CHAPTER 1: FOCUS ON REALITY

> If a business does well, the stock eventually follows.
>
> Warren Buffett

Do you focus on the share prices of listed companies, that is, with what other people think a firm is worth? Or do you seek to understand the economic and business realities of a business for yourself? Arguably the world's most successful investor, Warren Buffett, thinks it is worth the effort to engage with the economic and business realities of a business to form your own view of what you think it is fundamentally worth. Buffett thinks you should seek to connect with the intrinsic value of a firm; what *you* think it is worth, independently of what investors as a whole may think it is worth at any point in time. Buffett (and many others) think it is worth doing this because, if your analysis is sound, eventually others will see what you can see and the share price will then reflect this value.

In this chapter, we look at what fundamental analysis is and why doing it is a good idea. We will see that having a framework to analyse financial statements is an important part of being able to do our own fundamental analysis of firms. We will also see there are various parties who might have a reason to want to engage with the economic and business realities of a firm. Finally, we will consider what it takes to focus on the economic and business realities of a firm and whether having a background in accounting or finance actually makes it easier, or more difficult, to do financial statement analysis well.

1.1 Fundamental Analysis

Fundamental analysis of a firm directs our minds to focus on reality: hard, tough, actual business reality. Fundamental analysis is about connecting to the realities of a firm for ourselves, based on our own assessments. In doing this, we also need to avoid common errors which many investors can make. A key to doing this, and to engage with a firm's economic and business realties better than many other investors, is to be able to analyse a firm's financial statements.

Our own assessments

Fundamental analysis is about turning over rocks, kicking the tyres, checking under the bonnet, before we buy. It is about taking our time to invest, forming our own judgements and not reacting with the 'herd'. It is about being grounded in our own assessments of the economic and business realities of firms and having the confidence and willingness to back these judgements, regardless of whether, at any point of time, 'Mr Market' agrees with us or not. Fundamental analysis is about seeking to understand the realities of a firm to determine its value. It is about looking at a wide range of factors that can affect a firm's value, including information about the economy and industry conditions; financial information of a firm (which is where analysis of financial statements comes in); and other, often qualitative, information.

Fundamental analysis involves engaging with quantitative and qualitative information, with numbers and words, with people and uncertainty. It involves talking with customers and perhaps 'mystery shopping' a firm (to help understand the customer experience it is delivering). It involves understanding a firm's competitors and suppliers. It involves appreciating what is 'special' about a firm and the barriers

to entry that might help preserve a firm's distinctiveness. In our unit, we will look at how to analyse financial statements as part of a fundamental analysis of a business. Our focus will be on two frameworks that can help us do this efficiently and in a way that can give us real insights into the value of businesses. The ideas and methods we will discuss are not the only way to do financial statement analysis: far from it. It is rather a starting point on which to build in your own judgements and ideas. After all, we always have to start somewhere. Our unit might be a place where you can start.

There are many critics of fundamental analysis. Some critics say doing fundamental analysis on a listed company is a waste of time. They say it is irrelevant and useless since a listed company's share price will already reflect publicly available information. They say that by analysing publicly available information, such as a firm's financial statements, it is impossible to learn anything new about a listed company that the market as a whole does not already know. Indeed, they say this is what the efficient market hypothesis, a central tenet of finance theory, tells us. This criticism would not, of course, apply to the usefulness of fundamental analysis of unlisted companies in private equity markets, where there is no listed share price each day. And in relation to listed companies, we will be exploring exceptions that have been identified to the efficient market hypothesis.

Other critics argue that fundamental analysis lacks credibility and rigour. They say it is difficult to use fundamental analysis to gain a better understanding of the value of a firm because it is extremely difficult to collapse the many qualitative factors of a firm into numbers to arrive at a value for a firm. In our unit, we will be looking at ways of using financial statement analysis to help us do just that. We will see how to use financial statement analysis as part of a fundamental analysis of a firm to help us connect our qualitative assessments of the economic and business realities of a firm to quantitative estimates of value. And you will have an opportunity to give this a go with your own firm.

Although there are plenty of critics, in practice most investors consider fundamental analysis has a role to play; that there is a place for doing in-depth analysis on firms. And because the analysis of financial statements helps us connect our qualitative assessments of reality to quantitative measures of value, it is central to any fundamental analysis of a firm. This Study Guide seeks to help us understand how to analyse financial statements to form our own judgements about the value of businesses (or projects): *to know what adds value*.

Avoid common errors

One of the most baffling questions of finance is why it is possible to consistently outperform the 'average investor' by buying shares that have low prices relative to an assessment of fundamental value. Finance theory suggests this is not possible and that such 'inefficiencies' in the highly competitive capital markets should be quickly competed away. But this is not the case in practice.[1] When you are investing you are competing against other investors for investments. If many investors consistently make errors in assessing which investments to make and how much to pay for these investments – errors which you are able to avoid making yourself – you can earn higher returns than many investors. You do this by allocating your capital more cleverly, more sensibly, than many other investors.

Fundamental analysis is about seeking to avoid errors which many investors can make. What are some of these errors which we may try to avoid? Psychological studies suggest that when we predict the future we can often mistakenly expect what has happened in the past to continue too far into the future. For example, if a firm has been strongly growing its earnings in recent years we can often mistakenly think this firm's earnings will continue to grow strongly for many years into the future; and vice versa for firms with poor earnings growth in the past. Also, if a firm's shares are listed on a share market and its share price has grown strongly in recent years we can often mistakenly think this firm's share price will

continue to grow strongly for many years into the future. Or investors can over-react to good or bad news released by a firm. Or investors could fail to distinguish between a good investment and a good company; there can be prices at which buying into a good company is not a good investment.

Being able to analyse financial statements, to read the stories they can tell us about the economic and business realities of a firm, is an important part of doing fundamental analysis, which is all about connecting to reality. This can help us avoid common errors of investors who do not do this analysis and so are not as well connected to this reality. We have seen financial statement analysis is central to being able to do fundamental analysis on a firm. It can help us connect our qualitative assessments of reality to quantitative measures of value. So how do we actually *do* financial statement analysis? Having a framework to analyse financial statements, or a way of thinking about it, is vital.

1.2 A Framework

There are many frameworks you can use to analyse financial statements. We will discuss some of these in Chapter 3. But what exactly is a framework and how can it help us analyse financial statements? Does not financial statement analysis simply involve calculating a few ratios which can then 'magically' predict whether a firm will fail or succeed, without having to get our hands dirty engaging with the real world of business? Unfortunately, life is not meant to be easy; at least, not that easy. We will see we need a conceptual map to bring together the various ideas and facts about financial statement analysis, and that this map will be something *personal* to us. We will learn the discounted cash flow (DCF) and discounted economic profit frameworks and will focus our efforts on understanding key aspects of where firms typically add most value: the operating activities of a firm.

A map in our head

Is financial statement analysis a type of magic arts, perhaps similar to those skills taught to Harry Potter in his Defence Against the Dark Arts class at Hogwarts in the blockbuster novels of J.K. Rowling? Is a unit on financial statement analysis something like an initiation into understanding a mystical 'black box' that only the favoured few can understand and practice? Is it a skill that only crack sell-side or buy-side analysts can have operating in the major capital markets of the world (or even in the lesser capital markets of Australia and New Zealand) but to which we mere mortals can only forlornly hope to aspire, but never achieve? Is it only those who are highly-skilled, overly-intelligent, or have native commercial brilliance who can invest successfully in the private equity markets, identifying value and extracting outrageous personal wealth for themselves and their favoured clients? It is not. An ability to analyse financial statements is potentially available to us all. There are skills in financial statement analysis that we can all potentially gain, with effort and application, that will allow us to be able to pick up a firm's financial statements and use them to help us engage with a firm's economic and business realities.

What we need to start the process of gaining the skills and abilities in financial statement analysis is a framework. Indeed, a key takeout for you from our unit will be two frameworks for thinking about how to analyse financial statements. A conceptual framework is like a map that is sitting in our head, on which we can place the 'facts' we learn. The 'facts' you will learn are some of the technical skills we need to analyse financial statements. These skills will help us break into bits the financial statements and then understand the relationships between these bits so we can link the pieces of the financial statements back together into an understandable story. Without such a map in our head we would have no place to put the 'facts' we will learn about financial statement analysis. But more importantly, we would have no way of thinking about how to analyse financial statements and read and understand the stories they can tell us.

Financial statement analysis is not a casual activity we can do half-heartedly. It is difficult. But it starts to become manageable with a map. You will not be given a map in a finished form with all the elements and facts and destinations you need neatly laid out so that all you need to do is pull it out as needed. The map you will be given is a mental one, a way of thinking, which this Study Guide will help you build up yourself, piece by piece. This map will also form the basis for a spreadsheet, a model we can develop into a personal tool for doing financial statement analysis on firms ourselves. The map will be in our heads. The spreadsheet will be in our computer which we will be able to print out onto paper and will be simply a way of helping us organise the facts and analysis we make of a firm. It will be a tool, to be used as we wish.

Personal and imprecise

As the discounted cash flow (DCF) and economic profit frameworks, or conceptual maps, will be in our head, they will necessarily be personal to each of us. They will be the way we think about firms, about business, about how value is added by businesses; indeed, even what adding value means, and to whom this value is added. These frameworks will be based on some of the best thinking internationally by many people over many years who have thought about how to do financial statement analysis. Gradually, we will realise that using financial statements to help us engage with the realities of a firm gives each of us our own understanding of these realities and our own individual view of the value of a firm. Financial statement analysis is not an exercise in seeking to 'discover' the true value of a firm, but an exercise in helping us form our own judgements about the value of a firm. No analysis of financial statements is correct or final; some analyses are simply more thorough, more insightful and more convincing than others. If we are an equity investor we will be committing real capital based on the judgements we make in our financial statement analysis. Sound financial statement analysis will give us the basis to invest equity in firms intelligently and with a degree of confidence. Our two frameworks will not give us a magic answer to analyse financial statements; but they will give us a place to start. They will give us a sound theoretical base that is highly practical and useable.

In Chapter 3, we will look at a number of ways people might analyse financial statements. They all have a place and can be useful to use at different times and in certain contexts. However, the DCF and economic profit frameworks are comprehensive, well thought through, and able to give us powerful ways to look at understanding the realities of firms through analysing financial statements. We will see that these frameworks allow us to come up with precise measures of value for firms. Indeed, as we will see, the DCF and economic profit frameworks give us exactly the same precise measure of value for firms. But do not be fooled by this. It is a false precision.

There are many judgements, assessments and, yes, downright guesses, that we will need to make in applying these frameworks in practice. Different guesses, different judgements, different assessments will give us different answers. This is the principal danger of the frameworks we will study; there is the potential for us to delude ourselves that these frameworks provide us with the means to discover, or unearth, the one true answer, the definitive solution to converting all the qualitative (and messy) elements that make up a firm's business reality into a simple quantitative, dollar figure. Do not fall for this delusion. We will have more to say about this in later chapters, and about the importance of having a substantial 'safety margin' before making investments.

Economic profit

Return on net operating assets (RNOA) is Operating income after tax (OI) divided by the Net operating assets invested in the business (including both working capital and non-current assets such as Property, plant and equipment). We can think of RNOA as the return on capital employed, or invested, in the

business. Economic profit for an enterprise (or abnormal Operating income) is RNOA (less the opportunity cost of capital) times the amount of Net operating assets, or capital, invested in the business. Firms create value for their equity investors by earning a RNOA greater than the opportunity cost of capital. Also, the more a firm can invest in its Net operating assets at returns above its costs of capital, the more value a firm can create. In other words, growth creates value as long as RNOA is greater than the cost of capital on new investments of Net operating assets that a firm can make. Firms create value through *profitability* (RNOA is greater than the cost of capital) and by *growth* (growing its NOA that can earn greater than its cost of capital).

We will see that the financial statements of a firm can give us a great deal of insight into the actual business reality a firm is facing. However, one of the things accounting leaves out is the cost of the capital the firm uses to fund its operations. Capital is never free. It has a cost related to the potential expected returns it could earn in alternative uses. As in life, so with capital. The true cost of everything we do is the alternative things we could have been doing with our time and energy and resources. Indeed, all of life is a trade. Because this opportunity cost is usually invisible to us we often fail to consider it in life. If we were better at doing this, probably most of us would get a pretty big shock.

We often fail to realise all the alternatives and options that lie before us, all the dreams, journeys and actions we could be taking instead of what we have chosen to do. Wherever we are in the world, we can only be in one place at a time and nowhere else. And there are a lot of other places. A lot. This is the true cost of our choices in life; the cost of not doing all the alternatives we could have been doing instead. It is the same with capital. By focusing on economic profit we seek to include this opportunity cost of capital in our consideration of the business realities of a firm. Just as it is not easy to assess the opportunity cost of what we do in life, it is also difficult to assess the opportunity cost of capital; thankfully, not quite as difficult, as capital is (at heart) an impersonal commodity, which each of our lives is not. Yet, as we will see particularly in Chapter 7, it is challenging to assess the cost of capital.

Free cash flow

Free cash flow (which we will often simply call 'cash flow') is a firm's Operating income (OI) less our net investment in the business for a period (that is, change in Net operating assets: ΔNOA). The forecast Operating income for two firms, King Enterprises and Marks Inc, over the next 4 years is set out in Table 1-1 below.

Table 1-1: Forecast Operating Income

	Year 1 $000	Year 2 $000	Year 3 $000	Year 4 $000
King Enterprises	**1,000**	**1,100**	**1,200**	**1,300**
Marks Inc	**1,000**	**1,100**	**1,200**	**1,300**

Which firm is more valuable: King Enterprises or Marks Inc? Based on the information above, we might think both firms are worth the same because we expect them to earn the same Operating income in the future. But what if Marks Inc is expected to need twice the net investment in its business (that is investment in NOA) than King Enterprises each year to generate its expected future earnings? Such an issue is clearly captured in the Free cash flow set out in Table 1-2 below.

Table 1-2: Forecast Operating Income

	Year 1 $000	Year 2 $000	Year 3 $000	Year 4 $000
King Enterprises				
Operating income	**1,000**	**1,100**	**1,200**	**1,300**
Net investment	**300**	**300**	**300**	**300**
Free Cash Flow	**700**	**800**	**900**	**1,000**
Marks Inc				
Operating income	**1,000**	**1,100**	**1,200**	**1,300**
Net investment	**600**	**600**	**600**	**600**
Free Cash Flow	**400**	**500**	**600**	**700**

In Table 1-2, we see King Enterprises is expected to generate higher expected future Free cash flow than Marks Inc. Although both firms have the same expected Operating income, King Enterprises expects to invest less each year to achieve the same earnings growth as Marks Inc. In this way, expected future cash flow may give some insights into value creation by our firms that expected future economic profit (based on accounting earnings) may not. However, cash flow in any given year is not a good measure of a firm's performance. Indeed, cash flow is not a measure of 'value add' for a period. Free cash flow could be easily increased in any year by simply reducing net investment. Conversely, economic profit is a direct measure of 'value add' being based on a firm's accounting profit for a period compared to its cost of capital.

Both economic profit and cash flow can play a part in helping us connect to how a firm is adding value to its equity investors. The key thing to remember is that we need to focus on what drives cash flow and economic profit. The two key drivers of expected future cash flow and economic profit (and of value creation in a firm) are expected future *profitability* (RNOA relative to its cost of capital, which drives both cash flow and economic profit) and expected future *growth* in Net operating assets. If we were to calculate discounted cash flows (DCF) for a firm we would need to forecast a firm's expected future cash flows. In the same way, to calculate discounted economic profit for a firm we need to forecast a firm's expected future economic profit.

Operating and financial activities

Using the DCF and economic profit frameworks, we will learn how to 'break into bits' (that is, analyse) key aspects of a firm's financial statements and also how we can focus on the operations of a firm. We will see that disregarding how a firm is financed (through a particular mixture of equity and debt) can simplify our financial statement analysis and help us focus our efforts on understanding key aspects of the operating activities of a firm, which is usually where value is added (or destroyed) by a firm. We will also see the value of having a picture of the firm in our minds that sharply distinguishes between

operating and financial activities of a firm. We may challenge your understanding of some aspects of finance theory, in particular the efficient market hypothesis. We will be effectively exploring aspects of the most baffling question of finance theory, which is why it is possible to consistently outperform the 'average investor' by buying shares that have low prices relative to an assessment of fundamental value. We will also explore aspects of the Modigliani and Miller theorems concerning situations where financing decisions by firms are not relevant to value creation for equity investors.

We will see that financial statement analysis is where finance meets accounting and where both disciplines become intensely practical and real. In any accounting or finance unit we can, to some extent, study 'imitation' accounting or finance. We can learn some terminology, some facts and some ideas. Indeed, we can memorise and reproduce some of this information to satisfy unit assessment requirements. However, we may not have been able to put it all together in our heads, to 'connect the dots' and to see what these various discrete facts we 'learnt' actually mean to us; how they connect to, and indeed influence how we see, reality. Reality is the world outside the classroom, outside accounting or finance units or textbooks, where business is done. Reality is where we live our lives. What we have learnt about accounting or finance may not have changed the way we view aspects of our world. It may not have changed the way we view the world one little bit. Studying 'real' accounting and finance does.

Accounting and finance are ways of looking at business, ways of engaging with their economic and business realities. Financial statement analysis can be a way of helping us to learn 'real' accounting and finance because it focuses us on understanding and making sense of the real world. Together, the thinking and ideas of both accounting and finance help us to analyse financial statements to help us better understand the economic and business realities of firms. We will also learn how to make considered forecasts about what is likely to happen to a firm in the future (that is, forecast its key economic and business drivers) and to turn these into a dollar value for a firm or a project (that is, how much capital we should be willing to invest now to gain the uncertain, forecasted outcomes).

Are the DCF and economic profit frameworks we will study any good? I think they are, but you will need to decide that for yourself as we study financial statement analysis together. There are some fine professionals in our financial markets who would disagree with me; as well as those who would agree. So if you end up disagreeing with me, you will not be alone. Yet I ask you to come on a journey with me as you make up your mind. Grapple with the ideas as we address the key concern of how we are to know what adds value in business and how firms' financial statements may (or may not) be able to help us. The test of the DCF and economic profit frameworks that we will study will be how useful they are to us in future years in our own analysis of financial statements, in helping us to use financial statements to better understand the realities of firms and to help us view the world of business differently.

Your task will be to take the DCF and economic profit frameworks and adjust them to make them your own. You can take from them what you will. There is a lot of good thinking that has gone into these two frameworks; and we can add our own (and others) thinking to it over the years. There are also many other frameworks and approaches for valuing businesses we can use as well. There is only so much I can (or want to) put into one unit. This does not need to limit us, to put a boundary or constraint on where we can go. Rather, it is designed to get us started; to use good thinking from accounting and finance to help us start to connect with the real world of business.

In this section, we have seen the importance of having a framework, or conceptual map, on which to place the elements of financial statement analysis that we will learn in this unit. We saw that how we use a framework will be personal to us, involving our own judgements, assessments and downright guesses. We will now look at how there can be many points of view when considering the economic and business realities of a firm and how this will necessarily involve us making value judgements.

1.3 Many Points of View

> Every share of Berkshire that I own is destined go to philanthropies, and I want society to reap the maximum good from these gifts and bequests.
>
> *Warren Buffett*, when aged 75 years[2]

We are all people. We will all have a purpose in wishing to understand and engage with the economic and business realities of a firm. As we study financial statement analysis together, we will focus on the use of financial statements by both existing and prospective equity investors who wish to decide whether to invest, or divest, their capital in a firm.

Many perspectives and stakeholders

There are many people with different perspectives and reasons for wishing to analyse a firm's financial statements. We may wish to assess a firm's credit risk (if we are considering making a debt investment in a firm). We may be a supplier to a firm, wishing to understand the relative bargaining power a firm has in its negotiations with us on the prices of the goods and services we supply to it. We may be a customer of a firm, wanting to understand how secure is the supply of the goods and services we are buying from it; we may be an employee, wanting to understand whether the equity investors and employees of a firm are fairly sharing in the value created by the firm's activities to which we are contributing; or we may be working in a government agency wishing to understand whether aspects of a firm's activities are unfair to others and need to be regulated for the broader community benefit. Depending on our purpose, we would have different perspectives and different reasons for looking at the financial statements to better understand the realities of firms.

Alternatively, we may be a senior manager or director of a company and may need to decide whether to invest resources within a business. For example, we may need to assess a proposal to build a new factory at Fairfield in the outer western suburbs of Sydney; or to restructure a firm's distribution by centralising its warehousing operations in East Tamaki in Auckland; or to acquire another business and 'bolt it on' to the existing business (as, for example, Commonwealth Bank in Australia did when it purchased ASB Bank in New Zealand in the late 1980s); or to outsource manufacturing to Shenzhen in Guangdong Province in China; or to assess the merits of a marketing strategy that involves paying a multi-million dollar sum for endorsements from, say, the Australian cricketer Michael Clarke, or the New Zealand golfer, Lydia Ko; or to introduce a new human resources policy around increased flexibility in working hours for certain groups of employees; or to decide whether to simply maintain the *status quo* in some aspect of the business in the face of other competitors doing that aspect of the business quite differently. In all these instances, what do we as a senior manager or director in a firm ask ourselves? We need to assess which course of action will add the most value for equity investors and to other stakeholders in a firm. How can we tell? How do we know if we are adding value by going ahead with any of these proposals?

The way of identifying and thinking about aspects of the economic and business realities of firms that you can gain from studying financial statement analysis, can be used in a range of situations in which we may find ourselves. We may look at the financial statements of firms from many different perspectives at different times in our lives and working careers. We may find ourselves working as a corporate investigator in a large open plan office with the Australian regulator, Australian Securities and Investments Commission (ASIC); or working as an analyst in the Auckland head office of Fonterra, a large multinational dairy company owned by 10,500 New Zealand dairy farmers, assessing the merits of a

major capital investment proposal from a senior manager. How do we view the world we are in? How do we see it? How do we engage with it?

The knowledge and skills we will study will be in the context of existing and prospective equity investors using financial statements to make decisions about whether to invest or divest their capital in the equity of a firm. However, they will also be directly relevant and useful in other decision contexts. We will limit ourselves to the decisions by equity investors for focus. The risk of doing this is that we might tend to forget about the interests of other stakeholders in a firm. Going jogging after work at the end of the day might be a good thing. It could help my physical fitness and help me clear my head. However, if I get so focussed on running and exercising that I do so many hours of running every day that I neglect other aspects of my life, such as my relationships with my wife, family, friends and parents, washing the car, cooking dinner or going to work; then jogging may not be so good.

In the same way, our focus on decisions to be made by equity investors in a firm can lead us to neglect other perspectives. Financial statement analysis is for everyone and a firm's activities serve the needs of many more people, many more stakeholders, than simply equity investors. Financial statement analysis is about knowing what adds value for a wide range of stakeholders in a wide range of situations; a way of thinking, of viewing the world, we can use in many different situations. We are not going 'soft in the head' to be sensitive to, and consider, the genuine interests of stakeholders other than equity investors in a business; quite the reverse. However, that will not be our focus.

Equity investors' interests are not everything

All I ask is that we keep in mind that our focus on 'adding value' to equity investors is only part of the story, never the whole story. Indeed, as William Shakespeare's character Hamlet says to his friend Horatio, "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy."[3] As we delve into the exciting and compelling world of financial statement analysis, and discover what we can learn about the realities of a firm from its financial statements, keep in mind it is possible to look at these realities from many other points of view than those of equity investors. The knowledge and skills we learn in the context of examining the financial statements from the point of view of equity investors can be readily adapted and used to analyse a firm from the points of view of other stakeholders. We may well find ourselves in future needing to do just that. We will now turn our attention to the sort of technical skills and judgements we will need to develop to be able to complete a quality analysis of a firm's financial statements.

1.4 What It Takes

> A man who tries to carry a cat home by its tail will learn a lesson that can be learned in no other way.
>
> *Mark Twain*

In this section, we will look at what it might take to gain fresh insights of a firm's business realities from its financial statements. We will see we need to focus on a firm's key economic and business drivers and on how these might change in the future. Financial statement analysis requires a mixture of technical skills (which we can learn in a classroom, by reading the materials in this Study Guide and through carefully working through actual examples); and judgements (which take time and experience to develop). This Study Guide can give you some theoretical tips and ideas to take with you. A platform, or

base if you like, on which you can build your own capacity to make sound judgements and develop a 'nose' or ability to use financial statements to connect meaningfully to the economic and business realities of firms.

We will see that the quality of the judgements we make in forecasting are critical to financial statement analysis, as is our ability to turn these judgements meaningfully into dollar figures of value. We will use the DCF and economic profit frameworks to turn our forecasts into valuations. But beware. Valuation models such as the ones we will use incorporate 'guesses' to varying degrees for a number of their components. For example, we will see the long-term expectations summarised by a growth rate and the discount rates used to bring future dollars into present dollars are both extremely difficult to quantify and inevitably contain a high degree of speculation (and can be prone to manipulation by us, or by others).

Typically, our valuation models will involve us using a spreadsheet and will enable us to arrive at precise values, which can fool us into thinking they give us more accuracy than is the case. It can be useful to remember that the only thing certain about any forecast we make is that it will be proved wrong. Forecasting is highly imprecise, particularly the more years we go into the future. Also, no-one has yet figured out how to effectively translate into discount rates judgements in relation to risk. A common model from finance used to generate discount rates, the Capital Asset Pricing Model (CAPM), can be readily manipulated depending on the beta estimates and market risk premium used in calculating the discount rate. More guesses. As Benjamin Graham has pointed out, "… the combination of precise formulas with highly imprecise assumptions can be used to establish, or rather justify, practically any value [for a firm] one wishes."[4]

Self-delusion in financial statement analysis and valuation is a constant risk. The false precision that valuation models such as the DCF and economic profit frameworks apparently provide can easily disguise manipulation and bias by those using these frameworks. The most worrying thing is the self-delusion that their apparent precision can provide. We can easily use such a framework to convince ourselves that we know more than we do by disguising where we have introduced considerable speculation through the guesses and opinions about the future included in some inputs into our model. If it is so fraught with dangers, why do we suggest we develop skills in using valuation models? Well, they can help us to focus our efforts, be efficient in our analysis and then 'make sense' of what we find. They are primarily frameworks or conceptual maps or ways of thinking. They are not 'machines' that produce the 'right' value for a firm, however much we may like to wish such a thing might exist.

Background in accounting or finance

You may or may not have had an accounting or finance background. (I actually have a background in both). In my view, it does not really matter either way. An accounting or finance background can be a help and a hindrance in financial statement analysis. An understanding of some types of typical accounting treatments can help to decipher some of the detail in financial statements and help us to be less intimidated by, or indeed even less fearful of, some of the accounting terms. A background in finance can help us understand some concepts more easily, such as cost of capital, risk and net present values.

But a background in accounting or finance can also hinder us. An accounting background may mean we look at the world in accounting 'silos' or with pre-conceived notions that may make it more difficult for us to see the underlying economic and business realities of firms that we are trying to come to grips with. We may be more readily 'blinded' by the accounts and less able to 'see through them' to what we are interested in. Indeed, an accounting background can sometimes encourage us to focus on the financial statements themselves (which are simply made up by people) rather than on business reality

(which is what we are interested in). An accounting background can sometimes make us feel that the accounts are what are rigorous and real and make it more difficult for us to see the messy, untidy and sometimes uncomfortable realities of firms. The financial statements, through analysis, are merely a means by which we seek to connect to this reality. They are not the reality themselves.

A background in finance can encourage us to be committed to the various notions of efficient markets (which is a fundamental tenet of accepted finance theory, after all) which might make it more difficult for us to see the benefit of expending considerable effort ourselves analysing publicly available financial statements to uncover value that may not be reflected in the share price of a listed firm. After all, if the listed share markets are efficient, why not just accept the market price as the best estimate of value? Indeed, those without a strong background in accounting or finance can sometimes find it easier to approach financial statement analysis in a fresher, more open way with a real focus on using financial statement analysis to better understand the economic and business realities of firms.

Useful, practical skills

Our unit seeks to assist us to gain useful, practical skills in analysing the financial statements of firms. We will use Ryman Healthcare as a key case study. Ryman Healthcare is a major New Zealand listed company operating in the retirement healthcare sector. By reading, studying and applying what is in this Study Guide we can become confident and assured (or at least more comfortable) with analysing financial statements and with using our analysis to make judgements about real business situations. This will help prepare us in the future to be able to back our judgements by investing real dollars (our own or someone else's) in businesses or projects; to give us the confidence to make commitments of capital and wealth in support of firms' uncertain futures. We can also understand the contribution we could make to our whole community (and not just to ourselves) by becoming truly skilful at allocating scarce capital in our society.

There is a definite psychological issue in business and investing, just as there is, for example, in sport. We need to stay calm and 'keep our head', when all those around us may be losing theirs; we need to keep our nerve and focus and confidence at critical moments, but not slip into arrogance and over-confidence which is all too easy to do as well. A key help in being able to walk this tightrope is to have a rock, a foundation, a solid base. We occasionally meet people in life who have a solid foundation, and this can give them a tremendous inner strength and resilience, come what may. It is the same in business and investing. Having a clear sense of what adds value in business can give us the calm confidence to follow through on our own assessments, particularly at critical moments in capital markets. The material covered in this Study Guide is designed to get us started in developing such a foundation in financial statement analysis which can give us the basis for an intelligent, realistic, calm confidence in business and investing.

Focus on drivers

To help us build such a foundation we need to focus on drivers, not passengers. We need to be able to systematically and efficiently identify and assess the past drivers of a firm's performance. To do this requires us to identify the past economic and business realities of a firm which are driving its performance. What is the difference between a driver and a passenger in a car? The driver is steering, braking and accelerating the car by using the steering wheel, brake pedal and accelerator. The passenger is coming along for the ride; they do not have any of these things where they are sitting.

We need to ask ourselves, 'What pieces of the financial statements are driving or causing the past financial performance of a firm?' We do this by systematically and efficiently breaking down the financial

statements into smaller bits to help us focus on some or other aspect of the business. If the financial statements overall show the business has been performing well, what part of the financial statements has been 'causing' it? Was it high gearing, high profit margins in a product line, or low inventory levels? But you will remember that the financial statements are not the economic and business reality themselves. No aspect of the financial statements has caused the overall good performance of the business. In this sense, all aspects of the financial statements are passengers going along for the ride. The actual drivers are specific aspects of the economic and business realities of the firm that are causing those specific aspects of the financial statements to be the way they are. It is these realities we are interested in understanding, engaging with and influencing.

Once we have identified the key aspects or parts of the financial statements that are 'driving' or 'causing' the past financial performance of a firm, we need to ask ourselves: 'What is causing the key aspects of the financial statements of a firm to be the way they are? What are the economic and business realities that have been causing or driving them?' To gain some insights into this will require using sources of information in addition to the financial statements, which will require us to 'step outside' of the financial statements. We are then led to the question that is central to financial statement analysis: how are those key economic and business realities that are fundamentally causing or driving the financial performance of the firm (as shown in the financial statements) likely to change in the future?

Dream about the future

The key step in financial statement analysis is to dream about the future. We need to forecast or predict a firm's future. To do this, we need to bring together everything we have done so far in a great leap of faith, based on our careful assessment of how we see the key economic and business realities of the business changing in the future. We sometimes hear the words 'blind faith'. Or people cross their fingers or 'touch wood' and say they 'hope' things will work out. There is no place for this in investing, nor in business. These concepts or views of 'faith' and 'hope' are of no use to us. Making equity investments in firms requires commitment. It requires commitment of real capital, real resources of our society, into a business. To do this based on 'sentiment', 'vague ideas' or limited independent assessment is acting based on 'blind faith'. Many costly and foolish decisions can be made this way. Many in our capital markets, including myself, can testify to that. Yet investing (and business) is about real 'faith' and 'hope'. We need to step out and take a risk, which will (quite often) not turn out exactly the way we expected or would have liked. After all, who knows the future?

We can increase our 'hit-rate' and chances of success by using the knowledge and skills we can gain in this unit to make careful assessments of how we see the key economic and business realities (that are in the 'driver's seat' of a firm's business) *changing* in the future. However, these assessments are only useful if we can turn them into a dollar figure. This is because equity investments in firms (and economic transactions in markets more generally) are conducted between people in dollars. It is through the exchange of money that we engage in equity investing. For this reason, we need to address how much we should pay for an equity interest in a firm, because that is how capital is allocated in our society. We can have real faith, hope and confidence as we step out carefully investing our limited capital. Our unit is designed to introduce you to the 'good thinking' and practical skills of financial statement analysis that can help us have a basis for such confidence.

Conclusions

We have seen in this chapter that fundamental analysis involves us making our own assessment of the economic and business realities of a firm independently of its share price. We suggest this is worth the effort because it can help us avoid common errors many investors can make who fail to properly engage

with this reality. We saw how analysing financial statements is central to carrying out fundamental analysis on a firm. We saw the importance of having a framework, a conceptual map in our mind. In our unit we will learn to look at a firm's business reality through DCF and economic profit frameworks.

The economic profit framework uses a well-established concept from economics as the basis for our view of value. Economic profit (or abnormal earnings or residual income) is the difference between the accounting earnings of a firm and the cost of the capital a firm uses to earn that return. This is what we will be focusing on as we seek to understand the economic and business realities of a firm. We will look at a major New Zealand listed company, Ryman Healthcare, as an extended case study as we learn to apply the DCF and economic profit frameworks to a specific firm.

We saw there are a range of stakeholders interested in engaging with and understanding a firm's business reality. We can expect them to have diverse interests. We will focus on equity investors, typically ordinary shareholders in companies. However, the techniques we will learn about financial statement analysis are readily transferable to the interests of other stakeholders. We will focus on equity investors purely for convenience and to provide focus. We also discussed the technical skills and judgements we will need to develop in our financial statement analysis and we saw that a background in finance or accounting can be a mixed blessing when it comes to financial statement analysis.

We saw that an accounting background can make it easier to engage with a firm's financial statements, but this can encourage us to focus on the financial statements themselves rather than on business reality. A finance background can provide us with some key insights and theories as to how finance and business can operate; but this can lead us to an overly strong reliance or confidence in what are, after all, simply tentative finance theories and blind us to the uncertainties and basic messiness of the real world of business. If we remember that the way to quality financial statement analysis is to learn to use the financial statements to help us better understand a firm, we will be starting off on the right foot. We need to keep this firmly in mind.

In the next chapter, we will further examine how a firm adds value by taking capital from investors and using it to earn a return greater than the cost of the capital it uses. This will cause us to initially focus on a firm's strategy as well as on how well a firm's financial statements may, or may not, be capturing the economic and business realities of a firm. In the next chapter we will see that we do not start financial statement analysis with the financial statements. Rather, we start with considering how well a firm is positioned in its competitive environment; that is, with its strategy. We will also see that before we dive into analysing a firm's financial statements we need to stand back and think about whether we have reason to suspect any aspects of the financial statements may not reflect the underlying realities of the firm. Indeed, can the firm's accounts be trusted?

FOOTNOTES

1. For example, see Laonishok, J., Shliefer, A., Vishny, R.W. "Contrarian Investment, Extrapolation, and Risk', *Journal of Finance*, 49 (5), Dec 1994: 1541-1578.
2. Warren Buffett, Chairman's Letter to Shareholders of Berkshire Hathaway, Inc 2005, dated 28 February 2006.
3. *Hamlet* Act One, Scene 5 (towards the end of the scene).
4. Benjamin Graham, *The Intelligent Investor*, New York: Harper and Row, 4th rev. ed., 1973: 315.

QUESTIONS

1-1. Do you think it is important to focus on a firm's economic and business realities rather than on its financial statements? After all, is not financial statement analysis about analysing financial statements? Discuss, including your thoughts about what a firm's financial statements may, or may not, tell us.

1-2. When studying financial statement analysis, what risks are there in having a background in finance or accounting? Surely having a background in finance or accounting is better than having a background in, say, classical music, when studying financial statement analysis? Or is it? Discuss, particularly telling me how you think *your* background may be useful (or dangerous) in learning about financial statement analysis.

1-3. What does it mean that 'value, like beauty, is in the eye of the beholder'? What does it mean to say that our views on what adds value are personal? If everything is just subjective, or personal, how do we know what is the 'right' answer? How do we not get lost in a swamp of confusion? Discuss in the context of analysing financial statements.

1-4. What are some problems or risks in using valuation models such as the DCF and economic profit frameworks? What benefits are there in using such frameworks? Do you have any concerns about learning frameworks, particularly those that, as far as you know, may or may not be used widely in practice? Discuss.

1-5. For whom do firms seek to 'add value'? Do you think anyone has a legitimate interest in a firm other than equity investors? Why or why not? Do you think people other than equity investors can gain useful insights from analysing a firm's financial statements? Discuss, telling me what you really think, rather than telling me what you think I might think (which is, at best, a perilous activity in any case).

1-6. Financial statements are hard numbers on paper. How could 'dreaming about the future' have anything to do with analysing a firm's financial statements? Discuss.

1-7. If share prices of listed companies always fully reflect all publicly available information on a firm, what point is there in doing financial statement analysis? Discuss, outlining any concerns you may have about this issue in relation to studying financial statement analysis.

1-8. What does 'fully reflect' (referred to in Question 1-7 above) mean? If there is no one 'true value' for a firm, how can share prices 'fully reflect' all publicly available information? In your answer, explore the idea of share prices 'fully reflecting' any piece of information. What sort of assumptions underlie this concept or way of thinking? Do these assumptions seem sensible, or 'make sense', to you? Why or why not? Also, consider what happens to publicly available information when it is released by a firm (for example, where does it go? what do people do with it?).