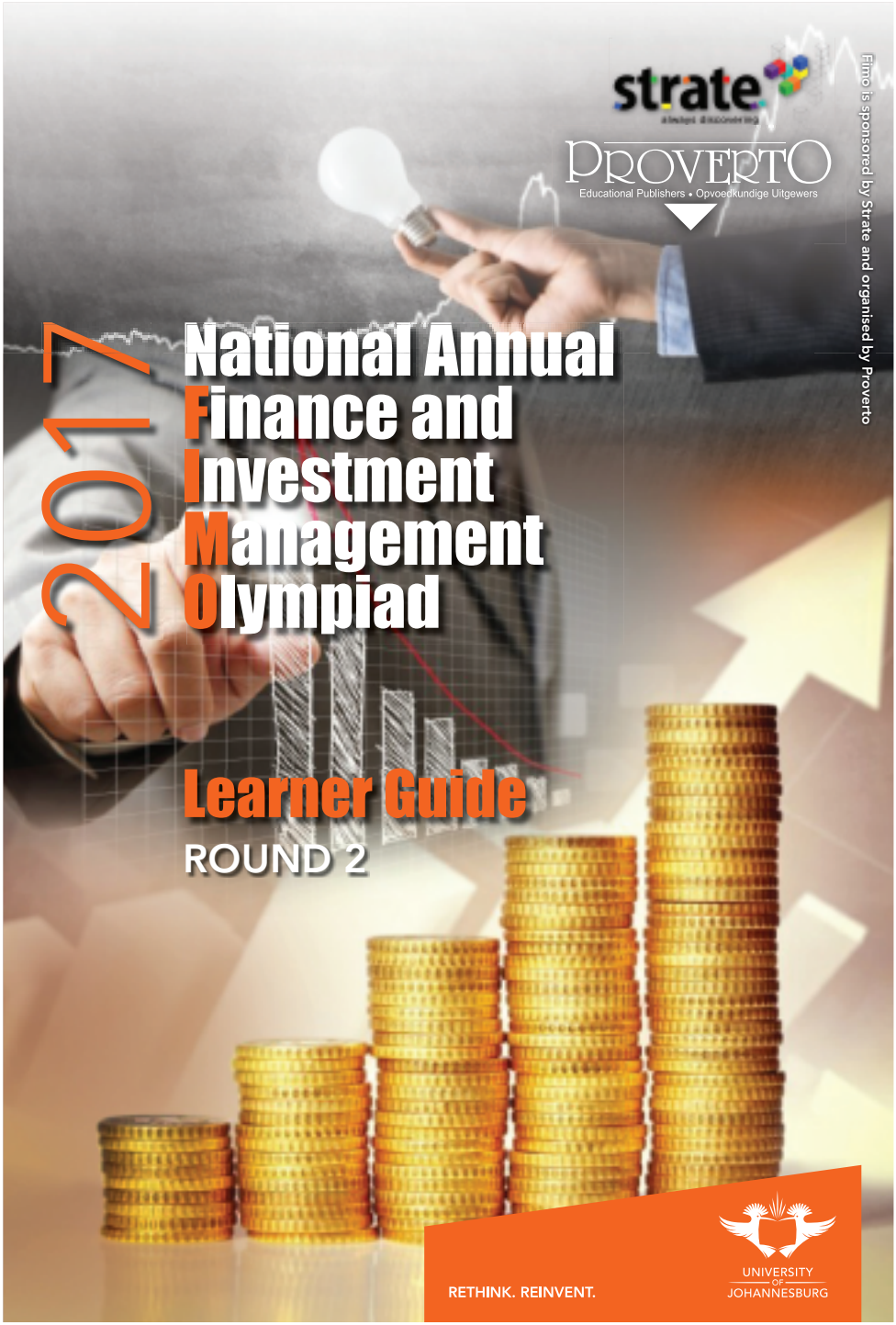
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ROUND 2
RETHINK. REINVENT.
UNIVERSITY OF JOHANNESBURG

ABOUT THE UJ FINANCE AND INVESTMENT MANAGEMENT OLYMPIAD (FIMO)

The Finance and Investment Management Olympiad (FIMO) aims to introduce the concepts that are fundamental to the finance and investment management related study fields. The University of Johannesburg offers a BCom Finance degree which is a stepping stone towards the following honours degrees:

- BCom Honours Financial Management
- BCom Honours Financial Planning
- BCom Honours Investment Management
- BCom Honours Property Valuation and Management
- BCom Honours Quantitative Finance
- BCom Honours Treasury Management
- Postgraduate Diploma in Estate Planning
- Postgraduate Diploma in Financial Management
- Postgraduate Diploma in Financial Markets

In order to pursue any one of these above-mentioned programmes, a BCom Finance degree with related electives needs to be obtained. The entry requirements for the BCom Finance degree are:

- Minimum APS scale of 30
- Language of learning and teaching: minimum rating of 4
- Additional recognised language: minimum rating of 2
- Mathematics: minimum rating of 4 (Mathematical Literacy is not accepted, please refer to the BCom Finance extended degree or the Diplomas offered by the Faculty of Economic and Financial Sciences at the University of Johannesburg)
- Life Orientation: minimum rating of 3
- Group B: minimum rating of 4 for two subjects and a minimum rating of 3 for the third subject

The University of Johannesburg does offer a Diploma in Financial Services Operations as well as multiple Advanced Diplomas which is an alternative route to the above-mentioned Honours and Postgraduate Diploma programmes. Alternatively, a similar Degree or Diploma with an Advanced Diploma from another University can also be considered for the Honours and Postgraduate programmes.

The financial services industry in South Africa is comprised of a broad range of institutions. Examples of these institutions are:

- Financial Services Board
- Johannesburg Stock Exchange
- National Treasury
- South African Reserve Bank
- Strate, South Africa’s Central Securities Depository

Examples of Financial Services Institutions are:

- Asset management companies
- Banks (private and retail)
- Brokerages
- Insurance companies

Examples of careers in the financial services industry are:

- Certified Management Accountant
- Corporate Financier
- Credit Analyst
- Financial Analyst
- Financial Consultant
- Financial Manager
- Financial Planner
- Financial Modeller
- Financial Risk Manager
- Investment Advisor
- Portfolio Manager
- Private Banker
- Quantitative Finance Analyst
- Stockbroker
- Trader
- Wealth Manager

Examples of national and international professional bodies related to the finance and investment management fields are:

- ACI: The Financial Markets Association (www.acifma.com, http://www.aciforex.co.za)
- ACTSA: Association of Corporate Treasurers of Southern Africa (www.actsa.org.za)
- CAIA Association: Chartered Alternative Investment Analyst (http://caia.org)
- CFA Institute: Chartered Financial Analyst (www.cfainstitute.org)
- CIMA: Chartered Institute of Management Accountants (www.cimaglobal.com)
- CISI: Chartered Institute for Securities & Investment (www.cisi.org)
- FPI: Financial Planning Institute of Southern Africa (www.fpi.co.za)
- GARP: Global Association of Risk Professionals (www.garp.org)
- IOB: Institute of Bankers South Africa (www.iob.co.za)
- MTA: Market Technicians Association (http://www.mta.org)
- PRMIA: Professional Risk Managers' International Association (www.prmia.org)
- SACPVP: South African Council for the Property Valuers Profession (www.sacpvp.co.za)
- SAIS: South African Institute of Stockbrokers (www.sais.co.za)
- Society of Actuaries – Investment Track (www.soa.org)

The current high school curriculum for schools in South Africa, do not include Financial Management and/or Investment Management as subjects. However, Financial Management and Investment Management at a higher education curriculum level is a combination of Accounting, Economics, Business Economics and Mathematics.

The topic areas which form part of the Finance and Investment Management Olympiad include:

- Economics
- Financial Literacy: saving and borrowing
- Financial Participants
- Financial Markets
- Financial Instruments
- Investments:
  - Risk and return
- Financial Mathematics:
  - Interest rates
  - Time value of money
- Financial Statements
- Financial System
- Mathematics

An understanding of Grade 10 Economics, Accounting and Mathematics is required for the Olympiad however, it will not be included in the provided study material. If you need assistance with Economics and Financial Statements, please refer to Investopedia: http://www.investopedia.com/

This Guide contains two parts – Part A and Part B. Please work through and study each part in preparation for Finance and Investment Management Olympiad Round 2.

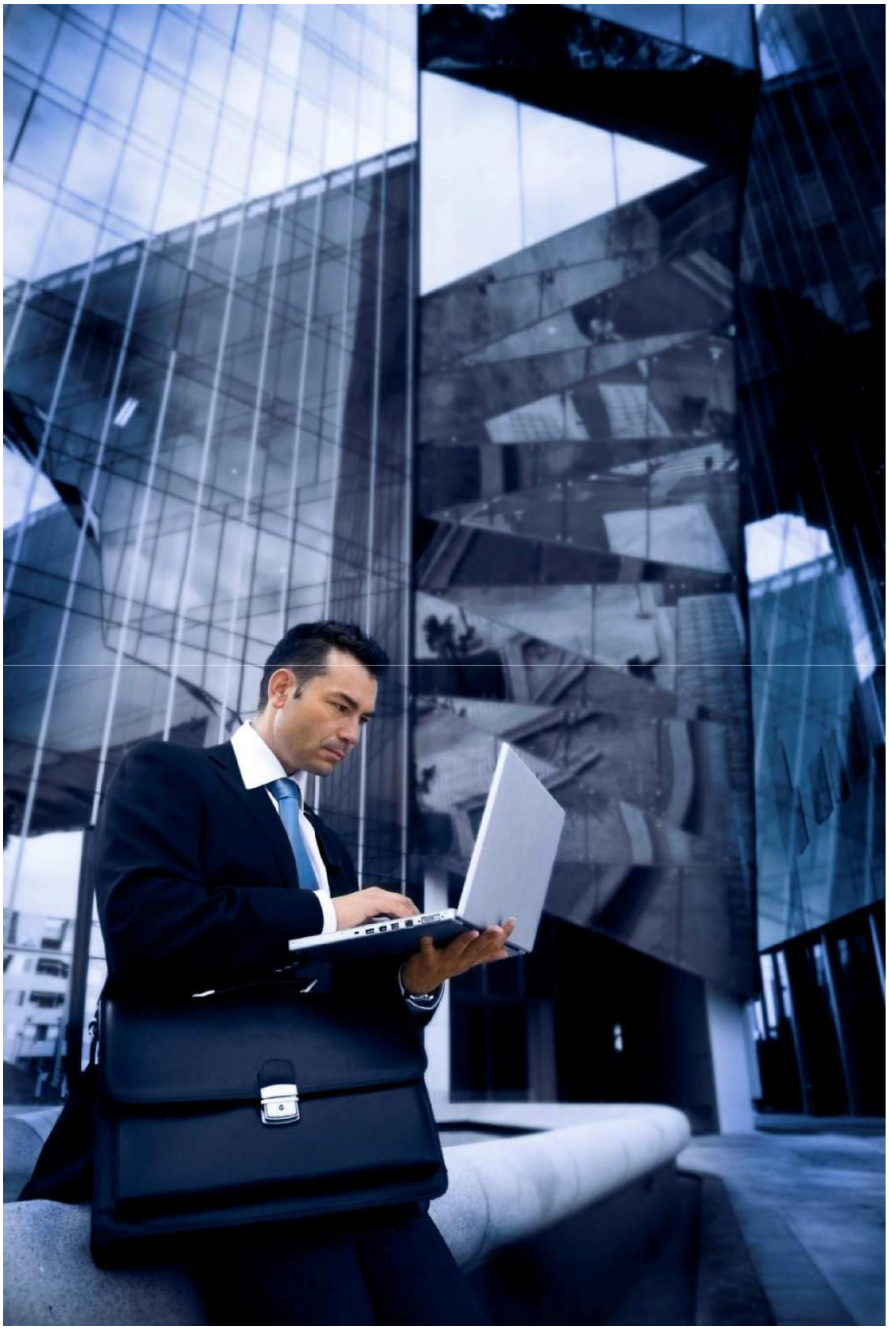
Part A is an adaptation of Sharenet's Guide to Investing on the JSE – a step by step manual for Investors by Marika Yiannakis.

Part B is Assessing Financial Performance by Paul Newton

Good luck with your preparations!

PART A

Adapted from: Yiannakis, M. (no date). Sharenet's Guide to Investing on the JSE – a step by step manual for Investors. Available online: http://www.sharenet.co.za/v3/info/Beginners_Guide_to_Trading_on_the_JSE_.pdf?name=Your%20step-by-step%20guide%20to%20investing%20on%20the%20stock%20market



Section 1: Welcome!

The information provided serves as a practical guide to online share trading on the JSE. We take you through each step of the process, ensuring that by the end of this booklet, you're able to trade by yourself with a better chance of success!

Your goals

There are so many shares out there, how do you pick which one to invest in? This all depends on your **individual goals** and the reason you decided to invest in the first place.

Are you investing and saving for your retirement? Or do you have a particular goal in mind – such as saving for a child's education or that dream holiday you've always wanted to go on? Your goals will determine how long you're going to invest for and what type of companies to invest in.

Successful investors are those that are in it for the **long term**. Share trading is not about making a quick buck but instead, coupled with knowledge of the market, enables you to steadily build your wealth over time.

There are many other types of investments available for you to invest in but we are only focusing on **shares**.

Brief Overview

Let's go through a simple overview of what you can expect to learn from this guide:

- The advantages of investing and the value of learning how to invest by yourself, eliminating unnecessary costs and saving you valuable time.
- Discover how to choose shares and handle all the sources of information and advice available to you
- Once you have a portfolio of shares you'll need to know how to **monitor** them and make further wise investment decisions – we'll show you how to keep track of your investments easily and with little fuss.
- Discover the ins and outs of **tax** and how they affect your shares and the money you earn

Section 2: Starting Out

You've made an important decision to start trading but before we jump into the nitty-gritty details, we're going to have a look at why you've made such a vital decision and how it's going to benefit you later in life.

What you need

Most brokers require a minimum amount in your trading account when you start out – this differs from broker to broker. The reason for this is that there are minimum brokerage charges for a trade and this makes doing smaller trades more expensive.

Most advisors recommend at least 5 types of shares as this limits the risk in your portfolio. We'll cover this in more detail later but it's handy to understand this as a reason for why you'll need a minimum amount to start investing.

Spend the time

Take time doing research about a company you're interested in investing in. Read and **subscribe** to various financial publications, get a variety of opinions on a matter before you make a decision of your own. The more you know about a share you're going to buy, the more confident you'll be about your decision.

Your next step is to put your idea into action. The market is dynamic and knowing when the best time is to pull the trigger on a trade is something that comes from trading experience. That is why you need to practice without placing your own money at stake, in an environment where mistakes won't cost you dearly.

What you put in, you'll get out

There are so many **benefits** to trading yourself and discovering all there is to know about online investing! If it's unchartered territory for you, you'll find it exciting and stimulating to learn something new and **gain control of your own finances.**

By trading and investing you get your money to **start working** for you, instead of just leaving it in an account where you get a few percent interest per month. You get much better returns **over time** in the stock market although at the same time it's important to point out that this isn't the way to make a quick buck or to gamble your money away.

By making wise decisions and buying a variety of shares that balance out your portfolio, you'll be minimising the risks involved with investing. Remember that despite the risks involved, it's worthwhile investing in shares because they are one of the few investments that, over the long term**, earn returns that keep up with inflation.**

Be the architect of your own success

There's nothing more satisfying than learning a new skill and being able to achieve your individual goals. By educating yourself, you'll realise that investing isn't as complicated as people make it out to be. Discover the ins and outs of trading and get peace of mind that you're **one step closer to achieving whatever goal you've set for yourself**!

Section 3: How to choose shares

- Define your individual goals – short and long term
- How many shares you should buy
- How to choose shares
- How to handle advice wisely

We discussed **goal setting** briefly in the first section. Let's have an in-depth look at why this is so important **before** you start investing.

Like most things in life, before you set out to achieve something you need to set yourself individual goals so that you have something to work towards. The same applies to investing – before you decide to invest, you need to know why you're doing it in the first place – this makes it easier to determine what type of investments you'll choose to make your goals a reality.

Let's have a look at various possible scenarios: You might have a short-term goal of saving up for a holiday in a year's time, a medium-term goal of saving for your child's education in the future or a long-term goal of saving for a comfortable retirement.

Depending on what you want to achieve by investing, it's a good idea to write down what your goals are and how long you're planning on investing for in order to achieve them.

People who invest for the short term are generally people with more knowledge and experience trading in the market and often trade daily to generate profits quickly. This is **not advised for beginner traders** as even the most experienced traders can find it tough on the market. The stock market is not a place to make a quick buck. However, if you aim to invest for the medium to long term then you're setting yourself a very achievable and realistic timetable for success. Your returns over time are not guaranteed but it's been proven over the years that the stock market gives you returns consistently higher than inflation.

Always remember the saying: "**It's not timing in the market but time in the market that counts**."

Your Portfolio and Risk

Setting up and maintaining your portfolio of shares is an integral part of investing. It's a good idea to pick about **5 shares**, preferably in different sectors so that you **minimise risk** in your portfolio. It is also preferable to have in-depth knowledge and track 5 shares than keeping track of a large basket of shares that you know very little about.

What's the thinking behind this? Well, as an investor, you need to try and minimise as much risk involved in investing in shares as possible. "**Don't put all your eggs in one basket**" is very appropriate in this regard. By choosing different shares you will be reducing **company specific risk**, which is the risk that a single position could lead to large losses. Should your portfolio hold

one company, then the odds of that company plunging in value is significantly higher than the odds of five different companies all falling in value.

Another type of risk that's worth looking at is **market sector risk**. This will explain why it's useful to choose different shares in different sectors. If one sector in the market goes through a bad patch (for example: the retail sector) and another sector (for example: the banking sector) moves up, and you have shares in both these sectors, you are inevitably going to have a "balanced" portfolio.

Choosing shares

There are so many shares out there, how do you decide which one to invest in? You obviously aren't going to do well as an investor if you just listen to the first person who gives you some advice. You need to do your **own research** first: Is the share in a **growth sector**? Is the **management** of the company sound? Is the share **well priced**?

These are just some of the questions you should be asking yourself when you go about choosing which shares to invest in. Choosing your **investment strategy** plays a vital role in this process as it will narrow down what type of shares you'll invest in.

If you're a **value investor**, you'll be looking to invest in companies that are trading at a lower value than the company's fundamentals (balance sheet, cash flow, etc.) suggest. This means that you'll be focusing on the company's dividend yields, price-to-earnings ratios and any other **fundamental** information that drives the individual company.

If you're a **growth investor**, then you won't mind paying a higher price for a share because you believe that the company's share value **will increase** in the long term due to improving market conditions for the company, product or sector. Growth-oriented companies often reinvest profits into the company to boost future earnings rather than pay it out in the form of dividends.

Whatever your strategy, we cannot emphasise the fact that research plays a vital role in choosing which shares to invest in. You should ideally look at both the **company's fundamentals** as well as the fundamentals of the **economy** and its impact on the specific sectors in the market.

If you're investing for the long term, then you'll have chosen shares with a good long term growth potential as well as a solid track record. This way you don't have to keep a **constant eye** on your investments, knowing that the long-term performance is what you are looking at when evaluating your investment. It is important to evaluate current investments as the investment case for holding the share could have changed and may require closing the position.

Handling advice wisely

There are so many sources of financial advice and information out there – how do you know what advice to listen to and what to take with a pinch of salt? There's no right or wrong answer to this question as it's probably best to take all advice as a starting point for further research on your part.

Remember that if you read an article in FinWeek detailing a company that looks good to invest in or is the "hot pick" for the month, thousands of other investors are also going to be reading this information and acting on it. It seems obvious that if a whole bunch of investors react to a piece of information about a share that the market will be saturated with orders for this share – and that in turn could push the price up to more expensive levels. However, the market tends to be more ambiguous than obvious.

The best way to handle advice is to do as much **research** you can about a certain bit of information you've received. Say for example you hear that the construction firm Group Five is a good choice as an investment because of the upcoming World Cup and that the construction industry is strong.

Before acting, it's a good idea to have a look at the company's **history and fundamentals**. Ask yourself the questions posed at the beginning of this chapter and make sure that the company fits in with your individual investment goals. If you're in the market for the long term – do you see the share as a **good growth investment** – one that will reap rewards for you over time? Group Five may generate significant revenue in the lead up to the World Cup, but what happens after those construction projects dry up? Are there sustainable earnings for the company over the time horizon that you are planning to be invested?

If yes, then you can certainly act on advice and information you've gathered to back up that advice. Don't act on impulse and just buy a share because you received a "hot tip" – this is a form of gambling and not a good investment strategy to adopt!

Section 4: How to Trade

- Trading costs
- What's a fair price?
- The Trading process

Once you've decided which shares to buy/invest in, it's time to tackle the actual process of trading.

Trading costs

Trading costs are an important aspect to look at when you decide to start investing. There are a variety of costs involved so we'll have a look at how you can minimise them and make the most out of this experience.

The main cost is the **brokerage fee** and is based on the value of the transaction. When you use an online vendor like Sharenet, you are minimising a lot of the costs involved as you don't take up too much of the stockbroker's time. You pay a brokerage fee every time you buy or sell shares as well as a monthly fee for holding your shares. This fee structure differs from broker to broker so make sure you find out details from your individual broker.

Sometimes if you spend more than a certain amount in brokerage fee then the broker will waive the monthly fee.

What's a fair price?

"It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price" – Warren Buffett.

Before deciding what exactly a fair price is for a share, let's look at some basics:

The market for a share (or its trading price) is based on its **buy** and **sell** prices, not the last traded price.

If you place a market order, you'll be asking for the **market price**. This means that you must either buy at the lowest sell price or sell at the highest bid for the share.

You are looking to buy shares at a **fair value** – this is the value that is considered to be reasonable in light of all the circumstances – how the shares are performing, what the growth prospects of the company are etc. Different investors will have a different view of what the fair price is for a share.

Remember that if you are investing for the **long term**, you shouldn't be too concerned if you see some **fluctuations** in the share price – if you see a bit of a dip don't out of panic immediately sell your share – look carefully at why the share price has dropped and then decide whether the investment case has changed for the share.

The actual trading process

Once you're ready to buy and sell shares on the market it's helpful to understand how the JSE's trading system works.

The JSE's order system (also known as the JSE SETS system – Stock Exchange Trading Service) is a computer program that **matches buyers and sellers** for each listed share.

The **SETS system** continuously looks to match bids and offers, comparing the new orders and those on the system to each other and executing trades whenever they match.

This process is organised on the principle of **price** and **time**. Orders are ranked, firstly, based on the best price and secondly, on time of entry and this occurs continually in real-time unless the market is in an auction period.

For example: Let's say someone makes a bid (offer to buy) a share worth 100 cents and there are not any sellers in the market at this stage. If you come along and decide you want to buy the share at 101 cents – you'll automatically jump the queue and get placed above the order for 100 cents, even though you placed the bid much later. As soon as a seller places an order in the market for anything from 101 cents or less (although he would be silly to sell for less than 101 if he has looked at the best bid price), your order will match first.

Market depth is an important term in this process – this is when you're able to see the **volume and price of all buyers and sellers** in the market for a share. Viewing this information will help you analyse the market demand for the share.

In addition, have a look at the **bid/offer spread** on the share – the difference between the price buyers are prepared to pay and the price that sellers are prepared to sell at. Once you have established what the last price traded was and what the above "spread" is, you will have a better idea of where to place your order.

Once you've decided on the price, you need to decide whether you're going to place a price limit on your order or if you're going to place an "at market" order. A **price limit** means that you **specify the price** while a **market order** executes the trade at the **best available price**.

It is generally recommended that you place a price limit order as prices can change very quickly and you don't want to receive a nasty surprise if you pay more than you were willing to pay.

Once you've bought shares, you'll receive a **broker's note** as confirmation of the trade. The funds will be automatically deducted from your account on the **settlement date**.

Section 5: Keeping Track of your shares

- Setting stop losses
- Where to look for information

Once you've chosen a few shares and opened a portfolio online you'll find it easy to keep track of what's happening with your investments. This process depends on what type of investor you are – what strategy you've adopted.

If you're a **long-term investor** you won't worry too much about keeping track of each individual investment. Fluctuations in the share price and the market in general shouldn't bother you as you have a long-term view and are aware that over time, the market corrects itself.

If you're a **short- to medium-term investor,** then you're more likely to want to keep a regular eye on what's happening in the market. Making use of technical analysis software and various other tools and services that are available will make keeping an eye on your investments that much easier!

Setting a stop loss

Setting a **stop loss** is an important part of trading for many traders. A stop loss is an "exit strategy" and limits the loss you can potentially make on a position.

It's important to note that there are two kinds of stop losses: a **fixed price** stop loss and a **trailing price** stop loss.

A fixed price stop loss is when you set a fixed price level. A sell order is set on your behalf when the fixed price level is crossed by the current ruling price.

A trailing price stop loss is less risky as the stop loss order is set at a percentage level below the market price. It's generally acceptable to set it at 10%. As the market price of the share increases, the trailing stop price will also increase (often in steps).

Say for example you buy a share for R100 and the share price drops to R90 (it's now lost 10%), the stop loss will automatically be triggered and a sell order will be made. An important thing to keep in mind is that if the share price goes up to R150 and then turns around and falls to R135, the stop loss will be triggered and will sell your shares as it's lost 10% off its high of R150. This 10% always trails behind the market price which means it moves upwards but is never adjusted down.

Advantages and Disadvantages

The main **advantage** of a setting a stop loss is that you don't constantly need to monitor your shares. This is very handy if you're going away on holiday or don't have the means to keep an eye on your portfolio throughout the day.

However, you need to be careful when setting a trailing stop loss. It can be detrimental if you don't set the correct level (%) initially. It could be activated by a short-term fluctuation of the share price and if the stop loss is triggered, you could be exiting a position prematurely. It would be silly to set a stop loss level at 5% if an attractive share's price often fluctuates by 10% or more each week.

There is no definite rule for what level you should choose to set your stop loss at. A short-term investor (or daily trader) might set it at 5% while a long-term investor could set it at 15%.

Other sources of information

You can also keep track of your shares by looking and subscribing to certain business **newspapers or magazines**. The Business Day is a good source of information for this purpose.

You should study the **general stock market** (the JSE and overseas markets) as often as you can as they can give you an indication of a certain trend reversing. The stock market has thousands of participants and their collective sentiment is often not a reflection of the real macro- and micro-economic numbers. It's important that you do your own research before following the general market's opinion – if you choose your shares wisely you won't have to worry about constantly checking up on the market's behaviour.

Section 6: Tax implications

Thinking about the tax implications when it comes to your investments is an important part of setting up your portfolio.

The way you are taxed will vary according to whether you're deemed a regular trader or long term investor. How you're distinguished isn't exactly clear and centres around your intent – are you looking to invest for the long term (typically 3 or more years) or are you looking to make a quick buck? There is a lot of grey area regarding this distinction so the best way to figure out how you're going to be classified is to speak to a trained tax consultant.

The difference between normal tax and Capital Gains Tax (CGT)

Capital gains tax is the tax you pay on any profit you make when you sell a share. Remember that there are two ways that you can make a return on an investment – through **capital growth** or **dividends**.

Prior to 1 October 2001, South African taxpayers enjoyed a position where all **capital gains were tax free**.

The Income Tax Act does not define what a capital gain is as compared to a revenue gain. This has resulted in numerous court cases where the taxpayer has tried to contend a certain gain as capital (and, therefore, free of tax), with the Revenue Authorities contending otherwise. The onus is on the taxpayer to prove that gains made are **not** made in the course of running a business or a profit-making scheme.

The sale of shares in a company is a classic scenario. In some cases, the gain could be of revenue nature, (for share traders/speculators and, therefore, taxed as income) or capital in

nature and therefore not taxed prior to October 2001 or now taxed at the more favourable CGT rates.

The introduction of taxes on capital gains did not change the rules for determining whether gains are capital or revenue in nature, but only reduced the benefit of having a gain classified as capital. Shareholders need to therefore be extremely vigilant when realising assets and cannot assume that all gains are capital in nature and therefore taxable at the lower tax rate (40% multiplied by the investor's marginal income tax rate).

SARS would ideally tax investors' gains with a percentage equal to their full marginal income tax rate rather than just 40% of that rate. Some of the main points that SARS will look at to determine whether profits are revenue or capital include:

- **Intention** of the original purchase. Buying a share with a view to selling at a higher price will result in a revenue profit.
- Did the investment generate a **revenue stream** in the form of interest and or dividends? If not, then the proceeds are more likely to be classified as revenue and fully taxable.
- **Length of time** that the asset was held. The shorter the time period held, the more likely the profit on sale will be revenue in nature.
- The **frequency** of transactions. Once-off sales tend to be (but not necessarily) classified as capital in nature. As the frequency of sales escalates, so the likelihood of being classified as a trader increase.

Some recommendations

- **Separate** your capital portfolios from your trading portfolios by having two separate stock broking accounts.
- Keep the turnover in the capital account to less than 25% of value per year. This is not guaranteed as there is **no specific** cut off percentage.
- Record valid reasons for any **sales** on the capital account.

Income Tax	Capital Gains Tax
Income tax is paid on **earnings**. It is only payable when you get the money or become entitled to it. All interest is taxable, but a total interest below a certain amount is tax-free.	Capital Gains Tax (CGT) is payable on any **profit** you make when you sell an asset. It must be paid when you receive the increased value. It is generally **lower** than income tax.

Section 7: Conclusion

We hope this guide to getting started on the JSE was helpful! We hope it's also made you realize that investing is not the intimidating process you may have thought it was. By following the correct steps and procedures you can pave the way to financial success.

Section 8: Reference List

Yiannakis, M. (no date). Sharenet's Guide to Investing on the JSE – a step by step manual for investors. Available online: http://www.sharenet.co.za/v3/info/Beginners_Guide_to_Trading_on_the_JSE_.pdf?name=Your%20step-by-step%20guide%20to%20investing%20on%20the%20stock%20market

PART B

Assessing Financial Performance

Paul Newton

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Preface

This eBook explains how to use key financial ratios to help you make informed management decisions about the financial status of other organizations.

You will learn:

- How key ratios can be derived from readily available financial statements
- How to tell if a business is solvent by using the current ratio and the quick ratio
- How to tell if a business is profitable and to put any profit into perspective by looking at ratios that compare profit as a percentage of sales or assets
- How to look at individual parts of the business to gain insight into their individual profitability and efficiency
- How to assess the investment potential and overall health of an organization

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Table of Contents

Introduction

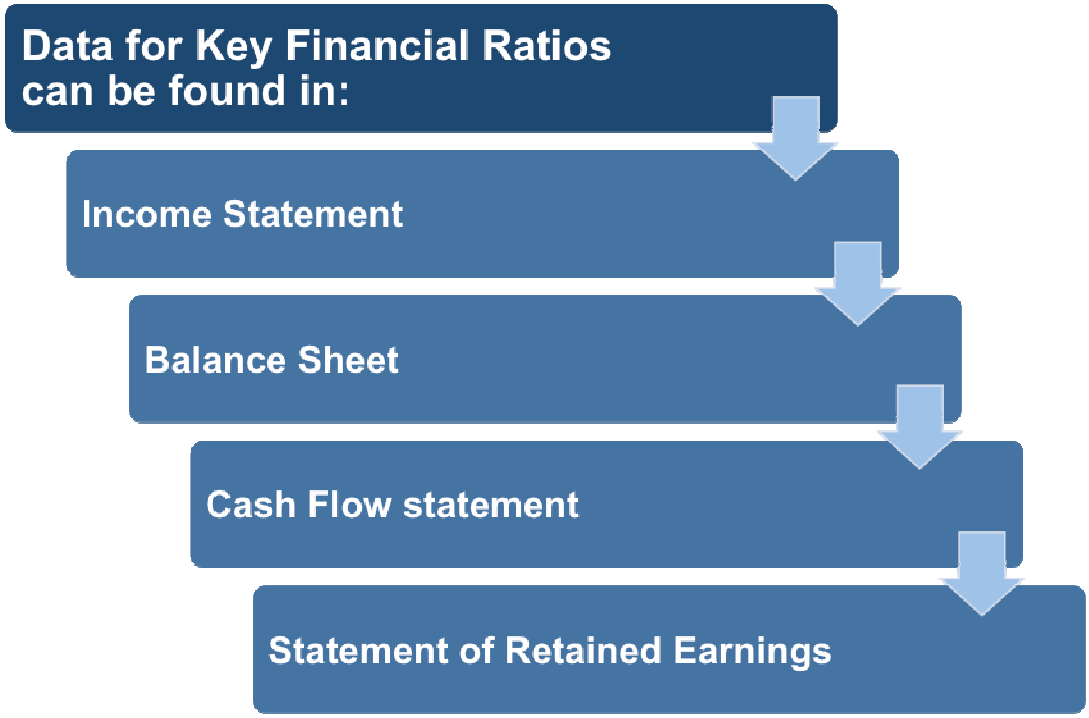
The ability to evaluate the financial position of another organization is a valuable skill for any manager to have, whether you are choosing a supplier, considering a strategic partnership, or trying to work out how much credit to extend to a customer. Many organizations can appear successful despite deep structural problems with the way they are financed and managed. Just think for a moment about the consequences of working with a supplier or partner organization who goes bust, or who, despite appearing credible, never seems able to deliver on their promises because of hidden financial problems within their own organization.

Very few managers take the time and trouble to learn how to make a simple financial assessment of another organization, even though doing so is straightforward and the necessary information can usually be obtained online either free of charge or for only a few dollars.

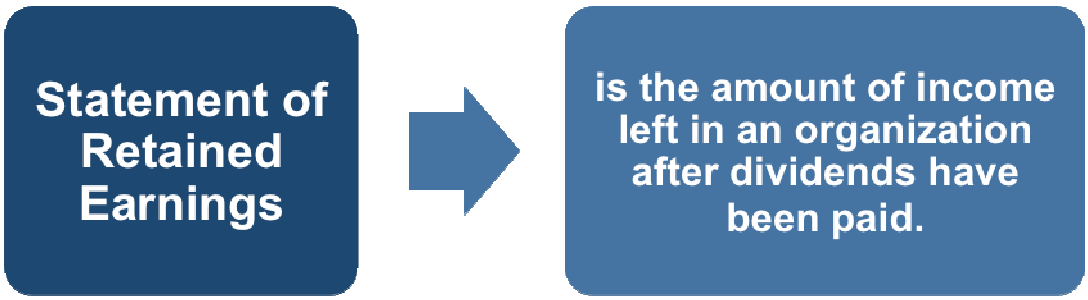
This eBook explains the tools used to assess the financial performance of an organization. These are known as 'key financial ratios' and they help you interpret financial information in a way that can aid you in making the right decisions when choosing who to work with or sell to. This information can also give you a valuable insight into how well an organization is managed at the highest level.

A key financial ratio is calculated by comparing certain values taken from an organization's financial statements, including the income statement, balance sheet, and cash flow statement. Before you can fully understand financial

ratios you must have a clear and accurate appreciation of how each of these statements is derived and what it can tell you. If you are not already familiar with these statements then please visit our website so that you can download and study the relevant eBooks.

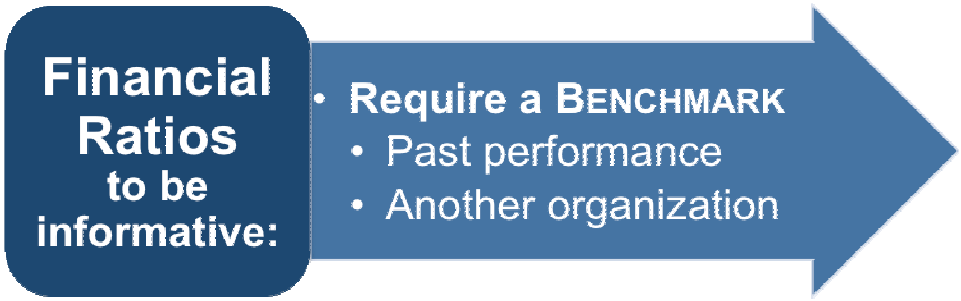


The purpose of the statement of retained earnings is to explain the changes in the retained earnings account and in dividends over a period of time.



Generally speaking, financial ratios are not useful unless they are benchmarked against something else, for example past performance or another organization in the same business area. Whilst you can compare the ratios of organizations in different industries, this is usually of limited

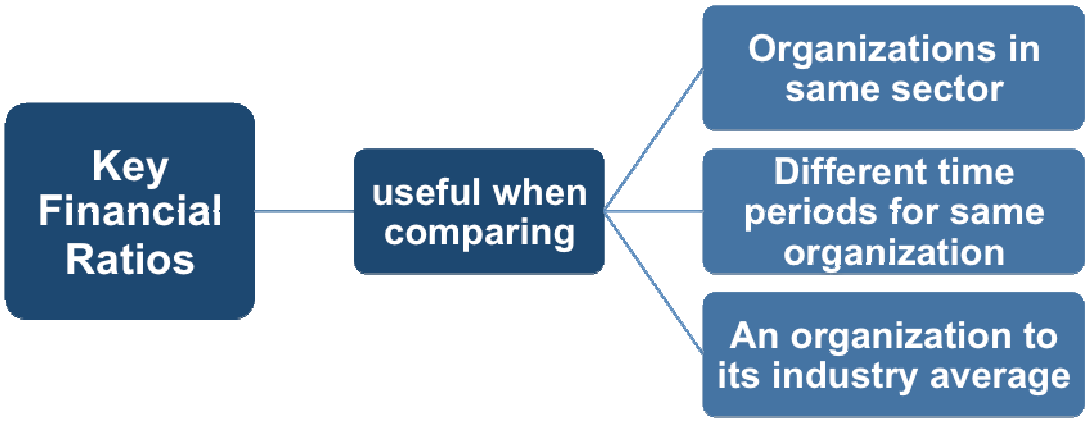
value because of differences in market conditions, capital requirements, and competition.



Key financial ratios allow for useful comparisons between:

- Organizations in the same industry sector
- Different time periods for the same organization
- An organization and its industry average

Comparing ratios for different industries can be interesting from a purely academic point of view or can help with investment decisions, but is of limited use to you as a manager. However, comparing ratios for potential suppliers, partners, acquisitions, or competitors can provide you with useful data to help with decision making.

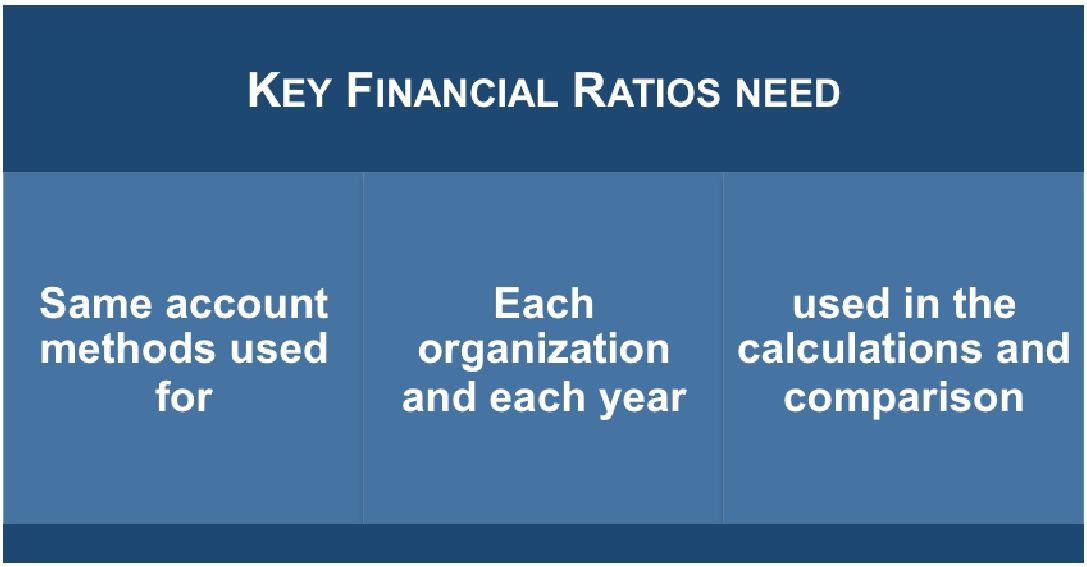


Key Points

- The ability to evaluate the financial position of another organization is a valuable skill for any manager to have.
- It is straightforward, and the necessary information can usually be obtained online either free of charge or for only a few dollars.
- These 'key financial ratios' can be derived from information in the organization's income statement, balance sheet, cash flow statement, and statement of retained earnings.
- They are most useful when they are benchmarked against past performance or another organization in the same business area.

Interpreting Key Financial Ratios

Key financial ratios may not be directly comparable between organizations that use different accounting methods. Most public organizations are required by law to use generally accepted accounting principles for their home countries, but private organizations, partnerships, and sole proprietorships generally have more freedom in reporting their accounts.



Before you start your calculations you will need to make sure that the accounting treatments are the same when making comparisons. This is not only between the organizations you wish to compare but also for each year you wish to compare. For example:

An organization may change policy and decide:

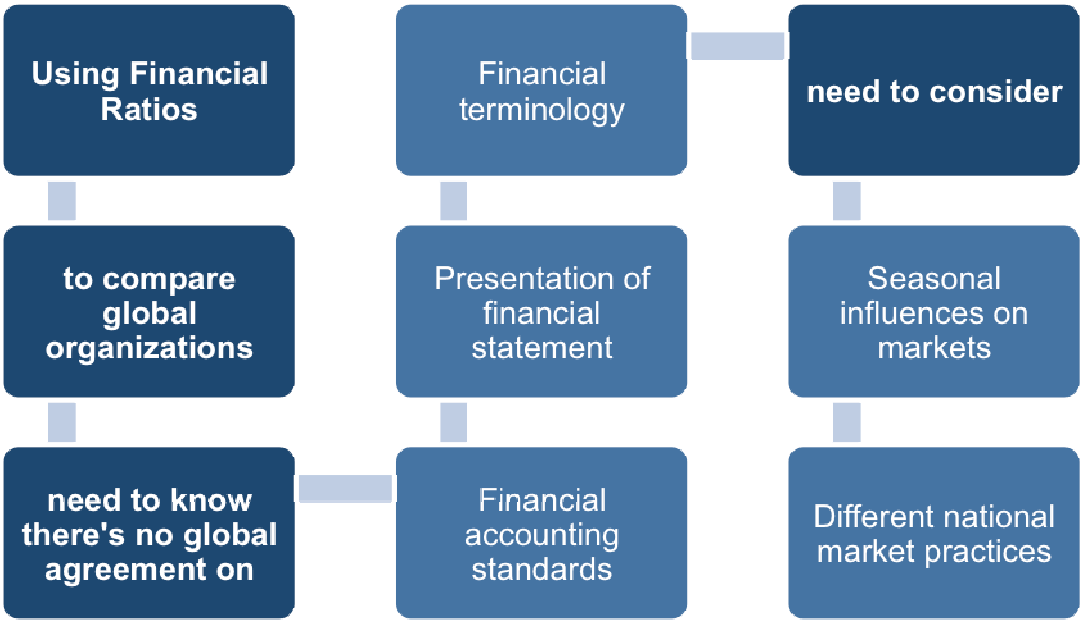
- *To capitalize research and development, holding it in the balance sheet as having a long-term value*

or

- *It may consider development costs as overheads as soon as they are incurred.*

Either treatment is perfectly reasonable, but comparing figures that have been arrived at in these two different ways would be pointless.

When you need to make comparisons with global organizations it is important to remember that there is no international standard. How an organization calculates the summary data presented in all financial statements, as well as the terminology used, is not always consistent between organizations, industries, countries, and time periods.



If you are trying to make global comparisons then you need to appreciate how operational differences within each industry or country can impact the validity of such a comparison. These differences include such things as seasonal conditions and traditional industry practices.

For example:

> *Travel organizations operate under seasonal conditions that are mainly influenced by educational, religious, and constitutional holidays.*
> *Car manufacturers in the United Kingdom have two annual registrations of new vehicles. These events cause two large peaks in car sales.*

Ensure your investigation in this area is thorough, as such operational

differences are so predictable that people in these industries take them as read and rarely mention them. If you remain ignorant of such issues then your ratios will give you misleading information.

For example:

> *If you were investigating the European car industry then you would need to be aware that in the United Kingdom new vehicle sales peak in March and September. In fact, there are typically five times as many cars sold in March as in the previous month. If you did not allow for this, because you were not aware of the operational practices of the UK automotive industry, then some of your calculations could be meaningless.*

Anyone who did not know about the sales variations in the UK's automotive industry could draw the wrong conclusion if they compared accounting ratios for February, March, and April. An automotive dealership would appear to have too much capital tied up in stock in February and far too little in April, when in fact this is simply a reflection of the market that it is operating in.

This example illustrates why it is important to know something about how an organization operates and what the accepted practices are within that industry before drawing conclusions from key financial ratios.

Key Points

- When using key financial ratios, you need to be sure that you are comparing like with like.
- You need to appreciate how operational differences within each industry or region can impact the validity of any comparisons.

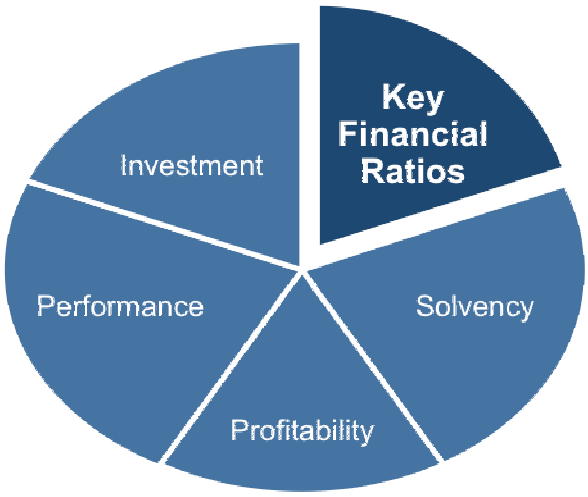
Purpose and Types of Key Financial Ratios

There are several different key financial ratios and they are categorized according to the financial characteristic they measure. These are:

- Solvency
- Profitability
- Performance
- Investment

Solvency

An organization is considered to be solvent when it can pay its debts as they fall due. In day-to-day terms, this means that an organization has enough working capital to pay its suppliers.



Profitability

These ratios measure the organization's use of its assets and control of its expenses to generate an acceptable rate of return. You can see if an organization is profitable simply by looking at an income statement, but you need to put that profit into perspective.

To do this you need to ask yourself:

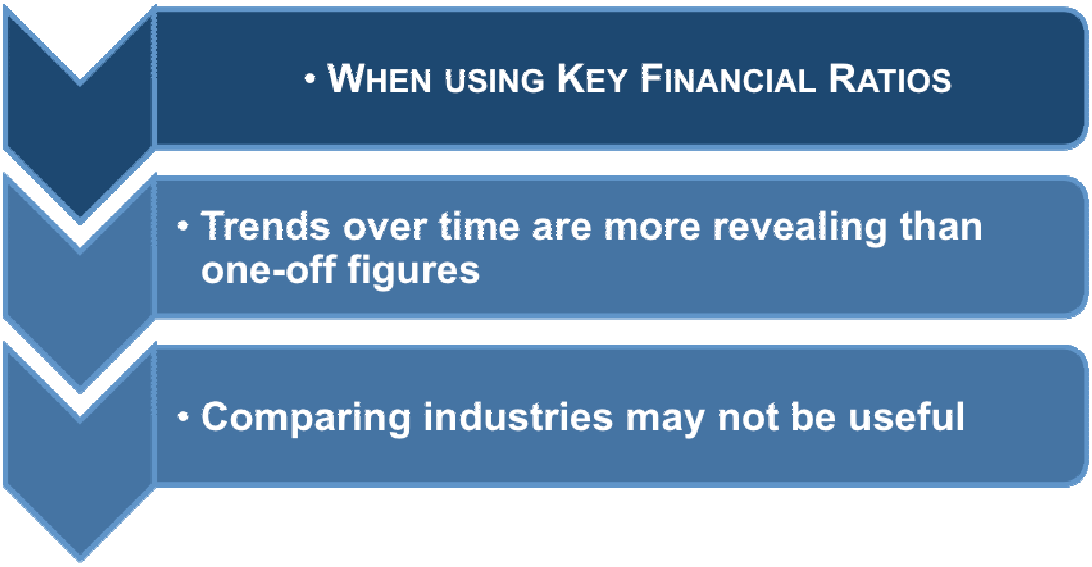
- Is the profit growing in proportion to the size of the organization?
- Is the organization making as much profit on new sales as on existing sales?
- Is the organization as profitable as others in the same sector?

Performance

Is the organization making the sort of profit that it has in the past or that others in the same sector are making? By looking at individual parts of the organization you can gain more insight into their profitability and efficiency.

Investment

These ratios measure investor response to owning an organization's stock and also the cost of issuing stock. They are concerned with the return on investment for shareholders, and with the relationship between return and the value of an investment in an organization's shares.



Remember that with most of these measures, the trend over time is often more revealing than one figure in isolation, and that comparisons between industries may not be very useful.

Key Points

- There are several different key financial ratios that can be classified by the characteristic they measure: for example, solvency, profitability, performance, and investment history.
- The trend over time is often more revealing than any one figure in isolation.

Is an Organization Solvent?

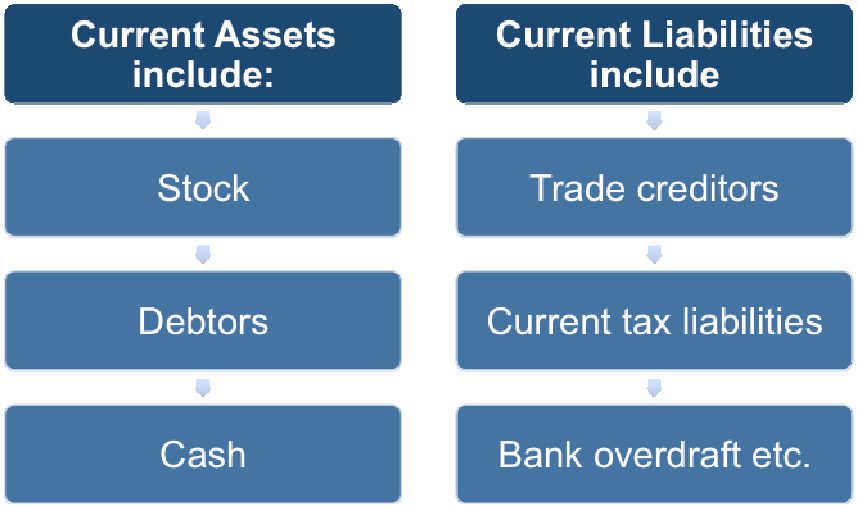
An organization is considered to be solvent when it has sufficient working capital to pay its debts as they become due.

There are two key ratios that can help you to determine whether an organization is solvent:

- Current ratio
- Quick ratio

Current Ratio

The current ratio looks at the relationship between current assets and current liabilities. The word 'current' implies short-term assets or liabilities, which are payable or receivable within one year.



These figures are always shown on the balance sheet. To calculate this ratio you would divide current assets by current liabilities.

For example:

An organization has:

- *Current assets of $200,000*
- *Current liabilities of $100,000*

Its current ratio calculation would be $200,000 ÷ $100,000

The current ratio would be expressed as 2:1

This ratio of 2:1 would be considered a healthy result as it shows that the organization has sufficient current assets to pay its current liabilities as soon as they are due.

Quick Ratio

The quick ratio, or acid test ratio, measures liquidity more precisely than the current ratio. It does not include the value of stock within current assets because turning stock into cash takes time since payment terms are usually anything between 30 and 90 days.

You can calculate the quick ratio by dividing current assets (excluding stock) by current liabilities. You can find the stock or inventory figure on the balance sheet.

For example:

An organization has:

- *Current assets of $200,000*
- *Stock worth $80,000*
- *Current assets (less stock) of $120,000*
- *Current liabilities of $100,000*

Its current ratio calculation would be $120,000 ÷ $100,000

The current ratio would be expressed as 1.2:1

This example shows that an apparently healthy level of current assets might hide the fact that a large proportion of the current assets is made up of stock. Whilst this can usually be turned into cash, it will take time and to do it quickly might require heavy discounting.

When you need to review the liquidity of an organization, it is common practice to calculate both the current ratio and quick ratio. This is so that you are aware of the extent to which stock held influences its current assets. These calculations will quickly show you if the level of stock an organization holds is too great and also whether it matches your expectations of the industry.

to produce meaningful ratios

You must always be careful when drawing conclusions from these ratios. It is quite possible that an organization may appear to be desperately short of working capital, but if it sells goods for cash and purchases with a long credit line, then it may be that it is being very well managed.

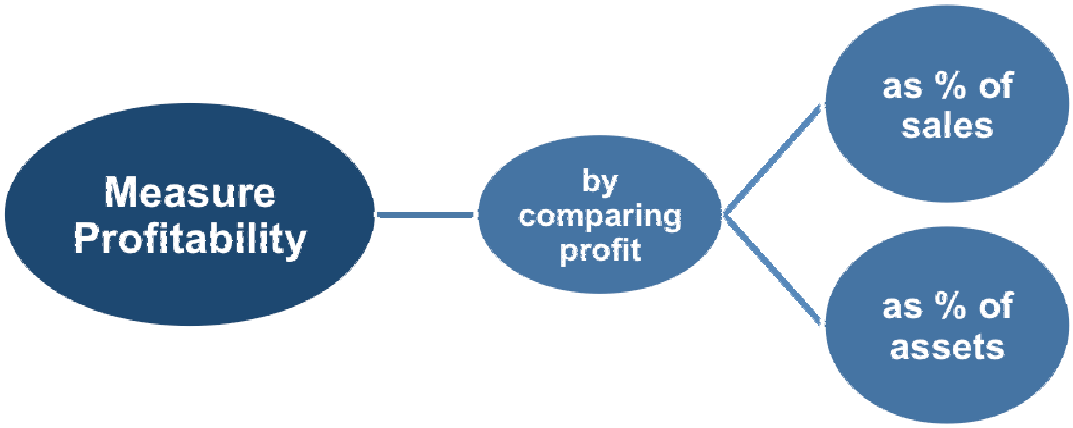
It is vital that you understand what the organization actually does and the industry it operates in before you draw any conclusions from these ratios.

Key Points

- The current ratio and quick ratio can help you to determine whether an organization is solvent.
- The quick ratio does not include the value of stock within current assets and is therefore a better indication of liquidity.

How Profitable is an Organization?

You can see if an organization is profitable by looking at the income statement, but you need to put that profit into perspective. This can be done by looking at various ratios that compare profit as a percentage of sales or assets.



There are three ways this can be achieved:

- Gross profit margin
- Net profit margin
- Return on assets

Gross Profit Margin

One of the most commonly used ratios is the gross profit margin, which looks at gross profit as a percentage of turnover (sales). You will find both of these figures in the income statement.

The formula used is gross profit divided by turnover, multiplied by a hundred to turn it into a percentage.

For example:

An organization's

- *Gross profit is $300,000*
- *Sales/Revenue were $1,200,000*

Its percentage gross profit margin would be ($300,000 ÷ $1,200,000) x 100 = 25%

This means that for every $1 of sales the organization achieves, profit (after taking off the costs of production) is 25 cents.

Many people are often confused by the terms 'gross profit margin' and 'mark-up.' The definition of each term shows how they differ and also shows that you use a different formula to arrive at a figure for each.

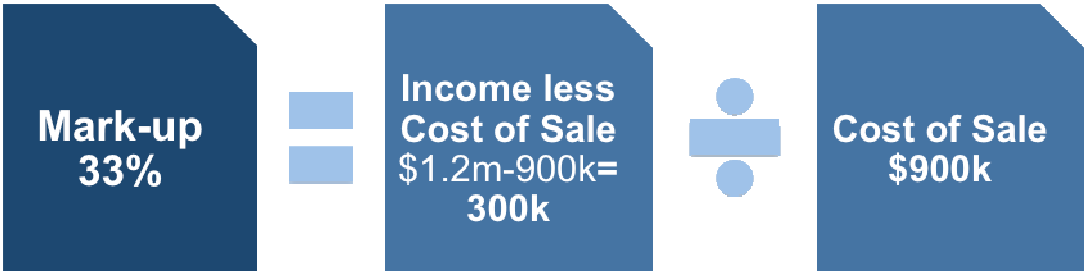
- **Gross profit margin** – expresses gross profit as a percentage of total sales.
- **Mark-up** – is the figure or percentage added by management to cover the cost of goods and the required profit margin for a product or service.

From these definitions you can see that the key difference is that management have control over and define what they require as a mark-up, whereas gross profit is dependent on how many sales are made and their value, which management can set targets for, but cannot control directly.

Industries often have what is considered an acceptable range for their mark-up, without which an organization would not be able to operate. You should investigate whether the sector you are interested in has such a range.

The formula for calculating mark-up is:
Mark-up = (total revenue - cost of sales) / cost of sales

This is then multiplied by 100 to give a percentage.



For example:

An organization's

- *Sales/Income was $1,200,000*
- *Cost of Sales is $900,000*

Its percentage mark-up would be ($1,200,000 - $900,000) ÷ $900,000 = 0.33 x 100 = 33%

This means that to maintain their profitability the organization needs to mark-up by a third.

Net Profit Margin

This ratio is similar to the gross profit margin but looks at net profit as a percentage of turnover. Net profit is shown on the income statement and is defined as follows:

> *Net profit is the figure left after all operating and non-operating expenses have been deducted from total revenue or income.*

To calculate the net profit margin of an organization as a percentage you would divide net profit by total revenue or income and multiply the answer by a hundred to turn it into a percentage.

For example:

> *An organization's*
>
> - *Sales/Revenue was $1,200,000*
> - *Net Profit is $120,000*
>
> *Its percentage net profit would be = ($120,000 ÷ $1,200,000) x 100 = 10%*

You need to be mindful that your net profit is calculated after taking account of all costs and therefore can be affected by a variety of things, such as:

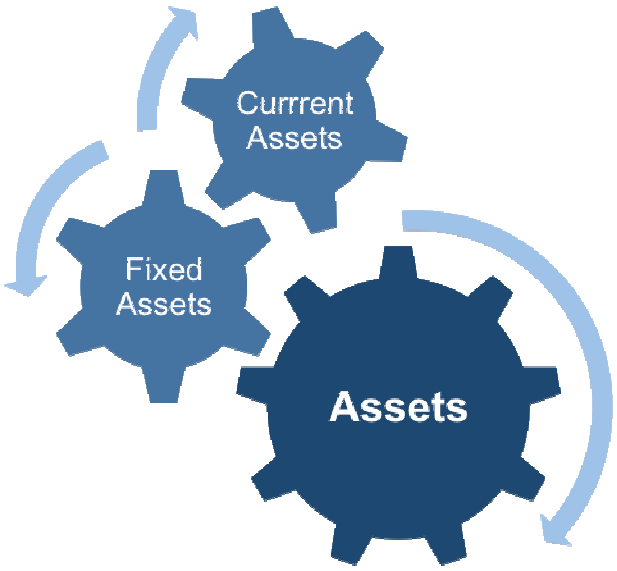
- Declining gross profit
- Increased selling
- Rising administration costs

If your net profit percentage is declining it is worth looking at your costs on an individual basis to see what you can do about those that have increased the most as a proportion of sales.

It is important to look at the trend that emerges over several accounting periods, as opposed to individual figures. The ratios can be used to measure periods other than a full year, as long as you have the relevant income statements.

Return on Assets

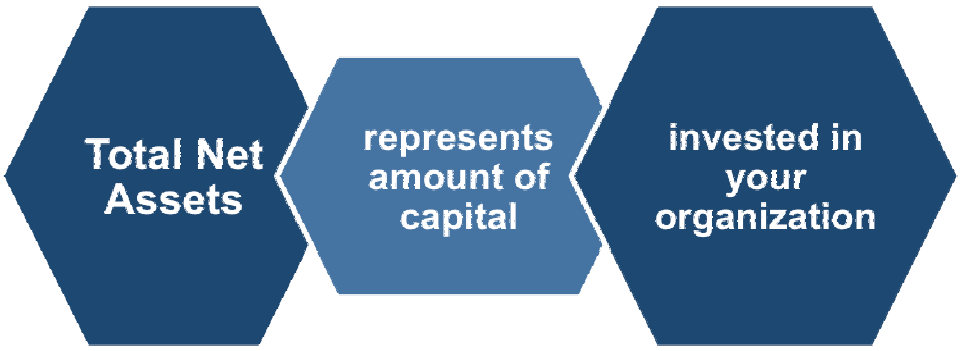
You can also measure the level of profit compared to the value of net assets invested in an organization. The assets are the major items that need to be in place for the organization to operate.



These include such items as:

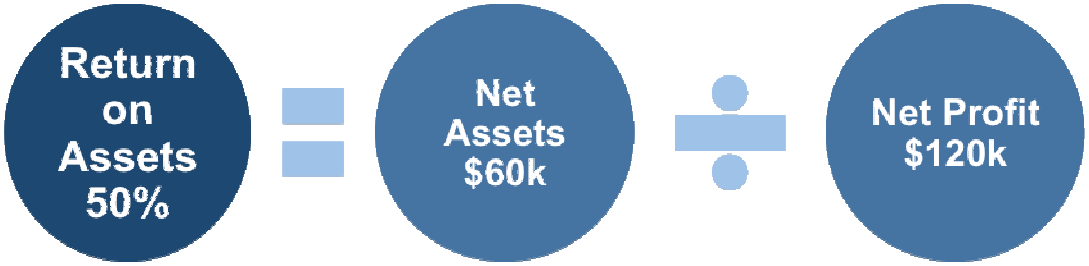
- Fixed assets
  - Buildings
  - Plant
  - Vehicles
  - Computers, etc.
- Current assets
  - Stock
  - Debtors
  - Cash

The organization's total net assets are calculated by taking total liabilities from total assets. This represents the amount of capital invested in the organization. Your net assets figure can be taken directly from the balance sheet. You can therefore look at the net profit as a percentage of capital employed.



The return that an organization can expect depends on the industry sector and the economic cycle. However, it remains a good measure of operational efficiency for an organization.

The ratio is calculated by dividing net assets by net profit and then multiplying it by a hundred to turn it into a percentage, as this is the usual way it is expressed.



You would find the net profit figure on the income statement and the net assets would be shown on the corresponding balance sheet.

For example:

An organization's

- *Net Profit is $120,000*
- *Net Assets are $60,000*

Its return on assets would be ($60,000 ÷ $120,000) x 100 = 50%

When calculating this ratio you can chose to express it using figures before or after tax.

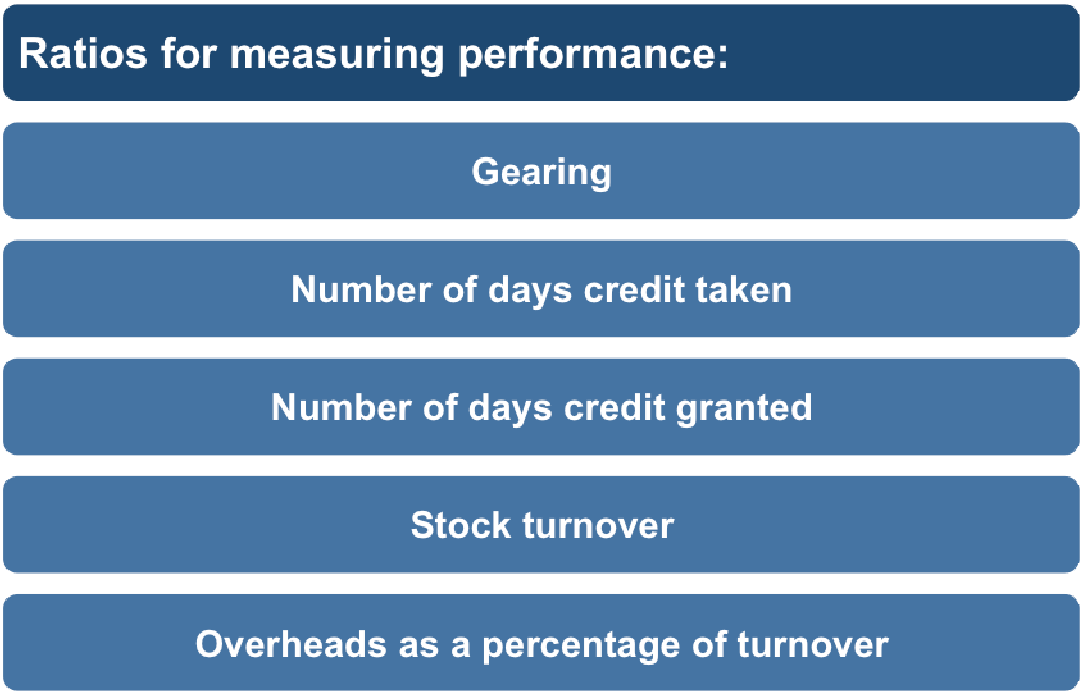
Capital employed is the net amount invested in your organization by its investors or owners and is taken from the balance sheet. Many people consider this the most important ratio overall and it is useful to compare the results with a return that can be obtained outside of the organization – for example, a low-risk investment in government bonds. The organization's return on assets can be improved either by increasing profitability or decreasing the capital employed.

Key Points

- Gross profit margin expresses gross profit as a percentage of total sales.
- Mark-up is the percentage added by management to cover the cost of goods and the required profit margin for a product or service.
- Net profit margin represents the net profit as a percentage of turnover.
- It is useful to compare the return on capital employed with a return that can be obtained outside of the organization.

Is an Organization Performing?

There are several ratios that you can use to measure how an organization is performing in terms of both profitability and efficiency.

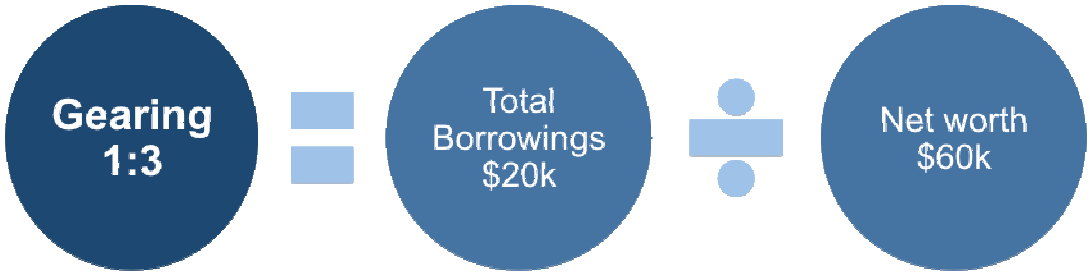


The ratios for measuring performance are:

- Gearing
- Number of days credit granted
- Number of days credits taken
- Stock turnover
- Overheads as a percentage of turnover

Gearing

This ratio looks at total borrowings divided by net worth of the business. Ideally, equity should be significantly higher than debt.



If an organization's net worth (as shown in the balance sheet) was $60,000 and the borrowings came to $20,000 (made up of a bank loan and overdraft), then the borrowing ratio would be 1:3. In this example the equity is higher than its debt, but to understand the implications of this you would need to look at the expected gearing figure within the industry.

The purpose of this ratio is to compare the finance provided by lenders with the finance invested by shareholders. Generally speaking, banks do not like to see the amount of debt exceed the amount of equity. The ratio is usually expressed as a proportion (as in 1 to 1), although it can sometimes appear as a percentage. Gearing is said to be high when borrowing is high in relation to equity.

Number of Days Credit Granted

This ratio is used to measure the effectiveness of an organization's debt collection. It sets out the relationship between debtors and the sales that have been made on credit, and also shows how quickly customers are paying their invoices.

The calculation for this ratio is trade debtors (this figure is taken from the balance sheet) divided by annual sales and then multiplied by 365 days. This ratio gives a rather broad-brush calculation.

If you wanted to use a more detailed calculation you would look at how many days' turnover it took to make up the debtor total.

For example:

An organization's

- *Current debtors = $50,000*
- *Sales in current month = $30,000*
- *Sales in previous month = $40,000*

The current debtors ($50,000) therefore represent all of the current month's sales ($30,000) and half of the previous month's sales ($20,000).
Therefore the number of debtor days in this example is calculated by adding debtor days from the current month (31 days) and the previous month (30 days).

- *Current month has 31 days*
- *Balance from previous month: $20k ÷ $40k x 30 days = 15 days*

- ***Total debtor days = 31 days + 15 days = 46 days***

If this figure began to increase you would need to look carefully at the debt collection routines of the organization. The sort of queries you would want answered are:

- Are customers taking longer to pay?
- Are a few customers building up a large debt?

Either of these factors may give cause for concern because the older a debt becomes, the more likely it is to go bad.

The figure for trade debtors normally comes from the closing balance sheet and care should be taken that it is typical for the whole year. If sales taxes are included in this, they must be included in both the turnover figure and the trade debtors figure.

Number of Days Credit Taken

This ratio sets out the number of days the organization takes to pay its suppliers. This is arguably less important than the 'debtor day' figure, as in this case the control over payment of suppliers is in the organization's own hands.

When assessing another organization – for example one that is asking you for increased credit – this ratio can give a useful pointer as to whether the organization is operating within the accepted norms of the industry and (using historic data) whether or not it is taking increasingly longer to pay people.

This ratio is calculated by dividing the figure for trade creditors by the annual purchases and then multiplying this answer by 365 days. The figure for trade creditors normally comes from the closing balance sheet and care should be taken that it is typical for the whole year.

These calculations give a profile of the organization to potential suppliers looking for details about how efficiently the business is being run.

Stock Turnover

This ratio looks at how quickly the organization turns over stock into sales, and is therefore another good measure of efficiency. The higher the stock turned the more efficiently the business is being run. It is important that the terms are completely understood and there are no abnormal factors. Normally the definition of stock includes all of the following:

- Finished goods
- Work in process
- Raw materials.

The stock value would usually be taken from the closing balance sheet but you need to consider if it is a typical figure. For example, an organization involved in the retail industry may have a seasonal influence on its operations so you may need to make allowance for this.

The stock turnover ratio is calculated by dividing the cost of goods sold by the stock value.

For example:

If the cost of goods sold is $500,000, and the average stock held during the year is $100,000

- *Stock turnover is $500k ÷ $100k = 5*

Stock has been 'turned over' five times during the year.

A quick turnover suggests that the organization is efficient in holding the minimum stock used within its operation. Again, this ratio is most informative when looked at over time. If the stock turn is slowing, this may highlight a problem with slow-moving lines that require discounting to sell through.

Operating Expenses as a Percentage of Turnover

Examples of operating expenses are:

- Rent
- Utility bills
- Wages, etc.

This is a useful tool in assessing whether or not this area of expense is growing more rapidly than the turnover. This ratio is calculated by dividing operating expenses (overheads) by turnover and then multiplying by a hundred to make the figure into a percentage.

The calculation has little meaning on its own, but when reviewed over several periods it can provide useful information on the trend over that time span.

As an organization grows this percentage should fall. If it doesn't, then the organization needs to review its operating expenses carefully to understand why this is happening and see what management can do to correct it.

Key Points

- Ratios for measuring performance include: gearing, number of days credit granted, number of days credit taken, stock turnover, and overheads as a percentage of turnover.
- Gearing compares the finance provided by lenders with the

finance invested by shareholders.

- Number of days credit granted is used to measure the effectiveness of an organization's debt collection.
- Number of days credit taken sets out the number of days the organization takes to pay its suppliers.
- Stock turnover shows how quickly the organization turns over stock into sales.
- Operating expenses as a percentage of turnover should be reviewed over time so that any trends can be seen.

Does an Organization Have Investment Potential?

The accounting ratios that focus on the investment potential an organization offers include:

- Price/earnings ratio
- Price-to-book ratio (P/B)
- PEG (price/earnings to growth) ratio
- Dividend yield

These ratios are most useful when the data behind them is from regularly produced management accounts. They are concerned with the return on investment for shareholders, and with the relationship between return and the value of an investment in a company's shares.

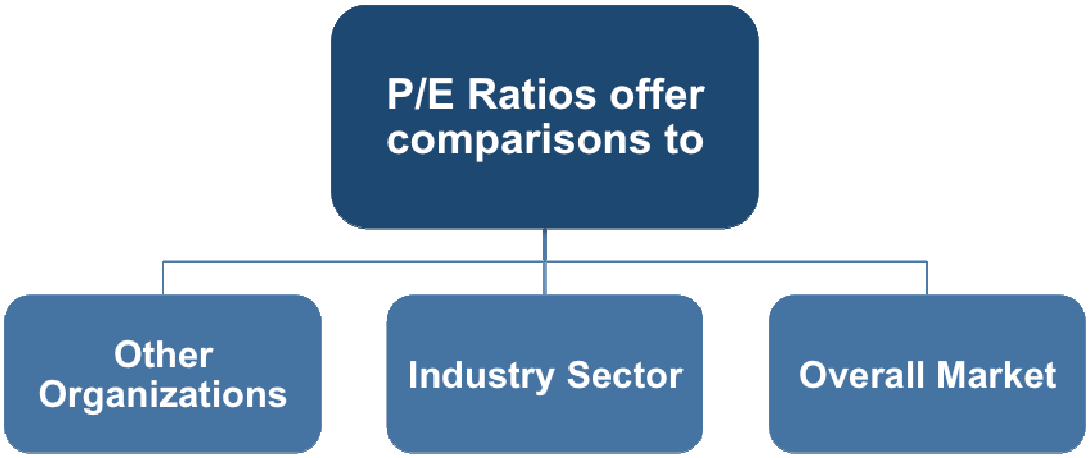
These figures are a constant focus of senior management's attention, which is a good reason for understanding how they are derived and what they mean.

Price/Earnings (P/E) Ratio

This is one of the most helpful of the investment ratios and is often abbreviated to P/E ratio. It can be used to compare an organization to:

- Other organizations
- Industry sector
- Overall market e.g. S&P 500, FTSE 100, etc.

This ability to make such comparisons is one of the reasons it is widely used by management. It also offers the flexibility to use either quarterly or annual data. Many management teams use sites such as Reuters' comparison tables to help with this activity.



In commercial organizations a significant proportion of management personnel receive stock or options on stock as part of their benefits package and this drives their personal interest in the P/E ratio. The belief is that by aligning the interests of management with the interests of other stock holders the former are more committed to the organization.

A P/E ratio can be thought of as how long a stock will take to pay back the investment if there is no change in the business. Whilst stock can go up in value without significant earnings increases, it is the P/E ratio that decides if it can stay up. Without earnings to back up the price, a stock will eventually fall back in value.

The P/E ratio can be calculated by dividing the current share (stock) price by the earnings per share (often referred to as EPS) for the previous 12 months.

For example:

An organization's

- *Stock is trading at $10 per share*
- *Its earnings per share = $1*

Its P/E Ratio = 10 ÷ 1 = 10

This figure of '10' is sometimes seen as meaning that you will make your money back in ten years' time if nothing changes.

There are key issues that must be acknowledged when using a P/E ratio and they are that this ratio:

- **Uses historic earnings**. This is because of the nature of how EPS is calculated using the previous 12-month earnings. (In most cases, the four most recent reported quarterly net earnings per share are totaled.)
- **Only provides a snapshot** based on the current share price. The very nature of stocks means that their value is constantly fluctuating. (P/E ratio rises with share price and vice versa.)

It is possible to calculate a forward P/E ratio using the projected earnings for the coming year, but this can be inaccurate because actual earnings may be significantly different to the estimates.

The following table shows the P/E ratios for ten different industry sectors and shows the wide variation that exists. To add further clarity, the far right column contains a rough explanation of how the recognized ratio bands are interpreted.

P/E Ratio	Industry	Guideline Explanation
10	Computers Wholesale	**P/E 0–10** Either the stock is undervalued or the company's earnings are thought to be in decline. Alternatively, current earnings may be substantially above historic trends or the organization may have profited from selling assets.
15 17	Electric Utilities Application Software	**P/E 10–17** For many organizations this is considered fair value.
20 22 24	Insurance Brokers Gas Utilities Metal Fabrication	**P/E 17–25** Either the stock is overvalued or the organization's earnings have increased since the last earnings figure was published. The stock may also be a growth stock with earnings expected to rise substantially in the future.
28 32 55 82	Specialty Eateries Heavy Construction Staffing & Outsourcing services Internet Software & Services	**P/E 25+** Either the organization has high expected future growth in earnings, or this year's earnings are considered to be exceptionally low. Or the stock may be the subject of a speculative bubble.

In the case where an organization has no earnings, or is making a loss (negative earnings), they are treated as having an undefined P/E ratio,

shown as ‘N/A’ (not applicable), even though a negative P/E ratio can be mathematically determined.

The P/E ratio can be interpreted in various ways, but it is not an exact science. In common with most financial ratios, it should not be used in isolation. There are several different factors that can affect this ratio and some of the most common are:

- P/E ratio is highly dependent on how much debt the organization has.
- Stock prices rise in one of two ways:
  - Improved earnings
  - An improved multiple that the market assigns to those earnings. (In turn, the primary drivers for multiples are through higher and more sustained earnings growth rates.)
- Managers have strong incentives to boost earnings per share, which can influence the organization’s decisions. For example:
  - Low P/E ratio organizations:

    May look to make an acquisition, seeking organizations that have a higher P/E ratio than its own, as they often prefer to pay in cash or debt rather than in stock.

    May seek to acquire small, high-growth businesses they can ‘rebrand’ and use to burnish their image as growth stocks to raise their rating.
  - Higher P/E ratio organizations:

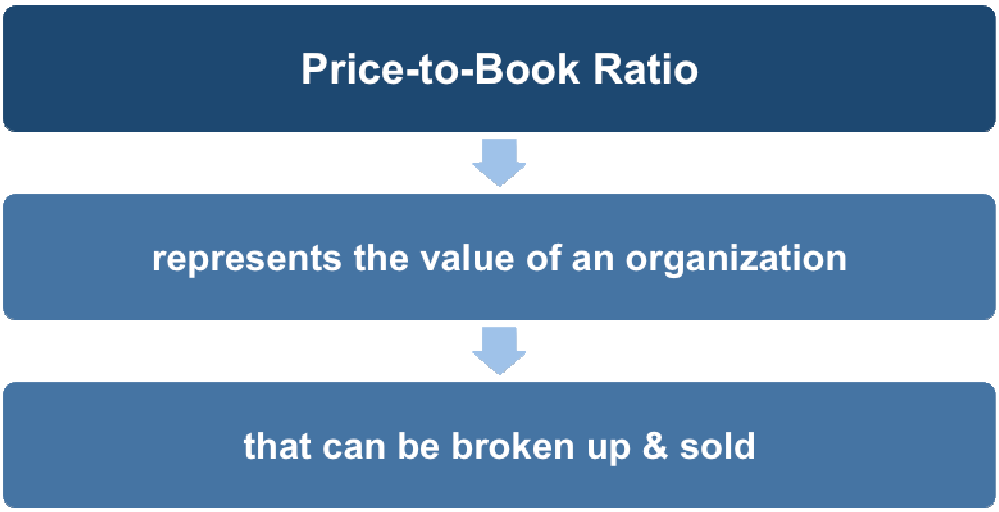
    With volatile earnings may desire to create a conglomerate to find ways to smooth earnings and diversify risk.

    May look to acquire other organizations with lower P/E ratios, using their stock as a means of payment.

Where there is a risk of bankruptcy forcing up the cost of debts (higher leverage), or where profits decline substantially (reducing the P/E ratio), the indebted firm will have a higher P/E ratio than an unleveraged firm.

The Price-to-Book (P/B) Ratio

The price-to-book (P/B) ratio represents the value of the company if it is broken up and sold. The book value usually includes equipment, buildings, land, and anything else that can be sold, including stock holdings and bonds.



To calculate this ratio the market price of an organization's shares (share price) is divided by its book value of equity. The latter is also known as the 'price-equity ratio' and is found on the balance sheet by subtracting the book value of liabilities from the book value of assets.

For example:

If an organization has:

- *Total assets of $200 million*

- *Of which $150 million made up from intangible assets and liabilities*
- *25 million shares outstanding*
- *A market share price of $6*

Then its book value of equity is ($200m - $150m) = $50m ÷ 25m = $2

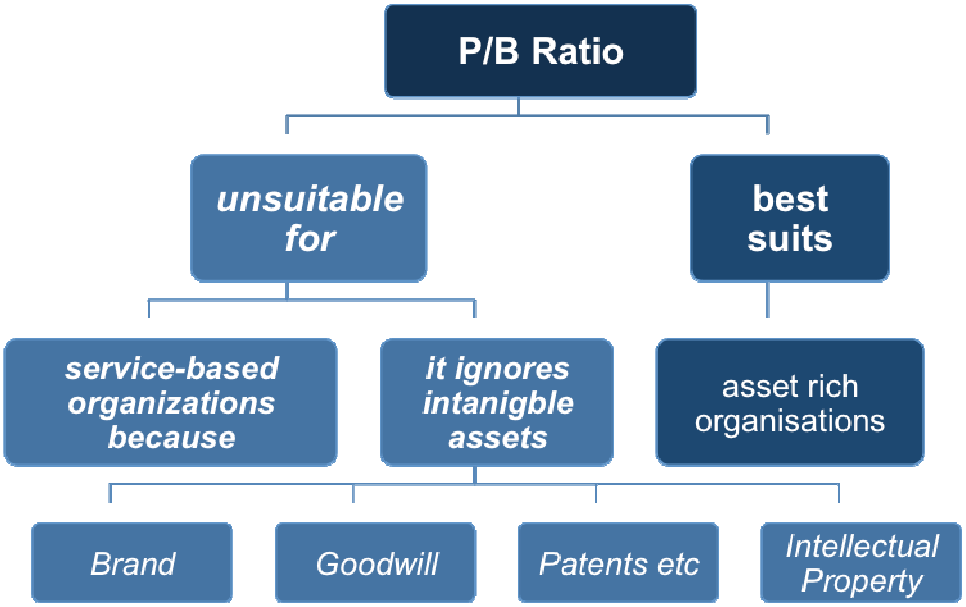
Where an organization has a very high share price relative to its asset value it is likely that it has been earning a very high return on its assets.

You may also find instances where an organization is trading for less than its book value (P/B <1) and this tells an investor that either:

- **The asset value is overstated** – meaning there is a chance that the asset value will face a downward correction by the market, leaving investors with negative returns.
- **Return on assets is genuinely poor** – indicating that new management or a new operating environment will prompt a turnaround in prospects and give strong positive returns.

  Or a new owner can break up its asset value, earning a profit for shareholders.

The P/B ratio is really only useful when you are looking at capital-intensive businesses or financial businesses with plenty of assets on the books.



It is not meaningful for service-based organizations because due to accounting rules intangible assets such as intellectual property (brand name, goodwill, patents, and trademarks) are ignored in calculating the book value of equity.

The PEG (Price/Earnings to Growth) Ratio

This ratio illustrates the relationship between stock price, earning per share, and an organization's expected growth rate. This ratio is often used in management discussions, especially those where strategic growth is being considered.

PEG is a widely used indicator of a stock's potential value. Many people favor it over the price/earnings ratio because it also accounts for growth. Similar to the P/E ratio, a lower PEG means that the stock is more undervalued.

The PEG ratio is calculated by dividing the Price to Earnings (P/E) ratio by an organization's annual EPS (Earnings per Share) growth. The growth rate is expressed as a percentage, and should use real growth only, to correct for inflation.

> *For example, if an organization is growing annually at 30% and has a P/E of 30 then its PEG would be '1.'*

It is assumed that by dividing the P/E ratio by the earnings growth rate, the resulting ratio is better for comparing companies with different growth rates. In general, the P/E ratio is higher for a company with a higher growth rate. Using just the P/E ratio would make high-growth companies appear overvalued relative to others and this is why the PEG ratio is more widely used.

A lower ratio is cheaper and a higher ratio is more expensive. For example, it is considered that an organization with:

- PEG < 1 is undervalued

- PEG around 1 is fairly valued
- PEG > 1 is overvalued.

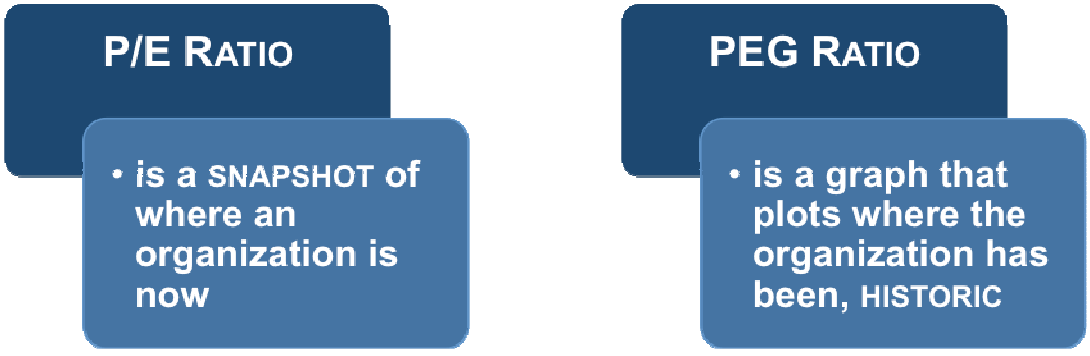
The P/E ratio used in the calculation may be projected or trailing, and the annual growth rate may be the expected growth rate for the next year or the next five years.

There are many variations using earnings from different time periods (for example, one year versus five years) and you should be clear about which one your source is using so that you can make valid comparisons.

By comparing two stocks using the PEG, you can see how much you're paying for growth in each case.

- PEG of 1 - means you're breaking even if growth continues as it has in the past.
- PEG of 2 - means you're paying twice as much for projected growth when compared to a stock with a PEG of 1.

This is speculative because there is no guarantee that growth will continue as it has in the past. The P/E ratio is a snapshot of where an organization is and the PEG ratio is a graph plotting where it has been.



Armed with this information, an investor or a management team has to decide whether the organization is likely to continue in it's present direction. Management have to assess whether their current strategy needs to be altered in order to maintain their desired growth.

Dividend Yield

The dividend yield is used to calculate the earning on investment (shares) considering only the returns in the form of total dividends declared by an organization during the year. By dividing the stock's annual dividend by the stock's price and multiplying by a hundred, you get a percentage.

You can think of that percentage as the interest on your money, with the additional chance at growth through the appreciation of the stock.

For example:

If an organization has:

- *A stock with a value of $5*
- *And it pays an annual dividend of $0.50*

Then it has a dividend yield of 0.5 ÷ 5 = 0.1
Expressed as a percentage, this is 10%.

Dividends are declared and paid quarterly and a dividend increase is announced in advance. This makes the stock more valuable or desirable to equity income investors, who start buying the stock in anticipation of the higher dividend. This in turn pushes the stock price up, so that when the higher dividend is actually paid, the stock price is likely to be higher and the dividend yield will remain the same.

If a good dividend stock drops in price, the increased dividend yield will attract equity income and value investors, whose stepped-up purchases will

push the stock price back up and the dividend yield down. If, however, a higher dividend yield fails to attract investors, it may be an indication of financial problems that are too serious to be offset by a higher dividend.

Where an organization has a low dividend yield compared to others in its sector, it can mean one of two things:

1. The share price is high because the market believes that the organization has exciting prospects and that the future increase in share price will more than compensate for a lack of dividend payments.

   Or

2. The organization is in trouble and cannot afford to pay reasonable dividends.

At the same time, however, a high dividend yield can signal a 'sick' organization with a depressed share price.

Dividend yield fell out of favor during the 1990s because of an increasing emphasis on price appreciation over dividends as the main form of return on investments. Dividends also vary by industry, with utilities and some banks paying a lot, whereas technological firms invest almost all their earnings back into the organization to fuel growth and protect their technological advantage.

Key Points

- Accounting ratios that focus on the investment potential an organization offers include: Price/earnings ratio (P/E), Price-to-book ratio (P/B), PEG (Price/earnings to growth) ratio, and Dividend yield.
- A P/E ratio can be thought of as the length of time a stock will

take to pay back the investment if there is no change in the business.

- The price-to-book (P/B) ratio represents the value of the company if it is broken up and sold.
- The PEG (Price/earnings to growth) ratio illustrates the relationship between stock price, earning per share, and an organization's expected growth rate.
- The dividend yield is used to calculate the earnings on investment (shares) considering only the returns in the form of total dividends declared by an organization during the year.

Summary

The more you know about how an organization is performing financially, the easier it will be for you to make informed management decisions about it. Key financial ratios can help you to find out:

- *Is an organization solvent?*
- *Is it profitable?*
- *How well is it managed?*

Making a simple financial assessment of another organization is straightforward and the necessary information is readily available. This means that you can compare the performance of the organization with its previous track record and with the performance of other similar organizations. You can also make comparisons to see how profitable the business is, how efficiently it is performing, and whether it is able to pay its bills on time.

This ability to evaluate the financial position of another organization is a valuable skill for any manager to have, whether you are choosing a supplier, considering a strategic partnership, or deciding how much credit to extend to a customer.

Remember, the ability to communicate in the language of finance becomes more of an asset the higher you progress up through the levels of management, even if accounting and finance is not your specialty.

If you would like to learn more about developing your financial skills then visit our website www.free-management-ebooks.com and download one of the other free eBooks in this skill set:

- Basic Accounting Concepts

- Understanding Income Statements
- Reading a Balance Sheet
- Controlling Cash Flow

References

Mason, Roger (2012), *Finance for Non-Financial Managers in a Week*, Hodder Education & The McGraw-Hill Companies Inc.

Shoffner G.H., Shelly S., and Cooke R.A. (2011). *The McGraw-Hill 36-hour Course Finance for Non-financial Managers*, 3rd edn, The McGraw-Hill Companies Inc.

Siciliano, Gene (2003), *Finance for Non-Financial Managers*, The McGraw-Hill Companies Inc.

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