



Smart Investor Building insight into trading shares

“The main benefit to owning shares is that their price can increase.”

Part 1

What is a share?

The word “share” captures the essence of what it is: a share of the ownership of a company. Sometimes people use the terms “equity” and “stock” but they all refer to the same thing. When you own shares, you are one of the owners of a company, called a shareholder.

Companies, especially those listed on public exchanges (or stock markets) such as the Johannesburg Stock Exchange,

can be worth many millions, often billions, of rand. When you own shares you are getting a piece of that pie. Shares split the company into lots of little units that are each worth a small fraction of the total value of the company.

Companies, with the guidance of their shareholders, can choose just how many shares to issue. Often, the number of shares in issue runs into the millions.

Key terms

- **Share**
A financial instrument that represents a share in the ownership of a company.
- **Shareholder**
Anyone with shares. Shares give holders rights to vote on important company decisions and to receive dividends.
- **Dividends**
A payment to shareholders out of the company’s resources. This is usually in cash but there can be other types.
- **Ruling price**
The price usually quoted when we talk about what a share price is. It is the last price at which a trade of those shares took place.

Why own shares?

As an owner of shares, you get certain rights. These are the right to vote on important decisions being taken by the company and the right to receive dividends. Dividends are paid out of the profits of a company; they are what you earn for being one of its owners.

You are also exposed to the price of the shares. The price of a share depends on what people trading in a market think it is worth. Share prices change every day as people buy and sell them. When you look at a share price, what you see is the "ruling price", which is the price at which the share most recently traded.

Daily newspapers, for instance, carry the closing prices of the previous day. Share prices go up and down as people change their views about the value of a company.

The main benefit to owning shares is that their price can increase, though the risk is that they can also decrease. Share prices, though, tend to increase on average, so over time the probability that prices will go up increases. For that reason, holding shares is a good long-term investment.



Shares split a company's ownership into lots of small parts. People who own them get voting rights and dividends.

How are companies valued?

Think about your own personal wealth. You have assets, but you probably also have debts. Your "value" is the sum of your assets minus your debts. Companies work in exactly the same way. They have shareholders and also lenders. Lenders come first – they have to be paid back before shareholders have anything.

Therefore, one way to think about the value of the company is to subtract its debt from the assets which gives us what we call "net asset value".

But this is not the whole story. Looking at the net asset value of a company doesn't tell you what its potential

is, only what the current position of the company is. Some companies don't have many assets but still earn good profits – think of a company of accountants (their calculators aren't worth that much). So another important factor in the value of a company is its potential to earn future profits. In fact, when we think about assets, it is their potential to generate cash when we sell them that matters, rather than their actual value. The critical thing then is to understand that a company's value is really all about potential future profits.

However, the future is uncertain – and that's the key reason why share prices change. We will say much more about valuing companies in future notes.



In brief

Shares split a company into lots of little units that are each worth a small fraction of the total value of the company. Share prices go up and down as people change their views about the value of a company.

A company's value is really all about future potential profits. The reason people take risks by buying shares is because they have a prospect of returns that justify it.



How do shares differ from other investments?

Share prices and company dividends can change, so you never know exactly what you are going to get when you buy a share. Returns are quite different from other assets such as owning property or depositing money in a bank account. The key difference comes down to how reliable the returns are.

In the case of shares you have no guarantees. That is different to cash in a bank account, which guarantees that you will get your money back and that you will earn interest on it. Property has no guarantees either, but prices and rents tend to be less volatile over time.

Shares tend to be the most volatile of the main types or classes of investment. But this affects the price at which they are traded – the reason people take the risk of investing in shares is that they expect the returns to justify it.

That is why share prices, over the long run, tend to outperform other less volatile asset classes such as cash or property. Different shares have different levels of risk, depending on just how reliable the cash flows to the company are.

The least risky type of asset is a bank account deposit in a large, well-established bank. The most risky is to invest in a company that has very uncertain prospects, such as a gold exploration company that may never find gold, or it may strike it rich.

All financial assets sit somewhere between these two extremes and the prospective returns adjust to match those risks.



Part 2 – We discuss more about the prices of shares and how to read share price graphs.



Smart Investor Building insight into trading shares

“Share price graphs are useful to show you how a share has been performing.”

Part 2

How do you read share price graphs?

A share price graph shows the ruling prices and how they have changed over time. Usually the prices shown in graphs you commonly see in the media and research reports are the closing prices for each day, though you can also get intra-day graphs that show the prices during the course of a day. Along the horizontal axis is the time period that is being looked at. The graph below reflects the Anglo American share price over the course of one year. On the vertical axis, sometimes called the Y axis, is the share price. As per convention, this is expressed in cents. So this graph shows you that the Anglo share price has been trending down, from R273 per share on the left hand side one year ago, down to R186 per share most recently. Share price graphs are useful to show you how a share has been performing.

But there is not much more that they can tell you. There is a

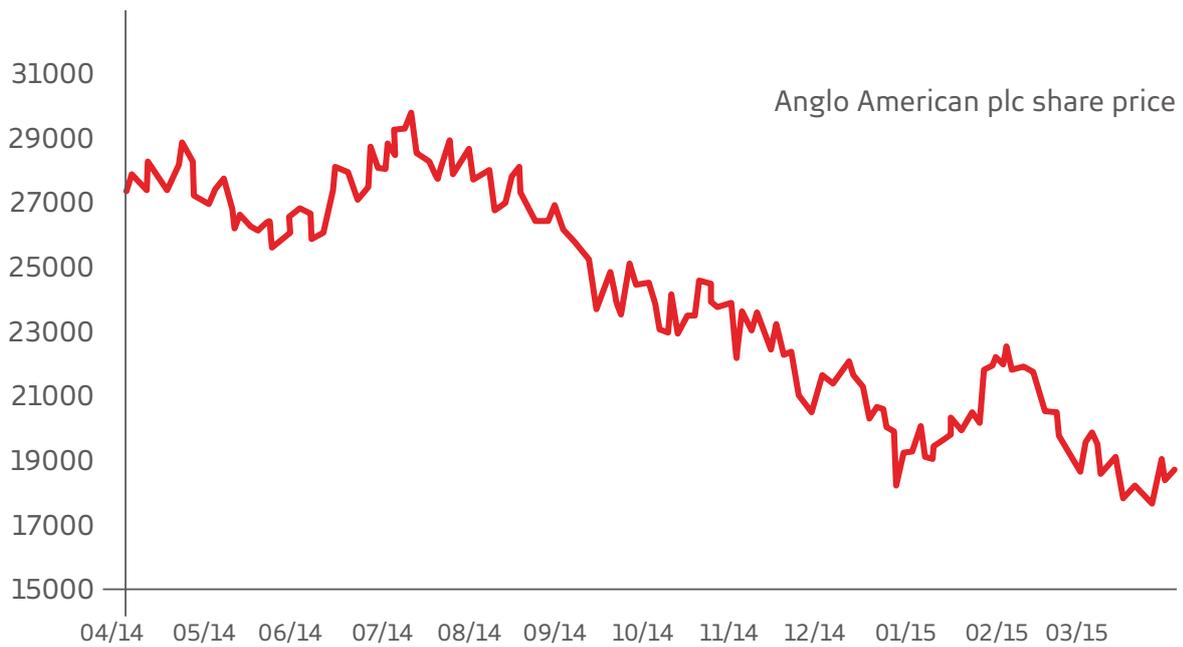
type of research called technical analysis that studies graphs and attempts to draw out predictable trends, though there is little academic support for this approach (we’ll discuss this in future notes).

One type of trading strategy is called “momentum trading”, which works on the assumption that trends hold firm, so that would mean that the Anglo share should be sold because it is going to get weaker. Another strategy, though, called “value investing”, says that you should buy shares that are historically cheap.

The point is that a share price graph is not something that gives you unambiguous trading indicators. It is only a historical record of what prices shares have traded at over time.

Key terms

- **Value Investing**
Buying shares you believe the market has undervalued.
- **Momentum Investing**
Trading in the belief that a share price will follow its trend: if it has been rising, it will continue to rise; if it has been falling, it will continue to fall.



Part 2.1 – We discuss the kinds of shares you get and how they differ.



Smart Investor Building insight into trading shares

“The ‘ruling price’ is the price at which the most recent transaction took place.”

Part 2.1

How are shares priced?

We often read and hear in the financial media about share prices going up or down. Just what does that refer to? How are prices determined?

The first point is that a share price does not make sense in isolation. You can't say that a share priced at R100 is 10 times more expensive than a share priced at R10. The actual level of share prices is affected by how many shares there are in issue, which determines just how many “pieces” the total value of a company is broken into.

This can change over time – companies do share consolidations or share splits which can combine or divide shares and issue or buy back shares, all of which affect the number of shares in issue.

We'll discuss much more in future notes on how to think about the value of shares. In this note we focus on how share prices are set.

Generally the price we talk about is the “ruling price”. This is the price at which the most recent transaction took place. A transaction happens when a buyer and seller agree to a certain price. That happens only after buyers and sellers post prices that they would be willing to trade at.

Imagine you want to sell a share. You have two choices about the way to set a price you would like to get for the share. You could either sell it at whatever the best market price is, or you could set a particular price limit that you will accept. Doing the latter is called a “limit order”.

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Bids and offers

Like any marketplace, buyers and sellers bid for the goods on offer. This applies to shares too. Most shares on the JSE have at any one time a set of different bids and offers. When you place a limit order, your order goes into that set of bids and offers.

When you place a market order, it will be fulfilled at whatever the best offer or bid in the market is at that time.

Key terms

- Ruling price**
 The price usually quoted when we talk about what a share price is. It is the last price at which a trade of those shares took place.
- Closing price**
 The last ruling price of the day. On the JSE, this is set through a daily closing auction.
- Bid**
 This is the price you are willing to pay for a share. You specify a number of shares and a price and that bid is placed in the market. When you bid, you buy.
- Offer**
 This is the price at which you are willing to sell a share. You specify how many shares you are willing to sell at the price. Sometimes this is called an "ask" price. When you offer, you sell.
- Limit order**
 This is a bid or offer with a specific maximum price (if you are buying) or minimum price (if you are selling). You place it in the market and it is fulfilled if a counterparty agrees to match or better your limit price. If no one matches the price, the order will expire unfulfilled.
- Market order**
 In contrast to a limit order, this executes a trade at whatever the best price in the market is at the time.
- Spread**
 Difference between the best bid price and best offer price at any one point in time.
- Market depth**
 All the bids and offers in the market. A "deep" market has many bids and offers.

For example, here are the top 10 bids and offers in the market for shares in Anglo American, a very heavily traded share:

Market depth for Anglo American				
	Bid size	Bid	Offer	Offer size
1st	411	18770	18804	394
2nd	4488	18767	18804	200
3rd	465	18766	18805	317
4th	1000	18762	18805	25
5th	5000	18758	18807	331
6th	400	18753	18808	331
7th	400	18753	18809	331
8th	495	18753	18809	357
9th	400	18753	18810	90
10th	400	18752	18811	184

Key take outs

A market order is to buy or sell at whatever the best price in the market is. It is quick, and you can be nearly certain that the order will be fulfilled.

A limit order is to buy or sell at a price that you specify in advance. It may not be fulfilled if no other matching orders are placed in the market.

The choice between the two comes down to how patient you can be in waiting for the market to come to you.

How are shares priced?

In the table on page 2, the best bid price is R187.70 (the table above shows this amount in cents, which is the normal convention when quoting share prices). This is the best price that someone is willing to pay for shares in Anglo American. The best offer price is R188.04. So there is a gap of 34c between them, which we call the spread.

If that was all there was to it, there would never be a trade. The 34c gap means buyers and sellers are not meeting. But, if someone puts a market order in, it will be immediately fulfilled with the best offer or bid. So if you wanted to buy Anglo shares at the market price, you would pay R188.04 for them. If you wanted to sell, you would get R187.70.

Another important element is the size of the order. You can see in the table above that the best bid has a size of 411 shares. This is the number of shares that the bidder is willing to buy (so the total value of the order is R77 144.70). In contrast, the number of shares for the best seller is 394.

So what if you want more or fewer shares than the sizes that have been ordered? If you want to buy 100 Anglo shares, that would be no problem. You'd get all 100 shares at the best offer price of R188.04. But if you wanted to buy 800 Anglo shares you would get all 394 on offer at R188.04, then you'd get the next 200 on offer, also at R188.04. Thereafter you would get the balance, which is 206 shares, at R188.05 – the third highest offer in the market.

Such an order would then have an average price slightly above R188.04 and slightly below R188.05. However, the result of the transaction would be that the ruling price would become R188.05 because that is the last price at which the order was fulfilled.

This is a fairly detailed discussion of how market prices are formed, but the really important thing is to understand the difference between a market order and a limit order.

A market order simply says that you should buy or sell at the best price in the market. The advantage is that it is quick and you have certainty of the transaction being filled (except in some rare circumstances for very illiquid stocks where there are no orders in the market).

A limit order places a bid or offer into the market at a specific price. The risk with a limit order is that it may never be filled if no one else in the market places a matching bid. So limit orders are not ideal if it is important that a transaction be completed. However, they can get you better prices.

The decision between the two forms of order really depends on how patient you can be. If it is not urgent, your patience may be rewarded by getting a better price than you would at the market level.



Part 3 – The different types of shares – ETFs and ETNs.



 A red icon consisting of three circles connected by lines, resembling a network or a stylized letter 'S'.

Smart Investor Building insight into trading shares

“Whatever money is available to pay dividends is first allocated to the dividends on preference shares before ordinary shareholders get anything.”

Part 3

What kinds of shares are there?

By now you will be familiar with normal shares – a financial asset that gives you a small slice of the ownership of a company. We often call these “ordinary shares” which is sometimes abbreviated as “ords”. Ordinary shares come with rights to dividends and voting rights.

While it is uncommon in South Africa, you can get different types of ords that have different rights attached to them. For example, the media company Naspers has two types of shares

in issue called N ords, which are listed on the JSE, and A ords, which are unlisted. The two types have different dividend and voting rights, with A shares having 1 000 times the votes of N shares.

This allows A shareholders to control the company without actually owning as much of it as N shareholders. This separation of voting and economic rights is not encouraged and is now quite rare.

Key terms

- **Ordinary shares**
These are the common equity shares that you would normally buy in a company listed on the JSE.
- **Preference shares**
These are a form of share that behaves more like debt. They rank ahead of ordinary shares for dividends and in the event of liquidation, but the dividend is a fixed rate.

Preference shares

More common are a different type of share called preference shares, usually abbreviated to “pref shares” or just “prefs”. Their key feature is that they earn a capped rate of dividends which is quoted as a percentage. So the dividend behaves a lot like interest. You invest a certain amount in the shares and you get a return upfront that is known in advance.

These shares are called “preferred” because as a holder you are preferred over the ordinary shareholders. Whatever money is available to pay dividends is first allocated to the dividends on preference shares before ordinary shareholders get anything. Also, in the event of a liquidation, preference shareholders are paid out before ordinary shareholders.

In return for being preferred though, pref holders sacrifice some of the upsides because dividends are only paid up to the limit. You don’t get any voting rights. You also have no guarantee that the pref dividend will be paid – if the company performs poorly and is unable to make payment, pref shares go without. If a company passes the pref dividend you are still entitled to the next one.

Most prefs are non-cumulative, which means if the dividend is passed you never get it, but some are cumulative, which means any unpaid dividend accumulates as an obligation and the company must still settle it before it can pay ordinary shareholders. In practice it is rare for a company to not pay out the preference dividend.

These features mean that pref shares are often bought by investors who want to limit risk and want an income stream. While the dividends behave a lot like interest, they are not considered as interest for tax purposes so are charged dividend tax (15%) rather than the higher income tax that is applied to interest, depending on your tax bracket. Pref shares therefore are a way savers can get a higher after-tax yield compared to interest.

However, because companies cannot pay the dividend in circumstances of distress, they carry higher risk than interest-earning cash.

There are some other types of preference shares that you may find:

Redeemable prefs are redeemed by the company at a specific time. In effect, pref shareholders are paid back their capital at that point. Redeemable prefs also tend to be cumulative. Redeemable prefs are much more like debt than non-redeemable prefs because of this capital repayment feature and often have a guarantee from a highly-rated bank or other financial institution. Most of the pref shares listed on the JSE are non-redeemable and non-cumulative, so are more like equity. These are often called perpetual prefs.

Convertible prefs can be converted into ordinary shares. These types of shares are often used in the unlisted environment and give holders the best of all worlds: priority in being paid a basic return and the ability to convert into ordinaries if the company is doing very well. The terms for conversion can be complex and can be at the discretion of either the pref shareholder or the company. These are not commonly listed on the JSE.

While it helps to be aware of all these differences, for the most part the pref shares you will encounter on the JSE are non-cumulative, perpetual prefs. That means there are risks associated with prefs – particularly that the company can skip the dividend if it is not doing well – but such risks are less than with ordinary shares. Preference shares are a good alternative to ordinary shares if your priority is income rather than capital appreciation, but you should keep in mind that the price of the shares can fluctuate and the income flows are not guaranteed.

Preference shares are traded just like normal shares with bid and offer prices in the market. Prices can move as market demand changes. Volumes of new issues can affect demand, as can concerns over changes to the tax status of prefs and the ability of the companies to meet their obligations. Interest rates also affect prices because the fixed pref dividend can become more or less attractive depending on what happens with interest rates.

Key take out

Preference shares are a good alternative to ordinary shares if your priority is income rather than capital appreciation.

But you should keep in mind that the price of the pref shares can fluctuate and the income flows are not guaranteed.



Part 3.1 – The different types of shares – ETFs and ETNs.

A red icon consisting of three circles connected by lines, forming a simple network or branching structure.

Smart Investor Building insight into trading shares

“ETNs are similar to ETFs in the types of exposure they give you and the way they work, although their formal structure is quite different.”

Part 3.1

Exchange Traded Funds

Exchange-traded funds, usually called ETFs, are just like shares, except that instead of having a company at the base of it, there is a portfolio of assets. So when you own shares in an ETF you own a share in a portfolio. The returns you get are a function of the assets in the portfolio.

ETFs are a way to easily gain a diversified portfolio of assets. For example, an ETF such as Absa's NewFunds SWIX 40, gives you exposure to the 40 largest companies on the JSE. However, it does not invest in each share equally. The weightings for each share are in proportion to the holdings in the companies by South African investors.

ETFs are usually cost-efficient compared with other ways of building a portfolio such as assembling the shares yourself or investing through a unit trust. There are now more than 40 ETFs which give exposure to a wide variety of portfolios including bonds, commodities like gold and platinum, property and combinations of these asset classes.

ETFs are priced and traded the same way as shares and you can place market or limit orders, as discussed in our earlier note: Understanding share prices.

Key terms

- **Exchange Traded Funds**
These are just like normal shares except that they are a share of a portfolio of other instruments. Often the portfolio consists of shares of companies listed on the JSE but can also be foreign companies, commodities and other instruments.
- **Exchange Traded Notes**
These are like ETFs but instead of holding a portfolio of assets, the notes are guaranteed by a highly rated financial institution to pay a return based on some other reference asset. ETNs do have credit risk to the institution that gives the guarantee. ETNs are useful when it is difficult to assemble a portfolio of underlying assets such as some types of commodities.

Exchange Traded Notes

Usually just called ETNs, these are similar to ETFs in the types of exposure they give you and the way they work, although their formal structure is quite different. ETNs are technically debt instruments because there is a credit element to them – basically a promise by an institution to pay you a certain amount.

The amount though, is set by reference to some other financial asset. So an ETN could be written on the JSE's Top 40 stocks, or the gold price, oil price, currencies and many other assets. There are about 30 ETNs listed on the JSE at the time of writing.

Other instruments

The JSE has many other instruments listed, such as bonds, index futures, contracts-for-difference and other derivatives. Some of these are used by retail investors and we will discuss these more

complex types of instruments in future notes. For most investors though, ordinary and preference shares, ETFs and ETNs are more than enough to build a successful investment portfolio.



Part 4 – What returns do you get from shares?



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“ETNs are similar to ETFs in the types of exposure they give you and the way they work, although their formal structure is quite different.”

Part 4

We invest in shares because we want to generate a return on our savings. The stock market is a very important source of investment returns across the economy and by having a stockbroking account, you get to access that directly. But your pension fund, life insurance and many other forms of savings ultimately also depend to some extent on the stock market.

Shares give you two main kinds of returns: cash in the form of dividends, and capital gains when the value of your shares goes up. But within those two main kinds there are some issues to be aware of, which we will discuss in this note.

Key terms

- **Dividends**
A payment to shareholders out of the company's resources. This is usually in cash but there can be other types.
- **Capital gain**
This is the appreciation in the value of shares over time.

Dividends vs capital gains

A company pays dividends out of the equity that it holds on its balance sheet. Equity comes from two sources: the cash shareholders put into a company, usually when it's first set up, and the profits that the company generates. Usually the dividends we get from JSE-listed companies are paid out of profits. Every six months the board of directors examines the profits the company has made and decides whether or not to pay out a dividend.

They can be declared at the interim period (halfway through the financial year) or declared at the end of the year. The cash is paid into your stockbroking account.

In theory, dividends are all there is to investing. It is the cash we get from holding shares. However, there are good reasons why a company should not pay out dividends, at least in the short term.

The first is that dividends are taxable. In South Africa the tax rate on dividends is 15%. So a company first pays taxes on its profits, and then you have to pay an additional 15% when you receive the dividends in your hands. This is done through a withholding tax, so you never have to worry about paying the tax man later.

When a company should pay out dividends

A company that doesn't need capital should pay out the cash to shareholders. Shareholders can then use that cash to invest in other companies that can make better use of it to generate greater returns. Generally, companies that don't need capital are those that we call "ex-growth". This means that they have reached maturity and do not need to invest in growing.

The second reason is that the company may be able to generate better returns from the cash than you can. When you are paid dividends, unless you need the income, you are in effect increasing the cash in your overall investment portfolio which would lead to lower returns.

Cash earns interest in your account, but this is usually a lower amount than the overall returns from shares. If, on the other hand, a company does not pay a dividend, that money stays in the company and the company is worth more than it would be otherwise.

So the key point is that there is a trade-off: paying out dividends gives cash to shareholders but incurs taxes, whereas keeping dividends makes the company more valuable so there will be a gain in the value of the company.

There is still a tax consequence because you are liable for some tax on the capital gains, but there are some exemption thresholds and you are only liable for this after you sell the shares, so taxes are at least deferred.

The nitty gritty

Dividends are the cash you get from holding shares. If you need income, investing in companies with a good track record of paying dividends is a good way to get it. Capital growth is appreciation in the share price, and can be a much more important source of returns. In effect, you get that cash when you sell the shares at a higher price.

It can be more efficient for companies to keep their profits and invest in expansion, especially from a tax point of view. Such companies are called growth companies and can be a better choice if you have a long-term investment horizon and don't need the income.

When a company should pay out dividends

When dividends are not paid out, the company retains that cash and can use it. There are two very different types of companies that may want to do this: those that are in some distress, and those that are doing very well and can invest to grow.

Distressed companies often need a cash buffer to ride out the rough times. A company will stop paying out dividends and retain cash in order to be able to cover costs during a period in which it won't be very profitable. At the time of writing (May 2015), one company that looks set to be in this pattern is Sasol, which is seeing a lot of pressure on its profitability because of the low oil price.

On the other hand, companies that are doing well can make better use of the cash than shareholders. Companies that are growing can use their profits to invest in that growth; for example, by opening new premises, factories and the like, or by expanding into new markets. The tax advantages of doing this also tip the scale in favour of the company keeping the money and investing in itself. A key metric that guides whether companies should do this is "return on equity" which indicates the percentage return the company can earn out of the shareholders' cash it holds.

Mixing dividends and capital gains: share buybacks

A company can instead choose to use its cash to buy back and cancel its own shares. Usually this makes no difference from a tax point of view because such buybacks are still treated as a dividend.

When shares are cancelled the remaining ones become (in theory) more valuable. This is because with fewer shares in issue there is more value per share, more profit per share, and so on.

Sometimes a company will buy back shares when it has excess cash but wants to keep its dividend yield stable. Companies with a good reputation for a stable dividend would do this so that they don't disturb their reputation for predictability.

Which kind of company should you invest in?

The answer depends on what kind of returns you want to generate. If you are relying on your savings to generate an income to fund your lifestyle, then you want to invest in dividend-paying stocks. A good example would be someone in retirement or someone living off a lump-sum payout. Dividend paying stocks will generate cash flows for you.

The Top 40 companies on the JSE have an average dividend yield of about 3% and you can usually beat that by selecting companies with a good dividend track record and earn around 4% after tax. Property stocks, banks and telecoms are typically good types to look at.

A high RoE means the company may be able to make better use of cash than its shareholder could if it paid out. We'll discuss RoE more in a future note.

The fact that there are two such different reasons for not paying out a dividend means dividends have an important "signalling effect". A company that does declare a dividend is telling the market that it thinks things are going well and it doesn't need to worry about tough times. In order to protect this image in the market, companies do sometimes pay out dividends even when it is going to cause them some cash flow stress.

We talk about companies as being of these two different "types": growth companies, which tend not to pay out dividends because they are investing in expanding; and dividend-paying stocks, which we sometimes call value stocks or income stocks. Some investment analysts argue that dividend-paying stocks are the better bet in the long run. This is because being committed to a dividend ensures better financial discipline in the company and higher quality of earnings in the long run. Growth companies are riskier because it is less certain that their profits will grow as much as expected and they may make bad investments.

Other companies will do it because they have excess cash but don't want to declare a cash dividend both for tax reasons and because they want to be seen as growth companies. A buyback ensures share price appreciation for shareholders without coming to be seen as a dividend-paying company. Companies may also do buybacks where there are specific shareholders who want to sell and if they did so on the open market it would cause prices to fall. Black empowerment deals often contain provisions for such buybacks.

Companies also sometimes try to time their buybacks, purchasing shares when they are cheap. There are some studies, though, that show companies get this very wrong at times.

If on the other hand your share portfolio is a long-term portfolio, it makes more sense to invest in growth companies that will aim to build their value over time.

Companies such as Naspers, Aspen and Discovery pay out some dividends, largely to signal their health to the market, but retain a lot of earnings to fund their growth.

What kinds of dividends are there?

The term “dividend” refers to any distribution a company makes and can include literally anything. The most common kind of dividend is a cash dividend. Such dividends follow this process:

1. A board resolves to declare a dividend
2. The declaration takes place usually with the announcement of financial results
3. Dates are usually announced with the declaration, including:
 - a. Last day to trade cum dividend. “Cum” is latin for “with”. If a share is “cum dividend” that means when you buy it, you are also getting the dividend that is already declared.
 - b. On the declared date, the shares go “ex-dividend”. On this date, anyone buying the share will not be getting the dividend. On this day you will usually see the share price fall by an amount equal to the dividend because new buyers are not going to get it.
 - c. Date of payment.

These dates are usually spaced out with the ex-dividend date about one month after the announcement and the payment about a week after that.

Alternatively, companies sometimes declare a “capital reduction” rather than a dividend. This is much more tax efficient because returning capital to shareholders is like paying back a loan – it is money they put in, so it doesn’t count as a dividend. It therefore doesn’t attract dividend tax. Companies are limited in this regard – once they have paid back the money shareholders have put in, there is no further scope for capital reductions.

A third type of dividend is called a “dividend in specie”. This is when instead of paying out cash, companies give shareholders new shares, and is usually when companies are short of cash and want to give shareholders a choice between cash or the dividend in specie. Shareholders who don’t need the income are better off taking the shares. The shares, however, are valued at zero for capital gains purposes so capital gains liabilities can be created for shareholders.



Part 5 – What returns do you get from shares?



Wealth and Investment Management
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“A deep market has many Bids and Offers compared with a shallow market, which would have few or none.”

Part 5

For this note and the next two notes we focus on the practicalities of placing a trade using the Absa Online Stockbrokers website. This note examines the share price information you get when placing a trade. Next, we’ll consider the prices you may want to trade at (note 6) and then we discuss the practicalities of placing a trade and the costs involved.

Trade Now - Prices are 15 minutes delayed

The Market is Open
The 23F is open between 09:01 and 17:01 weekdays (CPET +2)

Bid and Offer for BARCLAYS AFRICA GRP LTD - Today's VWAP 18452.60c
Last trade at 18460c ▼ 0.82% on previous close of 18622c

Share	Bid	Offer	Last	Today		
name	price (c)	price (c)	price (c)	high (c)	low (c)	time
B-AFRICA	18470	18476	18469	18810	18303	12:36
	18460	18477				
	18430	18479				
	18451	18504				
	18450	18517				

New Order

Trade with BDA Account
Cash available for trading

Buy/Sell: Buy | Number of Shares: 0 | Order Type: Limit Order | Limit Price (cpx): 0 | Expiry Date: 11/05/15 | Expiry Time: 17:10

Buttons: Reset, Enter Order

* Estimated Costs in Rands (ZAR)

Account	Estimated
Demo Account	R 0.00
Brokerage	0.00
Stamp Duty	0.00
Investor Protection Levy	0.00
VAT	0.00
STT	0.00
Total estimated cost	0.00
Total Estimated Cash	0.00
Available in account	R 0.00
Balance after this trade	R 0.00

* Please take note that the estimated costs do not factor in any pending/matched trades done today. Pending/matched trades for this share for today will be factored in on the Order verification page where you will see the total cost.

The above example is a screen from the Online Stockbroking Account and shows the trading page for the shares in Barclays

Africa Group (share code BGA). We go through the key pricing elements below

Bid/Offer

Recall from note 2 that the “Bid” is the price people are offering to buy shares at while the “Offer” is what others in the market are offering to buy shares at. The bid price will always be a lower amount than offer prices – as soon as they match, the transaction happens and the trade is concluded. The last column tells you what the most recent concluded trade was.

As per convention, stock prices are always quoted in cents. That can sometimes be cumbersome when share prices are quite high as you are looking at thousands of cents, but it also makes it easy to think of fine-grained distinctions between different Bid and Offer prices. For instance, in this example above there is only 6c separating the best bid and offer.

Bid/offer

Bid		Offer	
Price (c)	Volume	Price (c)	Volume
18470	250	18476	1 524

Market depth

Bid		Offer	
Price (c)	Volume	Price (c)	Volume
18470	250	18476	1 524
18460	102	18477	821
18456	400	18479	106
18451	410	18504	400
18450	1 000	18517	339

Market depth

An important piece of information is the market depth. This is held in the subsequent rows of the Bid and Offer columns. The market depth indicates how liquid and active a particular share is. A deep market has many Bids and Offers compared with a shallow market, which would have few or none. Absa’s portal shows the top five Bids and Offers.

Because your order would be settled only by the fifth- lowest offer in the market, the resulting ruling price would be the amount of that offer – 18517c.

This information is important because you can see what the impact of a large order would be on the ruling price. For instance, if you were buying 3 000 shares at the market price, you would absorb all of the shares on offer in the first four rows, and some of those in the fifth row.

But the actual average price you paid to fill your order would be lower – in this case it would be 18484c, which we call the Volume-Weighted Average Price(VWAP). It is likely that the market price would recover after such a large order as more sellers come in.

Key terms

Bid

The price buyers have offered to buy shares for.

VWAP

The Volume-Weighted Average Price which is the price of shares traded, weighted by the volumes of trade at each price during the day.

Market depth

The orders and bids in the market showing different volumes and bid/offer prices.

Offer

The price sellers have offered to sell shares for.

Today's VWAP 18492.60c

Volume-Weighted Average Price

The VWAP stands for “volume weighted average price” for the day. This can be a more useful guide to what the Ruling Price is because it considers not just the price for the most recently

matched bid and offer, but weighs each trade by the volume of shares traded. So imagine these were the trades for the day:

Trade number	Volume	Price (c)	Trade value (c)
1	250	18460	4615000
2	500	18485	9242500
3	150	18458	2768700
4	1500	18500	27750000
5	600	18508	11104800
6	900	18489	16640100
	3900		72121100
		VWAP:	18492.59

The VWAP can be a better guide to prices in the market because they capture the size of orders going through the market, rather than just the most recent trade.

Today			
High (c)	Low (c)	Volume	Time
18810	18303	383 876	12:36

Highs and lows

Another useful check on prices is the daily High and Low columns. These show the highest and lowest prices for trades that have taken place during the day.

Considering the last trade was 18469c, the market is trading at somewhere between its high and low price for the day.

 **Part 6 – We discuss what prices to buy or sell when trading shares.**




Smart Investor

Building insight into trading shares

“Fundamentally, the right price depends on what you think the share is worth.”

Part 6

In this note we discuss some of the practical considerations to keep in mind when deciding at what prices to bid (buy) or offer (sell) when trading shares. Determining what a share is worth is a complex exercise that we deal with in some length in the advanced education series. Here we look at the practicalities of placing bids and offers.

Trade Now Prices are 15 minutes delayed ✓ THE MARKET IS OPEN
The JSE is open between 09:01 and 17:01 weekdays (GMT +2)

Bid and Offer for BARCLAYS AFRICA CRP LTD - Today's VWAP 18492.60c
Last trade at 18469c ▼ 0.82% on previous close of 18622c

Share	Bid	Offer	Last	Today							
Name	Code	Price (c)	Volume	Price (c)	Volume	High (c)	Low (c)	Volume	Time		
B-AFRICA	BQA	18470	250	18476	1 524	18469	26	18810	18303	383 876	12:36
		18460	102	18477	821						
		18456	400	18479	100						
		18451	410	18304	400						
		18450	1 000	18517	339						

New Order

Trade with BDA Account Demo Account
Cash available for trading R 0.00

Buy/Sell: Buy | Number of Shares: 0 | Order Type: Limit Order | Limit Price (cpc): 0 | Expiry Date: 11/05/15 | Expiry Time: 17:10

*** Estimated Costs in Rands (ZAR)**

Estimated	0.00
Brokerage	0.00
Strate Settlement Charge	0.00
Investor Protection Levy	0.00
VAT	0.00
STT	0.00
Total estimated cost	0.00
Total Estimated Cash	0.00
Available in account	R 0.00
Balance after this trade	R 0.00

* Please take note that the estimated costs do not factor in any pending/matched trades done today. Pending/matched trades for this share for today will be factored in on the Order verification page where you will see the total cost.

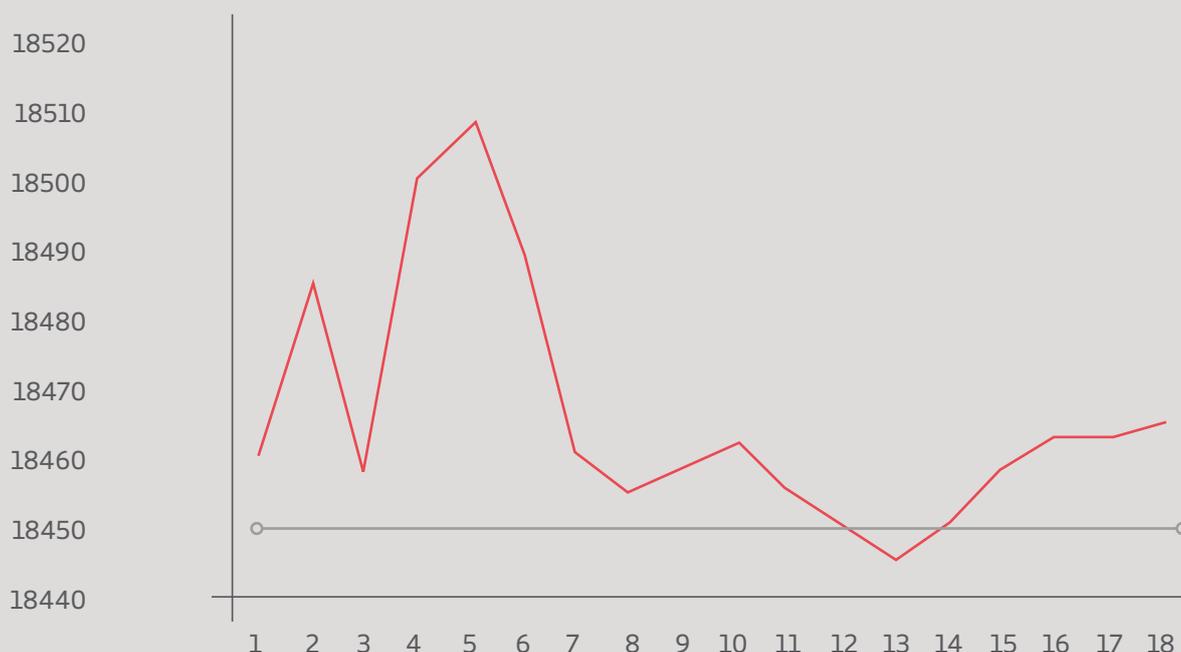
s in notes 5 and 7, we use the example above to illustrate the concepts we'll discuss in this note. The above example is a screen from the Online Stockbroking Account and shows.

the trading page for the shares in Barclays Africa Group (share code BGA).

Limit order vs market order

An important element in any decision to buy or sell stocks is whether you want to place a limit order or a market order. A limit order specifies exactly the prices you want for your shares. This ensures you know what the most you will pay for

the shares is (or the least you will get, if you are selling). The graph below illustrates what might happen if you placed an order at 18450c. As soon as the ruling price reaches that point (12 in the graph) your order will be filled.



In contrast, a market order says you will buy or sell at whatever the best price in the market is at that moment.

So if you were, for example, to buy 100 Barclays Africa Group shares with a market order, in the above example you obtain them at a price of 18476c, because that is the best Offer price in the market (you can see it at the top of the offer column in the screen above).

If you placed a market order Bid, it would be fulfilled immediately, provided there are enough shares on offer in the market.

A limit order, however, posts a bid that would fall into the hierarchy of bids sitting in the market depth. If you bid at, say, 18472c your bid would go to the top of the queue in the list of bids. If someone then placed a sell order to sell shares at the market price, your bid would be the first one to be filled and your trade would be completed.

In this scenario the limit order would have saved you 4c per share off the price you were paying compared to placing a market order.

Bid		Offer	
Price (c)	Volume	Price (c)	Volume
18470	250	18476	1 524

Bid		Offer	
Price (c)	Volume	Price (c)	Volume
18470	250	18476	1 524
18460	102	18477	821
18456	400	18479	106
18451	410	18504	400
18450	1 000	18517	339

The important issue though, is timing. A limit order will not necessarily be filled. When you post a limit order you must specify an expiry date and time. You may want to leave the order up for a week or longer. However, if the market doesn't

come to you it will expire unfilled, so you may never get the price you wanted. A market order avoids this risk by simply taking the best price in the market at the moment you place it.

How to choose what price to bid or offer

Fundamentally, the right price depends on what you think the share is worth. And that is a complex question we address in the advanced series of Smart Investor education notes. However, the first issue to consider is how patient you can be. If you need to sell shares quickly, then it is best to place a market order. But if you have time on your side, you have more chance of being able to get better prices by waiting for the market to come to you.

In note 5 we talked about the VWAP, which gives you a sense of the price in the market weighted by volumes. If you are a small investor you can sometimes have an advantage because your smaller volumes can be filled quicker than large investors'.

So if the last trade price is very different to the VWAP price, it can be a signal that patience will be rewarded. Place your bid or offer at closer to the VWAP.

More volatile shares can also be traded in this way. "Volatility" refers to how much the share price changes over time. A volatile share has a higher chance of reaching your limit order, but again there are no guarantees. Ultimately, investing is about the long term.

Setting limit orders can help shave a bit off the price, but in the long run it won't make that much difference to your returns.

Key terms

Market order

Buy or sell shares at whatever the best price in the market is at that moment.

Limit order

Buy or sell shares at a price you specify. You also specify an expiry time for the order. It may expire without being filled.



Part 7 – We discuss the practicalities of placing trades in the market.



Wealth and Investment Management
Stockbrokers



Smart Investor

Absa Client Education Series

“A ‘spread’ is a theoretical cost, and is the difference between the bid and offer price for a share in the market.”

Part 7

In this note we discuss the practical steps to place a buy order, called a “Bid”. We also discuss the costs involved in making the trade.

Trade Now - Prices are 15 minutes delayed ✓ The Market is Open
The JSE is open between 09:01 and 17:01 weekdays (GMT +2)

Bid and Offer for BARCLAYS AFRICA GRP LTD - Today's VWAP 18492.60c
Last trade at 18469c ▼ 0.82% on previous close of 18622c

Name	Share Code	Bid		Offer		Last Price (c)	Volume	High (c)	Low (c)	Volume	Time
		Price (c)	Volume	Price (c)	Volume						
BARAFR1A	NSA	18470	250	18476	1 524	18460	26	18310	18303	38 2 26	12:26
		18460	102	18477	821						
		18456	400	18479	106						
		18451	410	18504	400						
		18450	1 000	18517	339						

New Order

Trade with RDA Account **Demo Account**
Cash available for trading R 0.00

Buy/Sell: Buy | Number of Shares: 0 | Order Type: Limit Order | Limit Price (cps): 0 | Expiry Date: 11/05/15 | Expiry Time: 17:10

*** Estimated Costs in Rands (ZAR)**

Estimated	0.00
Brokerage	0.00
Strate Settlement Charge	0.00
Investor Protection Levy	0.00
VAT	0.00
STT	0.00
Total estimated cost	0.00
Total Estimated Cash	0.00
Available in Account	R 0.00
Balance after this trade	R 0.00

* Please take note that the estimated costs do not factor in any pending/matched trades done today. Pending/matched trades for this share for today will be factored in on the Order verification page where you will see the total cost.

As in notes 5 and 6, we use the example above to illustrate the concepts we'll discuss in this note. The above example is a screen from the Online Stockbroking Account and shows the

trading page for the shares in Barclays Africa Group (share code BGA).

Placing an order

Buying shares is really simple. You just need to specify the number of shares you want to buy, the type of order and the limit price, if appropriate. In note 6 we discussed the

difference between limit and market orders. To place the order, the key section to complete is this one:

Buy/Sell	Number of Shares	Order Type	Limit Price (cps)	Expiry Date	Expiry Time
Buy ▼	0	Limit Order ▼	0	11/05/15	17:10
Reset		Enter Order			

In the image above, we've chosen a limit order. We need to specify the number of shares we want. Often we think about the amount we want to spend, rather than the number of shares, but it's easy to figure out a number from the share price. For instance, if we wanted to buy R10 000-worth of Barclays Africa Group shares at a limit price of R184.50 per share, we would place an order for 54 shares (rounded off, that would be worth R9 963).

We can then set the expiry date and time for the limit order. In contrast, if you were placing a market order, it would be filled at the best offer price available in the market immediately.

Once you've completed the order you can click "Enter Order" and it will be posted. You will be notified when your order is filled.

Costs of trading

There are a few different things that feed into the transaction cost of a trade, including taxes and brokerage.

These are the different costs involved:

Strate Settlement Charge

This amount is calculated as 0.005787% of the value of an order, subject to a minimum of R11.58 and maximum of R57.87. There is a discount for tax-free savings accounts. This amount goes to Strate, which provides settlement services for all JSE products.

Investor Protection Levy

This is 0.0002% of the value of the order. This amount is levied by the JSE to cover the costs of monitoring and enforcing JSE trading rules.

VAT

Value added tax is charged on the brokerage, Strate charge and levy amount.

STT

Securities transfer tax is a government-imposed tax on all stock trading, levied at an amount of 0.25% of the value of the trade.

Brokerage

This is the fee the stockbroker charges for the trade. It is set at 0.4% of the value of the trade with a minimum of R120.

Absa Stockbrokers’ order page provides a handy calculator that shows you what the transaction costs for your trade will be before you place it. Just fill in the details of your order and it will appear.

Spread

Another cost to keep in mind is the “spread”. This is a theoretical cost. It is the difference between the bid and offer price for a share in the market.

Bid		Offer	
Price (c)	Volume	Price (c)	Volume
18470	250	18476	1 524

So for instance, looking at the numbers above we can see that the “spread” is 6c. This represents what it would cost you to buy the share and then sell it immediately, in addition to the trading costs discussed above.

Of course, you would never do that, but the spread is a good thing to keep in mind because it gives some indication of the discount in price you will incur when you do eventually sell.

The spread is generally higher for less liquid, smaller companies and lowest for blue chip Top 40 stocks such as Anglo American. You should now be ready to start building your portfolio of shares.

Next we discuss how to add shares over time.

 **Part 8 – We discuss how to build a portfolio and manage risk.**



Smart Investor

Building insight into trading shares

“In investing, risk is something you want to expose yourself to because it is the key to returns.”

Part 8

When it comes to investments, the phrase “don’t keep all your eggs in one basket” is never more appropriate. In this section we discuss how to think about your portfolio of shares and managing risk.

What is risk?

Risk in finance is thought of quite differently to how we normally think of it. Our normal idea of risk is the chance of something bad happening. When we think of doing something risky, we may think of parachuting or shark diving. Sounds like fun but also scary!

When it comes to financial assets, though, risk refers to quite a specific thing: the volatility of the returns on the asset. Of course this has something in common with “normal” risk, in that volatility means prices can go down and you can lose money. But volatility is symmetric which means it refers to the chances of prices going up just as much as it does to prices going down.

This is different to our normal idea of risk. For instance, you don’t think of the chance of winning the lottery as a “risk”, but to finance people that would be a sensible way of describing it. Volatility is driven by changes in the rate of return in either direction.

Finance people often talk about a trade-off between risk and return. The idea is that the higher the risk you take on, the higher your chance of returns. That is because they are thinking of the upside of volatility and not just the downside. Financial markets generally reward people with higher returns if they are willing to expose themselves to volatility.

The key thing, though, is that only works out in the long term. Stock markets on average pay investors better returns than other asset classes, but there can be short-term movements along the way.

You shouldn’t take on volatility if you do not want negative short-term movements.



The graph above illustrates the point. The red line shows returns on a more volatile stock. In the long run it outperforms, but in the short run it has moments of underperformance like at periods 4 and 8.

Risky and non-risky stocks

Individual shares have different risk features. We'll discuss this more in the advanced series of notes about risk, but some companies are more vulnerable to changes in broad economic conditions than others.

What we generally call "defensive" shares are those that are less affected by broader economic activity. Examples are cash retailers such as Pick n Pay or Shoprite, or medical companies such as Netcare and Life Healthcare – whatever happens in the economy we will still be buying food and paying for food and medical care. But other stocks are more cyclical such as furniture retailers Lewis Group and JD Group or hotel chains such as City Lodge. They do very well when the economy is strong but less so when it is not.

The most risky stocks are those companies just starting up, where their prospects are highly uncertain. Mining exploration companies are also highly risky – they are scouting for resources such as gold and will become very valuable if they are successful, but go bankrupt if they are not.

The least risky shares are those that have control over the prices and a big base of annuity revenue such as cellphone companies MTN and Vodacom. Another efficient way to gain access to a diverse portfolio is to buy Exchange Traded Funds that are already invested in a lot of different companies. A good potential strategy is to hold a core portfolio in broadly-exposed Exchange Traded Funds, and then a satellite portfolio that can invest in riskier stocks to manage your overall risk exposure.

What is the best way to manage risk?

In investing, risk is something you want to expose yourself to because it is the key to returns. But you want to get that exposure in the most efficient way possible.

Numerous studies have shown that the way to get the most efficient exposure is to diversify the shares you hold. What you want is to maximise returns per unit of volatility.

That sounds like a complicated idea, but the simple intuition is this: if you are going to take volatility, you want to make sure that there is more upward movement than downward movement. Studies of historic returns have shown that the best way to do that is to diversify your portfolio as broadly as possible.

As you build your stock portfolio, in adding different shares you should think about how those shares' returns interact with

each other. For example, if you hold a banking share such as Barclays Africa Group, adding other banks like Standard Bank or Nedbank would not give you much diversification because the return profiles are similar.

But if you were to add a mining company you would get much more diversification because mining companies tend to have different performance drivers.

Here are some general features of different shares that you can use to fine-tune the overall riskiness of your portfolio. Remember risk is not all bad in investing. Sometimes you should add risk to your portfolio in order to increase the chances of higher returns:

Size of company

Big companies tend to be less risky than small companies. This is because they usually have a more diverse earnings base so if one part does badly it can be compensated for by other parts. Smaller companies tend to have narrower exposures so their fortunes can change more easily.

Amount of borrowing

Companies that have a lot of debt on their balance sheets tend to be more risky than companies with less. That is because debt repayments have to be made no matter what the state of the economy, whereas shareholders can forego dividends easily.

Proportion of fixed costs

Companies with high fixed costs, like big factories, are unable to respond quickly when their revenues turn down. Mining companies are a good example: even if they take the drastic step of mothballing a mine, there are still ongoing costs.

Liquidity of share

This is a risk specifically to do with trading in shares. If there is very little liquidity in a share, usually because it is very small, then it can sometimes take time to sell a stake, or you have to take a big discount to do so. So-called "penny stocks" which have prices of a few cents, can have very big spreads and extreme volatility.

Taking smart risk

Investing is about taking smart risk rather than avoiding it entirely. In building your portfolio, the first rule is to increase diversity. Even if you have a good risk appetite and are happy to buy stocks with high risk features, the key trick is to spread your assets between them in a portfolio.

A portfolio of 10 diversified stocks can be fairly efficient, provided they are spread across industries and types of companies, though most theorists think about 20-30 is the right number.

It is also important to keep an eye on costs: it doesn't make sense to spread a small amount between 10 stocks because you will incur higher transaction costs that way. Rather buy a different stock each time you put new savings into your portfolio to build diversity, than buy several stocks each time you invest new money on the stock exchange.

Over time you can build a diverse portfolio that is efficient – it will get you the most returns while minimising risks.

This concludes the basic series of Smart Investor educational notes. You can move on to the advanced series next, which discusses more complex concepts in share investing.