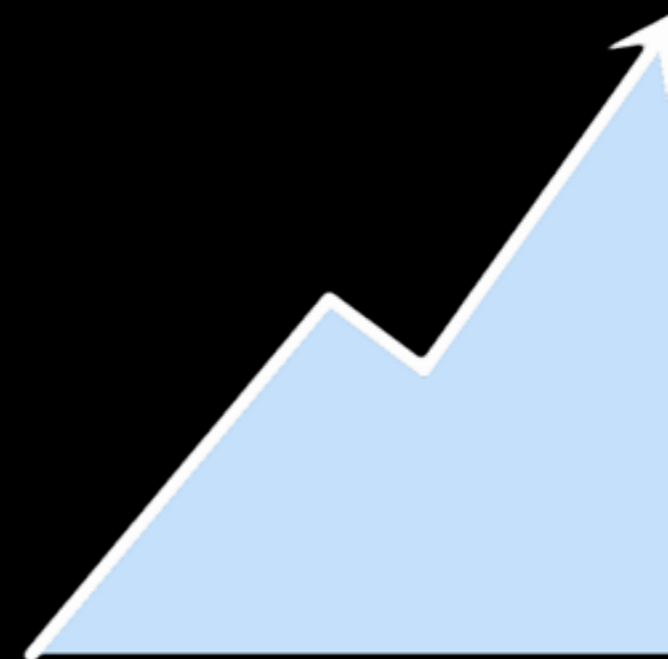

2012 Edition

How to Make Money in Value Stocks

Everything you need to know to about the most
profitable investing strategy ever



stockopedia

Edward Croft, Ben Hobson & David Brickell

HOW TO MAKE MONEY IN VALUE STOCKS

by Edward Croft, Ben Hobson and David Brickell

First Edition published by Stockopedia Ltd 3rd April 2012

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In other words, if you do decide to trade with value investing principles, be aware of the risks, do your own research and seek professional advice!

Introduction

There are very few certainties when it comes to stock market investing, but here is one: in the coming months a previously unloved, misunderstood and undervalued company will make its shrewd shareholders a lot of money. It won't be the only one.

That prediction might be a little awry. While the expected surge in value may be months away, it could be weeks or even years. But for those investors that have spotted a pound that is currently valued at pence, timing isn't quite as important as inevitability. Everyone else has got it wrong and sooner or later that stock will fly.

Very few investors can resist the idea of seeking out a bargain but most have no idea how to do it. Too often, new investors in the stock market are seduced by the latest frothy IPO or the hot exploration stock that all the brokers are talking about. This book is about how you can make better profits in the market by focusing on neglected value stocks using some simple, modern and effective techniques.

We will explore the origins, the concepts and the specific methods used by some of the world's most famous Value Investors as a means of generating phenomenal wealth. At a time when investors are bombarded by information at an almost unbearable rate, this book is a critique of what works and why and how individual investors can apply 'City grade' information, thinking and investment models to their own advantage.

More specifically, this book has been produced for subscribers of Stockopedia (www.stockopedia.co.uk), an web application and reference that gives individual investors the upper hand by providing all the essential data, analysis and fundamental metrics they need to make well-informed decisions.

All of the strategies discussed in this book are being tracked in real-time as part of our Stock Screening Centre, in some cases for the first time publicly for UK stocks. At Stockopedia, we are ardent believers in learning to make smarter investments and aim to arm investors with the knowledge, data, resources and ideas that they need to make money in any market. We hope that this guide helps you in your value investing journey.

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Who, Why, What?

Why value investing is the most profitable investing strategy of all time, who are its greatest advocates and what the investment experts are now getting so wrong...

What is value investing?

*“Nowadays people seem to know the price of everything and the value of nothing.” **Oscar Wilde***

Stock market investors can broadly be defined as fitting one of a handful of categories, among them: value, growth, momentum and income. There are a thousand analysts who would beg to differ on that simplification so we will qualify it by saying that there are off-shoots to all of those categories, and in some cases it's difficult to try and separate them. After all, who wouldn't want to buy a cheap stock? And who wouldn't be on the look out for a business, and a stock price, that will grow?

Nevertheless, at its core, the value investing school is a distinct philosophy which involves searching for what is out of favour in order to find a bargain.

Value investing is simple...

For investors that are about to embark on a value investing strategy, there are two pieces of good news. The first is that bargain hunting, or buying nickels for dimes, or however you like to view it, is among the

most clear-cut strategies in investing. No-one can argue about the objective or the intended result – it is the search for cheap stocks that have been mispriced and will eventually rise in value and deliver a profit.

The second piece of good news is that there are really only a handful of key principles that a successful Value Investor needs to focus on when considering a purchase. Firstly, what is the stock's intrinsic value (or how much is it really worth?) and secondly, are you leaving yourself a wide enough margin of safety to protect yourself from the vagaries of unknowns to ensure a good return?

So the basics are... pretty basic. If you compare the price of a stock with your confident valuation of its true worth and find you can buy it comfortably lower than your required margin of safety then you may be on to a winner.

...but it's not easy...

While that may all sound simple, value investing is much harder than it looks because it runs against almost all human instincts. Investors feel safest when buying the same stocks as everyone else and have a tendency to favour glamour stocks in fast growing industries. Who wants to be the guy holding the bombed out engineering stocks when everyone else is buying Apple?

It is hard to develop a conviction about buying companies experiencing hard times, operating in mature industries, or facing similarly adverse circumstances and even harder to hold onto them in the face of consensus opinion and market volatility.

...which is precisely why it works...

But it's precisely these behavioural tendencies that lead to so many investors over-reacting and driving prices down so low in value stocks. It is this over-reaction that leads to under-valuation which in turn provides the profit-making opportunity for the Value Investor.

As a result, the aspiring Value Investor must become immune to these emotions and learn to be highly contrarian and stoic in nature, buying when the irrational 'Mr Market' is selling and selling when he starts to agree with him. It is this contrarian nature that leads to significant payoffs as we shall see.

There are many approaches to harvesting value profits...

In the coming chapters, we will explore each of these key principles and ideas in greater detail, identify some shortcuts to finding value stocks and consider five different value investing strategies that have been developed by some of the world's most successful investors. Value Investors can be broadly defined as fitting one of two distinct categories depending on how they tackle the job at hand – they are either 'value hunters' or 'value farmers'. While hunters such as Warren Buffet focus on making large, highly focused bets on single stocks, the farmers take these value investing ideas and apply them in a broader portfolio fashion in order to 'harvest' value-based profits from the market in a systematic fashion.

While contradictory, these approaches have been shown to be equally successful in generating profits for their adherents and as a result will ensure that their authors - including Ben Graham, Joseph Piotroski,

Josef Lakonishok, Joel Greenblatt and Warren Buffett - will continue to be hugely influential figures in investing circles.

But before we get into the detail of the techniques, it will pay dividends to dig into the track record of value investing's most famous sons. The frankly astonishing profits of this group of investors illustrate why value investing is the King of all stock market strategies.

How profitable can value investing be?

"I always knew I was going to be rich. I don't think I ever doubted it for a minute." Warren Buffett

To answer this question it pays to go back to the beginning. While value investing has roots that are as old as the Bible, it wasn't until the 1920s that professionals and academics began documenting their theories and techniques. Many of those approaches have stood the test of time and elevated their practitioners to near legendary status as some of the wealthiest men of any day.

Introducing an academic that made a fortune...

To start anywhere, you have to start with Benjamin Graham. Graham is widely regarded as the Father of value investing as well as the whole industry of Security Analysis. This influence stems not only from his published works but also from the eventual fame and fortune of the pupils that he taught at Columbia University.

In 1926, Graham started a partnership with Jerome Newman which lasted until his retirement in 1956. Due to his personal experiences with the great crash of 1929, he became pre-occupied with value and safety

and while lecturing at Columbia University published 'Security Analysis' with a colleague David Dodd. It was a seminal moment. In the aftermath of the Great Depression, the two men deconstructed some early myths about how companies should be valued and urged savvy investors to scrutinise out-of-favour and apparently mispriced stocks for opportunities.

Graham's philosophy was to invest systematically in extremely undervalued stocks seeking protection from individual bankruptcy by introducing significant diversification and buying stocks at deep discounts to their true worth. It is thanks to Graham that we have a whole catalogue of bargain stock strategies at our disposal with such obscure titles as 'Net Nets' and 'NCAV' and a whole ream of other concepts that we'll explore, including Margin of Safety and Mr Market.

In spite of being personally wiped out in the 1929 stock market crash, by the time the Graham-Newman partnership was closed it had delivered an average 17% annualised return to investors, outperforming the market by a considerable margin and making the elderly Graham an exceptionally wealthy man.

A lucky class...

While Graham was clearly an exceptional investor, it was those that studied under him that really shone. His most famous student was a man that needs no introduction – Warren Buffett – who is now one of the richest men in the world. Famously, having taught Buffett classes at school, Graham turned him down for a job, but Buffett persisted and eventually joined the partnership where he worked side by side with a few others by the names of Walter Schloss and Tom Knapp. These

individuals who worked with Graham and others who studied under or were influenced by him (such as Bill Ruane who managed the Sequoia fund) are all said to be schooled in ‘Graham and Dodd’ style value investing.

Is it likely that a group of individuals from the same school of thought could all go on and beat the market for over a generation? For much of the last 25 years, academics have claimed that it would be impossible and that anybody who has managed it must just be lucky. Nobel Prizes have been lauded on these academics who have ‘proven’ that markets are efficient. They claim that the market is a ruthless mechanism that acts to instantly arbitrage away mispricings so that the current price of a stock is always the most accurate estimate of its value. If this so-called “Efficient Market Theory” is correct, then what hope can there be for stock pickers versus mechanical low cost index funds that track the market?

Talented coin flippers?

Astonishingly, in spite of the incredible assumptions on which this concept is based, the idea and maths of efficient market theory has had a major impact on the professional investment community. The growing denial that markets can indeed offer up gross mispricings led to Warren Buffett weighing into the argument in 1984 with a first class article entitled “The Super-Investors of Graham and Doddsville”.

In it, he demolished the academic theorists with an extended monologue explaining why the performance history of Value Investors like Walter Schloss and Charlie Munger simply could not be explained by luck.

He asked investors to imagine that every American starts with a dollar in a coin flipping competition. After every round they lose or win that dollar. In only 20 rounds the 225 million who started would be reduced to just 215 people holding all the cash and inevitably feeling a bit pumped up and egotistical. Now these academics would have you believe that you’d get the same results by re-running the experiment with orang-utans, but Buffett asked: what if you found that all those orang-utans came from the same zoo and had been trained by the same zoo-keeper? You’d probably want to find out more about his methods.

Investor	No. of Yrs	Annualised Return	S&P / Dow Return
Buffett Partnership	13	29.5%	7.4 % (Dow)
Walter Schloss	28	21.3%	8.4%
Tweedy Browne	16	20%	7%
Bill Ruane	14	18.2%	10%
Charlie Munger	14	19.8%	5.0% (Dow)
Pacific Partners	18	32.9%	7.8%
Perimeter Investments	18	23%	7.0 % (Dow)

“I think you will find that a disproportionate number of successful coin-flippers in the investment world came from a very small intellectual village that could be called Graham-and-Doddsville.”

In the paper, Buffett shows the track records of each of nine of these disciples of Graham and Dodd showing that they all generated annual compound returns of between 18% and 29% over track records lasting between 14 to 30 years. Is it likely that these individuals from the same school of thought could all beat the market over a generation if the stock market was a place of luck? Warren Buffett doubted it most eloquently when he said *“I'd be a bum on the street with a tin cup if the market was always efficient”*.

Eventually even the academics start to cave in...

Despite being generally deaf to Buffet's argument, the academic consensus on efficient markets began to crack in 1992 with a paper by Fama and French at the University of Chicago Booth School of Business. They found that small cap stocks with a low price-to-book value (i.e. value stocks) produced a basket of shares that outperformed the rest of the market, effectively admitting that markets aren't entirely efficient.

Two years later, a paper by Lakonishok, Shleifer, and Vishny split US stocks into 'value' and 'glamour' segments and concluded that, pretty much whatever your definition of value was, value stocks consistently outperformed glamour stocks by wide margins. Following up on this and other studies, Lakonishok concluded that value investing was likely to remain a “rewarding long term investing strategy”. As we will see later Lakonishok has certainly put his money where his mouth is – he has

turned his hand to running his own fund management firm with astonishing results.

Responding to criticism that maybe Lakonishok's findings were just a US phenomenon, the Brandes Institute in 2008 expanded on his work done to include developed markets in North America, Europe, and Asia. They found that value stocks did well on an individual country basis and in the aggregate, noting that while the degree of outperformance varied, the most significant finding was its consistency. Across valuation metrics, across time, across regions and across market capitalisations value won out! This was confirmed when Robery Kahl, of US fund manager Sabino Asset Management, scrutinised ten academic studies on the subject and found in all ten cases that the value portfolios outperformed the growth portfolios.

So, in conclusion, there has never been any shortage of so-called experts, gurus, charlatans and rogues to advise the unsuspecting investor on failsafe ways to make money on the stock market. You should approach such claims with the scepticism they deserve. In the case of value investing, however, the weight of historical and academic evidence is really overwhelming in support of its effectiveness. In the next chapter, we'll consider why this is.

Further Reading

[The Super Investors of Graham and Doddsville](#) - Warren Buffett

[What has worked in investing](#) - Tweedy Browne

Why does value investing work?

“Take all the fools out of this world and there wouldn't be any fun living in it, or profit.” Josh Billings

So value investing works. It's been proven in the wild, it's been tested in the lab, it's made people rich... but if everyone knows that past performance is no guide to the future how can we be so sure that it's going to work that we are willing to risk our capital?

The reason value investing will continue to work is because human beings are fundamentally emotional and social creatures that exhibit predictably irrational behavioural tendencies. Until the day (god forbid!) that man and machine become one and these tendencies are 'debugged' from our habits, value opportunities and mispricings will continue to be available to in-the-know contrarian investors.

Why do stocks become excessively cheap?

There has been a flow of research in recent years into an arcane field that aims to understand how human beings make decisions and why they make them. So called 'Behavioural Science' has over the last 30

years shown that we are not as rational as we would like to think. In fact we suffer from a whole ream of persistent mental biases and judgemental errors that include:

- **Overconfidence in our abilities**

One study has indicated that 93% of drivers believe that they are better than average which is clearly absurd. Stockpickers are no different.

- **Projecting the immediate past into the distant future**

Why is it only when a stock is going up that everyone wants to buy it? More investors want to buy it the more expensive it gets.

- **An excessive aversion to taking losses**

People hang on to their losers and sell their winners!

- **Herd behaviour driven by a desire to be part of the crowd**

This leads in its extreme to bubbles like dot com mania and the shunning of stocks at new lows.

- **Misunderstanding randomness**

Seeing patterns that don't exist ... Tea Leaves, Candlesticks and Ichimoku Clouds anyone?

- **“Anchoring” on irrelevant information**

If you've ever seen the maven for a particular stock banging on in a bulletin board you'll understand this one!

These 'bugs' in the human mind lead us into making systematically bad decisions at all points in our lives but especially in our financial lives. It's even been shown that Market Professionals can be more prone to biases than individuals due to the extra information that flows on their terminals and the general over-confidence that comes with the territory. When such vast sums of money are being poorly allocated by error-

prone individuals mispricings are bound to crop up which provide opportunities for the more stoic Value Investor.

These mispricings happen both on an individual stock by stock basis but also to the market as a whole. The tech bubble of the late 1990s and the more recent credit bubble/crunch showed how the market is subject to fads, whims and periods of irrational exuberance and despair. Value Investors need to cultivate and practice the ability to stand apart from the crowd and develop a contrarian instinct to take advantage of these fads, rather than being seduced by them.

For these reasons, Warren Buffet has observed that investing is not a game where the guy with the 160 IQ beats the guy with the 130 IQ. Instead, *“once you have ordinary intelligence, what you need is the temperament to control the urges that get other people into trouble in investing”*. As a Value Investor, you have to buy whatever other people are selling and when other people are selling it, which is a psychologically difficult thing to do – “value managers have to understand their biases. They know they are scared, but they have to also train their brain to buy at very scary moments, because that’s what really allows people to reap maximum rewards.”

What real world catalysts drive stocks to extreme values?

Investors have a natural tendency to over-react or under-react to news about stocks which can act as the key drivers of pushing stocks to extremes. As Lakonishok explained in his 1993 paper entitled Contrarian Investment, Extrapolation, And Risk, we tend to extrapolate the past too far into the future, even when strong historical growth rates are unlikely to continue. Investors tend to wrongly equate a good company with a

good investment irrespective of price, to ignore statistical evidence and to develop a ‘mindset’ about a company. If you apply that notion to the idea that value stocks generally have an air of pessimism about them, then it becomes clear why stocks can become undervalued.

Adib Motiwala of Motiwala Capital suggests the following list of reasons as to how a stock may become cheap. These are the kinds of news events that Value Investors should be keeping an eye open for on the newswires.

- Missing broker expectations of profit forecasts
- Neglect from investors and analysts
- A history of losses, fraud or accounting issues
- Management issues – poor execution / key executive resignations
- A complicated or unloved business operating in an out of favour industry (eg: Waste Management)
- Painted by a common brush (e.g. oil stocks during the BP crisis)
- Cyclical stocks at the bottom of the business cycle
- Forced selling of securities by funds (i.e. removal from an index or credit crunch)

In some cases, that re-rating will reflect an underlying permanent change to the fundamentals of the business but, in many cases, it won’t. This is what creates the opportunity for the patient investor.

How do value stocks get re-priced?

Recognising the fallibility of the market of course raises the question of how this mispricing eventually gets corrected. Interestingly, the process by which value is realised or crystallised is one of the great riddles of the

stock-market. As Graham noted in his testimony of the Senate Banking Committee back in 1955, while it may sometimes take the market an inconveniently long time to adjust the price level of a stock back towards its intrinsic value, the beauty of the market is that it usually does get there eventually:

Chairman: *“When you find a special situation and you decide, just for illustration, that you can buy for 10 and it is worth 30, and you take a position, and then you cannot realize it until a lot of other people decide it is worth 30, how is that process brought about – by advertising or what happens?”*

Ben Graham: *That is one of the mysteries of our business, and it is a mystery to me as well as to everybody else. We know from experience that eventually the market catches up with value. It realizes it one way or another.*

Part of the explanation is tied up with a concept known as ‘mean-reversion’ or the tendency of values to return to their average level. When investors and analysts put a value on a stock or share, they have a natural tendency to project an expected future growth rates for the company. Because making those predictions is notoriously difficult, they will often extrapolate from past growth rates.

However, this process of estimating profit growth ignores the tendency of growth rates to return to average levels. In other words, companies or sectors that are growing fast will inevitably see earnings growth slow down as competition from other firms catches up. By contrast, slow

growth companies and sectors generally see earnings begin to grow faster as management teams take action to operate more efficiently.

The result is that investor expectations play catch-up as the earnings growth rates of both high and low growth companies return to their averages over time. Companies that were temporarily unloved can display extraordinary turnarounds in their share prices in response to these pivotal changes in expectations, handsomely rewarding the shrewd, contrarian players in the market.

Of course there are catalysts other than just stock market investors who notice when stock values get out of whack. Company management themselves can of course start ‘share buyback’ campaigns or competitors can notice their cheaply valued peers and make a takeover bid. Remember everyone wants to make a buck, and when people see a dollar lying on the ground they tend to be incentivised to pick it up.

How long can it take for value to ‘out’?

Ben Graham was always the master of a good analogy, stating that in the short term the stock market behaves like a voting machine, but in the long term it acts like a weighing machine. In other words value always outs eventually. But how long should it take before you throw in the towel?

Joel Greenblatt in his excellent “Little Book that Beats the Market” has some observations. In backtesting his ‘magic’ value investing formula he found that it could underperform over 1 or 2 year periods but not once in any 3 year period over 17 years did the strategy underperform.

It is the fact that value investing does indeed have periods of underperformance that gives all the rest of the investment world itchy feet. 6 months of underperformance is too much for a fund manager to bear in an environment where he's constantly being graded by quarterly performance milestones. It doesn't take much for him to throw in the towel on value investing and chase momentum or glamour strategies in the hope of a short term gain.

Value Investing rewards patient investors who have the tenacity and contrarianism to wait out these periods of underperformance for the value to out. Bargains are not hard to find, the difficulty is in sticking to them when all around you are telling you to throw in the towel. As Warren Buffett has said "*I don't try to jump over 7-foot hurdles: I look for 1-foot hurdles that I can step over*"... the difficulty is that those 1-foot hurdles lie far off the beaten track.

So what have we learnt?

As a strategy, value investing scores highly on the basis of its fundamental and psychological components. Academic research has shown that value portfolios frequently outperform stocks selected on the basis of growth or momentum. Meanwhile, the natural tendency of investors to, a) be generally negative about value stocks and, b) over-react or under-react to news about stocks, means that market psychology is a major boon for value investing. For those prepared to let their natural instincts take over and extrapolate too much from the past to predict the future, this is a problem. But for the contrarian Value Investor that is aware that others are contributing to the mispricing of stocks, knowledge is power.

So, if you don't overtrade, have the discipline to hunt where others don't look, invest time and money in good tools, and have a self-critical learning process that allows you to overcome your natural behavioural biases, then the potential to profit is enormous!

Further Reading

[The Little Book of Behavioural Investing](#) - James Montier

[Thinking Fast & Slow](#) - Daniel Kahnemann

Why can't someone do value investing for me?

“The secret of being a top-notch con man is being able to know what the mark wants, and how to make him think he's getting it.” Ken Kesey, One flew over the cuckoo's nest

So with compelling evidence of the power of value investing can your fund manager be trusted to deliver the goods? Unfortunately, despite the growing evidence that value strategies work, it is unlikely that a well thought-through value-based investing approach is being put to work for you and your family or anyone else that saves money in a pension or unit trust or investment fund.

Indeed in an age of high-tech, high-speed trading, herd behaviour and information overload, the evidence overwhelmingly suggests that value investing simply doesn't fit the mould for many institutional money managers and that Graham & Doddsville Value Investing managers are becoming increasingly hard to find.

Who hires these guys?

The extraordinary truth is that 75% of actively managed funds underperform their benchmark over the long term primarily due to high fees. Often the real cost of owning a fund is not published - once all these hidden fees are added to the published expenses the total annual cost of owning a fund can be over 4%.

As most fund managers typically make their money on fees rather than from making good investments their incentives are skewed towards gathering more money to manage rather than focusing on good investment performance. The result? As their funds grow they have a tendency to chase glamour and momentum in large cap stocks rather than aiming at small cap value that both the Value Investors AND the academics have now shown provide the best returns in the market. Herd mentality takes over and your savings pay the price of mediocrity.

The pressure on fund managers to report consistent quarterly returns if they want to keep their jobs has a terrible impact on their holding periods. They regularly indulge in 'window dressing' to make it appear that they were smart in holding the glamour stocks and are typically holding stocks for shorter and shorter time horizons than are necessary for value strategies to pay off.

More generally, a mountain of research suggests that fund management is riddled with bad decision making, herd behaviour and excessive compensation leading to significant underperformance in the long term.

The only sane approach is to do it yourself

All this adds up to the fact that you can be fairly sure that no-one is applying the techniques of the world's greatest investors on your behalf. So, if you want to reap the rewards you may have to do it yourself.

If you really don't have the time to spend on your own financial welfare the simple way to ensure you beat the majority of fund managers is by investing in a tracker fund. Better than that you can invest in a growing number of Exchange Traded Funds that aim to follow the value investing creed.

But individuals who do have the time and discipline to do their own research are generally going to be better off taking investing matters into their own hands. Forget all the media noise about ruthless high-speed markets and fearsome traders working to arbitrage away mispricing. There are cheap, neglected, misjudged stocks out there and with the right techniques up your sleeve it isn't so hard to find them and profit from them.

Further Reading

[The Little Book of Common Sense Investing](#) - John Bogle

[Where are the customer's yachts](#) - Fred Schwed Jr

[Free Capital](#) - Guy Thomas

Key Ideas

**The foundations, principles
and key ideas of value
investing**



Five key principles

*“Rules are not necessarily sacred, principles are.”
Franklin D. Roosevelt*

We have been discussing the paradox that while value investing is the tried and trusted method of some of the world’s most famous, wealthy and influential stock buyers, for some reason it is still widely overlooked by the majority of institutional investors. We argue that this short-sightedness of the professionals works to the advantage of the motivated and determined individual investor.

But where to begin? Value Investors worldwide disagree on many aspects of investing, but rarely on some fundamental principles:

1. Price is not value
2. Mr Market is a crazy guy
3. Every stock has an intrinsic value
4. Only buy with a margin of safety
5. Diversification is the only free lunch

Key Principle 1: Price is not value

The first key lesson for the would-be Value Investor is that the worth of a business is independent of the market price. A stock quote from day to day is only how much just the few shareholders who bother to trade that day decide their investment is worth. It is categorically not the worth of the entire company.

This is the reason share prices so often spike when being bid for by an acquirer, who generally has to pay something closer to fair value. Investors should understand that the share price is like the tip of an iceberg – you can see it, but you’ve no idea how big or small the iceberg is below the surface unless you put on your dive suit.

As Ben Graham observed: “price is what you pay, value is what you get”, meaning that big swings in the market don’t necessarily mean big swings in value. When you buy a stock, you are buying ownership of a business with real assets. Should that really change just because the market is moody or plagued by worries about liquidity? As long as the fundamentals are sound, the daily ups and downs in the markets should not alter the value of what you own.

Key Principle 2: Mr Market is a crazy guy

In Graham’s “The Intelligent Investor”, a book which is required reading for all new analysts at top investment firms, the author conjured his now infamous parable of Mr Market. He asks the investor to imagine that he owns a small share of a business where one of the partners is a man named Mr Market. He’s a very accommodating man who tells you every day what he thinks your shares are worth while simultaneously offering to buy you out or sell you more shares on that basis. But Mr Market is

something of a manic depressive whose quotes often bear no relation to the state of the underlying business – swinging from the wild enthusiasm of offering high prices to the pitiful gloom of valuing the company for a dime. As he explains, sometimes you may be happy sell out to him when he quotes you a crazily high price or happy to buy from him when his price is foolishly low. But the rest of the time, you will be wiser to form your own ideas about the value of your holdings, based on updates from the company about its operations and financial position.

While some may claim that the markets today are a very different beast to those in which Graham lived due to the dominance of algorithmic trading and risk on/risk off mentalities, the truth is that the extremes of sentiment in stocks and markets are timeless and still evident for all to see – and it's those extremes that create the opportunity for alert Value Investors.

Key Principle 3: Every stock has an intrinsic value

The critical knowledge an investor needs to take advantage of Mr Market's behaviour and inefficient prices is an understanding of the true value of a business. The true value of a business is known as its 'intrinsic' value and is difficult, though not impossible, to ascertain.

Most investors preoccupy themselves with measures of 'relative' value which compare a valuation ratio for the company (perhaps the price-to-earnings, price-to-book or price-to-sales ratio) with its industry peer group or the market as a whole. Inevitably though, something that appears to be relatively cheap on that basis can still be over valued in an absolute sense, and that's bad news for the Value Investor who prefers to tie his sense of value to a mast in stormy waters.

Intrinsic valuation looks to measure a company on its economics, assets and earnings independently of other factors. But be warned, establishing an intrinsic valuation is not straightforward and there are multiple, contradictory ways of calculating it. We will explain the ins and outs of valuation techniques in the following chapters for those that wish to delve further into the dark arts of valuation.

Key Principle 4: Only buy with a margin of safety

When Warren Buffett describes a phrase as the "three most important words in investing" every investor owes it to himself to understand what it is. The words "Margin of Safety" come from the writing and teachings of Graham and have ensured that his followers have prospered in many market environments. But what does it mean and why is having a large margin of safety so important?

Seth Klarman, one of the modern era's greatest Value Investors, defines a margin of safety as being "*achieved when securities are purchased at prices sufficiently below underlying value to allow for human error, bad luck or extreme volatility.*"

In other words, once you are certain that you have a fair estimate of a share's intrinsic value you must only buy the share when you are offered a price at such a discount to that value that you are safe from all unknowns. The difference between the market price and the intrinsic value is the margin of safety. As Buffett once opined:

"You don't try and buy businesses worth \$83 million for \$80 million. You leave yourself an enormous margin. When you build a bridge, you insist it can carry 30,000 pounds, but you only drive 10,000 pound trucks across it. And that same principle works in investing."

Valuation is an imprecise art and the future is inherently unpredictable. Having a large margin of safety provides protection against bad luck, bad timing, or error in judgment. Given that the investor is using his own judgement, the technique introduces a cushion against capital loss caused by miscalculations or unpredictable market movements (i.e. the value of the stock falls further).

Opinions are divided on how large the discount needs to be to qualify the stock as a potential 'buy'. Indeed, the bad news is that no-one really agrees on this – for two reasons. First, as we have already discussed, determining a company's intrinsic value is highly subjective. Second, investors are prepared to be exposed to different levels of risk on a stock by stock basis, depending on how familiar they are with the company, its story and its management.

In his writings, Graham noted that: “the margin of safety is always dependent on the price paid. For any security, it will be large at one price, small at some higher price, nonexistent at some still higher price”. He suggested looking for a margin of safety in some circumstances of up to 50% but more typically he would look for 33%.

Key Principle 5: Diversification is the only free lunch

This is a topic which is so important that we have dedicated an entire chapter to it later in the book. Diversification is incredibly simple to understand and plainly common sense – you shouldn't put all your eggs in one basket – but in practice (like everything that is supposed to be simple) it seems to be extremely difficult to pull off. The majority of individual investors are massively under-diversified, often with an average portfolio size of only four stocks.

The value investing camp splits into two on this topic. Fundamental value hunters who follow Warren Buffett tend to fall into the 'focus portfolio' camp believing that you should put all your eggs in just a few baskets and watch them like a hawk. While it may be true that 71% of the benefits of diversification do come from the first five stocks in a portfolio, this kind of attitude requires a great gift for security analysis and is particularly risky given the high exposure to stock specific disasters – the kinds that value stocks are prone to.

An alternative approach is that espoused by the more 'quantitative' value farmers who seek to 'harvest' the value premium from the market. As we shall see a little later, in his deep value strategies Graham recommended owning a portfolio of 30 bargain stocks to minimise the impact of single stocks falling into bankruptcy or distress, while Joel Greenblatt recommends a similar level of diversification when following his Magic Formula strategy.

Making sense of value investing principles

In Chapter 1 we discussed how it was good news for individual investors that making money using a value investing strategy requires the mastery of just a few principles. What should be clear now is that while intrinsic value and margin of safety make perfect sense in the context of value stock selection, defining precisely how to execute each principle requires some careful thinking and the acceptance that some nuances can only be decided by the interpretation and preference of each investor.

Further Reading:

Mr Market: Chapter 8 of [The Intelligent Investor](#) - Ben Graham

Mr Market: Chapter 20 of [The Intelligent Investor](#) - Ben Graham

The Hunter or the Farmer - choose your approach

“It is thought that the changeover from hunter to farmer was a slow, gradual process.” Stephen Gardiner

Over the last hundred years the players in the stock market have had a fairly standard approach to reaping their profit - that of the stock picking ‘hunter’. But in the last 30 years, as the technologies of data handling and computation have improved, a new breed of market player has arrived, the quantitative ‘farmer’ seeking to harvest rather than hunt profits. The last 5 years have seen such rapid advances in modern technologies that the dominance of the hunter is now seriously under threat. Financially it may pay off enormously to ask yourself whose side you are on.

The Hunter – or fundamental stock picker

Everyone loves to pick stocks - who doesn't enjoy getting deeply ensconced in the story of a stock and seeing it multi-bag? There's nothing as wonderful as being right and knowing that you knew it all along. And fortune has followed for the investors who've been skilful enough to pick and hold onto the right stocks for an entire career. Such luminaries as Anthony Bolton, Bill Miller or Warren

Buffett have become legends in our time as the long term greats of the art.

The classical stock-picking ‘hunter’ will narrow the terrain down to a manageable collection of stocks and start analysing each individually. These kinds of investors have been known to “start at the A’s” and work their way systematically through the market until they find prey worthy of closer targeting. Their primary focus is on the company where they perform in-depth analysis both of its financial situation but also of more qualitative aspects such as analysis of its sector peer group, economic resilience and moat.

Frankly the majority of investors see themselves as part of this group. There is certainly a romantic ideal associated with the hunter archetype which goes so much deeper than just the sheer thrill of the chase. It goes so deep that the fund management group ‘Artemis’ used the hunter archetype as its marketing emblem for many many years.

The Farmer – or quantitative portfolio investor

There is though a rapidly growing group of investors that are far more interested in ‘characteristics’ than companies who seek to ‘harvest’ systematic mispricings from the rough of the stock market through quantitative techniques. In a stock market that's predominantly dominated by the far more numerous hunter, these quants have found they have a lot of easy crop. Hunters tend to be a very emotional lot prone to both chasing prey to unsustainably lofty heights and discarding them too hastily aside which allows the quants to profit from their over reaction.

While many think of quants as modern hedge fund employees even the father of value investing, Ben Graham, can be regarded as one. Graham bought up the kinds of stocks you wouldn't even wish on your mother in law seeking safety in numbers. Individually these stocks looked like train wrecks, but collectively they offered him something special - excessively beaten down assets selling at less than their liquidation value which were in aggregate likely to be re-rated.

This approach has been mirrored far more often in recent years by a variety of quantitative techniques such as those espoused in the 'Magic Formula', designed to pick up good cheap companies, or the scoring techniques of Joseph Piotroski which aim to highlight companies that have a high probability of turnaround. While these simple techniques (detailed in Part 4) can work well, hedge funds have taken the quantitative model and put it on steroids - targeting all kinds of ethereal areas to profit from that we won't go into here.

Are the quants winning?

Recent times have seen some star fund managers come crashing down to earth. Many have had calamitous years, some of whom have been blaming an underlying change in the market dynamic. Could it be the terrain of the stock market is being changed so much by the growing dominance of the new quants and collective investments like exchange traded funds that it's getting far less safe for the traditional hunter?

You don't have to be a hero...

The financial world, press and media tend to glamorise the approach of the stock picking 'hunter' - the Warren Buffett's of the world - which contributes to so many individual investors over-rating their abilities and becoming easy prey of the farmers. The irony and evidence is that many investors really do not have the time nor the resources to perform the kind of analysis that can turn stock picking into a highly profitable activity in this changing market environment.

Under this canopy of persistent underperformance, the first step a recovering stock picker can take is to redefine their approach to their search process. As we should all know tips, TV and brokers tend to funnel naive investors into extremely low probability story stocks, and while this can be a fun ride it often ends all too familiarly. A better approach is to start by applying some proven quantitative criteria to narrow down the universe of stocks to a starting list to pick their stocks from and buying them as a basket.

Be careful not to be a hunter-gatherer...

But even then investors have to be careful. One of the findings in recent years is that individuals who buy individual stocks off these lists will time and again favour names that are familiar to them and shun the strangers. As has been highlighted by Joel Greenblatt, in general they are picking the wrong stocks! If you take the profits of any portfolio strategy, often 20% or more can be attributable to a single stock, which is regularly the least likely of the basket to be chosen by a stock picker!

James Montier, who made his name with a series of famous research papers at Soc Gen, wrote an ‘Ode to Quant’, which showed that quant models in many fields (e.g. medical science) tend to provide a ceiling from which we detract performance rather than a floor on which we build. The paper asks whether investors in aggregate might do far better in their stock picking if they essentially gave it up and deferred to the models.

“Long-time readers may recall that a few years ago I designed a tactical asset allocation tool based on a combination of valuation and momentum. At first this model worked just fine, generating signals in line with my own bearish disposition. However, after a few months, the model started to output bullish signals. I chose to override the model, assuming that I knew much better than it did (despite the fact that I had both designed it and back-tested it to prove it worked). Of course, much to my chagrin and the amusement of many readers, I spent about 18 months being thrashed in performance terms by my own model.”

While giving up on individual stock picking may seem an extreme proposition, and one opposed to the activities and instincts of the vast majority of investors, there’s a growing body of evidence to suggest that, for many, it could be the smartest and most rewarding choice they can make.

Further Reading

[The Little Book that Beats the Market](#) – Joel Greenblatt

[An Ode to Quant](#) – James Montier

Six essential ratios for finding cheap stocks

“We don’t have to be smarter than the rest. We have to be more disciplined than the rest.” Warren Buffett

With the art of picking lowly valued stocks playing such a central role in any value investing strategy, it is essential for the investor to get acquainted with the necessary tools to make a proper assessment. While not many investors managed to make it to accountancy school, there are a few shortcuts available to understand a company’s valuation and its business quality. These generally come down to understanding a few simple ratios. The next 2 chapters will focus on how to isolate both cheap stocks in terms of valuation ratios, but also good stocks in terms of their operating ratios.

When an investor buys a company he’s buying the company’s assets but also a claim on the future earnings of that company. As a result it’s unsurprising that the top two things that Value Investors try to do is to buy **assets on the cheap** or **earnings on the cheap**. While some financiers specialise in evaluating these things in extremely complicated ways, plenty of star investors such as David Dreman and Josef Lakonishok have had great success just

focusing on the simplest ratios like the P/E Ratio and P/B Ratio which we describe in this chapter.

When using valuations ratios such as these its important to take a couple of things into account. Firstly, investors should compare the ratio for the company in question against the market and the sector peer group but also against the company’s own historical valuation range. By doing this the investor can not only find cheap stocks in the current market environment but also make sure they aren’t being caught up in frothy overall valuations. There are risks to using these kinds of ‘relative valuation’ ratios that we’ll discuss in a forthcoming chapter, but nonetheless the following six ratios are essential weapons to keep sharpened in the armoury.

Price to Book Value - buy assets on the cheap

The P/B ratio works by comparing the current market price of the company to the book value of the company in its balance sheet. Book Value is what is left over when everything a company owes (i.e. liabilities like loans, accounts payable, mortgages, etc) is taken away from everything it owns (i.e. assets like cash, accounts receivable, inventory, fixed assets).

It is worth noting that this book value often includes assets such as goodwill and patents which aren’t really ‘tangible’ like plant, property and equipment. Some investors remove such ‘intangible’ assets from calculations of P/B to make the more conservative Price to Tangible Book Value (P/TB).

The P/B ratio has an esteemed history. As it doesn't rely on volatile measures like profits and has a hard accounting foundation in the company's books, it has often been used as the key barometer of value by academics. The lowest decile of P/B stocks, similarly to low P/E stocks, have been found to massively outperform the highest P/B stocks by an average of 8% per year highly consistently. Most Value Investors try to buy stocks at a discount to their Book Value – or when the P/B ratio is at least less than 1.

We'll be looking at several of Ben Graham's more obscure and arcane ways of buying assets on the cheap in the Bargain Strategies section later in the book.

Key Stockopedia Subscriber Tip

All the ratios discussed in this chapter are available on each Stock Report alongside 'traffic lights' which visually indicate the rank of the relevant ratio versus the stock's sector and market peer groups. These ranks can quickly help Value Investors ascertain whether stocks are cheap enough for further analysis. [Click here](#) for more info on the Stock Reports.

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Price to Earnings Ratio (P/E) – buy earnings on the cheap!

Much maligned by many as an incomplete ratio that only tells half a story, the P/E ratio is nonetheless the most accepted valuation metric among investors.

By dividing a company's stock price by its earnings per share, investors get an instant fix on how highly the market rates it. It is effectively shorthand for how expensive or cheap a share is compared with its profits.

Celebrated contrarian investor David Dreman put the P/E at the top of his list of criteria for selecting value stocks. In a study that spanned from 1960 through to 2010 Dreman found that stocks in the lowest 20% of PE ratios outperformed high P/E ratio stocks by an astonishing 8.8% per year! Not only that but he found that low P/E stocks outperformed in 70% of calendar years. Investing in such a strategy might miss the glamour growth 'stars' but who wouldn't want to place their bets on those kinds of odds!

The ultimate value investor's take on the P/E is known as the **CAPE** or **cyclically adjusted P/E ratio**. It takes the current price and divides it by the average earnings per share over the last 10 years. Sometimes current earnings can be overly inflated due to a business boom so the CAPE gives a much more measured view. Originated by Ben Graham and popular in the blogosphere it's an excellent part of the value investors toolkit.

The trouble though with the P/E ratio in general is that it doesn't take a company's debt into account and, in a value investing situation, that's a pretty serious shortcoming which makes comparing differently leveraged companies like-for-like almost impossible. This is where the so called earnings yield comes in...

The Earnings Yield (or EBIT / EV) – buy earnings on the cheap

Investors have a tendency to switch off when faced with tricky jargon. So if you've made it to this sentence you are doing pretty well. Most investors define the Earnings Yield to be the inverse of the P/E ratio (or E/P) and consider it a great improvement. Why? Because yields can be compared with other investments more easily – for example bonds and savings accounts – whereas P/E ratios are, well, sort of useless for comparing against well, anything... other than other P/E ratios of course. This is most probably why brokers and the media love PE Ratios so much as they are infinitely flexible for ramping stocks up to silly valuations.

But, given that the P/E (and thus E/P) ignores debt – Joel Greenblatt in the “Little Book that Beats the Market” redefined it to take the debt into account. His definition compares the earnings due to all stakeholders in the firm (the operating profit) to the entire value of capital invested in the firm (i.e. the debt + the equity or ‘enterprise value’). Just be aware that the earnings yield defined this way is a far better version of the P/E ratio for comparing how cheap differently leveraged stocks are to other stocks and that it's definitely the right way up for comparing stocks with bonds (which is what a lot of Value Investors like to do).

Price to Cashflow - a good catch all?

The price to free cash flow ratio compares a company's current share price to its per-share free cashflow. Free cashflow is defined as cash that the operation creates minus any capital expenditure to keep it running. It's the amount of cash left over which a company can use to pay down debt, distribute as dividends, or reinvest to grow the business.

The benefits of looking at the price to cashflow versus other ratios like P/E or P/B Ratios are several - firstly some companies systematically understate their assets or earnings which can make them harder to isolate with a low P/E or low P/B scan – but secondly earnings and assets can be manipulated by crafty management accountants to make companies appear more profitable or asset rich than they actually are. In Josef Lakonishok's studies he showed that the return profile of using the P/CF ratio is very similar to the P/B and P/E ratio - cheap P/CF stocks massively outperform high P/CF stocks in almost all timeframes - making it imperative to hunt for low P/CF stocks.

Price to Sales Ratio – No earnings? Buy sales on the cheap

But what do you turn to when a stock doesn't have any earnings and therefore no PE ratio? While earnings can vary from year to year, sales are much more stable and as a result one of the more popular approaches is to look at a stock's Price to Sales Ratio.

The ratio was first popularised in the 1980s by Kenneth Fisher in the book *Super Stocks*⁶ and later labelled the 'King of the Value Ratios' by another author Jim O'Shaughnessy in “What Works on Wall Street”. But it really got a bad name when it was misused in the dotcom bubble to justify nosebleed valuations.

But it does remain a key indicator for isolating potential turnaround stocks. Low Price to Sales Ratio stocks, especially compared against their sector, can often be stocks that bounce back very quickly as they return to profitability. Look out for Stocks with historically reasonable margins trading on P/S ratios of less than 0.75 without much debt.

PEG Ratio – Buy earnings growth on the cheap

Popularised by ex-Fidelity star fund manager Peter Lynch and later given a twist by UK investment guru Jim Slater, the price-to-earnings growth ratio, or the PEG, takes the PE Ratio and puts it on steroids. The trouble with the PE Ratio is it is so variable depending on the growth rate of the company. By dividing the PE Ratio by the forecast EPS growth rate an investor can compare the relative valuation of each more comfortably.

It is generally accepted that a PEG ratio of under 0.75 signifies growth at a reasonable price (e.g. PE ratio 20 for EPS growth of 20%) - though be aware that when market valuations fall below average this barometer should be reduced. While the PEG tends to focus on the growth prospects of a stock, which aren't necessarily vital to a value hunter, it nevertheless gives improved depth to the more simplistic PE for investors that like a bit more bang for their buck.

Horses for courses...

The choice of which of these valuation ratios you will prefer to use will come down to the situation at hand. Some companies are consistently profitable (*use P/E or Earnings Yield*), some have more consistent cashflow than profits (*use P/CF or EV/EBITDA*), some are losing money on their sales (*use P/S*), others have no sales to speak of but do have hard assets (*use P/B*), others are a bit pricier but are cheap for their growth (*use PEG*). By understanding this array of value factors you'll be far better placed to turn over different stones when circumstances favour it. Don't be a one trick pony!

Further Reading

[What has Worked in Investing](#) – Tweedy Browne
[Contrarian Investment Strategies](#) – David Dreman

Six essential clues to finding good

“It is a capital mistake to theorise before you have all the evidence. It biases the judgment.” Sherlock Holmes

Investors in value stocks are always up against it. If you are buying out of favour stocks then you come to expect some nasties and get used to them. But it doesn't mean you should go forth blindly. If you can recognise a company with a consistent operating history and good historic business model, you'll be better placed to ascertain when a stock has simply fallen out of favour, or come upon temporary hard times and therefore profit handsomely when it overcomes the glitch and returns to prior glories.

This is precisely the approach eventually taken by a certain Warren Buffett. As his assets under management grew and grew he became tired of just looking for 'bargains'. He found more often than not that once a bargain always a bargain. Instead of just looking for any company selling for a cheap price he started to look for great companies at fair prices.

He likened businesses to castles at risk of siege from competitors and the marketplace. Truly great companies are able to dig deep economic moats around their castles that become increasingly impregnable to competition and market pressures. These moats bring either pricing power or cost reductions which help sustain very high returns on capital, leading to higher cashflows and thus 'satisfactory' returns for investors.

But where Buffett has been so canny is in recognising when great companies are being marked down by investors for making temporary solvable mistakes – here are some of the clues that Warren Buffett looks for to find great businesses.

Three financial clues of a good company

When a stock picker takes a closer look at a value stock situation its essential to look at its operating history. While current numbers may look poor, the clues to a good recovery situation often lie in whether the company used to have a strong business model – here are a few financial clues that it did....

1. High sustainable free cashflow

Great businesses tend to have several things in common. Firstly they make a lot of cash. Cash is the lifeblood of any business and without cash all businesses fail. If a company can't make cash from its own operations it will have to resort to raising cash from new shareholders (which dilutes your stake) or borrowing money from lenders (which raises the risk of financial distress).

Free cashflow is most easily defined as the operating cashflow less any cash needed to maintain the asset base (known as capital expenditures or capex). Investors should look for companies that are able to generate

as much free cashflow per share as earnings per share, and if a company shows a consistent Free Cashflow to Sales ratio of greater than 5% you can be sure it's a 'cashcow'.

2. High sustainable return on equity (ROE)

While the acronym ROE could be offputting to the novice investor, there really is nothing more important. The return on equity shows how much profit a company makes as a proportion of the money (equity) invested in it.

A high sustainable ROE of 12%+ is the engine from which fortunes are made. Why? Because if a company can reinvest its profits back into the company at the same rate of return, that 12%+ return can do its magic again on a larger capital base. If it can do this indefinitely, then the company could be a long term winner. A 20% ROE sustained for 20 years could turn £1 into £38 if it reinvested all its profits! Now that's why it's the engine of fortune!

One should note here that companies can artificially inflate the ROE by just taking on lots and lots of debt which is what many private equity companies do, and it's why so many investors look at another ratio called the 'Return on Capital Employed' (ROCE) which looks at the profit in relation to all the capital used in running the business. ROCE is a much better for comparing companies with differing debt levels, and is used by many stock pickers preferentially – it's the key component of the Magic Formula which is explained later.

3. High sustainable margins

Great companies are the kings of their domain. As a result they often have significant pricing power – the ability to set higher prices than their

peers. The best reflection of this power is in the margin numbers – the profit figure as a percentage of sales.

Margins are very sector specific – for example in food retailing operating margins are routinely very slender at 3-4%, whereas in pharmaceutical companies they can be far higher at 25% or so. But what is constant is that great companies have some of the top ranked margins in their domain.

Three qualitative clues of a good company

Buffett analyses a company's position in its market to make sure he's buying companies with a sustainable 'economic moat'. He wants to buy companies with strong 'franchise value' – when buying cheaply you don't want to be caught with a commodity business. Some of the questions to ask whenever you are evaluating a business include:

1. Has it got impregnable intangible assets?

Intangibles are basically things you can't see - i.e. Brands, Patents and Regulatory approvals rather than tangible assets like factories or distribution systems. Intangible assets can be unique to companies and deliver fantastic pricing power.

2. Do customers have high switching costs?

Banks historically have been able to charge nosebleed fees to their customers because people just can't be bothered with the hassle of switching banks. Similarly costs of switching are high for companies or individuals that rely on integrated software - data processing, tax or accounting can be great businesses. A unique kind of switching cost comes when companies benefit from network effects in the use of their products which are immensely sticky.

3. Does the company have cost or scale advantages?

Cost advantages can be sustained for a long time in certain situations - for example when a company has cheap processes, better location, unique assets or scale benefits (such as distribution or manufacturing scale).

Key Stockopedia Subscriber Tip

All the ratios discussed in this chapter are available on each Stock Report alongside 'traffic lights' which visually indicate the rank of the relevant ratio versus the stock's sector and market peer groups. These ranks can quickly help Value Investors ascertain the profitability of the stock. N.B. Its always worth checking the financial history of ratios like the ROE, ROCE and Margins to ensure that a company has a viable operating history. [Click here](#) more info on the Stock Reports.

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While entire books have been written about the qualities of great companies and the brilliance of their management the best quote comes again from Warren Buffett - "When a management with a reputation for brilliance tackles a business with a reputation for bad economics, it is the reputation of the business that remains intact." The truth is that good companies in good industries ought to run themselves – many industries are in terminal decline and no star manager can necessarily save them. When trying to isolate great companies it pays to stick to the financial clues and a few common sense perspectives on their business model.

Further Reading

[The Little Book that Builds Wealth](#) – Jack Dorsey

[Hidden Champions of the 20th Century](#) - Hermann Simon

How to calculate what a stock's really worth

“I conceive that the great part of the miseries of mankind are brought upon them by false estimates they have made of the value of things.” Benjamin Franklin

If you are taking the hunter approach to picking stocks, you can't just rely on safety in numbers and buying baskets of 'cheap' stocks. You have to get to the bottom of what each stock you are looking at is really worth. But while that's a pretty tricky thing to do we shall see that there are plenty of ways to get a good enough approximation to buy with the confidence you have a margin of safety.

We all know how to value a house... don't we?

If you were to buy a house there are two approaches that you could take to estimate its value. Firstly you could have a look around at what other similar houses in the area are being sold for, or alternatively you could ask a surveyor to estimate what it would cost to rebuild the house from scratch – land, materials and labour. Attempting to value a stock is no different – you can either try a '**relative valuation**' by comparing any of the ratios we've just

discussed against its peer group, or you could try to calculate an '**absolute valuation**' of its intrinsic value.

Both approaches have their merits and their advocates in different market climates but *most Value Investors prefer to lean towards absolute 'intrinsic' valuations*, especially at market extremes. Why? Because relying on what other people pay for something as a barometer of value can lead to some very nasty outcomes.

The joys and dangers of relative valuation

Most investors with any memory can remember what happened in the dotcom bubble when analysts stated that 'This Time it's different' and that it was fine for investors to pay a P/S ratio of 100x for a stock that had any kind of website attached.

"This time it's different" are the most dangerous 4 words in finance and ought to send investors running for cover, but for some reason time and again they don't. Contrary to most markets where rising prices put buyers off (think fruit or electronics) in the stock market rising prices attract investors rather than repel them. When the market as a whole rises, stocks that used to be expensive compared to their peers suddenly find themselves cheap. Investors then pile into these now 'relatively' cheap stocks raising their prices higher than their peers thus perpetuating the cycle. This can carry on and on in a self-reinforcing cycle until an inevitable crash brings everyone back to their senses.

But in spite of the limitations of valuing stocks in comparison to their peer group there are many investors that have had much

success with the approach. The trouble is that as the great economist John Maynard Keynes once mused “*The Market can stay irrational for longer than you can stay solvent*” which really implies that if you don’t ‘play the game’ when markets are theoretically over-valued you can miss some of the greatest years in the stock market. Pity poor Tony Dye, the famed Value Investor, who predicted the stock market crash years too early and eventually was sacked from Phillips & Drew in year 2000 just before value stocks had their renaissance!

As we’ve seen in recent chapters, a simple strategy that targets the cheapest stocks in the market on a basis (whether by low PE ratio or high earnings yield) can outperform the market as a whole. The benefits of these approach are that you are *always in the market* so you won’t miss the best years but the drawbacks are several. You’ll have to live with the pain of occasionally buying baskets of overvalued stocks and watching them suffer but you’ll also find that you’ll never be sure of the stock’s value yourself... always looking for validation from others, or god forbid, the market to confirm that the price is right.

Clearly there has to be a better way to value stocks than just comparing them to the market? Ben Graham would turn in his grave if he felt that investors were systematically buying over priced stocks and ignoring his teachings. So yet again we’ll turn to the topic of intrinsic value – and cover several ways to figure out the absolute worth of a stock.

Choosing your weapon... assets or cashflow

There are two main approaches to figuring out an absolute intrinsic valuation for a company. The first is to look at the assets it owns and figure out how much they would be worth either in a sale or if they had be replaced. The other is to look at the earnings, or more specifically the projected cashflows of the company, and figure out how much you’d be willing to pay for the right to own them as an income stream. In the example of the house we discussed earlier, you would be thinking about the price of land and replacement cost of the building in an asset valuation but you’d think about how much you’d pay for the rental cashflow in the latter.

Ultimately, which approach you prefer comes down to the situation at hand and what your goal is. If you are buying a sustainable business with a consistent operating history then you are going to prefer a cashflow based approach. But if you are going to buy a bargain bucket stock at risk of bankruptcy or an oil stock with no earnings then clearly you are going to prefer the asset approach.

We will be looking in greater detail at asset based valuations when we turn our attention to Bargain investing in a later chapter because it really is a specialist area worthy of its own attention. But because most companies are valued at prices way over their asset valuations, it can be of limited use in all but the more extreme cases.

Discounted Cashflow – its all about the cash...

Cashflow is the lifeblood of any business. Not earnings, not assets, but cold hard cash. Cash can’t be manipulated as easily by

accountants as earnings or assets and ultimately a cash return in the future is the one thing that investors want when buying a stock. You can either sell the stock for a cash return, or if you hold it indefinitely you can receive a cash income from that investment in the form of dividends for the lifetime of the company. As a result you can value that cashflow in the same way that you might value an annuity.

This methodology is known as the ‘Discounted Cashflow Technique’ (DCF) and is best described by its inventor John Burr Williams...

“the value of any stock, bond or business today is determined by the cash inflows and outflows – discounted at an appropriate interest rate – that can be expected to occur during the remaining life of the asset”.

In simple terms, discounted cash flow tries to work out the value today of all of the cash that the company could make available to investors in the future. It is described as ‘discounted’ cash flow because investors value cash in the future less than they value cash today so it is ‘discounted’ or reduced to a present value by a suitable interest rate.

The calculation is very simple and can be performed on any spreadsheet or using one of the calculators that we’ve made available on Stockopedia. It is best illustrated by an example. If you could buy the right to receive £100 from me in one year’s time how much would you pay? You’d probably want a better interest rate than you got from a bank as I might run off – so say a 10%

rate. You might then be willing to pay £91 in order to receive the £100 back next year which would ensure you got the 10% return on your ‘investment’. The £100 has been ‘discounted’ to £91 today. DCF works in precisely the same way but over multiple years and multiple cashflows.

DCF does have its weaknesses as a valuation methodology. Highly regarded City analyst James Montier argues that: *“while the algebra of DCF is simple, neat and compelling, the implementation becomes a minefield of problems”*. In particular, he cites the difficulties of estimating cash flow growth rates and estimating discount rates as big areas of concern. Furthermore, small changes in inputs can result in large changes in the value of a company, given the need to project cash flow out forever.

These drawbacks make DCFs susceptible to the principle of ‘garbage in garbage out’ and allow canny analysts to create fancy valuations to back up whatever their view is on a stock – so always be sure to be suspicious when an analyst wows you with the jargon that starts “Our baseline DCF valuation implies that...”

But despite the fuzziness, though, DCF is still the most logical way to evaluate the relative attractiveness of investments and businesses and as should be used in tandem with **conservative inputs and a key margin of safety**. As part of Stockopedia’s subscription, we provide pre-baked DCF valuation models for all stocks, which you can then modify with your own assumptions.

Ben Graham's "Rule of Thumb" shortcut

For those struggling with the complexity of the DCF approach, Graham articulated in his book "The Intelligent Investor" a simplified formula for the valuation of growth stocks which can help by providing similar results

"Our study of the various methods has led us to suggest a foreshortened and quite simple formula for the evaluation of growth stocks, which is intended to produce figures fairly close to those resulting from the more refined mathematical calculations."

The formula is as follows...

Intrinsic Value = Normal EPS x (8.5 + 2 X EPS Growth Rate)

A P/E of 8.5x was therefore Graham's effective base P/E for a no-growth or ex-growth company. He suggested that the growth rate should be that expected over the next seven to ten years. The formula tallies very closely to a simple 'two-stage' DCF calculation over the same timeframe and is an excellent 'back of the envelope' technique to keep at hand. Some investors consider this formula too aggressive in today's low interest rate environment as Graham lived in times of higher interest rates and have reduced the multiple from 2 to 1.5x to create a more conservative set of valuations. This is the approach that we take in our own Graham Formula Calculator on Stockopedia.

Key Stockopedia Subscriber Tips

Valuation Modelling Kit: We provide a set of off the shelf valuation models for all our subscribers which include the following amongst others:

- [Relative Valuations](#)
- [Discounted Cashflow](#)
- [Ben Graham Rule of Thumb](#)
- [Earnings Power Value](#)
- [Liquidation Value](#)

Stock Reports: The 'Margin of Safety' section of the stock reports contains baseline valuations for each company based on global assumptions. It is a good starting point for figuring out your own margin of safety calculations.

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One for the pessimists – valuing earnings without forecasts

Given the inherent problems in forecasting cashflow or earnings into the future, and the fact that so many analysts are over-optimistic, some Value Investors argue that there's a better way to analyse stocks than the DCF analysis which typically relies on speculative growth assumptions many years into the future.

'Earnings Power Value' is a technique gaining many fans which has been developed by Bruce Greenwald, an authority on value

investing at Columbia University in the US which assumes a zero growth rate. Earnings Power Value is defined as **the company's sustainable earnings divided by the company's cost of capital**. There are of course a few assumptions made about these inputs but nothing as wild as in the case of DCFs.

The great advantage of this technique is that it does not muddy the valuation process with future predictions. It evaluates a company based on its current and historical situation alone. However, that is also a potential weakness in that it may systematically undervalue growth companies. Value Investors might regard this as being part of the margin of safety but in normal markets, it may even be difficult to find a company that's selling for less than its EPV! This highly conservative approach is a very useful tool in the Value Investors armoury.

What would Buffett do?

As we have discovered, finding the intrinsic value of a stock is a very tricky art but that doesn't mean that you should refrain from doing it and just lean on the P/E ratio. Relative Valuations as we have seen lead investors to lose confidence in their ability to

weather stock market storms. If you are absolutely certain that a company can generate a steady flow of cash in the future, you can have great confidence that the true value for that company lies within a certain range. That confidence becomes a mast to which the investor can tie his decisions when the waters become choppy. Certainty in decision making is the goal.

This kind of great confidence allows someone like Warren Buffett to step into tough markets like we witnessed in 2002 and 2009 and make extremely bold investments when all those around him were selling. It is this absolute confidence in his understanding of the intrinsic value of the sustainable cashflow of companies such as Goldman Sachs or American Express that allows him know when he is getting a bargain. This is something that all investors need to learn from.

Further Reading

[The Little Book of Valuation](#) - Aswath Damodaran

[Value Investing from Graham to Buffett & Beyond](#) - Bruce Greenwald

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Key Strategies

A review of the key
strategies that work in
value investing



When Ben Graham began documenting his theories back in the 1930s, he was doing so against a backdrop of a massive stock market crash and a US economy that was on its knees. His was not just a new strategy; it was a new way of thinking about how stocks ought to be valued and how investors could capitalise on opportunities left in the wake of the Great Depression.

Unsurprisingly, his unpicking of conventional stock market wisdom led him to develop some hugely demanding approaches for finding bargain stocks.

But while Graham continues to exert major influence on investors, his techniques have been tweaked and adapted over decades by a new generation of Value Investors. In a way, these approaches can be thought of as a spectrum of strategies spanning the value range from bargains to quality stocks, adding new ingredients to the mix along the way. Very often, these approaches not only offer fresh thinking on ways of valuing and selecting stocks and improving the timing of buys and sells, but they also present additional ways of mitigating the risk of failure.

In the coming Chapters, we will look closely at how some of these approaches differ, starting with the 'deep value' strategies for which Graham and other investors like Walter Schloss became known and which primarily use diversification as a way to deal with risky investments. After that, we will travel up the curve towards quality by looking at the use of accounting-based filters like the Piotroski F-Score to weed out likely underperformers, the use of price momentum by Josef Lakonishok as a way to identify value catalysts, along with blended approaches that try to find better quality businesses, like Joel Greenblatt's 'cheap but good' Magic

Formula and finally the Buffett-esque notion of "quality at a fair price".

What should emerge from this journey is a picture of value investing as a multi-faceted contrarian strategy that has largely carried on its inexorable march regardless of popular sentiment or academic thinking. Meanwhile, those that have persevered with it have become some of the most successful individuals in investing history.

Fortunately, there has never been a greater opportunity for individuals to access the information, guidance, screening tools and academic insight that, used together, can offer the best chance of making money from value stocks. But while individual investors can learn a great deal from the stock selection and buying techniques of these guru investors, it should be clear by now that there is much more to it than mimicry.

Buying deep bargains or “cigar butts”

“Come in here dear son have a cigar you’re gonna go far...”

Pink Floyd

When it comes to buying stocks, few investors would dispute that finding a bargain is a seductive prospect. But while most investors are looking for an attractive price, some bargain – or deep value – investors are prepared to go to great lengths to find one. Warren Buffett calls this the ‘cigar butt’ approach to investing: *“A cigar butt found on the street that has only one puff left in it may not offer much of a smoke, but the ‘bargain purchase’ will make that puff all profit”.*

Bargain investing is often about having a very conservative measure of intrinsic value, essentially liquidation value, and a large margin of safety, in order to try to buy a pound for, say, 50p. In bull markets, true bargain investing can be arduous but in depressed and volatile conditions like 2009, the basket of potential stock candidates tends to swell. As we’ve seen, regardless of the conditions, some of the world’s most legendary investors like Ben Graham and Walter Schloss have made a mint out of this investment approach.

So how do you go about finding these kinds of deep value or bargain stocks?

a) Pay less than book value

Perhaps the most basic way to approximate liquidation value is by using the so-called price-to-book ratio. This involves comparing the current market value of a company's shares with the book (accounting) value of the equity in its balance sheet, to figure out when a stock may be trading at a discount to its asset value. As discussed in a previous chapter stocks trading on a discount to their assets are defined as being on a P/B Value of less than 1 and countless academic studies have shown that low price-to-book stocks tend to outperform over time.

True bargain investors would tend to be dismissive of any kind of intangible assets, usually calculating price-to-book on a tangible assets only basis, given the inherent difficulties in valuing intangibles and the scope for flexibility in accounting for them. That’s fine for manufacturing companies but, of course, this makes it unlikely that they would invest in most service businesses (as the value in, say, a consultancy company, lies with the knowledge of its workforce – which is an intangible that isn’t even on the balance sheet).

However, even after adjusting for intangible assets, hardened bargain investors may be sceptical that price-to-book is a sufficiently robust measure of value. It may not give enough margin of safety to their investment in the event of a severe downturn if

fixed assets may have been overvalued. As a result, a number of other (more extreme) metrics can be used by the deep Value Investors...

b) Pay less than liquidation value (NCAV)

Benjamin Graham is the absolute guru of bargain investing and took price-to-book investing to the limits with a serious twist. In essence he advocated buying stocks that, if they were to collapse tomorrow, should still produce a positive return because of the underlying asset backing. Graham suggested ignoring fixed assets like property and equipment and solely valuing current assets (such as cash, stock and debtors) on the basis that only these assets could easily liquidated in the event of total failure, and then subtracting the total liabilities to arrive at the so called net current asset value. The idea was that a market valuation below that indicated that the market had totally mispriced the company, or that the company should be sold or liquidated.

To defend against the risk of individual failures, Graham also looked for a margin of safety of about 33% below that level and added the requirement to diversify the strategy to at least 30 stocks. However, his overarching belief was that a company with a market valuation that was less than its liquidation value indicated that the market had mispriced it or that the company should be sold or liquidated. In bull markets, NCAV stocks can be few and far between but in depressed conditions there are far more to look at.

In a study by Henry Oppenheimier in the Financial Analysts Journal, the mean return from discounted net current asset stocks

over a 13-year period was 29.4% per year versus 11.5% per year for the NYSE-AMEX Index – an astonishing outperformance.

c) Pay even less than liquidation value ('Net Nets')

For investors that like the idea of liquidation value investing, it is worth noting that Graham pushed the formula a stage further. He reasoned that in a liquidation situation, cash due from debtors might not be collected and some inventories may have to be discounted, so he made allowances for this. He called this even more conservative valuation as the Net Net Working Capital (NNWC) of the company - building in an even more extreme margin of safety.

$$\text{Net Net Working Capital} = \text{cash and short-term investments} + (75\% * \text{debtors}) + (50\% * \text{inventory}) - \text{total liabilities.}$$

This strategy is now very highly regarded by savvy bargain investors and qualifying stocks are known in the jargon as 'net nets'.

d) Buy companies selling for less than their cash

A more modern version of the net nets and an alternative way of dealing with the “known unknown” of the true value of fixed assets in a liquidation situation is to deal simply with the cash in a business. Investors can look for companies whose cash is worth more than the total value of their shares plus their long-term debt ! This investment approach is known as buying stocks with a Negative Enterprise Value and waiting for them to be revalued.

Proponents argue that stocks in this position offer a potential arbitrage opportunity, whereby a buyer of the company could snap up the entire stock and use the cash to pay off the debt and still pocket a profit. For the individual investor, this means buying into the cash at a discount and receiving a claim to the rest of the company for free. The argument goes that, in a reasonably efficient market, something would eventually have to give and the company would either be acquired, turned around or pay out a dividend.

James Altucher espoused a variant of this approach known as the 'Cash Index' in his book, *Trade Like Warren Buffett*. He suggested a multi-pronged approach to analysing potential bargain/arbitrage stocks trading below cash in times of market distress (in his case, post the 2001 bubble / Iraq War).

Our initial testing suggests that a Negative Enterprise Value type approach is far from free from downside risks. This may be because judging a company's true current cash position, as opposed to its last reported cash position, is fraught with difficulty and there is also no guarantee that the company management will act in the best interest of shareholders in its use of these cash proceeds!

e) New opportunities with new lows

A final strategy for bargain investors blends the all-important book value with stocks that have fallen to new lows in terms of market price. This approach was taken by Schloss, another investor that

studied under Graham and went on to refine his tutor's theories into his own strategy.

Despite not using a computer (he preferred hard copy Value Line research) Schloss was interested in the financials behind a stock. More specifically, he was interested in stocks whose prices were at or near their 52-week lows. Without talking to the management (he was sceptical of his own ability to judge character) Schloss went on to assess the company based on its numbers.

The importance of identifying new lows is that Schloss saw this metric as an indicator of a possible bargain stock, although he stressed the importance of distinguishing between temporary and permanent problems. Beyond that, he would look for companies trading at a price that was less than the book value per share. He was also keen to see no long-term debt, stocks where management owned above-average stakes for the sector and, finally, a long financial history.

Schloss preferred to invest in sectors he understood, particularly old industries like manufacturing, although he successfully shorted Yahoo and Amazon before the markets collapsed in 2000. Like Graham, Schloss believed in significant diversification although his willingness to run up to 100 stocks would have many investors reeling. Nevertheless, over the 45 years from 1956 to 2000, his fund earned an astounding compound return of 15.7%, compared to the market's return of 11.2% annually over the same period. In the words of Buffett, Schloss "*doesn't worry about whether it's January...whether it's Monday...whether it's an election year. He*

simply says if a business is worth a dollar and I can buy it for 40 cents, something good may happen”.

Not for the faint-hearted

By definition, deep Value Investors do tend to get their hands dirty with some of the most unloved stocks in the market and that leaves a bargain strategy open to significant risk. While scrutinising the relationship between market price and underlying asset value (however you choose to do it) can prise open a basket of candidates that could offer substantial returns, investors should always back up their screening with detailed scrutiny as well.

Deep value investing is not an approach for the faint-hearted. Buffett argued against it as a strategy in his 1989 Chairman’s Letter to Shareholders, noting that the original ‘bargain’ price probably will not turn out to be such a steal after all because, *“in a difficult business, no sooner is one problem solved than another surfaces – never is there just one cockroach in the kitchen. Second, any initial advantage you secure will be quickly eroded by the low return that the business earns.”*

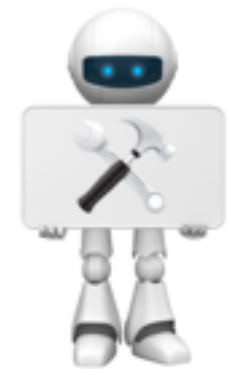
How do deep Value Investors mitigate the risk of cockroaches? For the most part, this is done through diversification. This is a sledgehammer approach that recognises that some stock purchases will fail but with a big enough basket, the thinking goes, the successes should outweigh the [catastrophes](#). For Graham, the target was upwards of 30 stocks while for Schloss the number could be as heady as 100.

While certainly recognising the value of some diversification, the value investing strategies that we will discuss next have generally sought to approach the problem of downside risk in other ways.

Key Stockopedia Subscriber Tips

Stock Screens - You can find all our [bargain stock screens at this link](#), which include:

- [Ben Graham Net Nets](#)
- [Ben Graham NCAV Screen](#)
- [Walter Schloss New Lows Screen](#)
- [Dreman Low P/B Screen](#)
- [Negative Enterprise Value Screen](#)
- [Altucher Cash Index Screen](#)



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Further Reading

[Security Analysis](#) - Benjamin Graham

[The Intelligent Investor](#) - Benjamin Graham

[Contrarian Investment Strategies](#) - David Dreman

Buying bargains on the mend

“I'm the diamond in the dirt, that ain't been found !” 50 Cent

As we have discussed, one of the main challenges presented to an investor intent on buying value stocks is that cheap companies can often be troublesome, which goes some way to explaining why the strategy has occasionally earned the moniker “hold your nose and buy”.

While the principles of intrinsic value and margin of safety provide some protection, the risk remains that value stocks can go bust or simply fail to ever recover – and become ‘value traps’ from which there may be no escape. But what if you could find a way to filter out the value traps from the recovery stocks? To ensure that your portfolio contained only companies with the highest probability of turning around.

Surely if such a method existed, you could significantly improve your odds and therefore your returns?

Spotting turnarounds fast with the Piotroski F-Score

This is exactly the conundrum that perplexed a certain Stanford accounting professor by the name of Joseph Piotroski. He was attracted to the long understood outperformance of cheap value stocks but found the variability in their returns startling. He noted that:

“Embedded in that mix of [value] companies, you have some that are just stellar. Their performance turns around. People become optimistic about the stock, and it really takes off [but] half of the firms languish; they continue to perform poorly and eventually de-list or enter bankruptcy.”

What he wondered was whether it was possible to weed out the poor performers and identify the winners in advance. He went on to develop a simple nine point checklist scoring system for evaluating the strength of a firm’s financial trend from one year to the next.

Piotroski first outlined his theory in an April 2000 paper entitled *Value Investing: The Use of Historical Financial Statement Information to Separate Winners from Losers*. His starting point is a list of companies that are, on paper, the most undervalued on the market. You arrive at a list of ‘value’ stocks by dividing what the market is pricing them at by what each company’s total assets are stated to be worth and concentrating on the cheapest 20% of companies. This price-to-book value list generally produces a collection of companies that, on a pure valuation basis, can appear to be mispriced.

A quick scan of such a list will show that there may be very good reasons why investors won't touch companies in this basket – they can often be financially stricken or even basket-cases. The overarching question is why each company is being undervalued and whether it is justified. It could be any number of factors including long-term underperformance, financial calamity, investor ignorance, poor communications, an unsexy sector or an unappealing business model. Whatever it may be, these companies are out of favour and Piotroski's theory seeks to pick the ones that offer the best chance of recovery as opposed to those that will continue to languish or fall further into distress.

To assess which companies are in the best financial shape Piotroski screens each stock using an accounting-based checklist – scoring one point for each 'pass'. The criteria are broken into three sections starting with profitability signals followed by leverage, liquidity and source of funds and, finally, operating efficiency. Piotroski's approach essentially looks for companies that are profit-making, have improving margins, don't employ any accounting tricks and have strengthening balance sheets.

By investing in companies scoring 8 or 9 by these measures, Piotroski showed that, over a 20-year test period through to 1996, the return earned by a value-focused investor could be increased by 7.5% each year. Since then the idea has won an army of followers and in the bear market of 2008 it was hailed by the American Association of Individual Investors as the only one of 56 screening tools to produce a positive return for investors.

Filter out financially risky stocks with the Z-Score

Alongside the F-Score, another interesting fundamental filter/checklist is the Altman Z-Score. This is a metric that has been a part of the investor toolkit for more than 40 years but is not as well-known as it should be partly due to the difficulty in calculating it. It was developed by New York University finance professor Edward I. Altman, who used a combination of five weighted business ratios to estimate the likelihood of financial distress. It was initially created to test the financial health of manufacturing companies; with later tweaks opening it up to non-manufacturing and even private companies. The basic idea is that any Z-Score above 2.99 is considered to be a safe company. Companies with a Z-Score < 1.8 have been shown to have at significant risk of financial distress within 2 years. Some investors may question the idea of using a formula to predict bankruptcy – and to be fair it does produce some surprising results – but nevertheless tests have proved it to be highly effective. Its initial test found that it was 72% accurate in predicting bankruptcy two years prior to the event, while subsequent examination has shown 80-90% accuracy.

Filter out earnings manipulators with the M-Score

Another option for investors that want to screen companies for the risk of negative accounting practices is to use filters that are optimised to detect earnings manipulation rather than bankruptcy. Glamour and growth are alluring not only to investors but also to company management whose compensation may be dependent on a continuing the trend! Accounting tricks such as booking sales early, changing asset depreciation rates and so on are all available for managers to massage earnings figure.

The Professor Messod Beneish created another scoring system to weedle out these ‘manipulators’ - he called it the M-Score (which neatly parallels with the F-Score and Z-score!). It is an invaluable tool for Value Investors and offers even greater visibility and protection in marginal situations.

An M-Score above 2.22 highlights companies that may be inflating their earnings artificially increasing the likelihood they will have to report lower earnings in the future. In sample tests, Beneish found that he could correctly identify 76% of manipulators, whilst only incorrectly identifying 17.5% of non-manipulators. Interestingly, students from Cornell University using the M score correctly identified Enron as an earnings manipulator, while experienced financial analysts failed to do so.

In a similar vein, Value Investor, analyst and author James Montier has developed useful system called the C-Score (C apparently stands for cheating or cooking the books). The test focuses on identifying tell-tale signs which accompany bad accounting practice (e.g. is asset growth high or is DSO increasing?), which are scored in a simple binary fashion, 1 for yes, 0 for no. The idea is that, the more flags that are present, the more likely it is that something may be going on below the surface of the accounts. Montier found that in the US, stocks with high C-scores underperformed the market by around 8% p.a. while in Europe, high C-score stocks underperformed the market by around 5% p.a. Although developed as a short-selling technique, this can also be useful as a way of filtering lists of value stocks.

Key Stockopedia Subscriber Resources

Stock Screens - we offer [3 variants on the Piotroski F-Score Screen](#) including a Low Price to Book Screen, Low P/E Screen and a list of all the F-Score ‘Nines’.

Stock Reports - each report contains a ‘Red Flag’ section which visualise the state of these 3 indicators - the health trend, bankruptcy risk and earnings manipulation risk.

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Diamonds in the dirt

Fundamental-based techniques to try to filter out value-trap companies and focus on those that could be poised for a recovery present an interesting new layer of analysis over the fundamental principles of intrinsic value and margin of safety. Of all of these techniques, the Piotroski F-Score is perhaps the best performing in that it was specifically designed to tackle the cheapest stocks in the market. This approach offers a new twist on investing in the cheapest stocks and news ways of thinking about managing risk.

Further Reading

[Value Investing - Tools & Techniques](#) - James Montier

Buying bargains on the move

“A rolling stone gathers no moss, but gains a certain polish.”

Oliver Herford

Among the most prolific academic writers on the subject of value investing was US-based finance professor Josef Lakonishok. Together with fellow academics Andrei Shleifer and Robert Vishny, his work in a 1994 paper entitled Contrarian Investment, Extrapolation, And Risk concluded that there were many reasons why investing in value, rather than historically well performing glamour stocks, was more successful.

For individual investors, the preference for glamour stocks derives from poor judgment and too much extrapolation from the past performance of stocks even when strong historical growth rates are unlikely to continue. Meanwhile, institutional money managers tend to move in herds towards the perceived safety of glamour investments that have performed well historically. Lakonishok's team concluded that investment managers didn't have the time horizons necessary for value strategies to pay off and, as a final insult, suggested that they were generally poor at making investment decisions anyway, as illustrated by their frequently inferior performances against the market index.

On its own, this all makes for very interesting debate and, indeed, handily substantiates much of the theme of this book, but there is more. Lakonishok and his partners were so convinced by the value approach that they set up their own fund management business to execute it. LSV Asset Management has since blossomed into a firm that now manages an astonishing \$58 billion of investments across its value equity portfolios!

Value with Momentum

Lakonishok's approach is to find under-valued, out-of-favour companies at the point when the market is starting to recognise them – a combination of value and momentum. From a fundamentals perspective, he begins by looking at price-to-book, price to-cash flow, price-earnings and price-to-sales ratios in order to identify unloved stocks. However, identifying a group of out-of-favour stocks is just the beginning. The trick is to ascertain which of them are likely to rebound versus being cheap for a reason, such as being near bankruptcy. So, he then looks for those shares that are showing sign of momentum, either in terms of price momentum (relative strength) or in terms of improving analyst sentiment and earnings surprises.

Wait a minute, you might think. Value and momentum? Surely, those strategies are polar opposites – like oil and water – moving in opposite directions. Momentum is the idea that stocks on the way up tend to keep going up, regardless of their value. A Value Investor is likely to shun a momentum stock that is soaring higher, further and further away from its fundamental value, whereas for a momentum investor this trajectory alone makes it a tempting buy.

So how did it do? It turns out that the approach has been a barnstormer. According to the American Association of Individual Investors, the Lakonishok screen has made a 15.7% CAGR since inception, compared with 2.3% for the S&P 500, although its more recent performance in our own tracking has been less impressive – much like most momentum strategies in the face of market volatility!

In part, the outperformance is because momentum does well when value doesn't. Researcher Tobias Moskowitz concluded that “a value-momentum combination mitigates the extreme negative return episodes a Value Investor will face (e.g., the tech boom of the late 1990s and early 2000 or a dismal year like 2008)”.

During the tech bubble, for example, Value Investors had a tough time, since expensive stocks kept getting more expensive, while it was a field day for momentum investors. When the bubble burst, value did well and momentum suffered, but on a blended basis, the two strategies did well consistently.

However, another reason why momentum helps is that it provides an answer one of the biggest issues of value investing, namely the “when will it happen?” question.

Is momentum a signal of a hidden catalyst?

Even if an investment doesn't go under, a value investment may still end up being a dreary and difficult one, if there is no near-term catalyst for the crystallisation of value. Some examples of possible catalysts include: i) fresh management with new direction, ii) a change in strategy of existing management (e.g. new product strategy, business reorganisation or cost reductions), iii) a disposal or purchase of a

meaningful asset, iv) a recapitalisation of the business, v) a takeover bid, or vi) activist shareholders who may put pressure on management to act.

Key Stockopedia Subscriber Tips

Stock Screens - as well as an entire dedicated [momentum](#) area we have modelled [Lakonishok's Value/Momentum Screen](#).

Stock Reports - each report contains a 'Momentum' section that shows different levels of relative strength. By eyeballing this and a stock's key Valuation ratios in the Growth/Value section you can quickly ascertain whether any stock is a Lakonishok styled investment.

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As blogger Wexboy notes, an extended wait for value to be crystallised can have a dramatic effect on your returns. Imagine you've found a neglected jewel which you expect that will ultimately capture an upside of, say, 75%... “But when will that happen? In 3 yrs, 5 yrs, 7 yrs..?! Those periods equate to IRRs of 20.5%, 11.8% and 8.3% pa respectively. Now assume a catalyst exists that's successful in prompting a realization of that full 75% upside within 1 year. That is, of course, a 75% IRR!”

The power of positive momentum in the stock price is it may suggest whether people are finally starting to appreciate the stock. A catalyst for improvement may have finally arrived so that you don't have to wait forever for the crystallisation of value.

This combination of value and upward momentum is an intriguing approach in a value investing strategy. Previously we looked at how Walter Schloss' deep value investing strategy would look for stocks that were at or near their long-term lows and this is almost the inverse of that. As we've discussed, though, a stock may be cheap, compared to its good fundamentals such as earnings and cash flow, but even the savviest investor cannot be sure when this stock will turn around with the market finally seeing the light about the company's true worth. Lakonishok's academic background led him to focus on behavioural finance explanations for the value phenomenon – he therefore recognised the power of momentum as a signal to ascertain which stocks are likely to rebound versus being cheap for a reason and is considerably wealthier than most academics as a result!

Further Reading

[LSV Asset Management](#)

Buying good companies cheaply - a “Magic Formula”

“Buying good businesses at bargain prices is the secret to making lots of money.” **Joel Greenblatt**

Joel Greenblatt made his name running New York hedge fund Gotham Capital and he made a lot of money doing it with annualised returns reported at 50% annually. When he realised that his growing children really ought to understand what a hedge fund manager does for a living he decided to write a book that even they could read. The research and philosophy that he developed turned into “The Little Book that Beats the Market” and highlighted a ranking system he christened “The Magic Formula”.

The formula essentially translates as *buying good companies at a cheap price* and its apparent simplicity has won it many followers in the investment community.

At its heart, the Magic Formula involves selecting a basket of between 20 and 30 stocks – some of which may have the potential to make a prospective investor blanch. Unloved, misunderstood, occasionally debt laden or with broken business models, Greenblatt’s selection is not a magic bullet and the large basket

reflects the likelihood that some of these companies may well struggle to become investment successes. However, these are profitable businesses and by putting trust in the ‘quant’, the theory is that it won’t take too many success stories for the screen to pay off.

Putting trust in the ‘quant’

Greenblatt’s formula looks to two ratios we have previously discussed : a high return on capital (ROCE) and a high earnings yield (EY) – or, to put that another way, it has to be ‘good’ and ‘cheap’. The return on capital measures how effective the company is at making a profit from its assets – this is used as a proxy for how ‘good’ the company is. The earnings yield takes a company’s operating profit and divides it by its enterprise value – the higher the earnings yield the more ‘cheap’ the stock. By ranking the market from high to low for each indicator and adding the two ranks an investor can come up with a Magic Formula score for all the eligible companies in the market.

Once the ranking has been developed, Greenblatt suggests constructing a portfolio by selecting five to seven stocks every two to three months over a 12-month period. He suggests that each stock should be sold after one year, repeating the steps to reinvest the proceeds of securities sold. This approach should be continued over a long-term (3-5+ year) period. In taxable accounts, he suggests paying attention to after-tax returns and timing the sales accordingly.

The advantage of this screen is that there will always be companies that are trading at a discount for any number of reasons, and the Magic Formula picks them out. However, Greenblatt's US focus has deprived UK investors from easily applying the screen on this side of the pond (his own website readily produces the results for US stocks) although its something that we have been addressing at Stockopedia. That's frustrating for those who have been eyeing with interest the impressive returns cited in his book – according to Greenblatt at least, the Magic Formula approach has averaged a 17-year annual return of 30.8% and beats the S&P 500 96% of the time.

Greenblatt's Magic Formula provides an intriguing insight into the types of stocks and sectors that are currently feeling the cold shoulder of the market. Given that these companies are being valued at a cheap price by the market but also relatively profitable, the screen offers a useful starting point for Value Investors to identify possible mispricing – and applying additional screens such as the Piotroski F-Score can add an extra dimension.

Can Beddard's blend beat them both?

Interestingly the Interactive Investor Blogger Richard Beddard has built up a great following in the UK by doing precisely that. By using a blended approach that aims to highlight the best Magic Formula Scoring stocks that also have a high Piotroski score Beddard believes he can buy cheap, good and financially improving stocks. The theory seems to be working in the UK with our model of Beddard's thrifty thirty handsomely outperforming both Piotroski's strategy and Greenblatt's Magic Formula!

Further Reading

[The Little Book that Beats the Market](#) - Joel Greenblatt

Key Stockopedia Subscriber Tips

Stock Screens - The Greenblatt Magic Formula screen is [available here](#) as well as our model of Richard Beddard's variant which [blends the MF with the Piotroski F Score](#) .

Stock Reports - every report has a dedicated Magic Formula 'meter' which indicates the decile, percentile and unofficial Magic Formula Rank of the stock versus all others in the market.

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Buying quality at a fair price - Buffett

“You should invest in a business that even a fool can run, because someday a fool will.” **Warren Buffett**

While the evolution of value investing spans nearly 100 years of twists and turns, one of its greatest influences and its greatest success stories is the world-renowned Warren Buffett. For a man widely regarded as the most successful investor ever, the principles of value investing have remained central to his thinking. However, the way he has evolved his investment philosophy and developed a preference for good quality companies is a twist that all value hunters should take note of.

Buffett is essentially a reformed proponent of the ‘cigar butt’ bargain investing strategy so drilled into him by his tutor Benjamin Graham. His experiences in failing to turn around the fortunes of Berkshire Hathaway, once a textile company that was struggling against competition from cheaper labour in overseas factories, and the counsel of his business partner Charlie Munger, led him in a different direction. In this chapter we will take an in depth look at how he has progressed his philosophy beyond simple bargain stock investing, and why this has worked so well for him.

Whilst never forgetting the intrinsic value and margin of safety teachings, Buffett’s approach is much more focused on the calibre of the business franchise using some of the techniques we outlined in the previous chapter on ‘good’ companies. In essence, he looks for simple, understandable companies that have a durable competitive advantage so as to ensure consistent profits and a strong return on equity. But where he has really excelled is in his ability to buy these stocks when the rest of the market is selling.

Warren Buffett’s background

Buffett originally studied under Ben Graham at the Columbia Graduate Business School. In 1956, at the age of 25, he started an investment partnership which delivered a compound return over the next 13 years of 29.5%. The partnership was closed in 1965 and Buffett used his capital to purchase a controlling interest in Berkshire Cotton Manufacturing, a well established but struggling textile company. This company merged with Hathaway Manufacturing, and also bought interests in two insurance companies in 1967. The combined company was renamed Berkshire Hathaway.

Over the last 44 years, this investment vehicle has averaged an astonishing 20.3% annual growth in book value. Nevertheless, Buffett has argued that the original acquisition of Berkshire Hathaway was his greatest investing mistake, denying him compounded investment returns of about \$200 billion over the past 45 years!.

Why is that? Because the textile firm's assets acted as an anchor on his holding company for 20 years. As he puts it: *"for 20 years, I fought the textile business before I gave up... Berkshire Hathaway was earning nothing, year after year after year after year."* By his estimation, if he had just put his Berkshire stake into a good insurance business to begin with, his holding company would be worth twice as much today.

That lesson taught Buffett to focus on companies with 'durable competitive advantages' which promise enduring high returns on capital and free cashflow in his pocket. Buffett likens businesses to castles at risk of siege from competitors and the marketplace. Great companies are able to dig deep economic moats around their castles that become increasingly impregnable to competition and market pressures. These moats bring either pricing power or cost reductions which help sustain very high returns on capital, leading to higher cashflows and returns for investors. Clearly everyone would like to own a business with a wide economic moat but Buffett has been most systematic in tracking them down.

Investment strategy

Over the years, Buffett has documented his thinking and investment philosophy in annual letters to Berkshire Hathaway shareholders, as well as in numerous speeches and interviews. In his excellent book *The Essential Warren Buffett: Timeless Principles for the New Economy*, author Robert Hagstrom argues that Buffett's investment methodology is a hybrid mix of the strategies developed by Graham and Philip Fisher. Indeed, Buffett himself has indicated that: *"I'm 15 percent Fisher and 85 percent*

Benjamin Graham", although Hagstrom notes that this was in 1990 and that Buffett has probably moved closely towards Fisher since then:

"From Graham, Warren Buffett learned the margin of safety approach - that is, use strict quantitative guidelines to buy shares in companies that are selling for less than their net working capital... From Fisher, Warren Buffett added an appreciation for the effect that management can have on the value of any business, and that diversification increases rather than reduces risk as it becomes impossible to closely watch all the eggs in too many different baskets."

Hagstrom summarises Buffett's approach as being based on four key principles:

1. Analyse a stock as a business – Intelligent investing means having the priorities of a business owner who focuses on long-term value rather than as a short term stock trader. In his view, an investor should only buy shares in a company which he would be willing to purchase outright if he had sufficient capital.

- Focus on simply understood businesses with a consistent operating history and favourable long term economics
- Management must be rational in their allocation of capital and candid with shareholders.
- Focus on companies with high return on equity and strong free cash flow that management has been able to reinvest rationally.

2. Demand a margin of safety for each purchase – Following in the footsteps of Graham, Buffett puts great emphasis on establishing a margin of safety but unlike Graham, Buffett has become less interested in cigar butt investing in net-net type companies. Instead, Buffett targets large, successful businesses—those with expanding intrinsic values, which he seeks to buy at a price that makes economic sense based on the kind of business it is in, and based on the quality of the management running the company.

3. Manage a focused portfolio – Buffett’s approach is to concentrate a few stocks that are likely to produce above-average returns over the long haul and have the fortitude to hold steady during any short-term market hiccups. His is very much the ‘hunter’ approach and the antithesis of many of the quants we have discussed, including Ben Graham his tutor. Hagstrom’s book uses the model of legendary baseball player Ted Williams as an example of the value of focus. Williams would wait for a pitch in an area of the plate where he knew he had a high probability of making contact with the ball before swinging. This discipline enabled Williams to have a higher lifetime batting average than the average player. Similarly, Buffett suggests that all investors act as if they owned a lifetime decision card with only 20 investment choice punches in it.

4. Protect yourself from the speculative and emotional excesses of the market – In essence, Buffett feels that the stock market exists simply to facilitate the buying and selling of shares. Anytime an investor tries to turn the market into a predictor of future prices, they run into problems. The only use

for a regular glance at the market is to check whether anyone is foolish enough to sell a good business at a great price.

Should you try and invest like Warren Buffett?

The long-term success of Buffett’s approach is undeniable – a \$10,000 investment in Berkshire Hathaway in 1965 would have been worth nearly \$30 million by 2005 (vs. \$500,000 for the S&P 500). However, given the number of qualitative elements in his strategy, it’s not the easiest approach to replicate through, say, a quantitative screen - although our Buffettology based screen has been doing well of late.

Perhaps what is more important is to recognise Buffett’s commitment to the principles of value investing combined with an emphasis on quality – because this gets to the heart of what most investors should think about when it comes to selecting stocks.

Key Stockopedia Subscriber Tips

Stock Screens - we host a growing collection of ‘Buffettesque’ stock screens which aim to model Buffett’s more quantitative aspects [available here](#).

Stock Reports - some critical things for Buffett followers to assess on the reports include the ‘quality’ section (ROE, ROCE and Margins) and especially the consistency of the financial history.

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But it is worth remembering that just because Warren Buffett has had great success with this approach doesn't mean you should even try it. It's been shown time and again that **great companies do not necessarily make great stocks** especially in this day and age where every market professional has read Buffett and wants their clients to own these kinds of stocks. Thousands if not millions of investors were burnt in the 2000 bubble as the investment community turned Buffett into a guru and his musings into gospel. The over-selling of 'high quality/great' companies like Coca-Cola at huge PE multiples on the back of this gospel was a very expensive mistake.

It's only Buffett's patience, expertise and prudence that have allowed him to buy these companies at beaten down prices – which are character traits that not many individuals share. Recognising that you are not Warren Buffett could be a very wise strategy indeed.

Further Reading

[The Essays of Warren Buffett](#) - Lawrence Cunningham

[The New Buffettology](#) - Mary Buffett

[The Warren Buffett Way](#) - Robert Hagstrom

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Risk Management

**How to manage the
downside risks that are so
inherent in value stocks**

4

Is value investing risky?

“Out of this nettle, danger, we pluck this flower, safety.”

William Shakespeare

As we've seen Value Investors have the reputation for picking up cigar butts on the street which is hardly the most glamorous of pre-occupations. But it's especially unglamorous when you consider that the last puff is likely to taste horribly toxic.

While it's certainly true that *some* bargain stocks do indeed end up broke or bankrupt many investors see value investing as disproportionately risky - foolhardy even. But this is far from the case and illustrates just how much humans confuse uncertainty and risk. While the outcomes for individual stocks are far more uncertain, in aggregate the price behaviour of value stocks is actually *less* risky than growth stocks. After their many studies Professors Lakonishok, Vishny and Shleifer concluded:

“Overall, the value strategy appears to do somewhat better than the glamour strategy in all states and significantly better in some states. If anything, the superior performance of the value strategy is skewed toward negative return months rather than positive return months. The

evidence thus shows that the value strategy does not expose investors to greater downside risk.”

In other words in bear markets value investing stocks actually decline less and outperform the market as a whole. The bargain state of low valuation stocks appears to act as a relative floor under their aggregate share prices.

In spite of this, the 'hunter' as we have seen is always going to be interested in picking individual stocks and needs a toolkit to avoid the worst of them. While we've already discussed some quantitative techniques of avoiding value traps, we'll be covering a few more qualitative ways of filtering them before discussing the ins and outs of wise portfolio diversification as a hedge against individual stock disasters. And of course there still remains the seemingly un-answerable conundrum of 'when to sell'.

How to avoid buying value traps

“The possibility of sustained decreases in business value is a dagger at the heart of value investing.” **Seth Klarman**

Buying undervalued stocks is a risky past time. That’s why Ben Graham introduced the margin of safety as the key principle in his investment philosophy. While efforts to lower the chance of failure in value investing have become more sophisticated the fact remains that the strategy is much more exposed to the risks of individual business failures than most other strategies. Recognising where those risks lie is the first step to understanding how to avoid the value hunter’s most dreaded foe – the ‘value trap’.

What is a value trap?

A value trap is a stock that masquerades as a value opportunity but which turns out to basically be a dying company. It looks like a bargain because its price has fallen so much – but unlike a true value stock it’s low for a reason, it’s experiencing a fundamental change in its business. Timothy Fidler of US fund manager Ariel Investments suggests that there are two main types of value traps:

- 1. Earnings-driven value trap:** This is where the mirage of a low PE ratio vanishes as any earnings gradually evaporate over time – every time you think a stock looks ‘cheap’ again, earnings fall further. This process is usually persistent and can last for years.
- 2. Asset-based value trap:** Also known as cigar-butts, these types of stocks look exceptionally cheap compared to the assets. In some cases, the trap is simply a hoped for reversion to a ‘normal’ level of high profitability which is actually unsustainable.

Top 10 signs that your stock may be a value trap

Of course, it’s easy to say with hindsight that a bad investment was a value trap but are there any ways to flag them in advance? Fundamentally, the key to avoiding value traps is doing your homework and exercising caution when approaching enticing investment prospects, but there are some patterns worth watching out for. The following list is inspired by an excellent presentation given by James Chanos at the Value Investing Congress.

1. Is the sector in a long-term decline?

No matter how good the company, it will need a fair wind behind it eventually and if the sector itself is dying, it’s likely to be a huge battle to realise value.

2. Is there a high risk the technology may become obsolete?

Technological progress has hurt Value Investors more than anything in the past 20 years. It can radically reshape an industry

and its product lines – this can have a major impact on the life cycle and profitability of a firm (e.g. the impact of the Internet on both newspapers and retailers).

3. Is the company's business model fundamentally flawed?

Sometimes a company may simply be serving a market that no longer exists, or at a price that is no longer relevant, given competition or new substitutes for the product.

4. Is there excessive debt on the books?

More often than not, financial leverage magnifies the pain of a value trap. A company with no debt is unlikely to go under barring a major catastrophe, but on the other hand excessive leverage can destroy even a great company.

5. Is the accounting flawed or overly aggressive?

It's always best to stay away from companies where aggressive or dubious accounting is employed. Chanos argues that you should be "triple careful" whenever management uses some unconventional accounting metric that they themselves define.

6. Are there excessive earnings estimate revisions?

Analysts are quite lenient and usually allow companies to beat their estimates. Occasional missed earning estimates can provide an opportunity to buy on the dip, but a pattern of missing earning estimates may mean that management and thus analysts are struggling to forecast or understand the business properly.

7. Is competition escalating?

Be careful of companies facing increasingly stiff competition. Is there a tendency for the industry to compete on price to squeeze margins? If the profit margins have been decreasing over the last 10 years it may suggest the company is unable to pass increasing costs onto its customers due to increased price competition.

8. Is the product a consumer fad?

Another sign of a possible value trap is a product that is subject to consumer fashion or whims. Evolving consumer tastes and demand may mean that the market for the product is just a short-term phenomenon.

9. Are there any worrying governance noises?

Is there anything that suggests minority shareholders might be getting a raw deal? One flag is a very limited float of free shares or a tightly held company. While director share ownership can mean that their incentives are aligned with shareholders, it may also act as an impediment to institutional shareholders buying large quantities of stock. In general investors should also be wary of companies with a second class of stock with super-voting rights.

10. Has the business grown by acquisition?

Chanos argues that growth by acquisition is a major sign of a value trap. In particular, roll-ups of low growth, low P/E businesses with expensive share issuance should be seen as a red flag.

Among the potential pitfalls of a value investing strategy, the value trap is arguably the most significant risk facing an investor. While the qualitative checklist given above is an excellent help to

avoiding these traps, we have previously discussed a few quantitative tests that investors can also use to help mitigate the risks. These include screening for positive financial trends using the Piotroski F-Score or for negative bankruptcy and earnings manipulation risks with the Altman Z-Score or Beneish M-Score. Ultimately the best way to minimise the harmful impact of value traps is to pursue a strategy with wide diversification – the subject of the next chapter.

Key Stockopedia Subscriber Tip

Stock Report Red Flags - Keep a close eye on the F-Score, Z-Score and M-Score on the stock report. Each 'meter' helps to visualise the extent to which the score is in the danger zone, and the popup when you click brings up a checklist of possible red flags for further review.

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How diversification can lower your risk

“I mean if you put all of your eggs in one basket, boy, and that thing blows up you've got a real problem.” **Jerry Bruckheimer**

Diversification is the only free lunch in investment. The idea is so simple that even a child can understand the basics – “*Don't put all your eggs in one basket*” – but in practice it seems to be almost impossible for individual investors to accomplish. Why? Primarily because of two reasons. Firstly, as we'll see, they appear to put their eggs in too few baskets but secondly, even when they do choose enough baskets they appear to choose baskets that all hit the ground at the same time!

Is just a few stocks enough?

In 1977 Elton and Gruber published a landmark research note that showed that most of the gains to be had from diversification come from adding *just the first few stocks*. Adding 4 more stocks to a 1 stock portfolio gives you *71% of the benefits of diversification of owning the whole market* and the benefits of owning just 15 stocks brings about 87% of the benefits of a fully diversified portfolio.

As a result of these findings many of the greatest investors highly vouch for the idea of taking a ‘focused’ portfolio approach to investing. The stock-picking ‘hunter’ who has great confidence in his abilities is extremely comfortable at owning just a few stocks. Joel Greenblatt in “The Little Book that Beats the Market” waxed eloquently that if you know what you are doing you shouldn't need a portfolio with more than about 5-8 stocks in it whereas others such as Bill O'Neil have been quoted as saying that “*Diversification is a hedge for ignorance*”. Intuitively also, the more stocks an investor owns, the higher the transaction costs will weigh on portfolio returns.

“Behold, the fool saith, ‘Put not all thine eggs in the one basket’-- which is but a manner of saying, ‘Scatter your money and your attention’; but the wise man saith, ‘Put all your eggs in the one basket and--watch that basket!’” **Mark Twain**

William Bernstein, the renowned financial theorist, hit out at this '15 stock diversification myth' with a smartly argued case that while investors who only own a few stocks may have reduced their portfolio volatility the real risk they face is of significantly underperforming the market by missing the winners.

Bernstein showed that much of the overall market return comes down to a few 'super stocks' like Dell Computer in the 1990s which grew by 550 times. *“If you didn't have one of the half-dozen or so of these in your portfolio, then you badly lagged the market”*. As the odds of owning one of these super-stocks was only *one in*

six Bernstein argued that you could only mitigate the risk of underperformance by owning the entire market!

Not only that but intuitively such low levels of diversification can be extremely dangerous in value stocks which often highlight troubled companies with teetering or questionable business models. Clearly in this situation the well diversified 'basket' approach to value investing can allow you to 'harvest' returns with less risk. This technique is vouched for by Benjamin Graham in almost all of his bargain stock strategies, as well as being used by such luminaries as Walter Schloss, Josef Lakonishok and others. If you fancy yourself as a quantitative farmer rather than a stock picking hunter this is certainly the route to follow. Joel Greenblatt followed up his above comments by stating that "*Most individual investors have no business investing directly in stocks*" encouraging most to invest broadly in 20 to 30 shares.

But remember the number of stocks you own isn't the only number to watch!

Modern Portfolio Theory has shown that there's an ideal level of diversification between 2 stocks which both minimises risk and maximises return. You want to buy stocks that zig while others zag so your 'baskets' don't all hit the ground at the same time. But while this may be easy in theory it seems to be way beyond the ken of most investors.

A 1990's study of study of 60,000 private investor portfolios by Kumar and Goetzmann at one of the US's biggest discount brokerages found that investors on average owned *only 4 stocks*.

Not only that but these stocks had price movements that were *highly correlated – they all zigged together!* As a result their portfolios were just as volatile as the assets held within them completely negating any benefits of diversification. Higher portfolio volatility puts far greater emotional pressure on investors which contributes to bad decision making and worse returns. The average portfolio in the study underperformed the market by up to 4% annually!

Figuring out whether or not stocks have correlated returns can actually be quite tricky and in practice is only evident in hindsight so it pays to think about them a bit more qualitatively. A simple starting point is to ensure that you are investing across different sectors and markets so that you aren't exposing your stocks to similar macro risks.

But another idea is to ensure that you are investing in uncorrelated strategies rather than trying to find uncorrelated stocks. There is plenty of evidence to suggest that a strategy such as Piotroski's 'Bargains on the Mend' has returns that are uncorrelated with other value strategies such as Benjamin Graham's Net-Net strategy as they focus on very different risk factors – in a study by AAll they found that Piotroski's strategy was the only one of their dozens of followed strategies that displayed net positive returns in the financial crisis.

In conclusion, take another look at your portfolio and see if you are deceiving yourself. Do you own just a handful of stocks? Are they all in the same sector? Are you indulging in a fantasy that you are incredibly smart and that the rest of the market is dumb and

playing catch up? If so you are in serious danger of being caught out – there could be 60,000 other investors doing almost exactly the same thing who are all falling prey to the smart money that's likely to be harvesting their self-deception as pure profit!

How to know when to sell

"I never buy at the bottom and I always sell too soon."

Nat Rothschild

Managing your portfolio and knowing when to sell stocks is one of the most difficult aspects of investing. While there is no shortage of buying advice by value investing thinkers, there is a lot less written by those in the know about how investors can apply some logic to their selling decisions. Even Ben Graham was fairly quiet on the subject, other than a brief reference to selling after a price increase of 50% or after two calendar years, whichever comes first. As a result, many investors simply don't have a plan in place to preserve capital and/or lock in profits. Instead, they are often swayed by fear of loss or regret, rather than by rational decisions designed to optimise their returns.

Cut your losses, run your winners

Studies show that, when making money on a trade, people often take profits early to lock in the gain but, when losing money on a trade, most people choose to take the 'risky' option by running losses and holding the stock. Unfortunately, the best investors **usually do the exact opposite** – they cut their losses and run

their profits. The explanation for this relates to a phenomenon known as 'loss aversion', or the fact that people actually value gains and losses differently. Behavioural studies have shown that losses have twice the emotional impact as gains and are thus much more heavily weighted in our decision-making.

To counteract this tendency, one option is to adopt a mechanical selling strategy based on strict rules (in other words, a system of stop-losses), as proposed by American fund manager William O'Neill of *Investors' Business Daily* (IBD). However, as a growth & momentum-focused investor, O'Neill's approach looks for rapid breakout, momentum stocks and obviously wants to bail out of non-performing turkeys as quickly as possible.

This approach is less clearly applicable in the case of value investing, where investors are deliberately targeting companies that are ignored or misunderstood, with a long-term view about the underlying intrinsic value and using a margin of safety. To illustrate this contrast, Warren Buffett hardly ever sells – indeed, his philosophy is that a lower price makes a stock cheaper and a better buy, although admittedly he is mainly dealing with entire companies, rather than parcels of shares.

A view from Philip Fisher

Although himself more of a growth investor, Philip Fisher laid out a more useful set of selling guidelines for value folk in his acclaimed book, *Common Stocks and Uncommon Profits*. He argued that there were three general conditions which suggest that a stock should be sold:

-
1. The investor has made an error in his/her assessment of the company.
 2. The company has deteriorated in some way and no longer meets the purchase criteria.
 3. The investor finds a better company which promises higher long term results after factoring in capital gains.

Gut feelings or worries about a potential market decline are not reasons to sell in Fisher's eyes – and rightly so, given the inherent difficulties of market timing. He explains: *“When a bear market has come, I have not seen one time in ten when the investor actually got back into the same shares before they had gone up above his selling price.”*

A view from Dreman

One thing that seems to be missing from this list is to sell when a company's stock price reaches intrinsic value. David Dreman writes that when following a contrarian Low P/E strategy the investor should sell every stock as soon as it becomes valued equivalently to the market average – *whatever the prospects for growth look like* - and reinvest in another new contrarian play.

Should Value Investors use stop-losses?

Whether stop-losses should be employed is an interesting question for Value Investors. As blogger TurnAround Contrarian notes, stop-losses are something of a taboo subject among Value Investors. Value Investors tend to take the (somewhat arrogant?) view that the hundreds of hours they spend researching a company means

that they don't need the protection of stop-losses – there is no need to worry what the market does because: i) they understand what they are buying, ii) they prefer companies with low leverage (lowering the risk of bankruptcy), and iii) they have bought with a 'margin of safety' which acts as their quantitative safety net.

While it is certainly true that the whole premise of value investing is that the market often drives the price of unloved stocks absurdly low before recovery begins, it may still be sensible to have some rules – or semi-automated procedure – for recognising losses because...

You won't always be right

We all hope that the market will come to recognise what a bargain our latest investment was but there are two distinctly unpleasant alternatives. It may be that we may have bought in far too early and from a return perspective, any future realisation of value will be far too distant to justify tying up your capital that long. Alternatively, we may have got it wrong altogether and the stock may simply be a value trap. Good examples here were both the banking and housebuilding sectors following the credit crisis. Some Value Investors jumped in once prices had fallen say 50% only to watch them fall further by 80-90%. Again from TurnAround Contrarian: *“Having operated turnarounds, I know how quickly industry dynamics can change and how those changes can quickly impact pricing, cost structures and a companies competitive position in the marketplace. An investor needs to realize cash flows can decline very fast”*.

With that in mind, it's worth considering implementing two selling-related rules in your value investing:

1. Always write down your investment thesis

It's well worth writing down **at the time of purchase** the specific thesis that underlies the investment and any metrics for tracking this. This allow you to monitor how future events have impacted that thesis **objectively**, without getting caught up by hindsight bias or issues of loyalty/saving face. One approach, advocated by Greg Woodhams at US investment management firm American Century Investments, is that, should the thesis be (materially) compromised, the holding should be sold immediately and one should avoid allowing new reasons to justify retaining the position.

2. Consider a stop-time

An alternative to selling merely because the price has dropped with a stop-loss is to consider a specific time-limit for loss-makers. Graham suggested selling either after a price rise of 50%, once the market capitalisation matched the net asset value, **or at the end of two years**. Sticking to a similar "stop-time" may be useful in automatically taking you out of dodgy investments. The specific time-frame of two years is of course somewhat arbitrary but the idea is that too short a time period may not be enough time for management to turn a company around, whereas allowing more than, say, three years may cut your compound returns to unacceptably low levels.

Recognising failure is hard

Selling out at a loss is not easy, especially if you spent hours or days analysing and persuading yourself of intrinsic value – this is both due to the well-documented tendency/bias of loss aversion and because loyalty and a desire to save face can get in the way emotionally. Persistence is a virtue in value investing but equally, you may sometimes feel compelled to stick with the company you have come to know and love when the rational thing is just to walk away and invest the money in pastures anew. For that reason, although a stop-loss may not suit a value-based investment style, it is still worth establishing some other clear guidelines / procedures for disposing of your worst investments before it's too late.

Key Stockopedia Subscriber Tips

Momentum - By keeping an eye on the 'momentum' section of the stock report you can watch whether the stock has become over-extended. If a stock is 70% over it's 200 day Moving Average it's a good sign that the stock will take a break.

Traffic Lights - 'Amber' and 'Red' Valuation Traffic lights indicate a stock that is more expensive than its sector or market peer group. Contrarian investors following Dreman style low P/B or low P/E strategies will want to rotate out of these stocks into 'Greener' plays.

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Search & Destroy

5

Where you can find the
best value investing ideas
on the web and what to do
with them

Where can you find value stock ideas?

“A man who dares to waste one hour of time has not discovered the value of life.” **Charles Darwin**

Earlier in this book we proclaimed that there has never been a greater opportunity for individuals to access the information, guidance, screening tools and academic insight that, used together, can offer the best chance of making money from value stocks.

While many of the ‘City grade’ resources used by professional investors have been around for a long time, a great deal of it is now available on the Internet. Combine that with improved access to market data, increasing scrutiny of companies and their accounts and the explosion of successful investors documenting their activities through books and blogs, and the prospective Value Investor has an armoury of resources close at hand.

Where can you find good ideas? **Of course**, that's the million dollar question and there is no one definitive answer. However, here are some of the best place to look:

1. Your own backyard

Fund manager Peter Lynch was famous for arguing that you should buy what you know, ensuring that you stay within a defined circle of competence. Lynch says he would rather invest in: *“pantyhose rather than communications satellites”*, and *“motel chains rather than fiber optics”*. It's worth reflecting in your daily life experience to see if this throws up any ideas or opportunities. Note – this is not the same thing as accepting tips from your mates.

2. Screening

Quantitative screening is a great way to generate ideas. This can come into three forms, all of which are worth considering:

- Checking daily ranking lists like the 52-week low list if you're a contrarian, or single metric value lists like Low P/E, P/FCF, P/B or relative strength lists if you're a value & momentum investor.
- Following Guru screens based on the approaches of investors you respect (like Ben Graham or Warren Buffett).
- Running your own screens, based on metrics you've found useful (and ideally back-tested).

3. Blogs & social investing websites

There is a growing number of high quality blogs with analysis that rivals the City at times. In the UK, the best stock-picking focused blogs include UK Value Investor, Richard Beddard of Interactive Investor, Expecting Value, Mark Carter, Valuehunteruk, ValueStockInquisition and Wexboy. Bulletin boards can also be a useful source of ideas and ways to track "scuttlebutt", for example the Motley Fool in the UK or Seeking Alpha & The Corner of

Berkshire & Fairfax Message Board in the US. It's worth being aware of the herding instinct that can exist on social media sites – often, they are most useful as a way to test out your own thinking and seek out contrarian perspectives.

Key Stockopedia Subscriber Tips

Stock Screens - we are tracking a growing collection of investment models and stock screens based on investment classics, academic research and famous investors. For the current top performers [click here](#). Alternatively 'fork' our models and start your own.

Scuttlebutt - On top of our own market analysis, we syndicate many of the best blogs and research on the web and host a vibrant discussion community. You may find some of the [best ideas on our boards](#).

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4. Follow the best Investors trades

Although investing success is all about variant perception, that doesn't mean you can't draw inspiration from others. It's worth building a list of great investors whose process and philosophy you share and looking at their holdings. As seems to be the case with most things in investing (liquidity, choice of stocks, Reg FD), life is better in the States in this respect. Over there, any money manager with assets over \$100 million is required to file a quarterly 13-F statement disclosing holdings (this data is then aggregated on sites like [gurufocus.com](#) or [marketfolly.com](#)). In the UK, however, large shareholders are only required to flag long holdings

above 3% of a company's issued equity. This means that small funds often do not appear on the filing radar at all unless they invest in very small companies. Nevertheless, sources like TrustNet provide a reasonably good handle on what's happening.

5. Read fund & hedge fund letters

Again, this is more a US phenomenon but there are some inspirational (and free) letters by fund and hedge fund managers that articulate their investment theses. Amongst the UK letters, it's worth reading Tim Price, Niels Jensen and Hugh Hendry, while the best US letters include Warren Buffett (of course), Howard Marks, Seth Klarman, the Sequoia Fund and the Pabrai Funds. Have a good look around [HedgeFundLetters.com](#) has some fantastic content. There are also some emerging UK fund management and broker blogs (e.g. [MoneyMovesMarkets](#) & the [Share Centre](#)).

6. Best books & papers

We have covered the approaches of a handful of well known and highly successful investors in this book, but for more details on what the world's most successful Value Investors really think, you could try: The essays of Warren Buffett by Larry Cunningham, The Little Book that (still!) Beats the Market by Joel Greenblatt, Contrarian Investment Strategies by David Dreman, The New Warren Buffettology by Mary Warren Buffett, The Intelligent Investor by Benjamin Graham and The Dhandho Investor by Mohnish Pabrai. It's also worth searching SSRN for the latest research papers. And, last but not least, there's a useful application and online resource called... [Stockopedia!](#)

Conclusion: go forth and multiply!

“Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught.”

Oscar Wilde

Ever since Ben Graham began rethinking the concepts of stock value and market price back in the 1930s, academics have argued about the merits of value investing while most Value Investors pursuing it have remained content to let their money do the talking. For anyone who was listening, Warren Buffett effectively silenced the value critics in 1984 with his paper *The Superinvestors of Graham-and-Doddsville* but even today it remains far from the consensus investing approach. Indeed, that’s why it is still so powerful. In spite of mainstream opinion, the value investing narrative has been written by the track record of some of the world’s most successful investors, who have cemented its reputation as a strategy that builds wealth.

From those early beginnings of Graham’s deep value methodologies that changed the rulebook on how to analyse stocks, we’ve discussed how value investing has morphed in various directions, mopping up stocks that range from bargain

basement to attractively-priced quality. But under the bonnet, the investment philosophy has essentially remained the same: ignoring the fads of the market and buying mispriced stocks by applying an accurate intrinsic value and a margin of safety should things go wrong.

For the shrewd investor looking to make money in the market, value investing offers a compelling opportunity. Tried and tested principles combined with new approaches for improved stock selection and risk mitigation and the increasing availability of top quality data and online resources, means that individual investors have never been better equipped to go hunting for value.

Will the value opportunities ever run out?

For some, those factors might raise an understandable concern that the well of value is about to run dry. It might be thought that adding too many converts to the value approach will simply narrow the spread between price and value, creating that “efficient market” that academics have long dreamt of.

Buffett rejected that argument in his 1984 paper, by noting: *“I can only tell you that the secret has been out for 50 years, ever since Ben Graham and Dave Dodd wrote Security Analysis, yet I have seen no trend toward value investing in the 35 years that I’ve practiced it. There seems to be some perverse human characteristic that likes to make easy things difficult. The academic world, if anything, has actually backed away from the teaching of value investing over the last 30 years. It’s likely to continue that way”.*

This is because not everything in value investing is straightforward. The success of the approach is underpinned by the inherent behavioural biases that tend to dog professional and individual investors alike. A contrarian method that targets stocks that are out of favour or misunderstood relies on recognising the flaws in your own behaviour and not being swayed by that of others. There is something strangely unnatural about investing in value stocks – it's hard, unpleasant and often deeply uncomfortable to buy companies that the market has rejected and the world has written off as hopeless cases. But the paradox is that, for those with the patience and perseverance, the evidence suggests that it's extremely rewarding – financially speaking!

The key to successful value investing is patience. As Irwin Michael of ABC Funds notes, finding cheap stocks is often the easy part. The hard part is waiting it out until the general market (i.e. other investors) catches on, a process which take weeks, months or even years to play itself out: *“At the early stages of value purchases there is considerable frustration and investment agony until a particular stock's value is recognized and its share price climbs....Once recognized, the value stock rapidly runs up in price. This sudden appreciation and transformation from value to momentum share play will equally test a Value Investor's resolve regarding the “when to sell” decision”*.

While sufficient groundwork, research and preparation can give the informed investor an advantage, it's still hard to keep your head and remember your investment thesis in wild markets dominated by risk aversion and a herd mentality. As Buffett notes: *“markets have not gotten more rational over the years. They've become*

more followed. But when people panic, when fear takes over, or when greed takes over, people react just as irrationally as they have in the past”. As just one example, the recent market turmoil of 2007/2008 produced opportunities and margins of safety, which Value Investors have not encountered since the mid 1970s.

So, as we observed at the beginning of this book, there are very few certainties when it comes to stock market investing, but here is one: there will continue to be discrepancies between price and value in the market and in the coming months a previously unloved, misunderstood and undervalued company will make its shrewd and persistent shareholders a lot of money. It won't be the only one. Human nature means that the value premium is here to stay.

It's time to decide whether you have got the temperament and mental strength for value investing. If you don't, we'd suggest putting your money in a low-cost tracker fund and be done with it. If you have, then, armed with great data, diligent research and the guidance of the greatest investors, go forth and conquer – by being patient, buying cheap companies and making money in value stocks

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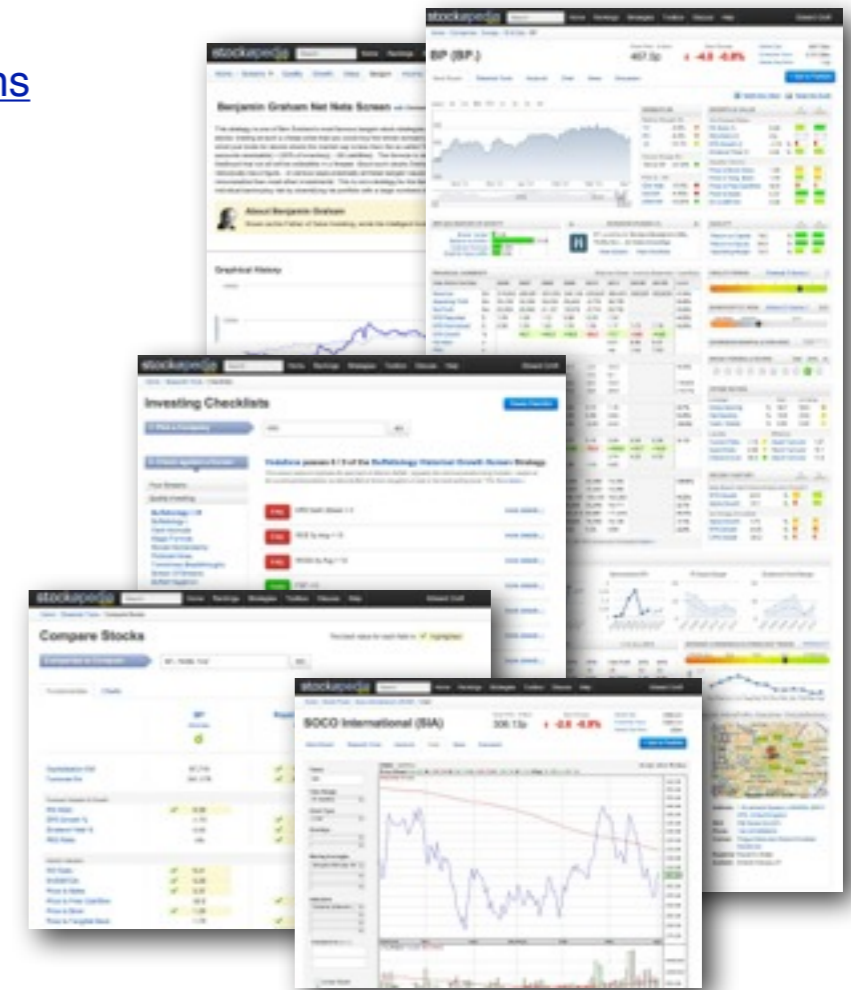
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