see an example of down trend lines in Figure 3.2.

Figure 3.2: **Down trend lines in Pfizer. Pfizer made a down trend move from the high of ₹ 906 in April 2006. The down trend line (downward sloping blue line in the chart)**

was violated in mid-August with high volumes (shown by the encircled area in the lower part of the chart) signaling a reversal in trend. The stock could not sustain the subsequent up trend on 18 September, however, and again reversed in September after touching a high of ₹ 979.

Validation of a Trend Line

As described earlier, it takes two or more price points to draw a trend line. The more the number of points used to draw a trend line, the greater is the validity attached to the support or resistance levels it represents.

The general rule in technical analysis is that it takes two points to draw a trend line and a third point confirms its validity. It is not always possible to draw trend lines on every price chart. You may sometimes find it difficult to locate more than two points with which to construct a trend line. Sometimes the lows or highs just don't match up. In such cases, it is best not to force, i.e. artificially draw, a trend line. Instead, you should wait for at least two highs or lows and only then draw the trend line.

Figure 3.3: **A valid trend line in the chart of Bank of Maharashtra shows an up trend line that has been touched by the price four times. After the third contact in November 2006, the trend line was considered a valid line of support. And once the stock bounced off this level a fourth time, the soundness of the support level was established. In such cases, so long as the stock remains above the trend line (support), the trend will remain up. A break below the trend line would signal that a change in trend could be in the offing.**

Spacing of Points

The trend line in Figure 3.3 represents well spaced low points. The lows used to form an up trend line, or the highs used to form a down trend line, should be neither too far apart, nor too close together. The suitable distance between the low / high points will depend on the time frame, the degree of price movement, and personal preferences. If the lows (or highs) are too close together, the validity of the reaction highs (or lows) may be in question. If the lows or highs are too far apart, the relationship between the two points could be suspect. An ideal trend line is made up of relatively evenly spaced lows or highs.

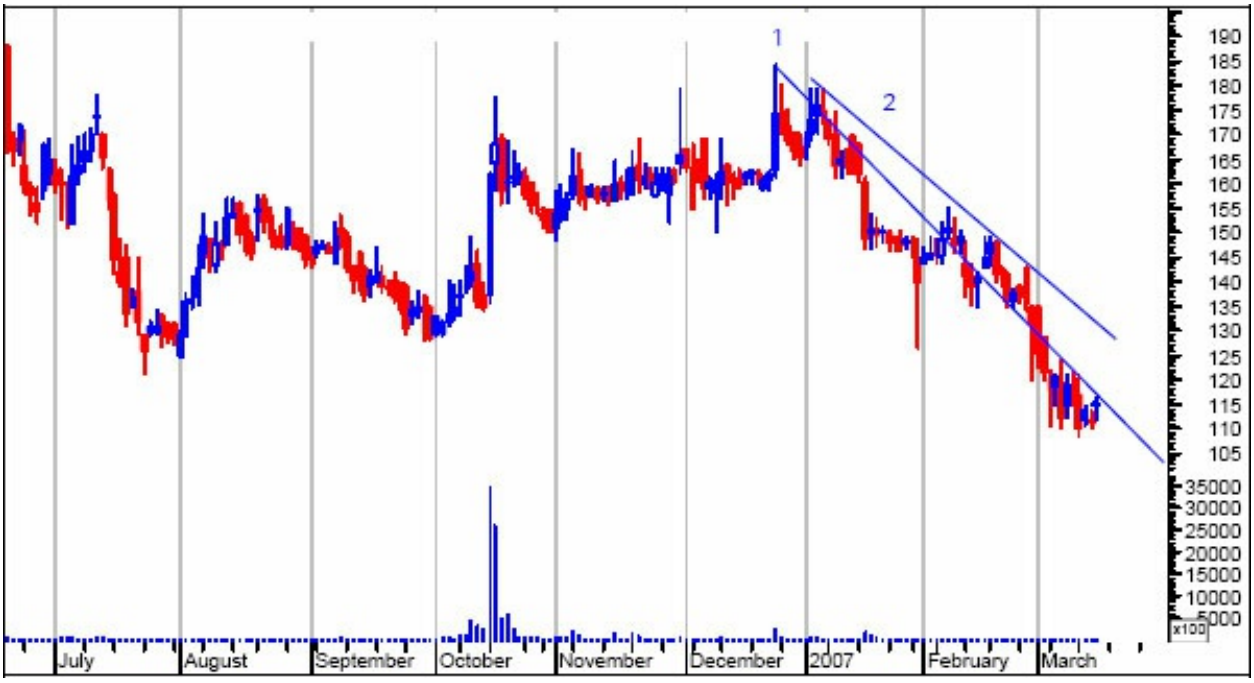

Figure 3.4: **Invalid and valid trend lines.**

In the case of the daily candlestick chart of Aztec Software in Figure 3.4, the second high point appears to be too close to the first high point for a valid trend line. However, it would be feasible to draw a down trend line beginning at Point 2 and extending it down to the February reaction high. This way you can readjust and redraw your trend lines. When trendlines are redrawn, you see fan shaped lines, in this case two downward sloping blue lines.

Angles

As the steepness of a trend line increases, the validity of the support — or resistance — levels it represents reduces. A steep trend line results from a sharp advance (or decline) over a brief period of time. The angle of a trend line created by such sharp moves is unlikely to offer a meaningful support or resistance level. Even if a steep trend line is formed with three seemingly valid points, attempting to trade a trend line break, or to use the support and resistance levels established by it, will often prove difficult.

Figure 3.5: **A valid trend line but one which is very steep**

This daily candlestick chart of Ansal Housing in Figure 3.5 would seem to depict a valid trend line (the upward rising blue line in the chart) since the price touches it four times over a 5-month period.

The spacing between the points also appears fine, but the steepness of the trend line should have warned alert traders that the trend was growing unsustainable, and the price would more likely than not drop below the trend line. However, trying to time this drop, or make a play after the trend line is broken, is a difficult task.

Also noteworthy is that the rising price was accompanied by increasing volumes, vertical

blue lines in the lower window, at the trend's initial stage. As the trend moves forward, however, look at the breakdown of the trend line with low volumes at its fag end. Traders should have exited long positions upon this break of trend line in February.

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Figure 3.6: **A valid trend line: The long term trend line on this CNX IT Index weekly chart trended up from the beginning of May 2003, and passed through low points in May 2004, May 2005 and May 2006. These lows (encircled areas on the chart) were formed with selling climaxes, and represented extreme price movements that drove the prices beneath the trend line. By drawing the trend line through the lows, the line appears to be at a reasonable angle, and the other lows also match up extremely well.**

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Internal Trend Lines

Sometimes while there appears the possibility of drawing a trend line, the exact points do not match up cleanly. The highs or lows might be out of whack, the angle might be too steep, or the points might be bunched too close together. However, if one or two points are ignored, a fitted trend line can be formed. When the market is volatile, prices can over-react and produce spikes that distort the highs and lows. One method for dealing with over-reactions is to draw internal trend lines. Even though an internal trend line ignores price spikes, the spikes which are ignored should be within reason, and not with the idea of artificially "forcing" a trend line into place.

Figure 3.7: **Internal trend lines drawn using price clusters.**

Sometimes there is a price cluster with a high or low price spike sticking out. A price cluster is an area where prices are grouped within a tight range during a period of time. Such a price cluster can be used to draw a trend line by ignoring the spikes, as in the chart of Balrampur Chini in Figure 3.7, which shows an internal trend line that was formed by ignoring price spikes and using price clusters instead. In October and November 1998, Balrampur formed a peak, with the November peak just higher than the October peak (Point 1). If the November peak had been used to draw a trend line, then the slope would

have been more negative, and there would have appeared to be a (false) breakout in December 1999 (see the gray line). However, this would have been only a two-point trend line, because the May- June highs were too close together (see the black arrows). Once the December 1999 peak formed (the green arrow 3), it would have been possible to draw an internal trend line based on the price clusters around the October / November 1998 and the December 1999 peaks (blue line). This trend line is based on three solid touches, and it accurately forecast the resistance in January 2000 (the blue arrow). The point to note here is that if we had taken into account the gray trend line, it would have led to a false upward breakout in December 1999. But by taking into account the price cluster area, the blue trend line was drawn which was more valid and depicted resistance for this stock around ₹ 65 (shown by the blue arrow).

Trend Lines as Support and Resistance Levels

- Support levels are those price levels where there exist a sufficient number of buyers to arrest any downfall in the price of a security.
- Conversely, resistance levels are the price levels where there exist a sufficient number of sellers to halt the upward movement of a security's price.

Simple lines can be used to draw support and resistance levels *(see* Figure 3.8). If the price of a stock falls towards a support level it is a test for the line — the support will either be reconfirmed or get wiped out. It will be reconfirmed if a lot of buyers move into the stock, causing the price to rise and move away from the support level. It will be wiped out if buyers do not enter the stock and the price falls below the support level.

Figure 3.8: **Support and resistance levels on HP chart — the upper horizontal blue line is resistance and the lower horizontal blue line is support.**

By looking at the two horizontal trend lines in Figure 3.8, you can observe that support for Hindustan Petroleum on its daily candlestick chart is near ₹ 240 and resistance is slightly

above ₹ 335. Short term players could have traded this sideways range by shorting HP near the resistance and buying it near its support. Also observe how moving average (MA) indicators — the blue and red sloping lines — give whipsaws as the price moves frequently below and above these moving averages. Most traders lose money they have earned in a trending market by following wrong indicators in this kind of a trading range.

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In other words, the price at which a stock or market can trade, but which it cannot exceed for a certain period of time, is known as a resistance level.

Conversely, the price at which a stock or the market stops rising because sellers start to outnumber buyers, is known as a support level.

Trend Channels

Trend channels are a significant aspect of trend analysis. Channel lines are like boundaries for price fluctuations. You can create a channel line by drawing two parallel straight lines adjacent to the trend line, one of them joining the price highs, the other joining the price lows *(see* Figure 3.9).

Channel lines are used to figure out where to take profit and cut losses:

- If there is an up trend channel, a sell order may be placed below the upper line and a stop loss order below the lower line.
- If there is a down trend channel, the sell order should be placed above the lower line and the stop loss above the upper line.

Figure 3.9: **Down trend channel lines can be seen in this chart of Pfizer Limited.**

If the price does not touch the upper line of the up trend — or the lower line of the down trend — it is an indication that the prevailing trend is weak.

Drawing trend lines is not a science but an art. This skill can be mastered once you learn some basic rules. Sometimes people first form an opinion and then draw trend lines as per their preconceived views. Forming an opinion first and then drawing a trend line accordingly is like deciding which shot to play even before the ball has been delivered. You should select your shot (trade) according to how the ball has been pitched (trend), and not in a pre-meditated fashion.

Using Trend Lines in Conjunction with Other Indicators

Trend lines are typically used with price charts. They can, however, also be used with a range of technical analysis indicators, such as MACD and RSI. Trend lines can be used to identify positive and negative trending charts, whereby a positive trending chart forms an up sloping line when the support and the resistance pivots points are aligned, and a negative trending chart forms a down sloping line when the support and resistance pivot points are aligned.

Traders use trend lines in many ways. A common investment strategy traders use when the stock price is moving between support and resistance trend levels, is to buy a stock at support and sell at resistance, then short it resistance, and cover the short at support. The logic behind this is that when the price returns to an existing principal trend line it offers an opportunity to open new positions in the direction of the trend in the belief that the trend line will hold and the trend will continue further.

You could also use a different strategy. When price action breaks through the principal trend line of an existing trend, it is evidence that the trend may fail, and so you could trade in the opposite direction to the existing trend and exit positions in the direction of the trend.

Combining Trend Lines with Candlesticks

Even though trend lines are a very powerful tool, it is always important to look for other information that confirms a new trend. This could be any number of factors, such as classical chart patterns on the current time frame, or market action on a longer time frame. One of the key tools that provides a forewarning of a trend line's behavior in the same time frame is candlesticks.

Traders face a number of possibilities when the price approaches a trend line on any time frame. The price could be trending up or down, or be moving in a trading range. Traders often attach a lot of importance to prices testing a trend line and any breakouts and breakdowns of these lines. The questions that a trader faces when the price nears a trend line are:

- Will the price break out or break down at the trend line?
- Will there be a false break out?
- Will the trend line prove a formidable resistance to overcome, or will it provide strong support?
- Will the behavior of the trend line change from resistance to support once the trend line is broken?

A trend line may be rising, falling, or horizontal, i.e. a flat trend line. Flat trend lines act as support and resistance lines. These three types of trend lines represent three trends namely, up trend, down trend and sideways. With the violation of trend lines, we may see a reversal in trend. On the other hand, so long as the trend is intact one of the two warring sides is strong; in an up trend, bulls are strong while in a down trend bears are strong. When you have a flat trend line indicating a sideways trend, the bulls and bears are equally matched. Ultimately, either the bulls will break out, or the bears break down. But how do you know which may happen? Candlesticks could give you the answer to such questions. Candlesticks often provide clear indication on whether a reversal or a continuation of the trend may be expected. Candlesticks, however, are unable to provide price objectives or targets, which Western technical indicators can. By using a combination of

candlesticks and trend lines, you can thus get both a better picture of price behavior near important trend lines as well as an idea of price objectives of any given move.

We have already discussed the rules and benefits of trend lines; now we will take up candlestick patterns and how these patterns are used along with trend lines to identify a trend reversal.

Reversals

A reversal in market psychology precedes a trend reversal.

A reversal in trend is not necessarily a change from a down trend to an up trend, or from an up trend to a down trend; it could also be a change from a trending to a sideways market that often precedes a reversal in direction. Any stalling of an ongoing trend often produces sharp whipsaws which can end up eating away a part of the profits earned trading the previous trend. So it is important to be aware of the possibility of a stall, and candlestick reversal patterns can indicate a change in market psychology, or stalls, in trends.

As in the case of other technical indicators, often you cannot conclude too much from only a candlestick reversal pattern. It is important to also look for a confirmation from Western indicators — such as overbought and oversold oscillators, or with a basic trading tool like the trend line — to filter the candle signals.

We now turn to some other candlestick patterns and see how they are used for trading action in conjunction with trend lines.

Candlestick Patterns

Doji

Doji is a very important candlestick formation and is formed when the open and close are approximately at the same price level. It depicts indecision and can often mean impending weakness in an up trend. A doji invariably occurs whenever a trend stalls, or when a reversal is imminent. The doji represents a situation where the bulls and bears are evenly matched and there is thus indecision with regard to future trend. It is important to remember that a doji is not a trading signal, but a warning that the technical position of the market or stock may be changing *(see* Figure 3.10).

Figure 3.10: **Dojis tend to occur at important turns and also sometimes in other situations. Thus, there is a need to filter, i.e. confirm, these signals with other indicators, as shown in this chart of LIC Housing Finance.**

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All dojis need confirmatory candles to act as a trading signal for a fresh move. Traders would do well to look for a doji at the extreme zones of Western indicators, or at significant trend lines, and use them for anticipating a reversal in market psychology and therefore for taking profits. In our trading experience, while exiting on a doji formation might not protect your entire move, over the long run it is worthwhile booking profits whenever a doji occurs after a substantial move, either up and down. This is because in a majority of cases the doji leads to trend stalling and reversals, both minor and major.

Hammer

The real body of the candle is small and at the upper end of the range; the color is not important. The lower wick should be longer than the upper body. It’s generally a bullish pattern.

Hanging Man

The hanging man is considered bullish because of the up trend. The color is not important; could be bearish if the body is black and the price opens lower the next day.

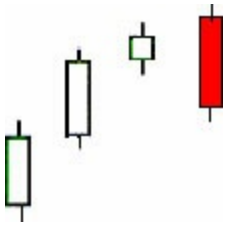
Shooting Star

The shooting star indicates an end of the up move. The body of the shooting star does gap up over the previous day.

Engulfing Pattern — Bearish

The appearance of a small white body during an up trend, followed the next day by price opening at new highs, then a quick sell off, and closing below the open of the previous day.

Engulfing pattern (bearish) develops in an up trend when there are more sellers than there are buyers. This action is reflected by a long red candle engulfing a small white candle. In all the patterns depicted below white candle represents an up day where close price was higher than open price, while red candle represents a down day, where closing price was lower than the opening price.

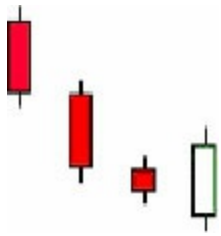


The above chart shows that the opening was higher than the previous day, and, during the trading session, there was a sell off.

Engulfing Pattern — Bullish

In a down trend, the occurrence of a small black body followed the next day by prices opening at new lows and then quickly rallying to close above the close of the previous day.

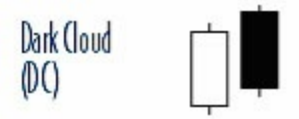
An engulfing pattern on the bullish side of the market is the opposite of the previous pattern and takes place when there are more buyers than there are sellers, which is reflected in the chart by a long white real body engulfing a small red real body.



The close chart depicts a down trend that has now lost momentum and may

be bottoming out. It indicates that bulls may be coming back which will lead to a trend reversal.

Dark Cloud — Bearish



The dark cloud is a bearish reversal pattern. This pattern occurs only during an up trend. The first day is a long white body; the second day is a bearish black body.

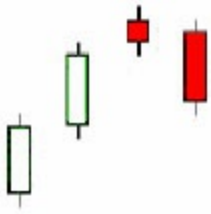
Morning Star — Bullish

The morning star is a bullish reversal pattern; ideal morning stars have gaps before and after the middle day's body.

Evening Star — Bearish

Evening star is a bearish reversal pattern. It occurs after an up trend and should have gaps before and after the middle day's body.

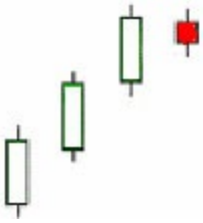
Evening star (bearish) is a top reversal pattern that is very easy to identify because the last candle in the pattern opens below the previous day's small candle, which could be either red or white, and closes deep covering the trading range of the previous two candles



This pattern shows that traders are perhaps losing confidence in the market and its direction. This will be confirmed if the next day is another down session.

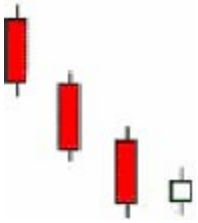
Harami — Bearish

Harami (bearish) is another very recognizable candlestick pattern that shows a small candle (red) completely inside the previous day's candle.



The harami bearish indicates that the current up trend may be coming to an end, especially if the volume is light.

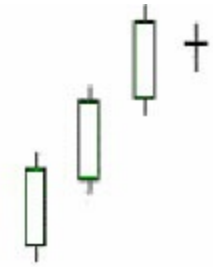
Harami — Bullish



Harami (bullish) is the mirror reflection of the harami bearish. It depicts a downtrend in play and a small candle (white) is seen inside the large candle (red) of the previous day. The harami (bullish) implies that the preceding trend is about to conclude. A candlestick closing higher the following day would confirm the trend reversal.

Harami Cross — Bearish

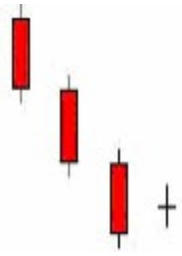
Harami cross (bearish) is a harami pattern with a doji, instead of a small candle, appearing in the next trading session. The doji is within the range of the prior session's candle.



Like the harami, the trend starts out in play but the market then decides to reverse intraday with almost non-existent volume and the pattern closes at the same price as the open price. The up trend has then been reversed.

Harami Cross — Bullish

The harami cross, whether the bullish or bearish version, starts out looking like the basic harami pattern. The harami cross bullish is the exact opposite of the harami cross bearish and does not require any further explanation. Again, a trend has been reversed.



Using Candlesticks in Conjunction with Trend Lines

By now it should be clear that in contrast to the Western indicators, candlestick patterns directly reflect the respective strengths of buyers and sellers. Candlestick patterns tend to occur frequently, however, and cannot be used without additional confirmation — usually with traditional (Western) technical indicators.

It would not be incorrect to say that while looking at Western indicators is like looking in a car's rearview mirror, looking at candlesticks is akin to looking ahead through the windshield. Candlesticks indicate the possible future price action when a trend line is tested.

We will now discuss the use of trend lines along with candlesticks. Although we are not discussing volume here, it is important to keep in mind that volume is a critical factor when looking at trend line breakdowns or breakouts.

Use of Candlesticks with a Rising Support Line

Support and resistance lines work on all time frames and are used by day traders in particular. Traders can use the various candlestick patterns to gauge the strength of trend lines. But what happens if there is a signal that is not confirmed by both trend lines and candles? In such cases, it would be wise to ignore the signal.

Figure 3.11: **Rising support line and candlesticks: You can see in this weekly chart of Bajaj Auto that the stock opened higher and kept gaining throughout the following week. You would go long as the stock closes strong during that week. The stop for this trade is placed under the low of the previous week, at or below the trend line by 1%. You still have to wait to see what happens when L3 is made. In the first week, prices touch the low and then rally to close much higher. The next week, prices try to approach L3 but then rally to close almost at the high of the week. You should treat this as a confirmation of the support level, and buy the week after L3 is made.**

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As already discussed, a rising support line is constructed using higher lows. Figure 3.11 shows a trend line drawn on Bajaj Auto's weekly chart which connects lows L1 and L2. On the extended trend line, you would wait for a candle to be formed after the price touches the trend line. During the week in which the low L3 was made, prices rallied and closed significantly above this low. This should alert you that the support on the trend line still holds, but you should wait for a confirmation the following week.

Falling Resistance Line and Candlesticks

Figure 3.12: **Falling resistance line and candlesticks: As we've already learnt, a falling resistance line connects lower highs. In this chart, the down trend steepens and becomes a free fall. As the price reaches the trend line, a bearish hanging man pattern is formed, which indicates that fresh short positions should be initiated. The move is likely to face strong resistance at this point.**

Rising Resistance Line and Candlesticks

Figure 3.13: **Rising resistance line and candlesticks: A rising resistance line connects higher highs and indicates levels where the up trend may stall. As you can see in this chart, prices hit the rising resistance line twice. Note also the doji patterns close to the trend line. After flattening out, the price proceeded to rally but stalled when it approached the trend line. The shooting star was an indication that prices were not going to break out of the resistance level. This is a signal for taking profits.**

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Upthrusts and Candlesticks

Upthrusts are false breakouts on the upside from a range, after which the price comes crashing back down *(see* Figure 3.14). Theories abound about why this pattern occurs. One reason may be that the "smarter" players in the market lead the retail traders into believing that a genuine breakout has occurred. As soon as retail traders take positions, the institutional and large traders then take the market in the other direction, taking out their stop losses as well. But smaller traders do not realize that the breakout is false until the market comes crashing back down.

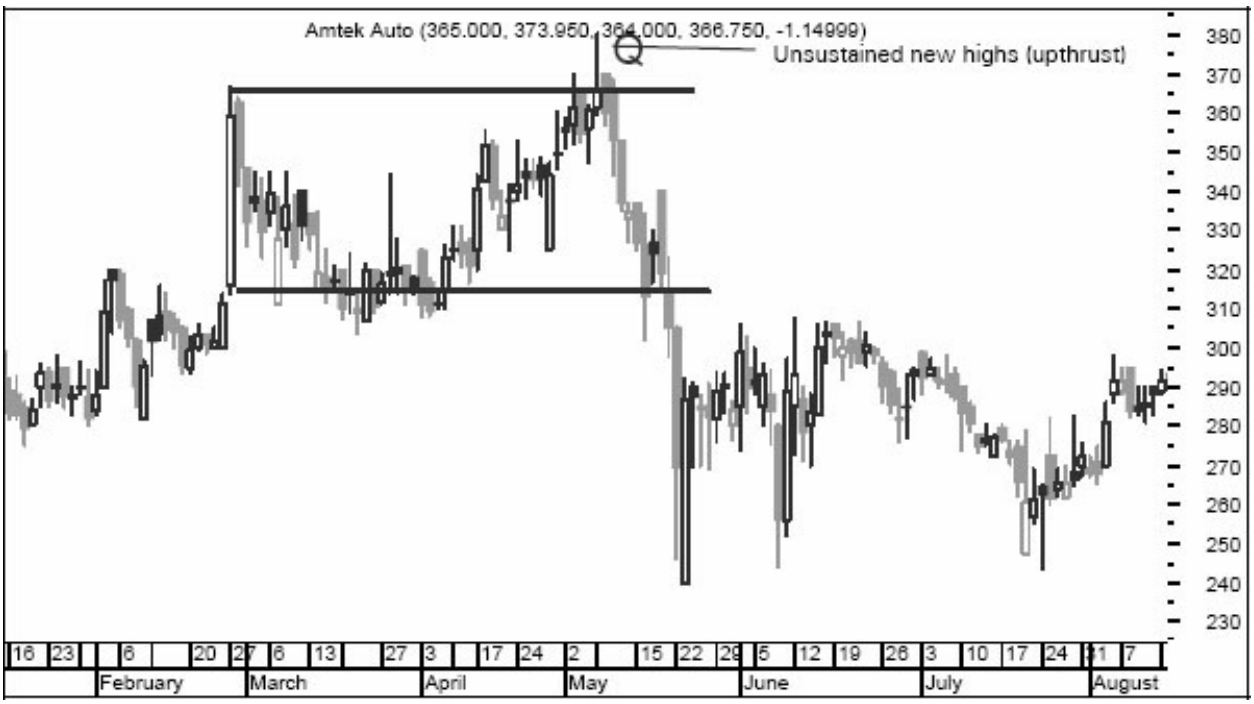

Figure 3.14: **Upthrust and unsustainable new highs.**

Candlestick patterns can sometimes warn of false breakouts as illustrated in Figure 3.14.

In Figure 3.14, note the formation which preceded a bearish engulfing pattern and led to a huge down move. Ideally, you would go short below the downward candle of the bearish engulfing pattern.

This is why strict adherence to stop losses should be the order of the day. You can look at the volume, but that too sometimes does not give the exact picture because these days volume can include arbitrage trading as well.

In a bull market the probability of the occurrence of upthrust breakouts is 30 %, you should always be on the look-out for such breakouts. Once a short position is taken on a false breakout, it generally needs a very small stop loss since positions do not again retest the high. This is because trapped traders on the long positions rush to cut positions, bringing the market down with force.

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Springs and Candlesticks

Figure 3.15: **Unsustained price springs and candlesticks in BHEL.**

As BHEL breaks down from the range in Figure 3.15, you can see a doji. This is an indication that the down trend is unsustainable. Traders can thus go long above the high of the doji pattern outside the range.

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Springs are the opposite of upthrusts. First comes a false breakdown from a range, and then the stock goes up with great force. Individual traders may be led to believe that the stock is breaking down, but it is really going up. However, candlesticks can play a role in warning traders of a spring.

Summary

Trend lines can offer great insights, but if used incorrectly they can also produce false signals. Other tools — such as horizontal support and resistance levels or peak-and-trough analysis — should be employed to validate trend line breaks. While trend lines have become a very popular aspect of technical analysis, they are merely one of the technical tools for establishing, analyzing, and confirming a trend. Trend lines should not be made the final arbiter, but should merely serve as a warning that a change in trend may be imminent. By using trend line breaks as warnings, investors and traders can pay closer attention to other confirming signals for a potential change in trend.

Validity of Trend Lines

The following points must be kept in mind for the validation of trend lines:

- Trend lines work best on longer time frames. A longer time frame validates the reliability of trend lines for initiating or exiting a trade.
- You should use common sense to draw trend lines.
- Up trend lines join rising bottoms, while downtrend lines join falling tops.
- The length of a trend line is another important factor in its reliability. Longer the length of a trend line, the more reliable it is.
- The number of contacts between the price and trend lines also confirm reliability of trend lines: more contacts mean greater reliability.
- The emotional behavior of the market players can be gauged by the steepness of the trend line's angle. As the steepness of the trend line increases, the validity of support and resistance levels reduces because the sharp rise or fall in angles shows exponential moves — and sudden up or down moves are unlikely to sustain.

- An up sloping trend line along with rising volumes confirms the reliability of a trend line.

Trend Reversal Indicators

- When prices return to an up trend line after going up and volume increases with a fall in price, it is warning of possible break in trend. And if the prices breach the up trend line with huge volume you may witness a reversal of the up trend.
- The reliability of downtrend is confirmed when prices fail to cross the new down trend line with each upward price move and volumes remain low.

Using Trend Lines for Placing Stops

- If volume remains low when prices move away from the trend line it's a sign of an impending break of the trend line and one should exit all long positions.
- As the price nears a major support or resistance level, one of two different scenarios can occur: either the price will bounce off the trend line and continue in the direction of the ongoing trend, or it will pierce through the trend line, which can then be used as a sign that the current trend is reversing, or at least weakening.
- Trend lines provide reference for placing stops. A stop should be placed at least 3% below (above) the trend line after the occurrence of a breakout (breakdown).

Trend Lines and Candlesticks

- Trend lines and candlesticks complement each other and provide powerful trading signals. While trend lines help in following a trend, candlesticks offer excellent buying and selling signals along that trend. This is especially true in the extreme zones (overbought or oversold) of many Western technical indicators, as well as at trend line support and resistance levels.

- Filtering candlestick patterns with trend lines makes them an even more powerful tool, and bridges the gap between Eastern and Western technical analysis.

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Chapter 4

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Reversal Patterns – 1

Head and Shoulders, Basing Formation, Broadening Formations

In Chapter 3 we learnt about charts, trend lines, and support and resistance levels. Once trend lines and support and resistance lines have been drawn on a chart, one of the most important and difficult decisions you have to make is figuring out the timing for entering and or exiting the market, as well as determining the occurrence of a major top in a rising market — or a major bottom in a declining one. Price trends, whether upwards or downwards, have to end at some point. The real challenge comes in predicting how and when.

Technical analysis is based on the premise that history repeats itself. It follows, then, that if you can analyze the recurrence of identifiable patterns and formations that have preceded or accompanied important market movements in the past, you can get important clues about the future.

Types of Chart Patterns

Some chart patterns are more reliable than others for price forecasting — but none is infallible. Some patterns are very reliable, while others do not end in the price target one would expect. Our effort here is to focus on a select group of chart patterns that have been proven to be of considerable validity over many years.

Broadly, there are two types of price patterns that develop on charts:

- Reversal patterns, and
- Continuation patterns.

There are a number of **reversal patterns** which indicate the end of a trend. The most common of these are:

- Head and shoulders tops and bottoms;
- Double tops and bottoms;
- Rounding tops and bottoms;
- Broadening formations; and
- Triple tops and bottoms.

Continuation patterns, on the other hand, are usually shorter term in duration and are often classified as intermediate term chart patterns. Some of the most common continuation patterns include:

- Flags;
- Ascending and descending triangles;
- Symmetrical triangles;
- Pennants;
- Gaps; and

- Rectangles.

In this chapter and in Chapter 5, we will come to grips with reversal patterns and then take up continuation patterns in Chapter 6 and Chapter 7.

Reversal Patterns: What They Are

Reversal patterns signal that a trend is about to reverse direction for a period of time. Thus, reversal means a change in direction, and a pattern is a chart formation. Thus, reversal patterns are chart formations that indicate a reversal in the direction of the ongoing trend. These patterns can be spotted on the daily, weekly or monthly charts. Technical patterns apply to all of these time frames.

Reversals can be in either direction, i.e. from up to down, or from down to up. In either case, characteristic patterns take shape on price charts presenting an alert trader the opportunity to establish a trade that should have a higher probability of success.

As it happens with all reversal phenomena in nature, reversal patterns take time to establish. You must have seen a bowler bowling in a cricket match. The bowler starts running from the end of his run up point but suddenly the batsman signals him to stop. What happens then? The bowler cannot stop all of a sudden; he will continue running for some more distance and only then be able to stop and turn back to his run up mark. Similarly if a trend is going in one direction, it will not change suddenly but will take some time before it changes direction.

You can also understand reversal by another example. There was a time when Sourav Ganguly was performing well both as a batsman and as captain of the Indian cricket team (attaining new high, in up trend). But then slowly his performance started tapering off though there were some intermittent spikes of good performance. He was then thrown out of the team and also stripped of the captaincy. In other words, he was not able to maintain his performance (not able to sustain the top new highs). This was a reversal from top. Once he was out of the team, people predicted that his cricket career was over and that he ought to retire from active cricket (the stock has no value, and one should get out of it). He was at the bottom. What happened to all such predictions? Sourav Ganguly returned to the team by the dint of his performance (bottom reversal; reversal from bottom). All these developments took their own time but nevertheless reversals did happen.

This example is a great lesson in understanding chart patterns. Before his removal from the team, Sourav had some poor performances in both formats of the game, namely one-day and test match cricket. It is similar to getting the same confirmation in at least two or three time frames, i.e. daily, weekly or monthly.

The general public (retailers) lost interest in him. But some people (smart traders, institutions) were carefully watching his performance in domestic cricket (watching the charts for signs of a reversal) and knew he could well make a come back by the dint of his performance (taking cue for catching reversal trend early). Similarly, you should also watch the market's past performers to catch the bottom reversal trend and also the performance of top performers to catch the top reversal trend.

You should always take buy or sell decision based on chart patterns (performance) and not by getting emotionally attached to a security.

Common Features of Reversal Patterns

Let us consider a few important points which are common to all reversal patterns.

Existence of a Prior Trend

Many a time you may come across a pattern on the chart which resembles a reversal pattern. However, if there was no major ongoing trend before the occurrence of such a pattern, it becomes suspect.

The breaking of an important trend line is often the first signal of an impending trend reversal.

The violation of a rising trend line would indicate the possibility of the trend reversing direction and moving sideways or downwards.

The violation of a falling trend line would indicate the possibility of the scrip moving either sideways or upwards in the near future.

Importance of the Pattern's Height and Width

The greater the height and width of a reversal pattern, the more powerful

would be the resultant move following a breakout from the pattern.

Topping and Bottoming Patterns

Topping patterns indicate the formation of a top. Upon the completion of these patterns one can expect the price to move downwards. Topping patterns are generally shorter in duration and the price swings within these patterns are quite swift and volatile.

Bottoming patterns, on the other hand, indicate the formation of a bottom and on completion of these patterns one can expect the scrip to move upwards. These patterns generally take more time to form than do topping patterns and during this time the price moves in a small range.

Volume

- If the price breakout from a bottoming pattern is not accompanied by higher than average volume, the probability of it being a false breakout should be considered quite high.
- However, the volume accompanying a topping breakdown is not that important because there are a number of examples where the market has reversed direction without being accompanied by a sizeable volume.

We now turn to the patterns themselves.

Head and Shoulders Pattern

A head and shoulders reversal pattern forms at the end of an up trend, and its completion marks a trend reversal. Thus, **head and shoulders patterns are top reversal patterns.**

The pattern comprises of three peaks with the middle peak (head) being the highest, and the two flanking peaks (shoulders) being lower and roughly equal. The reaction lows of each peak can be connected to form a support line, called the neckline.

As its name implies, this pattern resembles the upper portion of a human torso and is made up of a left shoulder, a head, a right shoulder and a neckline. Other parts playing a role in the pattern are volume, the breakout, price target and support turned resistance.

Left Shoulder

The left shoulder is formed after an extensive increase in price, usually supported by high volume. This is the first peak of the ongoing up trend.

After making this peak, the price dips slightly, usually on lower volume, to complete the formation of the shoulder (Point 1 in Figure 4.1). This dip is the start of the neckline and the head is about to form.

Head

The head is formed with heavy volume on the rising side of the head, and lower volume on the falling side. Prices then fall to somewhere near the same level as the low of the left shoulder (Point 2 in Figure 4.1).

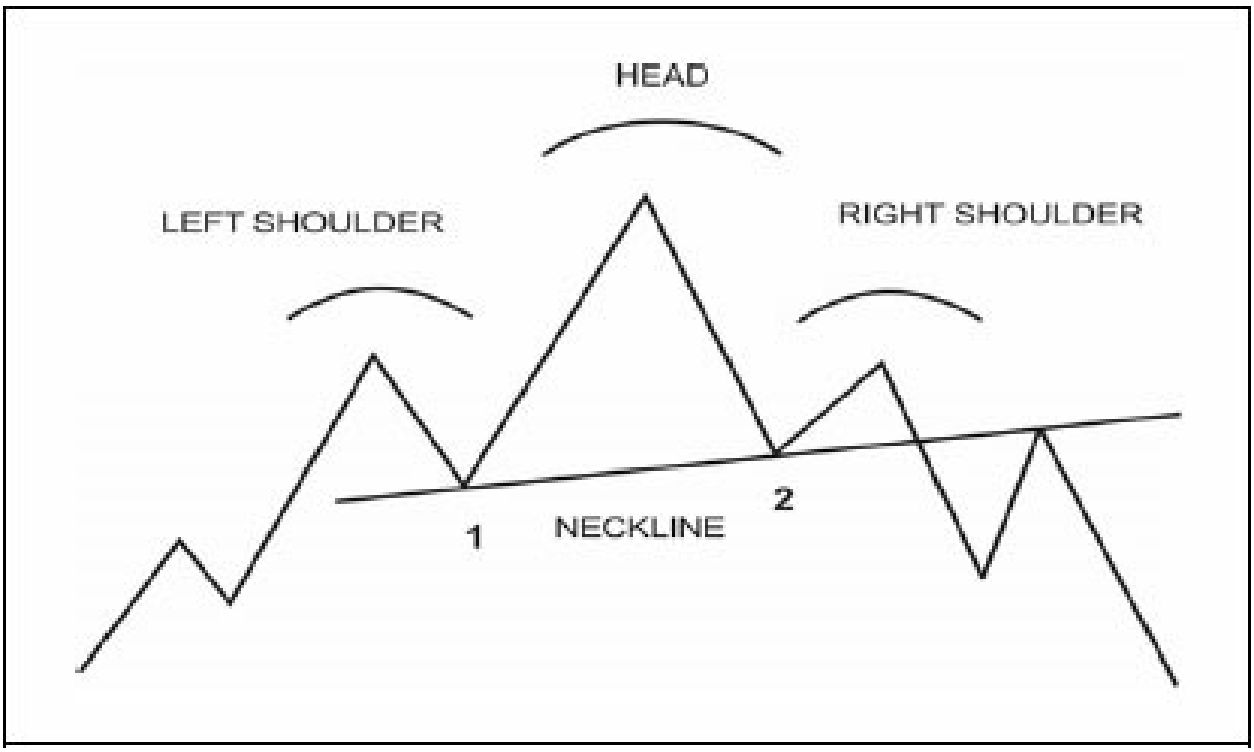

Figure 4.1: **Head and shoulders pattern — a top reversal pattern.**

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Right Shoulder

The right shoulder is formed by a rally in the price to a level roughly equal to that of the left shoulder. Again it can be slightly higher or lower but it must definitely be below the high achieved by the head.

The decline from the peak of the right shoulder should then break the neckline.

Neckline

You can draw the neckline by connecting low points 1 and 2 in Figure 4.1. Depending on the relationship between the two low points, the neckline can slope up, slope down, or even be horizontal.

The slope of the neckline will affect the pattern’s degree of bearishness; a downward slope is more bearish than an upward slope.

Sometimes more than one low point can be used to form the neckline. Once the right shoulder has started to form you can draw in a neckline across the bottoms created between the left shoulder and the head, and the head and right shoulder. When the price falls from the right shoulder and breaks through the neckline, the head and shoulders top formation is confirmed and it is your signal to go short or sell the stock.

The head and shoulders pattern is not complete, and an up trend is not reversed, until the neckline support is broken.

Volume

One of the important habits you must develop is to learn to look at volumes accompanying the various chart patterns. You must always pay attention to this critical and important factor to avoid being fooled by the market and the price chart.

Volume always plays an important role in the formation of a head and shoulders pattern, which must have the following volume characteristics:

- Formation of the left shoulder should be accompanied by an increase in volume, which should then come down upon its completion.
- Volume should then increase again with the development of the head. This second surge of volume is usually less than that during the development of the left shoulder indicating that buyers aren’t as aggressive as they once were.
- Volume then decreases and this reduced volume should persist throughout the development of the right shoulder, and then expand as new selling comes in and earlier buyers get out. The smart money has then completed distribution to the unsuspecting retail traders.
- Breaking of the neckline with increasing volume completes the pattern.

Please also remember that the head and shoulders top formation does not need to always be perfectly symmetrical. The time taken to create each of the shoulders may be different. This will cause one shoulder to look slightly larger than the other even though it has reached a similar high point.

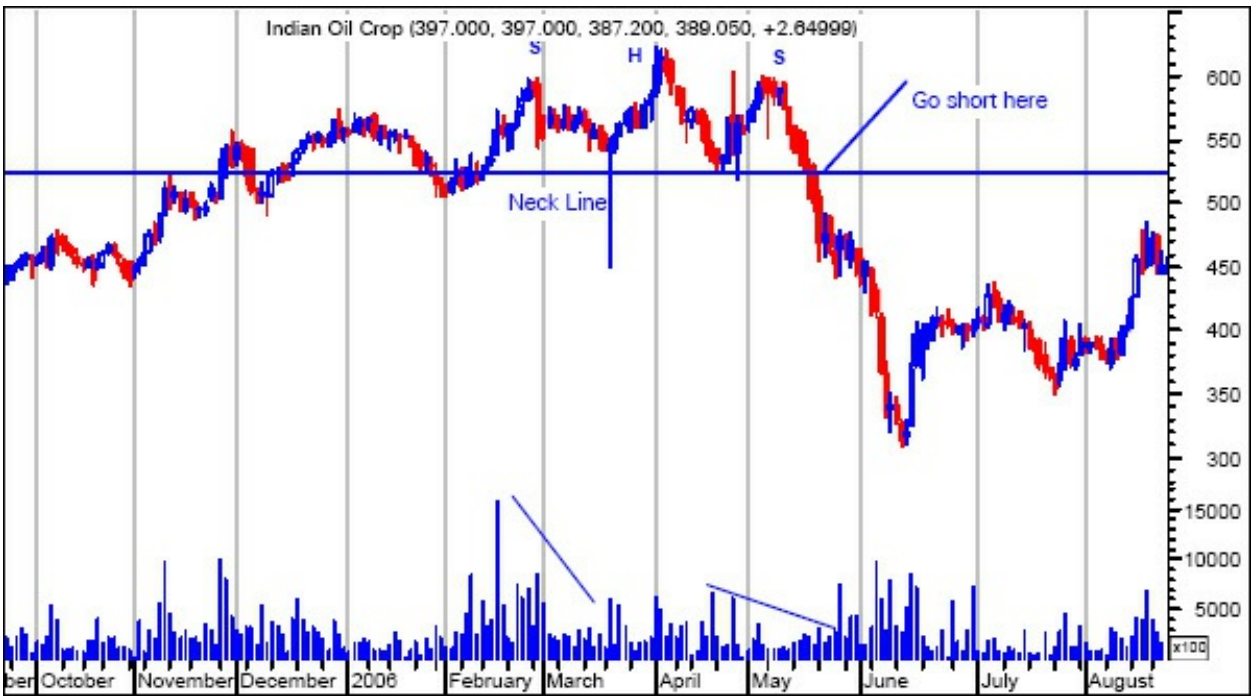

Figure 4.2: **Head and shoulders pattern: You can see here that Indian Oil Corporation (IOC) made a left shoulder in February 2006 with high volume. It again peaked to a high of ₹ 621 in the first week of April, thus making a head. IOC made the right shoulder in May. Note the low volumes during the formation of the right shoulder.**

Figure 4.3: **Head and shoulders pattern on a weekly chart of LIC Housing Finance.**

Weekly charts are useful in detecting bottom reversals but the weekly chart in Figure 4.3 shows a top reversal. Look at the rise in volume with the formation of the left shoulder. The breakdown of neckline with increased volume completed the pattern. LIC Housing Finance again made an attempt to surge higher, but could not break the neckline as the volumes were low.

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Broken Neckline Acting as Resistance

Once the neckline is broken, it is common for this level to turn into a resistance. Sometimes, but not always, the price will pull back to the test the neckline level and this offers a second chance to sell.

Why a Head and Shoulder Pattern Forms

Distribution of the stock by people who believe that the price has reached a peak results in a head and shoulders formation.

Sellers come in at the highs (left shoulder) and the downside is probed (thus initiating the neckline). Buyers soon return to the market and ultimately push through to new highs (head). However, the new high is quickly turned back and the downside is tested again (continuing neckline). Tentative buying re-emerges and the price rallies once more but fails to take out the previous high (right shoulder). Buying then dries up and the market tests the downside yet again. This represents the selling of unrealized hopes when prices fail to reach their previous high

Towards the end of an up trend, only retail traders and speculators remain bullish on a stock, while institutional investors turn bearish.

If a head and shoulders pattern does not break down in a reasonable period of time, it loses its strength in the breakdown direction. It then spends itself out making an indecisive sideways pattern.

Inverted Head and Shoulders Pattern

The head and shoulders pattern can sometimes be inverted. The inverted head and shoulders pattern typically reverses a down trend *(see* Figure 4.4). Volume plays a major role in confirming the formation.

Patterns such as the inverted head and shoulders are also known as bottom reversal patterns and usually take a longer time to build as compared to top reversal formations.

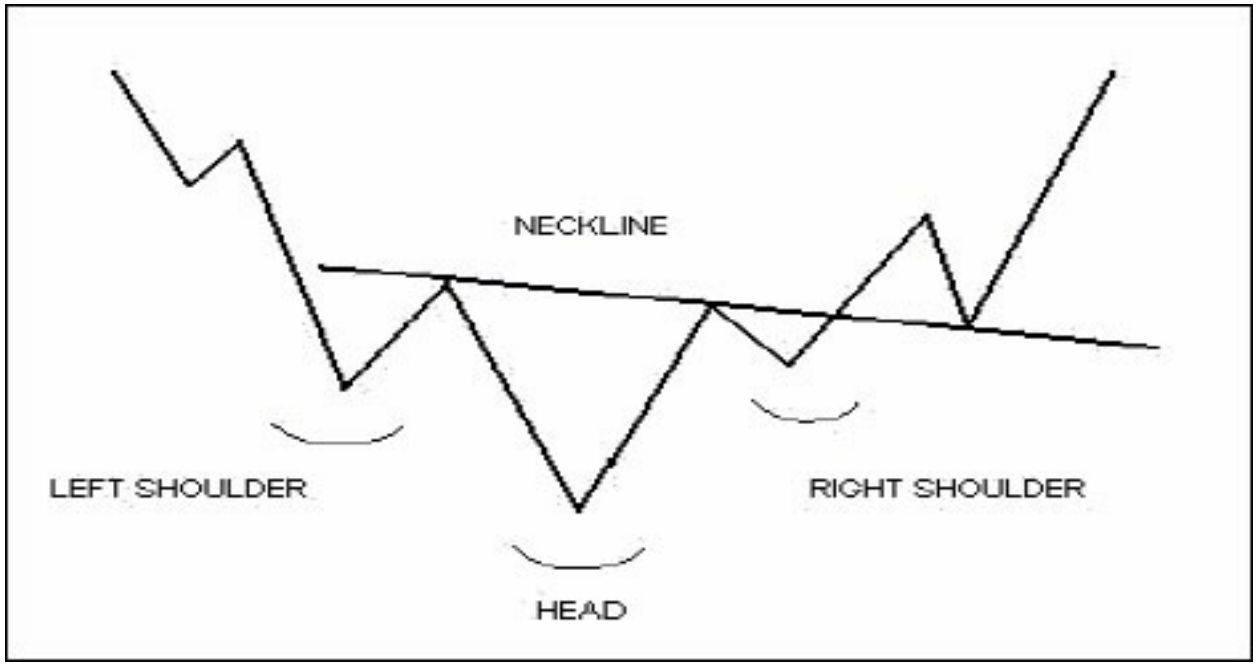

Figure 4.4: **Inverted head and shoulders pattern.**

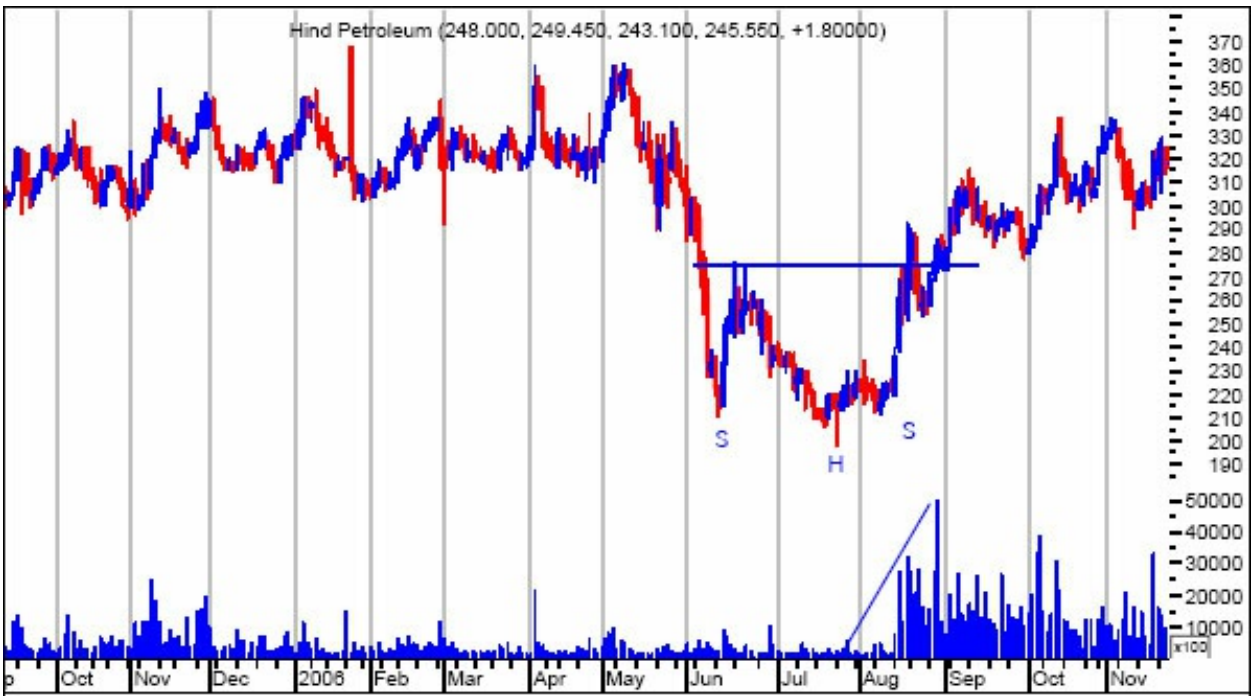

Figure 4.5: **Hindustan Petroleum (HP) made an inverted head and shoulders pattern from June to August 2006. You can see how the volume (blue vertical lines in the lower window) dried up during the formation of the left shoulder and head. Also note the sudden interest of buyers in the stock in mid-August represented by an increase in volume. HP broke the neckline level of ₹ 275 in September and had rallied up to ₹ 330 by October 2006.**

~

The following characteristics of an inverted head and shoulder patterns should always be kept in mind:

- The inverted left shoulder should be accompanied by an increase in volume.
- The inverted head should then be made on lighter volume.
- The rally from the head, however, should show greater volume than the rally from the left shoulder.
- The inverted right shoulder should see the lightest volume of all.
- When the market then rallies through the neckline, big volumes must accompany it.

Failed Head and Shoulders Pattern

In the 2007 Cricket World Cup, India and Pakistan were tipped to qualify for the super eight stage. With a strong batting line up, everybody expected India to qualify even for the semi finals. But Bangladesh beat India, and Pakistan was beaten by Ireland and neither team could even make it to the super eight. This result was not predicted by any of the cricket pundits. In technical analyst's jargon, it was a failed pattern. Later on, Bangladesh beat even South Africa, a strong contender for the cup.

In charting, similarly, sometimes even the most recognized and time-tested patterns fail. While some chart patterns are more reliable than others for price forecasting, but none is infallible. They may have a high probability of success but are not guaranteed to work all the time. Thus, while head and shoulders patterns follow through a majority of the time, there are occasions when the pattern fails. In such cases, the price never drops below the neckline after forming the right shoulder. A failed head and shoulders pattern typically occurs when the patterns in two time frames are contradictory. In such a situation, the pattern in the higher time frame always prevails. Then, too, pattern breakouts on low volume are always suspect, so do look for high volume breakouts in all patterns.

Thus, a failed head and shoulders pattern occurs when the price rallies above the high of the head after forming the right shoulder. When the price rallies above the head, make sure to quickly cut your losses if you are short because the move is usually strong if there are enough buyers to push through all that resistance and set a new high. After getting through the resistance of the head and shoulders pattern, the failed short setup often becomes a great long play (see Figure 4.6).

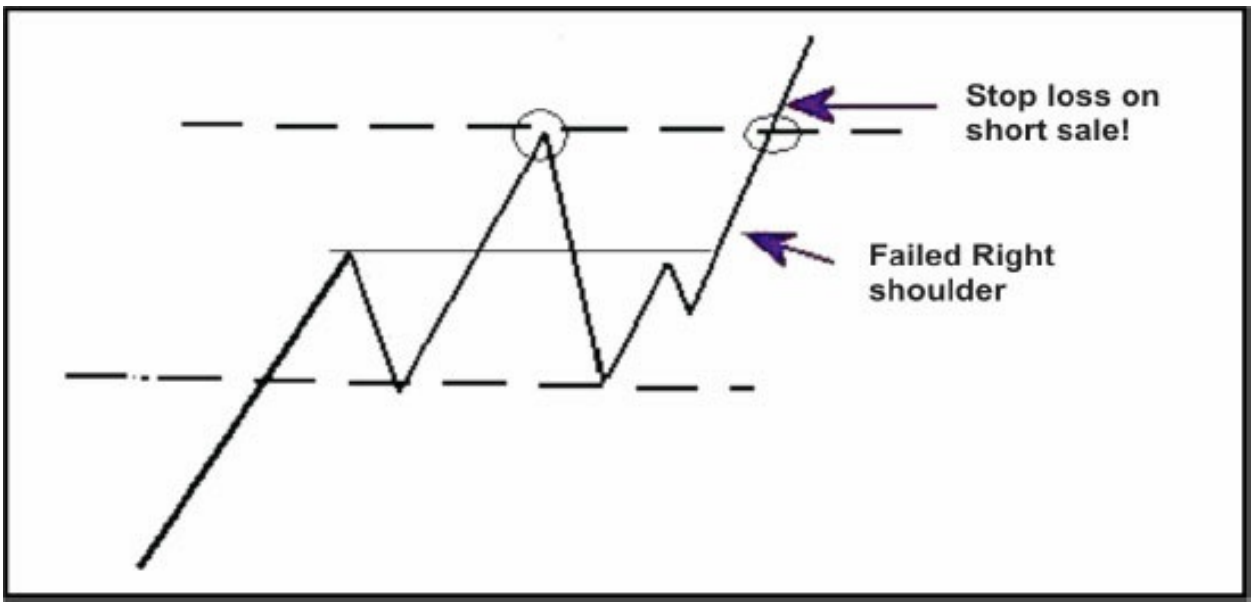

Figure 4.6: **Failed head and shoulders pattern.**

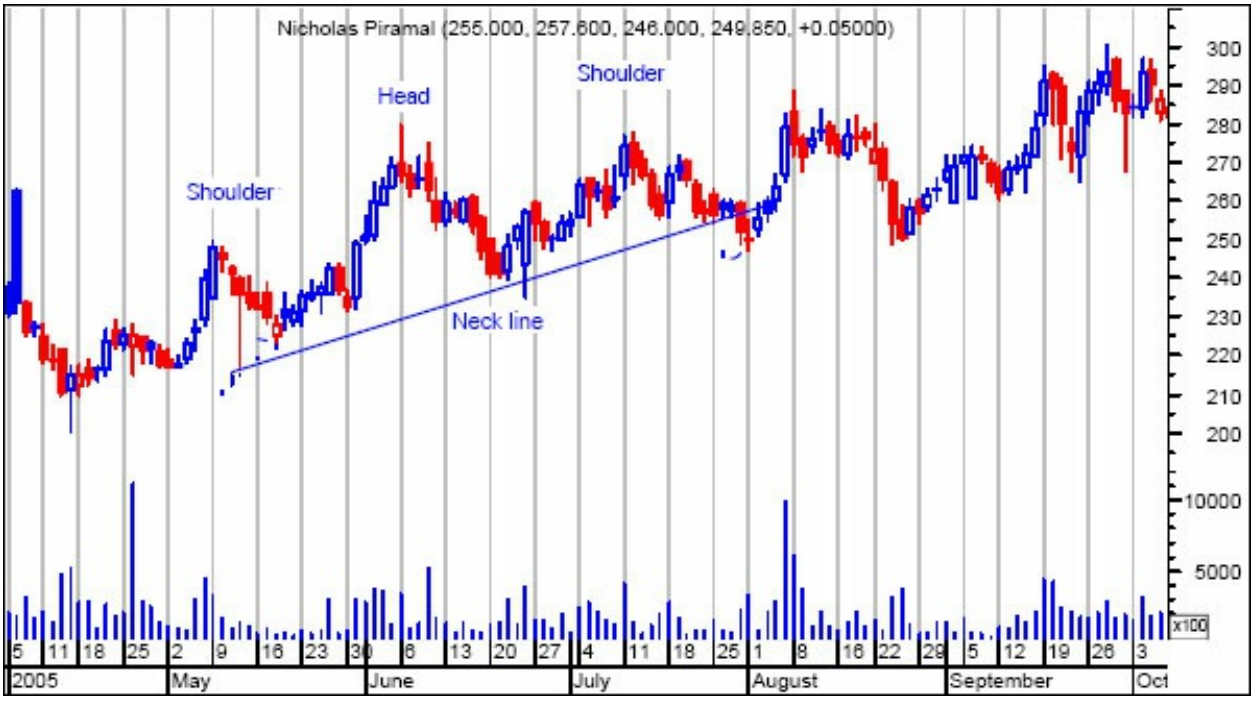

Figure 4.7: **Failed head and shoulders pattern in Nicholas Piramal (NP).**

Look at the formation of the left shoulder in Figure 4.7. NP did break below the neckline in late July but did so with negligible volume. Thus, the volume did not follow the formation of the pattern. In fact, NP made an up move in the first week of August by breaking above

the neckline with volume.

Later, the stock made double top formations, respectively in September and December 2005, by touching a high of ₹ 300 before plunging to low of ₹ 153 in June 2006.

~

Let's take another case of a failed head and shoulders reversal pattern *(see* Figure 4.8).

While technical analysis literature emphasizes beautiful, successful patterns, there is much less discussion about failed patterns. When they fail though, they can lead to sharp moves in the opposite direction as traders who are trapped in the direction of the expected breakout then rush to exit the market. It is advisable for traders not to preempt the final breakout, and in case you do so, remember to keep a stop loss above / below the right shoulder as the case may be.

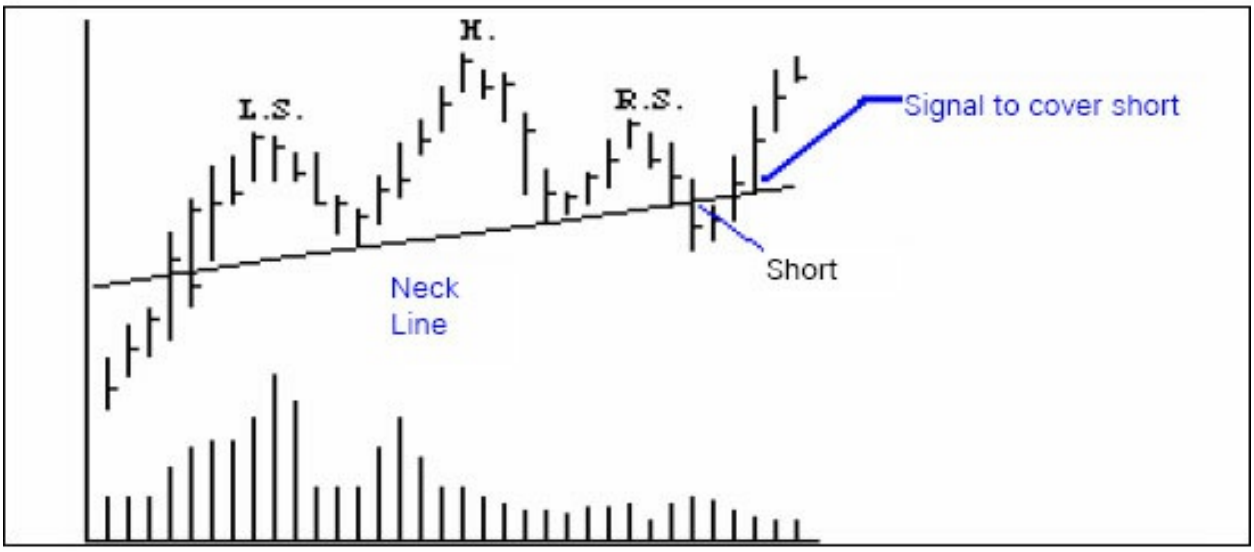

Figure 4.8: **Another failed head and shoulders pattern: You will notice that after violating or penetrating the neckline, the scrip once again moved back higher. This indicates that the pattern had failed, and in such a case one should immediately cover one's short position, i.e. cover one's position with an adequate stop loss.**

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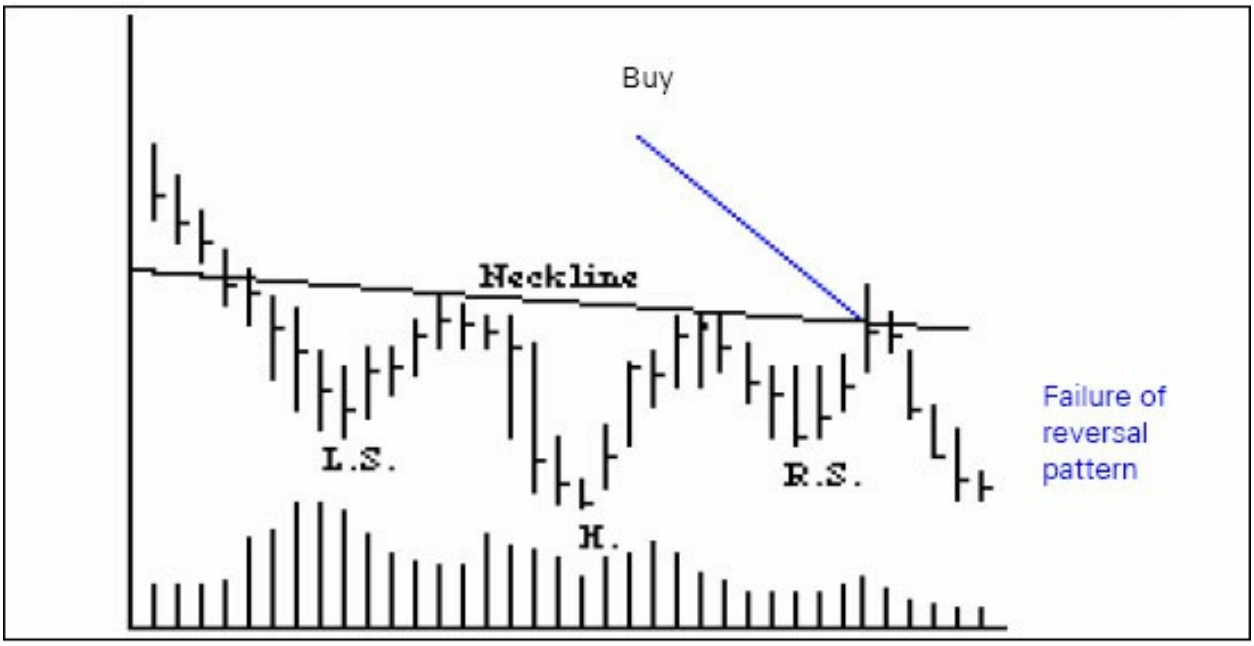

Figure 4.9: **Failed inverted head and shoulders pattern.**

A failed inverted head and shoulders bottom pattern is confirmed if the scrip penetrates the neckline and then again moves below it after some time, as in the case of Figure 4.9. In such a case, one should immediately cover one's long positions.

Double Top Pattern

The double top is a major top reversal pattern that forms after an extended up trend. As its name implies, the pattern is made up of two well defined sharp peaks at approximately the same price level.

A double top occurs when prices are in an up trend. Prices rise to a resistance level, retreat, return again to the resistance level before going into a sustained decline. The two tops are usually distinct and sharp. The pattern is completed when the price declines below the lowest low in the formation. The lowest low is called the confirmation point.

According to the well-known technical guru, John Murphy, the double top is one of the most frequently seen and most easily recognized patterns.

The double top looks like the letter “M”. The twice-touched high is considered a resistance level. Although there can be variations, the classic double top marks at least an intermediate, if not a long term, reversal in trend from bullish to bearish. Many potential double tops can form along the way up, but a reversal cannot be confirmed until the key support is broken.

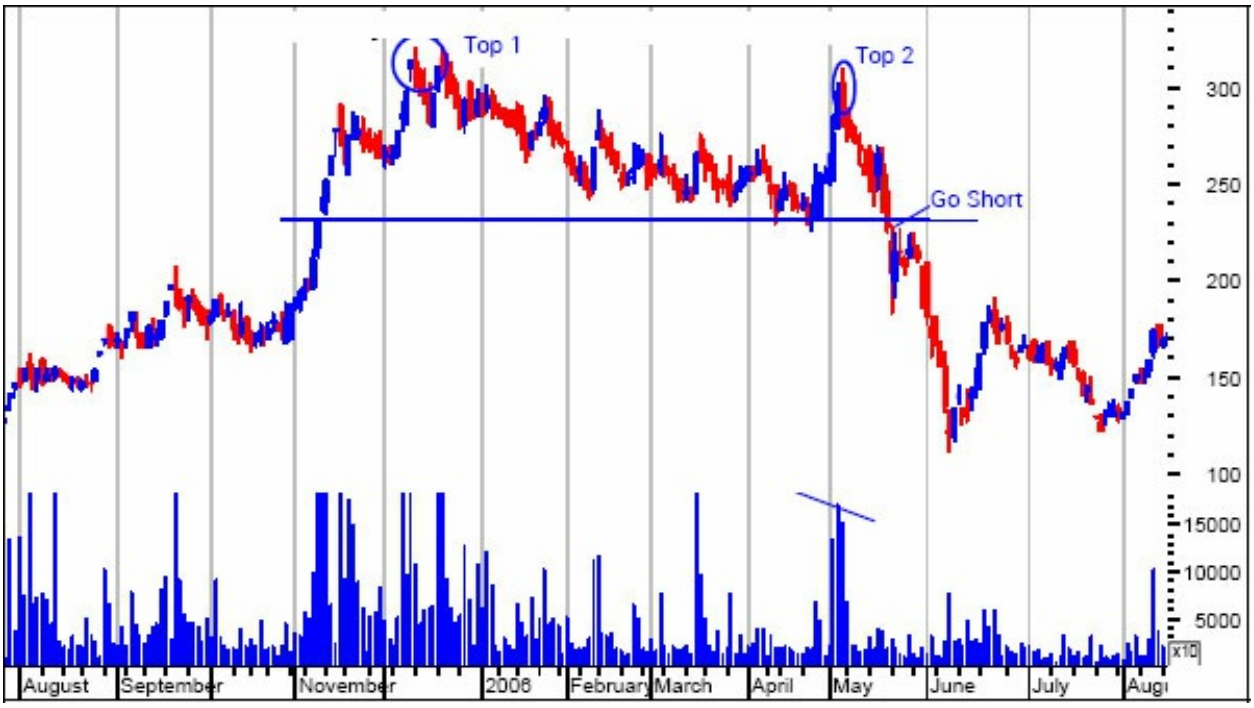

Figure 4.10: **Double top pattern for Aegis Logistic (AL): AL made a first top with a high of ₹ 313 in mid- November 2005. It then made the second top in May 2006 when it touched a high of ₹ 303. You must pay close attention to volume when analyzing a double top. Volume in a double top is usually higher on the left top than the right one. Volume tends to be low as the pattern forms. Monitoring the volume (blue lines in the lower panel) is a key aspect in determining whether or not a double top is a valid one.**

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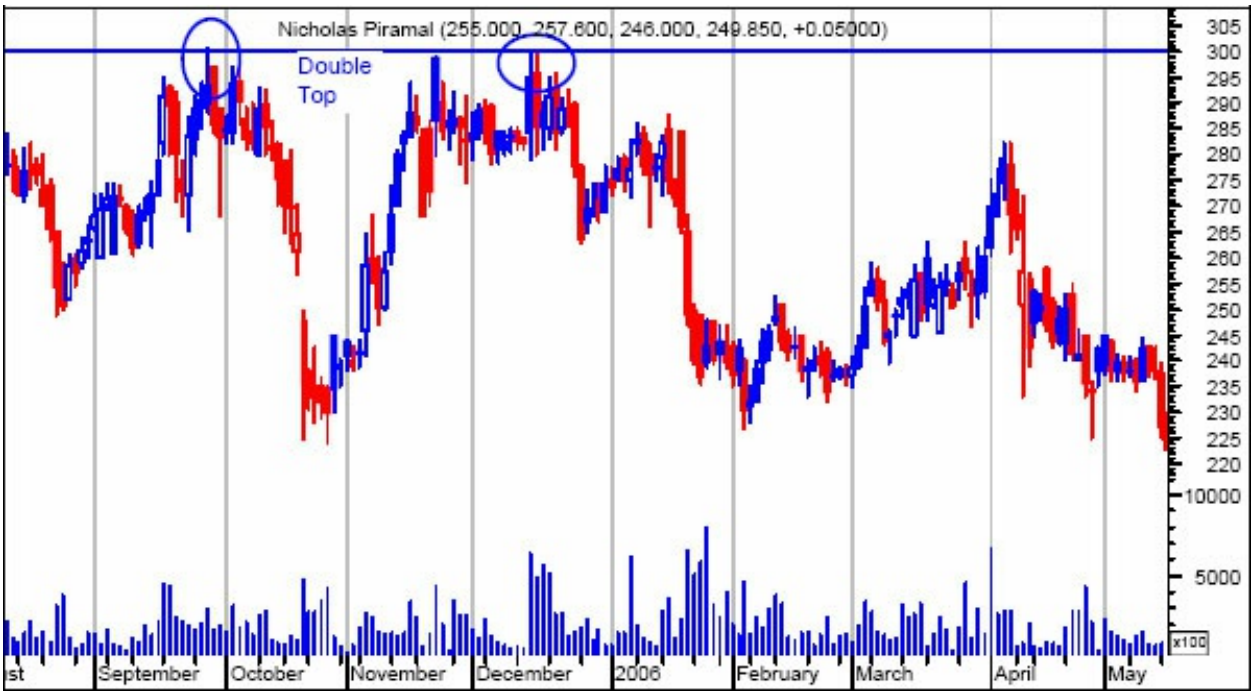

Figure 4.11: **Nicholas Piramal made a double top pattern by touching a high of ₹ 300 first in September and then again in December 2005. The stock again made two lower tops in January 2006, and then again in April. The stock could not touch its high of ₹ 300 again.**

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Double Bottom Pattern

The double bottom is a major bottom reversal pattern that forms after an extended down trend. As its name implies, the pattern is made up of two well-defined lows at approximately the same price level. Prices fall to a support level, rally and pull back up, then again fall to the support level before rising. The pattern is completed when the price rises above the highest high in the formation. The highest high is called the confirmation point

Although there can be variations, the classic double bottom usually marks either an intermediate or a long term reversal of a downtrend. Many potential double bottoms can form along the way down, but a reversal cannot be confirmed until the key resistance is broken.

The double bottom looks like the letter “W”. The twice-touched low is considered a support level.

Most technical analysts believe that the advance from the first bottom should be 10-20%. The second bottom should form within 3-4% of the previous low, and volume should increase during the ensuing advance.

Figure 4.12: **Double bottom pattern in Ahmednagar Forge (AF): The first bottom was**

made in June 2006 when AF touched a low of ₹ 133; the second bottom was made in August. You should also note that good volumes did not accompany the high made by AF in April. Volume increased again when the pattern was completed in August, and while breaking through the confirmation point in September.

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Basing Formations

When mountaineers climb a mountain they place camps *en route* to the summit. Similarly in the markets, stocks also form bases before resuming their upward journey. After making an initial move, markets move sideways and consolidate to form a solid base. Often retailers or weak hands exit their position in the base formation period. This gives the market the chance to really move once the base is completed. The new buyers and those taking new positions can then move the market up without the selling pressure that weak players or traders would otherwise pose. Traders also lose money by playing this base formation period.

Sometimes, however, too much selling disrupts the base formation. You must therefore, be able to spot such a faulty base.

You can make good entries into individual stocks by looking at the base formation pattern. Individual stocks which trade on good volumes build a number of bases where they pause on their way up. The first time a stock forms a solid base, it catches you unawares; most traders are unable to identify this first base. Traders become aware of the move during its second base after the stock has moved up 20% to 30% from the first stage base break out point. More retail traders belatedly discover the stock when the third or fourth-stage bases have formed. This, however, is the time when smart money gets out even as retailers are buying. In about 80% of fourth stage bases, the stock fails to make further price increases. Frequently the stock sputters as the general market turns lower. If the stock then declines below the low point in either the third or the fourth stage base but later recovers to build another sound base, you can usually start counting bases all over again. The sharp price shakeout eliminates the holdings of weaker hands.

You'll see most basing formations among quality stocks during times of weak overall markets *(see* Figure 4.13). Once the general market has a confirmed up trend, quality stocks spring out of these basing formations with renewed energy. This is the best time to get into a stock.

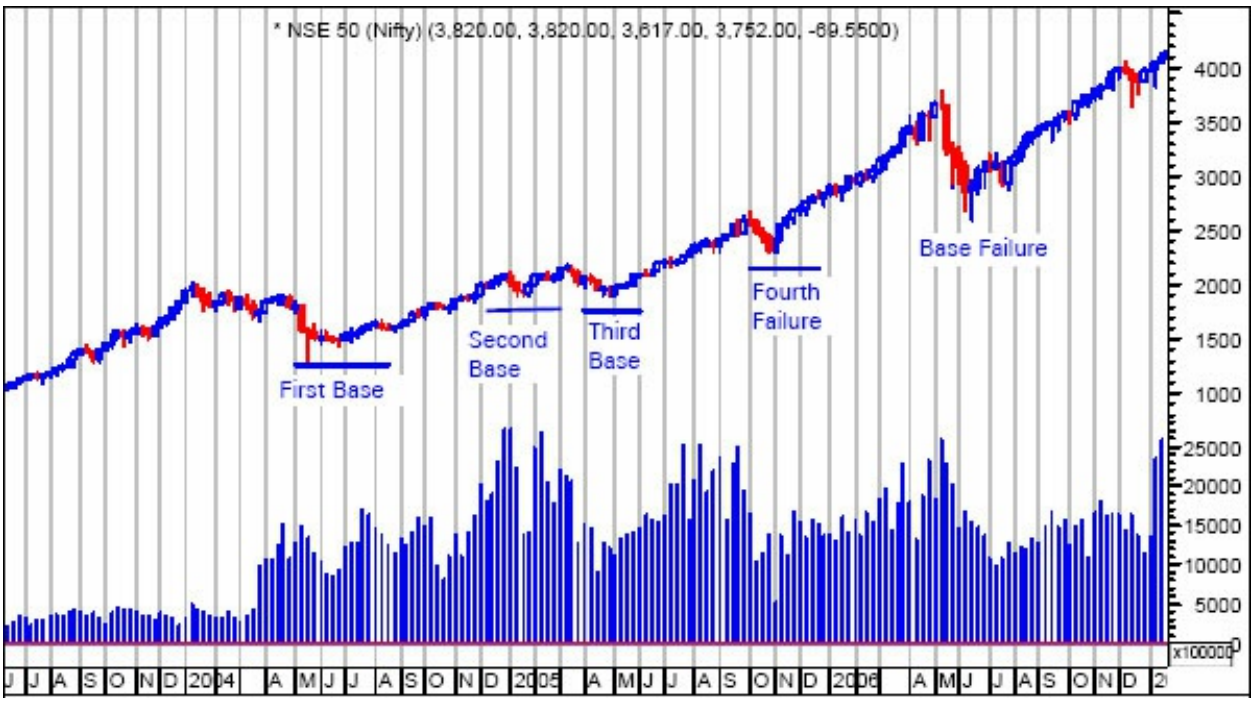

Figure 4.13: **You can see the number of bases Nifty formed on its upward journey to the top, from April 2004 to December 2006.**

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Broadening Formations

The likelihood of a reversal in the current trend is predicted by a broadening formation. You can identify this formation, which is depicted in Figure 4.14, by finding diverging trend lines that connect a series of widening peaks and troughs. It is common to see the broadening formation at the end of a prolonged up trend. At such times, price tends to behave in an abrupt manner with wild swings in both up and down directions.

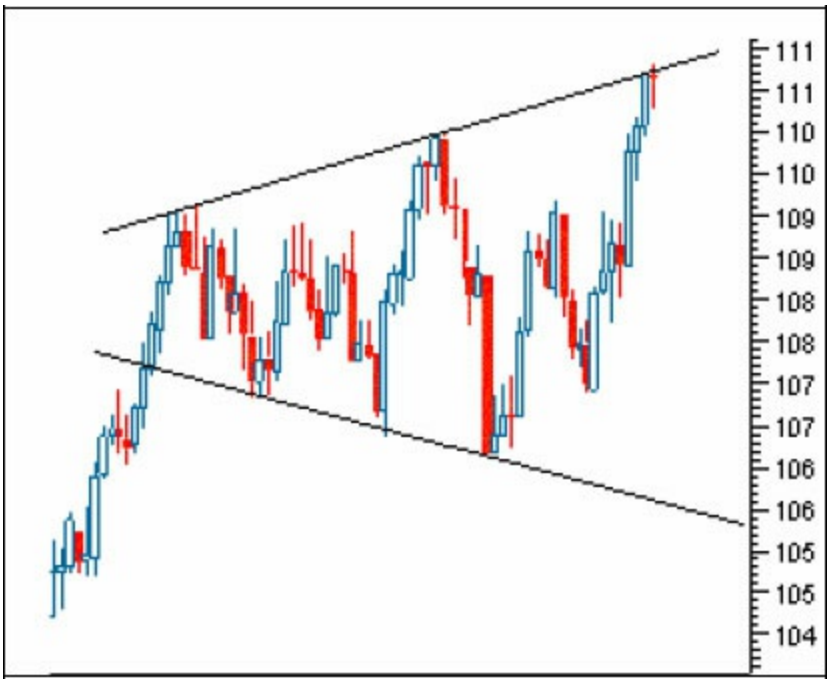

Figure 4.14: **Broadening formation for Ceat Tyres.**

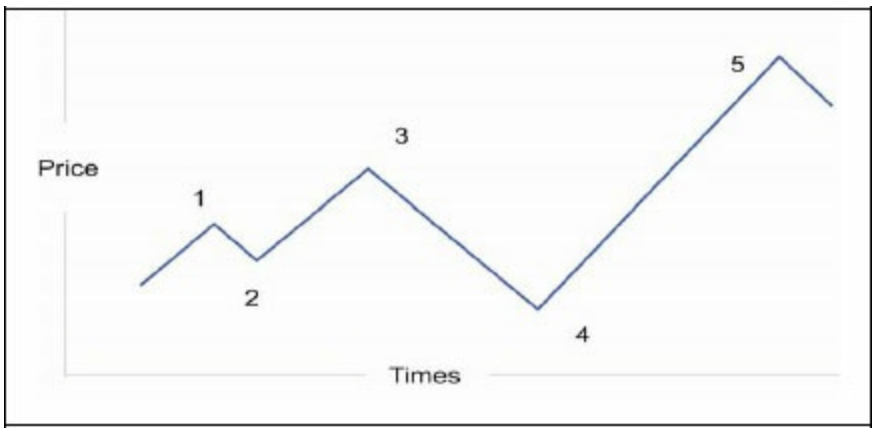

Figure 4.15: **A broadening formation.**

During this reversal pattern the market is almost out of control and lacks support from well informed investors. The smart money is bearish on the stock, nevertheless it keeps on getting bounced upwards by other investors. Volume is also erratic during this period and does not help in the interpretation of charts.

You can understand and identify this reversal pattern by looking at Figure 4.15. When you get five small reversals they are usually followed by a more substantial change:

- *Reversal 1:* Change from rise to fall;
- *Reversal 2:* Change from fall to rise;
- *Reversal 3:* Change from rise to fall;
- *Reversal 4:* Change from fall to rise;
- *Reversal 5:* Change from rise to a substantial fall.

In a broadening top, Reversal 3 must occur at a higher level than Reversal 1, and Reversal 5 must be higher than Reversal 3. Finally, Reversal 4 must occur at a lower level than Reversal 2.

Markets typically grow unstable during such a period. Traders who play this formation encounter whipsaws and often lose money. This is because when the markets are choppy, volatile price movement is witnessed in both

up and down directions. If one tries to go long, prices come down and hit the stop, and if one tries to go short prices go up and hit the stop. Either way, it’s very difficult to trade these wild swings.

You should stay out of the market during such choppy periods as more and more wild swings indicate the possible likelihood of a trend reversal.

Summary

- Reversal patterns are chart formations that tend to reverse the direction of an ongoing trend. These patterns can be spotted on daily, weekly or monthly charts.
- Existence of a prior trend, the breaking of an important support, the height and width of the formation, and accompanying volumes are some of the key factors in analyzing reversal patterns.
- The **head and shoulders pattern is generally a top reversal pattern.** It is very distinct on the charts, occurring as it does when an up trend seems to be stalling.
- Sellers come in at the highs (left shoulder) and the downside is probed (start of the neckline). Buyers soon return to the market and ultimately push through to new highs (head). However, the new highs are quickly turned back and the downside is tested again (continuing neckline). Tentative buying re-emerges and the market rallies once more, but fails to take out the previous high. This last top is considered as the right shoulder. Buying dries up and the market tests the downside yet again. Your trend line for this pattern should be drawn along the neckline from its beginning.
- Sell when you recognize the head or the right shoulder of a head and shoulders pattern, based on low volume.
- The decline from the head establishes the neckline. If you still hold a long position, place a stop below the neckline.
- The rally to the right shoulder is usually marked by low volumes. This offers the last favorable opportunity to cash out of the up trend. When you sell short into the right shoulder, place your stop at the top of the head. Make it a stop-and-reverse order — if stopped out of the short position, reverse and go long.
- Once the neckline is broken, a pullback on low volumes offers an

excellent shorting opportunity, with a protective stop slightly above the neckline.

- A **failed head and shoulders top often leads to a very strong rally.** Buy the upside breakout, and place a protective stop slightly below the top of the head.
- The **inverted head and shoulders is a bottom reversal pattern** and is a mirror image of the top head and shoulders pattern. In this pattern there are three distinct bottoms and a neckline. The pattern is said to be completed as and when the scrip closes above the neckline.
- Failed chart patterns also offer unique opportunity for good trades.

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Chapter 5

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Reversal Patterns – 2

Ascending Triangles, Descending Triangles, Symmetrical Triangles

Triangles

There is some difference of opinion among chartists over the triangle pattern formations. Some technical analysts classify triangles as reversal patterns while other place them in the continuation pattern category.

Triangle patterns can actually be classified both as reversal patterns and as continuation patterns. Triangles act as continuation patterns over 75% of the time; and as reversal patterns only 25% of time. But if you are able to identify and trade triangle reversal patterns, you could reap a windfall. In this chapter we will focus on triangles as reversal patterns, and describe how triangles act as continuation patterns in Chapter 7.

Our effort in this book is to develop, sharpen and hone your skills in chart pattern identification. Once you are able to accurately identify chart patterns, you will be able to predict the probability of subsequent price action. You will also be able to enhance your decision making capabilities with practice.

What is important to understand is that once the price breaks out of a triangle pattern, chances are high that it will then move in the direction of the breakout. Once you develop the skill to identify this it will present you the opportunity to trade with profit in that direction.

We'll now consider the different types of triangles; how and why they are formed, what they look like, and how they are drawn on the charts. We'll then examine the subsequent behavior of price after it breaks out of the triangle formation, and when it signifies a reversal. Finally, we'll see how we can use the interpretation of triangle formation for profitable trading.

Types of Triangles

A triangle pattern occurs when the range between price tops and bottoms narrows — and this typically happens when the price faces a support or resistance level which restricts any sharp movements.

There are three general types of triangles, namely;

- Ascending triangles;
- Descending triangles; and
- Symmetrical triangles.

These are so named because of their appearance. Ascending triangles are, typically, bullish, descending triangles are generally considered bearish, while symmetrical triangles are neutral.

Convergence of two trend lines drawn on the price chart gives the triangle its shape. Drawing a trend line connecting the adjacent highs of price bars forms one side of a triangle. Drawing a trend line connecting the adjacent lows of price bars forms another side of the triangle. These two lines converge at a point to form one of the three types of triangles listed above. The point where the upward and downward sloping lines meet is called the apex of the triangle. This is often a point either of support or resistance once the breakout, or breakdown, occurs. Triangle breakouts and breakdowns often tend to correct back towards the apex of the triangle, which acts as support or resistance and provides a low risk trade entry.

If a triangle breakout fails to hold the apex of the triangle, it often signifies a pattern failure and can lead to a large move in the opposite direction. Trading triangles before a confirmed breakout is, therefore, hazardous.

Ascending and descending triangles are some of the most popular patterns, both because their features are clear and because the breakouts are almost always fast and furious.

Ascending Triangle Pattern

An ascending triangle occurs when there are higher lows, but the highs recur at the same price level due to resistance. Ascending triangles indicate an upward bias, with a flat top and a series of higher lows *(see* Figure 5.1 and Figure 5.2).

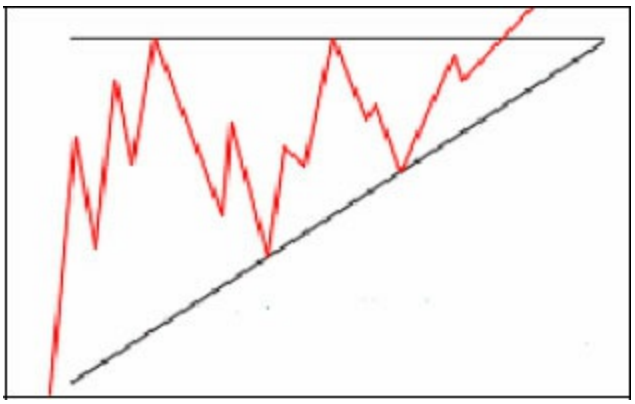

Figure 5.1: **Ascending triangle in an up trend — bullish.**

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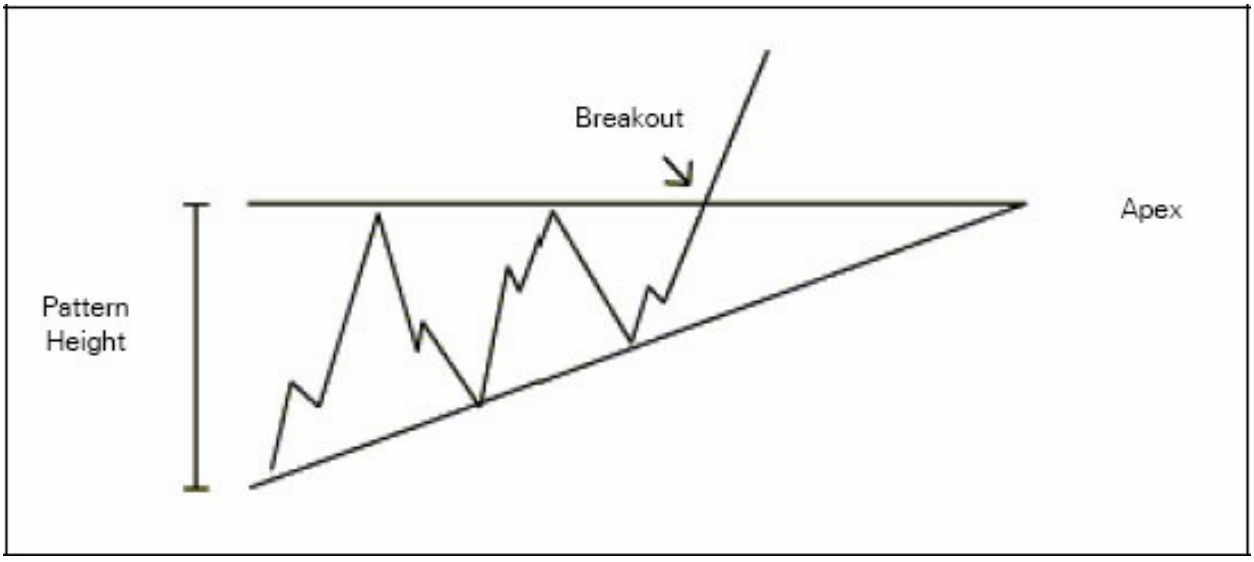

Figure 5.2: **Ascending triangle showing the apex and pattern height.**

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Ascending triangles are generally considered bullish and are most reliable when found during an up trend. The top part of the triangle appears flat, while the bottom part of the triangle has an upward slant. Regardless of where they form, ascending triangles are bullish patterns that indicate accumulation. **There are numerous instances when ascending triangles act as reversal patterns at the end of a downtrend.** One of the easiest patterns in classical technical analysis is the ascending triangle reversal pattern.

The pattern has a horizontal line which can be called a seller's line and an upward sloping line called the buyer's line. These lines are formed because buyers keep bidding up the buying price along the upward sloping line but meet resistance along the horizontal line, until the price finally breaks out of the horizontal line on heavy volume. The minimum target for this pattern is the width of the ascending triangle at its widest point. A pullback bringing prices back to the horizontal line may or may not occur after the breakout.

Some of the important characteristics of an ascending triangle are:

- Prices touch a high and then decline.
- Bulls re-enter and resume buying taking the price to its earlier highs, wherefrom it once again declines and forms a higher bottom, i.e. the stock keeps on forming higher lows.
- Thereafter, the bulls again resurface taking the price to a higher level than before.
- Price eventually breaks through the old highs and is propelled even higher as new buying comes in.
- The breakout is generally accompanied by a marked increase in volume.

Let us now understand this pattern better by considering some real-life examples illustrated in Figure 5.3 and Figure 5.4.

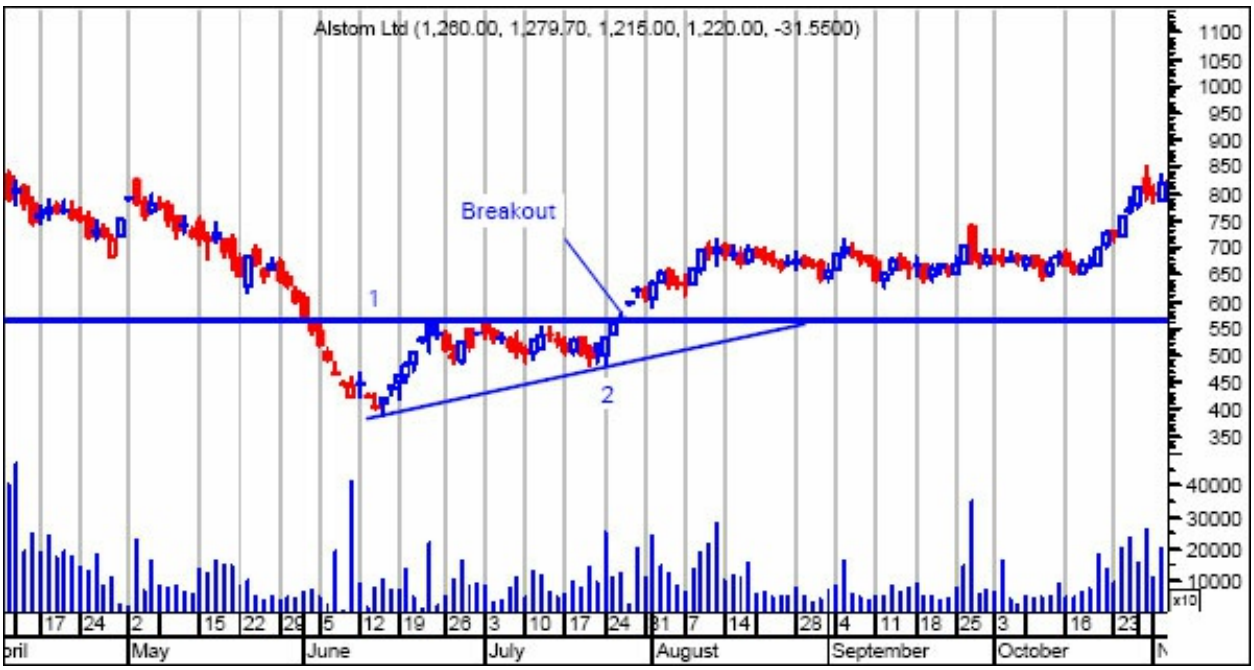

Figure 5.3: **Ascending triangle as a reversal pattern in Alstom. Note the relationship of the two trend lines to each other. One side of the triangle, formed by a trend line (1) which connects the adjacent higher tops of price bars, is horizontal. The line is horizontal because each top rises to about the same price level. The other side of the pattern, formed by trend line (2) connecting adjacent valleys of price bars, slopes upward, meeting the horizontal line at the triangle's apex.**

Beginning from April 2006, AL made a series of lows, after making a high of ₹ 885 in the first week of April *(see* Figure 5.3). Most holders of this stock dumped it at that time fearing a down trend observe the volume from April to June in the lower panel.

AL then made a low of ₹ 389 on 15 June 2006. Look at the series of tops it made thereafter. AL broke the sellers line (1) in late July thereby reversing the down trend. Look at the increase in volume which accompanied the break of this line. AL never touched this line again and went on to make a high of ₹ 1,299 in February 2007.

~

Figure 5.4: **Failed ascending triangle in a down trend — bearish. AL reversed its up trend by breaking the neckline in early November — the head and shoulders reversal pattern with volumes serves as confirmation. It then formed an ascending triangle as prices pulled back to the neckline by making higher lows. The price entered the triangle formation at the beginning of December and quickly topped out at ₹ 165-₹ 170 level. Each time the stock hit this level, it retreated for another attempt. Unfortunately, the price flailed between ₹ 165 - ₹ 170 forcing higher lows until it was squeezed out of the triangle apex without breaking out on the upside.**

The daily chart of Aegistic Logistic (AL) in Figure 5.4 is a perfect example of a typical reversal of an up trend, followed first by a continuation of the down trend, and then a reversal pattern of the down trend. Triangles often form a part of some other larger and more important pattern. In this case, the ascending triangle constituted the latter half of a head and shoulders pattern and the former half of a rounding bottom pattern.

The failure of AL to break out on the upside from the ascending triangle formation must no doubt have disappointed the bulls. As the price moved down, this failed ascending triangle pattern marked a continuation of the down trend. The stock then developed a typical rounded bottom reversal pattern starting mid-February; the volume also followed the rounded bottom pattern. This pattern resulted in the reversal of the down trend and the start of an up trend.

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There are examples of what a real ascending triangle pattern looks like.

What you should note are the following key characteristics:

- A horizontal trend line drawn across the lower highs.
- An upward sloping trend line connecting the higher lows.
- Volume diminishes the further along we get in the formation. Heavy at the beginning of the triangle, it grows lighter at the end.
- Good volume on breakout, i.e. on the day the price breaks above the horizontal resistance line.
- Horizontal resistance line becomes a new support level once the price moves above it.
- Any breach of the upward sloping higher lows line may indicate a pullback and indicate that the pattern has failed.

The Descending Triangle Pattern

The descending triangle is generally considered to be a bearish pattern that indicates distribution and is usually found during down trends *(see* Figure 5.5 and Figure 5.6).

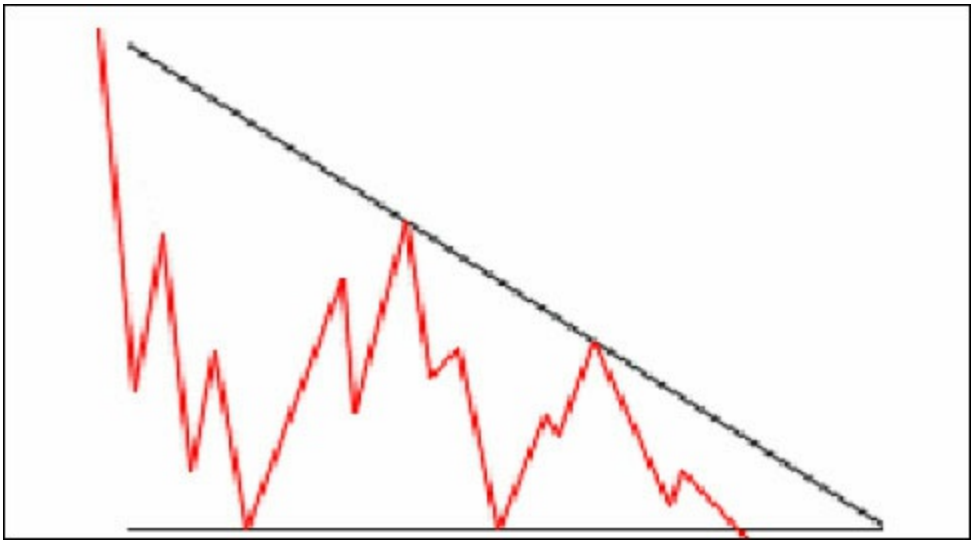

Figure 5.5: **Descending triangle in a down trend — bearish.**

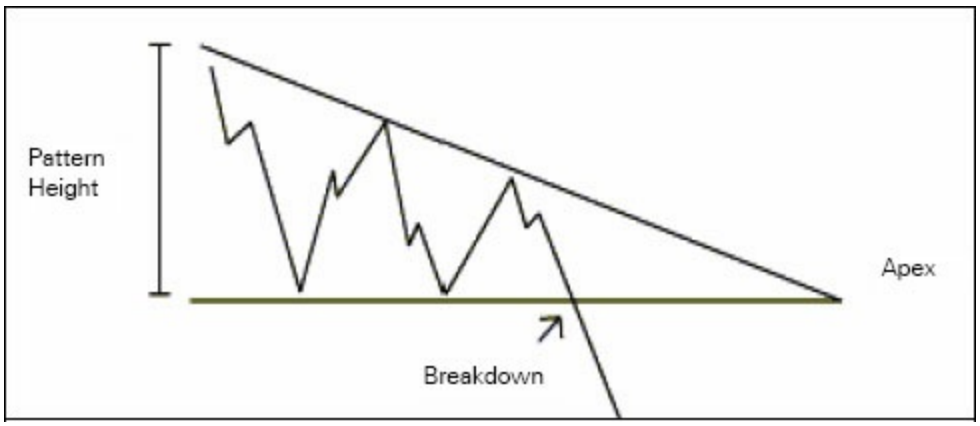

Figure 5.6: **Descending triangle showing apex, pattern height and breakout.**

Figure 5.7: **This is a classic real life example of a descending triangle as a reversal pattern for Adlab Films (AF) in Figure 5.7. Trend line (2) shows that the demand for AF was weakening, and once the price broke below the trend line (1), it was a clear indication that the trend had reversed and that the downside momentum was likely to continue — or become even stronger. AF broke the trend line in mid-May and touched a low of ₹ 171 in June. Also noteworthy is the diminished volumes from mid-February onwards, a clear early warning signal. AF made a head and shoulders pattern on its daily chart between June and August and was able to cross the trend line (1) in September with good volume. Interestingly, AF again formed a head and shoulders pattern on its daily chart between September and December 2006, and touched a high of ₹ 518 in February 2007.**

~

It is the bearish counterpart of an ascending triangle.

A descending triangle is formed when the price makes lower highs but the lows keep occurring at the same price level due to support. The odds favor a downside breakout from a descending triangle.

Unlike the ascending triangle, the bottom part of the descending triangle appears flat while the upper part of the triangle has a downward slant. Prices typically drop to a point where the security becomes oversold.

Tentative buying comes in at the lows, and perks the price up. The higher price, however, attracts more sellers and the price re-tests the old lows. Bulls then again tentatively re-enter the market as a last attempt to gain control. The resulting higher prices, however, once again attract even more selling. Bears are now in control and push the price down below the earlier lows of this pattern, while the previous buyers then hasten to exit their positions.

As in the case of the ascending triangle, volume tends to diminish during the formation of the pattern — and then increases on its break down. This is a very popular tool among traders because a descending triangle shows that the demand for an asset is weakening. When the price breaks below the lower support, it is a clear indication that downside momentum is likely to continue — or become even stronger.

Descending triangles give technical traders the opportunity to make substantial profits over a brief period of time. The most common price targets are generally set to equal the entry price minus the vertical height between the two trend lines.

Descending triangles also offer investors the opportunity to exit a stock in good time.

Descending triangles offer good short term opportunities for traders to short sell the stock and also provide investors opportunity to move out of a stock in time to avoid further losses.

Figure 5.8: **Minor reversal of ACC depicted by a descending triangle. You should also note the head and shoulders formation which developed within the triangle.**

Once you are able to identify patterns, you will find many patterns to trade with profit. Also noteworthy in this chart is the breakdown of the neckline, i.e. horizontal line, with increased volume. Look at the failed attempts made by ACC (shown by two blue encircled candles) to retest the neckline levels on 26 and 27 February.

~

Bata India (BI) reversed its up trend by developing two descending triangles on its daily chart in Figure 5.9. BI made a false upward move in late December 2006, trapping some new buyers in the process. Informed investors took this opportunity to offload their holdings — a classic case of planned distribution. Look at the breakdown of the horizontal line in February 2007. When the price dipped sharply, BI made a pull back attempt to touch the support line (now acting as resistance), failed to do so, and went on to make a series of lows with occasional gap down openings.

Figure 5.9: **Reversal of up trend after the formation of descending triangle.**

In trying to decide whether a triangle on a daily chart is likely to lead to an upside or a downside breakout, look also at the weekly chart. If both weekly and daily charts show the same trend, then the breakout is likely to be in that direction. Thus if the weekly chart is up, then a triangle on the daily chart is more likely to break out to the upside — and *vice-versa* we can again take the example of Bata India and look for the pattern in its weekly chart. (*see* Figure 5.10).

Figure 5.10: **Descending triangle indicating reversal on a weekly chart. In this weekly chart of Bata the prices made a lower high every week and was not able to sustain above the blue down trend lines. A similar pattern / trend was seen on the daily chart also.**

Weekly charts are particularly useful for detecting confirmation of both major top reversals and major bottom reversals. Two descending triangles can be seen on this weekly chart of Bata. Like in its daily chart, in this weekly chart too, the price is coming down so the possibility of the price breaking down is more likely. Bata India confirmed this downside reversal on this weekly chart.

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How to Trade Ascending and Descending Triangles

Ascending and descending triangle patterns respectively indicate that the demand for a security is increasing, or decreasing. The price touches the level of support or resistance (the horizontal trend line) several times before breaking out and signaling a reversal.

Ascending and descending triangles are favorites of short term traders because these patterns allow them to earn from the same substantial price increase that long term investors wait for. The significant difference is that an

understanding of these triangle patterns afford technical traders the opportunity to make substantial profits in a short period of time.

Should you take short term opportunities, or should you be an investor and wait for years to benefit from such moves? This is the biggest dilemma that each one of us has to resolve for ourselves. Investors keep holding on to a stock for months or years before they finally see a big pay day, but shrewd traders can spot these chart patterns and then buy / sell or hold for only a period of days and reap the same windfall returns as do long time investors after a long wait.

Some traders use oscillators such as stochastic to catch minor swings. But ascending and descending triangle patterns are so clear that they can be traded based on their formations and volume:

- A buy order slightly above the upper boundary of a triangle can be placed for buying an upside breakout; you can keep lowering your order as the triangle becomes narrower.

- Conversely, a sell order slightly below the lower boundary can be placed for shorting a downside breakout; keep raising it as the triangle becomes narrower.

You must place a protective stop slightly inside the triangle once you are in a trade. It has been observed that prices sometimes tend to pull back to the wall but they should not return deep inside a triangle following a breakdown. You should also pay attention to volume when a breakout from a triangle is followed by a pullback because a pullback on heavy volume offers a good opportunity to add to your position. You must cancel your buy or sell orders when prices approach the last third of a triangle, as breakouts from the last third of the triangle pattern are very unreliable.

Once you learn to identify ascending and descending triangles, as indeed other important patterns, you can profit from upward or downward reversal breakouts. That way you’ll earn a healthy profit regardless of which way the market is going.

Symmetrical Triangles

You'll recognize the symmetrical triangle pattern when you see a stock's price oscillating up and down and converging towards a single point. The up and down oscillations become smaller and smaller until the stock reaches a critical price, breaks out of the pattern, and moves drastically either up or down.

A symmetrical triangle is formed when prices are making lower highs and higher lows. This typically happens when market participants are unsure of a stock's value. Buyers and sellers, therefore, find themselves in a period where they are uncertain where the market is headed. This uncertainty is reflected in their quick bouts of buying and selling, making the pattern look like an increasingly tight coil moving across the chart. Once the pattern is broken, traders jump on to the bandwagon pushing the stock's price up, or down, as the case may be.

Symmetrical patterns are found when prices see extreme ends as can be seen in Figures 5.11 and 5.12. Prices move up and down and fluctuate within a narrow range. Therefore, it's difficult to predict which way they will move after emerging from the symmetrical triangle pattern.

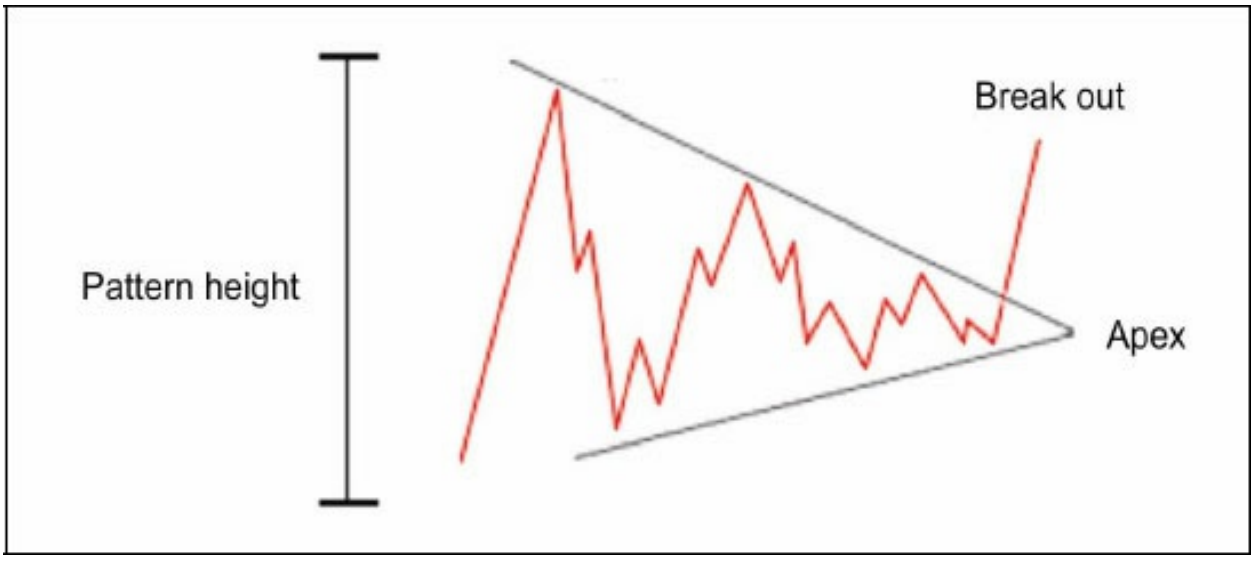

Figure 5.11: **Symmetrical triangle in an up trend — bullish.**

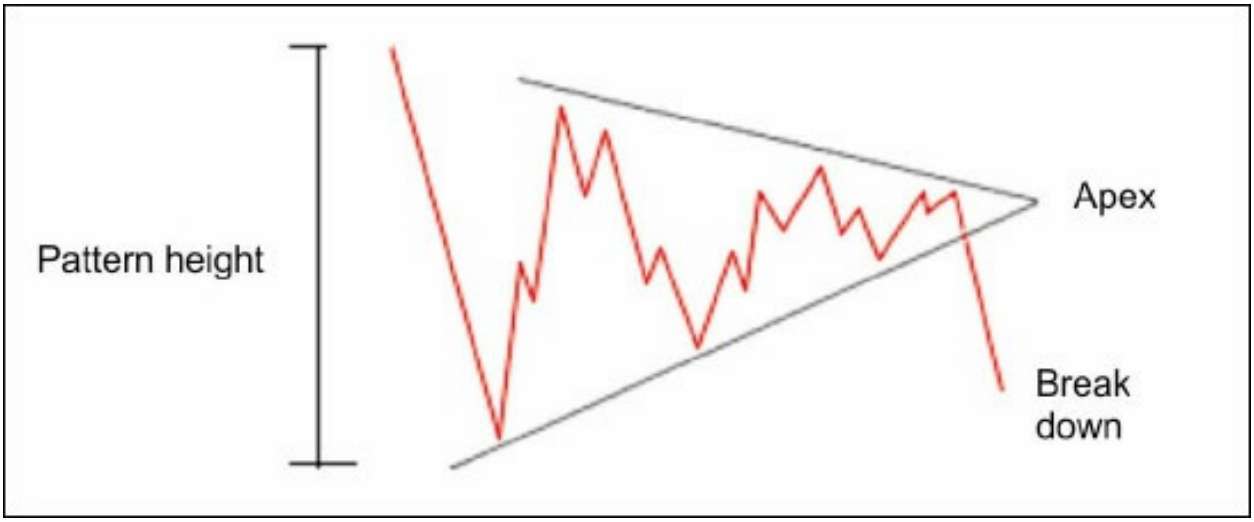

Figure 5.12: **Symmetrical triangle in a down trend — bearish.**

Symmetrical triangle tops are formed by a downward sloping line whose bottom can be connected by an upward sloping line. The period of sideways action is characterized by diminishing volumes.

A symmetrical triangle is similar to the doji among the candlestick patterns discussed earlier in Chapter 3. The price action in a symmetrical triangle is often described as a coil or spring, which winds tighter and tighter, finally snapping free.

Symmetrical triangles are possibly the most indecisive of all technical patterns. Most break out in the direction of the original trend, but some do reverse long term trends and this possibility should always be kept in mind. Such reversal patterns offer good opportunity for a trade since prices on breakout or breakdown from these symmetrical triangles make sizable moves.

The following is a typical symmetrical triangle pattern:

- Attempts by bulls to push prices higher are quickly met by selling, and the market is considered as a “buy on dips.”
- Each new lower top and higher bottom makes the triangle narrower

than before, taking on the shape of a sideways triangle. Volumes usually remain low during this period.

- Finally, the period of indecision ends when either the bulls or bears are able to take control of the trend in their favor — usually with high volume.

Figure 5.13: **Symmetrical triangle preceding a reversal.**

Bajaj Auto's (BA) reversal from a bottom in Figure 5.13 developed out of a symmetrical triangle. This particular triangle also had some aspects of a head and shoulders pattern with a long right shoulder. Note the eruption of price once it breaks out of the formation. Triangle breakouts and breakdowns often correct back towards the apex of the triangle, which acts as support, or resistance as the case may be, and provides a low risk entry into a trade.

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How to Profit from Symmetrical Triangles

Symmetrical triangles are very reliable. You can profit from both upward or downward breakouts. If you see a symmetrical triangle forming, watch it closely. The sooner you catch the breakout, the greater your chances of making a decent profit:

- Before initiating a trade you must observe the breakout or breakdown of the price from its sideways movement, which is a period of pause. A price range is also formed during such a period.
- If you buy the upside breakout of a symmetrical triangle in an up trending market, then you should place a stop below the first low point that establishes the bottom support line. The reverse is true when you sell a downside breakout in a down trend.

Figure 5.14: **The breakdown from a symmetrical triangle at ₹ 350 with good volume signaled the reversal in trend preceding a reversal of Bajaj Hindustan. A pull back to the apex of a triangle is a common development with the apex acting as resistance. This stock made a series of lows after breaking down from the pattern and finally touched a low of ₹ 134 in February 2007.**

~

Figure 5.15: **Triangle patterns on Nifty's daily chart.**

As already explained, triangle formations have clear features and the breakouts are generally fast, eruptive and furious.

Let's see how these patterns can be used for short term profitable trading.

In Figure 5.15, Pattern 1 is an ascending triangle. One can go long after the price breaks out of the horizontal resistance line.

Pattern 2 is a descending triangle formation that can be used for going short on Nifty futures.

Look at the symmetrical triangle (Pattern 3), as Nifty works its way along in a narrower and narrower fluctuation groove towards the apex with somewhat diminished volumes lasting almost a week from 12 to 20 March. Please also note the sudden explosion of Nifty, as though a coil spring had been wound tighter and tighter and then snapped free. Nifty broke out of the symmetrical triangle with a slight pick up in volume. We traded this breakout by going long on Nifty at 3,885. See the Nifty continuing its up trend within a trend channel (4). You can also observe a failed head and shoulders pattern with the long right shoulder within the symmetrical triangle formation (3), another confirmation of the probability of prices going up.

Figure 5.16: **An example of three reversal triangle patterns on a daily chart.**

In Figure 5.16, the curious and confusing bottom formation that Indian Oil Corporation (IOC) developed in June 2006 at ₹ 309, turned into symmetrical triangle formation that broke out on the upside with good volumes in August, thus signaling a reversal of the short term down trend which was earlier confirmed by the head and shoulders reversal pattern for IOC in late May (The same chart was also discussed in Chapter 4 and readers can refer to Figure 4.2 to see the pattern before April, i.e. before the start of this chart.) IOC was able to cross the neckline resistance in mid-September and formed another head and shoulders reversal pattern lasting from early September to early November. IOC broke the neckline of this formation and again tried to retest the level of about ₹ 525 in the last week of November. There were pullback attempts but IOC could not recover and stayed in the range of ₹ 385- ₹ 400.

This chart is a perfect example of the reversal of an up trend shown by the head and shoulders pattern, reversal of the down trend by a symmetrical triangle formation and, again, reversal of a short term up trend shown by the head and shoulders formation — a bull-to-bear-to-bull-to-bear reversal.

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Reversals provide opportunities for quick trades that can keep your cash register ringing by short term trading. The only requisites are that you have to identify and catch the trend early, you have to move quickly and with

confidence to take the trade, you must have a defined exit point that allows you to minimize risk if you are wrong and have to exit, and you have to act decisively to exit. Triangle reversals are necessarily short term plays and you have to keep that in mind when entering such trades.

Summary

- The ascending triangle reversal pattern is one of the easiest patterns in classical technical analysis.
- Descending triangle patterns are very popular among traders because they clearly show that the demand for an asset is weakening. When the price breaks below the lower support, it is a clear indication that the downside momentum is likely to continue, or grow even stronger.
- Look for as much confirmation as possible before entering a trade. One way to look for additional confirmation is to look for patterns on higher time frames, preferably on weekly charts.
- In the case of ascending and descending triangles, you can sell your stock at a target price of:
  - Entry price plus the pattern's height for an upward breakout.
  - Entry price minus the pattern's height for a downward breakout.
- In the case of symmetrical triangles, sell your stock at a target price of:
  - Entry price plus the pattern's height for an upward breakout.
  - Entry price minus the pattern's height for a downward breakout.
- A symmetrical triangle is generally regarded as a period of indecisiveness before the price moves beyond one of the identified trend lines.
- As a general rule, based on a daily time frame chart, triangles can take 8 to 15 trading days, or up to three weeks, to develop, occasionally even longer. They can develop on intraday chart such as 15-minute and even 60-minute charts, and they can show up on weekly charts.

You should also remember that triangles, like other chart patterns, are not a completely reliable trading pattern. They do have false breakouts and traders need to be aware that the longer the triangle takes to form, the less power the breakout usually has behind it.

As with all patterns, knowing when to get out is as important as knowing when to get in. Your target price should be the safest milestone to sell, even if it appears that the trend may continue.

Chapter 6

Continuation Patterns – 1

Flags, Pennants and Wedges

We discussed reversal patterns in Chapters 4 and 5. We will now tackle continuation, or consolidation, patterns.

You would have noticed that we have been using words such as strategies, broadening, base formation, reversal, consolidation formations, etc. Just think where else these words are used. Well, armies too use these terms. When armies make deep inroads into enemy territory they often pause after capturing major strongholds to take rest, replenish supplies, sometimes retreat a bit to safer positions in order to prepare for the next move, and only then advance again for a fresh assault with regained strength.

Similarly, when you visit the Vaishno Devi temple, you initially set off with rapid strides as you are excited and energized. After climbing to a considerable height, however, you start to tire a bit. What do you do then? You take short halts to regain your energy and strength during the rest of the trek to the shrine.

In the same manner when the market or a stock moves fast in either direction, it soon reaches a point where the players — bulls or bears, as the case may be — responsible for the rapid move get exhausted. They then pause to take stock of their position. As a result, the market goes into a support level. It then consolidates its position and again resumes its journey in the direction it was moving before taking another pause. The pauses during the journey are consolidations, while the resumption of journey in the same direction is continuation.

What Are Continuation Patterns?

A continuation pattern is one which indicates the resumption of a trend after a consolidation, which is also known as a period of indecision, that ends when the price of the security breaks though beyond the boundaries. A continuation pattern typically implies that the previous trend will resume once the pattern is complete.

Periods of consolidation can be found in charts covering any time frame, and such periods can last for minutes, days, months, or even years. We have already discussed in Chapter 4 that a lengthy period of consolidation is often known as a base. For example, Australia won the cricket World Cup three times on the trot with their awesome performances. It was a continuation performance. They had some minor blips here and there; they also lost some matches to South Africa and New Zeland before the World Cup but went on to clinch their third successive title. Those losses could be compared with sideways movements of the markets. It was akin to losing some minor battles in the process of winning a war.

You must have seen cricketers scoring a thousand or more runs in a calendar year. They score 50s and 100s in some matches, and even zero in others but continue with their form. This is similar to a continuation pattern. For example, Mathew Hayden was the top scorer in the 2007 Cricket World Cup with three centuries — but he had some low scores in between. These low scores didn't mean he had lost his form (reversed the up trend). We may say he continued with his good performance — much like the continuation of an up trend. On the other hand, some players such as Sehwag, continued with their bad form with only the occasional good performance. Such occasional good performances didn't mean that Sehwag had found his form back (reversed his down trend); it was merely the continuation of his poor form, like the continuation of a down trend. You should also observe the time factor in all these examples. All the teams or players mentioned here continued their performance, good or bad, over a reasonable period of time. Similarly during a continuation pattern, i.e. during a period of consolidation, the price stays in a small range after making rapid advances. But this is not

enough; the price must also stay within that range for a reasonable amount of time.

Thus, in a consolidation phase the normal behavior is for the price to remain in a narrow range for a period of time; volatility is also confined in a range. This narrow range is typical of an indecisive, uncertain and trigger-less phase of the market. When prices break out of this narrow range, they usually continue in the same direction as the market was trading before the consolidation began. If the particular market or security you’re observing enters into a trading range after an up trend, then the normal behavior for price would be to subsequently resume the up trend. The same is true on the downside. If the market you’re examining entered into a continuation pattern after a down trend, then the normal expected breakout would be downwards.

How Continuation Patterns are Different from Reversal Patterns

Continuation patterns differ from reversal patterns in that continuation patterns usually indicate that the sideways action seen on a chart is merely a pause in the prevailing trend. And the next move after the pattern formation is usually in the same direction as the previously ongoing trend. A reversal pattern, on the other hand, indicates that a major trend reversal is at hand and that the next move will usually begin in the opposite direction.

Another difference between the two types of price patterns is that of time duration. Continuation patterns typically take lesser time to form than do reversal patterns. Reversal patterns take longer to build and culminate in a major trend reversal. Continuation patterns are usually shorter in duration and are also classified as short term, or intermediate, patterns. Continuation patterns suggest that the market is only pausing for a while before resuming its earlier trend.

The word “usually” is used frequently here because in pricing patterns there are no rigid rules, only general tendencies. There will always be exceptions. Take triangles, for example. A triangle is usually a continuation pattern, but as we saw in Chapter 5 it can act as a reversal pattern on occasion. Triangle reversal patterns usually occur on intermediate time frames, but at times they can be seen on longer term charts as well. The head and shoulders pattern is a pricing pattern which typically indicates a trend reversal but can, at times, also be a continuation pattern.

Thus while pricing patterns generally follow their normal course, you need to allow for a certain amount of ambiguity and the occasional exception. And the success of a trader lies in his ability to correctly interpret the signals given by chart patterns.

The important point here is that you should look at the entire body of evidence available from price and volume action when determining whether a breakout from a consolidating pattern will support a continuation of the trend that formed the pattern, or whether a reversal of the trend may occur.

Continuation Patterns Offer a Second Chance for Profitable Trades

Continuation patterns often allow you to enter into a favorable position even if you missed the bus at the start of a trend. Since it is very difficult to pick absolute tops and bottoms, your ability to recognize consolidation patterns will give you many opportunities to capture trading profits. These patterns don't require any fancy calculations and can be easily identified even by visual inspection alone. Such patterns will thus help you enter into trades at advantageous price levels even if you did not identify the original top or bottom.

It is important to realize that you need to learn to identify chart patterns, and how fast that learning will take will depend on your mix of innate abilities and experience which you bring to the trading arena.

Consolidation patterns lead to the continuation of an existing trend. They are, therefore, the most powerful of all technical patterns because they usually lead to spectacular moves and offer very low risk trading opportunities. Stocks in strong up or down trends consolidate after the move. After this pause they again make a large move in the same direction as was the case before the consolidation. Therefore, traders can get good profits when the price breaks up / down after consolidation.

Continuation patterns can be traded well in conjunction with other indicators such as volume behavior. Some of the most trusted continuation patterns are: flags, pennants, wedges, triangles and, sometimes, head and shoulders patterns.

Flag Patterns

Flags are short term continuation patterns that mark a small consolidation before the resumption of the previous move. Flags are among the most reliable of continuation patterns. They are formed when there is a sharp price movement followed by a generally sideways price movement. The pattern is then completed upon another sharp price movement in the same direction as the move that started the trend.

Flags are usually preceded by a sharp advance or decline with heavy volume and generally last from one to five days, and sometimes from one to two weeks. They usually represent only brief pauses and are typically seen right after a big, quick move. The price then usually takes off again in the original direction.

Volume generally contracts during the flag formation and increases on the breakout.

Flags can be classified as bullish flags and bearish flags *(see* Figure 6.1).

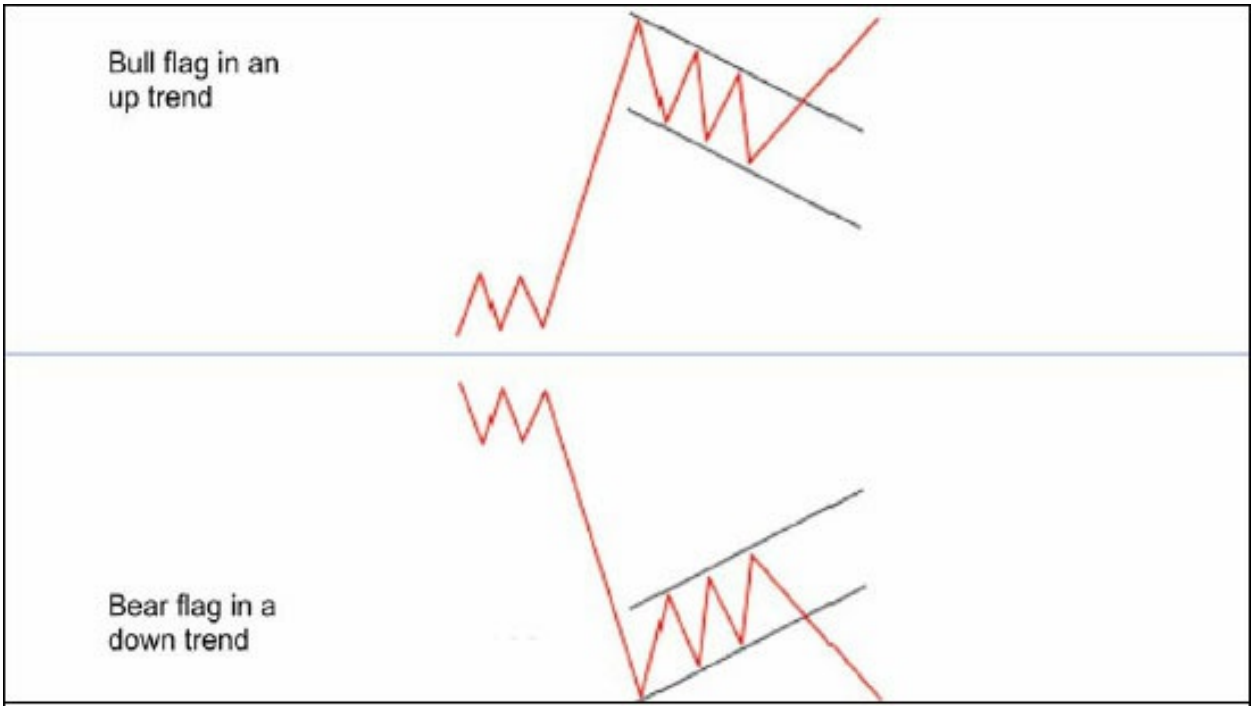

Figure 6.1: **Bullish and bearish flag patterns.**

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Bullish Flags

Bullish flags are identified by lower tops and lower bottoms, with the pattern slanting against the trend. Bullish flags are formed when a stock in an up trend consolidates after making an up move. The trend lines of the formation run parallel to each other and the pattern looks exactly like a rectangular flag hoisted on a mast. You can make good money by buying a stock when it breaks out from the bullish flag formation with a rise in volume.

Bearish Flags

Higher tops and higher bottoms identify bearish flags. Like bullish flags, bearish flags also have sloping lines against the trend and their trend lines also run parallel to each other.

Pennant Patterns

Pennants look very much like symmetrical triangles. But pennants are typically smaller in size, indicating lower volatility and shorter duration. The pennant is similar to a flag except that it's formed by converging, rather than parallel, lines. Pennants can also be termed as pointed flags.

The volume at each period of the pennant is also important. The initial moves are usually accompanied by large volumes while the pennant formation period witnesses weakening volume, followed again by a large increase in volume during the breakout. Pennants can also be classified as bullish and bearish pennants *(see* Figure 6.2).

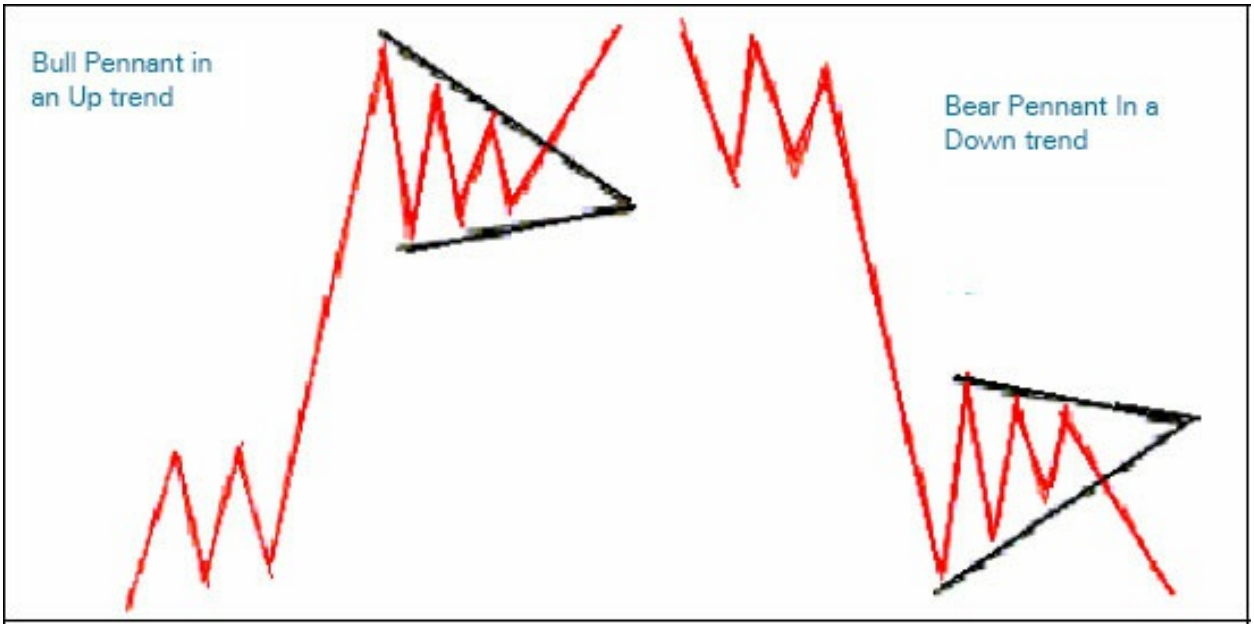

Figure 6.2: **Bullish and bearish pennants.**

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Differences between Flags and Pennants

Pennants are similar to flags in terms of structure, have converging trend lines during their consolidation period and typically last from one to three weeks. You can understand the subtle difference between flags and pennants

by closely examining at Figure 6.3.

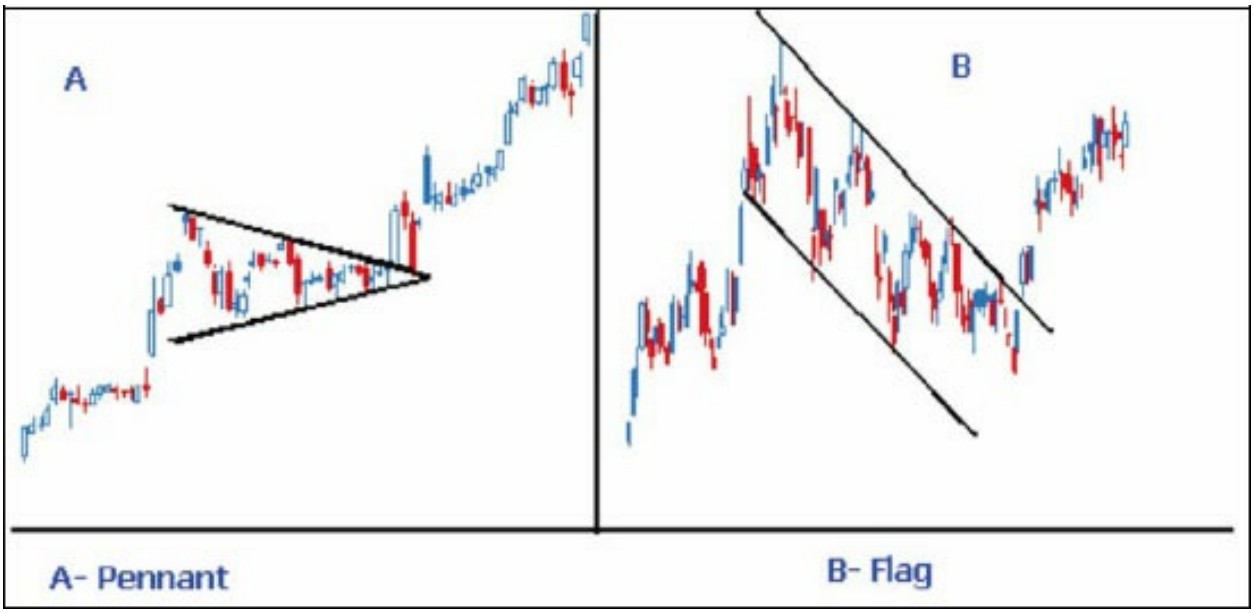

Figure 6.3: **Pennant and flag patterns.**

The difference between these two patterns can also be identified by the behavior of price movements as follows:

- In a pennant, the price movement is characterized by converging trend lines, similar to those of a symmetrical triangle.
- Price movements in the flag pattern show a channel pattern, with no convergence between the trend lines.

In the case of both flags and pennants, the original trend is likely to resume once the price breaks out above the upper trend line, or breaks down below the lower trend line as the case may be. Let us now understand these patterns with some real examples.

The continuous formation of flag and pennant patterns in Figure 6.4 presented an opportunity to buy at various stages of breakouts after consolidations. These patterns are most reliable and dependable. As evident from the chart, such patterns are formed after a very sharp move. Typically, they take only a short time to develop though sometimes they do take longer to form. There is always a possibility of the stalling of the trend when longer

duration formations are seen on charts. If prices don't make any headway in either direction then you should start looking for other evidence such as volume and oscillating indicators.

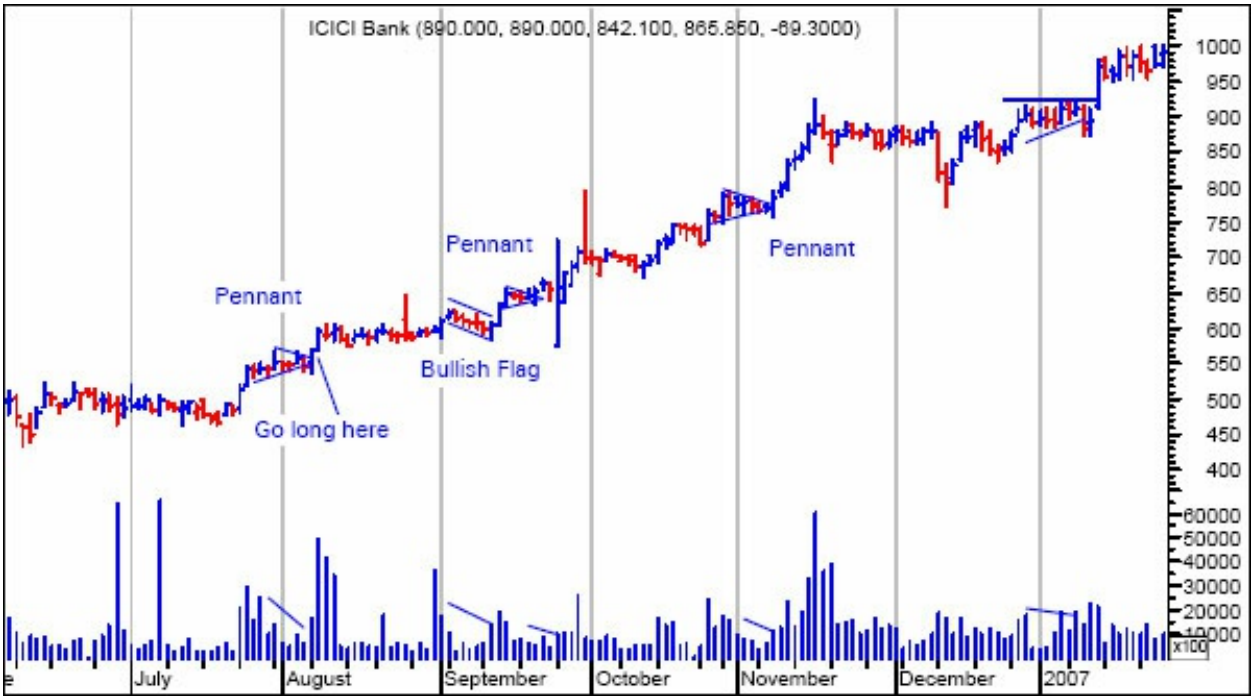

Figure 6.4: **Pennants and flags during an up trend.**

Pennant and flags are sometimes formed in a series showing small consolidations at various stages of an up trend. ICICI Bank in Figure 6.4 formed its first pennant in early August. Note the rise in volume before the pattern formation, low volume during the formation, and the rise in volume again after the price broke out of pattern. This is an actual trade we took.

The stock again formed a bullish flag in September; look at the volume pattern. It also formed a pennant in the same month. A pennant was again noticed in November with classic volume pattern. You can also see the formation of a wedge pattern starting late December and early January, at the fag end of a long rally that originally started in August. You can see an increase of volume on the breakout from the formation on the chart that lends credence to the validity of the formation and to the likelihood of the continuation of the original up trend. You can buy every time when you see prices breaking out of these formations with rise in volume.

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In Figure 6.5, the flag formation of July 2006 appeared to have gone stale and the trend seemed to be stalling, but when the price shot up above the flag

formation on 27 July and made a high of ₹ 231, and then again closed at ₹ 271 on 9 August with good volumes, it was a confirmation for a safe entry. These patterns are also formed at the fag end of rallies where lots of price churning takes place during the pattern formation and then a new rally starts but fails to maintain new highs with good volumes.

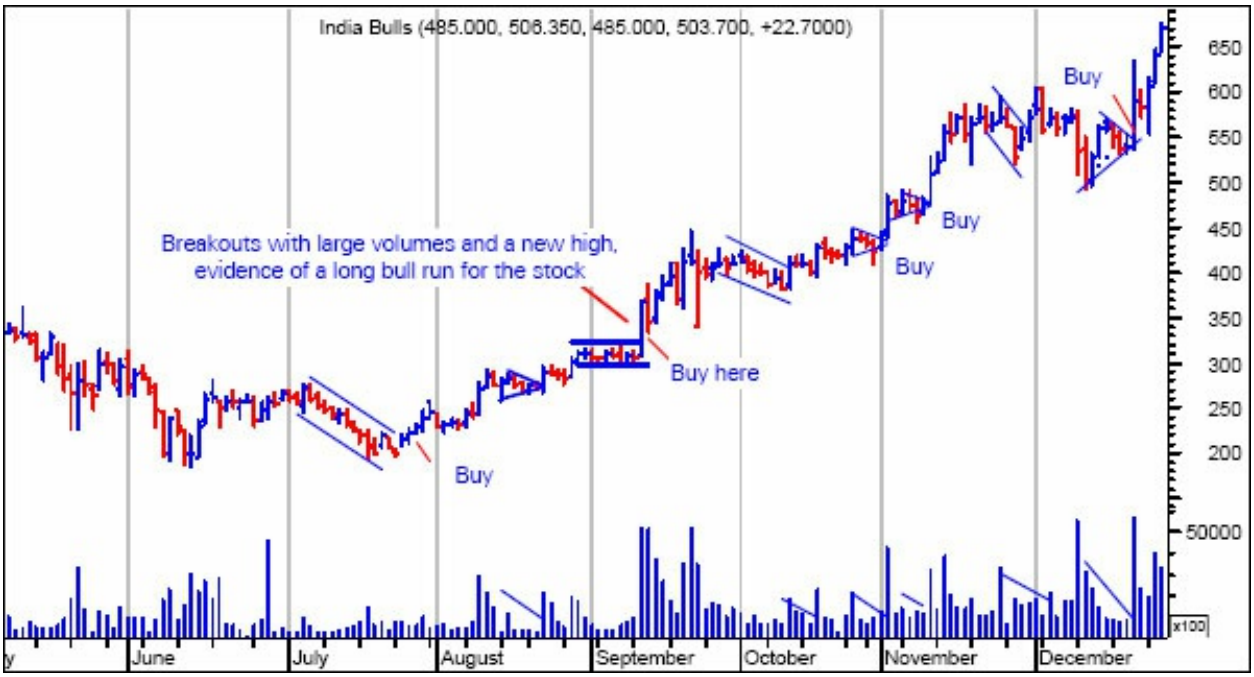

Figure 6.5: **A series of pennant and flag formations, one following hard on the heels of another as the ownership of stock changes hands. Better informed players buy while others take profit on their previous purchases.**

In the chart of India Bulls in Figure 6.5, you can see a sequence of step-ups. The first classical flag, which formed in the month of July, lasted for almost two weeks. Normally, continuation formations don't take this much time to develop. Note the very low volume during this bullish flag formation.

A pennant was then formed in mid-August lasting for a week and the stock was recommended for a buy above ₹ 280. The volume breakout of September from a flag formation confirmed that the trend was still up. This flag pattern developed in the ongoing up move and then broke out on very heavy volume, making new 52-week highs and crossing a significant upward pivot in the process. New 52- week highs should be respected and a heavy volume breakout is evidence of a large demand for that stock.

In a strong up trend, new highs should always be respected. In a secular bull market, the much publicized rule buy low sell high does not work. For stocks in strong up trend in a

secular bull market you have to use the buy high sell higher approach. New highs with volume is an indication that there was strong demand for this stock and the price therefore may witness another new high. Please look carefully at the volumes (vertical blue bars in the lower window) during each formation.

Continuation pennant formations can also be seen in October and November with volume adhering to the characteristics of this formation. The stock also made a bullish flag formation and a pennant formation in mid-December.

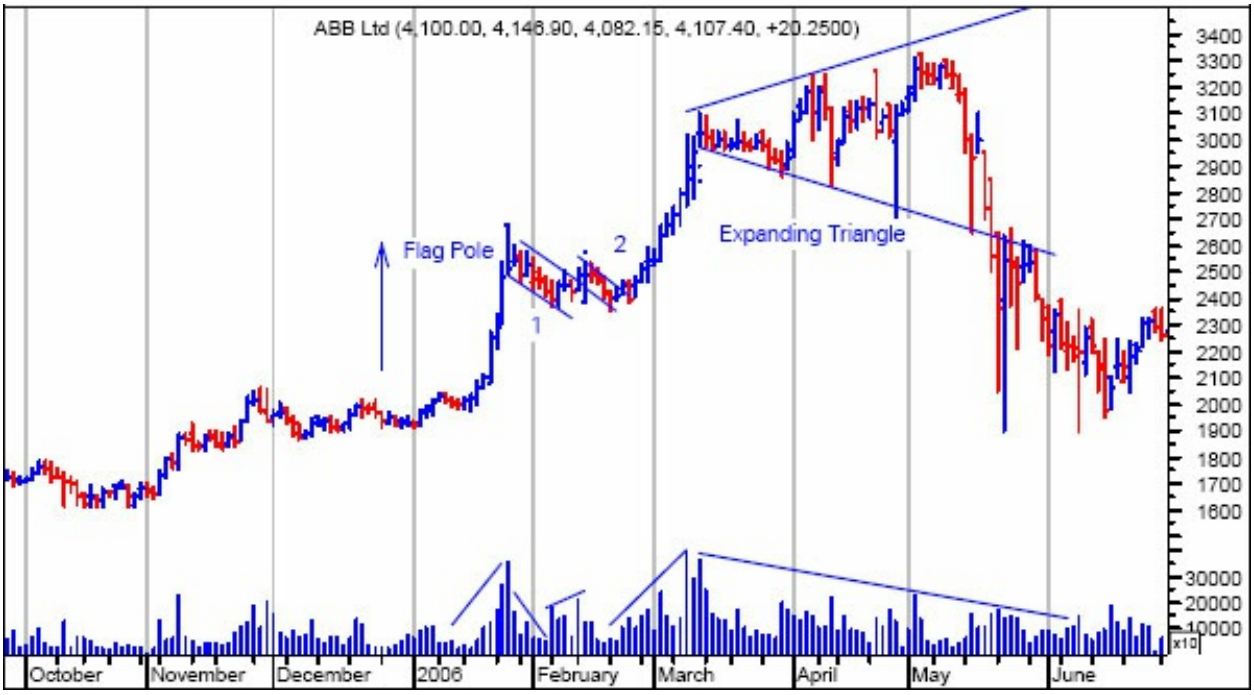

Figure 6.6: **ABB's daily chart shows a practically perfect, typical, short and solid flag formation with a flagpole.**

In Figure 6.6, you can see the rapid advances ABB made in the middle of January with substantial increase in volumes. The stock surged to ₹ 2,513 from a close of ₹ 2,024 within a span of five days. The flags formed after a sudden eruption of the price are sometimes used to make entry after such a sudden move. Two flags formed on this chart. A low risk entry could have been made when the price broke out above the top line of either Flag 1 or Flag 2. Volume breakouts should leave no doubt in your mind about the validity of this flag formation.

ABB again resumed its upward journey after the consolidation; look at the eruption of prices with good volume starting from late February and till early March. ABB made a high of ₹ 3,330 in May. In this chart you can also see a rare and less-discussed expanding

triangle formation made by the stock.

The expanding triangle, which is also known as a broadening top, usually consists of three peaks, each higher than the previous one, and two valleys, the second lower than the first. Sometimes called the broadening formation, this pattern often occurs at market tops. An expanding triangle is even more reliable than the contracting triangle for forecasting future price trends. Finding diverging trend lines that connect a series of widening peaks and troughs identifies this pattern. The most common type of broadening formation is found at the end of a prolonged up trend and is used to predict a move lower. Note how the volume ebbed from the early peak of March to June during the formation of the expanding triangle. Breaking of the lower trend line is marked by a sell off and volatility.

Figure 6.7: **This chart is chartist's delight as it clearly shows how volumes play an important role in deciding and confirming a trade.**

Please compare the chart of Mangalam Cement (MC) in Figure 6.7 with Figures 6.4 and 6.5. You can see that both ICICI Bank and India Bulls made new highs with large volumes and continued their up trends signaled by flag and pennant formations. The price breakout from the flag or pennant was always followed by an increase in volume. Such evidence gives enough reason to remain in the trade and create wealth as it proves the famous stock market saying, "New highs with high volumes should always be respected."

MC, on the other hand, remained range bound between ₹ 60 and ₹ 95 from August 2005 to February 2006 until it broke out of the range in mid-February with a spurt in volume. The stock maintained its upward journey and touched a high of ₹ 229 in May 2006 with minor

pauses, shown by two pennants and a flag formation. The May highs were, however, not supported by good volumes in contrast to what happened in Figures 6.4 and 6.5. The stock could not therefore maintain its new highs and tumbled down to a low of ₹ 115 in June 2006 before making a bearish flag formation. The stock then again made sharp up moves in mid-June; see the bullish flag after the sharp moves of June.

MC also made two pennants, one in August and the other in September-October. Prices broke out of the first pennant with an increase in volume but this did not happen when the price broke out from the tip of the second pennant in October. Was it a warning?

MC had a long consolidation period from September to December 2006 as it traded in a range of ₹ 190-200 till the first week of January 2007 when prices moved out of this narrow range. This up move showed the continuation of the up trend with the formation of a bullish flag but it was always suspect as the new high of ₹ 259 on 17 January was not supported by any increase in volume. Not surprisingly, therefore, MC could not sustain this new high, reversed, and started its downward journey touching a low of ₹ 123 in April 2007. You can see the formation of a bearish flag in February 2007 signaling the continuation of the reversal and highlighting that tops tend to fall on their own weight once a trend reversal is underway.

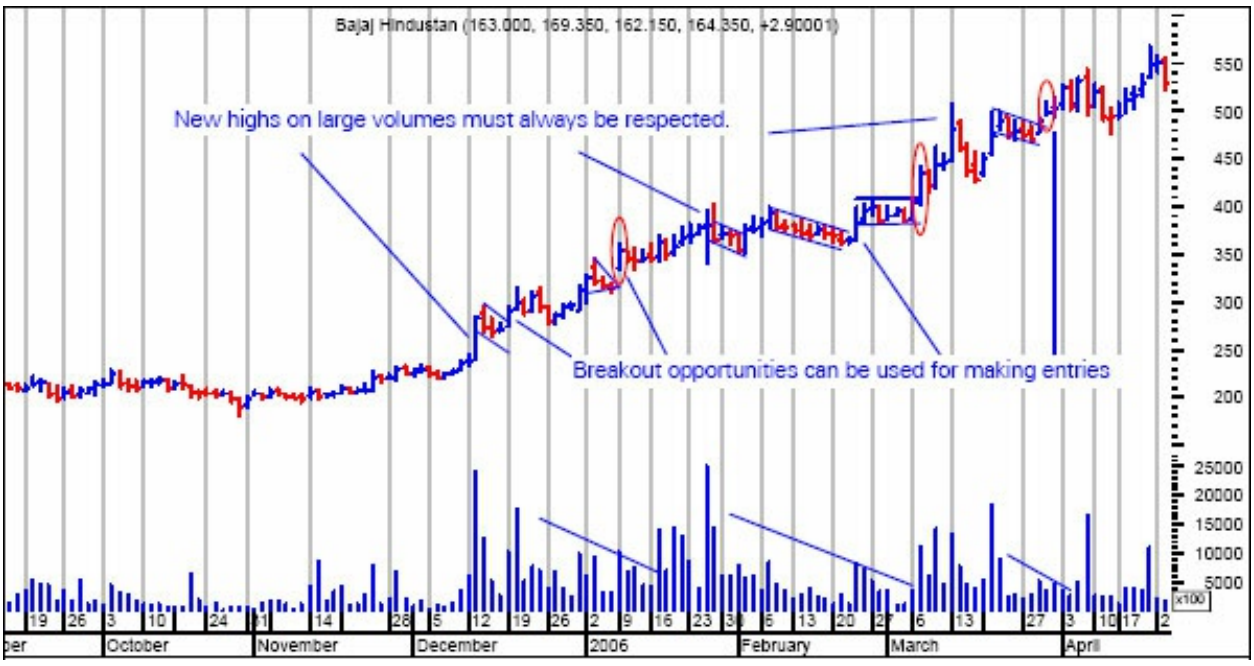

Figure 6.8: **Another example of a series of flag patterns that may form after a long sideways consolidation.**

Bajaj Hindustan in Figure 6.8 remained sideways from August to November 2006 moving

in a range of ₹ 170-220. The stock erupted out of this range in early December with a sudden rise in volume, touching a new high of ₹ 284 on 13 December.

You will note that a continuation flag formation developed after each sharp move with flagpole formation. Note also the diminished volume during each pattern formation. Each breakout has a nice follow through that pushed the stock to new highs with high volumes.

The stock touched a high of ₹ 568 in April, topped out, and reversed its up trend in June with a head and shoulders formation. You can also refer to Figure 5.10 and see the higher tops made with almost dried-up volumes in May 2006 signifying an imminent reversal which was confirmed by the head and shoulders formation and, later, by a symmetrical triangle formation.

Requisites of Valid Continuation Patterns

The above examples of continuation patterns would have given you an indication as to how they can be traded. In the examples we described the significance of these patterns, breakouts and new highs, and the important role volumes play in determining a safe and sound entry for a trade. The question now is can the continuations depicted in the above examples in general, and in Figure 6.6 in particular, be traded? The answer is yes. But we need to consolidate our learning and review some of the basic prerequisites and characteristics about trading these formations. Let us therefore discuss the nuances of these formations.

Existence of Prior Trend and Sharp Moves

In order to successfully trade continuation patterns, there must be enough evidence of a prior trend. If a continuation pattern has not been preceded by a clearly existing trend, there is nothing to continue and the pattern would therefore be suspect.

Second, flags and pennants require evidence of a sharp and sudden price movement in either direction on heavy volume. These moves are seen on charts as straight line moves and sometimes appear with runaway gaps. Such moves usually represent the initial phase of a significant advance or decline — and the flags and / or pennants represent consolidation and pause of that sudden movement.

Breaking of the Resistance Line and Flagpole

The flagpole is the distance from the first resistance / support break to the high or low of the flag or pennant. The sharp moves in either direction (up or down) that form the flagpole should break a trend line, or a resistance / support level. A line extending up from this break to the high of the flag pennant forms the flagpole.

Duration

Short duration continuation patterns, namely those lasting less than a week, are more reliable and dependable than continuation patterns that take a longer time to develop.

Break Out

A break out above the resistance signals that the previous up move has resumed (bullish flag / pennant).

A break down below the support signals that the previous decline has resumed (bearish flag / pennant).

Volume

Volume before Formation

Volume should generally increase in the direction of the market trend and is an important confirming factor in the completion of continuation patterns. Volume should be heavy during the moves that form the flagpole. Heavy volume provides confirmation for the quick move that creates the flagpole.

Volume during Formation

Volume and price should contract during the pattern formation and continue to decline until the price breaks away from it.

Volume after Formation

Prices should break away from the formation with expanding volume.

Targets

The length of the flagpole is measured to the high / low of flag or pennant from the resistance break or support breaks as the case may be, and is used to estimate the advance or decline target.

Continuation Patterns on Weekly and Monthly Charts

There are different schools of opinion regarding the reliable time frame in the case of continuation patterns. Some analysts consider less than four weeks as a reliable time frame while others consider eight to ten weeks to be a pre-requisite for a reliable continuation pattern.

Flags and pennants are short term patterns that can last from 1 to 12 days. It is often seen that shorter time frames work well for a reliable pattern. Sometimes these patterns will take one to four weeks to form. Continuation patterns, therefore, work well on daily charts and offer many opportunities to trade the trend after a breakout.

Weekly charts offer a different picture of longer duration flags of about more than ten weeks — but then such flags can be classified as rectangles. Similarly, a pennant of a similar duration would turn into a symmetrical triangle. Sometimes flags and pennants are found on weekly or monthly charts but they do not behave and function in the same manner as they do on daily charts.

You can see how these formations look on a weekly time frame (Figure 6.9) and a monthly time frame (Figure 6.10).

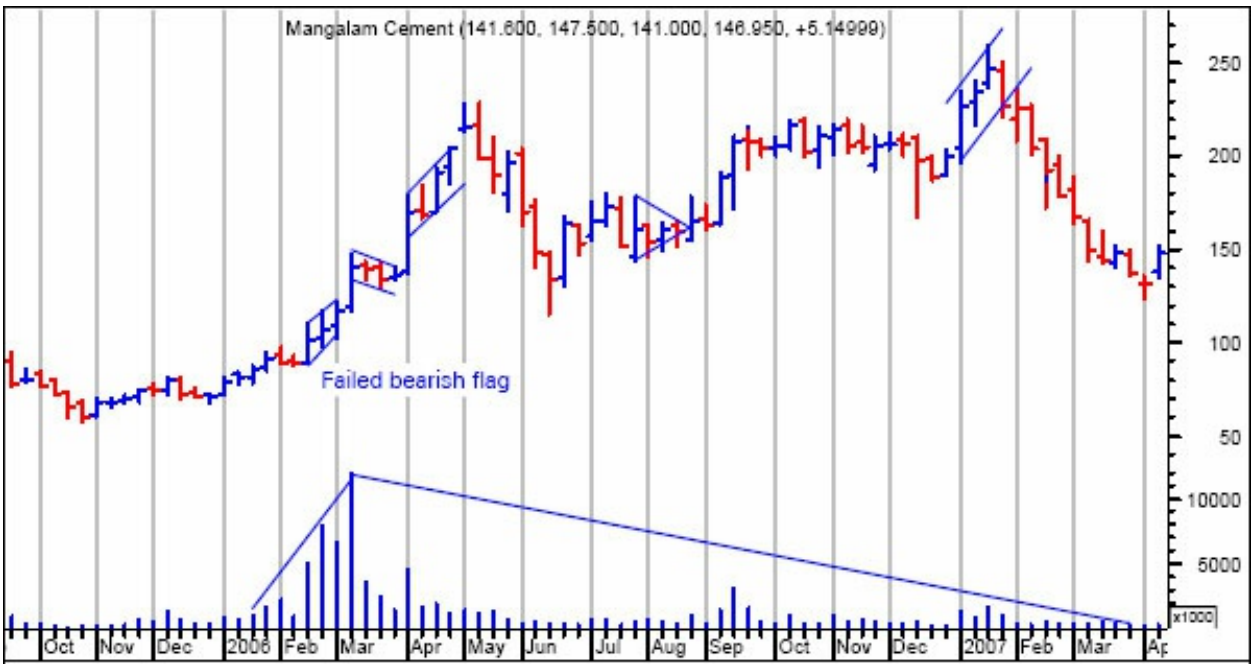

Figure 6.9: **Continuation pennant and flag formations on a weekly time frame.**

Let's compare the weekly chart in Figure 6.9 with Figure 6.7, the daily chart of the same stock for the same time period, namely from February 2006 to March 2007. On weekly and monthly charts, confusing and conflicting signals are often generated.

MC continued its up trend signaled by a series of pennants and flag continuation formations from February to April in Figure 6.7. On the weekly chart for the same time period (Figure 6.9), you can see a bearish flag with a rise in volume, definitely a failed pattern, a bullish flag, and then again a bearish flag. The area of the stock's consolidation from June to December is marked by a pennant and a long flag, which can also be classified as rectangle pattern.

Breakout of MC in early January with poor volumes and a formation of bearish flag on weekly chart were always suspect.

Though MC did show two bearish flags, it is always advisable to trade these patterns on daily charts.

If you observe the same stock on the monthly chart *(see* Figure 6.10), you will note the breakout of the stock from the rectangle pattern and a bearish flag.

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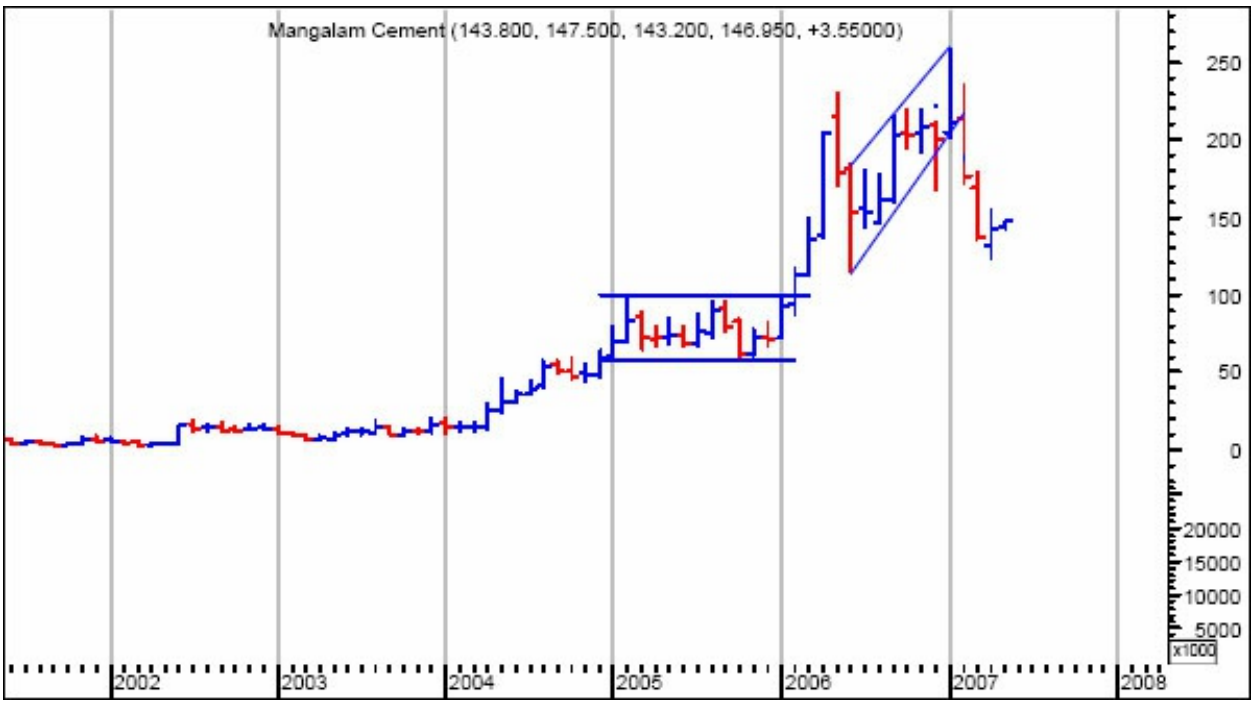

Figure 6.10: **Rectangular continuation patterns on a monthly chart. Monthly charts are not reliable for trading continuation patterns but noteworthy is the long rectangular formation, or channel pattern, made by the stock for almost a year. It can be treated as a long sideways consolidation. These rectangular patterns are formed as bulls and bears slug it out for market control.**

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Wedge Pattern

For ancient Romans, the wedge was an aggressive battle formation which they would use to “crack open” enemy lines. Relatively small groups of soldiers would form a wedge and then drive their way into the enemy ranks. As more Roman soldiers reinforced the wedge from behind, the enemy line could be forced apart. As breaking the enemy’s formation was very often the key to winning a battle, the wedge formation was a vitally important battlefield tactic of the Roman army. Today, the US army still uses this formation during a battle. Trading the financial market is akin to fighting a war and patterns are our ammunition for winning the war of making money.

The wedge is a technical chart pattern composed of two converging lines connecting a series of peaks and troughs.

The presence of converging trend lines makes the wedge formation similar to a symmetrical triangle in appearance. It can generally be considered as a pattern of price congestion that typically precedes, or follows, a breakout. Wedges, however, are distinguished by a noticeable slant, either to the upside or to the downside. In comparison to flags and pennants, the wedge formation takes longer to form and the volume diminishes during its formation and increases on the breakout.

There are differences of opinion as to the classification of a wedge. Some analysts treat it as a reversal pattern while others classify it in the continuation pattern category. This conflict might have arisen from the fact that wedges come in many shapes and can appear akin to rectangles, triangles, downward and upward sloping rectangles (flags), or even squares. In our endeavor to keep things simpler, we will discuss about wedges as continuation pattern here.

Wedges can be further divided into two categories, namely, rising wedge *(see* Figure 6.11), and falling wedge *(see* Figure 6.12).

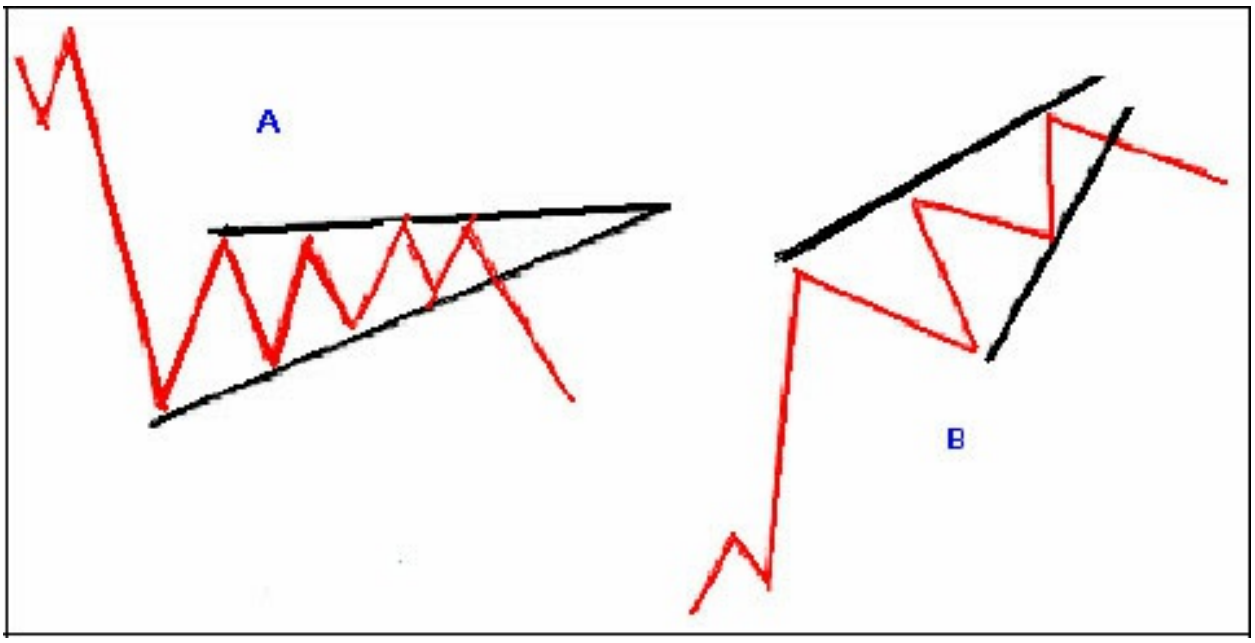

Figure 6.11: **Rising wedge pattern. A — Bear rising wedge in a downtrend. B — Bear rising wedge in an up trend.**

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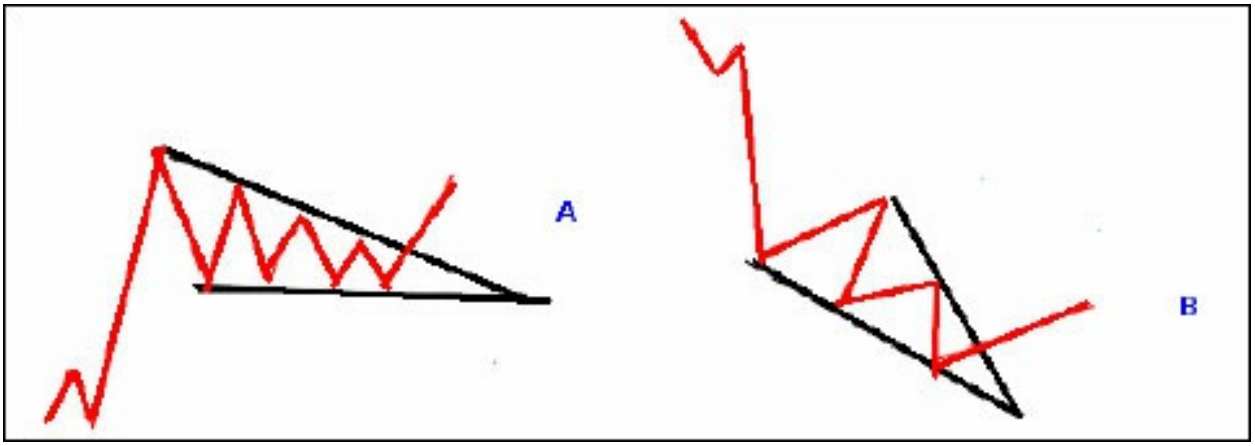

Figure 6.12: **Falling wedge pattern. A — Bull falling wedge in an up trend. B — Bull falling wedge in a down trend.**

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Rising Wedge

A rising wedge is usually considered bearish and is typically found in down

trends. It can be found in up trends too, but would still generally be regarded as bearish. The rising wedge as a continuation pattern slopes upward, but the slope is against the prevailing down trend.

Rising wedges show a series of higher tops and higher bottoms. This pattern begins with being wide at the start and contracts as prices move higher and the trading range narrows.

Falling Wedge

The falling wedge as a continuation pattern slopes down, but the slope is against the prevailing up trend. A falling wedge is generally considered bullish and is usually found during up trends.

The falling wedge begins by being wider at the start and then contracts as prices move lower. In contrast to symmetrical triangles which have no definitive slope or bias, falling wedges have a definite downward slope and have a bullish bias. However, this bullish bias is confirmed only when the price breaks out from the resistance line.

Falling wedges can be found in down trends as well. The bias, however, is still generally bullish. Down trend patterns are marked by a series of lower tops and lower bottoms.

How to Trade Wedges

Wedges represent trend continuation patterns and are usually pauses in the trend as the price breaks out to a new price level. Similar to the never ending “Saas Bahu” soap operas of Indian television, some stocks take longer to break away to a new price level. This longer time is depicted in the pattern by the slope of the trend line being quite horizontal. Other times the break away occurs in a shorter time, as was the case in the culmination of Abhishek Bachchan’s marriage with Aishwarya Rai, and are depicted by the slope of the line being quite steep.

From a trading perspective, you must attempt to maximize profits as soon as a wedge is identified by jumping on to the trade during a breakout from the wedge. It is always safe to trade in the direction of the trend and ride the trade

until either the wedge breaks to the opposite direction and a failed trade occurs, or until the next wedge begins to develop. If you want to trade for a longer term time frame, you may use the golden opportunity presented by the formation of a continuation wedge as a spot to accumulate additional shares for the next breakout. You can unlock wealth if you recognize and trade wedges correctly.

A bullish wedge generally forms in the middle of a trend, although it can also occur at the end of a trend. If it forms as a countertrend move in an ongoing up trend, it sets up a great opportunity to enter the trend. As the wedge ends, the daily price range becomes much smaller than the average true range. The wedge then breaks in the opposite direction and continues with the main trend. If you see many wedge patterns on the charts, then you can also find a target for the next price move. The target for the stock is often equal to the move made by the stock after the breakout from the wedge till the point from where next consolidation began. This move is then added to the next breakout point after the consolidation. There need to be other factors to confirm the wedge pattern, for example, volume should remain moderate to low during the formation of the pattern.

Figure 6.13: **Wedge continuation pattern in Crisil Ltd.**

Crisil Ltd. continued its up trend with periodic pauses and consolidations represented by wedge formations in the chart in Figure 6.13. Wedges here showed continuation patterns because up trends typically continue for reasonably long periods of time. The pauses in this trend generally developed into one or another form of a wedge. Formation of a falling wedge from the high of February to the low of March showed exhaustion and a pause in the price. Prices again gravitated from the falling wedge in mid-March. Crisil resumed its up trend with up thrust shown by gaps and with volumes signifying the power of the bulls backing this stock. What is interesting here is that every time the stock wriggled out of the formations, the price erupted upwards with runaway gaps indicating the power of bulls. Starting from October, the expansion of volume with every rise was a confirmation of an impending bull run for this stock.

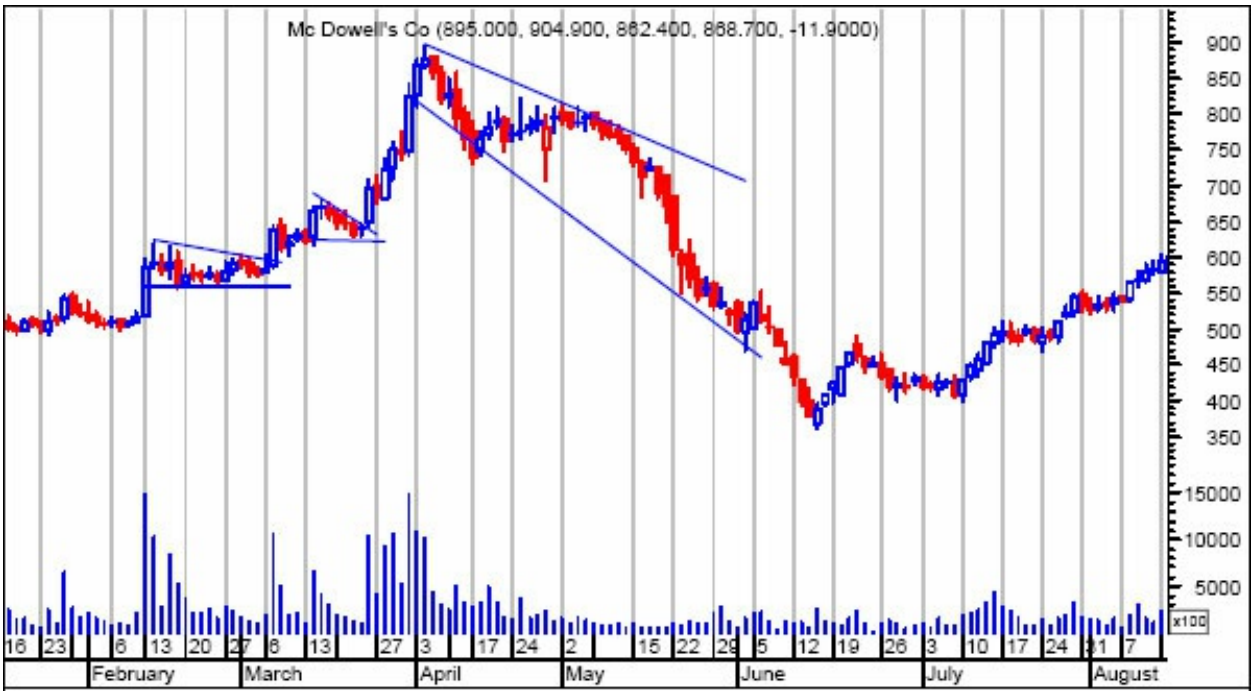

Figure 6.14: **Failed falling wedge. The falling wedge is often one of the most difficult chart patterns to accurately recognize and trade as you can focus.**

For McDowell in Figure 6.14, early breakouts of February and April showed continuation after the formation of wedges and pennant. The breakouts were followed by an expansion in volume. A failed wedge pattern was then formed from April to June when the share made lower highs and lower lows, and remained in a temporary down trend. Look at the dwindling volumes during the formation of the falling wedge. The price could not break out of the upper resistance line and instead plummeted, thus showing a failed falling wedge pattern.

It is always advisable to wait for a breakout and combine other momentum indicators to confirm bullish signals. You should look at the evidence from both price and volume when determining whether a breakout from a consolidating pattern will result in the reappearance of the prior trend, or whether a reversal of the trend might occur.

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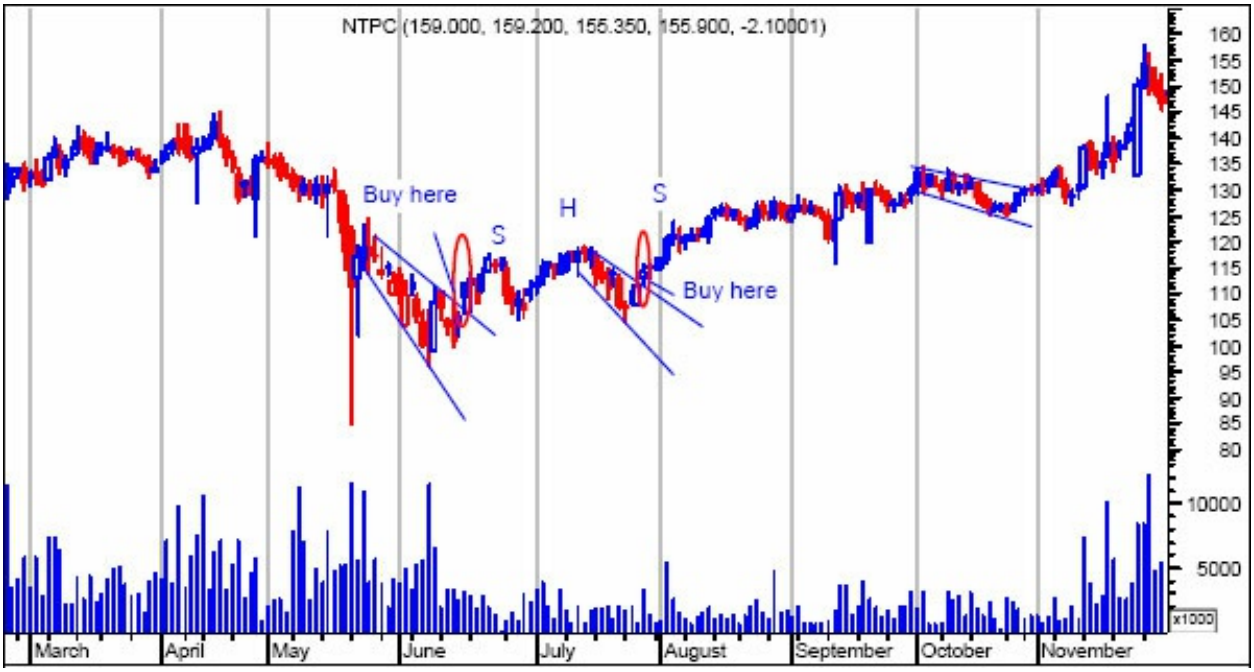

Figure 6.15: **Wedge patterns signaling a temporary counter trend in an up move.**

On NTPC's daily chart in Figure 6.15, two bullish wedges were formed as a counter trend to an up move. Note how the lines forming the boundaries of the wedges kept narrowing on declining volumes. The price finally broke out to the upside, continuing the up move.

You can trade such a pattern by buying when the price breaks out of the upper resistance line.

We can also recognize a failed head and shoulders pattern here with an extended right shoulder. We have already discussed that failed head and shoulders pattern offers opportunity for a big move in the opposite direction. Once you develop your skill for identification of this pattern, it will always offer you great trading opportunities.

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Figure 6.16: **Rising wedges are difficult chart patterns to trade successfully.**

Balrampur Chini could not sustain its peaks and made a double top reversal pattern (*see* Figure 6.16). As the prices went down, a rising wedge was formed. It is presumed to be a consolidation formation here; the loss of upside traction on each successive top gives the pattern its bearish bias. However, the series of higher tops and higher bottoms gives a false impression that the trend is bullish. The final break of support in July indicated that the bears were in control and that the down trend was likely to continue.

Note also the technically significant conspicuous head and shoulders reversal pattern. Here the rising wedge gave us a signal of the impending continuation of the reversed trend, which was later confirmed by the head and shoulders pattern.

You can also notice a rising wedge in the down trend. A short pause was then followed by renewed downside conviction. Notice how the volume declined during the formation and really started to pick up once the down trend gained momentum after the breakout.

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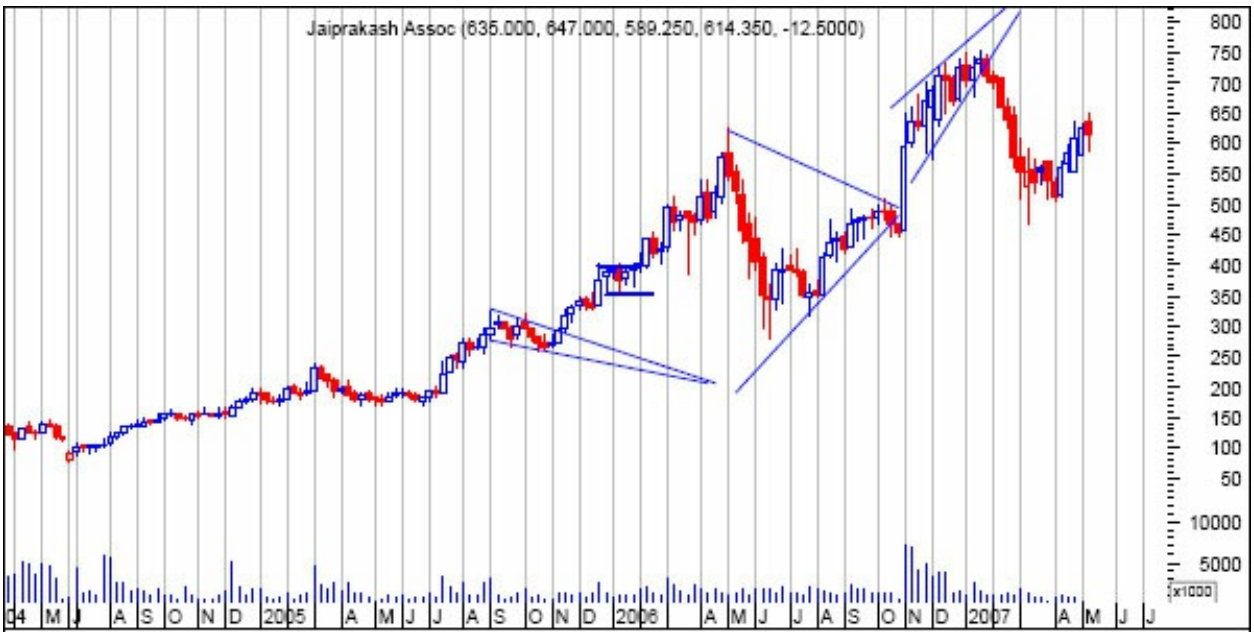

Figure 6.17: **Wedges on a weekly chart are generally seen at the beginning of a bullish move.**

Unlike flags and pennants, wedges are occasionally spotted on weekly charts because they take a relatively longer time to develop as in the case of JP Associates (JPA) in this chart. Generally, they are seen at the beginning of a bull run as the security moves out of a long trading range and then consolidates.

JPA made a falling wedge in the beginning of an up trend. Note how the volume dissipated during the formation of the wedge pattern, but then picked up on the breakout. JPA again took a pause after breaking out of the falling wedge formation and consolidated — as shown by a flag formation — for a brief period lasting 4 to 5 weeks. Prices again moved up after this short break.

The fall in May 2006 on the weekly chart was a consolidation pattern depicted by a symmetrical triangle that broke out on the upside.

The bearish rising wedge which formed in November-December stopped JPA dead in its tracks. Volumes ebbed as the trend struggled. As the volume dried up, the stock fell through the bottom of the wedge and began a new down trend. This rising wedge took almost 12 weeks to form and can here be categorized as a reversal pattern. Towards the end of the chart, JPA is again seen to make a symmetrical triangle. You should watch it carefully and keep it on your radar to trade the possible break out in either direction.

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Rectangle

A rectangle is a pattern which forms on a chart where the price of a security is trading within a bounded range in which the levels of resistance and support are parallel to each other thus resembling the shape of a rectangle.

Figures 6.18: **Rectangle patterns.**

Let's compare the chart in Figure 6.18 with Figure 6.8, the chart of Bajaj Hindustan discussed earlier. The stock moved out of the rectangle pattern in late July 2005 with increased volumes. It again traded in a rectangular range from August to December 2006 until it broke away from this range with expanding volume and the price made huge advances above the resistance. Remember, longer duration rectangle patterns are more reliable than shorter term patterns; shorter duration ranges will form flags.

ADX also indicated a very strong trend. (The blue line in the upper part of chart in Figure 6.18 is the ADX; and the red and dotted lines are MACD, an indicator which is discussed later in the Chapters 9 and 10) This combined pattern — namely, the breaking out of price from the two blue flat trend lines with a rise in volume in December, the ADX moving up from 20 and MACD also rising up, formation of first wedge with low volumes — is often seen at the initial or primary phase of a bull market and is a harbinger of a strong new upward journey for the market.

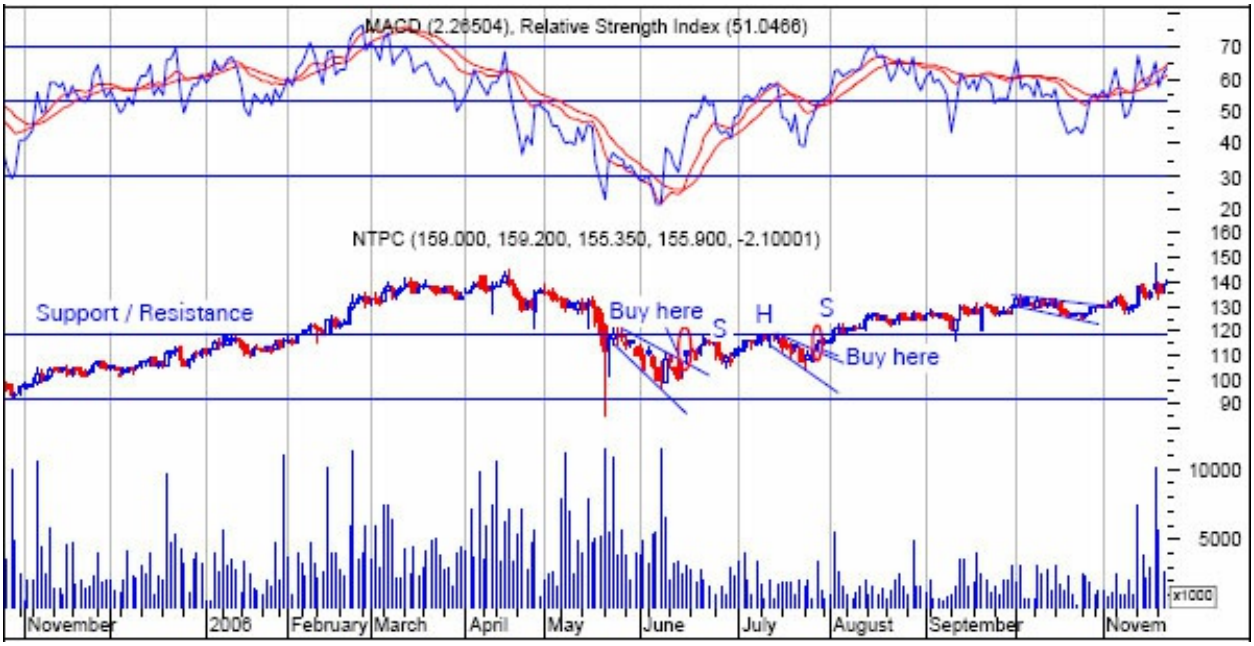

Figure 6.19: **Rectangle patterns and breakouts.**

NTPC moved in a rectangular formation with a range of ₹ 92 to ₹ 114 from August 2005 to early February 2006. You will note that as the pattern developed, volume fluctuated and there was no clear indication (bullish or bearish breakout) until the mid-February break out. Stocks do not always return to the point of breakout as was the case in the example of Figure 6.18. When stocks break out from long sideways ranges, they often move so fast that you may not see the prices from where they broke out. For example, in Figure 6.18, the stock broke out on December 2005 from a level of ₹ 245 and the price came back to this level only in May 2006, i.e. after nearly six months.

In the example in Figure 6.19, however, NTPC made a classic return to the breakout and even dipped further in mid-May. The stock made desperate attempts to break the resistance line as seen by the formation of two falling wedges. In such a case, the setup and strength behind the breakout should be assessed to determine the possibility of entering a safe trade. After a breakout, the original resistance line becomes a new support line, and *vice versa.*

NTPC retested the resistance line in August and September thus indicating the breakout's weakness. Though all the chart patterns suggested continuation, but the price behavior always seemed suspect from August to October. You can't go to sleep after buying this stock and need to keep a strict stop loss. It is advisable to trade such a pattern only for the short term because breakouts were not sharp and retested the resistance line often. The sharp breakout from a falling wedge in early November, however, confirmed the ensuing bull run for the stock.

NTPC again became range bound for almost a month in April 2007 forming a flag with prices vacillating between ₹ 163 and ₹ 155. In the top panel, the red color line and dotted red lines are MACD. The blue line is RSI.

This signals that the price movement, which gets stalled during the pattern, will trend in the direction of the price breakout from the bounded range. The bounded range, or rectangle, is a period of consolidation in which market participants are generally indecisive.

The formation of this pattern typically sees the price of the security test the levels of support and resistance several times before a breakout. Once the security does break out of the range in either direction, however, it is considered to be trending in the direction of the breakout.

A tug of war between bulls and bears leads to the formation of rectangles. Bulls come in and push the price higher. When the price nears the support, bears take control pushing the price back down near the resistance level. Nimble traders sometimes play these bounces by buying near the support and selling near the resistance.

Therefore, either bulls or bears may get exhausted in the process and a winner can be decided only after the price breaks out. Rectangles have a neutral bias. Sometimes the price shoots out sharply after breaking from these ranges and then you will find the continuation patterns we are discussing on the charts, as for example, in Figure 6.18 and Figure 6.19.

Summary

Flags

A flag is a small rectangular pattern that slopes against the previously ongoing trend. If the previous move was up, then the flag would slope down. If the previous move was down, then the flag would slope up. Flags are usually of too short a duration to actually have reaction highs and lows, and the price action is typically contained within two parallel trend lines.

Breakouts tend to go against the slope of the flag. If a flag slants upward, a downside breakout is likely. If a flag slants downward, an upside breakout is more likely.

If you see a down sloping flag in an up trend, place a buy order above the latest peak of the flag to catch an upside breakout. A rising flag in an up trend marks distribution, and a downside breakout is more likely. Place an order to sell short below the latest low of that flag. Reverse the procedure in down trends.

Pennants

A pennant is a small symmetrical triangle that begins wide and converges as the pattern matures. The slope is usually neutral. Sometimes there won't be specific reaction highs and lows from which to draw trend lines and the price action remains contained within the converging trend lines. Pennants that slant against the trend serve as continuation patterns. A pennant that slants in the direction of the trend indicates exhaustion — i.e. the trend may be nearing a reversal.

Even though flags and pennants are common formations, they need some definite confirmation guidelines. One of these is that flags and pennants must be preceded by a sharp advance or decline. The reliability of the formation becomes questionable if prices don't show a sharp preceding move and trading in such a situation could be risky. You should also always look for volume confirmation during the breakouts, consolidation and resumption to

verify the robustness of the pattern.

Wedges

These are classified as both continuation and reversal patterns. For a basic understanding, however, a falling wedge is considered bullish and a rising wedge is considered bearish. If the price breaks out above the upper trend line, it could be treated as a continuation pattern, while a break down below the lower trend line would form a reversal pattern.

Falling wedges indicate temporary interruptions of upward price rallies. Rising wedges indicate interruptions in a falling price trend.

You can make a good of money by trading breakout and breakdowns of the prices with volume from these patterns.

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Chapter 7

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Continuation Patterns – 2

Ascending and Descending Triangles and Head and Shoulders as Consolidation Patterns

In Chapter 4 we discussed head and shoulders as a classic reversal pattern. We also saw how a failed head and shoulders pattern offers an excellent opportunity to trade in the reverse direction of the anticipated trend. In this chapter we will consider how these patterns also sometimes represent consolidation and offer opportunities to trade them as continuation patterns.

Ascending and descending triangles are typically continuation patterns though, as we discussed in Chapter 5, 25% of the time they act as reversal patterns.

As we have already pointed out, trading in the stock market is like waging a war where the opponents are always trying to rob you off your capital. Most of the time novices return home from this war as losers; at other times they leave the battlefield mid-way, badly wounded, and never return to fight again. Even many traders with some knowledge of technical analysis end up as losers. Why does this happen? Often it's because of the analyst's rigidity in seeing a pattern in only one particular way. However, if we are savvy enough to watch closely, triangle patterns act as reversal patterns 25% of the time though 75% of the time they work as continuation / consolidation patterns.

There are similar exceptions in the case of the head and shoulders pattern which is essentially a reversal pattern, but does act as a continuation pattern in some cases.

We will now discuss how these patterns show consolidation and act as continuation patterns.

Ascending Triangles

Ascending triangles are formed during an up trend. They are continuation patterns and show continuation of the existing trend. They are formed when the price move shows signs of fatigue and turns sluggish. Continuation patterns indicate that such price sluggishness is only a pause in the prevailing trend, not a sign of an impending reversal.

The upper trend line of an ascending triangle is horizontal while the lower one is upward sloping. This is a bullish formation as in this scenario buyers are more active than sellers. When an ascending triangle develops, there is usually a good chance that an upside breakout will follow.

While ascending triangles are usually formed as a continuation pattern during an up trend, but sometimes they can also be found at the bottom of a down trend, signaling a reversal. Typically, though, even if the market is bearish this chart pattern should be considered as bullish.

Since an ascending triangle looks like a right angle triangle, it is also sometimes called a right angle triangle. This pattern is usually formed when two or more equal price highs form a horizontal upper line; while two or more rising bottoms form an ascending trend line that converges on the horizontal line as it rises.

Characteristics of Ascending Triangles

Trend

As previously described, there should exist a well established prior trend in the case of continuation patterns. If a prior trend is absent, it is difficult to form a trading opinion. In analyzing these continuation patterns, the robustness of the formation should be given prime importance rather than the length and duration of the current trend.

Top Horizontal Line

In order for an ascending triangle to qualify as a continuation pattern, the top horizontal line should be formed by the existence of two price highs. The two highs need not be at exactly the same level, but should be within reasonable proximity of each other. These two reaction highs should also have some time gap between them, which may vary from one week to three or four weeks.

An ascending triangle has a definitive bullish bias before the actual breakout. In an ascending triangle, the horizontal line represents overbought supply that prevents the stock from moving past a certain level. Even though the price cannot rise past this level, the reaction lows continue to rise. These higher lows indicate increased buying support and are responsible for giving the ascending triangle its bullish bias.

Ascending Lower Trend Line

The ascending lower trend line should be formed by the presence of at least two price lows. These reaction lows should be successively higher, and there should be some time period gap between them.

An ascending triangle is always suspect if a more recent reaction low is either equal to or lower than the previous reaction low because the lower line will then not have its upward slope and the pattern will not be formed and validated.

Duration

Duration also plays an important role in the formation of an ascending triangle. The time period can last from a few weeks to even three to four months. Usually, though, the pattern takes four to ten weeks to develop.

Volume

During a consolidation phase, the volumes usually shrink. However, when the breakout occurs it should be accompanied by an expansion of volume. While this is not the sole criterion for confirming a breakout but high volume during breakouts in either direction helps in deciding which side a majority of the players is backing.

Return to Breakout

When the price breaks out from the horizontal line in the case of an upward breakout, or by breaking below the lower descending line in case of a downward breakout, it often has a tendency to return to the support / resistance levels before the move begins in real earnest.

We learnt in the previous chapters how resistance turns into support, and *vice versa*. Thus, when the horizontal resistance line of the ascending triangle is broken, it turns into support.

Target

By measuring the widest distance of the pattern and applying it to the resistance breakout we can calculate the target for the price after a breakout has occurred.

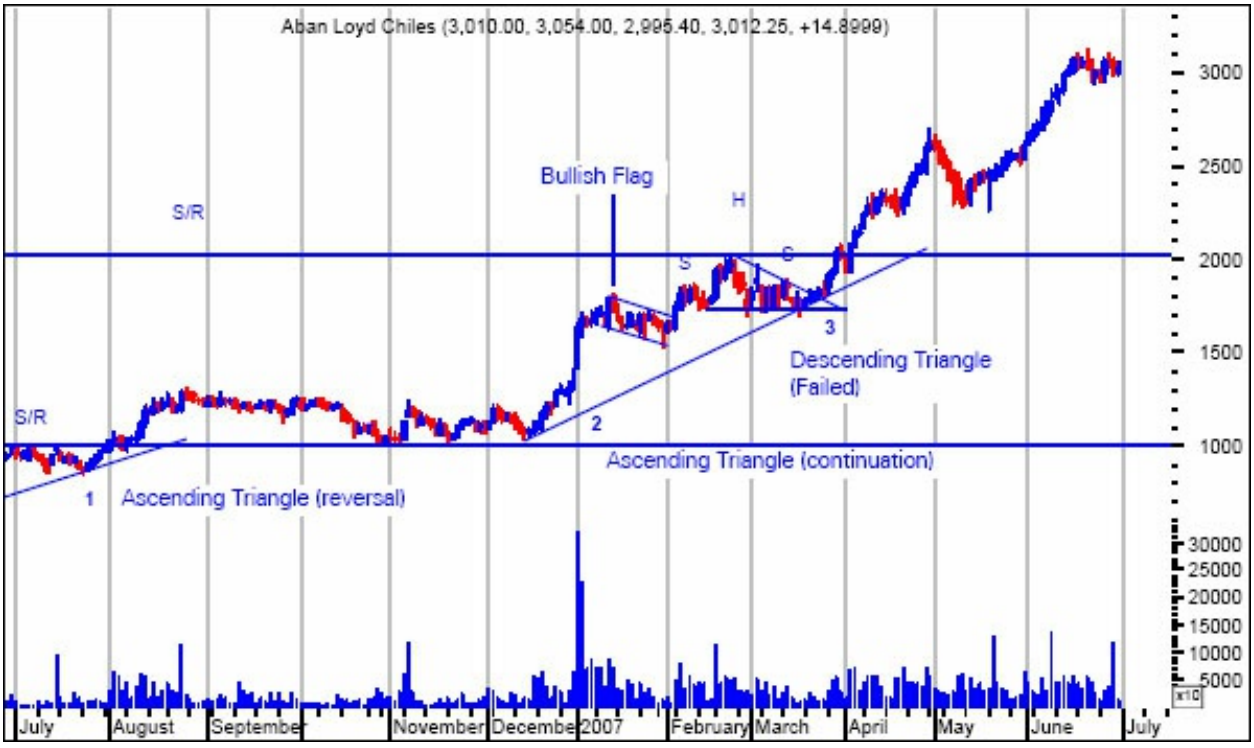

Figure 7.1: **An illustration of the ascending triangle as both a reversal and a continuation pattern.**

In Figure 7.1, ascending triangle formation (1) during June to August 2006 depicts the reversal in the price of Aban Loyd Chiles from a short term down trend.

The stock broke out of the resistance line in mid-August by crossing the approximate price level of ₹ 1,000. The stock then went into a long sideways consolidation till December 2006. Note how the earlier resistance line (marked support / resistance) worked as a support line for the stock during this long consolidation period.

You can also see the ascending triangle as a continuation formation (2). The stock showed its upward continuation trend by forming an ascending triangle (2) from late December to end-April 2007 at the price level of about ₹ 2,000 during this continuation pattern formation. This price range also acted as resistance (the top horizontal blue line) until the stock broke out of the ascending triangle's top horizontal line in early April. During this continuation pattern you can also see a bullish flag after the price shot out with an explosive move in the first week of January 2007.

Please note the head and shoulders formation as well as a descending triangle formation with an upward bias — which usually show continuation of the down trend (3).

Also noteworthy is the volume (vertical blue lines in the lower window) during the pattern formation and the phenomenal high the stock made after breaking out of the formation in early April 2007.

One could have gone long on this stock when it broke out of its short term down trend in August 2006, and then again in February 2007 when it broke out of the bullish flag formation. A third opportunity arose in the last week of March when it broke out of the small descending triangle formation, and the April breakout of the long ascending triangle was a low risk opportunity. One could have gone long on this stock by taking a stop loss at ₹ 2,000.

One could have also gone long when the stock moved out of the long consolidation phase in early January with an expansion in volume.

Once you learn to interpret the patterns and act accordingly, it is evident you can get a number of opportunities to buy at various points during different pattern formations.

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Figure 7.2: **Ascending triangle in the chart of CNX IT Index signaling continuation**

From a low of 3,211 in late October 2006, the CNX IT Index (*see* Figure 7.2) established an up trend by forming a higher low at 3,620 and advancing to a new reaction high in early December 2006. After recording its highest level in four months, the index met resistance at 4,000.

The index bounced off 4,000 three times in three months to form a horizontal resistance line (formed by connecting points 2, 4 and 6). It was as if large blocks of index were being sold each time it neared 4,000.

The reaction lows were progressively higher, thus forming an ascending trend line. The first low occurred in November-December 2006, but the trend line was drawn to connect the index value of 3,620. The important thing is that there must be at least two distinct reaction lows that are consecutively higher. Here in the chart there are four reactions that formed the ascending support line connecting points 1, 3, 5 and 7. The duration of the pattern is around three months. However, all the key ingredients for a robust pattern (continuation of the up trend, etc.) are in place.

The index advanced to 4,280 after breaking the horizontal resistance line before pulling back to around 4,200. It found support above the original resistance breakout, and this indicated underlying strength in the index.

The initial advance was projected to be 380 points (4,000–3,620 = 380) from the breakout at 4,000, making a target of 4,380. This target was achieved in April 2006 but the index didn't slow down its pace until reaching a high of 4,651 in April 2006.

While targets are used as guidelines, other aspects of technical analysis and money management, which we will discuss the latter in later chapters, should also be employed in deciding when to sell.

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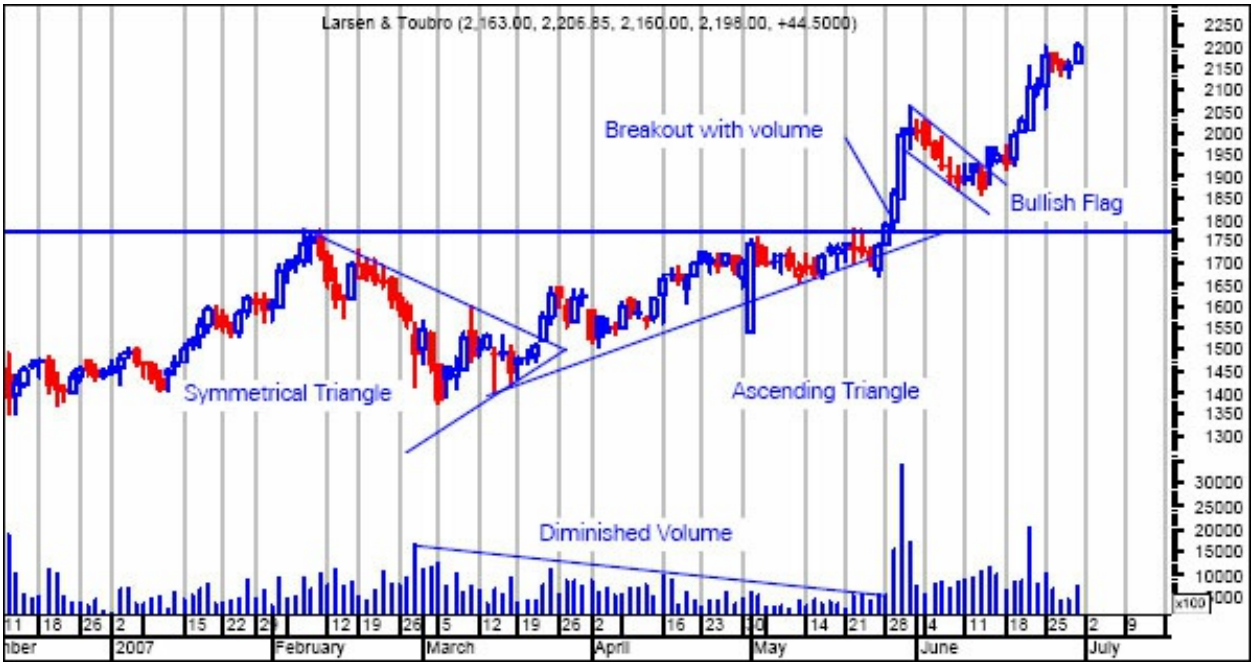

Figure 7.3: **Ascending triangle formation for L&T signaling continuation of its up trend.**

The price of L&T in Figure 7.3 resumed the continuation of its up trend after the price broke out of the symmetrical triangle formation in the last week of March 2007. It then took nearly three months to complete an ascending triangle formation. You can see the breakout of the stock with a volume upsurge in the last week of May. The volume diminished during the formation and expanded with the breakout. You can also observe the bullish flag formation in June after the breakout. The stock found support above the horizontal line (₹ 1,770 - ₹ 1,780), and in the presence of a strong tailwind zoomed to a lifetime high of ₹ 2,206 in the last week of May after breaking away from the flag formation.

By correctly analyzing this pattern, one could have gone long when the price broke out from the horizontal line of the ascending triangle in last week of May, keeping the price level of the blue horizontal support line as stop. Another opportunity to go long arose was when price broke out of the bullish flag range in mid-June.

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Figure 7.4: **Ascending triangle continuation patterns can also be found on long term charts.**

Two ascending triangles can be seen in the chart of Reliance Industry in Figure 7.4. In the first case, the volumes are also high during the pattern formation (during December and January). The stock remained sideways after breaking out of the first formation in the first week of January. Note also the low volumes in February during the sideways consolidation. The stock took a minor beating in late February and again consolidated for two months in March and April, until it broke out of the upper horizontal blue line in late April. The expansion of volume and price breakout with gaps shows the presence of a strong tail wind that took the stock to its lifetime dizzy height of ₹ 1,800 in June 2007.

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Symmetrical Triangles

Let us now analyze how symmetrical triangles function as continuation patterns. A symmetrical triangle is also referred to as a coil, and is usually formed during an ongoing trend as a continuation pattern. While there are instances when symmetrical triangles mark important trend reversals, typically they signal a continuation of the current trend. Edwards and Magee[*] suggested that roughly 75% of symmetrical triangles are continuation patterns — while the rest indicate reversals.

Figure 7.5: **Symmetrical triangle pattern formation in ABB leading to a breakout.**

The price of ABB in Figure 7.5 broke out from a sideways consolidation range in mid-October, marked by a somewhat ascending triangle formation during this phase lasting from mid-August to mid-October. The stock shot out of this range with increased volumes and formed a flag after the up move and remained range bound for a long period from mid-October to mid-April. A symmetrical triangle formation can be seen at the fag end of this long consolidation phase. The breakout from the symmetrical triangle formation was accompanied by good volume. This was a good signal to buy the stock.

Prices sometimes return to the breakout point of apex in a reaction move before resuming in the direction of the breakout. Here ABB returned to a level of about ₹ 3,620, which was the breakout price. Such a return offers a second chance to participate with a better reward to risk ratio. Potential price target is found by measurement of parallel trend line extension of the symmetrical triangle (the difference between the higher price and the lower price between the triangle formation is added to the breakout price level) and is shown by the vertical green lines and should be treated only as a rough assessment. Technical analysis being dynamic, you should always be doing an ongoing assessment. In this chart, ABB may have fulfilled its target in May, but the stock gave no sign of slowing down and went on to touch an all time high of ₹ 4,800.

~

Remember, in the case of symmetrical triangles, the future direction of the

price can only be determined after the breakout has occurred. You should, therefore, never anticipate the direction of the breakout; you must wait for it to actually take place. Even though a continuation pattern is supposed to break out in the direction of the long term trend, this rule cannot always be applied. We should also look for price acceleration, volumes, and gaps for confirmation.

Descending Triangles

A mirror image of an ascending triangle, the descending triangle is a bearish formation that usually forms as a continuation pattern during a down trend. This bearish pattern typically indicates distribution. As we saw in Chapter 5, descending triangles also sometimes function as reversal patterns at the end of an up trend, but typically they are continuation patterns. Regardless of where they are formed, however, descending triangles are bearish in nature.

Converging trend lines of support and resistance give this pattern its distinctive shape and the pattern is also referred to as a right angle triangle. The bottom horizontal line (support line) is formed by two or more almost equal price lows, while the descending trend line (resistance line) is formed by two or more declining peaks. As the range between the highs and lows marking the progression of price narrows, the trend lines meet at the apex. The "base" of the triangle is the vertical line at the left of the chart which measures the vertical height of the pattern.

These patterns are relatively easy to identify and reliable to trade with a very favorable risk reward ratio.

Characteristics of Descending Triangles

Similar to ascending triangles, descending triangle formations also exhibit some typical characteristics.

Existence of a Prior Trend

In order to qualify as a continuation pattern, an established prior trend should exist. However, because the descending triangle is definitely a bearish pattern, the robustness of the formation should be given due importance while the length and duration of the current trend is not that important.

Lower Horizontal Line

The lower horizontal line is formed by the presence of at least two price lows.

These reaction lows are not always equal and exact but should be at nearly similar levels. There should also be same time period separating the lows, and a reaction high between them.

Figure 7.6: **Descending triangle continuation pattern in Bajaj Hindustan.**

Let us examine the descending triangle formation of Bajaj Hindustan in Figure 7.6.

The stock declined from ₹ 550 to a low of ₹ 250 before finding some support at ₹ 300 (the blue line captioned "Lower Horizontal Line" in the chart) and mounting a reaction rally. The rally stalled just below ₹ 400 and a series of lower reaction highs began to form. The stock also bounced back in July-August (points 2 and 4).

As is evident from the chart, the stock's long term trend is down and the resulting pattern can be classified as a continuation formation.

Support at ₹ 300 was first established (point 1) with a bounce in June-July 2006. After that, the stock touched this level twice more in September (points 3 and 5) before breaking down in November (point 7). After each bounce off the support, it formed a new lower high. The reaction highs at points 2, 4 and 6 formed the descending trend line to mark the descending triangle pattern.

The last touch of support at ₹ 300 occurred in late November. The stock then tore down through this support. The way the support was broken with gap down openings is a testimony to the general weakness of the stock. This was not a usual break with chances of

a pull back, but a rather convincing break in the downward direction.

Trapped traders continued to wait for the stock to bounce back but when this did not happen they too sold out in December and the stock then plummeted like a sinking ship.

As discussed earlier, sometimes prices do return to this new found resistance level, but this may not always happen. In this case, since the price did not return to test the support line it indicated an acute selling pressure.

The initial decline was projected to be 100 points (₹ 400 – 300 = ₹ 100). If this is subtracted from the support break at ₹ 300, we get a downside projection of around ₹ 200. The stock exceeded this target by going down all the way to ₹ 142 in mid-February 2007.

Figure 7.7: **Descending triangle continuation pattern in Ranbaxy Labs.**

Ranbaxy Labs made a descending triangle formation from mid-January to late February 2007 *(see* Figure 7.7) which signaled a continuation of the stock's ongoing down trend. The volume spike of January with declining prices indicates large selling by some informed players. The reaction highs of February could not break the descending trend line (acting as resistance line) with ebbed volumes. The descending triangle for Ranbaxy Labs indicated that the sellers were more aggressive than the buyers. This pattern typically emerges when buyers feel that the stock is overvalued and decide that its fair value is at a lower level. Often, such buyers are prepared to purchase the stock if it hits their specific

lower price level. The price does not hold because demand wanes. Once the downside breakout occurred, the stock price continued to fall.

The breaking of the horizontal base (the blue horizontal line in the chart) of the triangle in mid-February 2007 with a sudden spurt in volume indicated rough times ahead for the stock. Sure enough, it touched a low of ₹ 307 in the first week of August. The price did try to pull back and, in fact, touched the horizontal (blue) resistance line in May and June but could not sustain above it. This horizontal line which earlier acted as support now acted as a strong resistance to the stock. The stock would need a heavy dose of volumes to cross this resistance level.

Figure 7.8: **Descending triangle formation as continuation pattern in Suzlon Energy.**

The formation of a descending triangle confirmed the continuation of the existing short term down trend in Suzion Energy *(see* Figure 7.8). Look at the plunge the stock made once it broke down the support line (horizontal blue line in the chart) in February. The stock touched a low of ₹ 952 in early March, after which it made several attempts to cross the earlier support line (' 1,190 - ₹ 1,200), now acting as resistance in May and June, and finally crossed it on 25 May with good volumes. You can see the gap up opening when it crossed above the resistance line. This was a good signal to buy the stock.

Thereafter, the price remained sideways and consolidated for almost a month as represented by the symmetrical triangle formation. The price again broke out of this symmetrical triangle formation in mid-June and went upward.

Figure 7.9: **Descending triangle continuation pattern in Ucal Fuel.**

Ucal Fuel's price tumbled to a low of ₹ 111 in June from a level of ₹ 195 and found support at ₹ 105 -₹ 110 level (the blue horizontal line in the chart) after the price pulled back to a reaction high of ₹ 125 -₹ 130 *(see* Figure 7.9).

The stock made a long sideways movement and remained range bound from August 2006 till February 2007. The price managed to remain above the blue horizontal support trend line during this long period of consolidation. It then formed a descending triangle for a period of about eight weeks between January and February 2007, confirming the existing down trend after which the price broke down from the long support in the last week of February.

Upper Descending Trend Line

The upper descending trend line is usually formed by the presence of two reaction highs which should be successively lower and there should also be some time gap between them. The descending triangle formation is always suspect if a more recent reaction high is equal to or greater than the previous reaction high. This is because a descending triangle is formed when the stock

makes a lower top day by day. Thus, each new top should be lower than the previous top, otherwise the upper descending line will not be formed.

The price usually rises to hit the upper descending line at least twice before going down. Prices should fall to the lower horizontal line at least twice and then move up. The lower line is not always completely horizontal but must be nearly so.

Duration

The duration also plays an important role in the formation of the pattern. Typically, these patterns take four to ten weeks to develop, though the time period can last anywhere from a few weeks to three to four months.

Volume

Volume plays an important role in determining whether a formation is a true triangle, but is not always the sole indicator in this determination. Typically, volume follows a reliable pattern; volume contracts as the pattern develops and the price swings back and forth between an increasingly narrow range of highs and lows. However, there is a noticeable expansion in volume when the downside break occurs.

Return to Breakout

The horizontal support line of the descending triangle starts to work as resistance after the price breaks down below this line. This line, which hitherto worked as strong support, then acts as resistance. Sometimes prices do return to this new found resistance level before the break down move begins with vigor.

Target

Similar to the ascending triangle, the down side price projection can be measured by calculating the “height” of the formation at the pattern’s widest part and subtracting it from the resistance breakdown level.

Let us consider some more examples to get a better understanding of the descending triangle continuation pattern.

It is important to understand the difference between a descending triangle and a symmetrical triangle.

A descending triangle has a definite bearish bias before the actual break, whereas the symmetrical triangle is a neutral formation that relies on the breakout to dictate the direction of the next move. The horizontal line in a descending triangle indicates demand that prevents the price from declining below the support level. The reaction highs continue to decline despite the fact that the price does not fall below the horizontal support line. It is these lower highs that indicate increased selling pressure and give the descending triangle its upper descending trend line and its bearish bias.

Continuation Triangle Pattern Formations on Longer Time Frames

Ascending triangle continuation patterns are also found on longer time frames and are reliable when they occur on such charts. Ascending and descending triangle patterns are often seen on such charts, with an occasional occurrence of the symmetrical triangle chart pattern. Continuation patterns on weekly charts also indicate that price sluggishness is only a pause in a prevailing trend, and not a sign of a forthcoming reversal.

Figure 7.10: **Symmetrical, ascending and descending triangles on the weekly chart of Reliance.**

Figure 7.10 is the weekly chart of Reliance Industries (RIL). The stock moved in a strong up trend from the beginning of June 2005 till June 2006. The symmetrical triangle formed during its downward movement in May and June 2006 showed merely a pause and sideways movement after an up trend in the weekly chart, though the daily chart for this period might well have shown a short term down trend. Long term investors use such breakouts from the symmetrical triangle formation to accumulate more shares.

You can see the ascending triangles 1 and 2 in the chart and compare this chart with the daily chart given earlier in Figure 7.4. The breakouts from these ascending triangle

formations on weekly charts offer good buying opportunities.

Also, note the formation of a descending triangle from the last week of June 2007. Will it continue the existing trend or reverse the trend? The support around ₹ 1,650 - ₹ 1,660 needs to be watched carefully. If this support does not break, you can expect the continuation of the up trend.

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So far as ascending and descending triangles are concerned, the length of the pattern can range from a few weeks to many months, with the average pattern lasting from one to three months. The symmetrical triangle can extend for a few weeks, or many months. If the pattern lasts for less than three weeks, it is usually considered a pennant.

Figure 7.11: **Descending triangle on a weekly chart of Balrampur Chini.**

In Figure 7.11, the formation of a descending triangle shows a continuation of the down trend for Balrampur Chini on this weekly chart. The stock tumbled down to a low of ₹ 95 in June 2006, after touching an all-time high of ₹ 205 in April on a weekly closing basis. Now there was no more sweetness left in this stock. The price bounced back to a reaction high of ₹ 130 but failed to subsequently make higher highs thus making the descending trend line show by the downward sloping blue line.

The stock touched the horizontal (blue) support line at three points — in July, August and September, respectively — thereby confirming the formation of the horizontal support line at around ₹ 88 - ₹ 90 level. The stock finally broke down in December 2006; the price clung to the edge of the pattern for a few weeks and then collapsed with gaps. The formation was accompanied by bearish volume patterns, namely the price falling with heavy volumes.

Figure 7.12: **Weekly chart of Taj GVK Hotels shows two descending triangles. The patterns clearly signal a continuation of the existing down trend; on such weekly charts their implications are clear and the patterns are reliable.**

The stock of Taj GVK Hotels (TGH) made a low of ₹ 164 in late July 2006 on a weekly closing basis and found support around this level, shown by the horizontal blue line *(see* Figure 7.12). The price then pulled back and found support at around ₹ 215 - ₹ 220 levels (the upper blue horizontal line in the chart) and moved in a narrow range of ₹ 220 - ₹ 243 forming the first descending triangle (1). Line 1 is resistance for the stock. Once the price fell below the upper horizontal support line in the first week of September, it never pulled back to the retest this level, thereby signaling the stock's inherent weakness and the power of the bears. At this point the bulls appeared to be checking out of this stock in a hurry.

The downward journey of the stock is again clearly represented by the second descending triangle formation (2) and the break of the lower support line. The occurrence of these two patterns on the weekly chart is quite a dependable confirmation of the down trend's continuation. Each low closing was accompanied by volume.

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While you should follow the daily charts for planning and executing your trading strategy, but you also need to keep an eye on the longer time frame charts (weekly or monthly charts) in order to better understand the ongoing trend and to look out for some trade all formations.

Head and Shoulders as A Continuation Pattern

As described in Chapter 4, the head and shoulders formation is typically a reversal pattern. However, we also saw how failed head and shoulders patterns offer an opportunity to trade in the opposite direction of the anticipated move. Thus, instead of indicating a reversal, failed head and shoulders patterns signal a continuation of the ongoing trend. This is how the head and shoulders patterns sometimes signal continuation.

Figure 7.13: **Head and shoulders pattern signaling the continuation of the earlier down trend. The break down of the neckline confirms the weakness of the stock.**

It is easy to see the struggle of Tata Motors in Figure 7.13. The chart suggests that things would not get any better quickly. The price has fallen below the neckline of a short term head and shoulders pattern. At this point, therefore, one should maintain a bearish outlook on this stock until the bulls are able to take the price above the neckline.

The formation of a descending triangle also does not augur well for Tata Motors.

The area near the neckline is likely to act as an area of resistance, and will prevent a move higher. This chart is a clear indication of the obstacles that lie ahead for the bulls; it also

suggests that the near term momentum will be downward.

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Figure 7.14: **Head and shoulders as a continuation pattern in Aegis Logistics.**

Aegis Logistic (AL) got badly hammered in June and July 2006 and tried to regain the lost ground in August and September. The head and shoulders formation *(see* Figure 7.14), along with the occurrence of a double head and the breaking of the neckline in October (shown by the horizontal blue line) with high volume, belied any hope of a possible recovery. Thus, in this case the head and shoulders formation confirmed the continuation of the previous down trend.

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Figure 7.15: **Head and shoulders pattern signaling the continuation of the ongoing up trend in Bajaj Electric.**

Bajaj Electric made an upward move in the last week of December 2005, consolidated its gains, and formed a head and shoulders pattern which lasted for two months — from February to March 2006, as can be seen in this chart. The pattern formed in this chart shows a continuation of the previous up trend and not its reversal. Sure enough, the price shot up once it crossed the neckline resistance (the horizontal blue line) in the first week of April 2006.

Figure 7.16: **Head and shoulders pattern for Bajaj Hindustan in a down trend shows the continuation of the existing down trend. The price is hovering around the neckline which now acts as resistance for the up move.**

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Some analysts assign different characteristics to such patterns. For example, in an up trend a head and shoulders continuation pattern will appear as an inverted head and shoulders pattern, and *vice versa*. Other analysts consider that the appearance of a head and shoulders pattern in either an up trend or a down trend is a signal for the continuation of the trend so long as the price remains below, or above, the neck line depending on the type of trend. They hold that the head and shoulders pattern becomes a reversal pattern only when the price pierces the neckline.

Figure 7.16 shows a head and shoulders pattern signifying a continuation of the down trend.

Summary

Triangles

- Over 75% of the time triangles are continuation patterns. Only 25% of the time do they act as reversal patterns.

Ascending Triangles

- An ascending triangle is generally considered to be a continuation pattern, and it is usually found amidst a period of consolidation within an up trend.
- Once the breakout occurs from an ascending triangle, buyers aggressively send the price of the asset higher, usually on high volume.
- The pattern has a horizontal line which can be called the seller's line, and an upward sloping line called the buyer's line.
- The buyers keep bidding up the buying price along the upward sloping line where they meet resistance along the horizontal line, until the price finally breaks out of the horizontal line on heavy volume.
- The minimum target for this pattern is the width of the ascending triangle at its widest point. A pullback bringing prices back to the horizontal line may or may not occur after a breakout.
- A stop can be placed at the previous lower pivot for long trades.

Symmetrical Triangles

- A symmetrical triangle is generally regarded as a period of consolidation before the price moves beyond one of the identified trend lines.
- A break below the lower trend line signals a move lower, while a break above the upper trend line signals the beginning of a move upward.
- Traders who are able to identify the pattern early enough can capture the sharp price movement that often follows a breakout of this formation.

Descending Triangles

- A descending triangle is the bearish counterpart of an ascending triangle.
- Descending triangle patterns show that the demand for an asset is weakening, and when the price breaks below the lower support, it is a clear indication that the downside momentum is likely to continue, or grow even stronger.
- Descending triangles give technical traders the opportunity to make substantial profits in a short period of time.
- The most common price targets are generally set to equal the entry price minus the vertical height between the two trend lines.

Head and Shoulders as A Continuation Pattern

- Head and shoulders patterns also sometimes work as continuation patterns because the prices of securities go through a series of fluctuations.
- A head and shoulders continuation pattern will usually appear as an inverted head and shoulders pattern in an up trend — and as a head and shoulders tops in a down trend.

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* In their landmark book, *Technical Analysis of Stock Trends*, Vision Books. (www.visionbooksindia.com)

Chapter 8

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How to Use Volume and Open Interest

Can you imagine watching a cricket match in a big stadium with no other spectators? What would happen if Virat Kohli were to hit a four or Dhoni hits a huge sixer — you will be the only one who would be cheering and all you will get is an echo in return, or sometimes simply an eerie silence!

You will also miss the lissome cheerleaders, Mexican waves, a crowd cheering and supporting their team, and jeering at supporters of the opposition team. A match can be fully enjoyed only if there is a crowd present. Since spectators get involved in the match, all human emotions come into play. This helps you understand which player the crowd is supporting, who they cheer, what makes them happy, what is the general mood and psychology of the crowd, and so on. The crowd comprises of many types of spectators, including noise-makers, cheer-leaders, informed spectators, picnickers, serious professionals and spectators who know and understand game, speculators, etc. And all of them are an important part of the crowd.

Similarly, the trading volume of stocks and indices comprises of the participation by all types of players; investors, traders, amateurs, and professionals, institutional investors both foreign and domestic, etc. If you don't have any knowledge about what the other participants are up to, you will get no idea about the strength of the price. It's important to know which stocks the other people are supporting or rejecting. Volume is akin to spectators in a cricket match — without them you will not feel the pulse of the market, and neither can you gauge the market's mood, strength or weakness. Volume encompasses the various human emotions at play in the market; fear, greed, ecstasy, agony and excitement. There is that inevitable feeling of *déjà vu* when people see a trade working in their favor — and disappointment and anguish when it goes awry.

Volumes are the drumbeaters of the stock market, the noise and the beat of drums makes you ready to prepare for a war; and to win it, you must know what the crowd is doing and you must have an understanding of crowd psychology.

Volume

Volume is defined as the number of shares, or contracts traded, whether for a security or an index, during a given period of time frame, usually an hour, a day, a week, a month, etc. Trading volume is another commonly used term for volume.

The interpretation and analysis of volume is a basic and very important element of technical analysis. The intensity and strength or weakness of a given price move is judged by the accompanying volume. The greater the volume, the more active the security is.

As in Figure 8.1, the volume bars that are usually plotted at the bottom of any chart represent the volume of trading. These bars help in depicting the movement of the volume (higher or lower). Volume bars show how many shares have traded during a specified time and also show trends in the same way that prices do.

Figure 8.1: **Simple illustration of price and volume on a Nifty chart. Prices are represented by the candlesticks in the upper portion of the chart while volumes are shown as simple vertical bars in the lower part of the chart. This is a Nifty daily chart and thus it depicts the daily volumes traded of the Nifty.**

The Importance of Volume

Volume and Trends

In technical analysis, volume is used both for confirming trends and also for confirming the validity of chart patterns.

Volume is an important indicator in gauging the strength of a move, whether upwards or downwards. For example, if an up or down price movement is accompanied by high volume, the move can be termed as strong.

As we have seen in the previous two chapters, stocks often go into consolidation periods, during which they gather steam for their next move and one day shoot out of the range with gap price openings. Volume information is required to confirm and validate such a price movement, and to form a trading view.

If volume is high on the breakout day relative to the average daily volume, it is a sign that the breakout move is going to sustain. On the other hand, if the breakout day's volume is below average, there may not be enough conviction to support the move.

Volume usually endorses the strength of the trend. If prices are moving in an upward or downward trend, volume should also normally increase. If the price and volume do not match, it is usually a sign of weakness in the trend and uncertainty of the move.

Say, for example, if a stock is in an up trend but the up trading days are marked by lower volumes, it is a sign that the trend is starting to lose steam as the bulls are exhausted and such a trend may end soon.

As an indicator, volume is easy to analyze and requires no fancy mathematical formulas and calculations. It simply indicates enthusiasm, or lack thereof, for a particular security, market or contract.

While volume alone is not a sufficient determinant of market direction, used in conjunction with other data it can be very beneficial — especially for

longer term traders — in identifying whether the prevailing trend is likely to continue or reverse.

Volume and Chart Patterns

Volume is also used to confirm chart patterns. We have seen that price patterns such as head and shoulders, triangles, flags, pennants, wedges and others are confirmed with volume. As a good chartist you should be able to use and analyze volumes whenever you see a clear pattern on charts. You should use volume as a measure of supply and demand for a particular security, to confirm price changes, as also to anticipate changes in price.

As we have already seen, continuation patterns such as triangles are the result of a period of indecision or consolidation in a stock's price. Volume is usually light during the formation of these patterns and increases on a breakout from the pattern. For any pattern or trend line penetration, a breakout or breakdown with increasing volume is a stronger indication that prices will continue in the direction of the breakout or breakdown as the case may be.

A healthy trend is a period of rising peaks and rising troughs in price — and increasing volume. When volume diverges from the price, for example when the price is in an up trend but the volume is declining, it can mean that there is a higher risk of reversal in the price trend.

Volume Precedes Price

Another important idea in technical analysis is that **a price move is preceded by volume**. You should therefore closely monitor the volume when forming an opinion about an upcoming trend reversal, continuation or consolidation. For example, if volume is starting to decrease in an up trend, it is usually a sign that the upward run is about to end.

We will discuss several examples of charts to help you understand the relationship between stock prices and trading volume. Reviewing these charts and the accompanying explanations will help you see how trading volume affects the strength and durability of an early-stage stock price move. Each

chart shows the relationship between the price pattern, a breakout from the pattern, and the trading volume.

Volume Interpretation

Volume data can be used to assess the prevailing market sentiment. Usually, high volume reflects high level of certainty and confidence in the future trend and, conversely, low volume suggests uncertainty.

Low volume levels are characteristic of indecisive expectations that typically occur during consolidation periods. Low volumes are also often seen during indecisive periods and during market bottoms.

High volume levels, on the other hand, are characteristic of market tops when there is a strong consensus that prices will move higher. High volume levels are also very common at the beginning of new trends, i.e. when prices break out of a trading range. Again, volume often due to panic-driven selling, just before the market bottoms out.

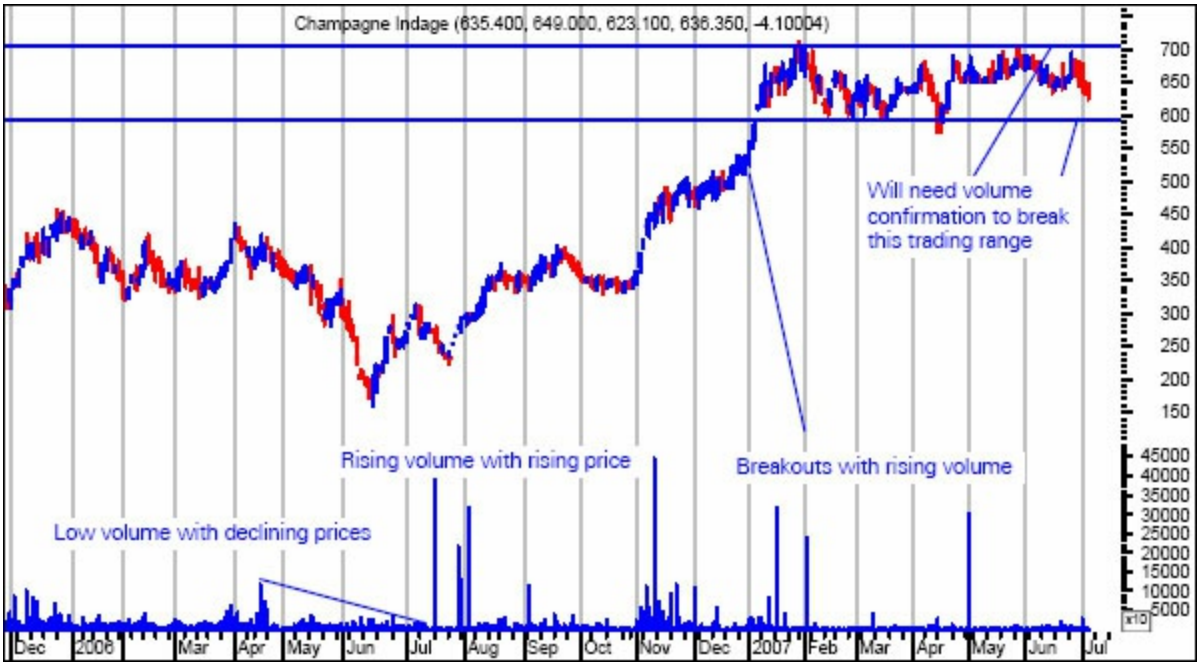

Figure 8.2: **An example of using volume to confirm price breakouts.**

Volume is used to confirm a price breakout and its sustainability in thinly traded counters like Champagne Indage (*see* Figure 8.2). The fall in this stock's price in May and June 2006 was accompanied by low volumes,

indicating that no major selling really took place. The price breakout of January 2007 was supported by an expansion in volume confirming the validity of the breakout. Towards the end of the chart, the stock seems to be consolidating in a sideways trading range of ₹ 600 - ₹ 700. Again, you will need volume confirmation to analyze either strength or weakness of the stock once it breaks the support / resistance line.

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Increasing Volume and Rising Price

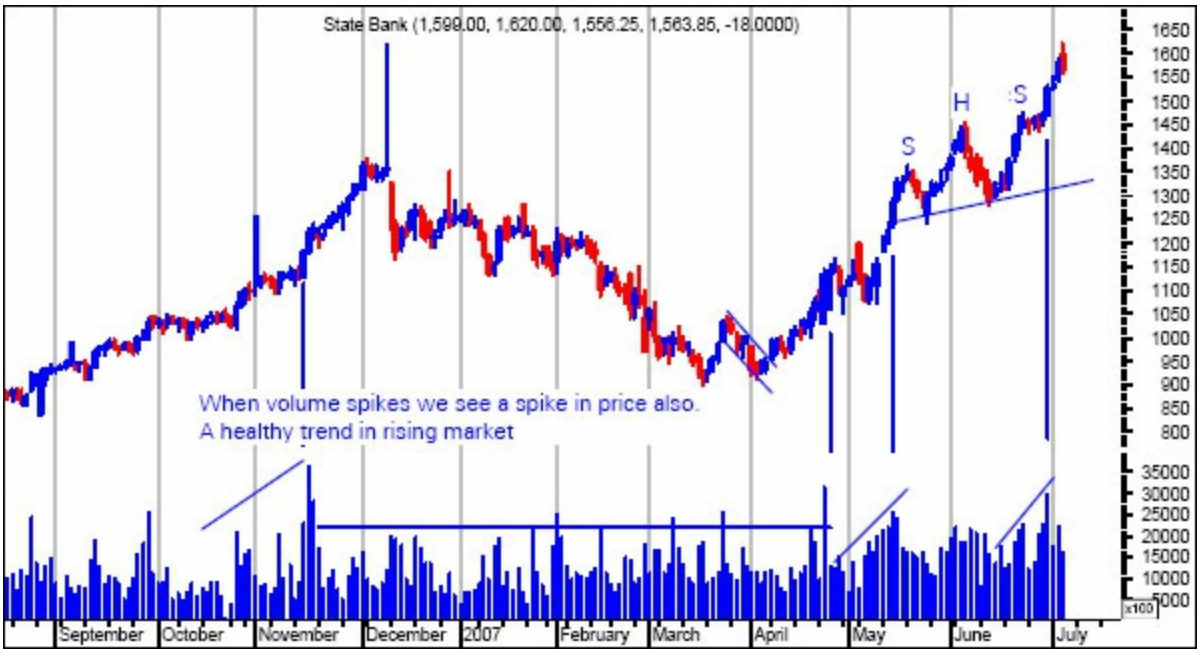

Figure 8.3: **Increasing volume and rising price indicate a healthy up trend.**

In this chart of SBI in Figure 8.3, you can see that there was a corresponding volume spike for each of the price spikes, indicating a healthy trend for the stock. It signified that the stock was in great demand and prices were bid up in order to meet that demand. From November 2006, however, the price started declining till mid-March 2007. During the decline there was moderate to low volume indicating the exit of weak hands and a churning of ownership.

You can also see a failed head and shoulders pattern developing in May-June 2007. The subsequent breakout was accompanied by a rise in volume which

took SBI to a lifetime high — and new highs with high volumes should always be respected. It also signaled that the stock still had steam to go further.

~

If volume is relatively high as the stock price is going up, but remains relatively low during consolidations, it can be inferred that the stock is in a strong up trend and may continue to remain so.

When the price moves up on increasing volumes, it is generally a healthy trend. Prices rise because there are market participants who are willing to pay more in order to get the stock. But the demand may wane after a while if the price is bid up beyond reasonable levels by those wanting to acquire the stock — to a level such that the underlying fundamentals and the players involved no longer believe the stock is worth that price. This situation may result in the formation of tops.

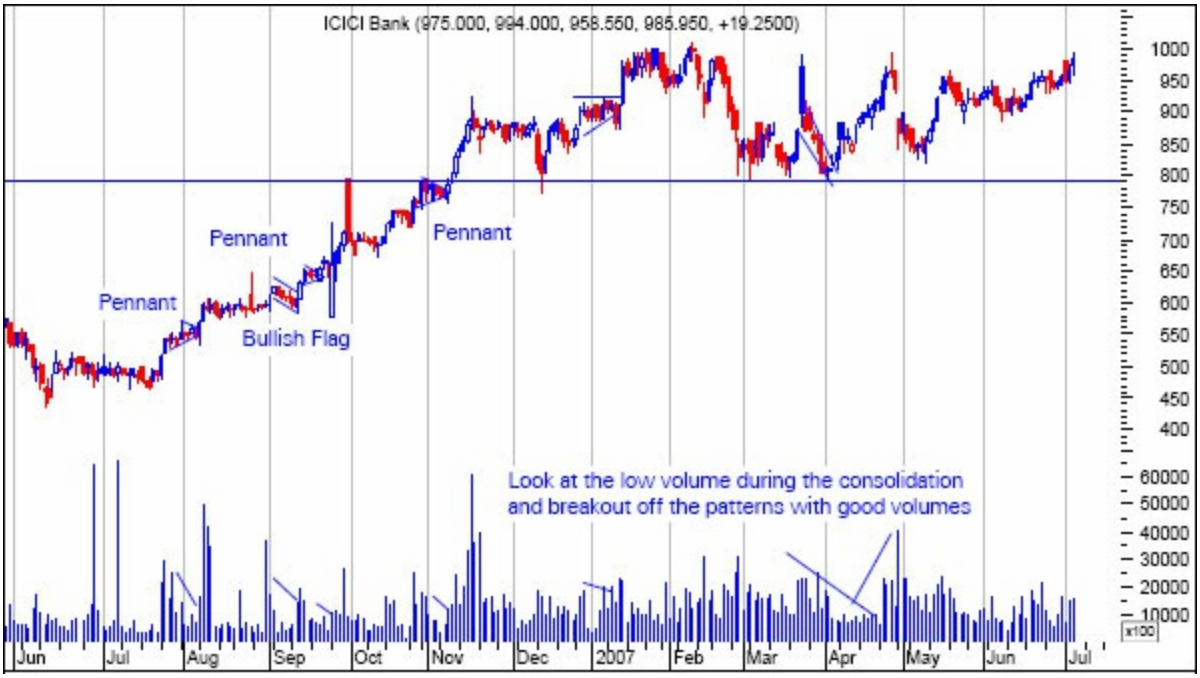

Figure 8.4: **Increasing volume and rising price: This chart of ICICI Bank displays a beautiful combination of volume with continuation chart patterns. You can see a breakout with a rise in volume, then consolidation with low to moderate volume, then again a breakout with increased volume. The July 2007 rally had yet to see a decent volume, though and this should caution a trader.**

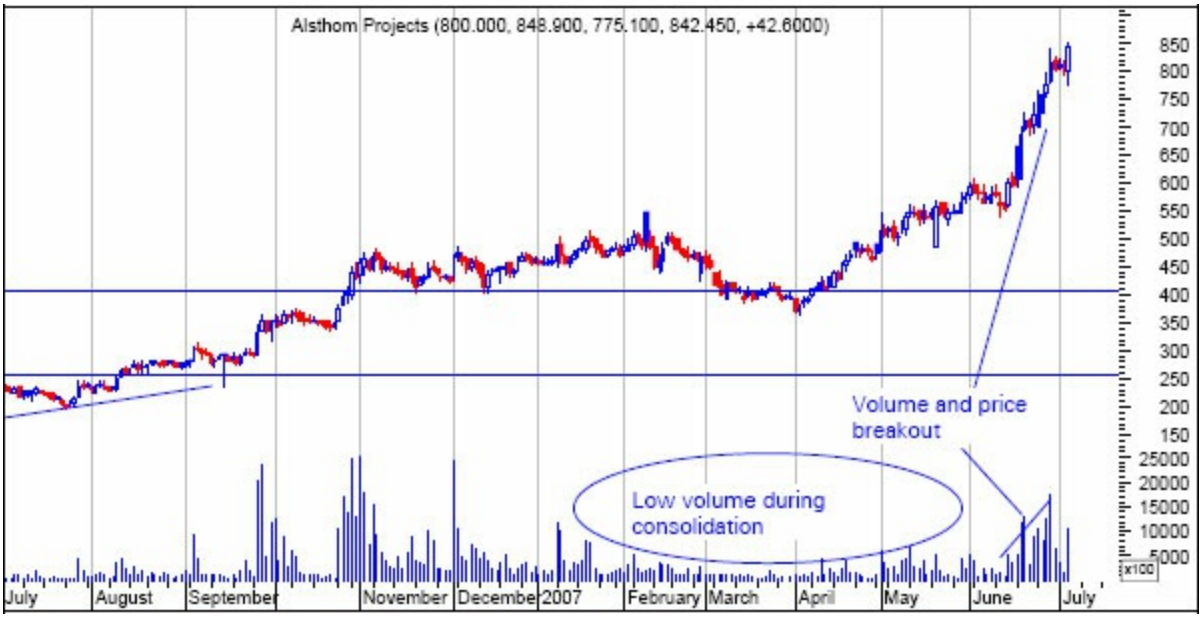

Figure 8.5: **Increasing volume and rising price enables Alsthom price to scale new highs.**

Alsthom Project reversed its trend in August 2006 with huge volume and price breakouts (*see* Figure 8.5). It was again able to scale new highs in November-December 2006 with huge volume. The price then kept on rising gradually but volume trailed off subsequently and became very low when prices declined and traded at low levels during March-April 2007. Thereafter, the volume picked up gradually but the price rose sharply from May to mid-June. The sharp explosion in price with a corresponding explosion in volume too after mid-June confirmed the stock's bullishness and the subsequent touching of new highs with large volumes showed the strength of the bulls.

Falling Volume but Rising Price

When a market or stock is rising, but the volume is falling, it indicates that the price is no longer driven by demand. One should be careful at this point as such a situation may lead to an imminent correction. **Falling volume coupled with rising prices is generally a warning signal and one should be on alert as a healthy correction could be just around the corner.**

Figure 8.6: **Falling volume but rising price in Infosys predicates an unsustainable situation.**

Infosys's price high in February 2007 was not supported by any rise in volume. On the other hand, you can see in Figure 8.6 that the stock's January high was accompanied by a rise in volume. It was not surprising therefore the stock was not able to maintain the scaled peak of February (on account of low volume) after which the price tumbled down with rising volume. The stock found support at around ₹ 1,900 in May-June and the volume also stabilized and was hovering with moderate volume in a narrow range of ₹ 1,900 - ₹ 2,000 towards the end of the chart. The steady price and volume levels from May 2007 indicated that people had not lost hope on this counter. Any breakout / breakdown from this range on the up / down side with surging volume could well start a new up trend for stock.

~

Average Volume and Rising Price

Such a situation typically signals a transition phase. When price is rising while the volume is at average levels, it shows a transition either from a declining to a sideways market, or from a sideways market to one turning higher.

Figure 8.7: **Average volume and rising price suggest a transition phase.**

The chart of ABB in Figure 8.7 depicts a price breakout with volume at the start of 2006. The stock then consolidated its gains and gathered energy for the next move during February and mid-March. The stock did break out again with good volume after mid-March. Volume remained at average levels when the price topped out in May and an expanding triangle was formed. Volume, however, remained firm when prices declined in May and June 2006. Later, while the price declined volume never spiked off and this was a harbinger of the price recovery that the stock witnessed from August onwards.

~

Figure 8.8: **Average volume and rising price as Shippking Corporation transits from sideways to up.**

Shipping Corporation's weekly chart in Figure 8.8 exhibits a typical price and volume pattern. The stock firmed up in the later part of 2003 and in the early part of 2004 with good volume spikes. The price then remained range bound with reducing volume in the year 2005 and 2006, which became steady in 2006. The stock made a longer term bottom (2005-06) and the price also went up from January 2007 but there were only a few spikes in volume. Typically this happens when a stock makes a transition from either up to down, or from down to up, from sideways to up, or from sideways to down. In this case, the stock was making a transition from sideways to up. The volume should catch on once the stock stabilizes above the ₹ 170 - ₹ 180 range. This phenomenon is similar to when people rush to the stadium once they come to know that a particular player has scored a fifty and may score a century.

~

Rising Volume but Falling Price

Increasing volume when prices are falling can show two characteristics.

There may be volume spikes which indicate a short-term bottom as those hoping for higher prices move out. And then there is a gradual build up in volume accompanied by gradual and continuing declines in price. Increasing volume with falling price may occur in spikes, and often gradually.

If volume is high while the market is going down, and relatively light during small upward moves, it indicates inherent weakness in the market and a likelihood of continuing down trend.

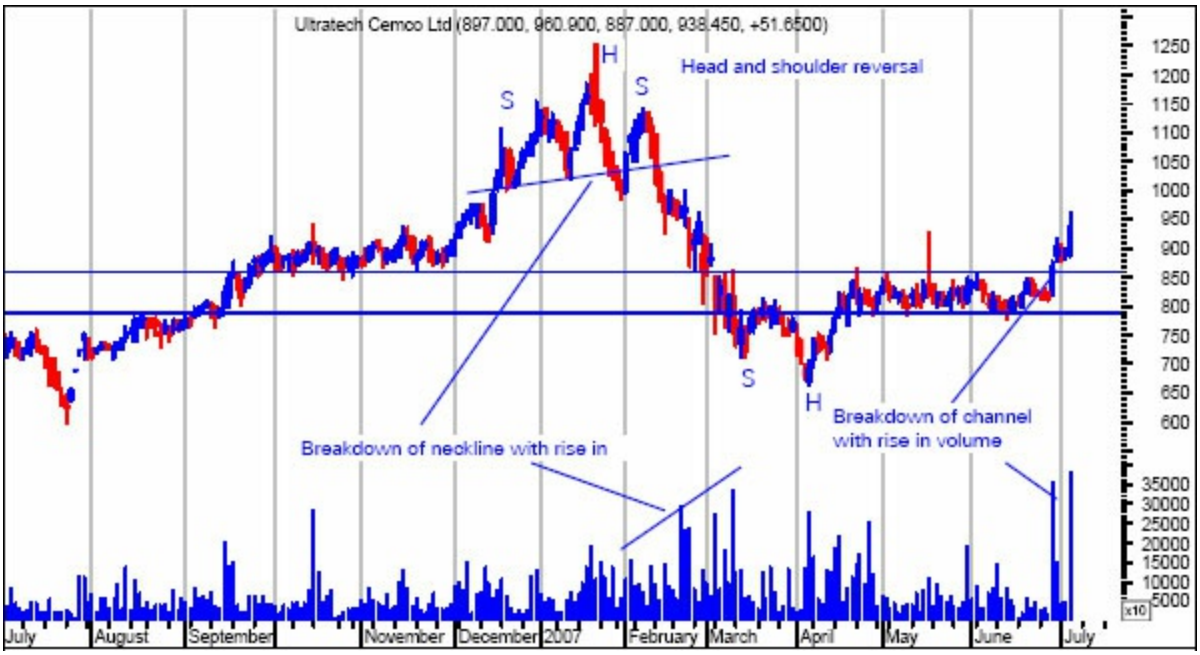

Figure 8.9: **Increasing volume but falling price — apprehensive investors.**

As you can see in Figure 8.9, Ultratech rose steadily from September 2006 and the breakout was supported by an expansion in volume. However, the formation of a head and shoulders pattern reversed the trend. Breakdown of the neckline with increased volume marked a short term reversal of the stock's up trend. Bottoming out of the stock in April 2007 and a rise in price with higher volumes then underscored the firm grips of the bulls. The stock again then moved in a narrow channel with occasional spikes in volume. An interesting part of this chart is the breakout of the stock from the narrow range with high volume in late June and early July 2007 which marked the beginning of its new up trend. One can go long in such a situation with a stop loss at the upper resistance line (the upper blue horizontal line), which would now act as support.

The price spike down from February 2007 to mid-March 2007 was accompanied by a volume spike and signaled a short term bottom. This reveals both the apprehension of investors, who are therefore willing to sell — and that there are more sellers than there are buyers. Gradual but continuous price decline with the same intensity of volume indicates eagerness of the sellers to exit at any price; the gap down openings with each fall show sellers are willing to sell at lower and lower prices. You can then see an inverse head and shoulders pattern in March-April 2007, signaling the reversal of the short term downtrend.

~

Falling or Average Volume and Falling Price

Even in a bear market there are stocks that rise. Typically, however, in a bear market even good stocks are pulled down and you find declining prices with average, or decreasing, volumes *(see* Figure 8.10). Even in a bull market you can see this happening. Take another look at the chart of ABB (Figure 8.7). ABB remained a rising stock for the most part of 2005-06. The stock's price, however, fell during May-June 2006 along with a general fall in prices of other stocks at the same time. The volume, however, told a different story. It rose only moderately on a few occasions but otherwise remained at average levels during the huge decline in price. This was a clear indication that the stock was in strong hands and that investors were willing to hold on to it even with the price declining.

Figure 8.10: **Decreasing or average volume and falling price in ACC should ring a warning bell.**

ACC made steady gains accompanied by steady volume from July 2006 to mid-November 2006. The price then shot up convincingly with an expansion in volume in November 2006. Since the price rose with increasing volume, everything appeared healthy. The price dropped later in November and then rose again and reached an all-time high in the first week of December 2006 but, hold your breath, there was no rise in the volume accompanying this new high. This indeed was a warning sign. It was as if a player is batting in the nineties but the crowd goes suddenly silent. This warning sign was further confirmed by a head and shoulders formation as well as a descending triangle formation. The ensuing fall was marked by an increase in volume. It would appear that ACC became a victim of the nervous nineties and got out before completing a century — whereupon the crowd went out of the stadium in droves, dumping the player for not completing the century (not sustaining the new high).

You should also note that the late-June and early-July 2007 breakouts happened with increased volumes. The price moving above the neckline will begin a new up trend for the stock.

~

Falling, or average, volume when prices are also falling is usually a sign

that the bulls are strong, and not of weakness; especially if the stock has been in an up trend prior to the short term down trend.

Steady Volume and Steady Prices

When a stock trades with a steady volume and at steady prices, it doesn't really give us any view of the likely future behavior of the price and therefore little opportunity to execute a trade. This situation can be seen towards the right hand side on the chart of Zuari Industries in Figure 8.11.

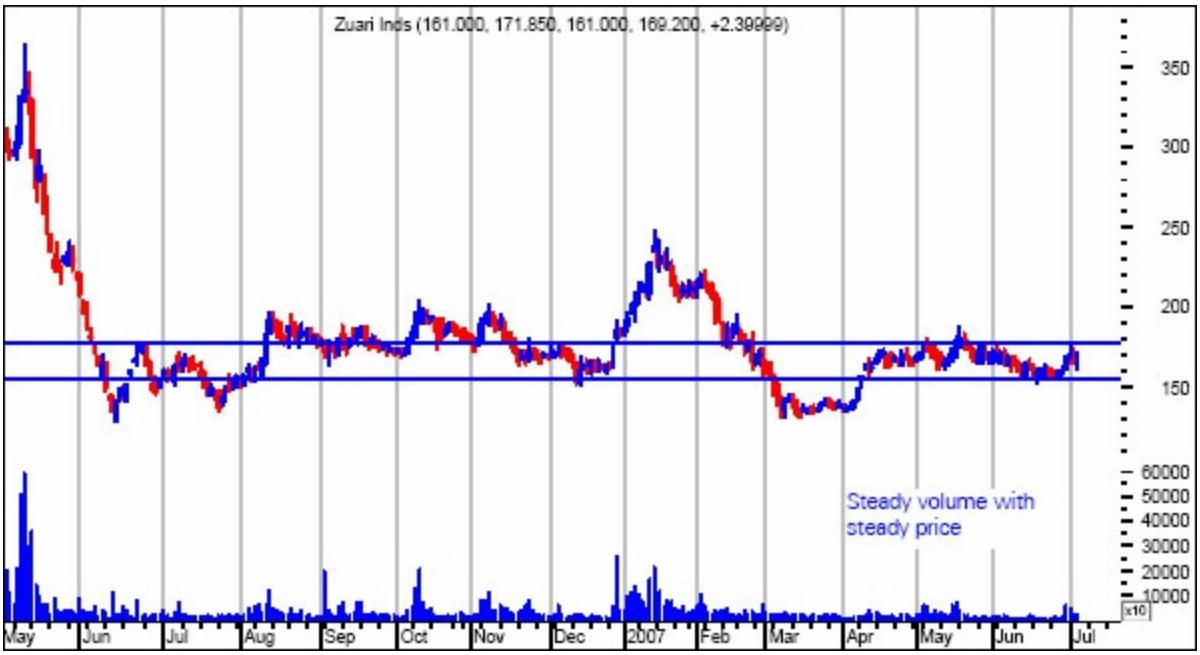

Figure 8.11: **Steady volume and steady price leaves the trader guessing.**

Zuari Agro exhibited price spikes accompanied by greater than average volumes in January and February 2007. From April onwards, volume shrunk to less than average and the price drifted in a narrowing range. This doesn't give us any insight into where the price may next be headed, but the fact that the price range is narrowing suggests that something is in the offing. Once the range is broken, we will get both a volume and a price read to determine the sustainability of the next move.

Towards the end of the chart, Zuari Agro shows a narrow price range with almost steady volume. This signifies disinterest in the stock on part of both

buyers and sellers. The volume spikes of May 2007 had no follow through buying.

~

Volume and Breakout Confirmation

Volumes are taken into account to judge the validity of breakouts:

- When the price is trading in a range, volume may indicate in which direction a breakout is most likely to occur:
- Higher volume at tops means that an upward breakout is more likely and the market may see new highs.
- High volume immediately after a breakout also indicates a healthy breakout.
- Conversely, low volume immediately after a breakout indicates weakness. Low volume does not always signal the end of a down trend, however. It merely shows a lack of sufficient commitment from buyers to drive up prices.

On Balance Volume (OBV)

On Balance Volume is an indicator that was designed to track changes in volume over time and is a running total which rises or falls every trading day.

Joseph Granville developed and designed the OBV indicator. The details can be obtained from his book, *New Strategy of Daily Stock Market Timing for Maximum Profits.* His basic principle behind the OBV was that volume is the driving force behind the market, and that volume oscillators confirm price movements. Granville explained his theory by stating that when volume increased or decreased dramatically without any significant change in the security's price, then at some point the price would "spring" upward or downward. In his book, he described the increase or decrease in the volume of his indicator, i.e. its setting of new highs or lows, as "a spring being wound tightly."

A volume oscillator works by measuring the relationship between two moving averages of the volume. For this purpose, the volume oscillator uses one fast and one slow moving average of the volume. The difference between the two (fast volume moving average minus slow volume moving average) is then plotted as a histogram. The fast volume moving average is usually over 14 periods, either days or weeks. The slow volume moving average is usually over 28 periods, either days or weeks. There is a difference of opinion among technical analysts over the use of these time periods. Some opine that these figures are conservative while others say they are not. **OBV is a leading indicator, so it typically rises or falls before the actual prices do.**

Volume increases when big mutual fund houses, institutional investors, FIIs, etc. begin buying a particular security that individual investors may still be selling. Such institutional buying raises the volume even as the price may either still be falling somewhat, or leveling out. A rising OBV thus may indicate that smart money is flowing in. Over a period of time this rising volume begins to also drive the price upward. The converse then begins — as the institutions begin to sell their position, retail investors begin again to accumulate the stock. It's like buying from the retails at bottom (and lured by the rising price), selling back to them again near the top.

Figure 8.12: **Price and OBV chart of TCS: OBV, the red line above the volume bars in the lower window, is plotted using 10- and 25-day average values. As you can see, in this chart, OBV was below zero from mid-May 2007 and the price was also falling.**

Interpretation

If a market is trending up, the OBV volume oscillator should rise. When the market becomes overbought, the OBV oscillator will reverse its direction.

If the market is declining or moving in a horizontal direction, the volume should contract. Our attempt in analyzing volumes is to observe the change in volume, and volume expands during a sell-off. You should always keep in mind that an increasing price together with declining volume is always bearish. Overbought readings of volume on charts are seen when the market is at the top. Rising volume together with declining prices signals bearish sentiments.

On balance volume (OBV) is used to spot changes in trend:

- A rising trend in the OBV is a sign of a healthy move.
- A doubtful, or sideways, trend in the OBV leaves the price trend suspect and a probable candidate for a reversal.

- A falling OBV trend signals a mass exit from the security irrespective of the price activity and cautions that price may follow OBV if it has not already done so.

The histogram, like an oscillator, fluctuates above and below a zero line. Volume can provide insight into the strength or weakness of a price trend. This indicator plots positive values above the zero line and negative values below the zero line. A positive value suggests there is enough market support to push the price higher. A negative value, on the other hand, suggests a lack of support and prices may begin to drift, stagnate, reverse, or remain range bound:

- A new OBV high exhibits the power of bulls, the weakness of bears, and a possible rise in price.
- A new OBV low indicates an opposite situation: the power of bears, weakness of bulls and a possible fall in price.

Divergence between OBV and Price

One should be alert for any divergences between OBV and prices *(see* Figure 8.13). When OBV shows a signal differing from that of actual prices, it indicates that volume, namely the emotion of the market, is not consistent with its consensus about the price. Accordingly:

- Divergences between the peaks warn of an impending fall in prices.
- Divergences between the lows signal a potential rise in price.

Figure 8.13: **Divergence between price and OBV: Here we have taken 5/20 day moving average values for OBV. In case of the price breakout of September 2006, the high price and high value of OBV are in harmony with each other. It is interesting to see the price rise of December 2006 and January 2007 when the value of OBV is not in synchronization with price, thus showing divergence. This divergence resulted in a fall in price till April.**

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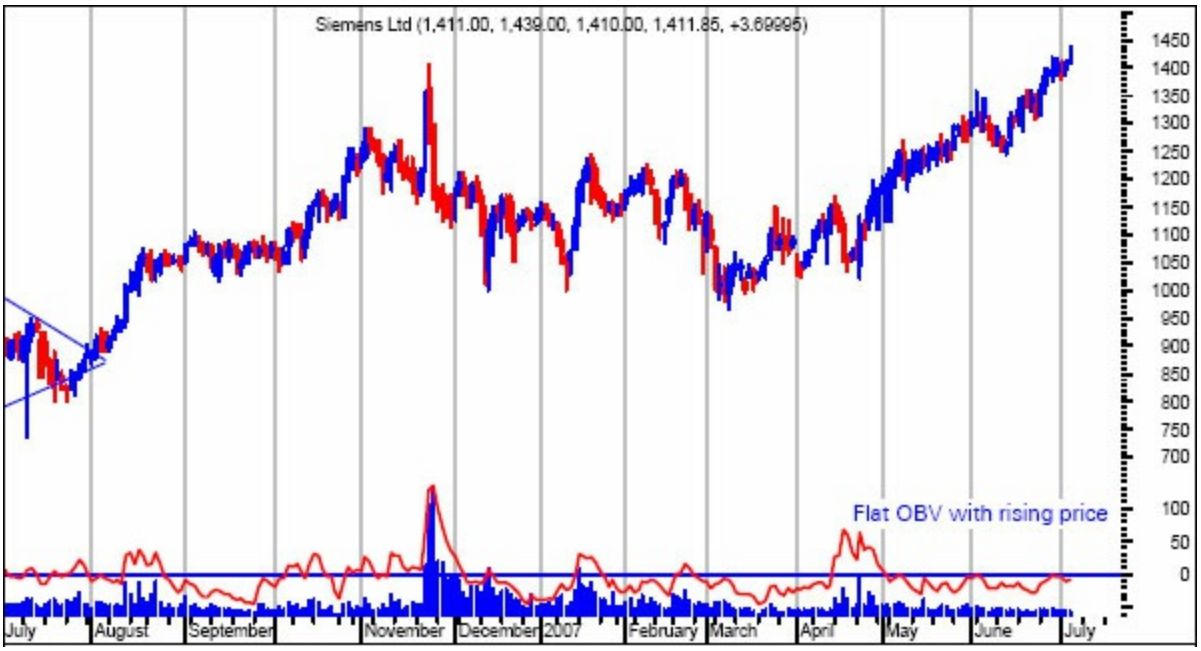

Figure 8.14: **Divergence between OBV and high price: In this chart of Siemens you can see that the price was rising from March 2007. The up trend was still on; and the price climbed up gradually with no sign of weakness. On the other hand, OBV was showing a flat reading and there was thus a divergence. This divergence was a cautionary signal. Indeed, the price started falling from mid-July (not shown on the chart) and fell to ₹ 1,128 in August 2007.**

Accumulation / Distribution

Accumulation distribution is an analysis of the relationship between price and volume and acts as a leading indicator of price movements. Accumulation and distribution indicate who is in control of the market. It often signals a reversal and is used to detect divergences between volume and price action.

Simply put, accumulation relates to buying, while distribution relates to selling:

- A down trend that stalls while volume remains high signals that accumulation is taking place, and that buyers are in control of the market.
- An up trend that stalls while volume remains high is a sign of distribution taking place. Distribution occurs when sellers control the market.

Open Interest (OI)

Open interest is another indicator of market psychology and is applied to the derivatives market.

Open interest is defined as the total number of outstanding futures or options contracts that have not been exercised, closed, or expired. OI thus is the total number of open contracts of a security in the market. It represents the total number of all long and short contracts in the market on any given day. It reflects the difference of opinion among bulls and bears.

OI falls and rises only when a new contract is added or deleted. Thus:

- **Open interest rises** when one long buyer and one corresponding short seller enter the market, and
- **OI falls** when one long buyer and one corresponding short seller close their positions.

OI provides an indication of the liquidity of a particular contract or market. High levels of OI signal fair liquidity while a low level of OI signifies lack of liquidity in the market.

Open interest is of value to traders who deal in the futures and options market. They use open interest data with volume analysis. It reflects the psychology of the market and represents the ongoing conflict between bulls and bears:

- **If both open interest and price are increasing,** it is a sign that new buyers are pouring into the market with a strong bullish view. In such a situation, you can expect the up trend to continue.
- **When open interest is increasing while prices decline,** it indicates the dominance of short sellers in a technically weak market. This is a bearish sign.
- **Declining open interest and slipping prices** indicate liquidation of short positions by traders. Typically, these will be replaced by fresh shorts who will not be as strong as the departed traders. Declining OI

along with falling prices also means the strong fresh longs are taking positions therefore suggesting bullishness. You can expect a rally to follow.

- **When open interest is declining but prices are rising,** short covering is the most likely cause suggesting that the overall market is weak. The smart money is probably booking profits. This is a bearish sign.
- **If open interest remains constant while the price keeps rising,** one should be cautious as it may be a warning sign for an immediate top.
- **When a rising trend of open interest begins to reverse,** one may expect a bear trend.
- **If prices are range bound and open interest is rising,** this is a bearish sign as it indicates that institutions, and big players are taking short positions and the long retail traders will lose.
- **If prices are range bound and open interest is falling,** it is a bullish sign as this means that the smart money is covering its short positions.

A rising open interest points to an increase in the number of players who, in turn, will push the ongoing trend forward. Open interest that increases during an up trend reveals that some bears believe the market to be too high, but if the up trend continues, they are trapped and their subsequent short covering (buying) propels the market even higher. However, open interest that remains relatively constant during an up trend indicates that the supply of losers has stopped growing and only the previous buyers who are looking to make a profit from their position are entering. Therefore, the up trend is likely to reach its fag end.

Short sellers become aggressive during a down trend where bottom pickers remain the only buyers. Long term traders also exit their positions when prices fall too far, so prices get pushed down even lower. A down trend is likely to continue when open interest rises in a declining market. If open interest remains flat in a down trend, it indicates lower participation by the bulls, and the presence of bears who shorted earlier but now want to cover and book profit. This profit taking causes a flat open interest in a down trend.

Finally, falling open interest shows that amateurs (weak hands) are exiting their positions and the professionals too are taking profits. It also shows there are no additional losers to take the place of those who have given up. A declining open interest signals the likely end of a trend.

Put Call Ratio (PCR)

This ratio is also used by some traders in gauging the market sentiment but it does not help in making firm trading decisions. Nevertheless, you should have a basic knowledge of this ratio.

Put-call ratio is the ratio of put options to call options. All the put volumes and call volumes are taken into account and the ratio is obtained by dividing the total put volume by the total call volume. The value of this ratio can be found on many financial websites.

A high volume of puts indicates a bearish sentiment since too many put buyers may signal bearishness, while too many call buyers may indicate that a market top is in the offing.

Thus:

- If PCR is more than one it indicates traders are trading in more puts and are turning bearish.
- A PCR of less than one indicates bullishness as it indicates more positions in call options. Remember, however, that this ratio doesn’t help in making any trading decision.

Price Volume Data

It is important to know the average trading volume for a stock or index you may want to invest in or trade. This gives you additional information about the significance of price movements by comparing the trading volume against the average trading volume (ATV). If the ATV is hundreds of thousands of shares per day, and jumps up to, say, a million shares one day with higher prices it indicates that something positive has happened with the company, or that some fundamental of the company has changed. Data on average trading volume is available on the following sites, among others:

http://finance.yahoo.com	http://www.moneycontrol.com
http://www.ndtvprofit.com	http://www.icicidirect.com
www.bseindia.com	http://www.capitalmarket.com/
http://www.sharekhan.com/	http://www.equitymaster.com/
http://in.biz.yahoo.com/commentary/	http://www.sify.com/
http://www.walletwatch.com/	http://www.nseindia.com/

Summary

There is a close relationship between price and volume. It is important to view price and volume as a relationship that indicates different things about a stock when the general trend is up, down, and sideway, respectively. In general:

Volume

- Volume recognition is your friend just as the trend is.
- A price rise accompanied by expanding volume is a normal market characteristic and carries no implications of a potential trend reversal. Rising prices should be accompanied by rising volume for a healthy up trend.
- A rally that reaches a new price high on expanding volume, but has an overall level of activity, i.e. volume, lower than that in the previous rally is suspect and suggests a potential trend reversal.
- A rally that develops on contracting volumes is suspect and sign of a potential trend reversal in price.
- Sometimes both price and volume expand slowly, gradually working into an exponential rise with a final blow-off stage. Following this development, both volume and price fall off equally sharply. This represents an exhaustion move and is characteristic of a trend reversal. The significance of the reversal will depend on the extent of the previous advance and the degree of volume expansion.
- When the price advances following a long decline, and then reacts to a level slightly above, or marginally below, the previous trough, it is a bullish sign if the volume at the second trough is significantly lower than the volume on the first.
- A downside breakout from a price pattern, up trend line, or moving average that occurs on heavy volume is a bearish sign which helps to

confirm the reversal in trend.

- When the market has been rising for many months, an anemic price rise accompanied by high volume indicates churning action and is a bearish factor.
- Following a decline, heavy volume with little price change is indicative of accumulation and is normally a bullish factor.
- If a security makes an unexpected move to the upside while there's no news on the company, a large increase in trading volume indicates something significant has probably happened, but has not yet been reported. Such price movement prior to a public news report is a common occurrence because information about a major event within a company is often leaked before the official news release is published.
- Being aware of how many shares are typically traded in a security (average traded volume) helps an investor estimate the significance level of price movements.
- Keeping a watch on trading volume and making comparisons to average trading volume enables an investor to distinguish between price moves that can develop momentum and those that are just meaningless random movements.

The main point to remember is that a large increase in volume validates a price move to the upside, while a small or no increase in trading volume discredits it. To be well informed and have an objective basis for making investment decisions, an investor or a trader should monitor the relationship between price moves and trading volumes.

OBV

The main rules for interpreting the volume oscillator (OBV) are summarized below:

1. When the oscillator reaches an extreme and starts to reverse, it indicates the possibility for a reversal of the prevailing trend.
2. Volume oscillators occasionally lend themselves to trend line and

pattern construction.

3. Expansion in price, associated with a contraction in the volume oscillator, is bearish.

4. An expansion in the oscillator, associated with a contraction in price, is bearish, except when volume reaches an extreme, in which case a selling climax is usually signaled.

5. The volume oscillator usually leads the price oscillator.

Open Interest

1. If prices are in an up trend and open interest is increasing, it is a bullish sign.

2. If prices are in a down trend and open interest is increasing, it is a bearish sign.

3. If prices are in an up trend and open interest is falling, this is a bearish sign.

4. If prices are in a down trend and open interest is falling, this is a bullish sign.

5. If prices are range bound and open interest is increasing, this is a bearish sign.

6. If prices are range bound and open interest is falling, this is a bullish sign.

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Chapter 9

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Important Momentum Indicators

Moving Averages, RSI and Stochastic

The classical chart patterns which we have discussed so far help us in identifying the ongoing trends, trend reversals, and consolidation phases of the market. Now we turn to momentum, one of the most important aspects of technical analysis. In this chapter we will cover the basic nuances of the various important momentum indicators. Trading strategies and trade entry and exit points using momentum will be discussed in detail in Chapter 10.

Momentum

We have already discussed the various important chart patterns wherein by visual inspection you can identify a trend, or a trend reversal. Once you develop your visual inspection skills, you can easily identify the major trends. But it will sometimes be difficult to identify smaller trends in this manner. Let's take the example of a car traveling with some speed. As an observer, you can make out that the car is moving fast simply by using your visual faculty. But if the car slows down, say to avoid a pot hole or to negotiate a bump, you will not be able to see it slowing down until the speed is noticeably slower. But a passenger sitting inside the car will certainly feel the car slow down. Thus, when you are watching from the outside, you can notice just the speed of the car but can't feel it slowing down. The person sitting inside the car, on the other hand, feels both the car's speed and also the car slowing down. For you, it's akin to seeing the price pattern on charts but not the momentum; a passenger sitting inside the car sees both — the price pattern and momentum.

This can be explained by taking another example. When a fast bowler prepares to bowl, he goes to his run up mark and starts running in, first slowly and then with gradually increasing pace. Now, suppose, he then actually bowls a slow ball instead of a fast one. A person watching the match either live or on television sees the bowler running in hard apparently to hurl the ball as fast as he can and will probably not be able to pick that actually a slow ball was bowled. Wherever there is speed, there is momentum. You need the bowler to run in at speed for the ball to gather momentum.

In technical analysis, momentum and rate of change (ROC) are two of the most commonly used terms. They can be simply defined as technical indicators that show the difference between the current day's closing price and the close a certain number of days ago. Momentum, thus, is simply the price difference (change) over a given time span.

Use of Momentum in Conjunction with Chart Patterns

Momentum can be defined as the strength or sustainability of a market move as measured by both volume and price. Momentum is a most commonly used but not a very well understood term by market traders. Momentum is the velocity of a trend or a price move. As a technical analyst, our first purpose is to determine the ongoing trend. Once the trend is known, we should then be able to successfully trade the trend in order to maximize profits and to keep the cash register ringing.

Another use of the indicators is to try and determine when the trend may change, based on watching a combination of volume, price, and other indicators. Obviously, this can’t always be accurately achieved because the trend can change according to the market’s mood, but being aware of market statistics, positions of other traders, or any other significant change in the markets is always of benefit.

Momentum can be measured with the help of many indicators, such as rate of change (ROC), relative strength indicator (RSI), stochastic, and moving average convergence divergence (MACD). Interpretation of these momentum indicators is very important since all of them have some common characteristics but differ from one another in other aspects. These indicators are typically plotted below the price chart and a first comparison can be made just by visual inspection. It is always advisable to plot two or more indicators together in order to compare different momentum indicators on different time frames.

Different Markets, Different Indicators

Momentum indicators can broadly be classified as:

1. Trend following indicators, also known as lagging indicators; and
2. Oscillators, also known as leading indicators.

Consolidating and trending markets are two different types of markets and require the use of different indicators:

- Trend following indicators, such as moving averages and MACD are used in trending markets, whether up or down. They are also known as lagging indicators as they follow price movements and have lesser predictive ability. Since lagging indicators tend to focus more on the trend, they therefore produce fewer buy and sell signals, which allows traders to capture more of the trend and remain in the trend longer by riding the big moves in trending markets instead of being forced out of their positions based on the more volatile nature of leading indicators.
- A consolidating market is a sideways moving market that generally moves in a defined range with no particular bias either up or down. **Oscillators such as stochastic and RSI confirmed with overbought and oversold levels are best suited for sideways markets.** Oscillators go up and down — they oscillate and are used to measure the momentum of a market or a stock.

These oscillators are also known as leading indicators as they typically move ahead of the price and have some predictive qualities. They tell you ahead of time what might happen to prices. Oscillators are plotted within a bounded range and fluctuate into overbought and oversold conditions based on set levels for each particular oscillator. Leading indicators create numerous buy and sell signals and are more suited for trading choppy (range bound) markets.

You should not use consolidating market oscillators in a trending market — or vice versa. The choice of indicators to use should thus be made after asserting the nature of the market — up trend, down trend, or

sideways.

In Chapter 2 we had discussed ADX which can help us determine the nature of the market. Just to recap — an ADX of greater than 30 indicates a strong trend, up or down, as does a rising ADX above 20. An ADX of less than 30, or one that is declining below 20, is, at best, a consolidation.

You can also use momentum indicators by considering the example of some great Indian batsmen. All the batsmen share one common attribute, namely everyone has his own characteristics. Of course, they all scored plenty of runs (mostly!) but some took time to settle down, like V. V. S. Laxman, while others started scoring the moment they reached the crease, like Sachin, Sehwag, Yuvraj, Dhoni and, occasionally, Ganguly, yet others built up their innings slowly and steadily, like Rahul Dravid, while some lag behind the others even more. Sehwag and company can be clubbed in the leading indicator category while Dravid and others can be thought of as lagging indicators. There are some batsmen who are useful for the 20-20 format others are more suited for one-day cricket while yet others for test cricket. “Leading” batsmen are useful for 20-20 and one-day cricket (sideways markets or non-trending trading ranges) where quick scoring is required, while “lagging” batsman are useful in test cricket (trending markets) which requires a slow build up of the innings with persistence and perseverance. And just as a higher number of runs overall are scored in test cricket, similarly most of the big money is made during trending markets.

Leading indicators are akin to a live telecast where you can see the action in real time, feel the pulse of the game, its emotion, and the crowd behavior while lagging indicators are like watching a repeat telecast after the game is over, i.e. the indicator equivalent of hindsight.

How Momentum Indicators Provide Buy and Sell Signals

Indicators are used to develop buy and sell signals through:

- Crossovers;
- Oversold and overbought conditions; and
- Divergence.

A **crossover** is said to occur either when an indicator moves through an important level, or when one moving average crosses another moving average. A crossover usually signals that the ongoing trend is shifting and this trend shift may lead to a certain movement in the price of the underlying stock or index as the case may be.

Divergence occurs when the direction of the price trend and the direction of an indicator's trend move in opposite directions. This signals that the direction of the price trend may be weakening due to a change in the underlying momentum.

Momentum indicators are not used in isolation. Rather, they are used in conjunction with other tools of technical analysis, such as volume, chart patterns, candlesticks, etc. Just as cricket requires teamwork and it's only when a majority of the players play well (are in agreement) that Team India wins. So, too, only when a majority of indicators are in agreement can we safely say that a trend has reversed, resumed, or is confirmed, as the case may be.

As we already know, trends can also be classified as short term (3 to 6 weeks), intermediate (6 to 40 weeks), and long term, usually more than a year. Thus, they can be likened to 20-over, 50-over and test match cricket, respectively. Just as fortunes can turn very quickly either way in a short 20-over cricket match, short term trend reversals similarly take much less time in the markets, than is the case with long term trend reversals.

How to Read Momentum Indicators

Indicators, as the name implies, indicate. Any analysis of an indicator should be taken with the price action in mind: What is the indicator saying about the price action of a security? Is the price action getting stronger? Or, weaker?

Momentum indicators are not infallible. Even though the buy and sell signals generated by the indicators may seem clear and obvious, such signals should be interpreted in confirmation with other technical analysis tools. For example, an indicator may flash a buy signal but if the chart pattern shows a descending triangle with a series of declining peaks, it may well be a false signal.

Momentum typically reverses along with the price — though the latter may do so with a small time lag. It should not be taken for granted that just because oscillators have reversed, the price will also necessarily follow suit. Just because Virat Kohli has scored a century in a match does not mean that India will necessarily win the match. Others have also to pitch in to create a win. Similarly, other technical tools should be used for confirming the signals given by indicators.

The momentum indicators which we will discuss and review — moving averages, MACD, RSI, and stochastic — are the building blocks of a trading system. There is no single magic indicator; they all have their advantages and disadvantages. It is important to be aware of both because we can then combine several indicators into a system to take advantage of their strengths, while their disadvantages cancel each other out.

Moving Average (MA)

A moving average, as the name suggests, is an average. It is an indicator which is very frequently used in technical analysis and shows the average value of a security's price over a certain period. As the security's price changes, its average price also moves up or down. Moving averages thus simply measure the average price over a specific time frame. MAs are trend-following indicators and are generally used for measuring momentum — and for identification and / or confirmation of a trend. A moving average also helps define possible areas of support and resistance. Finally, it is also a barometer of crowd behavior and defines the direction of crowd movement and current trend.

Moving averages come in various forms but their underlying purpose remains the same; to help technical traders track the trends of financial assets by smoothing out the day-to-day price fluctuations, or noise, in market parlance.

The two most popular types of moving averages are the simple moving average (SMA), and the exponential moving average (EMA). These are described in more detail below.

Simple Moving Average (SMA)

A single day's price is like a photograph that can never tell us the full story. But if you have a series of photographs you will be able to see the sequence and the whole story. A movie is made up of various photographs shot in succession and shown in a frame. Moving averages are like the movie, where you get a complete picture of the price movement. We can see how with the help of Figure 9.1.

We calculate SMA by taking the arithmetic mean of a given set of price values. For example, to calculate a basic 10-day moving average we would add up the closing prices of the previous 10 days and then divide the result by 10. Thus:

$5 + 6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 = 95 \Rightarrow (95 / 10) = 9.5$

The calculation is repeated for each price bar on the chart. The averages are then joined to form a smooth, meandering line known as the moving average line. Now, in the above example, if the next closing price is 15, then this new value would be added and the earliest day's value, which was 5, would be dropped. The new 10-day simple moving average would then be:

$6 + 7 + 8 + 9 + 10 + 11 + 12 + 13 + 14 + 15 = 105 \Rightarrow (105 / 10) = 10.5$

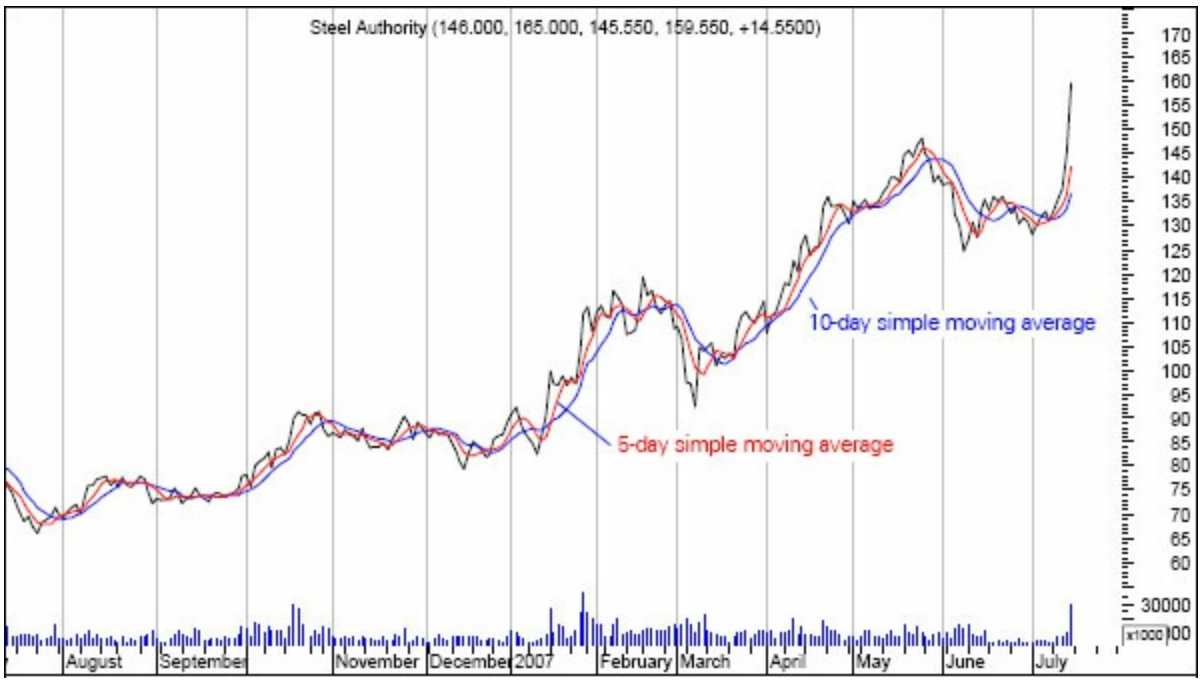

Figure 9.1: **Simple moving averages: This chart shows two simple moving averages for SAIL. Here we have taken a short term 5-day SMA and compared it with 10-day simple moving average.**

You can see that even the 5-day simple moving average that tracks the price changes reasonably quickly is also consistently late, though only slightly so. The use of an exponential moving average (EMA) may help in overcoming the time lag problem, though it can never be completely eliminated. All moving averages lag price movement.

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Thus, over this two-day period the SMA has moved from 9.5 to 10.5. As the values for subsequent days are added, those of earlier days will be omitted and the moving average will thus continue to change over time. The term "moving" is used because it is a price average that is continuously

adjusted — with a new price added and an earlier price deleted — thus reflecting a changing average. Since equal weighting is given to each daily price, the simple moving average always lags "behind" the price. So you get a complete picture of the events of the previous ten days.

Exponential Moving Average (EMA)

The exponential moving average is a type of moving average that gives greater weightage to recent prices in an attempt to make it more responsive to new information *(see* Figure 9.2). An exponential moving average (EMA) is calculated by adding a percentage of yesterday's moving average to a percentage of today's closing value. Nowadays, you do not have to actually calculate the EMAs as most propriety software tracks these values.

An EMA is a better trend-following tool than SMA as it gives greater weight to the latest data and responds to changes faster than does SMA. At the same time, an EMA does not jump in response to the discarding of older data. EMA reacts quicker to recent price changes than does a simple moving average.

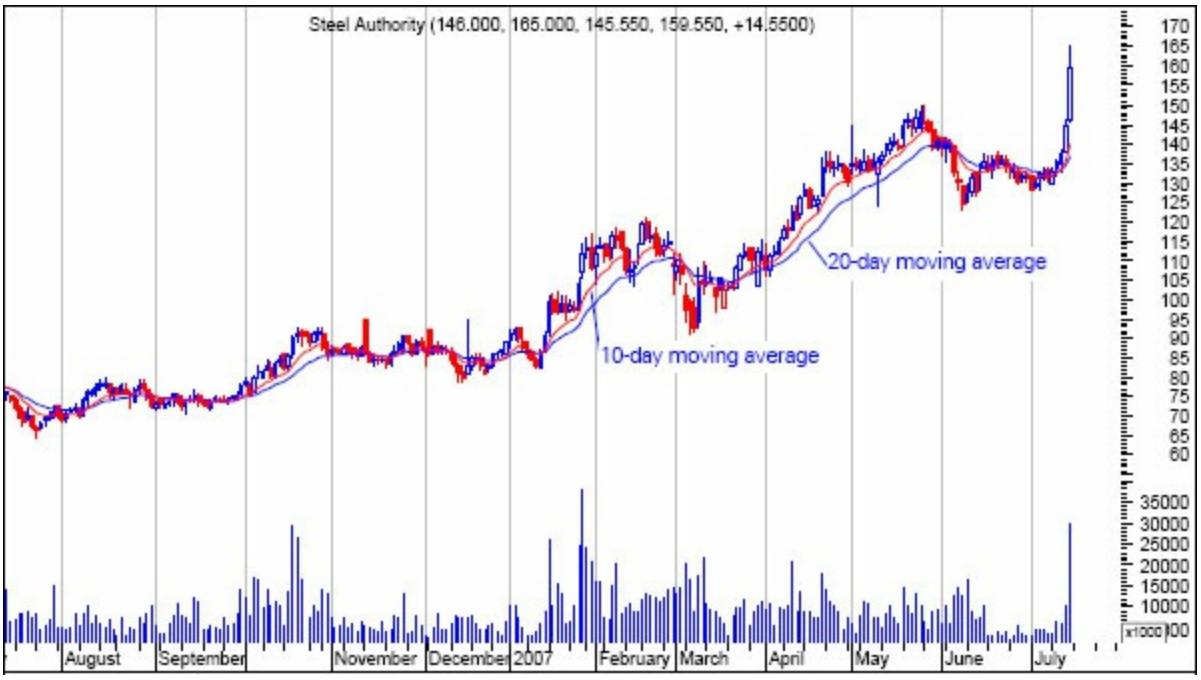

Figure 9.2: **Exponential moving averages: Two moving averages for SAIL are shown in this chart. The red line plotted along with price in the upper window is 10-day**

exponential moving average (EMA) and the blue line is the 20-day EMA. You can observe how the moving averages also turned down after the price did, and turned up only after the price had already turned up.

A rising moving average shows that the crowd is becoming more optimistic, or bullish; when MA falls, it shows that the crowd is becoming more pessimistic, or bearish. The slope of the moving average line also helps you determine the trend. In an up trend, the moving average will slope up and the prices will remain above it; in a down trend the moving average line will slope down and the prices will remain below the moving average.

Figure 9.3: **Comparison of simple and exponential moving averages.**

In Figure 9.3, a comparison of a 50-day EMA (the blue upward sloping line) and a 50-day SMA (the red upward sloping line) for Gujarat Ambuja Cement shows how the EMA picks up on the trend quicker than the SMA. The blue circles mark the point where the stock started a strong trend. By giving more weightage to recent prices, the EMA responds quicker to the more recent prices than does the SMA, and also remains closer to the actual price. When the change from trend to trading range began, the SMA was closer to the price. Once SAIL started to trend up, however, the EMA was quicker to pick up on the price change in mid-April, and then in July 2007, and remained closer to the price than did the SMA.

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Strategies for Using Moving Averages

One of the best ways of using moving averages is to identify the time frame you are interested in for tracking the price trend, whether short term or long term — and set an appropriate period moving average. The 12- and 26-day EMAs are the most popular short term averages used by traders. Some traders use 20- and 50-day averages for swing trading. Usually, 100- and 200- day EMAs are used for the identification and benchmarking of long term trends. One thing to be noted here is that shorter term moving averages are more susceptible to whipsaws.

In general, you should use EMA in the following manner:

- For a short term trend, use the 20EMA;
- For the medium term trend, use the 50EMA; and
- For the long term trend, use the 200EMA.

Different traders use moving averages for different purposes. Some use them as their primary analytical tool, while others simply use them as confidence builders to back up their investment decisions. Let us now turn to a few different strategies of using moving averages.

Crossovers

There are two types of crossovers used for analysis and trading. The first one is the most basic type of crossover which occurs when the price of an asset moves from one side of a moving average line and closes on the other side. This indicates a price reversal.

Figure 9.4: **Price and moving average crossover.**

This chart of Adlabs Films depicts various moods of the stock. The reversal of the up trend is signaled by descending triangle (1) and also the crossover of the price below its 20-day EMA. Prices again made a crossover (2) in June 2006, this time rising above the 20-day EMA reversing the down trend. Please note how the 20-day EMA provides support for the stock on the way up. The EMA also gets support from the long term up trend line (blue upward sloping line) from late July 2006 to late February 2007. See also the formation of a failed head and shoulders pattern (November-December 2006).

The price breached the trend line and crossed below the EMA line in March 2007 and then moved sideways. The period is shown by big red circle. When an EMA goes flat and only wiggles a bit, it identifies an aimless, trend less phase. Do not trade using EMA at such times.

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Once you have identified, say, an up trend and set up the time period (20-day, 50-day, etc.) you can remain long so long as the price remains above the moving average. You can exit your long positions, or reverse it and go short, once the price is below the moving average.

When the price falls from above the moving average to below the moving average, it is a warning that the price trend being watched may be weakening.

When the price rises from below the moving average and goes above the moving average, it is a bullish indication for the price trend under scrutiny.

Price crossovers are used to identify shifts in momentum and can also be used as a basic entry or exit strategy *(see* Figure 9.4).

Figure 9.5: **Reliance Natural's daily chart shows the crossover of two moving averages. A 20-day EMA (red line) and the 50-day EMA (blue line) have been depicted on the chart. The crossing of the shorter moving average whether above or below the longer moving average is shown by bold green circles. The chart also shows the movement of the stock price, so you can get a visual cue as to how the price is reacting.**

You could have bought whenever the red line made a crossover above the blue line, because:

- When the 20-day EMA moves above the 50-day EMA, a buy signal is in force.
- When the 20-day EMA declines below the 50-day EMA, a sell signal is in force.

The stock went into a consolidation zone once the price crossed below the moving average in late February 2007. In Figure 9.5, look at the whipsaws given by the EMA during this period; this phase is marked by a red circle. You should resolutely stay away from using trading signals given by EMAs during such sideways or consolidating phases of the market.

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The second type of crossover is the criss-crossing of two or more selected moving average lines. Their crossover points are used to identify the opportunities to enter into a new trend, remain in a trend, or exit from it, as

follows:

- The shorter term moving average crossing above the longer term moving average line indicates bullishness.
- Conversely, the crossing of a shorter term moving average to below the longer moving average line indicates bearishness.

Thus, a buy signal is generated when the short term average line crosses above the long term average line, while a sell signal is triggered by the short term average line crossing below a longer term average line. As you can see from Figure 9.5, this signal is very objective; it is also very popular and the most commonly used signal by traders. You can make big money riding a trend by using EMA.

You can also use volume as supporting evidence during crossovers. Moving average crossover systems are usually effective, but have a better chance of success if used in conjunction with other aspects of technical analysis, such as price patterns, candlesticks, momentum, volume, etc. than when used in isolation.

In strongly trending markets — whether up or down — big money can be made by following EMA systematically and consistently.

Filters

In technical analysis, a filter is any technique used to increase one's confidence about a certain trade. For example, many traders may choose to wait until the price of a security both crosses above a moving average line and is also at least 3% to 5% above the average before placing an order. This is an attempt at making sure that the crossover is valid and also to reduce the number of false signals.

Moving Average Envelopes

Envelopes define the upper and lower boundaries of a security's normal trading range. An envelope comprises of two moving averages. One moving average is shifted upward and the second moving average is shifted

downward.

This strategy involves plotting two bands around a moving average, staggered by a specific percentage rate. For example, in Figure 9.6 a 5% envelope has been placed around a 25-day moving average. Notice how a price move often reverses direction after approaching either of the bands. Any move beyond the band generally signals a period of exhaustion, and traders will then watch for a reversal toward the average. The period of exhaustion occurs as overzealous buyers and sellers push the price to the upper and lower bands, respectively. At these extremes, the price often stabilizes by moving to more realistic levels.

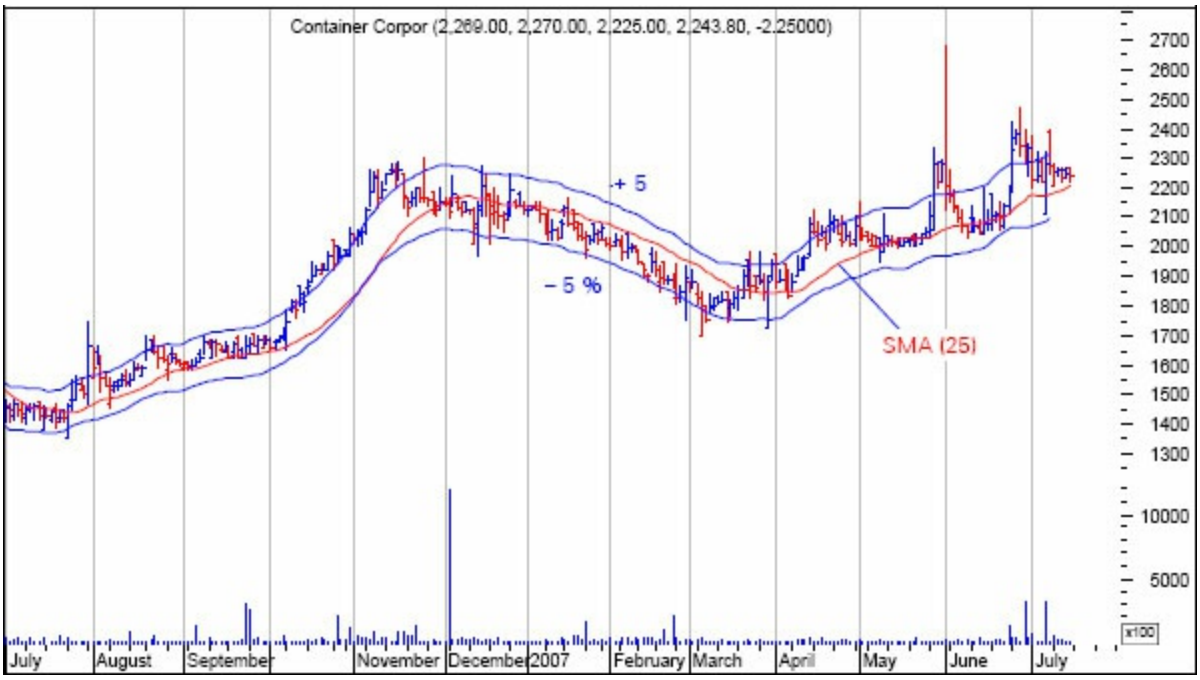

Figure 9.6: **Moving averages envelope: This chart of Container Corporation shows a 5% envelope surrounding a 25-day moving average. See how the price gets support at the lower end of the band, while the upper band is acting as resistance. Traders keep the lower band as a trailing stop for their long positions and book profits when the price crosses over the upper band.**

Use of EMA Band

Some traders use a price band of 23 to 30 EMA on the daily chart to

determine the major trend of the market. This method was developed by George Kleinman, President of Commodity Resource Corp, USA. On a daily chart of a stock, the 23-30 EMA are plotted and a buy (sell) signal is generated only when the price closes above (below) this band and closes the next day higher (lower) than the previous day.

Moving Average Convergence Divergence (MACD)

The moving average convergence divergence (MACD) is a momentum indicator developed by Gerald Appel, in the early 1970s. It is a trend following indicator that is based on the relationship between two moving averages of prices. The MACD measures the divergence, or convergence, between a shorter term moving average and a longer term moving average and is represented in two ways:

1. A line form, and

2. A histogram.

MACD is a measure of both price trend and momentum, where momentum shows the strength of the trend.

Simply put, MACD is the difference between two moving averages. It is calculated by subtracting the 26-day exponential moving average (EMA) from the 12-day EMA. A 9-day EMA of the MACD, called the “signal line,” is then plotted on top of the MACD, and functions as a trigger for buy and sell signals.

MACD is a reliable indicator as it uses moving averages, which themselves are lagging indicators, and which are, in turn, converted into a momentum oscillator by subtracting the longer term moving average from the shorter term moving average. The resulting chart forms a line that oscillates above and below zero, without any pre-set upper or lower boundaries:

- If MACD is greater than zero, it means that the short term average is higher than the longer term average, signaling an up trend.

- Conversely, if MACD is less than zero it suggests a down trend.

Strong momentum is represented by the volatility in price, which results in a steeper slope of the MACD plot. MACD can be grouped into the centered oscillator category. Centered oscillators are those oscillators which move above and below a center (zero) line. So they move below / above the zero line.

How MACD is Calculated

MACD is created by first calculating a 12-day EMA and a 26-day EMA of closing prices. The 26-day EMA is then subtracted from the 12-day EMA and the difference is plotted as a solid line. This is known as the fast MACD line. A slow "signal" line is then plotted as a dashed line by calculating a 9-day EMA of the fast line.

The MACD is best applied in trending markets. There are three popular ways of using the MACD:

- Bullish / bearish moving average / center line crossovers;
- Overbought / oversold; and
- Positive / negative divergences.

MACD Crossovers

A crossover is said to occur when MACD moves above or below the zero (neutral) point, or when MACD moves above its 9-day EMA, i.e. the signal line (*see* Figures 9.7 and 9.8). Thus:

- It is a signal to buy when MACD crosses over above the signal line, and sell when it falls below the signal line. This crossover signal is very common but should not be solely relied upon simply because of the crossover happening. You should apply it in combination with other technical analysis tools, such as price volume relationship, in order to avoid getting whipsawed.
- Buy and sell signals are also generated when upon line crossovers, i.e. when MACD moves above, or below, the zero line and into positive, or negative, territory. This indicates that momentum has changed; either from bullish to bearish, or from bearish to bullish.

Figure 9.7: **MACD crossover and center line crossover offer good opportunities for trading. Short sell opportunities are shown here on this chart of Balrampur Chini, when the prices closed below both 20 EMA (red line) and 50 EMA (blue line). You can also see how the 50-day MA acted as a resistance when prices were going down. Note also the inability of MAs in providing any clear trade when prices moved sideways between March and July 2007. MACD also offers little indication about a low risk entry, the only consolation is that MACD is above the zero line.**

Figure 9.8: **MACD and moving average crossovers.**

The chart of Corporation Bank in Figure 9.8 shows the 12-day EMA (blue line) with the 26-day EMA (red line) overlaid on the price plot. MACD appears in the box below as the red line and its 9-day EMA — the broken (dashed) red line — is the signal line. You can also understand here the difference between using EMA and MACD. Even though moving averages are lagging indicators, notice how MACD moves faster than do the moving averages. In this example, MACD provided a few good trading signals ahead of those provided by moving average crossovers. Moving average crossovers are depicted by vertical blue lines while MACD crossovers are depicted by blue circles in the lower panel.

In November 2006, MACD turned down ahead of both the moving averages and formed a negative divergence (price going up, MACD going down) ahead of the price peak. It then went down below the zero line in December. The price made a gasping attempt to move up giving a false signal to those who watch only the price. This rise was also marked by a bearish flag formation. Here lies the beauty of momentum indicators and chart patterns. The price climbed higher but formed a bearish flag and the MACD reading remained below the zero line, showing weakness.

In March 2007, MACD began to strengthen and rose sharply and the crossover occurred well ahead of the EMA crossover. The MACD buy signal was generated in late June while EMA crossover was generated only in early July.

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Overbought / Oversold Conditions

The MACD is not very useful as an overbought / oversold indicator. When the MACD rises it is likely that the prices are overheating and should soon cool off. Overbought / oversold means prices have moved too far and fast whether up or down, and a consolidation or correction is likely to take place. As a general rule, you sell when prices oscillators reach overbought and you buy when oscillators reach oversold.

As discussed earlier, an oscillator fluctuates above and below a center line, or between set levels, as its value changes over time. Oscillators can remain at extreme levels (overbought or oversold) for extended periods, but they cannot trend for a sustained period. In a strong trend, you may see many signals that are not really valid. When a stock is in a strong up trend, buying in oversold conditions will work much better than selling in overbought conditions. This is because in a strong up / down trend the MACD may

remain at overbought / oversold for an extended period of time and price will keep on rising / falling.

During a strong trend, oscillator signals against the direction of the underlying trend are less robust than those in the direction of the trend. Remember, the trend is your friend and it can be dangerous to fight it. Even though securities develop trends, they also fluctuate within those trends. Thus:

- If a stock is in a strong up trend, buying when oscillators reach oversold conditions, and near support tests, will work much better than would selling on overbought conditions.
- During a strong down trend, on the other hand, selling when oscillators reach overbought conditions would work much better.

If the path of least resistance is up (down), then acting on only bullish (bearish) signals would be in harmony with the trend. Attempts to trade against the trend carry added risk.

MACD is, however, not a reliable indicator for identifying overbought and oversold levels, as it does not have any upper levels or boundaries to restrict its movement.

Positive and Negative Divergences

When prices are rising / falling but momentum is not going up / down along with the price, we say that a divergence has occurred.

Divergence is a key concept behind many signals for oscillators. **Divergences can serve as a warning that a trend may be about to change.** But, of course, trend reversal signals should be confirmed with price action.

There are two types of divergences, namely positive and negative:

- A **positive divergence** occurs when the momentum indicator goes up but the price goes down *(see* Figure 9.9).
- A **negative divergence** occurs when a momentum indicator goes down but the price goes up (*see* Figure 9.10).

Figure 9.9: **Positive divergence in Chambal Fertilizer: You can see that the price is declining but the momentum is not and Chambal Fertilizer subsequently breaks above ₹ 33 with good volume. In the lower window, the blue horizontal strips are MACD histogram, the dark line is MACD and light one is the signal line.**

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Figure 9.10: **Negative divergence in Polaris Software: Prices are going up while the RSI oscillator's readings are going down indicating a bearish undertone.**

Negative momentum divergences can be thought of as akin to a situation when a cricket player who has got an internal injury hides it from the team management in order to keep playing. Such a player might appear fit to a spectator but a physiotherapist would detect signs of injury. Similarly, upon seeing a negative divergence a trader well versed in technical analysis would realize that though the price is going up but the underlying momentum is declining and it's time to reverse positions.

MACD is most often used with daily charts. It can also be used with weekly charts but there can still be some lag in the indicator itself on weekly charts than those represented on daily charts.

MACD encompasses both momentum and trend and so can be pretty handy as a trend- following indicator. The use of exponential moving averages ensures that some of the lag is eliminated but essentially it remains a lagging indicator. This problem can be partly eliminated by the use of the MACD Histogram.

MACD Histogram

Thomas Aspray developed the MACD Histogram in 1986. Aspray was looking for a means to anticipate MACD crossovers and noted that the lag of MACD on weekly charts sometimes led to missing out on important moves in a security. He experimented by changing the duration of moving averages and found that shorter moving averages did indeed speed up the signals *(see* Figure 9.11).

Figure 9.11: **MACD divergence and MACD Histogram: In Telco's (Tata Motor's) daily chart we can see that this stock was in an up trend but though the prices firmed up in September-October 2006, MACD Histogram showed slight divergence. The stock went into consolidation, correcting a part of its previous move. Now since we always expect the previous trend to continue after a correction, buying on reaction is a low risk swing trading strategy. The correction came to an end in December 2006, with appropriate signals such as a divergence between the MACD and the price, and the crossover of price above the 20 EMA (black line).**

The MACD Histogram is a representation of the difference between

MACD and its trigger line, the 9-day EMA of the MACD. This difference is plotted and is represented as a histogram, where center line crossovers and divergences can be easily identified:

MACD Histogram = MACD Line – Signal Line

Since the MACD Histogram is itself based on an indicator, namely MACD, it is an indicator of an indicator. MACD Histogram offers a deeper insight into the balance of power between the bulls and bears than does the MACD:

- If the value of MACD is larger than the value of its 9-day EMA, i.e. the signal line, then the value on the MACD Histogram will be positive and will be plotted above the zero line.
- Conversely, when the value of MACD is less than its 9-day EMA, i.e. the signal line, then the value on the MACD Histogram will be negative and will be plotted below the zero line.
- When the two lines touch, MACD Histogram equals zero.

When the spread between the MACD and its signal line increases, MACD Histogram becomes taller or deeper, depending upon its direction. When the two lines draw closer, MACD Histogram becomes shallower.

Further increases or decreases in the gap between MACD and its trigger line will be reflected in the MACD Histogram:

- Sharp increases in the MACD Histogram indicate that MACD is rising faster than its 9-day EMA — and that bullish momentum is therefore strengthening.
- Sharp declines in the MACD Histogram indicate the converse — that MACD is falling faster than its 9-day EMA and, accordingly, the bearish momentum is increasing.

At the risk of being repetitive, we would like to reiterate that you must always remember that if the markets are choppy, or in consolidations, moving sideways, range bound and erratic over an extended period of time, you should not use moving averages as an indicator to take a trading decision. As a corollary, neither should you use MACD nor MACD Histogram in range

bound trading markets since these indicators are themselves based on moving averages.

Leading Indicators

Leading indicators are designed to lead price movements. They are also known as momentum oscillators and are true representatives of the most recent price history and are therefore a measure of velocity. Leading indicators attempt to measure market enthusiasm and emotions. They use a fixed past price — for example, a 14-day RSI would have the past 14 days of price action built into it and all prior price trends would be eliminated.

Some of the common leading indicators are Commodity Channel Index (CCI), Relative Strength Index (RSI), Stochastic Oscillator, and Williams %R.

Advantages and Pitfalls of Leading Indicators

As noted earlier, leading indicators are used in a range bound trading, i.e., sideways, market. In such markets, leading indicators offer more trading opportunities and are used for making early entries and exits.

Early signals mean a larger numbers of trades and higher returns — but also more risks. It has been observed that most of the profits earned in a trending market are often lost during a trading market by way of whipsaws, overtrading, and brokerage commissions.

We will discuss the most commonly used oscillators, namely RSI and Stochastic oscillator.

Relative Strength Index (RSI)

J. Welles Wilder first introduced the relative strength index. Details can be obtained from his book, *New Concepts in Technical Trading.*

RSI is an oscillator which is used for identifying the technical strength or weakness in a particular scrip. It is a technical momentum indicator that compares the magnitude of a security's recent gains to the magnitude of its recent losses in an attempt to determine overbought and oversold conditions.

RSI can be calculated for any number of days depending upon the analyst's choice and his or her preferred time frame of trading. The most commonly used time period is the 14-day RSI. However, some analysts use a 5-day RSI, a 7-day RSI or even a 9-day RSI for quick trading.

A trader using RSI should be aware that large surges and drops in the price of a security will affect the RSI by creating false buy or sell signals. **The RSI is best used as a valuable complement to other stock picking tools.**

Unlike the MACD Histogram, this indicator has defining boundaries. It is designed to follow the price momentum as an oscillator that ranges between 0 and 100. Divergences are used for interpreting the relative strength index (see Figure 9.12).

RSI gives four types of trading signals; divergences, charting patterns, RSI levels and overbought / oversold.

Divergences

Bullish Divergences Give Buy Signals

These occur when the price falls to a new low but RSI makes a shallower bottom than during its previous decline.

Trading Rule: Buy as soon as the RSI turns up from its second bottom, and place a protective stop below the latest minor price low.

Bearish Divergences Give Sell Signals

These occur when the price rallies to a new peak but RSI makes a lower top than during the previous rally.

Trading Rule: Sell short as soon as RSI turns down from its second top, and place a protective stop above the latest minor price high.

Figure 9.12: **RSI divergence: This chart of Gitanjali Gems shows numerous troughs and peaks of RSI. A divergence of the peaks indicates lower prices to come. A divergence of the troughs is an indication of an upcoming up trend. Some of the chart patterns such as head and shoulders, and ascending and descending triangle also apply to RSI. In the upper panel, you can see a failed head and shoulders pattern for RSI in November-December, and the subsequent peaking up of the prices — the stock went on to touch a life time high till then of ₹ 245. You can see another divergence in April-May 2007. The red line in the price panel, the lower window, is 20 EMA.**

Charting Patterns

1. When RSI breaks its down trend line, place an order to buy above the price trend line in order to catch an upside breakout.

2. When RSI breaks its up trend line, place an order to sell short below the price trend line to catch a downside breakout.

RSI Levels

1. Buy when RSI declines below its lower reference line, and then rallies above it.

2. Sell short when RSI rises above its upper reference line, and then crosses below it.

Overbought / Oversold

Wilder recommended using 70 and 30 as overbought and oversold levels, respectively *(see* Figure 9.13):

- Generally, if the RSI rises above 30 after falling below 25, it is considered bullish for the underlying security.

- Conversely, if the RSI falls below 70, after reaching extreme reading of 80-90 it is a bearish signal.

Some traders also first identify the long term trend and use extreme readings for entry points.

Figure 9.13: **Overbought and oversold conditions are shown on BHEL's daily candlestick chart.**

This chart shows a number of extreme readings as well as a negative divergence. RSI is the blue line in the lower window, the upper horizontal line is overbought condition while the lower horizontal blue line is oversold condition. The red line in the price panel is 20 EMA.

In July 2006, RSI reached oversold levels for a brief moment to mark the low around 40 giving a buy signal. The RSI reading of oversold in November again gave a buy signal, one could have added to long positions here. The extreme overbought reading occurred in August which then peaked and ebbed in December 2006. You need to tighten your stops at such extreme overbought readings. RSI again reached oversold levels by the second week of January 2007 and it was again a low risk buy signal. When RSI again reached overbought in the last week of January, it was time for tightening the stop. The next oversold reading briefly occurred in February and marked the low around 35. By the end of February 2007, RSI had moved back above 50, and then into overbought territory in March. The buying opportunities during reactions are marked with red circles in the lower window. These were the dips during a strong up trend in BHEL.

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Stochastic Oscillator

Developed by George C. Lane in the late 1950s, the stochastic is a momentum oscillator that compares a security's closing price to its price range over a given time period. Closing levels that are consistently near the top of the range indicate accumulation (buying), while those near the bottom of the range indicate distribution (selling).

Stochastic is made up of two lines, one fast line and the other slow, crossing over one another and regularly oscillating between the minimum of 0% and the maximum of 100%. These two lines are known as the %K Line and the %D Line.

The %K Line is the faster of the two and the %D line is the slower one. Based on the method of construction used, the %D Line will always lag behind the %K Line. Also, %K and %D lines would take values between 0 and 100. Readings above 80% are considered overbought, while those below 20% signal an oversold condition. But this should not be taken as a fixed commandant. Prices can sometimes continue to rise even after the stochastic oscillator has reached 80, and continue to fall even after the stochastic oscillator has reached 20:

- Buy signals are generated when both lines are in oversold territory, namely, below 20%, and the fast line crosses back above the slow line and then rises above 20%.
- Conversely, sell signals are generated when both lines are in overbought territory, namely, above 80%, and the fast line crosses below the slow line, dropping below 80%.

According to Lane, some of the best signals usually occur when the oscillator moves from overbought territory back below 80, and from oversold territory back above 20.

It is generally prudent to wait for divergences to develop from overbought or oversold levels.

Trading decisions can also be taken when the overbought reading is above

70 and the oversold reading is below 30. The best buy signals are generated when the stochastic is below 15 and the best sell signals when it is above 85. The readings of %D are generally used for identifying the overbought and oversold zones. In fact, the entry of the %K line into the overbought or oversold zones is an early warning of the possibility of %D line following suit *(see* Figures 9.14 and 9.15).

Figure 9.14: **For stochastic oscillators, a divergence of peak is a bias for falling prices and divergence of trough is considered as bias for rising prices. Buy signals are generated whenever crossovers occur.**

In this daily candlestick chat of Reliance Capital, dips shown by blue circles at oversold conditions of the oscillator, can be used as buying opportunities. Also noteworthy is that the 20-day moving average, red line in the price panel, acted as support for the price. You can also see a breakout from an ascending triangle formation in May and another breakout from rectangle formation in June 2007.

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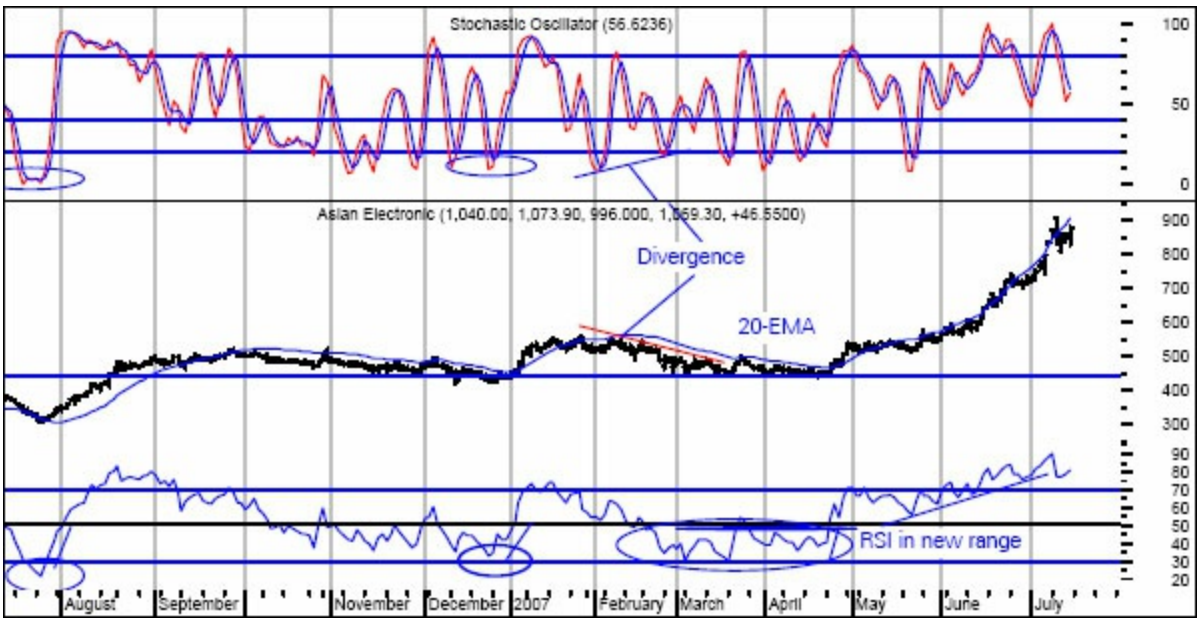

Figure 9.15: **The use of trading signals generated by stochastic and RSI.**

Asian Electronic's daily chart shows that while the stock was in an up trend, there were also many sideways movements during this period and it's during such periods that EMA would fail to generate buy and sell signals and instead give whipsaws. Here lies the beauty of using leading indicators for playing sideways movements; we can use oversold and overbought positions of RSI and stochastic for making low risk buy and sell entries at various points. Please note that when the stock started its clear up trend, the EMA still gave whipsaw but RSI had moved into a bullish range.

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The Theory of Confluence of Indicators

When all the players, including both bowlers and batsmen, are performing well then all is well with a cricket team. However, when bowlers have done their job by getting the opponent batsmen out for a small score but batsmen don't score runs, the team loses the match. Therefore, it requires the combined effort of all players to win a game. Similarly, when the price and momentum are moving in the same direction, they are in complete harmony with each other like a young couple in love. But what happens when momentum does not behave in a way similar to the price? It is then similar to a fight between a married couple and an early indication of trend reversal, and the start of a buy or sell signal.

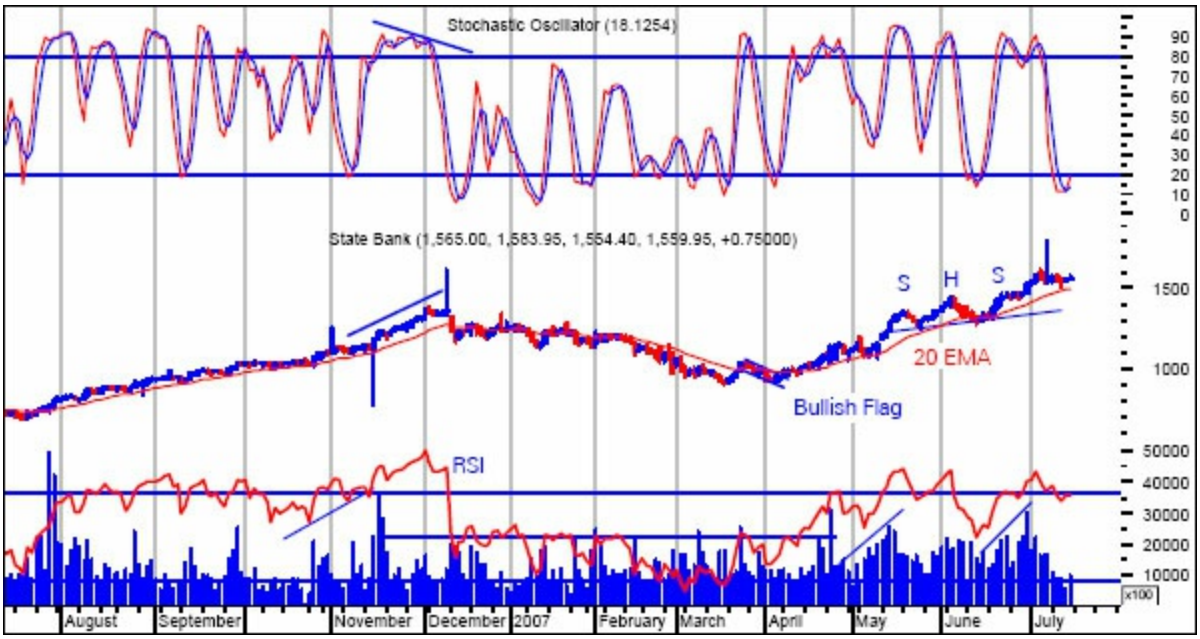

Figure 9.16: **How to use EMA, RSI, and stochastic along with volumes for confirming buy signals**

Please see the divergence between price and stochastic in November-December 2006, the formation of a bullish flag from mid-March to April, volume and price breakouts which screamed buy and the shifting of RSI to bullish range in mid-April, as well as a failed head and shoulders pattern in May-June 2007 — and the continuation of the stock's upward journey.

This chart in Figure 9.16 is a classic example of all the players working together in unison — batsmen, bowlers, wicketkeeper and, yes, even the coach. The combined synergy can result in only one thing; a lethal winning combination like Team Australia. One can also apply 100- and 200-day EMAs as a long term investing strategy.

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For a trader following only the price, it is difficult to know when the speed of an up or down move may have slowed down. Momentum indicators measure the acceleration and deceleration of the velocity of the price movement. We can understand the slowing down of velocity by taking the example of a batsman hitting the ball for a six. When the batsman strikes the ball with the full force of his bat, the ball goes higher and higher. To a spectator watching the match, the ball seems to be going only upward. But actually the ball goes up, its speed then reduces, it then comes to a stop at some height after which it starts falling back to the earth. The ball travels a parabolic path and does not travel with the same speed right through. It goes up initially with higher velocity and later with reduced velocity. Similarly, when prices go up, initially they do so with greater speed but then the speed slows down and starts reversing.

By using the RSI, stochastic and the 20-day moving average together as a confluence of indicators, entries can be timed nearly to perfection. When all these three indicators are in agreement, traders can take that as a confirmed signal.

Oscillators are used for trading ranges, not trends. During a trend — whether up or down — an oscillator can prematurely indicate an extreme in price, thus pitting the trader against the prevailing trend. In all cases, the indicators should be used along with other technical tools.

Summary

- Moving averages can be effective tools for identifying and confirming trends, identifying support and resistance levels, and developing trading systems. However, you should first be able to identify trending securities that are suitable for use with moving averages. You can do a primary assessment by a visual examination of the price chart, then ADX should be used to identify securities that are trending from those that are not.

- The trend is your friend and it is best to trade in the direction of the trend. This can be done by using trend following indicators, namely the lagging indicators. Once you are in a trend, moving averages will keep you in. You should, however, not use moving averages to get out at the top or to enter at the bottom.

- You should always be careful of small and shallow divergences, as these are prone to give false signals. You should always look for larger divergences with two or more readily identifiable peaks or troughs.

- Positive divergence occurs when an indicator is trending upward while the security is trending downward. This bullish signal suggests that the underlying momentum is starting to reverse and that traders may soon start to see the result of the change in the security's price.

- Negative divergence gives a bearish signal as the underlying momentum is weakening during an up trend, even though the price may start moving up.

- Momentum oscillators are designed to anticipate price reversals — which is why they are also known as leading indicators. But there is often a temptation to jump the gun. Indicators should always be used in conjunction with other tools of technical analysis. This will help alleviate the temptation of early entry / exit.

  You should also combine weekly charts with daily charts and analyze the signals generated from both the time frames. You will

find more signals on daily charts but by using only those daily signals that agree with the weekly signals, there will be fewer daily signals to act on. Also, by acting only on those stocks where daily signals are in agreement with the weekly signals, you can be assured of trading with the longer trend and not against it.

- Oscillators are effective in trading ranges, not in trending markets.
- In technical analysis, indicators provide an extremely useful source of additional information. These indicators help identify momentum, trends, volatility and various other aspects in a security to aid traders when making decisions.
- Momentum indicators are best used in conjunction with price movement, chart patterns, and other tools of technical analysis.

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Chapter 10

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Using Momentum for Entries and Exits — and How to Use the ABC Wave

"Mood, money and momentum move the market"

– A vintage saying

In the previous chapter we learnt that price follows momentum. So wherever momentum goes, the price will follow. Do you remember the famous Hutch television advertisement, where a child was shown visiting various places and was always followed by his pet dog — a pug? The punch line was, "Wherever you go, your network will follow you." The same punch line can be applied to the price and momentum relationship. [It's another story that Hutch was sold out, including the dog (pun intended)].

We have also learnt how to identify price patterns and formations. We will now consider how you can use momentum to increase your accuracy in picking entry and exit points which, in turn, will help you improve your trading success. You can get a fair amount of success in selecting near-perfect entry and exit points once you learn how to use momentum indicators in combination with chart patterns, trend lines, and support and resistance lines.

Using Moving Averages for Making Entries

Moving averages are used to identifying trends and reversals, for measuring the strength of a stock's momentum, and for determining potential areas where a stock will find support or resistance. It's a great risk management tool because of its ability to identify strategic areas for stop losses. In a strongly trending market this can result in giving you big money by keeping you in the trend for a longer time.

Let us now discuss the use of moving averages for making entries in a way that keeps the risk and reward ratio in our favor (*see also* Figures 10.1 to 10.4).

Moving Average Period Settings

A market is generally found to be in one of the three states — trending up, trending down, or trading in a sideways range.

- An up trend is characterized by a series of higher highs and higher lows.
- A down trend is characterized by a series of lower lows and lower highs.
- And a trading range is characterized by the market doing nothing and moving in a range with no particular upward or downward bias.

Moving averages work best in a trending market.

You can judge if the market is trending by first making a visual assessment of the price chart and then with the help of ADX, as described in Chapter 2, which will help you judge both the trend and its strength.

Once you have identified if the market (or security) is trending, the next big question that arises is the period to be used for calculating moving averages. You should decide the period keeping in mind the characteristics of the market, such as volatility, trendiness, volume — and your personal trading techniques and investing style; short-term, swing, intra-day,

positional, long term investment, etc. The most commonly used periods for EMAs are 10, 20, 50, 100 and 200 days. Longer periods are used for long term investment as they smoothen the shorter term volatility and are also found to be useful in trading securities that do not display strong characteristics of a trend.

Once you have selected the period you can plot the corresponding EMA on the chart. You should then make a visual assessment as to how the price is behaving with respect to the EMA. You can increase or reduce the period of the moving average to achieve the desired price sensitivity, thereby making it more responsive to price changes. You will be able to determine the best period for a particular security only through trial and error. Remember, selecting a wrong period will give you both many whipsaws and also stop you more often. You will end up making too many entries and exits which will only help make your broker wealthy at your cost. For short term trading, 20- and 50-day periods are frequently used. For a longer term trading or investment portfolio, 200-day EMAs are typically used.

Trading Rules for Moving Averages

- When the EMA rises, trade the market from the long side. Buy when prices dip near, or slightly, below the moving average.
- Once you are long, place a protective stop below the latest minor low; then move the stop to the break even point as soon as the price closes above its EMA.
- When the EMA falls, trade the market from the short side.
- Sell short when prices rally toward or slightly above the EMA, and place a protective stop above the latest minor high. Lower that stop to the break even point as soon as the price closes below its EMA.
- Use rise in volume as an additional confirmation.
- When you are long or short by following 20 EMA or 50 EMA, and your trade is favorable in that the price is well above (below) 20 EMA, tighten your stop loss by using 9-10 day EMA as trailing stop.

- If you are a long term investor, following 50 EMA on weekly chart, which is equal to 200 EMA on daily chart, will help you to ride the long term trend.
- When the EMA goes flat and wiggles only a bit, it signals an aimless, trendless market. As noted earlier, such range bound markets can't be traded using a trend following method such as moving averages. At such times, you need to use oscillators.

Figure 10.1: **Moving average crossovers as trading signals.**

Abon Loyd Chiles remained range bound over an extended period lasting from August to late December 2006. After some reluctance and hiccups, it broke free of the trading range in early January 2007 which is marked in Figure 10.1 by a crossover shown by a blue circle of the 20-day EMA (red line) over the 50-day EMA (blue line). This was a strong buy signal. Such a breakout has greater chances of success when supported by volume. The stock soared high but again cooled down in mid-January and this is marked by the formation of a bullish flag continuation pattern. During the bullish flag formation volumes were low indicating that no major selling took place and those who bought at breakout were holding this stock. Notice also the formation of a failed head and shoulders pattern in February and March and the development of a trading range where prices oscillated above and below the 20-day EMA but stayed above the 50 EMA (blue line).

You can see another breakout and a buy signal when the price made a crossover above the 20-day EMA in early April. The stock again consolidated in May and formed a bullish flag.

Another buy signal was generated when the price re-crossed its 20-day EMA in mid-May and soon thereafter the stock galloped to new highs followed by volume spikes.

It is also interesting to observe the 50-day EMA working as a strong support in the chart. A break of support from the 50-day moving average would thus serve as a warning that the stock may move into a trading range, or that the direction of the trend may be about to change. From past patterns we can ascertain that so long as the price remains above the 50-day EMA line, the stock will see more rallies.

The formation of the third bullish flag in late July, and the move of the price above its 20-period EMA also confirmed both the upward bias and a buy for the stock.

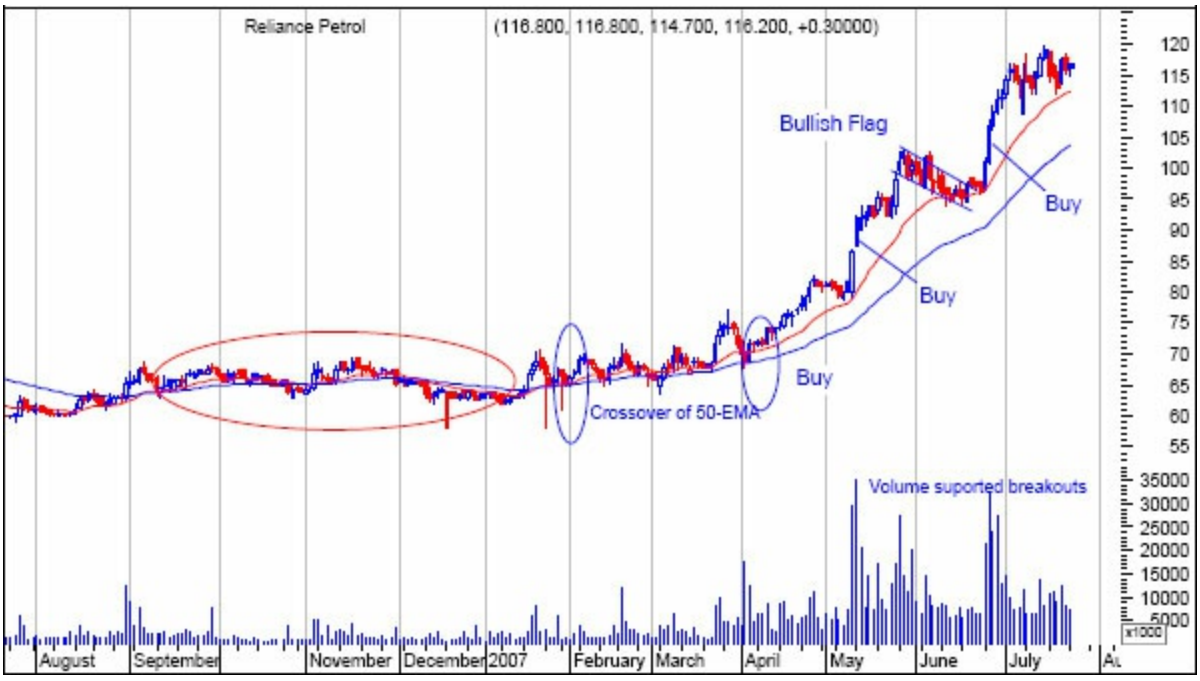

Figure 10.2: **Buy signals generated by moving average crossovers.**

In this chart of Reliance Petroleum, you can see how a stock can apparently go through both trending and trading phases. The red circled areas indicate phases of range bound moves (September-December 2006) interspersed among trending periods. The long range bound phase was broken with a breakout in February 2007, marked by the crossing of the 20-day EMA (red line) over the 50-day EMA (blue line). The 50-day EMA also worked as a long time support during the stock's upward journey.

Buy signals are marked at various places by blue circles where either EMA or price crossovers occurred. The volume also supported these breakouts, confirming a favorable tail wind.

As we have noted earlier, moving averages work well in trending times, but it is advisable not to use them during trading markets. See the erratic behavior of 20 EMA in June — and the formation of a bullish flag from which the price broke out with good volume and crossed over the 20 EMA thus again generating a buy signal. It is always advisable to use EMA in conjunction with chart patterns for making entries. A 20-day EMA is used to make entries while the 50-day EMA helps a trader ride the trend. The length of the moving average influences the number of signals and their timeliness.

Figure 10.3: **How to use moving averages on weekly charts for entering trades.**

In this HDFC Bank chart, the 20-week EMA, the upward sloping red line, crossed over the 50-week EMA in mid-2003; notice the accompanying expansion in volume. The stock remained in an up trend as marked by the re-test of the 50-week EMA support line at several points. Every consolidation was marked by pennants, flags and wedges, though these are not drawn on this chart. Price breakouts were always supported by a rise in volume, another confirmation that the stock was in strong hands. The buy signals are circled.

It is evident that safe entries can also be made using weekly time frames. Also note how the moving averages lag behind the price.

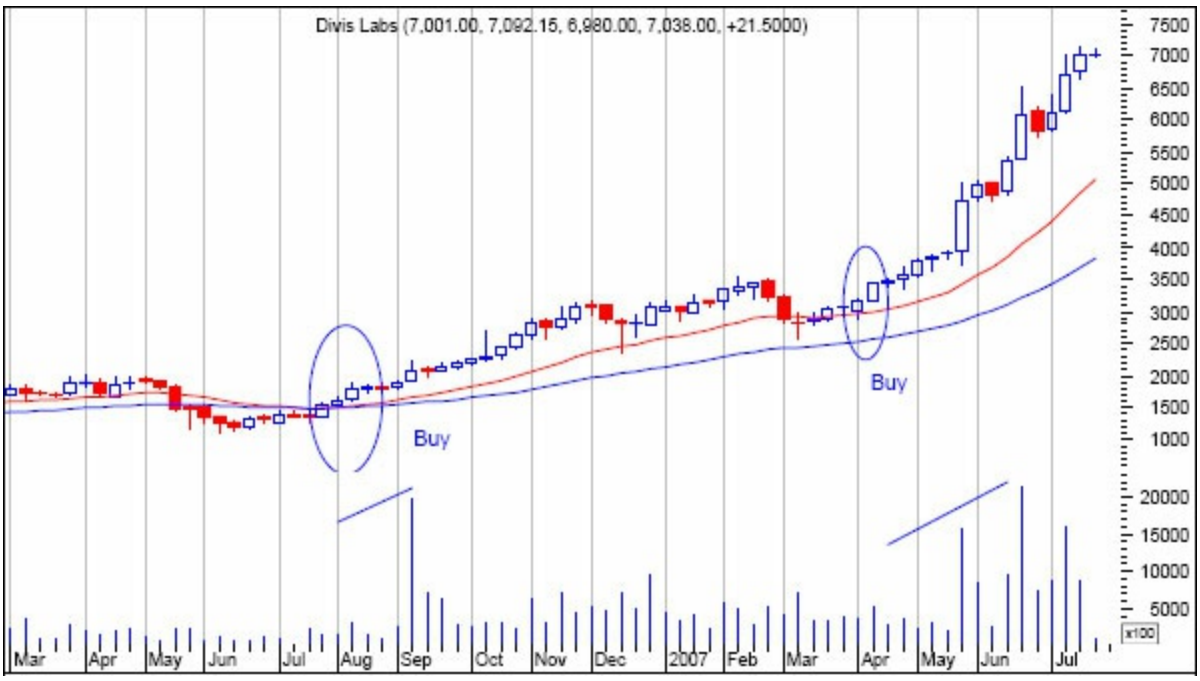

Figure 10.4: **Another example of the use of moving averages on weekly charts for making trading entries.**

On weekly charts, entries can be made both at EMA crossovers and at price crossovers. To avoid getting chopped out, you should use a filtering technique and place the stop loss 3% to 4 % below the crossover price. Here, a volume breakout confirmed that the price breakout was likely to sustain. Just following the EMA can help you ride the trend for an extended period (red line = 20-week EMA; blue line = 50-week EMA). The roaring performance of Divis Labs can be tapped by using EMA both on weekly charts as well as in daily time frames. Use of weekly charts will give you fewer whipsaws during consolidation and thus help you filter out short term volatility.

If you made an entry in July 2006 at around ₹ 2,200 and kept 50 EMA as trailing stop, you would not have been out of the trade. Once the price reaches well above 50-week EMA, you can then use the shorter EMA as trailing stop.

You can greatly enhance your trading skills if you use moving averages to make entries and confirm it with other indicators and analysis.

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Use of MACD for Trade Entries

MACD has the characteristics of both a leading and a lagging indicator. MACD measures the difference in moving averages, which represents the rate of change. Therefore, it incorporates aspects of both momentum and trend in one indicator. MACD is grouped into the leading indicator category, albeit with a little lag. It fluctuates above and below a zero line.

MACD gives trending signals before EMA does because of its characteristics of removing the lag and its greater responsiveness and sensitivity to price change. You must remember, however, that MACD should not be used for determining overbought (accumulation, bullish, too expensive) and oversold (distribution, bearish, too cheap) positions.

Trading Rules for Using MACD Crossovers

- When the fast MACD line crosses above the slow signal line, it is a buy signal. Go long, and place a protective stop below the latest minor low.
- When the fast line dips below the slow line, it is a sell signal. Go short, and place a protective stop above the latest minor high.

These rules are illustrated in Figure 10.5. See also Figures 10.6 and 10.7.

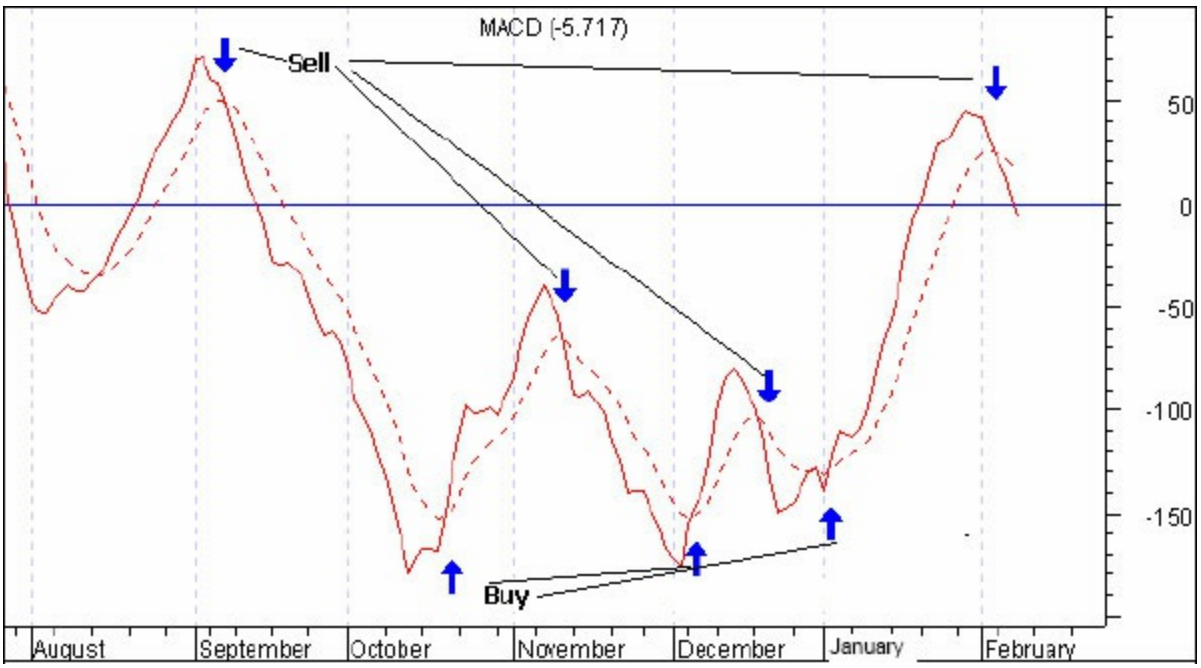

Figure 10.5: **Buy and sell signals generated by MACD line and signal line crossovers.**

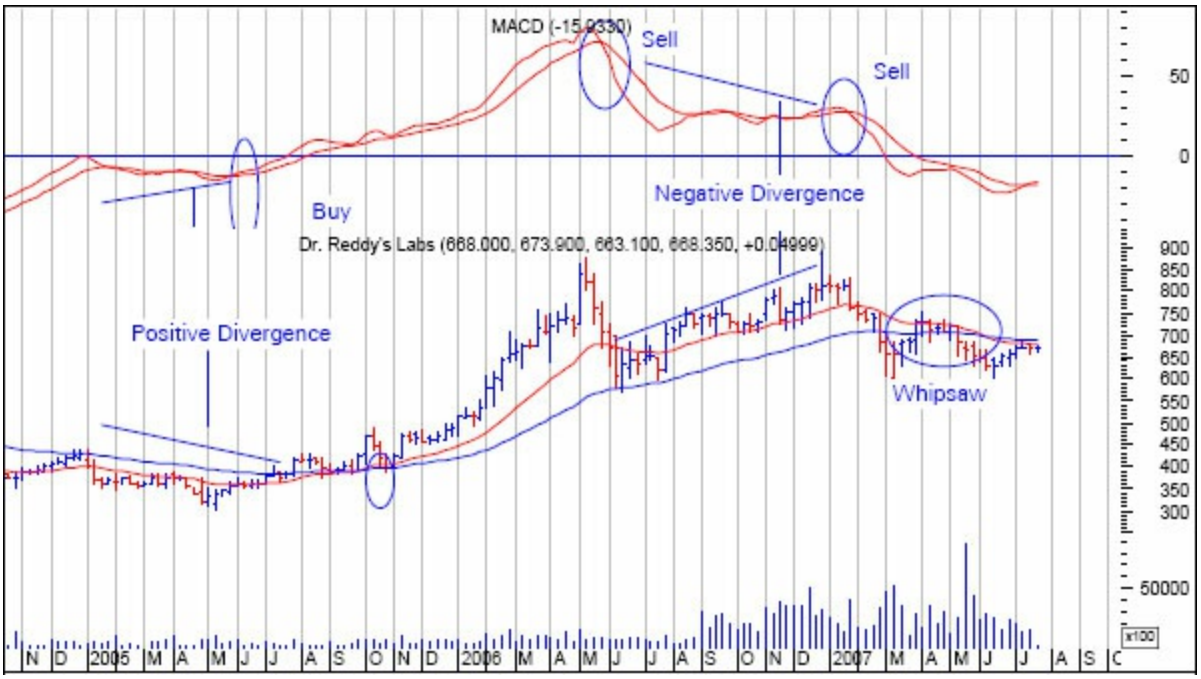

Figure 10.6: **The advantages of using MACD over EMA for entry and exit signals are evident on this weekly chart.**

MACD generated a buy signal in Dr. Reddy's Lab in June 2005, depicted in the upper

panel by the encircled areas where the MACD line (red line) crossed over the signal line (dashed red line), way ahead of the EMA which generated a buy signal only in October 2005 when the EMA crossover occurred depicted by the blue encircled area in the lower panel. In the lower panel, the sloping red line is the 20-week EMA and the sloping blue line is the 50-week EMA. The positive divergence also shows the upward bias. Similarly, MACD gave a sell signal in May 2006, when the MACD line crossed below the signal line in May 2006 while the price crossed below the EMA only in the second week of June. MACD again generated a sell signal in advance when the stock made a new high while EMA failed to do so and a negative divergence occurred — price going up, MACD coming down — which was a bearish sign. In this case, too, MACD once again gave a sell signal before the EMA did.

The stock went into a sideways range from March 2007 during which phase you can notice both whipsaws and the failure of EMA in generating a clear signal. In July 2007, the MACD line was beginning to move up and may be ready for a crossover above its signal line.

Figure 10.7: **Entry and exit signals from MACD divergences**

Aurbindo Pharma firmed up after a long sideways movement and a strong buy MACD signal was generated in November 2006 when there was a positive divergence and the MACD line (red line) crossed above the signal line (dashed red line in upper panel). The price also crossed over its EMA in early December with bigger volume and the shorter term 20EMA (sloping red line in the lower panel) also crossed over the longer term 50 EMA (sloping blue line in the lower panel).

The stock then made a triple top formation during December 2006-January 2007, but again the price did not follow the momentum and moved up while MACD moved down, indicating a price reversal, or a slowing down of momentum. It was time to exit long positions and initiate a short position as the fast MACD line, the red line, crossed below the slow signal line (the dashed red line in the upper panel) and a divergence occurred. Also notice the price going below its 20EMA in February 2007 and the crossing of 20EMA below 50EMA in late February indicating a trend reversal. MACD, however, gave this signal in early February.

A buy signal was again generated in mid-March when the MACD line crossover occurred. You will note that the stock moved in an upward sloping channel for a fairly long period lasting from April to early-July and the interesting part is that MACD remained range bound, depicted by the red circle in the upper window. The stock touched new highs in late June and early July but with low volumes — another indication of weakness — and the MACD did not make a new high thereby signaling possible impending weakness and a reversal in trend. Double top formation, new highs not supported by volume, MACD negative divergence, crossing of the price below its 20-day EMA and crossing of the fast MACD line below the slow signal line, all screamed and shouted a loud short sell signal for the stock in a bull market.

Notice, too, that MACD gave a sell signal much before the EMA crossover did.

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Remember, MACD is not bound by any upper or lower limits. Some traders also use the center line crossover above or below the zero line to confirm a possible trend reversal.

It is sometimes difficult to determine when a trend will end and a trading range will begin — or when a trading range will end and a trend begin. Towards this, the use of MACD provides clues about impending weakness and strength.

Trading Rules for Using MACD Divergences

The best use of MACD is for trading divergences. As a momentum indicator, MACD has the ability to foreshadow moves in the underlying stock. MACD divergences can thus be a key factor in predicting a trend change. A positive divergence signals that the bearish momentum is waning, and there could be a potential change in trend from bearish to bullish. This can serve as an alert for traders for covering their short positions, or for aggressive traders to

consider initiating a long position.

Use of MACD Histogram for Trade Entries

We discussed the general characteristics of MACD histogram in Chapter 9. Now we will consider its use for making near-perfect entries. Before taking some examples, however, let's recap some points about using the MACD histogram indicator.

Divergences between MACD histogram and price identify major turning points. Such divergences show exhausted bulls, or bears, as the case may be. These signals occur rarely, but when they do occur they often enable traders to catch major reversals and the beginning of new trends.

"When the prices are at new lows, but the indicator is tracing a higher bottom, it shows that the bears are exhausted and bulls are ready to gain the upper hand," says Dr. Alexander Elder in his landmark book, *Trading for a Living.* But you need to remember that divergences take a long time to work out so the actual buy or sell signal comes only with a price breakout and because of the divergence in the indicators:

- In an up trend, the faster moving average is above the slower one, but when the slower average crosses above the faster one, it indicates that the up trend is reversing.
- In a down trend, the opposite occurs; and the slower moving average is above the faster one.
- When the Histogram is below zero, the stock is in a down trend and the longer the bars, the steeper the trend.

The MACD histogram is one of the most powerful signals in technical analysis and once a price breakout occurs, it gives a strong buy or sell signal *(see* Figures 10.8 and 10.9).

Figure 10.8: **Buy and sell signals generated by MACD Histogram**

On this daily candlestick chart of L&T, MACD-H generated a buy signal in early November 2006 — the encircled area in the upper panel — when it stopped falling and ticked up, instead. At the same time, the 20-day EMA crossover and the price crossing over its EMA also signaled a buy, depicted by a blue circle in the lower panel. The stock then galloped and roared higher taking brief pauses in between and tested and retested the 50-day EMA (blue line), which acted as support for the stock, and pierced the 20-day EMA (red line) in mid-May 2006.

Now, here lies the beauty of analyzing oscillating indicators. If you visually analyze the chart, everything seems rosy and perfect for the stock from January 2006 till mid-May 2006. Prices were firming up, even making new highs and lower lows. The EMA was also behaving in a predictable manner and the trend was definitely up. Now, notice how MACD histogram was behaving; instead of going higher, it was turning down — and so was the volume. Prices were going up but volumes were going down. It was time to be cautious and the stock did indeed tumble to ₹ 950 from a high of ₹ 1,400. One should have exited when prices closed below the 20EMA in May after the occurrence of the divergence.

Going back to our cricketing analogy, the price chart is similar to watching a live match where everything seems perfectly in unison. Watching the histogram along with volume is like getting to know what is happening in the dressing room where players and coach are quarreling with one another and you can very well make an assessment of the events to come.

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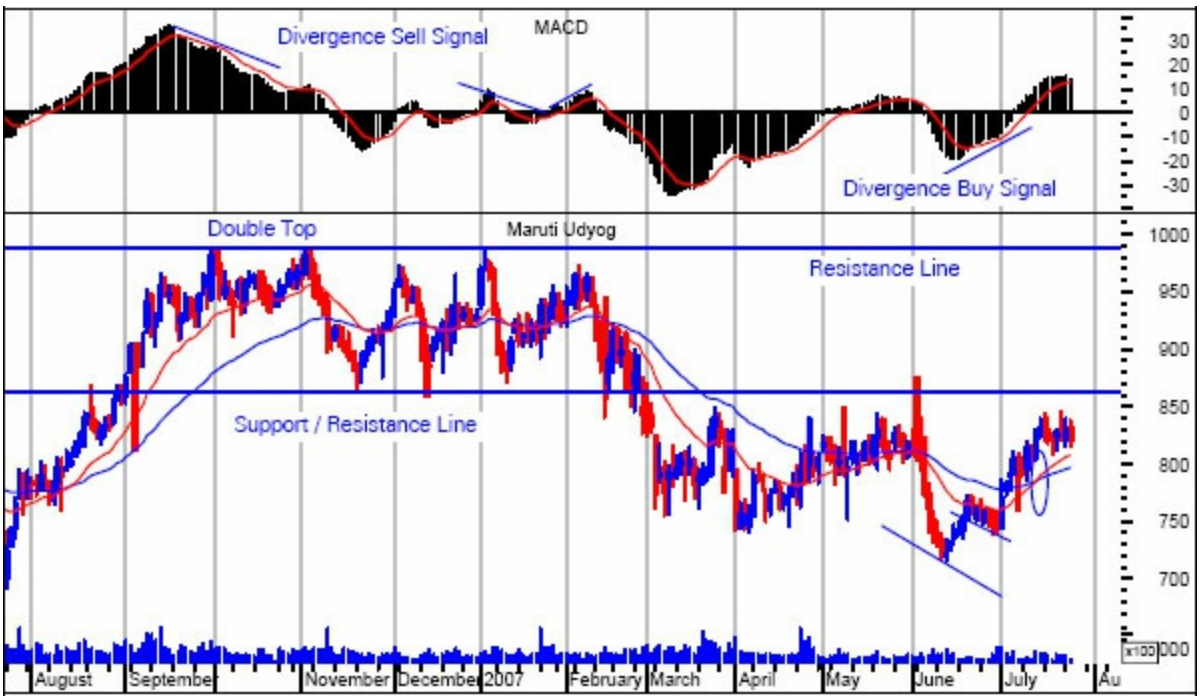

Figure 10.9: **Trading signals generated by MACD Histogram**

In this daily candlestick chart of Maruti, both MACD-H and EMA gave strong buy signals in early August 2006; as MACD-H ticked up, the price crossed over its EMA, and the short term 20 EMA (red line in the price panel) crossed over the longer term 50EMA (blue line). Maruti began a smooth ride, picked up speed and reached top gear by September and early October 2006. Now look at the divergence — while the price made new highs, the histogram failed to do so and actually turned down. This divergence coupled with the formation of a double top was a definite sign that the stock had topped out and one could expect a bumpy and rough ride (volatility) ahead for the stork. Maruti made three desperate attempts to pick up the lost momentum again during November-February 2007 but failed to scale a new high. The MACD-H and volume also ditched these attempts at resuming speed and Maruti went off the track in late February. Note the testing of support line — the lower horizontal blue line — during this bumpy ride.

Maruti remained sideways between November 2006 and February 2007 and traded within a range depicted by the horizontal blue lines; notice how prices kept going above and below EMA. In sideways markets do not follow EMA for either buy or sell signals.

Towards the end of the chart, this support line (' 860 to ₹ 870) was acting as a strong resistance. The stock seemed to be back on track with the occurrence of a price momentum divergence in June 2007. July also saw the crossover of the shorter duration MA over the longer duration MA. If it is able to cross the resistance line we may see a fresh move again in the stock. In fact, the stock did make a new high in October 2007 which is not shown on the chart.

Trading Rules for MACD Histogram

- Buy when the MACD histogram stops falling and ticks up. Place a protective stop below the last minor low.
- Buy when the MACD histogram ticks up from its second, shallower bottom while prices are at a new low. Place a protective stop below the latest low.
- Sell short when the MACD histogram stops rising and ticks down. Place a protective stop above the latest minor high.
- Sell short when the MACD histogram ticks down from its second, lower top while prices are at a new high. Place a protective stop above the latest high.

We applied these MACD trading rules in the examples in Figure 10.8 and Figure 10.9.

Use of RSI and Stochastic for Making Entries

As we have discussed, stochastic and RSI are leading indicators which oscillate between preset upper and lower limits known as the oversold and overbought range respectively. We've already discussed the trading rules for RSI in Chapter 9. Now, we will describe the trading rules for stochastic.

Trading Rules for Stochastic

- To determine the exact time to enter or exit from a scrip, look for the intersection of the %K and %D lines:
  - If the %K line moves below the %D line while the %D line is in an overbought zone, one should book profits.
  - If the %K line moves above the %D line while the %D line is in the oversold zone, it is time for short term traders to buy or go long in the scrip.
- The actual buy signal is flashed when the %K line moves above the %D line after posting a higher bottom formation. This signal of a positive divergence is meaningful if it occurs in the oversold zone.
- The actual sell signal is flashed when the %K line moves below the %D line after exhibiting a lower top formation on the stochastics chart. This sign of a negative divergence is meaningful if it occurs in the overbought zone.
- When you identify an up trend on a weekly chart, wait for the daily stochastic lines to rally above their upper reference line. Then without waiting either for their crossover or a downturn, place an order to sell short below the low of the latest price bar. Once you are short, place a protective stop above the high of the trade day, or the previous day, whichever is higher.
- Do not buy when the stochastic is overbought and do not sell when it is oversold. This rule filters out most bad trades.
- When the stochastic crosses above its upper reference line, it indicates

strength. You can buy for a quick rally and sell as soon as the stochastic turns down. This signal can help you catch the last burst of a bullish wave.

Overbought and Oversold Readings for RSI and Stochastic

Both these oscillators work best in a trading market *(see* Figure 10.10). In a strongly trending market their readings can remain at overbought or at oversold extremes for very long periods while the price continues its advance or decline as the case may be. **In a strong trend you should always follow the trend and ignore oscillator readings against the trend as these can lead to a false signal:**

- During a strong up trend, buying on oversold conditions is a much better option than selling in overbought conditions.
- Conversely, during a strong down trend, oscillator readings can remain at oversold extremes for an extended period even as the price continues its decline.

If you want to trade against the trend you should look at the other aspects of technical analysis, for example — price pattern, trend, support, resistance, candlesticks, volume, market context and market breadth, etc. and be prepared to take early profits.

Generally, overbought condition for RSI is taken at above 70 — and above 80 for the stochastic. Oversold condition for RSI is below 30, and below 20 for the stochastic oscillator.

It is advisable to use 7-day RSI for trading as it provides good entry opportunities for a long term trend; some traders also use 14-day RSI.

Figure 10.10: **Trading signals provided by stochastic and RSI**

We have tried to analyze these oscillators on the Nifty weekly chart from 2004 onwards. All the buy signals are encircled in the lower panel.

Once the up trend in Nifty was identified by the price crossing over its EMA in July 2004, and the crossing of the shorter 20-week EMA (red sloping line in the upper panel) over the longer 50-week EMA (blue line in the upper panel), oscillators could have been used to buy dips as is evident from the chart. Please note how the 50-week EMA acted as strong support for the index.

There are two windows below the price chart, the upper of these two windows shows RSI and the lower one shows the stochastic. You can also see three divergence signals marked by vertical blue lines in the lower two windows.

At certain times during the up move while the price was going up and making new high, both the oscillators were going down and this resulted in a fall in price because, remember, price follows momentum. Also noteworthy are the falls of May 2006 and March 2007 — and the occurrence of a negative divergence just before the falls. You can make a safe exit before such a fall if you use 9 to 10 day EMA on daily chart as trailing stop after seeing the divergence.

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ABC Wave and Momentum Setup

Generally, all price moves take an ABC form. You first have a move in a particular direction (called A), then a correction or consolidation in the opposite direction (called B), and then a continuation of the original move A (called C). It's like the successive occurrence of low and high tides in the sea.

Let us try to understand such an ABC wave with the help of Figure 10.11. The price first moved upward, marked by A; after reaching the top, the price peaked out and retraced towards the opposite direction indicated by B, and then there was the continuation of the move in the original direction indicated by C. The same movement has been captured in a line diagram *(see* Figure 10.12) which shows the occurrence of the ABC pattern both during an up trend and a down trend. In the down trend, the price first moves downward, marked by A, then corrects, or consolidates, in the opposite direction, B; and then again resumes its decline in the original direction C.

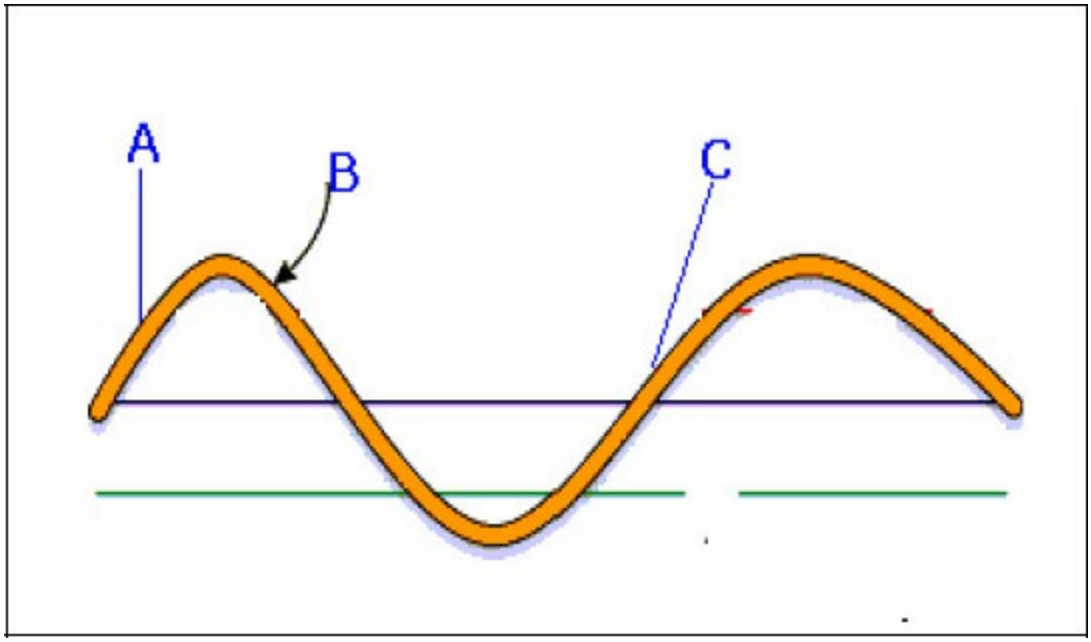

Figure 10.11: **ABC wave**

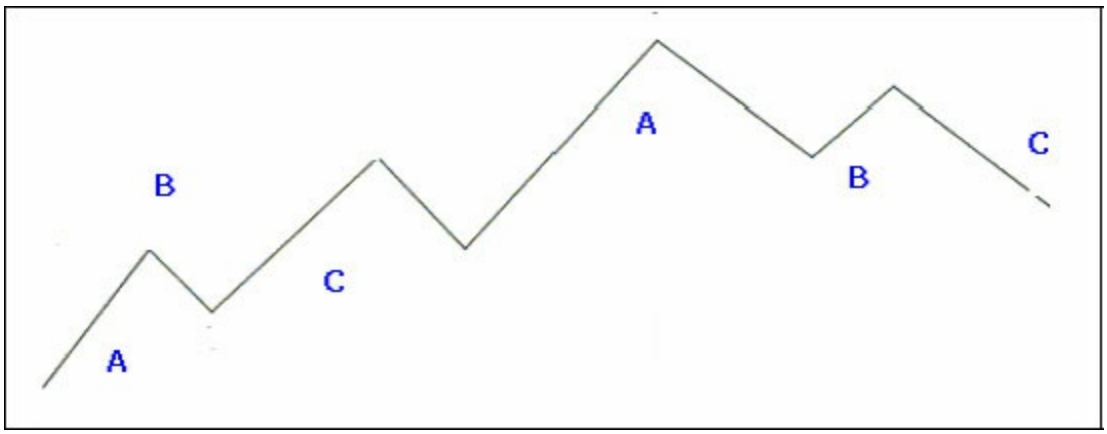

Figure 10.12: **Another example of ABC wave in up trend as well as in down trend.**

This ABC pattern can be used in conjunction with oscillators. Usually, price follows momentum and buy and sell signals are generated whenever the two diverge. These signals are usually suitable for making entries on a five-minute chart and are used by intra-day traders who trade the five-minute time frame, though they can be used to time entries in longer time frames as well. The divergences can be used for making low risk entries by trading the momentum setup.

Momentum Setup

Momentum setup consists of either a buy set up or a sell setup.

The **momentum buy setup** occurs when the momentum makes a low for the day, whereas the price does not. Even though the momentum reaches oversold level, the price has enough strength to hold its lows. In such a situation, when the momentum turns you get a stronger move to the upside — akin to the ABC wave explained earlier. It's like waiting for the market to show us its hand.

The **momentum sell setup** occurs when momentum makes a high, but the price does not. This means that even though the momentum reaches a high, the price has such weakness that it is unable to follow. So then when the momentum turns down, you get a larger move on the downside. Both fast and slow stochastics are used as the measure of momentum.

Momentum Buy Setup

Let us understand the momentum buy setup with the help of an example *(see* Figure 10.13).

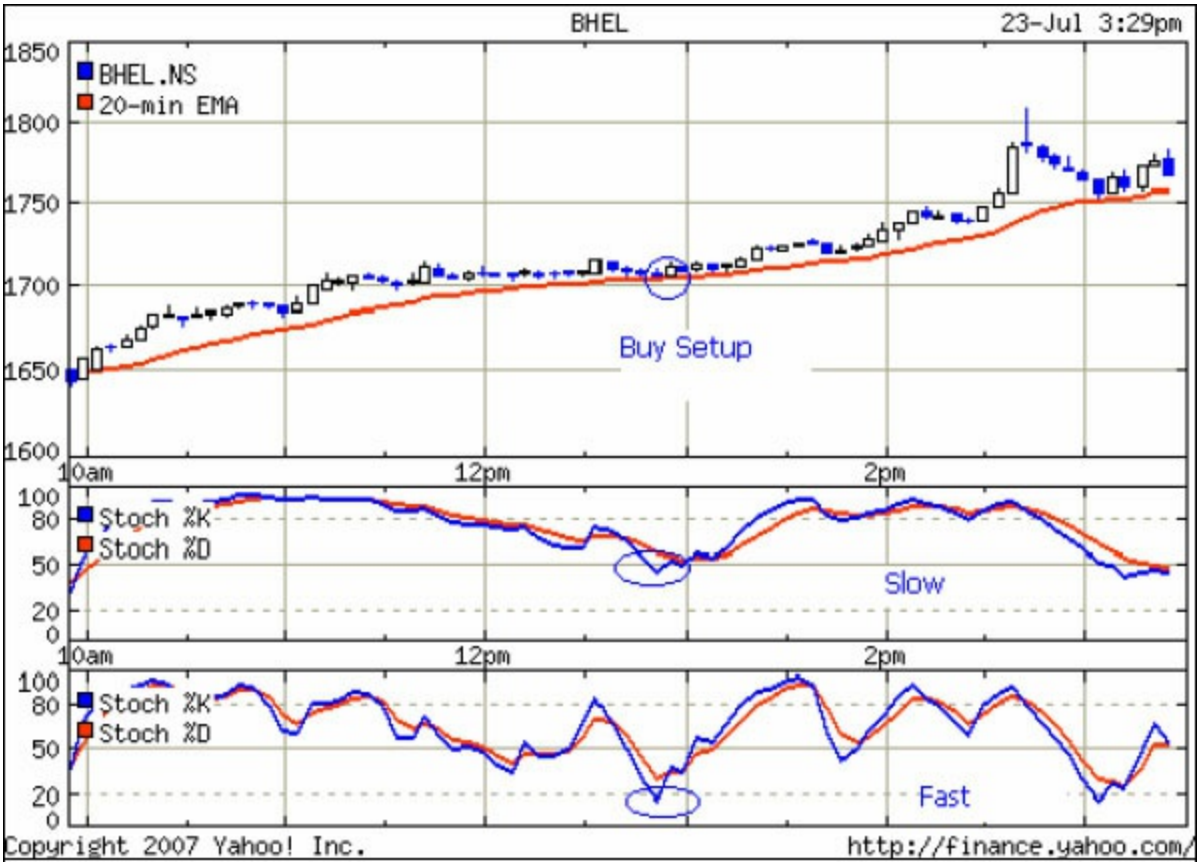

Figure 10.13: **Momentum buy setup on a five-minute chart for BHEL. Both the oscillators have made a new low of the day, the encircled area, while the price did not make a new low. This divergence is a buy setup.**

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Another example of a momentum buy setup is illustrated in Figure 10.14.

Figure 10.14: **Momentum buy setup on five-minute candle chart for Nifty. One candle represents five minutes; a white candle indicates that the price had a higher closing than opening while blue candles show the price had lower closing than opening.**

In this chart, the market opened with two down bars and then climbed up to touch the highs for the day, as did the momentum from our system. This tells us that the market was planning to move up. Now our effort should be to make an entry into this upward move. The window directly below the price chart displays the fast stochastic. The window below that shows the slow stochastic. Together, the fast and slow stochastics define market momentum. Both of them are used because the fast one hints at where the slow one may move next. Also, the slower one is more reliable when at its extreme.

When the slow stochastic initially reached oversold levels, it was Wave A. After that the market reacted on the downside. It's here that one should look for a long entry. Around 1 p.m., the market started reacting on the downside, represented by Wave B. After reaching oversold levels, both the slow and fast stochastics started moving upward in the direction of the original move. This represented the formation of Wave C. You can see that both the stochastics corrected and made new lows while the price remained firm above the 20-period EMA line (red up sloping line in the upper panel) and did not touch the lows, indicating divergence and underlying strength. It was time to enter on the long side. The

low of the day should be used as a stop for such buy setups.

The 20-period exponential moving average (EMA) is marked by a red line. Once an entry is made you should also look for other indicators, such as volume and market breadth. These will give you an idea whether it is a narrow- or broad-based rally / decline. As a thumb rule you can assume that the broader the market is in a particular direction, the better the chances of the trade succeeding.

~

Momentum Sell Setup

Let us now understand the momentum sell setup with the help of a couple of examples *(see* Figures 10.15 and 10.16).

During periods of strong weakness or strength, the slow stochastic may sometimes not reach overbought or oversold levels. Filtering mechanisms should then be used to trade such situations. Use of the fast stochastic in conjunction with the 20-period MA is a good filtering mechanism for such trades. The moment the fast stochastic becomes overbought, and the price moves above its 20-period EMA, we have a low risk short situation. If we strictly follow the slow stochastics, fewer trading opportunity will be generated but the chances of catching big moves are high.

For sell setups the high of the day should be used as stop. Conversely, the low of the day should be used as a stop for the buy setups.

The beauty of this technique is that irrespective of which way the market goes, it forces you to buy dips after an intraday up trend — and sell rallies after an intraday down trend. The basic principle of trading this setup is that you do not simply chase momentum, but instead trade divergences, and trade the exception to the rule that price follows momentum. When the market is moving about in a narrow range, the system either does not give any signals or gives only very few, since the slow stochastic doesn’t reach overbought levels as often.

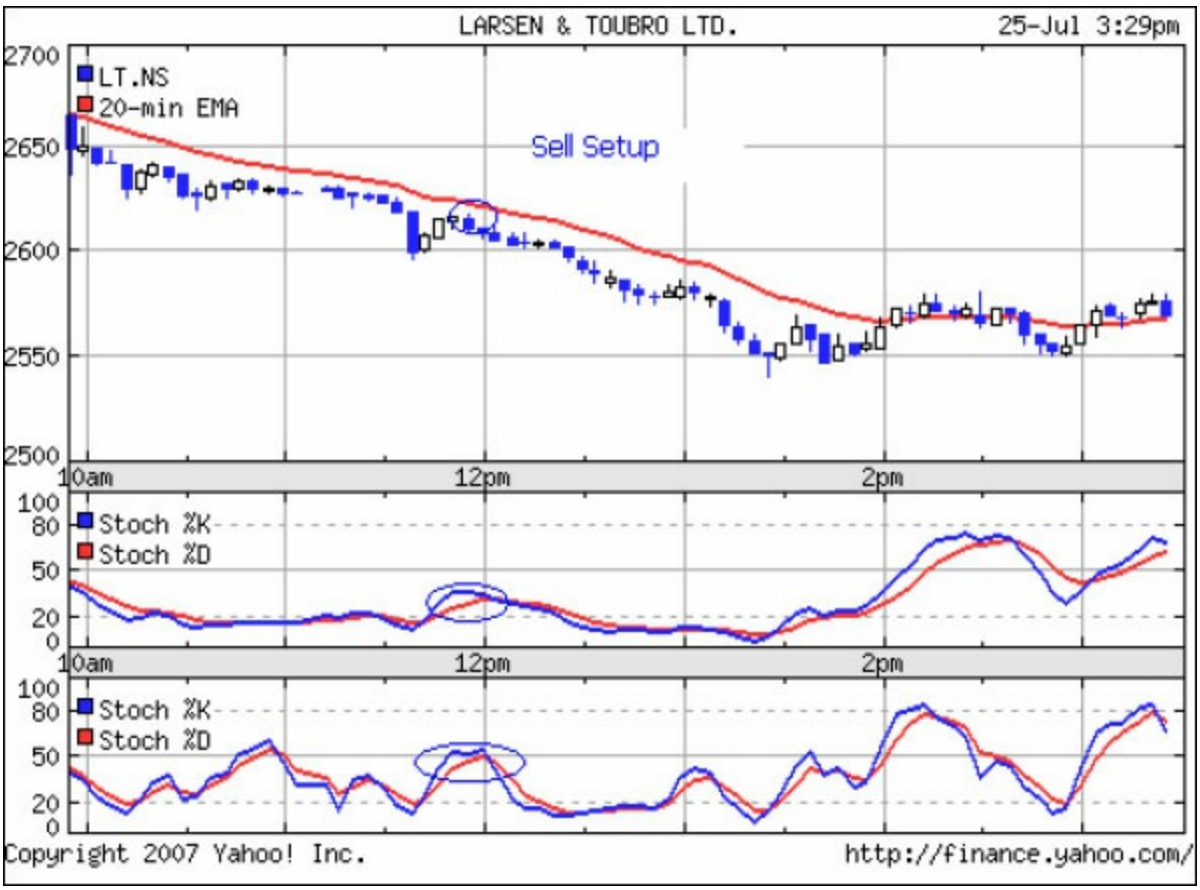

Figure 10.15: **Momentum sell setup on a five-minute chart of L&T.**

This chart shows an intraday sell setup. When the slow stochastic initially reaches oversold levels, you get Wave A, after which you have to wait for the stock to react on the upside to look for a short entry. As you can see, around 12.00 p.m. the stock started reacting on the upside, starting Wave B. and both the slow and fast stochastics started moving. The slow stochastics made a new high but the price failed to follow suit and continued trading below its 20-period EMA. This shows both a weakness in the price and a divergence; therefore, a short sell trade can be initiated.

For sell setups, the high of the day should be used as stop. Remember, this trade is a counter trend trade — because on the daily chart the stock is in an up trend — so you should cover your short positions the moment the price firms up above the 20-period EMA.

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Figure 10.16: **Momentum sell setup on a five-minute chart for BHEL.**

Both slow and fast stochastics reached overbought levels, i.e. made a high but the price failed to do so and was unable to cross above the 20-period EMA. This divergence signified inherent weakness in the price. A short sell entry can be made here. For intra-day trading these setups work well when you use the crossing of the price above its 20-period EMA either as stop or as exit point for your trade.

Example of a Real Trade Using Momentum Indicators

The following example of a real life trade as shown in Figure 10.17 helped us get about 160 points on Nifty futures.

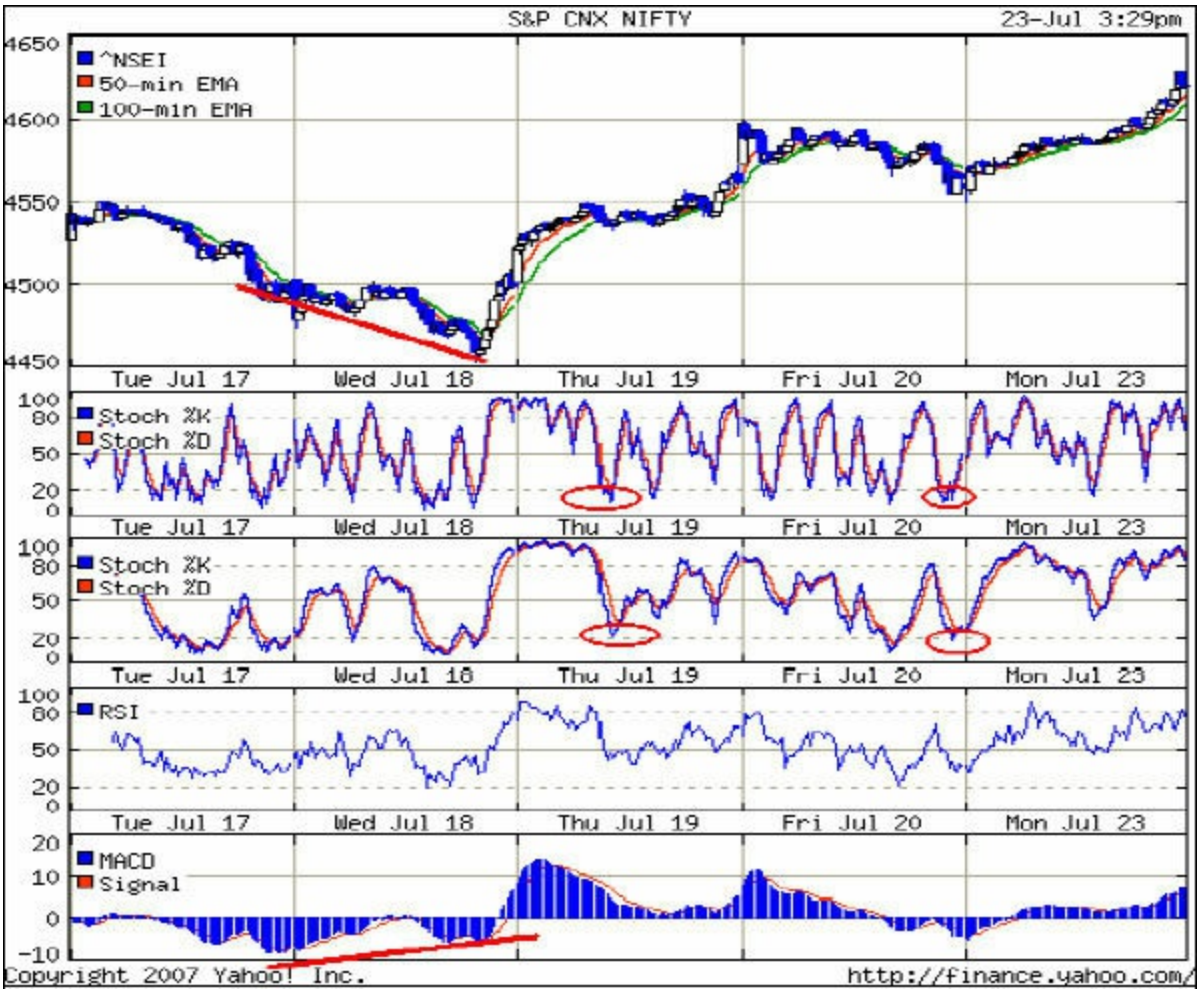

Figure 10.17: **Example of a real trade using various momentum indicators.**

Using positive divergence signals in a strong up trend market may enable you to make a single low risk entry and instead of beating about the bush you can ride a trade for a longer and larger move.

The chart in Figure 10.17 shows a real trade taken by us. MACD- H shows a positive divergence; shown by the upward slanting red line. The price went down and made a new low while MACD-H made a higher low and started to move up. This was a strong buy signal and we made a decent long entry on Nifty future with a favorable risk reward ratio

late on 18 July.

We carried the trade home and followed the trend. The strength in price is reflected by the divergences marked by red circles; the oscillators were making new lows while the price was making a new high. The stochastic reached oversold levels but the price did not tall. We used this inference to remain in the trend and were able to catch the large move. Opportunities such as those marked by red circles can be used either to initiate a new long trade, or to add positions as the trade works big in your favor.

Swing traders should wait for rallies after corrections in ongoing trends and should go long on these signals, as there is very low risk. To a large extent, this keeps traders from being stopped by whipsaws and enables them to capture the large moves.

Please do remember that this chart is used here for the sake of better understanding and this method should be used only for making entries. We used other aspects of technical analysis and market action before initiating the trade.

Summary of Indicators and Their Application

Indicator

Moving Averages

Appropriate Market Phase

Trending

Trading Rules and Setups

- When an EMA rises, trade that market or stock from the long side.
- When an EMA falls, trade that market or stock from the short side.
- Go long when the shorter period moving average crosses the longer period moving average from below.
- Go short (reverse your position) when the shorter period moving average crosses the period longer period moving average from above.

Guidance

- Moving averages are generally used to measure momentum and define areas of possible support and resistance.
- Moving averages are ineffective during periods when the market is trending sideways.

Indicator

MACD

Appropriate Market Phase

Trending

Trading Rules and Setups

- Go long when the MACD line crosses the signal line from below, with a protective stop below the latest minor low.
- Go short when the MACD line crosses the signal line from above and place a protective stop above the latest minor high.

Indicator

MACD Histogram

Appropriate Market Phase

Trending

Trading Rules and Setups

- Buy when MACD Histogram stops falling and ticks up. Place a protective stop below the latest minor low.
- Buy when MACD Histogram ticks up from its second, shallower bottom while prices are at a new low. Place a protective stop below the latest low.
- Sell short when MACD Histogram stops rising and ticks down. Place a protective stop above the latest minor high.
- Sell short when MACD Histogram ticks down from its second, lower top while prices are at a new high. Place a protective stop above the latest high.

Guidance

If you use MACD in a trading market:

- Go long when the MACD Histogram turns up from below zero. Exit when there is a signal to go short.
- Go short when MACD Histogram turns down above zero. Exit the position when there is a signal to go long.

Indicator

RSI

Appropriate Market Phase

Trading / Sideways / Consolidation / Range Bound

Trading Rules and Setups

- Use divergences, resistance and support line and RSI levels.
- Go long when RSI falls below the 30 level and rises back above it, or on a bullish divergence where the first trough is below 30.
- Go short when RSI rises above the 70 levels and falls back below it, or on a bearish divergence where the first peak is above 70.

Guidance

In a trending market take signals only in the direction of the trend and exit using a trend indicator like EMA:

- Go long, in an up trend, when RSI falls below 40 and rises back above it.
- In a down trend, go short, when RSI rises above 60 and falls back below it.

Indicator

Stochastic

Appropriate Market Phase

Trading / Sideways / Consolidation / Range Bound

Trading Rules and Setups

- Go long on bullish divergence (on %D) where the first trough is below the oversold level.

- Go long when %K or %D falls below the oversold level and then rises back above it.
- Go long when %K crosses above %D.
- Go short on bearish divergence (on %D) where the first peak is above the overbought level.
- Go short when %K or %D rises above the overbought level and then falls back below it.
- Go short when %K crosses to below %D.
- Place a stop below the most recent minor low when going long — or above the most recent minor high when going short.
- %K and %D lines pointed in the same direction are used to confirm the direction of the short term trend.

Guidance

In a trending market:

- Do not go long when overbought, nor short when oversold. Use trailing buy and sell stops to enter trades and protect yourself with stop loss.
- Go long: If %K or %D falls below the oversold line, place a trailing buy stop. When you are stopped, place a stop loss below the low of the recent down-trend (the lowest low since the signal day).
- Go Short: If stochastic rises above the overbought line, place a trailing sell-stop. When you are stopped, place a stop loss above the high of the recent up trend (the highest high since the signal day).
- Use a trend indicator to exit.

Indicator

Momentum Setup

Appropriate Market Phase

Trending / Trading

Trading Rules and Setups

- Buy setup: Slow stochastic makes a low for the day, but the market does not make a new low for the day.
- Sell setup: Slow stochastic makes a high for the day, but the market does not make a new high for the day.

Guidance

- In a trending market, when ADX is higher than 30, take trades only in the direction of the trend.
- In a range bound market, when the ADX is declining below 30, first define daily support and resistance, then buy on support and sell on resistance.
- Take quicker profits in a range-bound market, preferably as the slow stochastic reaches the other end. Thus if you bought when stochastic was at oversold you should sell when it reaches overbought, and *vice versa.*
- Use 60% of trending volume in a range bound market. This means if your trading quantity is 100 in trending market, you should reduce it to 60 in sideways market.

Chapter 11

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Money Management

How Much Capital to Risk on Each Trade

Money management is not about risk and reward management. When you risk nothing you gain nothing, and if you risk everything, one day you might well be left with nothing. Technical analysis shows you how to identify both trends and reversal points. It's like teaching a batsman when to strike the ball. Money management, on the other hand, is all about taking runs and building an innings where sometimes you have to take singles, sometimes you have to be aggressive and send the ball to the boundary for the maximum, sometimes you have to duck to avoid a bouncer, or to leave a ball alone, or play a defensive shot to avoid losing your wicket. The basic principle of building an innings is to wait for loose balls to hit and avoid flirting with balls going outside the off stump. In cricket you can score runs only if you remain at the crease — and you can continue at the crease only if you take care on two fronts; one, you have to avoid getting out, and, second, you have to avoid retiring hurt. Similarly **if you want to remain in the trading game, you must protect your capital, keep your position size in tune with your capital and risk, and keep your losses small.**

Technical analysis can help you identify the horses which stand a good chance of winning a race but it still requires skill on the jockey's part to actually win the race. If a horse runs too fast and the jockey is unable to control it, he will fall off the horse and be out of race. Similarly, in a raging bull market if you are unable to discipline yourself and keep on mindlessly increasing your positions, you can be in for a big loss if the market suddenly turns against you. We witnessed this very dramatically in the fall of May 2006, the gut-wrenching fall of January 2008 and the fall in 2016 when many traders lost huge amounts of money in the Indian markets.

Then, too, if you assign different jockeys to the same horse, you will find that the results are different. Similarly, in financial markets you will find that the positions of different traders on the same stock on the same side may

yield different results. Why? That is because different traders have different attributes, styles, traits and mental make up — and while some will follow money management principles, others will not. Some will place close stop losses and will therefore be stopped early, others will take quick profits, some will ride a trade further, some will ride it even further and book profits only when the trade has retraced back, while yet others will not place any stop loss at all and will try to fight, pray and hope when their stocks or positions go against them. Some traders will have very small positions on a rising stock while others will have many positions on losing stocks.

Human nature is inherently bullish. Therefore, when a trade goes contrary to expectation we often start wishfully hoping that somehow it will work out in our favor in the end. Alas, that day never comes. Protective stop losses and money management tell us that our assumption was wrong. Losses and drawdowns are inevitable. It's the occupational hazard of the trading business. There exist only two types of traders — one who have had drawdowns and losses, and others who are going to have them.

The opening of trading in derivatives segment and the use of margin and leverage attracted many new traders into the Indian market. Sadly, most of them are unable to make consistent profits. Over-leverage kills many. Uniformed traders are attracted by a rising market. They put in some margin, take a big exposure in a fast moving stock, and make easy money so long as the price continues to rise. Excited by the initial success, they go on taking big exposures in stock futures forgetting that the party will end some day. Remember, your capital is your gunpowder; once you lose it, you can't fight back. Some battles have been won just because armies were able to hold their ground longer. If you have your gunpowder intact, you can win sooner or later. Your capital is your lifeline. If you lose all of it you will be out of the market and with that your chances of getting your money back are also gone. Protect your capital, keep your gunpowder dry — that should be your ultimate motto.

Money Management

This is a very widely used but equally poorly understood term. Most traders believe that money management consists merely of placing protective stop losses. In fact, **money management is that part of your trading system which deals with correct position sizing, namely how much capital you can risk per trade, or how much you should invest in any single trade.**

In other words, money management is the craft of managing your trading capital. Some call it an art, others a science, but in reality it is a combination of both — with science predominating. The goal of money management is to accumulate capital by cutting losses on losing trades, and maximizing gains on winning trades. Money management helps you to protect and preserve your most important commodity — your trading capital.

Position Sizing

Position sizing is one important part of money management. Position sizing does not mean risk control, diversification, avoiding risks, or a stop loss. Rather, it is all about deciding the size of each of your trades. It tells you how many shares or contracts to buy per trade, and how much of your capital to place on any single trade.

Remember, the primary pre-requisite of successful trading is the preservation of your capital. Do everything you can to take care of it. You should always focus on preserving your capital.

Why Position Sizing is Important

When you identify a potentially profitable trade setup but are not able to decide about the position size, or if you are not consistent enough about your position size, you will earn less even if the trade works in your favor. Further, if excited by the success of a trade you increase the size or number of contracts or shares for your next trade and it does not work out in your favor, you will lose more than you had anticipated. Therefore, using an appropriate

position size is often the crucial difference between long term trading success and short term failure. On the other hand, once you are able to identify your risk level according to your capital and arrive at a correct position size for yourself, you will be able to sustain the trading battle for a longer period. An appropriate position size creates a balance in your trading behavior and controls your fear. The use of position size results in a trading system with a higher reward to risk ratio — and thus higher profits. Technical analysis can tell you what, when and how to trade; position sizing strategy tells you how much capital to risk on each trade.

When you enter a trade, you accept a certain amount of risk. A simple definition of this risk is the maximum amount of money you could potentially lose should the trade not move in your favor.

Risk management is a process by which a trader recognizes and accepts the potential risk being taken for a trade. The importance of setting an acceptable amount of risk for each trade will help you protect your capital, allow you to calculate the most optimal position sizes, and, above all, provide you a signal as to when to exit the trade should your risk setting be reached. The peace of mind you will gain by knowing the exact amount of possible loss before you even enter a trade makes the effort of understanding money management worthwhile.

The (in)famous Indian stock market fall of May 2006 and the succeeding global fall of January 2008 were accentuated by broker calls for payment of margin on the huge positions built up by traders on the long side. To meet the margin demands, individual investors sold their holdings for cash which, in turn, further accentuated the market’s sharp fall leading to calls for margins on stock futures which were not met. Most individual traders burnt both their fingers and their hard earned money by not following the principle of money management.

Alas, most of us never seen to learn from our debacles.

Drawdowns

If you trade in derivatives (futures and options), you must familiarize yourself with drawdowns. A drawdown simply refers to any reduction in

your trading capital. It is the amount your portfolio loses in value over a period of time because of losses suffered in trading or investing. Drawdowns are inevitable but they should be dealt with through proper money management techniques; otherwise they can mar you mentally and financially, erode your confidence, and affect your decision making power.

Many traders also misinterpret the rules of probability. Some believe that if they have an unprofitable trade, this somehow increases the chances that their next trade will be profitable!

This is a very dangerous misconception. You must never forget that each trade is completely independent of any other. Disregarding this factor, many people increase their position size after a loss, or a string of losses, in an attempt to quickly recoup their losses. In fact, that is a time when you should be even more diligent in ensuring that you scale back your positions, not increase them. Increasing your position size after a series of losses in an attempt to breakeven faster is a sure recipe for disaster.

You should make it a ritual to ask yourself the following question before each and every trade: How much money do I expect to lose if this trade does not go in my favor?

Position Sizing and Risk Control

Once you have determined an acceptable amount of capital to risk on a trade, you can then calculate the number of contracts or shares you should trade. Some traders follow value based position sizing while others follow risk based position sizing.

Risk Based Position Sizing

The best risk based position sizing is to follow the 2% rule. This means that on no single trade would you risk more than 2% of your trading capital.

Similarly, the total risk on your trading capital should not be more than 6%. Thus, whenever the value of your capital account dips 6% below its closing value at the end of previous month, stop trading for the rest of that month. The 2% rule will save you from a disastrous loss on any single trade, while the 6% rule will save you from a series of losses. The 6% rule forces you to do something most people cannot do on their own — stop losing streaks.

Let us take an example of risk based position sizing.

We've postulated that the total risk on your total portfolio should not be more than 6%. For example, if your total capital is ₹ 6 lakh, then the total risk on your portfolio should not be more than 6%, namely ₹ 36,000. And by the 2% rule, your risk on any single trade should not be more than 2% (' 12,000) of your total trading capital. Your risk is the entry price minus the stop loss point.

You can calculate the quantity that you should buy/sell for a single trade by using the following formula:

Quantity per trade = (Amount of Risk per Trade) ÷ (Market price of the share – Stop loss)

For example, if you want to buy a stock whose market price is ₹ 100, the stop loss is at ₹ 90, and the total amount of the risk on this trade as per the

2% rule is ₹ 12,000, then the quantity that you should by is 1,200 [(12,000 ÷ (100 – 90)].

Let us take the example further. Suppose you have a total trading capital of ₹ 6 lakh and you follow the 6% rule, you will reach the total acceptable loss limit of ₹ 36,000 if three continuous trades such as the one above don't move in your favor.

Now, for example, if you want to buy two stocks of different prices and stop loss, Table 11.1 shows you the total number of shares to be purchased so that your risk is limited to 2% per trade.

Table 11.1
Risk Based Position Sizing

Trading Capital (₹ (A)	*Risk Amount ₹2% of ₹ 600,000 (B)*	*Share Price ₹(C)*	*Stop Loss Price*	*Stop Loss in ₹(D)*	*No. of shares to be bought (B/D)*	*Total Amount Invested (C x D)*
3,00,000	12,000	500	480	20	600	3,00,000
3,00,000	12,000	400	370	30	400	1,60,000
600,000	**24,000**				**1,000**	**4,60,000**

As you would note from the above example, though the price of the second stock is lower than that of the first stock but as its stop loss price gap is more, therefore the number of shares to be purchased as per the money management rules is lower.

Let's take another example to calculate the number of shares to be purchased as per the stop loss. Suppose you want to buy three stocks of different prices and stop loss, using the 2% and 6% rules. Table 11.2 shows you the total number of shares of each to be purchased as per these rules.

Table 11.2
Risk Based Position Sizing

Trading Capital ₹ (A)	*Risk Amount ₹(2% of ₹ 6 lakh) (B)*	*Share Price ₹(C)*	*Stop Loss Price*	*Stop Loss in ₹(D)*	*No. of shares to be bought (B/D)*	*Total Amount Invested (C x D)*
2,00,000	12,000	400	380	20	600	2,40,000
2,00,000	12,000	200	190	20	600	1,20,000
2,00,000	12,000	300	260	40	300	90,000

6,00,000	**36,000**	**1,500**	**4,50,000**

To manage your risk you should make adjustment for very close stops and for high risk reward ratio. Therefore, in Table 11.2 for the first stock the number of shares have exceeded the fixed purchasing power of the account (₹ 2 lakh).

Value Based Position Sizing

Let's now consider an example of value based position sizing. Some traders divide their trading capital into equal sized portions in order to spread the risk. Suppose you have a trading capital of ₹ 1 lakh and are willing to take a 6% risk on this account, i.e. a total risk of ₹ 60,000. Now if you divide this capital into five (or any other number) equal portions, then the per account risk would be ₹ 12,000. By spreading the capital across different positions, you are protecting yourself against the possibility of a large and sudden fall in the price of an individual stock. Even a big fall will not make a big hole in your trading account and you will be able to live to count your blessings.

In the value based position sizing example in Table 11.3, we have divided the total capital into three equal amounts of ₹ 2 lakh each, one for each stock. Since stocks have different prices, the number of shares to buy would vary from stock to stock.

Table 11.3 may explain this:

Table 11.3
Value Based Position Sizing

Name of Security	*Price per Share (₹)*	*No. of Shares*	*Amount (₹)*
X	50	4,000	200,000
Y	100	2,000	200,000
Z	200	1,000	200,000

Risk based position sizing methods can be applied to day trading, position trading and for maintaining a small short-term portfolio. These methods are good for cash market trading where you can control the number of shares. But in the futures market lot sizes are pre-defined and you can not tinker with

their size for controlling risk. We will discuss about money management practices for derivatives in another section of this chapter.

Risk-Reward Ratio and Success Rate

One should always be on the lookout for an opportunity to trade. The old saying about never putting all your eggs in one basket should, however, be followed religiously. One should trade accordingly to the prevailing trend and market conditions. Sometimes you need to hold a portfolio, sometimes you need to have naked future positions, at other times you need to buy hedged positions to take advantages of range bound moves, and so on. In a nutshell, your cash register should always be ringing — remember, no one has gone broke taking profit.

One should always enter a trade keeping the risk reward ratio in one's favor. Actually, it should be called reward risk ratio because that is how it is expressed. It is the ratio of your expected gain *vis-a-vis* the risk to your capital:

Risk Reward Ratio = (Average gain on winning trades) ÷ (Average capital at risk)

Let us take an example.

For the example in Table 11.1, if your average gain on winning trades is ₹ 30,000 and your risk was a constant sum of ₹ 12,000 per trade, then your risk-reward ratio is 2.5 to 1 (i.e., 30,000 ÷ 12,000).

You should also make some allowances for brokerages and slip ups as some losses could be bigger — for instance, stop losses occasionally fail when prices gap up or down.

Every trader is different and each therefore has a different success rate or reliability as Van Tharp calls it in his book, *Trade Your Way to Financial Freedom.* Some traders normally achieve higher success rates, while other traders generally achieve greater risk reward ratios. Your success rate (reliability) is the number of winning trades expressed as a percentage of your total number of trades:

Success Rate = [Winning trades ÷ (Winning trades + Losing trades)] × 100%

Pyramiding and Martingale

In cricket, there are some quick scorers and hard hitters like Sehwag, Dhoni, De Villiars and Tendulkar. When they time the ball perfectly, they are able to score lots of runs in a day. In effect, what they do is use their good rhythm as an opportunity to score faster. You must have seen that they play with some caution till they are able to achieve a landmark, such as getting to a fifty. Once they achieve the landmark they then set their eyes on the bigger target of scoring a century and take some risks till they reach the nineties after which they again play with caution. Once they get a hundred, they again become aggressive. On the other hand, when the bowlers are dominating, or when they are not able to time the ball perfectly — they then play defensive cricket and do not take undue risks. In market analogy they consolidate their innings at some points, like when they are either between 40 and 50, or then again between 90 and 100.

Similarly in the market you should become aggressive only when a trade moves in your favor. You can then add to your position after consolidations, and near the base. Typically, however, small traders do the exact opposite — they add to their position when the price comes down, commonly known as averaging. Thus, if they have purchased a stock at ₹ 100 and instead of going up the stock comes down to, say, ₹ 80, their general tendency is to buy some more. Adding contracts or lots of shares to a losing position is a recipe for disaster. Trying to "average down" a losing trade should never be attempted. This method may work once in a blue moon during a strongly trending market but it is a cardinal mistake and should always be avoided.

Imagine you are riding in a limousine which is cruising at a smooth speed and is picking up momentum nicely — but then it slows down, comes to a halt, and starts reversing. What would you do? Would you continue the ride? Most of us will abandon the car. But in the stock market a majority of retail investors and traders often do the opposite — they cling to a losing ride hoping that it will get back on track once again. Faith and hope do not work in the market which is no place for people with bruised egos. One should be able to correctly identify an opportunity, and when it appears, seize it. Above

all, you have to try and keep your losses small.

Pyramiding means adding to positions as the price moves in the desired direction. It is a method of increasing your position as it becomes profitable. Pyramiding is a highly aggressive trading strategy and can indeed be very profitable if used with chart patterns and some insight into market action. You should also be able to control risks and have the discipline to consistently execute a tested plan. Pyramiding should be executed only according to a predetermined and tested method, which must include an effective stop loss.

A pyramid is like a 3-D triangle with a large base which ensures that the structure is stable. As we move up, the base line keeps on reducing till the apex is reached. Similarly, in trading too if the base is made bigger, your position resembles a pyramid.

Three types of pyramiding strategies are used in trading. These are:

- Standard pyramid;
- Inverted pyramid; and
- Reflecting pyramid.

Standard Pyramid

To understand a standard pyramid, let's again turn to the example in Table 11.1

Let's now take the first row of the table. It shows that 600 shares are to be bought at the price of ₹ 500 with a 2-point stop loss. Now to understand the principle of pyramiding, let's say we buy 300 shares initially to test our trade (see Table 11.4).

Table 11.4
Pyramiding

Total No. of Shares to be	*Share Price (₹)*	*No. of Shares Bought*	*Average Buy price (₹)*
600	500	300	528
	550	150	
	600	75	

If the stock price moves in our favor and reaches ₹ 550, we are in a profit of ₹ 15,000. At this point, we add half of our original quantity, i.e. we buy 150 more shares of the same stock, which is now priced at ₹ 550. If the stock moves by another 50 points and the price reaches ₹ 600, we add another 50% of the last added quantity, i.e. 75 shares. The total number of shares bought thus reaches 525. We would have spent a total of ₹ 2,77,500 at the average price of ₹ 528. This way we complete the pyramid, which is stable. This method is known as standard pyramid, scaled down pyramid, or upright pyramid (see Figure 11.1)

Inverted Pyramid

In the case of an inverted pyramid, which is also known as the equal amounts pyramid, you add to an initial position in equal size increments. For example, if the initial entry was of 300 shares, then as the price moves to the next predetermined level, you add another 300 shares, if the price continues another 300, and then 300 more, for a total of 1,200 shares. Here, however, the average cost per share is much higher than in the case of a standard pyramid since relatively larger number of shares are bought at higher prices. Consequently, a smaller price reversal can eliminate all profit.

Figure 11.1: **Example of a standard pyramid.**

For traders, technical analysis coupled with patience is virtue. Sometimes, no position is also a position; it is better to avoid trading when in doubt and confusion. At such times, waiting on the sidelines always pays as can be seen from this daily chart of Voltas. The stock remained sideways till mid-June and a buy setup occurred only thereafter when the price crossed above both its 20- and 50- period EMAs. The stock moved out of the range with sharp volumes and consolidated with low volume. The initial quantity could have been bought when the stock was at ₹ 100 from where it resumed its up move after consolidation. One should have added more (50% of initial position @ ₹ 120 as marked on the chart), when the stock again moved out of a consolidation phase.

The stock then resumed its upward journey and touched a high of ₹ 150 in late July. Here lies the biggest dilemma about exiting a position. One strategy could have been to wait for the consolidation and see how the stock moved thereafter. The subsequent formation of a pennant and breaking down of the price from this pattern and falling below the 20EMA red line, as also the violation of the trend line, all shouted exit.

Another strategy could have been to exit as soon as the stock moved into the consolidation phase after making the high.

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The inverted pyramid thus offers greater potential reward but at the cost of much greater risk, as compared to the standard or scaled-down pyramid.

Pyramiding increases profits when a trade continues in our favor, but it is always advisable to have a clear exit point and a risk control plan as pyramiding also increases losses if the trend were to reverse. Because adding to positions changes the total cost of the entire position on a per-unit basis toward the last price, any quick price reversal to the original entry price can result in a significant loss.

Reflecting Pyramid

The reflecting pyramid systematically adds to a position up to a predetermined price level; it then reduces the position systematically as the favorable trend continues. Thus, a reflecting pyramid is not a pure trend following method. If the price does make a major move in the desired direction, the reflecting pyramid would result in lower profits than both the standard and inverted pyramids

When to Pyramid

After having understood position sizing, the next question that arises is when to add to profitable positions. This is where chart analysis comes into play. One of the best places for adding to your winning positions is near the base, i.e. at the breakout after a consolidation occurs. When you climb a mountain most of the supplies and gear are stocked at the base, where most of the preparations are also made. As you climb higher and higher, you need to travel lighter. In pyramiding, too, the base is heavy and as we climb higher we add lighter positions.

In the two examples illustrated in Figures 11.2 and 11.3 we have not used momentum indicators in explaining the trading strategy. Our attempt here was to demonstrate the use of simple techniques while emphasizing the understanding and use of money management in combination with chart analysis for a profitable trade.

Figure 11.2: **Pyramiding opportunities.**

One could have bought the initial quantity in Reliance Petroleum when the stock broke out with a volume spike in mid-May. Positions could then have been added when the stock again flared up in the last week of June. The price, however, could not stay above the 20-period EMA and it was time to book profit. Also noteworthy here is that the breakouts both in mid-May and end-June were supported by volume, another confirmation of an up move.

Figure 11.3: **Adding to winning positions.**

On its weekly chart, Reliance Energy's late June breakout was a definite buy. The opportunities for adding to the winning position were offered twice; once in mid-July, and again in the third week of July with the stock showing the energy to move up when the price broke out of the pennant formations with good volumes.

Dissipation of the stock's energy on 27 July with strong volume revealed weakness and it was time to move out and take profit. Always remember to take profit.

Exiting from a position even with a loss unlocks your capital from a losing trade, keeps you emotionally away from daily loss calculations, and gives you an opportunity for profitable future trades. You can then recover your losses another day but if you bring losers home, it will leave you wounded and ruined.

The market mood is often unpredictable. What is certain in the market is uncertainty. For example, if you are long, a gap down opening because of unexpected overnight events can ruin one's trading capital if money management techniques and stop losses are not scrupulously used *(see* Figure 11.4).

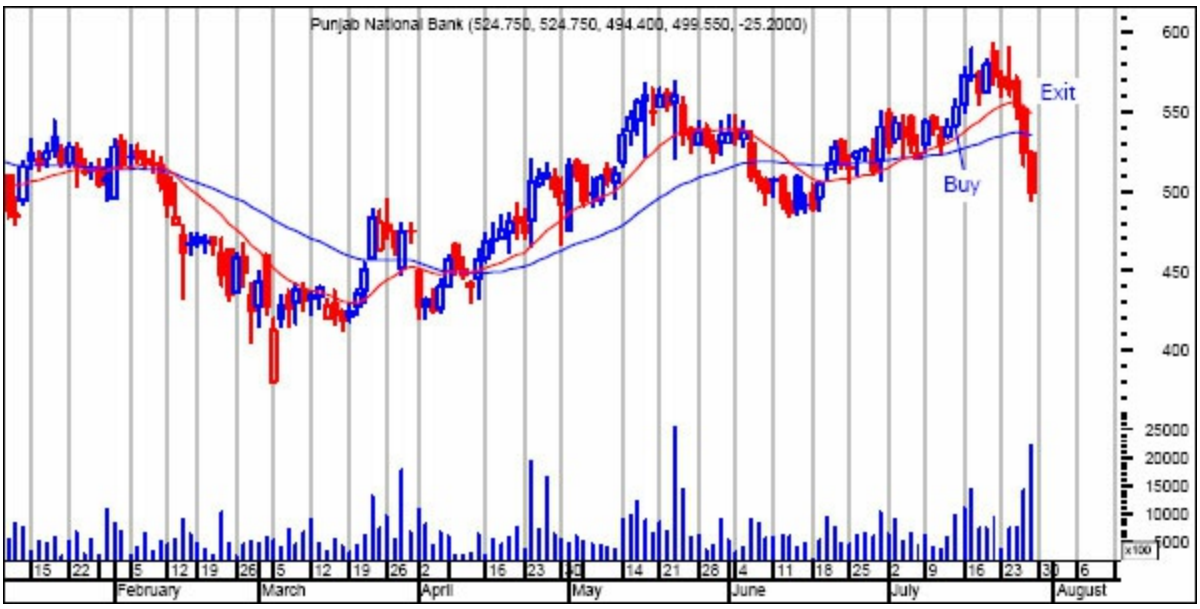

Figure 11.4: **Time to move out.**

The consequences of not reading chart signals, wishful thinking, greed and not listening to the market can be illustrated by taking the example of this daily chart of PNB. When the price moved above its 20-period EMA, and the 20-period EMA, in turn, crossed over above the 50-period EMA, it was time to buy (at price of ₹ 550) in mid-July 2007. The stock did move up to a high of ₹ 594 but could not hold this level and shed its gains. The price falling below its 20-period EMA was a strong exit signal — even a signal for reversing the position for the short term since the fall was accompanied by an increase in volume.

If you had not applied a protective stop loss and merely prayed that the price would bounce back again, chances were you were heading for big trouble. By using a shorter 8-period EMA, you can take most of the money off the table.

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The Martingale System

The martingale system is a method for doubling-up on losing bets. Suppose your initial position is 100 shares or contracts and you suffer a loss on your first trade, with the martingale system you would take your next trade with double the quantity (i.e., 200), and so on, hoping that one favorable trade will cover all your previous losses. This method should not be adopted at any cost.

Margin and Leverage

Introduction of futures trading opened up a new avenue for Indian traders to earn from the country's economic boom. Futures on individual securities were introduced on 9 November 2001 by the NSE. Futures and options on individual securities are now available on a growing list of securities as stipulated by SEBI from time to time.

NSE and BSE have also introduced trading in futures and options contracts. Details of all index derivative instruments are available at the official websites of the exchanges and SEBI.

Trading in individual futures requires the payment of margins.

For example, if you want to purchase 75 shares of Reliance Industries (RIL) at a market price of ₹ 2,500 per share, you will require ₹ 1,87,500 to do so. But if you trade in RIL futures, you will have to pay a margin of only ₹ 30,000 for a pre-determined lot size of 75.

Margin offers both opportunity and substantial danger. Leverage is a two-edged sword that must be handled with care. It is no secret that some of the most successful traders have gone broke and lost their trading capital in a fairly short time by over using leverage. The concept of leverage and the practice of margin are interrelated. In the context of trading. Leverage is the amount of money you keep with your broker and use it again as margin to take position in other trades. The settlement is done every day after market closing. If the position has moved in your favor, your trading capital will increase but if your position has moved against you your capital will be reduced. In extreme cases, like a sudden turn of the markets against you, your minimum required margin money may also get reduced.

If you get a margin call from your broker after a trade has moved against you, our advice is not to meet that call. Instead, get out of the trade because adding margin to a losing position is like throwing good money after bad.

As we saw in the examples based on Table 11.1 to Table 11.4, you can

control the number of shares you buy in the cash market. But in the derivatives market the lot size is decided by the exchange and you do not have control over it. For this reason, trading in futures requires an even more disciplined approach to money management.

Drawdowns

Most new traders fall prey to the temptation of trading futures without understanding the consequences of the associated risks. When your positions in futures moves against you, you suffer drawdowns on your capital.

Let's try to understand the effect of drawdowns on your trading capital. Suppose you have a trading capital of ₹ 100 and you risk 5% on each trade you take. The common notion among traders is that if they suffer 5 consequent losses followed by 5 wins in a row they will be able to break even. In reality, this is not so. Why? Let's consider Table 11.5 in order to explode this myth. Let us assume that the first five trade with fixed percent of risk goes against us and the stop losses are hit.

Table 11.5
Drawdown with 5 Losing Trades

Trading Capital (₹)	*Risk per Trade (5%)*	*Account Balance (₹)*
100	5	95
95	4.75	90.25
90.25	4.51	85.74
85.74	4.29	81.45
81.45	4.07	77.38

Now, let us assume that next five trades work in our favor, as per Table 11.6.

Table 11.6
Impact of Next 5 Winning Trades

Trading Capital (₹)	*Risk per Trade (5%)*	*Account Balance (₹)*
77.38	3.87	81.25
81.25	4.06	85.31
85.31	4.27	89.58
89.58	4.48	94.06

94.06	4.70	98.76

It is obvious from Table 11.5 and Table 11.6 that even after five wins, we have lost money.

Now, let us assume that the first five trades work in our favor (*see* Table 11.7).

Table 11.7
Impact of 5 Winning Trades

Trading Capital (₹)	*Risk per Trade (5%)*	*Account Balance (₹)*
100	5	105
105	5.25	110.25
110.25	5.51	115.76
115.76	5.79	121.55
121.55	6.08	127.63

Table 11.7 might give you an impression that if you start with five wins, your account size will swell and you will reap a windfall. Let us, however, see what happens if you then suffer five losses after this winning streak (*see* Table 11.8).

Table 11.8
Drawdown Due to Next 5 Losing Trades

Trading Capital (₹)	*Risk per Trade (5%)*	*Account Balance (₹)*
127.63	6.38	121.25
121.25	6.06	115.19
115.19	5.76	109.43
109.43	5.47	103.96
103.96	5.20	98.76

You can see that your trading capital suffers the same amount of loss as was depicted in Table 11.6.

We can thus learn four important lessons from the above examples:

1. The first is that one should always try to take bigger profits by riding the trend.

2. Second, you should not increase your trading capital. In fact, you should regularly take out profits from your trading account and avoid pumping

them back.

3. The third lesson is that following a money management system helps in keeping your gunpowder dry and keeps your account from going bust, even after you suffer a string of losses.

4. The fourth, and the most important, lesson is that consistency is the golden key to successful trading which can unlock the door for you to untapped wealth. Tendulkar did not score a century in every match but since he was consistent his batting average remained above 50 runs per match.

Money Management Rules for Trading Nifty Futures

Use Trailing Stop Loss to Protect Capital

Before initiating a trade you should always decide the amount of money you are prepared to lose should the trade go wrong. You must honestly answer this question: What would happen if I lose X% of my money? Would it affect my mental well-being, my family life, my lifestyle, etc.? You must be emotionally and financially prepared to face the consequences of being stopped in your trade. You should also weigh the odds of each trade. Usually, an average person has about 50:50 odds of making money on any trade. A Nifty futures trade which is based on technical analysis and market insight and understanding improves the odds in your favor to 60:40. So if ten trades are executed, six of them are likely to make money. Two out of ten may initially go in the predicted direction but then lose. The other two are likely to lose straightaway.

Can we increase these odds to 80:20? We can do so by placing breakeven stops at the right place corresponding to the amount of initial risk you are willing to take on a trade. By doing so, you cannot lose eight times out of ten. If you do not lose eight times out of ten, and lose only 20 points the other two times, you will end up a winner.

Cut Your Losses Early

Typically, if your analysis is correct and you execute a trade as per your plans and buy or sell setups, it should move into the money quickly. Before the close of the market at the end of the day, you should make an assessment of your positions, the market noise and behavior — and cut losers since each big loss starts by being small one.

Do Not Lose Too Much on Any Single Trade

Do not take a risk of more than 50 points on any given Nifty trade, which means you should trade only when the odds of the market moving in your

favor are more than 90%. This also means that you will not find good trades every day. How we have arrived at this figure? One should fine tune one's entry and exit mechanism by analyzing the buy / sell setup on the fiveminute charts to make entries or exits. You may be comfortable with even a 50-point loss but the more capital you lose on each trade, the fewer the number of attempts you'll have the capital for. Since risk of a good entry is the biggest risk, what is important is that each trade should not cost more than 50 points.

Never Over-Leverage

Just because SEBI stipulates that you need to pay a certain margin to trade one lot of Nifty futures, it does not mean that beginners and new traders should trade to the maximum permissible limits.

You must not lose more than 2% of capital on any single trade in the futures market also.

The first challenge is to survive, you can make money afterwards if you are alive and kicking. If you can survive, you will thrive. If you run out of gunpowder, your battle is over. You cannot control the price movement but you can always control the volume you trade; most traders go bust because of volume, not price!

Pyramiding

If a trade moves in your favor and you wish to pyramid, always remember that fresh additions should be in smaller quantities so that the initial quantity is the largest and that you add only once the Nifty moves into the money by 1X (one X) of the risk taken, i.e. by the amount of the stop. Keep moving the stops 1X each time you add lots, so that you risk your own capital only on the latest lot. For example, if your stop is at 50 points below your purchase price, add only once the trade has moved 50 points above your purchase price. Add as the market consolidates and starts a fresh swing with new momentum; do not add towards the end of an ongoing rally.

Trade According to the Market

If you are not sure of the market's true colors and the implied volatility of the options is on the higher side,[†] sell higher index calls against index positions. For example, if you buy Nifty futures at 5,000 in a sideways market, you could sell the 5,100 call for ₹ 50, which gives you some cushion as it gives you ₹ 50 up front, though it limits the upside. This is not a solution for all markets but only when markets are range bound.

Ride the Move

Most money is made in only a handful of big trades. Always ride the trade with the assumption that the current trend would remain in force until a majority of signals prove otherwise.

The biggest mistake most traders make is that they sell too soon — and also buy too early. Nifty often moves with high volatility in either direction, with abrupt gap up and gap down openings, and unless you are prepared to face the consequences of riding out the smaller jerks, shocks, jiggles, wiggles and shark attacks, you will not be able to capture the sustainable longer moves. Always trade in the direction of the larger trends, with the most emphasis on the primary trend which lasts the longest.

In a strong up trend, look for opportunities to buy only on dips. In a down trend, sell rallies or bounces.

Always Use Real Stops

You should always place mechanical stops instead of mere mental stops. The stops can be placed based on your trading profile and risk capacity.

Trade with a Plan

Trade with a plan — not with hope, greed, or fear. Plan where you will enter the market, how much you will risk on a trade, and where you will take your profits. This is the way to plan your trade and trade your plan.

Those who fail to plan, plan to fail.

Follow your plan. Once a position is established and stops are selected, do

not get out unless the stop is reached, or the original conditions for taking the trade change.

Money Management Rules for Trading Individual Stock Futures

Most traders treat individual stock futures as stocks and think of trades in these instruments as investments. You should always remember that individual stock futures are not a replacement for stocks and, therefore, you should not treat them as stocks and keep rolling them over. You should not build a huge portfolio of stock futures because if the market reverses, they start coming at you like an avalanche.

You should apply the following rules while trading individual stock futures:

- 50% of the movement in stocks and stock futures depends on sector movements. So, look for strong macro news or sector tailwind. Again, use the 1% rule to figure out the quantity of your trade. If the risk does not justify your position in a particular stock future, don't go for it.
- Review all outstanding trades daily at 3.00 P.M. This means you should cut the losers with a butcher's knife; no emotions involved.
- Wherever a lot size is huge, plan on adding only once the stock moves into the money by 1X (one X) of the risk taken, i.e. by the amount of the stop. Keep moving stops by 1X each time you add lots, so that you risk your own capital only on the latest lot.
- For an average trader, 2 to 3 individual futures are easily manageable; avoid a portfolio of 10 to 15 stock futures.
- Once the move ends and the movement flattens, take profits; always remember this is not an investment.
- You should always be prepared to take money off the table when a trade moves in your favor. Once your profit exceeds your initial risk amount, exit half of your position and move your stop loss to break-even on the remaining position.
- You must understand the market and accordingly use the appropriate

instrument. For example, put and call options are not suitable in trending markets as the time value and volatility are priced in.

- You should strive to limit your drawdown to 20%, and even if a slippage occurs it should never exceed 25% in any event.

- You should be prepared to stop trading and re-evaluate your analysis and setups if you suffer a string of losses. To quote from Gann's classic book, *How to Make Profits in Commodities* **which was written some sixty years ago, "When you make one to three trades that show losses, whether they be small or large, something is wrong with you and not the market."**

  Remember, markets are never wrong only individual opinions are.

- When in doubt, keep away and stay out. Standing aside is also a position. Trading the market is like waiting for the right bus at the bus stop. Don't get on to a wrong bus. If you miss one that you wanted, you can catch the next one.

Using Stops

A stop loss is an order used to exit either a long or short position should the price move against you to a specified level. Stop losses act as insurance against an unacceptably large loss.

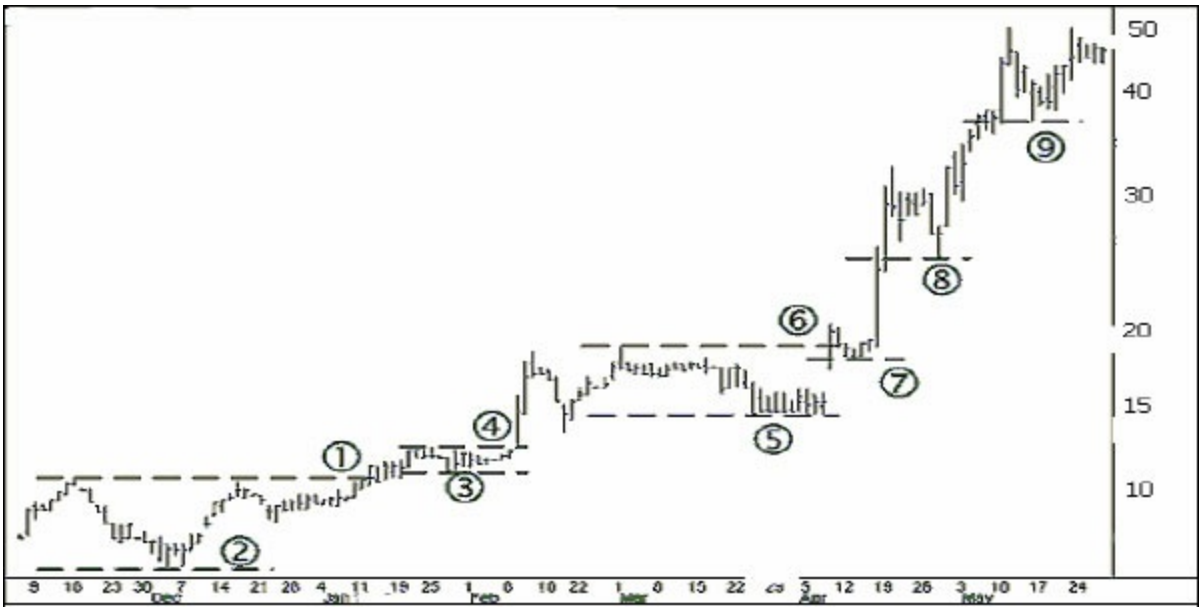

Figure 11.5: **How to use a stop loss.**

Let us follow the chart in Figure 11.5 for understanding the use of a stop loss. The entry was made at Point 1 when the stock moved out of a trading range. The initial stop loss can then be placed at Point 2, which is the security's long term support line.

The initial stop loss can be modified and placed at Point 3 once the price moves above the consolidating range (4). The breakout above Point 4 should not be used to add positions as such a trailing stop loss would be too near the buy price. If you want to add at this juncture, you should use a percent stop loss to protect your capital. In this case, you may place a stop loss 2-4% below the initial price depending upon your risk profile.

The stock then consolidated in a range defined by Point 5 and Point 6. A trailing stop loss should be placed at Point 5 once the stock broke out after consolidation (6). Now, you can use this breakout to add to your positions by placing a trailing stop loss at Point 7.

Points 7, 8 and 9 may be used as potential trailing stop points as directed by the chart. Each next level of support and resistance will define the place for putting succeeding trailing stops.

If you are able to ride the trend up to this point, then you should consider tightening your stops in order to carry home a higher profit.

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Before you enter any order, always determine the maximum risk you are willing to take on it. You should always let the chart patterns determine the stop points.

The average true range is mostly used for setting a stop loss because it is a fantastic measure of volatility and market noise. It determines a security's volatility, namely the tendency of a security to move in either direction over a given period.

There are other methods of using stop loss and these comprise the use of moving averages, trend lines and channels, intraday or end of day price movement, pivots, and time stop losses.

Exit Strategies

Whenever you are considering a trade, three factors must be crystal clear in your mind — where to get in, where to take profits, and where to bail out in case of an emergency. Day dreaming about profits will not make you rich. You must decide in advance where you will take your winnings off the table, or cut and run if the market turns against you.

Beginners keep looking for promising trades and assume that finding them will make them money. Novices search only for entries, while professionals spend a lot of time and energy planning their exits. They always ask themselves where to take profits or cut losses. Survivors know the truth — you don't get paid for entering trades, you get paid for exiting profitably!

Why think about an exit even before you enter a trade? Isn't it better to get in, monitor the trade, and exit in response to price action?

There are two main arguments for deciding on an exit before entering a trade:

1. First, knowing your targets and stops allows you to weigh rewards and risks. If you have a clear signal to buy with a price target of ₹ 100 above and a stop ₹ 200 below, is such a trade worth taking? Do you want to risk ₹ 200 to gain ₹ 100? Price targets and stops prompt you to focus only on such trades whose potential rewards far outweigh the risks.

2. Second, setting profit targets and stops before entering trades helps sidestep the pernicious "ownership effect".

What happens if a batsman is unable to make runs and is bogged down in a one-day cricket match. He either tries to rotate the strike to the other batsman by taking singles, or gets out. If instead he remains at the crease and is also not able to score runs, the asking rate will keep on rising and other in-form batsmen will not get a chance to bat.

You need to decide on exits before you enter, before a trade becomes yours.

Exits are a distinct part of technical analysis, called trade management. A good entry into a trade is only 25% of the job, albeit a very important one. The part that helps you make money is trade management.

Most successful traders make most of their money from very few trades. So once you are in the right trade, it is critical to manage it well in order to get the maximum profits out of it.

Here are some exit rules you can follow:

- **Place your stop the moment you enter a trade.** A stop will not protect you from a bad trading system; the best it can do is limit the damage. Even though it does not always work, a stop loss order limits your risk. It is not a perfect tool but it is the best defensive tool we have.

- When you go long, place your stop below the latest minor support level. When you go short, place a stop above the latest minor resistance. Avoid all trades where a logical stop would expose more than 2% of your equity. This limit includes slippage and commissions.

- As soon as the price starts to move in your favor, move your stop to a break-even level. When the take-off is completed, your flight is in a safe orbit.

- If the price continues to move in your favor, you have to protect your paper profits. Paper profit is the real money you can make, so treat it with the same respect as the money in your wallet. Risk only a portion of it as the price of staying in the trade.

- If you are a conservative trader, apply the 2% rule to your paper profits. Such a protect-profit order is your money-stop, protecting your equity.

- If you are an aggressive trader, you may use the 50% rule. As per this rule, half the paper profit is yours while the other half belongs to the market. You can mark the highest high reached in a long trade or the lowest low reached in a short trade, and place your stop halfway between that point and your entry stop. For example, if the price moves 10 points in your favor, place a stop to protect 5 points of profit.

- When you are not sure whether to stay in a trade or not, take profits and re-evaluate the situation from the sidelines. There is no harm in exiting and re-entering a trade. People think much more clearly when they have no money at risk.
- In strong trending markets you can use EMAs as stops:

- For a very short term perspective (2 to 3 days) – use 9 EMA as a stop;
- For a short term perspective (2 to 3 weeks) – use 20 EMA as a stop;
- For a medium term perspective (2 to 3 months) – use 50 EMA as a stop;
- For a long term perspective (more than a year) – use 200 EMA as a stop.

Summary

- Money management answers the question, “How much?” At all times you must know the optimal number of shares or contracts to be long or short, based on the risk you are taking, the money you have, and the market’s volatility.
- While pyramiding if the price changes direction quickly and steeply, for example due to a gap opening in a fast market, it can be impossible or difficult to limit the risk according to plan. Be prepared to exit.
- Consistency is the key. Sachin Tendulkar did not score a hundred in every match, nor does Virat Kohli but their consistent performance makes them the great run getters world cricket.
- Always preserve your capital. Capital preservation should be the first rule in trading and investing. Design a sensible money management plan by using the 2% rule. Limit your monthly losses to a maximum of 6% of your total capital. Divide your capital into ten equal parts, and never risk more than one-tenth of your capital on any single trade.
- Calculate your equity each day, including cash, cash equivalents, and current market value of all open positions in your account.
- Stop trading as soon as your equity dips 6% below where it stood on the last day of the previous month.
- Close all positions that may still be open and spend the rest of that month on the sidelines.
- Continue to monitor the markets, keep track of your favorite stocks and indicators, and paper trade if you wish.
- Review your trading system. Was the losing streak just a fluke or did it expose a flaw in your system?
- Always use stop loss orders to protect a trade by using reasonable price limits. Placing a stop loss is an art. You should use technical analysis

on the price chart together with sound money management practices for doing so.

- Always exit losing short term positions before the close of the day. Set a time stop of five days for long term swing and positional trades. If the trade does not move in your favor within five trading days, exit from the position with whatever loss or profit.
- Always calculate your reward / risk ratio. Enter a position only when you have three points of potential reward for one point of risk.
- Never overtrade and always adhere to your risk management rules.
- Never allow a profit to turn into a loss. If you are using a stop loss order, then raise your stop loss so as to lock in a profit as the trade moves in your favor.
- Analyze and learn from your losses. They're expensive lessons; you have paid for them with your hard earned money.
- Your risk should be equally distributed. Trade in two or three different stocks or indices so as to avoid tying up all your capital in any one security.
- Establish a "surplus account" after you have a series of successful or winning trades. Your goal is to retain the "surplus account" for times of emergency or panic.
- Park 50% of your profits from a successful trade, especially when you have doubled your original capital. Put half the profit from a windfall trade in the bank; never leave it with your broker.
- Always take time out from trading whenever you lose more than 6% of your capital. This gives you the opportunity to analyze your system, the market and your confidence. It gives you time to re-evaluate the situation with a clear head. Keeping away from the market after a series of losses prevents you from "revenge trading." A bruised ego often leads to desperate attempts to quickly make back losses which often results in wiping out of the trader's entire trading account.

- Avoid taking small profits and big losses.
- Only trade with genuine risk capital, and be aware of the risk that you might lose it.
- Do not establish your trading size based solely on margin requirements.
- Always trade within your capabilities, financial and otherwise.
- New traders should remember the above rules by rote and should trade only with a small fraction of their capital using the minimum size orders until they have acquired their realtime market education and honed their skills with minimum losses. Otherwise, the market ruthlessly takes tuition fee from the beginners.
- You should always use your own money to trade and not borrow from any other sources so that market action, not financial condition, dictates your entry and exit from the market. Excess capital and inadequate capital both harm a trader. If you don't start with sufficient money, you may not be able to remain in the battlefield when the market temporarily turns against you. You should always have enough gunpowder under your belt.

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‡ For a fuller explanation of the implied volatility of options, see the author's book, *How to Make Money Trading Derivatives: An Insider's Guide*, Vision Books. (www.visionbooksindia.com),

Chapter 12

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Putting It All Together

Sector and Stock Selection

"It has been shown time and time again that people very often fail to see the thing that is right in front of them."

– Jesse Livermore

"A good signal jumps at you from the chart and grabs you by the face — you can't miss it! It pays to wait for such signals instead of forcing trades when the market offers you none. Amateurs look for challenges; professionals look for easy trades. Losers get high from the action; the pros look for the best odds."

– Dr. Alexander Elder

We hope you've had an interesting journey so far. Mastering technical analysis is like learning cricket. It teaches you batting, bowling, and fielding. Money management teaches you about run rate, how many runs are required to be scored, asking run rate, shot selection, when to become aggressive, when to become defensive, when to step up the run rate. It also teaches you about the advantages of consistency. But there are certain areas in every field where application of common sense combined with some insight is always helpful. You can be taught about the best batting methods but some aspects, such as whether to bat or bowl first, are always changing and no set formula can consistently be applied. One has to make a judgment based on the day's weather, the surface of the pitch and the extent of grass on it, etc. These decisions require both specialist skills and common sense and the latter is anything but common. Even if you have a strong batting line up and good fast bowlers but you are not able to take a decision according to the pitch conditions, you may lose the game. Similarly, even if you become a good technical analyst but if you fail to read the market you are trading you may not succeed.

You do not have to be a rocket scientist to understand the basic nuances of chart reading and application of technical analysis. There is no holy grail. You are the one who matters. The pot of gold, the hidden treasure, lies within you. You also do not have to master too many indicators; a judicious use of one or two indicators can make your life. Sourav Ganguly was not too comfortable playing balls which were pitched on the leg side; he scored most of his runs by his superb offside stroke play. Similarly, you do not have to master all indicators; you can make money by using just a few. Just guard your off stump by following money management methods which will help you remain at the crease; and once you spend time at the crease, you are bound to score runs sooner or later.

As we've discussed, you can identify the market's trend even by a mere visual inspection of charts. Charts should be your landscape. The color on your chart will help you decide the color of your money. Every pattern develops a point where the crowd will lose control, give up, or show irrational exuberance. Your endeavor should be to locate such points and act before the curtain rises and the show begins.

Figure 12.1: **Daily chart of Proctor and Gamble from August 2006 to July 2007, with volume and 50- period EMA (blue line) and 20-period EMA (red line).**

Look at the volume; there is no interest and participation in this stock (Figure 12.1). The stock is in sideways phase. You can keep this stock on your radar but enter only after

breakouts when the crowd sentiment is mild, and exit when the crowd gets wild.

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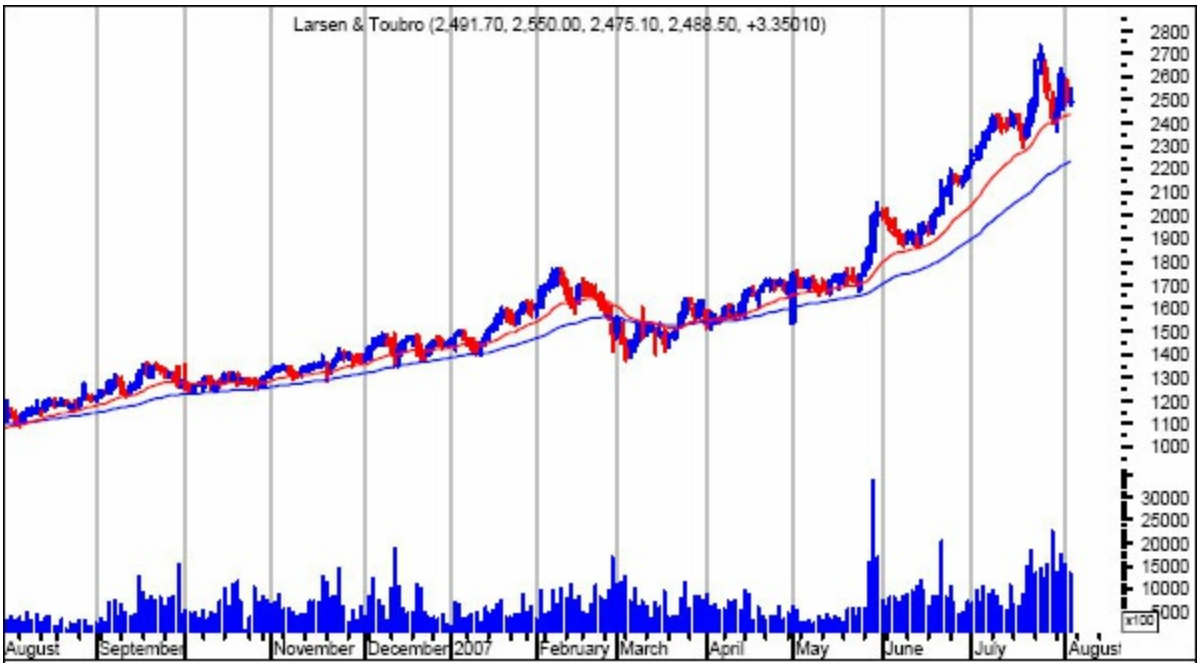

Figure 12.2: **Daily chart of Larsen and Toubro (L&T) for the same time period and with the same indicators as depicted in Figure 12.1.**

Just visually compare the two charts in Figure 12.1 and Figure 12.2 respectively, and ask yourself which stock you would be interested in trading. Definitely it would be L&T. But, on the other hand, you could also keep P&G on your radar, as it is moving in a range and may either break up or break down from this range and will offer a good opportunity when the break happens. Skilled eyes search for a breakout or breakdown after sideways congestion. You should use pattern recognition to identify profitable turning points and enter the position in whatever direction the market or stocks breaks out. Those who think that technical analysis is all about using and analyzing indicators fail to identify these important trading interfaces. Indicators do fail but human mind can work wonders.

Look at the participation and interest of the market players in L&T. The stock is in a secular up trend. This is where the smart money is going in, and money attracts even more money so you can expect new highs for this stock

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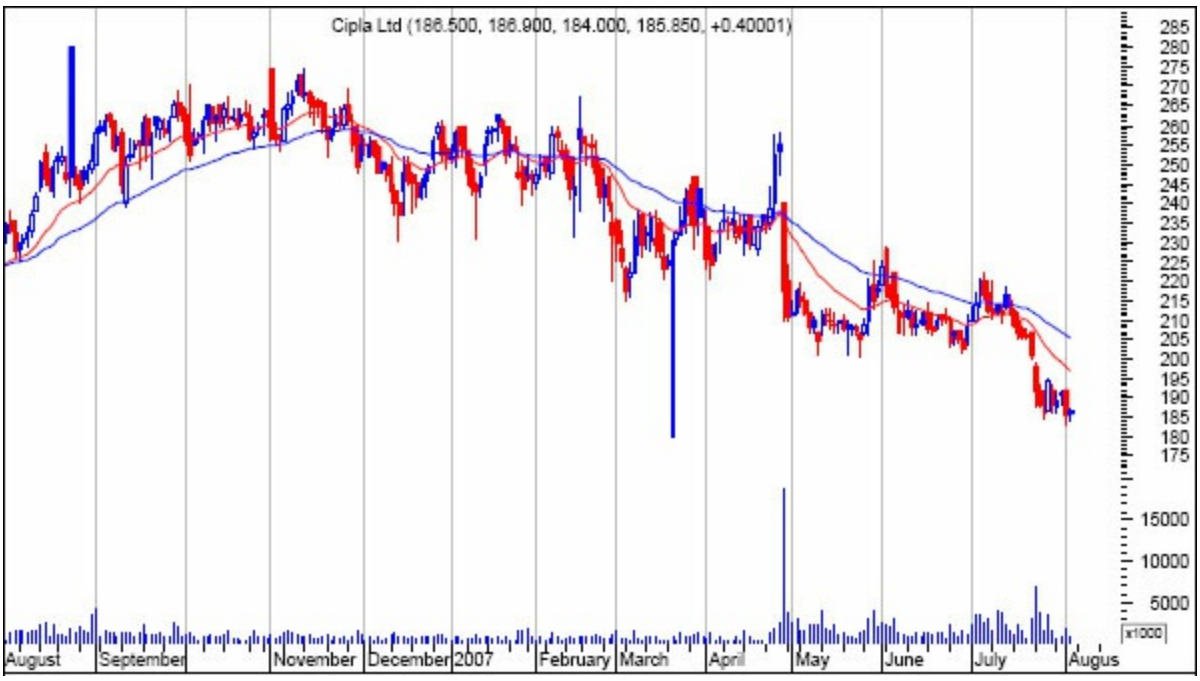

Figure 12.3: **Daily chart of Cipla. You can see that it's a mirror image of the L&T chart in Figure 12.2.**

A chart reveals the trend and you can then use ADX to gauge the trend's strength. Let us try to understand the use of our visual faculty for trend identification in charts with the help of some examples.

Note that during the bull market of 2006-07, these three stocks (Figures 12.1, 12.2 and 12.3) were completely out of tune with one another. One was in a sideways movement (P&G), the second was in a strong up trend (L&T), and the third one was in a down trend (Cipla in Figure 12.3).

It's like Team India winning its match against England in 2007 without the presence of its once star performer, Sehwag. Lesson: the leaders of today may not be the leaders of tomorrow, and the same is true of stocks as well.

In 2007, the Indian cricket team won a test match against England at Trent Bridge. Before that, they also beat South Africa in one-day series. It was the resurgence of the same Indian team which had hit its nadir during the World Cup earlier in the same year. The team won because they followed the basics and applied common sense. Tendulkar, who had been written-off by some cricket pundits after the 2007 World Cup, also scored big and completed 15,000 test runs during the series against England. What was noteworthy was

that India won the match even without having a coach. If you remember, lots of hype was created on the importance of having a coach and his role in win. Similarly, in the stock market you do not need a coach in the shape of a broker, relatives, friends, the general crowd, etc. Coaches sometimes only manage to complicate things and forget to follow the basics. If we were to use college campus jargon, technical analysis should be like a K.I.S.S — Keep It Simple, Stupid.

Coming back to the examples in Figures 12.1, 12.2 and 12.3: Why was L&T performing well and why was Cipla an under-performer when the overall market trend was up and we were in a bull market. How, then, to pick a stock to trade? If you want to select a good cricket team, you need to have at least 25 to 30 probables in order to select a team of 15 members. How best to select these probables?

For this, apart from technical analysis you should also be able to understand the market environment, the sectors, sector tail wind, and macro news by using your insight and common sense. The market is always dynamic and ever changing. There are many factors influencing it, such as news, fear, greed, expectations, liquidity, etc. Some investors and traders believe that markets are driven by news and they mostly buy on good news and sell on bad news. But markets tend to “discount” current news. This means that by the time important and relevant news is made public, it has usually already been reflected, namely discounted, in the market’s current price action. You should always remember that price makes news, and not *vice versa*. As a good trader you should see the market reaction to an event, or a news and act. The general mistake traders make is instead of acting they react to the events.

Building Your Road Map

How then should one scan the universe of stocks to pick profitable candidate for trading? How can we separate the chaff from the grain? And, how to best filter the macro news and understand what would really impact the market?

There are two ways of doing so. One is top down analysis, and other is bottom up analysis.

Bottom Up Analysis

This analysis consists of analyzing each individual company based on its earnings, cash flow, growth prospects, a review of its balance sheets, profit and loss statements, etc., and is generally used by fundamental analysts and other investors who are hunting for value. Bottom up analysis starts with the country's economic condition. Bottom up research is a great way of discovering companies that we would ordinarily not be drawn to. Such an analysis, however, is of little value for technical traders as it does not sufficiently position the odds in their favor in a timely manner. Hence they typically look at top down analysis.

Top Down Analysis

The market's main trend plays an integral part in where any stock is headed. Just as a rising tide lifts all boats whether big or small, so too a rising market buoys up all stocks to a greater or lesser extent. So it is the main trend of the market that a technical trader first seeks to figure out. The technical analyst would next look at the trend of the particular sector or industry, and only then look at the trend of a particular stock.

By identifying situations where all three trends — namely, the market trend, sector trend and the stock trend — are moving in the same direction, the odds of making money in the shortest possible time are the highest. So traders need to first assess the market direction, and then the sector direction before taking trades in a leveraged market. Also, in top down analysis the state of the economy is not considered; the idea being that a great company

can make money in any market environment. Usually the leader of the pack moves first and then second and third rung leaders follow and, as sectoral tail wind develops, even laggards gather momentum.

Importance of Sector Selection in Selecting Individual Stocks Trade

Most broad moves in the stock market are sector driven rather than company driven. Indeed, half of any individual stock's move is typically driven by events in the sector to which the company belongs rather than by the company's own earnings performance. This means that you can trade in some of the very best companies in the world but still wind up taking a loss if you happen to pick companies in the wrong sector at the wrong time.

A sector is an area of the economy in which businesses share the same or a related product or service, or a group of securities in the same industry or market. For example, the auto sector covers all the industries related to automobiles. A sector can also have sub-sectors. Thus the auto sector, in turn, comprises of heavy commercial vehicle, four wheelers, passenger car, two wheelers and their ancillary units, etc.

The 12 major sectors of the Indian economy are:

1. Technology (IT)
2. FMCG
3. Capital Goods
4. Consumer Durables
5. Healthcare
6. PSU
7. Telecom
8. Oil and Gas
9. Banks and Financial Sectors
10. Metals
    - Ferrous (Steel)
    - Non-Ferrous

11. Realty

12. Power and Energy (Utilities).

There are some other sectors such as cement, sugar, fertilizers, agri business, hotels and hospitality, shipping, textile, packaging, logistics, paints, paper, etc.

Relationship between Sectors and Stocks

Sector tailwind and macro news move all companies of a sector up or down. For example, if steel prices go up, all steel stocks will go up. Usually, the leader picks up first. For example, in July 2007 it was Sail which started running first, followed by Tata Steel. Similarly, if the dollar strengthens Infosys or TCS run first and HCL Tech will follow. If a midcap tech company is acquired, peer companies also start moving up. If the quarterly results announced by ITC or HUL are good, the market takes it as an indication that margins in the FMCG sector are improving, and other FMCG companies will also probably follow suit.

Sector-wise charts are now readily available.* You can compare a sector's chart with charts of BSE and Nifty and see if they are in harmony with each other. This way you can identify the strong sectors. You can follow this procedure in the following steps:

- Identify the strong and weak sectors.
- Then identify the strongest and the weakest stocks in the strong sectors.

If a particular stock in the favored group does not move up and prosper with others, this could mean that perhaps it's a weak or sick stock, and therefore might be a good short sale. At the very least a trader should then be cautious about buying it. It can act as a red warning flag that the stock might be in trouble.

Occasionally, a smaller well-managed stock will assume sector leadership, perhaps with a new product or strategy, and may knock out the old leader. Stay alert! Choose the most powerful stock in the sector, not the best bargain or a beaten down stock poised to recover.

Let us understand this with the help of some chart examples (see Figures 12.4 to 12.9).

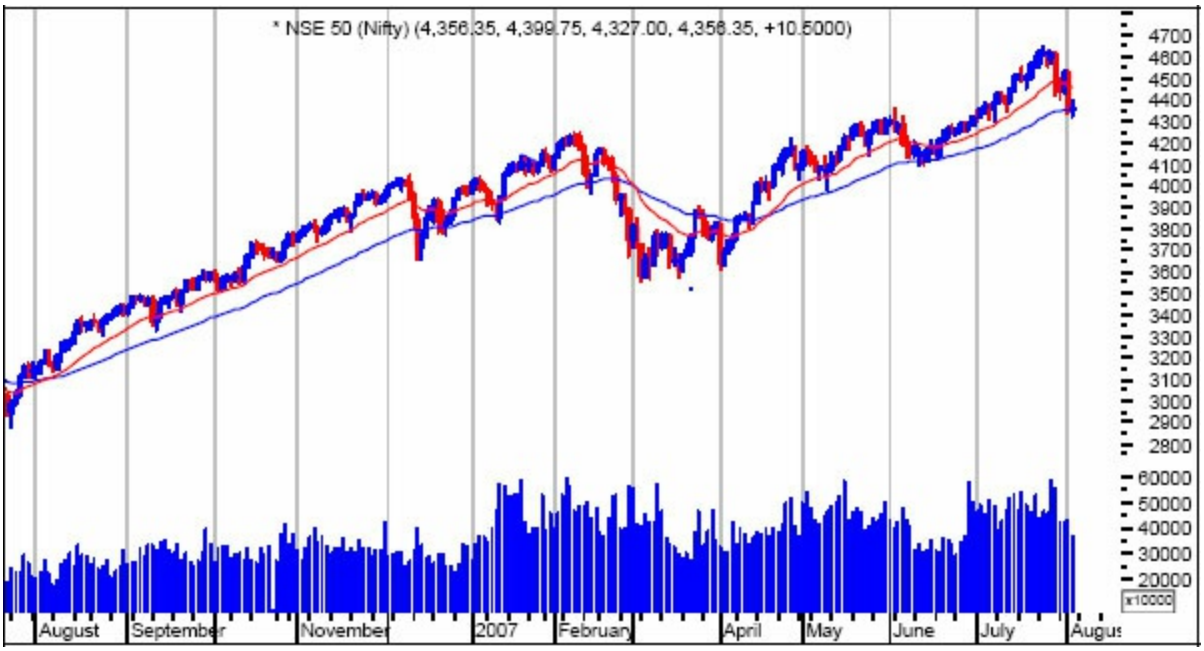

Figure 12.5: **Nifty 50 is in an up trend.**

Figure 12.6: **BSE Capital Goods index is in harmony with BSE and Nifty. The leaders in the capital goods pack are BHEL, ABB, and Siemens. The other sectors which were in line with the general trend at this time were oil and gas, metal, mid cap, and Bank**

Nifty.

Figure 12.7: **The FMCG sector declined after topping out in November 2006 but began recovering after a consolidation. ITC which was the first stock moved out of its slumber after the quarterly results.**

Figure 12.8: **You can see that IT sector moved sideways after a long participation. Sectors rotate by turns. It's like a relay race where one runner passes the baton to another.**

Figure 12.9: **The Healthcare index in this chart shows weakness and a short term down trend and would need heavy dose of antibodies and vitamins to regain a healthy up trend.**

Such weak sectors are very good candidates for taking a short position whenever the overall market corrects or witnesses any sudden fall as was seen on 27 July 2007. Once you can identify a weak sector, and the weakest stock in it, wait for such an opportunity. These kinds of trades can give you enough profit for a year. At the time of this chart, Aurbindo Pharma was the weakest stock in this sector and thus a good candidate for such a short trade.

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We have deliberately not explained the patterns on the charts in Figures 12.4 to 12.9. You can apply your newly acquired knowledge to identify all the reversal and continuation patterns. The idea here is to develop your understanding of short-listing stocks for analysis and trading. We are making you familiar with how to read the pitch and weather conditions — those dynamic factors we talked about earlier in this chapter. Once you have acquired information and are comfortable with ground conditions you can accordingly either bat (go long), or choose to field (go short).

As a thumb rule, you should always remember that in an up trend the price

lives above its 50-period EMA while in a down trend it lives below the 50-period EMA. These are their chosen abodes.

Similarly, bulls live atop the 200-period EMA ridge while bears live in the valley below the 200-period EMA.

The following points also explain the relationship between sectors and stocks:

- Some sectors, such as FMCG and leisure, rely heavily on sales to consumers, while other industry sectors such as chemicals and environmental services target industrial buyers. For yet other sectors, like defense and aerospace, the government is a major customer. These differences matter when it comes to gauging the effects of different economic indicators, such as consumer confidence, durable goods order position, or the budget deficit on different sectors.

- Some sectors, such as retailing for one, are labor intensive; others like utilities are capital intensive, and some like transportation are very fuel intensive. These differences matter when it comes to assessing how different kinds of macro-economic shocks like wage inflation, interest rate spikes, and energy price shocks would impact individual stock price movements.

- Some cyclical sectors, such as autos and paper, are closely tied to changes in the business cycle and are the first one to tank during a recession. Other sectors, like food and healthcare, are non-cyclical and therefore much more immune to a recession. This distinction will help you find winners to ride in a bull market and defensive sectors to flee to during a downturn.

- Sectors like agriculture, electronics, industrial equipment, and pharmaceuticals, are export oriented, while other sectors such as financial services and healthcare derive relatively little revenues from foreign trade. In general, stock prices of companies in export-dependent sectors will react much more strongly to news about trade deficit and currency fluctuation.

- The degree of exposure to regulatory risks such as price controls, litigation or new taxation, as well as a sector’s vulnerability to

exogenous shocks such as floods and drought, are likewise important sources of stock price movements in sectors like drugs, tobacco and agriculture.

Exploiting and trading these kinds of sector differences is at the core of an intelligent investing or trading approach and a major source of the investor's market edge. By continually reviewing the stock market at the sector level, you will learn to pick the right stocks in the right sectors at the right time — and stay away from the wrong stocks in the wrong sectors.

Importance of Sector Rotation

The trend is your friend and you should never trade against the trend. Indeed, tracking the broad market trend is one of the most important tasks of the trader. In thinking about why this is so important, let's remember the following golden rules:

1. Buy strong stocks in strong sectors in an upward trending market.
2. Short weak stocks in the weak sectors in a downward trending market.

To trade by these rules you need to have a very clear sense of what the market and sector trends are, and how they may be changing.

Suppose you are interested in a particular stock. First analyze the specific sector. If you are considering a trade in Bharti Tele, for example, first check out the telecommunications sector in general and Bharti's peers, like Rel Jio and Idea-Vodafone in particular. If HUL is your trade of choice, first check out the FMCG sector. Make sure that the sector is moving in the correct direction, the line of least resistance, in order to increase your chances of a profit on the trade you have selected.

Another method of selecting a stock for analysis is by its cost of carry. You should look at closely the cost of carry; if the cost of carry is negative but the chart action is very positive then all other things being equal, the stock is a good candidate for buying because more shorts are trapped in that stock which will improve your odds in the trade. These days most good stocks are included in the F&O segment and therefore offer tremendous trading opportunities.

Example of a Real Trade

How to apply insight, how to think beyond the crowd, the use of chart patterns and indicators, and money management in a real trade is explained by the following example *(see* Figures 12.10, 12.11 and 12.12):

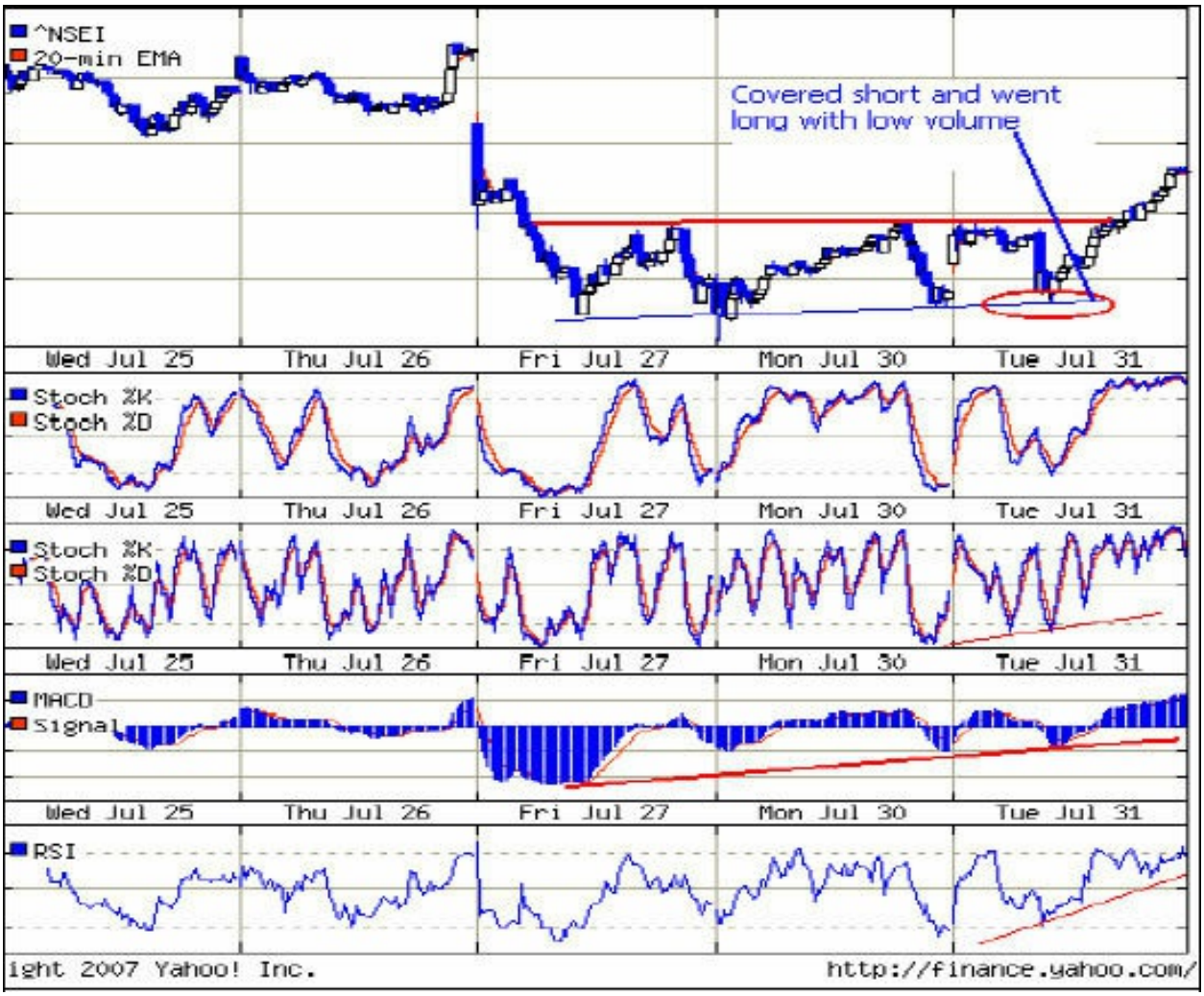

Figure 12.10: **Day 1**

We took a short trade on Nifty futures at 4,440 on 31 July with low volume (quantity). We took onefourth of the usual volume because prior to this trade we had earned about 160 points by pyramiding. For this trade we therefore chose a lower volume because we wanted to test the lower side traction of the market and wished to avoid getting chopped down by volatility. Most traders were expecting a big fall after RBI's CRR announcement. The

market did indeed fall by about a percent but refused to go below the support line. The oscillators also showed divergence and we decided to follow the saying, “Be greedy when others are fearful — and fearful when others are greedy.” We therefore decided that it was time to cover our shorts and we did so at 4,005 and went long at the same price with the low volume. The Nifty surged ahead and closed at 4,528. Instead of solely relying on the system we tried to read and understand the market environment to find lower risk, high reward opportunities. We scrutinized how the market was reacting to good and bad news. A good trader should always act instead of reacting. Those who act, earn profits. Let reacting be the job of the market.

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Now let’s see what happened next day.

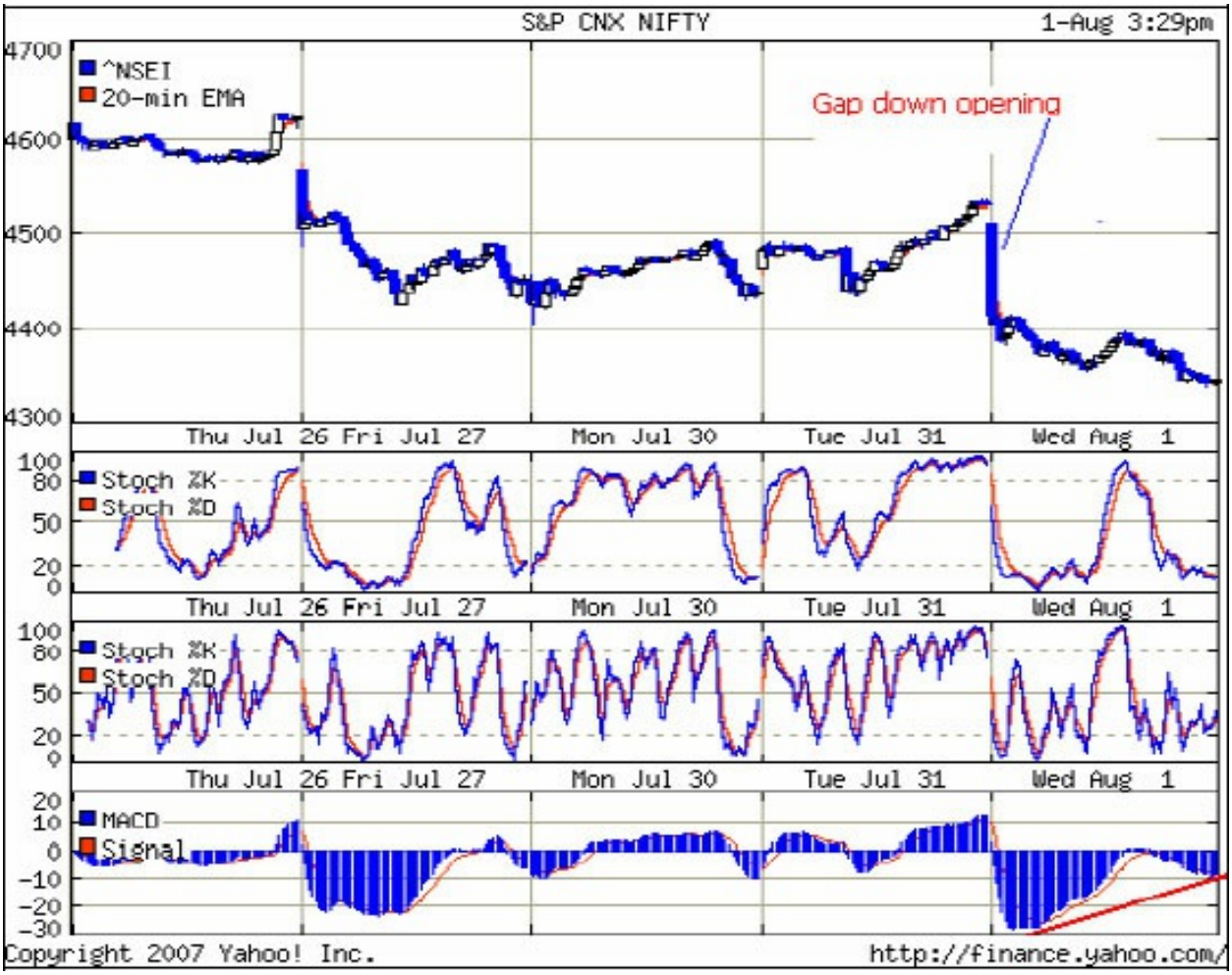

Figure 12.11: **Day 2**

The next day the market sentiment was adversely impacted by a global meltdown, and the low closing of the US and Asian markets. Not unexpectedly, therefore, Nifty opened with a

huge gap down of nearly 120 points. Nifty futures too showed huge discounts. We held on to our long positions and did not receive any margin calls from our broker as we were holding a position of only one-fourth our usual volume. Everyone became bearish. When your money is at stake, you ought to understand what's going on. When a market reacts negatively to good news, it is a confirmation that the good news has already been discounted by recent price action. Similarly, when a market reacts positively to bad news, it is a confirmation that the bad news has already been factored into the recent price behavior. We tried to analyze the market behavior. We held on and carried the trade home because common wisdom holds that though the end of the financial world may come one day but it probably won't happen in the next 60 minutes, or the next three days as most people said, and who pressed the panic buttons by selling and going short!

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Let’s us now see what happened on day-3.

Figure 12.12: **Day 3**

Nifty had a gap up opening and we were back close to our break-even point. We'd survived the ordeal and were able to face the rough weather because of the judicious use of common sense, insight, money management and technical indicators. The MACD was again showing a positive divergence. We did not panic as we were holding a low volume and were well within our risk appetite. We also believed that bull markets do not end in a day without any apparent reason. We did not add to our position even though we went down by almost 200 points from our buying price. We can now exit, or add to our position, once we know the clear trend and can thus identify a low risk opportunity. No one can avoid or be prepared for these sudden, swift and shocking falls. There is no protection either. Only your insight, common wisdom and money management will help you avoid your Waterloo.

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Summary

- Charts are used for identifying trends in their early stages of development for the purpose of trading in the trend's direction.
- The trend is a trader's friend. Riding the wave is much more rewarding than getting hit by it.
- Even when trends are clearly visible on the daily chart, it is also important to be in sync with trends in the next longer time frame by reviewing weekly or monthly charts.
- Use your eyes, i.e. your visual faculty, and common sense to draw trend lines and for identifying the trend.
- The longer a trend line is in force, the more valid it is.
- Breakouts above resistance with volume spikes are usually good buy opportunities while breakdowns below support with large volumes are usually good opportunities to sell.
- Always look at chart patterns, trend lines, support and resistance, and momentum indicators.
- Resistance once broken becomes support — and *vice versa*.
- The larger and longer a pattern, the greater will be the reward.
- Topping patterns are usually shorter in duration and also more volatile than are bottom patterns. Bottoms usually have smaller price ranges and take longer to build.
- The moving average is a follower, not a leader; it never leads, it only reacts. The moving average follows the price action and tells us that a trend has begun, but only after the action has started. Shorter term averages are more sensitive to price action, whereas longer duration averages are less.
- Try to find by trial and error a duration / period for the moving average

that is sensitive enough to generate early signals, but deaf enough in avoiding most of the random “noise.” Bulls stay above the 200 EMA, while bears prefer to stay below it.

- Oscillators should not be used at the beginning of a trend. Oscillators, however, become extremely useful toward the end of market moves, i.e. near their maturity.
- Consider execution of a single clear and confirmed direct move rather than holding a stock through a nerve-wracking pullback, which may lead you to skip many a heart beat.
- Always step ahead of the crowd on pullbacks and behind it on breakouts. Always be ready to move against the crowd when conditions favor a reversal. Stand aside when confusion prevails and the crowd lacks direction. Always place market orders to get in fast.
- Stay away from external information that does not add to your trading performance.
- Stocks do not move alone. They move in sectors.
- Identify the strong and weak sectors.
- Choose the strongest and weakest sectors based on the market and sectoral trends.
- Trade only the leaders.
- Nobody is bigger than the market, so do not fight the market.
- It is not important to be in the market, what is important is to read and understand the market.
- Never try to time the market and do not try to pick tops and bottoms. Instead, trade with the trends. Wait until the price action actually confirms that a top or a bottom has been formed before you take a position in the market.
- Markets are either up trending, range bound, or in a down trend. Apply appropriate indicators and strategies for each type of market.

- Buy dips in bull markets; sell bounces in bear markets. Similarly in an up trend, never sell a dull market; in a down trend, never buy a dull market.
- A failed buy signal is a sell signal. A failed sell signal is a buy signal.
- Let profits run, cut losses short.
- Always protect your capital, protect your capital, protect your capital. Learn the art of placing stop losses. You can do this by combining technical factors on the price chart with money management methods.
- Learn from your losses. They're expensive lessons; you paid for them.
- When in doubt, stay out. Survive! Some battles have been won because fighters stood firm on the battleground.
- Always follow money management principles.
- Calculate the risk reward ratio before initiating any trade.
- Trade with a plan not with wishful thinking, prayers, hope, greed, or fear. Plan your entry, risk reward ratio and exit in advance of a trade, then follow your plan. Once a trade is executed and stops are placed, do not get out unless the stop is reached.
- Don't be selective in choosing your signal. Trade all signals and setups.
- Patience is virtue not only in hunting and waiting for the right entry, but also in staying with trades that are working in your favor.
- When pyramiding (adding positions), each successive addition should be smaller than the preceding one. Add only to winning positions. Never add to a losing position.
- Never risk more than 3 to 4 percent of your capital on any single trade.
- Pre-determine your exit point before you get into a trade.
- If you lose a certain pre-determined amount of your starting capital, stop trading, analyze what went wrong, and wait until you feel

confident before you resume trading.

- Don’t trade with borrowed money. No one ever made any money trading when they had to trade in order to pay the interest at the end of the month.
- Answer why you are in the markets. If it is not for money, get out.
- Analyze first the long term time frame and then the short term. Use intra-day charts to fine tune entries and exits. Don’t trade the time frame; trade the pattern. Reversal patterns, consolidation patterns and breakout patterns are periodically repeated. Hunt for these patterns in any time frame.
- You should use weekly signals to determine market direction and the daily signals to fine tune entry and exit points.
- If after your analysis you find that you are in minority; try to remain calm being in the minority.
- Never stop learning.
- Buy on the rumor, sell on the news.
- Do not over-trade, or over-leverage.
- Do not try to read the cause of market movement, always analyze its effect.

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* You can check these out on NSE and BSE websites.

Chapter 13

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Trading the Railway-Line Theory

by
Ashwani Gujral and Rachana A. Vaidya

One of the most respected physicists and mathematicians of all times Sir Isaac Newton once said: “I can successfully calculate the motions of moon, stars and heavenly bodies. But I cannot calculate the madness of crowds. And thus cannot succeed in stock markets.” He said so after he went broke investing in a company called South Sea. He then forbade people from even uttering the name of that company in his presence.

This anecdote is not meant to scare you away from the markets but rather to highlight that it takes a very specific set of well defined rules to map your way through this financial jungle. The only way to understand and master these rules is through study.

This chapter reveals a new way of short term trend trading, using a strategy which I’ve developed and named the Railway-Line Theory.

If you have been trading the market for any length of time, chances are that you would have been repeatedly advised to trade with the trend. I endorse this — follow the trend and the money will follow you. But this is easier said than done, and it often takes more than you imagine before you can figure out how to do so.

Now, in order to follow a trend there must first be a trend to start with.

The second thing is: you must follow the trend — never pre-empt or imagine one.

The Right Questions to Ask

Let us understand what questions you should ask yourself as a trend trader:

- Is there a trend at all?
- If so, for how long has the trend been in existence?

- Is there more steam still left in the trend?
- On what time frame is the current trend?
- Depending on the time frame, what would be reasonable trading expectations from it?
- Should one enter a trend immediately upon seeing one? If not, when does one enter?
- What do you need to ascertain before entering a trade?
- What would you do after entering the trade in the trend's direction?
- How do you plan to exit? At a pre-determined target? Or, should you leave it to the charts to decide your exit?
- How do you know if the trend has ended, or whether there is only a temporary correction which you should take in your stride?

The answers to the above questions lie in having a robust trading system, consisting of a well-constructed trade setup, or a rule-book, that defines your entry, your stop loss, and your exit. There are various tools which are used in combination to create time-tested trade setups. As we discussed earlier in the book, one of the best tools available to a trend trader is a moving average line. The MA line can be a simple moving average or an exponential average depending on your trading tactics. And, it could be of any duration, 5 days, 15 days or 50 days depending upon your time horizon.

In our discussion of the Railway-Line Theory we will focus on trading with a short to medium term time frame, which would typically comprise a few days or a few weeks. **No real and fruitful trend is made in a day. Neither is it broken quickly.** So if our focus is to trade for a week and more, the immediate next step is to decide which of the moving averages we should use in order to capture the entire move. Our safety lies in not trying to catch the tops and the bottoms. As already noted, trend trading is not about anticipating or pre-empting a trend; it is about following an established trend. Never, never try to imagine a trend where none exists.

Significant profits are made by capturing significantly large moves. Such

moves typically occur only when there is sufficient fuel to sustain them. This fuel is what we know as momentum. Momentum ensures that corrections are short-lived and any adverse news or event is taken in its stride by the trend. A trend is sustained and bolstered by unfulfilled demand. A well-defined trading system should give a clear indication of the momentum behind the move.

In the stock markets more than anywhere else, time is money. Entering too early in a trend can lead to whipsawing moves, while a late entry upsets the risk / reward ratio. Our focus should be to find timely entries into a trend at a reasonably early stage of its cycle.

The Four Phases of a Trend

Phase 1: Accumulation

Major moves on the upside begin with the process of accumulation. This is Phase 1 of an up trend and is powered by the participation of astute investors who realize that the market is attractively priced at current levels and has good scope to rise further in the near future. Accordingly, they start "accumulating" the stock and wait patiently for the up move.

Phase 2: Rally

Next is the rally phase. This is a phase of widespread participation as technical traders join in. The large scale participation results in a clear rise. The buying interest is obvious in this phase, and the media is also abuzz with good news about the stock on the market.

Phase 3: Distribution

Seeing the action of the rally phase, novice players now enter the trend to get their share of the pie, but the stock market is fully priced by now, and experienced players who entered at lower levels would now be slowly exiting.

Phase 4: Decline

As the price drifts lower still, most players start dumping the stock. The price now seems to know no supports. This is the fourth phase of the trend and is called decline.

Each of these four phases are applicable to all trends; that of the overall market, sectors within the market, as well as to all individual stocks. They are all to be interpreted in the same way.

What is important while trading is that you select:

- A stock which is in Phase 2 of the trend, namely in the trend's rally or, say, ready for a takeoff for a long trade, and
- A stock which is in Phase 4, namely decline or, say, ready-for-landing stage for a short side trade.

This would ensure that you would move quickly into profit. It would also limit the risk of erosion to your capital.

The chart of Bajaj Finance in Figure 13.1 shows all the four phases of the trend playing out in a very tradable manner. For a long trade, all you have to do is select stocks like this one while they are in the second phase of the trend.

Figure 13.1: **The four phases of the trend In Bajaj Finance.**

Figure 13.2: **Trend phases in Lupin over a longer time frame from 2007 to 2016.**

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The Lupin chart in Figure 13.2 shows all four distinctly clear trend phases over a longer term. This chart too reveals many opportunities of early entries to encash until the trend sees a setback.

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The next example of Ultratech Cement illustrated in Figure 13.3 again shows the same phases in the medium term. Moral: no matter what your time period is, this method of stock selection works equally well.

Figure 13.3: **Trend phases in Ultratech Cement over a medium term.**

So now we know the kind of trending moves one should aim to trade, how such moves play out on charts, and which is the correct phase for entry on the long / short side.

The Process of Stock Selection

For most traders, wrong stock selection is a major reason for losses. Remember, you won't make even a rupee when the market index moves up even by 500 points in a day, if you are not in the right stock at the right time.

The process of stock selection should begin with an analysis of the overall market's trend. Thus, for example, if Nifty — the main market index — is in an up trend then we must try to select sectors and stocks where we can go long. On the other hand, if the market is in a downtrend, obviously it then makes sense to look for sectors and stocks to short in.

Let us verify the tone of the overall market as depicted by Nifty's chart during 2016 *(see* Figure 13.4). **We adopt the very simple technique of using the 50DMA line for gauging the broad market sentiment. So long as the market remains above the 50DMA line in a monthly chart, we can safely say that the trend is up for our short term trading purpose.** You can easily make out from the chart in Figure 13.4 that the market went through a sustained bullish trend for many months at a stretch. Most players were expecting the markets to fall post Brexit (24 June 2016), but Nifty did not undergo even an intermediate correction. It climbed up right from its Budget low of 6,825 to around 8,968 — a 30% up move — as if there was no tomorrow. It also ended the year on a high note, closing at 8,185, up by almost 20% from its February low of 6,825.

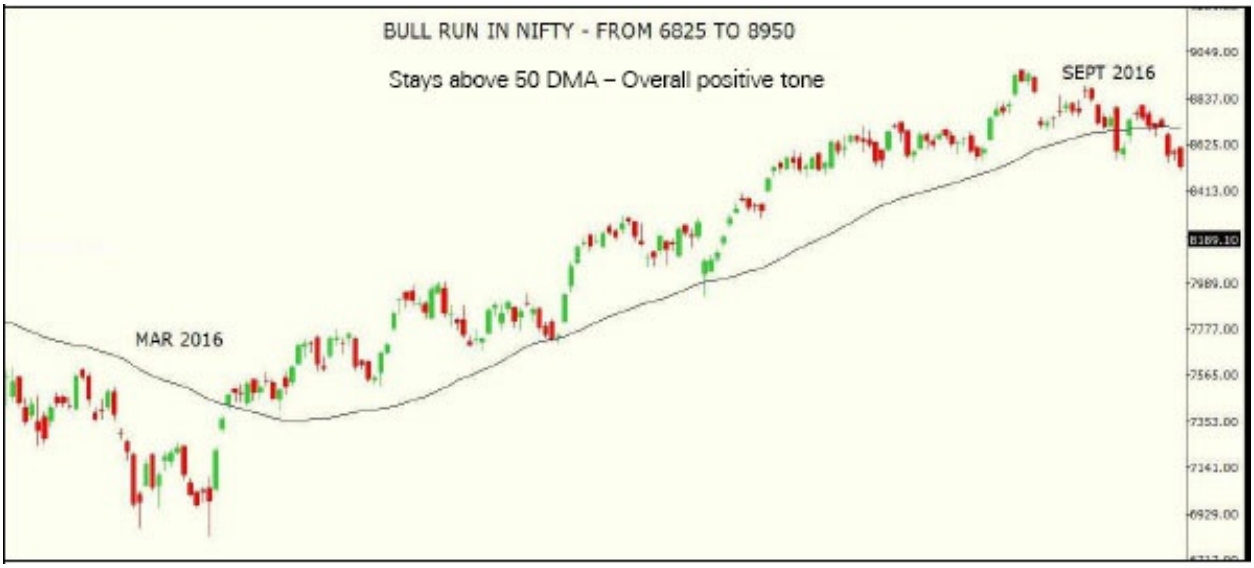

Figure 13.4: **Bull run in Nifty from March to September 2016. The index finally closed the year at 8,185, 20% higher from its yearly low of 6,825.**

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Next, we should drill further down into the market to identify the sectors which were moving up in line with Nifty.

What we've outlined above is one of the ideal approaches to stock selection. What usually happens is very different. I often have people enquiring how a particular stock is looking as they "plan to invest in it for a few months or years." When I ask them why they are considering only that particular stock, the replies often show that sufficient homework has not been done before short-listing the stock to trade.

For example, after January 2016 so many people spoke to me about investing in RIL. They believed that the stock would start moving simply because it had not moved for some 7 to 8 years. I wonder if such people have ever read Newton's Law, which clearly states that an object at rest will continue to remain at rest until acted upon by some external agency or force. This also highlights the point made earlier, namely one must not try to anticipate a move but wait for it to actually materialize. Short-listing stocks in such ad hoc ways will not ensure your presence in the right place (stock) at the right time. In fact, such logic of stock selection is a major reason for

losses.

Let’s now scan the sectoral charts and find the strongest up moving sectors to support our up scenario of Nifty. From among the many themes that kept buzzing in 2016, the metals and auto sectors made solid gains. In fact, the metals index was the highest sectoral gainer, rising more than 50% during the year (see Figures 13.5 and 13.6).

Figure 13.5: **The Metals Index crossed and stayed above its 50DMA line in 2016. A 67% up move.**

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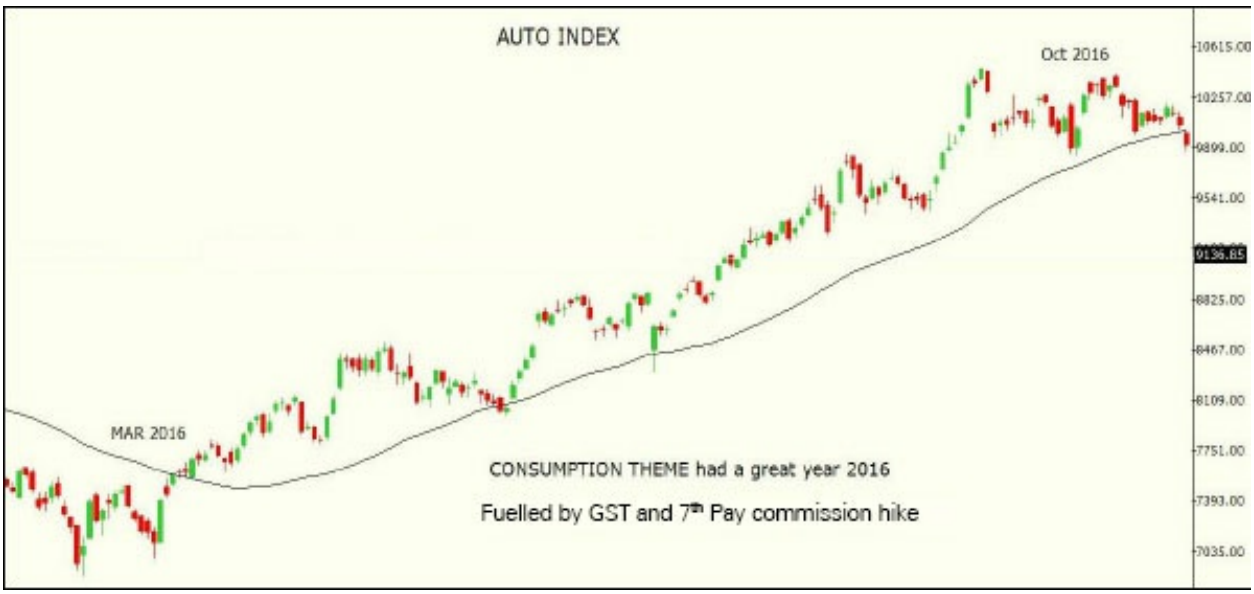

Figure 13.6: **The Auto index stayed in top gear and was one of the major gainers in 2016. This sector also gave investors and traders some of the biggest stock gainers of the year.**

To recap: we've now determined that the tone of the overall market was up. We have also identified two of the hottest sectors. We now move on to stock picking. Now, your stock holding period, investment horizon as it is popularly called, is not infinite. And neither do we want our money to keep sitting idle for long periods. It is in our best interest, therefore, that the stocks that we pick start moving in the money at the earliest. Once we are in the money, any subsequent adverse move shall affect only the earned profits and won't lead to any erosion of our capital. This buffer of initial profit encourages you to keep holding the fort in a minor reaction adverse without much risk to your capital. But how do we ensure all this? It's done by being in the right stock at the right time. Only by entering a clearly trending stock of a trending sector can you ensure that you move into profit at the earliest.

The Zuckerberged universe is all about knowing what is "#Trending." That applies not just to Facebook and Twitter, but even to a trader's world.

Till now we have seen that the three major factors impacting scrip movements are:

- The tone of the overall market.
- The overall strength in the sector of which the selected stock is a part.
- The third factor is news, and events or developments specific to that sector and company.

If we can align these factors in our favor, then the probability of making profits is higher. When a particular sector is in an up trend, chances are that most stocks within that sector would also be moving higher. It is like a story whose time has come. When you select a scrip that is trending up, from among a sector that is rising, it makes your task simple because a rising tone means your funds are flowing into that sector, keeping the demand and buying interest intact even at higher levels.

Recalling Newton again: an object in motion will remain in motion (here, an up move or a down move, as the case may be) until it’s acted upon by an external agency or force sufficiently powerful to alter the status quo. The Dow Theory postulates the same thing. Accordingly, we assume that any trend will continue until proven otherwise.

The Railway-Line Theory

The Railway-Line Theory uses two moving average lines that cross over and run parallel to each other, just as railway tracks do. The two parallel lines could be slanting either upward and give us a long trade, or downward and give us a short side trade. **This theory will give us entry in the early stages of a confirmed trend, keep us in the trade for a decent run, and show us when to exit without giving back our earned profit.**

Trade Set-Up in the Railway-Line Theory

We use the 20-day moving average and 50-day moving average lines. A crossover between the two averages indicates a shift in momentum to one side. It is considered a bullish crossover when the shorter term 20DMA line crosses over the longer term 50DMA line from below, since this is an indication of a shift in momentum on to the buying side. This is an early indication that a trend may develop on the up side. We will, however, wait for confirmation before entering any trade on the long side. We do not want to jump the gun on a developing trend because we do not want to anticipate the price move. The trend will get confirmed when the 20DMA line starts sloping upward. You will soon then see a reasonable distance opening up between the two moving averages lines. If the buying activity picks up further, and if the move is backed by genuine momentum, then the 50DMA line will also turn upward sooner rather than later. Now when both the MA lines slope upwards with almost similar steepness, they will appear almost parallel to each other, and thus resemble a pair of railway tracks.

As the trend sustains, there will also be multiple reactive moves on the way. In other words, there will be multiple pull-backs or throw-backs, as the case may be, i.e. corrections in price. Let us assume that our stock moves up from Point A to Point B and then retraces to Point C, where it finds support. Since the correction finds support, the fall will either get arrested at the nearest pivot, or at the MA line. This happens because the pent-up demand keeps the buying interest intact at lower price levels, giving an entry opportunity to those who are feeling “left out.” There would be a big group of people nursing this feeling and their buying activity will ensure that such corrections don’t run very deep. If the trend is going to sustain further, then the resumed move will go on to make a higher high, crossing the previous high at Point B; let’s say this time it will move towards price level D.

In the case of a down trend, the corrective up moves will soon find supply coming in from people looking to exit. This happens as the price rises to the nearby resistance level, where the up move gets capped. During the trend there will be many instances of such price corrections, up or down as the case

may be. Each of these corrections, or counter trend moves, are opportunities to take fresh entry on the long, or short, side, as the case may be.

- Thus, a long entry is taken in a well-established up trend whenever there is a retracement towards the 20DMA / 50DMA line, where the price finds support and leads to trend resumption in the original direction.

- Correspondingly, we take short entries in scrips which are in clearly established down trends. The entry must be taken when there occurs a counter trend throw back (up move), which finds resistance around the MA line resulting in trend resumption on the down side.

Entry in both cases should ideally be taken on a day when you see the sentiment strongly tilting on the trending side. This could be either due to fund flows or some bit of news that is strong enough to generate emotions, or both — fund flows accompanied by news. When this happens, you will see a bigger green / red candle, one that shall stand out clearly in comparison to the previous candles. This signifies a shift in momentum. This candle will break out above (below) the highs (lows) of the previous few days, and will do so with some force which will push it further. The example in Figure 13.7 illustrates this point clearly.

Figure 13.7: **The two averages slope up and stay parallel. All entries on big green**

candles from support give good follow throughs.

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Figure 13.8: **NBFCs saw a massive green in 2016. Here's the example of LIC Housing Finance. The two MA lines in pink and blue — 20DMA and 50DMA lines, respectively, stay parallel and slant up. It was a 30% up move.**

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Let us now consider some more examples in order to understand the finer details and nuances of the Railway-Line Theory. The year 2016 was quite an eventful one. There were many stories playing out in the market throughout the year. We will take some themes and understand the types of opportunities they threw up. We will also see how we can use the Railway-Line Theory to trade such opportunities.

We begin with the up trending stock of LIC Housing Finance, a non-banking finance company (NBFC). NBFCs kept raking in the moolah for loyal investors and traders. You can see in the chart of LIC Housing Finance in Figure 13.8 that during 2016 the two moving averages, pink and blue lines which are 20DMA and 50DMA, respectively, remained parallel, resembling parallel railway tracks, and slanted upwards. The stock certainly qualified as a buy as per our theory. It was in a clear up trend and there were multiple retracements which found support at either the 20DMA or the 50DMA line. The lows made on Brexit day (24 June 2016) found support at the 50DMA

line and we can see that it would have been highly profitable to have taken an entry at that level. There were many other possible entries even after that, including the one after the surgical strike by Indian Army in Pakistan on 29 September 2016.

The introduction of the GST Bill in parliament combined with the 7th Pay Commission hikes kept the consumption sector buzzing with activity in 2016. Stocks like Kajaria Ceramics saw massive rallies as they were expected to benefit from this theme. The company's chart in Figure 13.9 illustrates a clear upside trade riding a well defined trend with multiple entries available on retracements.

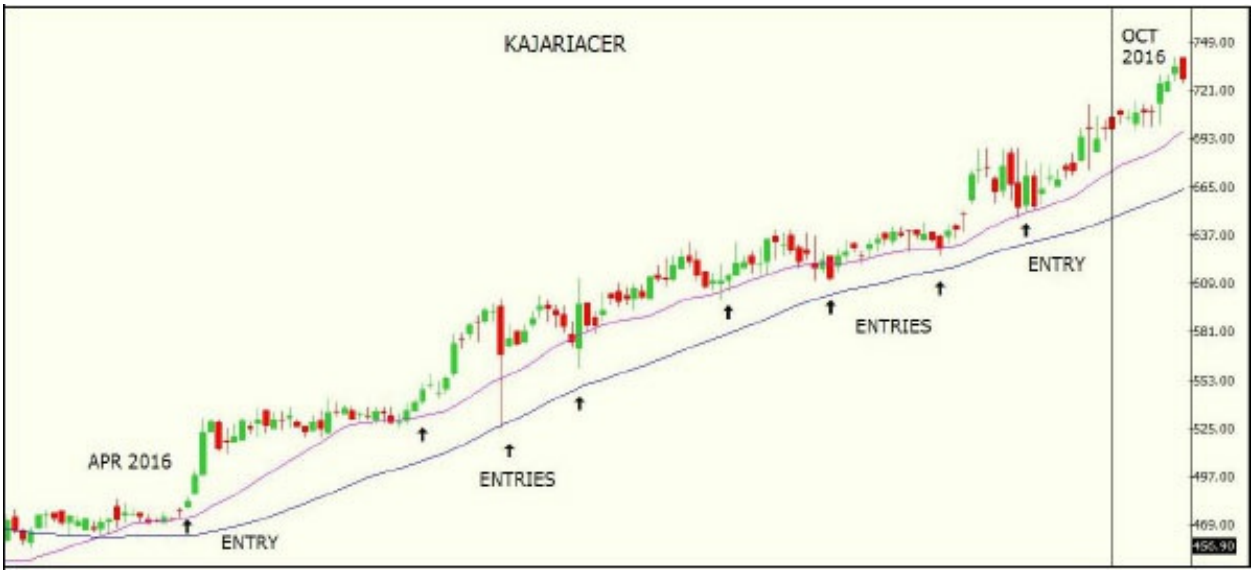

Figure 13.9: **Look at the magic of the GST theme in this chart of Kajaria Ceramics. The railway track is clearly defined for a smooth up ride. The various possible entries are indicated.**

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Figure 13.10: **Just Dial remained unjust to its investors — but presented a great shorting idea for traders as the price slid and fell to half**

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Figure 13.11: **Mindtree — another shorting idea using the Railway-Line Theory. Parallel railway tracks sloping down, with multiple entry opportunities.**

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Let us now study a down move in a different sector, namely IT. Consider

the charts of Just Dial (Figure 13.10) and Mindtree (Figure 13.11). The down trend is well defined in both cases. The two MA lines are parallel on each chart resembling railway tracks, with the counter trend up moves stopping at the moving average lines, thus giving multiple chances of entering the existing trend on the downside. Both 20DMA and 50DMA lines, shown in pink and blue, respectively, stay parallel and slope downwards. These stocks just didn’t seem to have any bottom.

Global jitters such as Brexit, etc. accompanied by the lower revenue guidance put out by the managements kept IT stocks under pressure. Many stocks from this sector went on correcting for multiple weeks, offering many positional trades on the short side.

For example, every effort by Mindtree to rise got sold into from either the 20DMA line or from the 50DMA line (see Figure 13.11). The two moving average lines also stayed parallel, resembling a pair of railway tracks as they slanted downwards. The trend clearly remained down and gave many shorting opportunities on retracements.

Stocks to Avoid

If the trend is unclear, then prices typically move up one day and down the next, chopping you on both sides. Such sectors and stocks should be clearly avoided.

Have a look at the charts of Bank of Baroda, Apollo Hospital and Dr. Reddy Labs in Figures 13.12, 13.13 and 13.14, respectively.

One glance at Figure 13.12 is sufficient to alert you that you simply cannot bank on Bank of Baroda to maintain a unidirectional move for any length of time. The stock changed its direction too often for a trader to maintain a position and make profits.

Figure 13.12: **You can never bank on such charts as this one of Bank of Baroda. It's a clear avoid.**

Figure 13.13: **Apollo Hospital kept investors hospitalized during 2016. Another stock to avoid as there was no clear trend.**

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Figure 13.14: **Dr. Reddy's Labs would have kept you in the clinic for the better part of the year as the US FDA kept the pharma sector in I.C.U. in 2016 — avoid.**

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There is no sense of direction in Apollo Hospital (see Figure 13.13).

Equally, Dr Reddy’s Labs (see Figure 13.14) looks sick and would have turned your trade sick too had you stayed with it. No trend exists here.

If a stock keeps moving in both directions, it is going to end up nowhere. It will also always keep you on edge if you trade it. So our job is to first identify a trending sector and then find a trending scrip in the sector that is expected to continue trending for some more time.

Trade Confirmation in Railway-Line Theory

When we try to enter a trade based on a double moving average crossover, implicitly we assume that the crossover is genuine and will lead to a genuine trend. This may or may not happen. A bullish crossover of moving average lines could well be followed by a bearish crossover within the next few candles. This leads to whipsaws which are highly damaging to your wallet. Thus, instead of entering a trade immediately upon a crossover, we should wait to check that the crossover leads to a wider gap opening up between the two moving average lines; namely, wait for a stable formation of railway tracks running parallel to each other. Then we can save ourselves the agony of constantly criss-crossing average lines. **The formation of a railway track serves as a confirmation that the new trend will continue,** thus reducing whipsawing trades and saving us a lot of pocket burn.

Another important point is that when you have both 20DMA and the 50DMA lines on your side, you stand a better chance of success in your trade because both the short and the medium term trends are then aligned in your favor.

Trade Management in Railway-Line Theory

We have identified the prospective winner stock and entered in it; what now?

One of the most important parts of a trader's job is to maintain and manage the open trading position in a logical way. Each ingredient is indispensable for making a trade successful, right from entry to exit. A well-managed trade will neither leave too much money on the table for the next trader in the queue, nor will it give back to the market too much of your hard earned money.

Caution: When Trading, Keep Emotions at Bay, Follow What Charts Say

Once you enter a position, there are high chances of your opinion getting colored by your own emotions and crowd chatter.

Benjamin Graham wrote in his classic book, *The Intelligent Investor:* "Decisions go haywire only when you let your emotions get the best of you and you get swayed away behind the irrationality of crowds."

Let me put it bluntly. Greed is not an entry signal. Fear is not an exit signal. Hope is never a reason enough to hold on to losses — or, worse still, average out a loss.

Let us now see how to manage an open position in our strategy. **When you open a fresh position, the initial stop should be placed right below the support from where the trend began, or resumed.** Let's say the price of the stock had moved up from Point A to Point B, and then corrected from Point B to Point C where it then found support and from where the trend then resumed. Now suppose you entered at Point C, initiating the trade because you saw that support holding. Till the time this support at Point C holds, your entry remains valid. Once the price moves in your favor, and your position is in profits and the price regains the level of Point B, which is the previous high, you may book out half your position. For the rest of your open position, you can trail the stop loss. There are multiple ways of trailing the stop loss. We suggest you trail the stop loss below the 8DMA line.* This will ensure that you do not lose your earned profits.

Let us consider a few examples to see how such a trade would look on the charts when managed in this way.

As noted earlier, autos and metals were two strong performing sectors in 2016. There were many auto stocks, like Tata Motors that performed very well. In fact, this stock took everything in its stride, including Grexit, Brexit, etc. Its strong up trend brooked no resistances as you can see in Figure 13.15. The chart shows how the price went from Point A to Point B, from where it corrected to Point C. That is where the pink and blue lines, the 20DMA and 50DMA line, respectively, turned parallel. So we enter a long trade at Point C. Once the trade moves in our favor and crosses the previous high at Point B, our strategy suggests a partial exit. We then use the black 8DMA line to trail the stop loss for our remaining position.

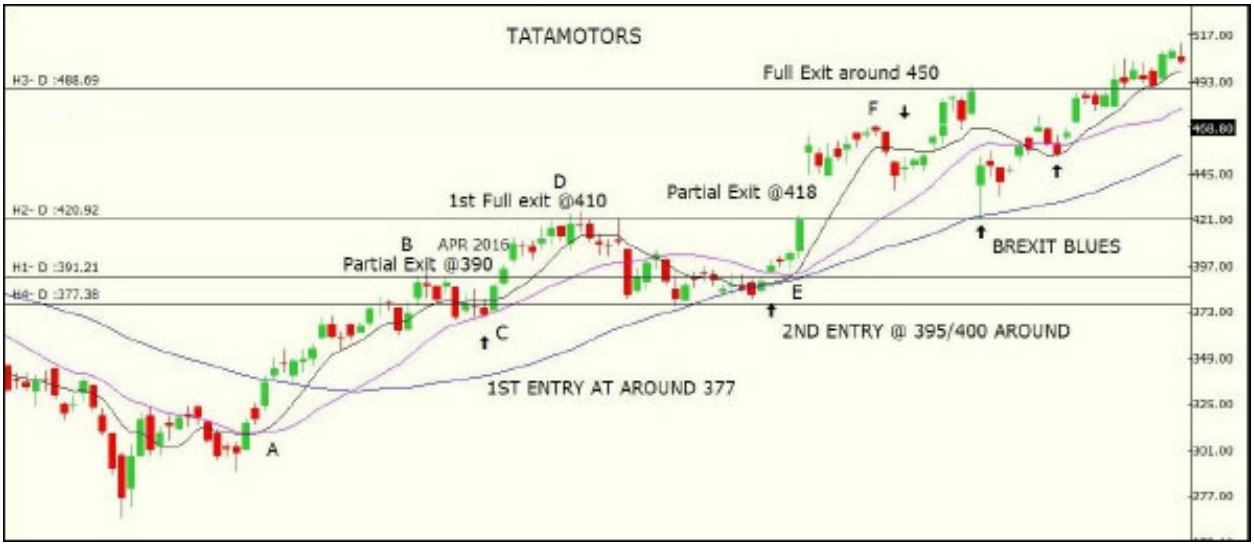

Figure 13.15: **Tata Motors surging ahead — two trades shown here from entry to exit. Please also note the comments within the box.**

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The trade is closed when the price falls below the 8DMA line after making a new high at Point D. A fresh entry is later suggested at Point E, which we partially exit at the previous high, namely Point D, and fully close after the formation of a new high at Point F, followed by a fall in price below the 8DMA line. You can observe all this from Figure 13.15.

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Stocks such as Asian Paints spread cheer throughout 2016 and painted the town red and the trader's P&L green *(see* Figure 13.16). In this case, the initial entry is at Point C, a partial exit is suggested once the price crosses the previous high at Point B, while using a trailing SL for the remaining position. The trade is closed when the price makes a new high at Point D and then falls below the 8DMA line. A second entry is again indicated at Point E, and so on, as you can see indicated in Figure 13.16.

Figure 13.16: **Trade management from entry to exit as Asian Paints painted the town red and the trader's P&L green in 2016.**

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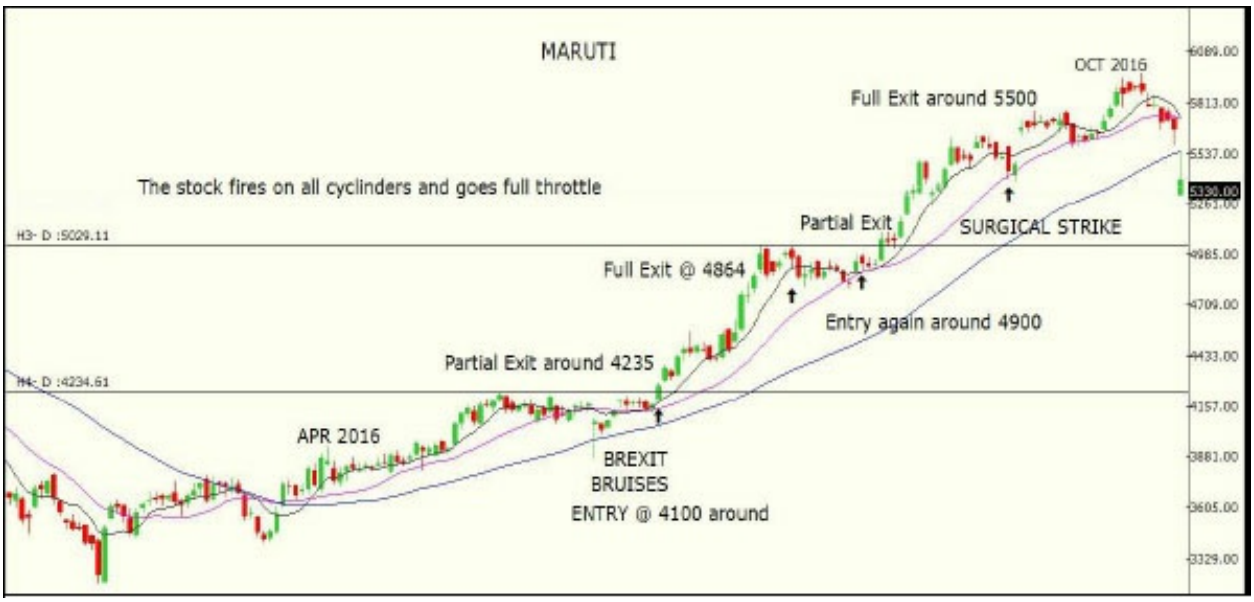

Figure 13.17: **The chart shows how to manage trades in Maruti as the stock fires on all cylinders and goes full throttle.**

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The stock of Maruti remained in top gear throughout the year and exceeded all successive targets. Let us see how we could have used the Railway-Line Theory to profitably trade the various other themes that played out throughout the year.

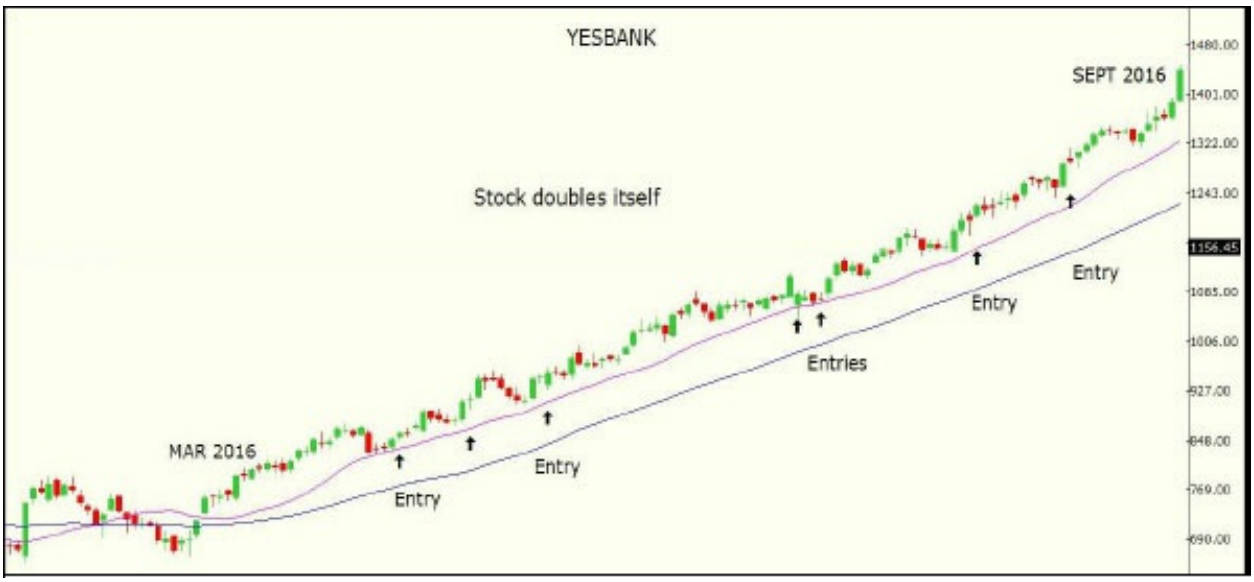

Figure 13.18: **Yes Bank says yes to the growth of investor wealth in 2016.**

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The move in Yes Bank started with the Union Budget 2016 which effectively put a bottom to the constantly falling Nifty at 6,825. The faith in the India story was restored, but the journey wasn't always a smooth ride. The banking sector stayed under stress as more and more non-performing asset (NPA) skeletons tumbled out of their closets. Yet, there were stocks like Yes Bank that said yes to growing investor wealth as you can see in the chart in Figure 13.18. You will observe how the Railway-Line Theory keeps us in the move. The two DMA lines stayed parallel offering many entries on dips that found support at the 20DMA line.

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The tough taskmaster called US Food and Drug Administration (USFDA), kept India's pharmaceutical stocks in the I.C.U. for the better part of the year. The chart of Glaxo in Figure 13.19 throws up multiple short trades using the Railway-Line Theory.

Figure 13.19: **Glaxo offered multiple short trade opportunities thrown up by the Railway-Line Theory.**

Let's move on to another theme that played out very well in 2016 and where the Railway-line strategy could have made us good money.

Investors in sugar stocks had no reason to complain "*chini kum* (It's not

sweet enough)" as the sector offered handsome returns to investors. The media was abuzz with news and reports from rating agencies, which highlighted the supply side deficit in sugar in the global market due to a reduction in the area under cultivation, lower output from India which is a major producer, the ever increasing global sugar demand, and the resultant rapid depletion of buffer stocks.

For astute traders, opportunity lies in adversity too.

Figure 13.20: **Many sweet returns from Ugar Sugar in 2016, with multiple trade opportunities as indicated in the chart.**

This chart of Ugar Sugar shows the entire trade management cycle till exit, and then again a re-entry. Most sugar stocks gave very good returns to investors and, again, the Railway-Line Theory could have been very well applied.

2016 was indeed a heady cocktail of events. As if GST, Brexit, Grexit weren't enough to make one feel dizzy, the AGM of Reliance Industries on 1 September 2016 shook the Indian telecom industry to its very foundations.

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As Reliance chairman Mukesh Ambani's speech unfolded at the company's AGM making various announcements about its venture in the

telecom space, RelJio, all other stocks of the sector were thrown out of coverage area. The Railway-Line Theory clearly indicated a down trend for the sector incumbents and provided multiple entries in the next few months. History repeated itself on 1 December 2016, when Mukesh Ambani came up with the Happy New Year Offer from Reljio. Our railway-line strategy could have been very well applied in these stocks. See, for example, the chart of IDEA in Figure 13.21. Both moving average lines remained parallel on the down side, offering good opportunities to short side traders.

Figure 13.21: **Not a great idea, this! Most telecom players were thrown out of coverage area when Reliance entered and disrupted to the Indian telecom space.**

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Come monsoon and we saw a monster rally in agri-related stocks. The rainfall was above normal. When the Rain God showers blessings, it is not just the farmer's income that improves. The abundant agricultural output also keeps a lid on food prices and inflation. This, in turn, has a bearing on keeping interest rates low. Expectedly, the market gave a thumbs-up to the monsoon news and stocks such as Insecticides India, Escorts, Jain Irrigation saw massive jumps in prices. Using the Railway-Line Theory, the up trend could have been captured in stocks like Jain Irrigation which almost doubled and Escorts, which more than doubled during the year *(see* Figures 13.22 and

13.23).

Figure 13.22: **Monsoon mania in agri-related stocks. The Railway-Line Theory is a very clear trading guide in Escorts. The price triples within a year.**

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Figure 13.23: **Monsoon mania: as the rain gods showered their blessings agri stocks such as Jain Irrigation doubled in a year. A trader following the railway line would have stayed on track.**

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Talking of the movers and shakers of 2016, let's hark back to the nerves of steel shown by the metal index. This index was the top performer throughout the year and rose by more than 50%. It's a cyclical sector and when it turns, it can turn the color of the traders P&L statement along with it. Stocks such as Vedanta and Hindalco tripled in price within the year; Hindalco from around ₹ 60 to ₹ 180, Vedanta reached ₹ 250 in December 2016, from its lows of ₹ 75 in March 2016 as you can see in the charts in Figure 13.24 and Figure 13.25, respectively.

Figure 13.24: **Highs in Hindalco as it moves from ₹ 80 to ₹ 189, steering confidently on the railway track, offering multiple trading opportunities on the way.**

Figure 13.25: **Vedanta stays in high spirits, moving from around ₹ 50 to ₹ 250 in a year, driving on the railway track, offering multiple trading entries.**

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Figure 13.26: **Infosys, the bluest of the blues, turned red for investors but offered lucrative shorting opportunities for traders along the downward railway track as global jitters led to lower revenue guidance.**

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Stocks such as Infosys had already been feeling the pressure for many

months under the influence of Brexit, etc. The charts show that the Railway-Line Theory played out very well on the downside in that stock, as this bluest of the blue turned red as can be seen in the chart in Figure 13.26.

The point to note here is that events such as Brexit, demonetization, etc, kept piling misery on naïve players. For savvy traders, on the other hand, each of these events provided various themes that were playing out in the market, and which could have been used for finding the stocks of the moment, as we have demonstrated in the chapter.

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Finally, let us study charts of some stocks of different sectors. For example, Ultratech Cement was a preferred stock for all players as commodities saw a major up move during the year. Similarly, the stock of Zee Entertainment provided plenty of joy to those who traded it. Short players also made good money in stocks such as Bata India. Two more stories on the up side were Capital First and Engineers India Ltd., while Adani Enterprise was a downside story.

Each of these examples, captured in their charts that follow, shows how well the Railway- Line Theory can be applied to bring clarity even in the midst of much chaos. You should carefully review all the details in the charts that follow, in order to clearly grasp the concepts *(see* Figures 13.27 to 13.32).

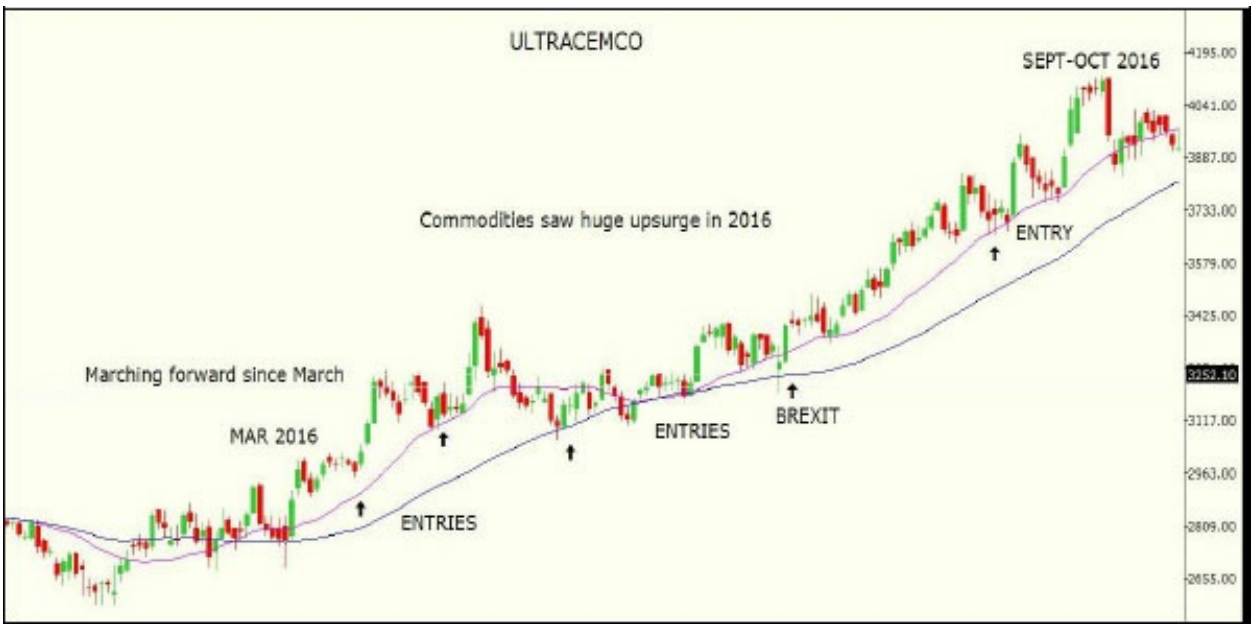

Figure 13.27: **Note the various trading opportunities Ultratech Cement presented during the year notwithstanding Brexit, etc., as commodities saw a huge upsurge in 2016.**

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Figure 13.28: **Brexit blues? What's that? Zip . . . zap . . . zoom . . . went Zee Entertainment in 2016.**

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Figure 13.29: **Adani Enterprises in a free fall provided multiple shorting opportunities using the Railway-Line Theory, as highlighted in this chart.**

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Figure 13.30: **Investors bid goodbye to Bata as the railway track headed lower.**

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Figure 13.31: **Engineers India in a solid upmove on secure, broad-gauge rail tracks, with multiple entry stations en route.**

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Figure 13.32: **Capital First generated solid capital returns in 2016 riding on a well-embedded railway track.**

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Conclusion

A last but a very important print: always listen closely to what the markets are saying. If the market changes its mind, so should you. There are always enough opportunities for making money without being stubborn.

As Charles Darwin once said: "The survivor here is not going to be the strongest or the most intelligent one, but the one who adapts best."

Only a trader who is willing to adapt to the ever-changing markets will survive and grow.

Trading is one of the hardest games in the world. In this arena, you are playing against some of the sharpest minds. Many of them will be more experienced than you, many would have deeper pockets than you, many a bigger risk appetite than you, and some would better informed and more knowledgeable than you. So it is not only prudent but vitally important to always be fully prepared to the finest detail.

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* For more on the 8DMA line as trailing stop loss, see *How to Make Money in Intraday Trading* by Ashwani Gujral and Rachana A. Vaidya. Published by Vision Books *(www.visionbooksindia.com)*.

Chapter 14

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Mind of the Successful Trader

by
Ashwani Gujral and Rtunjya Gujral

We have always wondered how two cricketers who started out and played together ended up so differently. At the outset, many people believed that Vinod Kambli was, in fact, more talented than Sachin Tendulkar. Why, then, did Kambli fade away after a short career of merely five years while Tendulkar went on to play international cricket for an astonishing twenty-five years? To my mind, the key difference between them was mental strength. Kambli couldn't persist while Tendulkar was both passionate about his game and well disciplined. The moral of the story is that talent by itself can only get you so far; determination, passion, discipline and persistence are equally needed for enduring success.

The financial markets are a most mentally challenging and taxing arena. Most traders don't accept this fact and try to fight the market's moves rather than accepting them and trading accordingly. And, inevitably, they fail.

On the other hand, all successful traders accept the market's moves instead of being in denial about them simply because these may be contrary to their expectations. They develop systems and strategies that give high returns while covering risks and losses. The most basic concept every trader needs to follow in order to be successful is to let the profits run while cutting losses quickly.

The psychological aspect of trading is widely overlooked though it is what makes or breaks a trader. When a trader starts off his career, he enters this environment with many psychological issues, ingrained thinking habits and mental blocks, and it usually takes some heavy losses for him or her to understand and sufficiently master the mental control needed for this business. The purpose of this chapter is to ensure that this doesn't happen to you. Over the next few pages, we will be talking about human nature, mental blocks, and their direct impact on your trading career. We will also discuss techniques to overcome these hindrances to make your road to success

smoother.

Trading is Not War

One of the greatest misconceptions many traders have is that trading is akin to war, that every trading session is another day on the battlefield, and that the market is the enemy to be conquered or vanquished. That is far from the truth. In fact, each trading session is a test of your mental strength and your belief system, and every move brings out your best and your worst. Which is why it is important to develop a strong mental framework, a discipline that works for you and keeps you on top of your game.

There are No Right or Wrong Answers in Trading

There are no right or wrong answers in trading, and there is absolutely no way to predict exactly what the market will do next. Those who think they can either vanquish the market, or predict what it's going to do next, will invariably lose money.

Therefore it's important to think in probabilities.

Thus, what you need to do is to invest in stocks that have a higher probability of doing well, and cut loose from stocks that have a lower probability of doing so. Since we are dealing with probabilities, inevitably there will be instances where you will be proved wrong, and it's important to accept such mistakes and learn from them for future, rather than being in denial.

Also, trading is very different from other professions. This is because trading is a performance discipline, and it does not have fixed results. I would say that a trader is more of an artist or a sportsperson, because trading requires the same kind of conviction, discipline, and mental strength as do arts and sports. Trading is not a routine 9-to-5 kind of a job. It requires a completely different framework from that of, say, an accountant or someone working in a call center. For one, you don't have a boss or a supervisor to tell you what to do. You must stick to your rules and monitor your own progress to do well in this field.

Emotions You Need to Overcome to Trade Well

Trading is a mental game. Your emotional control is what earns you profits. However, there are some emotional habits that may interfere with your trading system and lead you to making mistakes and losses. Losses are the hard lesson that forces traders to learn self-discipline and self-control.

The saving grace is that nobody is born with a set of emotional habits. These are learnt over time as you go through different experiences. Therefore, you can as well "unlearn" wrong or unhelpful emotional habits. This is no different from cricket, where a player needs to be mentally balanced throughout his innings. So if a batsman tends to get over-confident after a few good overs, he can train himself not to feel that way and behave more rationally. Or, overcome his weakness against, say, spin or fast bowling with appropriate correction in technique and practice in the nets.

Euphoria

Confidence is one thing; euphoria quite another. Euphoria is the state of mind in which we start to believe that nothing can go wrong. It leads traders into making careless mistakes and not be careful with their positions, which results in losses and triggers off a whole new series of negative emotions. Indeed, there is a very thin line between confidence and euphoria; when you're confident, you're sure of your strategy but you are aware of the risk. Euphoria, on the other hand, is an emotion that makes you ignore the risk involved, and makes you behave as if you have some sort of Holy Grail to trading success. It makes you forget that there is no Holy Grail in the financial markets.

A good example of euphoria is Anna Hazare's attempt at an anti-corruption revolution in 2011. For a while everyone was over the roof thinking that nothing could defeat his movement, and the sentiment was euphoric. Eventually nothing came of the hype and the euphoria died down.

Fear

Fear is the emotion that leads to over-controlled trading. Over-controlled trading is an outcome of a trader's fear of sustaining losses, and results in missed opportunities.

It is a well-known fact that all traders make losses — and indeed the successful traders accept losses to be an inevitable part of trading. What leads to success is that their profitable trades more than offset the losing ones.

Over-controlled trading creates anxiety about your trading strategy and makes you doubt yourself. It is important to overcome fear so that you are confident about your trading system. To do that you must accept the risk inherent in every trade and invest with a low risk-high reward policy.

Again, it's the same as in cricket. If batsmen are afraid of certain bowlers, the latter will automatically start inducing mistakes in their batting. Similarly, mothers are always very fearful of their families' health and well-being. If their husbands or children fall sick, they slip into a fear psychosis and lose their rational thinking and decision-making ability. In all such situations, including trading, fear freezes you into inaction and leads to negative outcomes.

Greed

Greed is the fear of missing profitable opportunities. It's the emotional trigger behind impulsive and reckless overtrading. A person who is overwhelmed by greed will not focus on the broad picture but try to trade as much as possible in a bid to maximize income. Greed, thus, leads to a loss of focus and drives you to break rules in order to stay in the market at all times.

The reality is that overtrading does not mean more profits. It's wise trading that makes more money. You must understand that there will be times when the market will be slow. At such times, there won't be many openings for profits. In these situations, patience, self-control and preservation of your trading capital is very important.

The tulip mania in the 1600s is a classic example of greed run riot.

Tulips were then a new type of flower in Europe, and were considered to be very exotic. Soon, buying and selling tulips flourished into a full-fledged

trade. The prices rose as the demand increased. People would buy more tulips than their income could afford just so they could have the status that came with it. When tulip prices finally crashed and people lost money, they realized that they were investing in something that did not add any value to anything.

Fear and greed often move in alternate oscillation. When fearful traders are too cautious and subsequently take note of the profitable opportunities gone by, they often start overtrading as if to compensate for the potential "losses" suffered. Then after making blunders and bearing losses from over-trading, they again become fearful — thus setting off a vicious cycle.

It is vital to avoid this. If you stick to your well-thought through trading plans and rules, and don't stray from your strategy, you will be able to protect yourself from losses arising out of greed.

Hope and Wishful Thinking

Hopes, wishful thinking, and prayers are the trading mantra of the unprepared trader. Generally, the hope-and-pray approach implies that a trader doesn't have a reliable plan or strategy, and is shifting the responsibility of his or her trading profits and losses onto the market. Hoping and praying underline the trader's lack of preparation, sense of desperation, and poor appreciation of the current market situation. It's no different from children praying to God to help them get a high score in their exams well knowing that they haven't studied enough. Depending on hopes and prayers paralyses traders, because they get blinded by irrational hope and are not able to take suitable action at the right time. This also goes against the primary principle of the market's working — which moves only where the buy and sell orders take it.

Intuition is often confused with hoping and praying, but there is a big difference. Intuition is experience responding "automatically" to familiar information and signals. It also factors in the risk and possibility of failure. Hope, on the other hand, is just the expectations we have from the market; it's wishful thinking that the market will do what we want it to, and more often than not this ends in disappointment. To distinguish mere hope from informed intuition, you must clear out any notions or information that makes

you pray or hope for a particular outcome instead of facing the situation head on.

Depression

Trading depression occurs when traders go through a loss; they become disappointed, demotivated and self-critical. It’s usually a result of trading mistakes caused by fear and greed. If a fearful trader misses a profitable opportunity, he is likely to get depressed. The only way to avoid this is to trade based on proper signals and overcome fear, greed and tendencies of hoping and praying for things to happen.

Common Mistakes Traders Make

Trying to Predict the Market's Next Moves

One of the biggest mistakes a trader can make is to believe that he or she can predict what would happen next in the market. Such a prediction is usually nothing but what the trader wishes the market to do. You expect your trade to go a certain way, and you look for evidence to support your belief. But when the market goes the other way, you lose a lot more than you can afford. This happens because traders often fail to accept that all market information is neutral. The market doesn't care whether you gain or lose money. Traders who get the short end of the market's stick often develop a grudge against the market.

To avoid this vicious cycle, it is important to accept that each individual trade is random. You can develop methods and strategies to detect the overall sentiment, but individual trades are random and can go contrary to expectations

Taking Trades as a Representation of Yourself

Sometimes when traders make losses, they tend to take it as a verdict of themselves as people. This is the wrong attitude to have because it should be assumed that at least two to three trades out of ten wouldn't work. But this does not define a trader as being good or bad; it's the ability to cut losses and ride up-trends that does.

Equally, one might even confuse trading profits as a reflection of oneself, thinking that a single good trade makes one a better person or trader. Don't.

Not Exiting Losing Trades

Often, a person in a bad relationship refuses to end it in the vain attempt to save it. The same applies to losing trades. Sometimes traders may get attached to their trade and hold on to it even when they see it failing. You must be completely detached from your trades and should be able to exit one

as soon as it's clear that it's not working. In other words, don't marry your trades. This applies to the stock market and other situations in life as well.

Over-Thinking Individual Trades

To reiterate, individual trades are random, and it is unwise to think too much about any particular single trade. You can't know whether a trade will work or not, but if you have a 70:30 win rate, and exit losing trades with only small losses, it will be easier to sustain through the market's highs and lows.

To understand this better, imagine a cricketer coming out to bat in a test match. It's perfectly fine if he decides not to play at any ball outside the off-stump for the first half an hour or so of his innings in order to cut out unnecessary risk before he gets well settled. But if he gets stuck with this rule after he has settled in, and irrespective of whether it's a good length ball or a juicy full toss, he will fail.

"Revenge" Trading

Often, traders try and "get back" at the market for a loss that they might have had. In doing so, they're trying to fight the market. This is a wrong, even childish, attitude to have. The market does not intentionally give you a profit or a loss. The market functions impersonally and simply follows the combined sentiment of all the traders, and their buy and sell orders. So, revenge trading will not benefit you. In fact, it may even increase your losses because now your ego, too, is involved. It's been seen that the revenge trader often trades even in a sideways market when there are no decent trades to be had. Always remember that the market is unforgiving; so when a trader goes long in a consolidation, the market goes down. When he goes short, the market goes up. Also, revenge traders don't have a plan. They are so absorbed in trying to cover their previous loss, they forget about analyzing the current market sentiment and place positions without the right signals.

In the 1987 cricket World Cup final with Australia, England's Mike Gatting was bowled a normal ball. In order to unnerve the bowler, or perhaps to teach him a lesson, Gatting played a reverse sweep that was technically incorrect and completely unnecessary. It also cost England the World Cup,

which, incidentally, they have never won so far.

Not Having a Trading System

All disciplined traders have a system that they follow regardless of the minute to minute market situation. This system is built around their personality type and suits the kind of trader they are. Not having a set system makes a trader unorganized and directionless, which inevitably results in loss. Having a system gives you a fixed set of signals to look out for in any kind of market, and pre-empts guesswork. A system also gives you a direction with which you can construct your trading plan, and makes preparation a lot easier.

Not Testing Your Trading System

As much as it's important to have a trading system, it's important to test its efficacy as well. If your system is not well tested, you're stripped of your conviction and belief in your methodology. And, if you don't have conviction, you don't have direction, which makes your trading haphazard.

It should, however, be remembered that testing does not make your plan foolproof. In the market, there will always be risk and a chance of loss. But as long as risk is managed well, the probability of profits will be higher.

Not Keeping a Trade Journal

Even if you have a trading plan, and you consistently follow your trading rules, you will still make mistakes. Now, in order to learn from your mistakes and keep track of your progress, it is important to keep a trade journal. Every trade you make should be listed in the journal, with details of the traded stock, the buy/sell price, the target, the stop loss, and the profit / loss.

As you go along and review the journal, it will give you a better perspective of both your good moves and mistakes, and make you far more organized. Without such a journal, it will be harder for you to keep track of your previous investments, and may also lead to your missing opportunities of re-entering certain stocks.

Not Respecting Risk

It should be clearly understood that every trade comes with a certain risk. There is simply no such thing as a risk-free trade. So it is important both that you should know the risk of every trade you take and that the risk be significantly lower than the prospective reward.

In essence, trading is all about risk and money management. Once you know how much you're willing to lose on a trade, you're much more confident about undertaking it. Traders often don't accept trading risk because we're programmed to always want to be right. This is associated with losing face if a trading position does not work. Which is why mental programming is needed in order to control such inherent or programmed instincts from hindering your investments.

Lack of Preparation

All the issues we have discussed amount to either an overall lack of preparation or are issues of temperament.

Lack of preparation here means not analyzing the market properly before trading sessions. To have a good success rate, you must know which sectors are outperforming, and which stocks in those sectors are outperforming. You should have a set of stocks you want to keep a watch on, and you should have a set of signals that help you determine your plan of action. This is one of the foundational aspects of successful trading. Not doing your analysis can be harmful to your capital. You will miss opportunities and trade in the wrong places when the action is happening somewhere else. If a cricket team doesn't know much about the strengths and weaknesses of the team they're playing against, and what sort of pitch they would be playing on, physical training won't help them much.

The recent coaches of the Indian cricket team have always emphasized on the process — read system and rules — both preparation and playing the game. Even the long serving team captain M. S. Dhoni spoke about focusing on the process rather than the desired outcome. This process is not very different from making a trading plan and sticking to it, without altering it mid-trade. On the field, if the team's strategy is altered mid-game as a knee-

jerk reaction, it is not hard to imagine what will happen. The players will not know what to do, and we will have a very confused team. The same applies when you are trading. Trading without a plan or abandoning the plan mid-trade leaves you confused and unsure of what you should do.

How to Think When Trading

Trade Mechanically, Not Intuitively, Subjectively

Every successful trader creates a trading system and plan for himself or herself that ensures a high success rate and which cuts losses short. These trading methods are mechanical and mostly objective — they are based on pure fact. However, after a certain period in the market, traders develop an intuition, which is not merely a guess or a hunch but an informed instinct based on earlier experience and learning that is more often than not correct.

To trade subjectively is to trade based on your personal feelings. You should avoid doing this because it increases the chances of acting on your biases. Trading should be objective, and your positions must be the result of the right signals and intuition.

Don’t Wait for the “Perfect” Trade

It is not uncommon to see traders waiting for the “perfect” opportunity to enter into a trade. They keep waiting for everything to align perfectly so that there is no scope for loss or risk. Such traders are waiting for a non-existent miracle because there is no perfect opportunity; there are only higher probability situations of stocks going up or down. Out of fear of losing money, people often keep observing the market endlessly without taking any action. But that is just wasting time. It doesn’t make sense to wait for something that will never happen — and miss a very good opportunity for profit in the bargain. Which is why acceptance of risk is important. Once you come to terms with the risk, you take away its ability to freeze you.

Interpretation and Emotion

Everything we feel is the result of the way we interpret situations. If three people are put in the same situation, their reactions will be very different from each other. Person A might perceive the situation as rejection, Person B might perceive it as merely a certain turn of events, and Person C may

perceive it as an opportunity. This applies to all walks of life, including trading. Interpretation of stock prices may be biased by certain opinions. Which is why all successful traders gather all the information they can to have the most factually accurate and unbiased view possible. This ensures that their action is not dominated by their personal emotions. It is interpretation that causes market moves as well, so it would help to buy into fear and sell into greed to get the best results.

Belief Systems

Belief systems are possibly the most important factors when it comes to trading, because they shape our perception of the world around us. We are raised to believe in certain ideologies that carry us through life and influence all our decisions. It is extremely important to recognize this factor in trading so that you are able to neutralize any negative or unhelpful beliefs that you may have.

For example, often people are raised to believe that money is bad, or that wealth is not well deserved if it's not earned as a reward of strenuous work. Our beliefs limit what we perceive and confine us to go on thinking the way we are used to thinking. This, then, becomes a selfreinforcing cycle. If you are to make money in the stock market, you cannot have self-limiting beliefs interrupting your train of thought.

Our beliefs also create expectations; we expect results consistent with the things we believe in. It is quite simple to stop self-limiting beliefs from hampering our success by methods of visualization that will be discussed at the end of this chapter. If you can take away the energy reinforcing your negative beliefs and make it strengthen your positive beliefs, it becomes easier to reject thoughts that cause a lack of conviction in our actions.

For example, for long the Pakistani cricket team has never won a World Cup cricket match against India. And while lack of preparation and training, and not adapting to different playing conditions contributed to their losses, a negative belief system may well also have set in. After consistently losing to India six times in a row, it was not inconceivable that a negative belief had been reinforced that they couldn't win. If so, the team will then play in a

manner consistent with that belief.

Accept the Randomness of Every Trade

Accepting randomness of trades is perhaps the most important thing to come to terms with, because one does not have control over what happens in any particular trading session. This acceptance is needed to get through the high and lows of the stock market without letting them get to you. Not accepting such randomness is the same as trying to predict which team will win a match even before it starts.

Laws of Human Nature

Brian Tracy discusses these in great detail in his seminar on self confidence (https://www.youtube.com/watch?v=4TWH7tlHt-Y&spfreload=10). These laws were taught in mystery schools in Egypt, and have been rediscovered to carve a path to success.

Law of Cause and Effect

We hear the saying “everything happens for a reason” around us everywhere, and this law states exactly that. Each thing has a cause and there is something it affects. Our thoughts are causes. We think about something or doing something and it affects what we do, leading to a particular result.

Law of Belief

This law holds that whatever you believe, with feeling, becomes your reality. You see things that agree with your beliefs and act on them accordingly, and you ignore things inconsistent with your beliefs. This is taught to us over time and gets reinforced by emotions and experiences. As mentioned before, beliefs can be controlled. You can decide what belief to put your energy into.

Law of Expectations

We all have expectations from various aspects of our lives. Now, what is the significance of these expectations? Our expectations are things we want to achieve sometime or the other in our lives. Therefore we start to act in a manner consistent with meeting these expectations. And so, expectations become our self-fulfilling prophecies. Which is why it’s important to expect the best. That way you will act in a manner that fulfils your positive expectations.

Law of Attraction

According to this law, each person is a living magnet, and we attract the things we desire. This is because everything in our environment is in vibration. Even our thoughts vibrate because of the emotion behind them.

To make this law work for you, it is important to think about what you want. Think about it, visualize it, write it down, tell people about it. Wanting something enough makes things fall in a way that makes a path for you to achieve it.

Law of Correspondence

“As within, so without.” This means that whatever is going on in our external environment is a reflection of what is going on inside us. Wherever you look, you see a part of yourself. If you struggle with negative emotions, you will see negativity in your external environment. To control this, you must alter your thought patterns and focus on positive thinking. This law is not very different from the law of attraction — you attract what you feel on the inside.

Law of the Subconscious Mind

We’re all programmed to behave in a certain way. Our subconscious mind keeps balance of this in the body and takes actions and words consistent with our programming. There may be some negative programming in our minds, but it is possible to reprogram. We will discuss this later when we discuss visualization.

Law of Habit

This law states that habits can be changed and developed, because you become what you think about.

Self-Concept

Our self-concept is our internal programming — it consists of our ideal self, self-image, and self-esteem. Our self-ideal consists of our hopes, values and dreams. Self-image is the way we see ourselves, and our self-esteem tells us

how much we like ourselves. These come together as our mental make-up, and that obviously includes comfort zones. Comfort zones are areas of work we are comfortable doing; things that don't challenge us. The **big news is that while comfort zones are comfortable, they prevent us from succeeding.** If you don't challenge yourself, you don't make progress. If you don't make progress, you don't like yourself. If you don't like yourself, your self-image deteriorates, and so on. It is most important to like yourself. Everyday, whenever you get time, you should tell yourself that you like yourself.

Law of Forgiveness

There must be things you are angry with about yourself, or matters you are angry with someone else about. To start your journey to success, you must forgive. You must forgive yourself, and forgive everyone else who ever did you any wrong. This is because having grudges promotes negativity, and your mind must be in a positive state to think, innovate, and concentrate. It is a fact that 80% of the obstacles we face are internal and only 20% are external. Your internal obstacles have to stop bothering you in order for you to overcome external hurdles.

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The reason why these laws are relevant to trading and should be followed is that it is very easy to get overwhelmed by negative emotions in the market. Our programming also causes us to blame the market, rather than accept responsibility, for our losses. Following these laws and applying them to our daily lives helps us keep a balanced perspective not only with regard to the stock market, but of other areas of life too.

Qualities of a Good Trader

We have discussed in some detail about what a trader should *not* do. In this section, we will talk about the qualities you must develop to become a successful trader.

Creativity

By creativity we mean you should constantly be able to innovate and try new things to improve your trading system. There are endless signals and entry techniques, and you should be able to find something that best suits your personality and maximizes your returns.

Emotional Stability

This chapter has discussed emotional stability in detail. It is important to be emotionally stable because the market is very unpredictable, and anything can happen at any point of time. You must be emotionally neutral at all times to deal with this and take the right action as and when required. The market does not test you on how well you can enter a trade. Rather, it tests you on how you handle your wins and losses, and that's where many people stumble. On the cricket pitch this translates to the batsman keeping his cool no matter how well or badly he's doing, because emotional instability harms focus and jeopardizes victory.

Acceptance of Changing Market Conditions

The markets are always changing, there is always something new happening. To be successful as a trader, you must be open to these conditions, and adapt to every change. It is unwise to be fixated on one idea as the underlying market conditions may change and the same idea might not work anymore. In order not to blame the market and accept whatever happens, you have to be open-minded.

Passion

The most important quality needed to succeed in this business is passion. You have to love what you do in order to do it well. If you get frustrated with the market and cannot deal with the highs and lows, you won't be able to make money.

Self-Discipline

The only way to succeed in the stock market is to have unshakeable self-discipline. Selfdiscipline means following your rules no matter what, doing your analysis everyday, not getting carried away by fear and greed, taking responsibility for your profits and losses and being emotionally neutral.

Visualization to Improve Your Trading Performance

Visualization is a deep-breathing technique where you visualize your desired outcome, as clearly as possible, so that it becomes your future reality. You go over what you want in your mind so many times that paths start to open up that will lead you there. In this section, we will briefly go over some of the core aspects of this form of meditation and discuss its uses.

Visualizing outcomes and solutions is one part of this, but you can also change your habit patterns and mental programming through this method.

Just visualize the habit you want to change, cross it out mentally, and imagine the new habit you want in its place. Doing this over a period of time will change your mental programming and remove the bad habit.

In trading, this can be used to desensitize yourself to negative emotions that you may be prone to. For instance, if a person is fearful of dogs, he'll freeze every time a dog comes near. Considering how many stray dogs are out there on Indian streets, it would be very hard for such a person to step out at all! But through visualizing this fear, and eliminating it, people can desensitize themselves and the fear will stop bothering them.

One may also look at cricketers. Along with physical training, they play their upcoming match mentally and win it over and over again. So, when they actually get on to the field to play, they find themselves in a zone of complete focus.

Our minds are divided into two hemispheres — the left and right brains. When we are conscious, our left brain is dominant, because it is the logical and rational part of the brain. Our right brain is the creative and intuitive part, which is usually less active. These hemispheres also determine the inclination of a person; if they are good with organizing and logic-based work, they are left brained. If a person is creatively inclined and good at performance disciplines such as music, art or dance, they are right brained. However, in both cases the intuitive quality of the right brain is not very active, and meditation can be used to enhance this quality and develop what is commonly known as "gut feel" or "instinct."

When we are awake, our mind runs at 21 cycles per second, and when we're sleeping, it goes down to 4 cycles per second. Through self-hypnosis (deep breathing techniques), you can slow your mind down to 10 cycles per second. All you have to do is, take three deep breaths and visualize your desired outcome. You can modify this method to suit your needs, but this is the core concept of visualization.

In this chapter, we have gone over some basic ideas on how to think when trading. We have also discussed meditative techniques to help the process. Due to the broad nature of this subject, all the issues discussed above apply to all walks of life, and are not strictly limited to trading. Without fail, a good attitude guarantees a successful life.

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