

Retail business valuation: A potential management buy-out case study

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ABSTRACT

For a transaction to be fair and equitable the purchaser and seller should exchange goods they regard to be of equal value. Where the purchaser offers money in exchange for goods, the value of money is predetermined. The seller has an item of value, but this value must be established. Although a valuation is a methodical process, the probability the valuation is biased cannot be ignored. Due to the subjective nature of the process, it must continually be evaluated against standard valuation practices to ensure a fair and independent valuation.

Businesses have been bought and sold for as long as they have existed. The skill is in determining a fair value for the business and convincing the purchaser the selling price is a fair one. Substantiating the value derived by the appraiser goes a long way in garnering acclaim for the value attached to the business.

The primary objective of this case study is to determine a fair value for Currie's Post Trading (Pty) Ltd (Currie's Post). The current owners of the business have expressed their interest to allow current management to buy shares in Currie's Post. Current shareholders have not communicated this intention to management as this evaluation is the first step in the process to allow management equity participation in Currie's Post. The offer will be for 100% shareholding in Currie's Post

To satisfy the primary objective of this case study, to calculate a value for Currie's Post, financial statement for the business was obtained and analysed. A strategic growth plan was discussed with management. Projections based on the strategic plan were calculated and adjustments to the base year 31 August 2017 made. Financial statements for years ending 31 August 2013 through 2016 were made available to the researcher together with provisional financial statements for August 2017. After some consideration the financials for the period ending 31 August 2013 were disregarded as it was for an 18-month period which could skew the projections and trends.

To value Currie's Post, secondary objectives were identified.

- **Identify reason for valuation:** The reason for the valuation was identified in 3.3 as being a valuation for current owners with the view of selling the business to management.
- **Identify & select value world location:** The value world location was identified as the Empirical Unregulated quadrant in 3.4. The location of the quadrant lends itself to

the valuation of a privately-owned business with the assistance of financial intermediaries.

- **Identify & select valuation approach:** The approach selected was performed in 3.5 with the income approach being selected as the most appropriate approach to value Currie's Post.
- **Identify & select valuation method:** Selecting the valuation method was performed in 3.6. All information to compute a value using DCF was available and suited to the unlisted property of the business.
- **Identify & apply discounts or premiums:** This objective was treated under various paragraphs. This is due to the nature of the discounts and premiums applied to the DCF valuation, but also because of the timing of the discount or premium application. The first two premiums are treated as additional costs of equity. SSP & SRP were added to the cost of equity and was illustrated in Figure 3-11: Cost of Equity – SSP adjusted and Figure 3-12: Cost of Equity – SSP & SRP adjusted. The final discount applied was the marketability discount and was discussed in 3.11 Step 9: Identify discounts or premiums and 3.12 Step 10: Calculate discounts or premiums.

After all the secondary objectives had been satisfied, a final valuation was performed on Currie's Post and resulted in a value of between **R 276 994 750 (EV) and R 295 284 850 (equity value)**. The range in valuation is a concept explained in the literature review. The default assumption regarding a value for a business is that it is a range of values, not an absolute.

Keywords: Retail business, Business valuation, Valuation methods, CAPM, WACC, DCF, SSP, SRP, Minority discount, Marketability discount

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LIST OF SYMBOLS AND ABBREVIATIONS

ALSI	JSE All Share Index
APT	Arbitrage Pricing Theory
BVE	Book Value of Equity
CAGR	Compound Average Growth Rate
CAPEX	Capital Expenditure
CAPM	Capital Asset Pricing Model
CF	Non-cash Charges
CFO	Cash Flow from Operations
CPI	Consumer Price Index
DCF	Discounted Cash Flow
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortisation
FCFE	Free Cash Flow to Equity
FCFF	Free Cash Flow to Firm
FFM	Fama-French Model
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
IFRS	International Financial Reporting Standards
JSE	Johannesburg Stock Exchange
LSE	London Stock Exchange
MBO	Management Buy-out
MVIC	Market Value of Invested Capital

NAV	Net Asset Value
NOPAT	Net Operating Income After Tax
NWC	Net Working Capital
NYSE	New York Stock Exchange
OFCF	Operating Free Cash Flow
P/E	Price to Earnings Ratio
PBT	Pre-tax Earnings
PV	Present Value
PwC	PricewaterhouseCoopers
ROIC	Return on Invested Capital
SARS	South African Revenue Service
SRP	Specific Risk Premium
SSP	Small Stock Premium
SWOT	Strength, Weaknesses, Opportunities, Threats
TV	Terminal Value
WACC	Weighted Average Cost of Capital

CHAPTER 1 INTRODUCTION

1.1 Background

“If the only tool you have is a hammer, you tend to treat everything as if it were a nail.” - Abraham Maslow

Tools have been developed for centuries to perform tasks. These tools range from the simple hammer as in Maslow’s quote, to the highly scientific formulas enabling us to land on the moon. Valuing a business isn’t landing on the moon, but equally important from a buyer and seller’s point of view. The importance of business value has always been critical to shareholders (Gomez, 1988:23). In this case study it will also become critically important to management as they project future earnings to calculate a value for the business they could own.

When, in a case like this case study, one party is involved in more than one capacity, the importance of an acceptable and correct value is crucial (Modica, 2006:191). Management should take care in correctly projecting growth, not to understate it in the hope a lower value would be established.

Incentivising employees, primarily senior management, by offering these employees the opportunity to acquire shares in the business they are working for, allows the employees to grow their own wealth as they grow the business. Additionally, it also fosters a vested interest in the prosperity of the business and ensures the retention of key personnel and increases performance (Sliwka, 2007:999). It is therefore imperative that an accurate valuation be performed of the business to allow management the opportunity and possibility to own a part or whole of the business. Senior management is involved in the daily business operations of the business together with the application of strategic objectives. These managers are the main driving force behind the success or failure of the business. A business is only as successful as its management team.

Arriving at an acceptable valuation is therefore key to ensure both buyer and seller get value out of the transaction (Modica, 2006:191). In the mind of the purchaser, affordability and repayment ability is at the forefront. If the price is exorbitant in relation to the returns generated by the business, employees will not be motivated to buy into the business. In the world of business acquisitions, the term “skin in the game” is often referenced. The source is unknown, but some have credited Warren Buffet with coining the phrase. “Skin in the game” is a reference to incurring risk in an endeavour. In this case it would be the contribution to purchasing a stake in the business with their own funds. If returns aren’t attractive, these employees could be forced to look elsewhere for more attractive offers to invest their hard-earned money into. Even worse, they

could decide to work elsewhere, resulting in them deserting leaving the business and lowering the potential value of the business.

Current owners will also not be motivated to sell the business at levels below returns generated by the business. Selling the business assigns a fixed value to the business on the day of the sale. Henceforth, owners will only be able to get an investment return from investing the proceeds from the sale, and these proceeds would be after tax. Consideration must be given to the return on investment from the sales investment compared to the anticipated growth of the business. Where the anticipated growth is more than the expected investment rate, selling should be a last resort as the value of the business should increase at a rate exceeding that of the investment. A major selling motive for current owners is when they reach retirement age. If there is no apparent heir to succeed the previous generation selling the business might be a forced sale. Selling the business with trained and competent staff will add value to the business whereas a sale out of need, could lead to discounts being negotiated by the purchaser.

Valuations are also an expensive exercise. It is not sufficient to only provide the appraiser with current and historical financial data, they will require a detail analysis of the business and detail departmental analysis. These values are approximations and could be challenged (Penman, 1998:294). A business plan is also an added advantage as it could support projections made. In a business where more than one defined unit is apparent, each unit is valued individually, and the values summed.

Considering everything mentioned thus far, valuing a business isn't a task to be taken lightly. It will be a complicated process, with many pitfalls. Reaching a fair and equitable valuation is paramount. Although the value derived is not cast in stone or absolute, it is a starting point for further negotiations between the parties.

1.2 Field of research

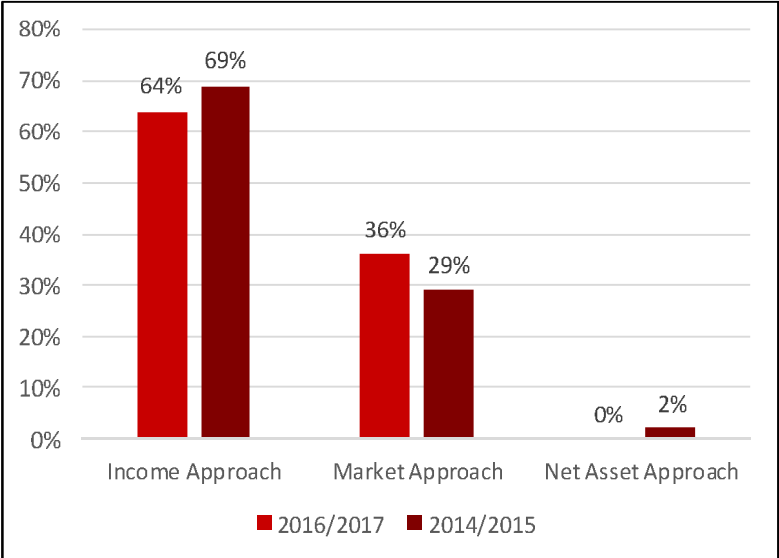
There are many aspects to a valuation process. Reaching a fair value for the business is the main goal (Modica, 2006:191). As a departure point we need to define value. Adam Smith, the father of economics, first attached value to a commodity considering the difficulty of the process in realising the product and secondly to compare it to other products to establish a value of relativeness called the labour theory (Smith, 1776). The value attached to the business can roughly be estimated using the unadjusted financial statements of the business without any projections. It is also the starting point for any valuation exercise (Damodaran, 2017a:9). Value in the case of valuing a business is divided into two main themes, book value and market value.

Book value is the value attributable to a company by calculating the value of the business based on the net value of assets or on the discounted value of future earnings. Market value is the

market capitalisation value of the business being the traded share price of the business multiplied by the shares in issue. Market value is easily applied to businesses listed on traded exchanges like the JSE, NYSE, LSE etc. Businesses not traded on an exchange will have to be valued according to the approaches that consider book value as a determinate of value or discounted future economic value.

According to PricewaterhouseCoopers (PwC) in their 2016/2017 valuation methodology, the main methods used to value companies are the income approach and the market approach. In previous iterations of the same publication, the net asset approach was also used as a valuation approach, but has fallen along the wayside in the current publication. These approaches were measured for the Southern African region. Below is a comparison of the changes in valuation method approaches for the two bi-annual publications.

Figure 1-1: Valuation method breakdown



Source: PwC, 2017, PwC 2015 modified.

In following chapters, a more detailed analysis of the valuation approaches available will be conducted to produce a preferred valuation approach. Subsequently the methods pertaining to these approaches will be discussed that apply to the business at hand.

1.3 Retail business characteristics

“Retailing is the final stage in the progression of merchandise from the producer to the consumer” (Dunne & Lusch, 2005:4). Berman and Evans contend that “Retailing is those business activities

involved in the sale of goods and services to consumers for their personal, family or household use” (1992:14).

The above clarifies the activities undertaken by the business under review in this case study. The business, Currie’s Post, has its head office in Pinetown KwaZulu-Natal, with 39 branches in the following provinces:

- Eastern Cape – 20 branches;
- KwaZulu-Natal – 15 branches;
- Mpumalanga – 3 branches;
- Limpopo – 1 branch.

The branches referred to above are very basic stores, stocking a variety of basic foods stuffs. The product range in a store will not exceed 300-line items. Each store receives stock from the head office and directly from suppliers. The store managers have some discretionary buying power to buy items not provided by the head office or approved suppliers, but may not directly compete with current line items. The basic food items sold by the stores are mealie meal, oils, beans, rice and soup & soya products.

1.4 Research problem and secondary objectives

The primary research problem in this case study is to establish a value for business. The valuation contemplated would be a firm valuation, not only an equity valuation. To achieve the primary objective, valuing Currie’s Post, a series of secondary objectives will have to be addressed. These specific secondary objectives are:

- Identify reason for valuation;
- Identify & select value world location;
- Identify & select valuation approach;
- Identify & select valuation method;
- Identify & apply discounts or premiums.

1.5 Research methodology

1.5.1 Literature review

Relevant material will be consulted to gain a better understanding of the topic and to formulate a strategy to value the business. This strategy will include the identification of a suitable method of valuation. Items obtained from books, journals, dictionaries and internet articles will be used in the literature review.

1.5.2 Research design

In conducting a research study, two main approaches are used: quantitative and qualitative approaches (Welman *et al.*, 2005:6-7). Where data is numerical it is considered quantitative and qualitative if it isn't (Trochim & Donnelly, 2008:11). Using financial statements, numerical data, the type of research approach to be applied is the quantitative case study approach.

1.5.3 Measuring instrument

The measuring instrument used in the case study will be the audited financial statements for the four years ending 31 August 2013 to 2016. The final audited financial statements for 31 August 2017 were not available at the time the case study was conducted, but management financial statement estimates were made available to the researcher. The financial figures provided by the business, together with projections will be analysed to produce a valuation for the business. A recent survey conducted by PwC will be used as benchmark figures where applicable.

1.5.4 Research procedure

Valuing the business is the focus of this case study. In reaching the value for the business the following steps will be taken to arrive at the valuation:

1. Determine the purpose of the valuation
2. Identify the value world
3. Identify the approach
4. Select a valuation method
5. Use financial statements to produce the required metrics
6. Create projections for the strategic plans
7. Compute valuation based on chosen valuation method

1.5.5 Ethics in research

The necessary ethical considerations have been taken in acquiring the data for the case study. Wellman *et al* identify two principles in research ethics. They are (2005:181):

- No harm should befall the research subject
- Subjects should partake freely, based on informed consent.

In preparing the case study, informal interviews were held with directors of the business to ascertain their expectations from the case study and to elaborate upon any planned changes in the business. The financial statements for the period under review were also obtained at the same time.

1.6 List of definitions

In context of this case study, the following definitions are applicable:

CAPEX	Acronym for capital expenses. Funds utilised by the business to purchase assets used in the production of income, but that are of a capital nature i.e. machinery, buildings, vehicles etc.
Debt-to-Equity	Ratio depicting the debt versus equity of the capital structure. In the case of debt, total liabilities both long term and current liabilities are used in the formula.
Metrics	Metrics are key numbers/ratios in financial accounting found in the balance sheet, income statement and cash flow statement

1.7 Summary

This case study will be divided into four chapters:

1.7.1 Chapter 1: Introduction

The first chapter serves to highlight the reason for the study. General background regarding retail business characteristics and problem statement together with secondary objectives are identified.

1.7.2 Chapter 2: The fundamental principles of business valuations

In the second chapter, a literature review will be conducted. Valuation approaches will be analysed, and the suitability of a valuation approach or approaches will be identified. As the valuation motivation has been established, possible management buy-out (MBO), the next step

in the valuation process is determining a value world and valuation approach. Selecting an approach that best suits the purpose for the valuation, will identify the method best suited to value the business.

1.7.3 Chapter 3: Currie's post valuation case study

In this chapter the actual financial statements will be analysed. Projections, based on directors' strategic plans, will be produced. All the elements of the selected valuation method will be identified and calculated. The ultimate step will be to produce a valuation for the business.

1.7.4 Chapter 4: Conclusion and recommendations

After a value has been calculated, this value will be communicated to current owners. Limitations and recommendations will be made in respect of the valuation result.

CHAPTER 2 THE FUNDAMENTAL PRINCIPLES OF BUSINESS VALUATIONS

2.1 Background

Chapter 2 will comprise an investigation into the different approaches available to value a business, together with an examination of the different methods available in each of these approaches. The formulas will be scrutinised to identify the components needed to complete the calculations. Lastly any discount or premium adjustments to the valuation methods will be evaluated to ensure an accurate and relevant valuation of the business.

2.2 Primary valuation approaches and methods

As with all theories there are some myths in the realm of business valuations. Three myths as summarised by Damodaran are (2012:4):

- “A valuation is an objective search for true value”;
- “A good valuation provides a precise estimate of value”;
- “The more quantitative the model, the better the valuation”.

Embarking on a valuation for a business is a complicated and arduous task. Many scholars, including Link *et al.*, has described valuation as part science and part art (Link *et al.*, 1999:6; Gabehart & Brinkley, 2002:2). Many dimensions exist for both the science and art component of valuations. Link summarises the differences between the two components below in Table 2-1.

Table 2-1: Science and Art Components of Valuations

Science	Art
Adherence to GAAP and presentation of financial statements	Comparing economically efficient lifespan of assets to depreciation practices
Chronologize the facts associated with historical growth	Understanding economic industry in which the business operates
Extrapolation of financial data into future periods	Understanding appropriateness of one valuation method over another
Calculation of various valuation ratios and statistical formulae	Understanding limitations of comparable business financial information
	Understanding appropriateness of extrapolated data in economic environment

Source: (Link et al., 1999:6-7)

It is therefore imperative the person conducting the valuation has a thorough understanding of both accounting and economic concepts to ensure a successful valuation. Conducting a valuation is not simply a mathematical exercise. Believing this to be true, could have dire consequences. Performing the mathematical computations is the step in the valuation process relating to the scientific component of the valuation process. According to Link , the intangible factors are at the heart of an accurate valuation as it relates to the business unit specifically (Link et al., 1999). These intangible factors are embodied in the art component of the valuation process. Apart from the items listed under the art aspects, the discounts and premiums applied are vital to ensure an accurate and applicable valuation. These aspects are discussed in 2.6 below. These discounts and premiums are applied to the valuation. Two premiums are added to the cost of equity and they are:

- Small stock premiums (SSP) discussed in 2.3.2.3
- Specific risk premiums (SRP) discussed in 2.3.2.4.

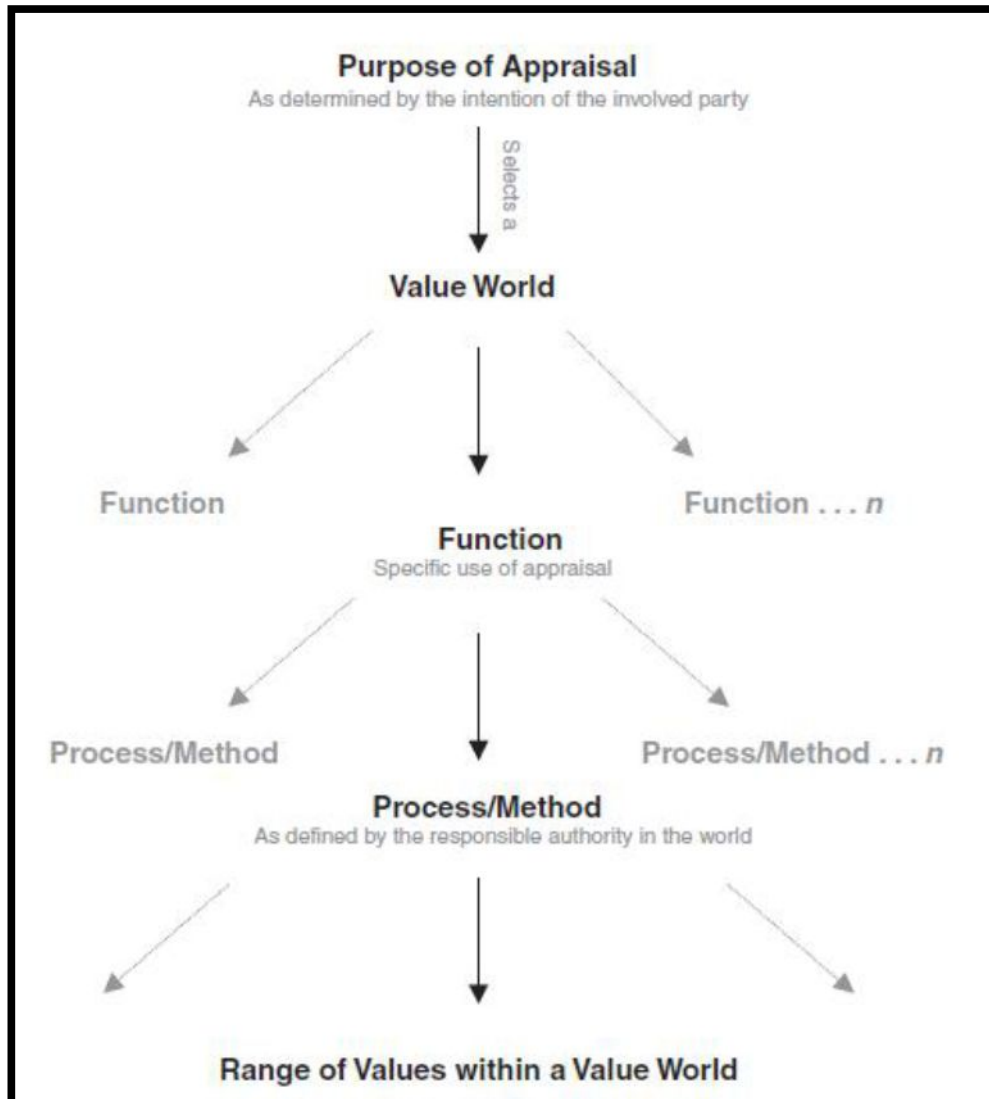
Starting on the valuation journey it is important to consult with practitioners in the field of valuation. These practitioners have been researched to determine the most widely used and acceptable method of valuation. In a recent study performed by PwC, such a study was conducted of

practitioners and their preferred valuation methods. Figure 1-1 clearly demonstrates the popularity and preference of the income approach in establishing a value for a business (PricewaterhouseCoopers, 2015; PricewaterhouseCoopers, 2017). Second preference is the market approach, with the net asset (NAV) approach falling along the way side. The decline in NAV approach used from 2015 to 2017 from 2% down to 0%, indicates the preference in calculating a value based on revenue generated by assets rather than valuing the assets themselves. Although the assets have an intrinsic value, it is more important to value the profits generated by these assets, especially if the assets are fixed or can't be moved easily. These findings/results are of particular importance as they pertain to the South African business environment with valuation origins in Southern Africa. In the stated studies 69% of respondents used the income approach in 2015, and 64% in 2017.

Although a clear favourite emerged, this doesn't preclude the remaining methods from being used. As a control measure, the market approach is the method used to ensure the correctness and appropriateness of the valuation reached using the income approach in 100% of the cases where the income approach was the primary method of valuation.

Before we delve into the calculations used in valuation methods, the methodology in selecting an appropriate approach needs to be defined. Slee has developed a hierarchal approach to selecting the correct or most appropriate method to base the valuation on. Below is an outline of this hierarchy in Figure 2-1.

Figure 2-1: Conceptual Hierarchy in Method determination



Source: (Slee, 2011:41)

The starting point of any valuation is to identify the reason for the valuation. According to Silverman some of the possible reasons for a valuation could be (Silverman, 2015):

- To understand the value of the business;
- To value a business in a sale transaction;
- For shareholder buy-outs;
- To value the stock options available to employees;
- To value the impact of strategic plans, etc.

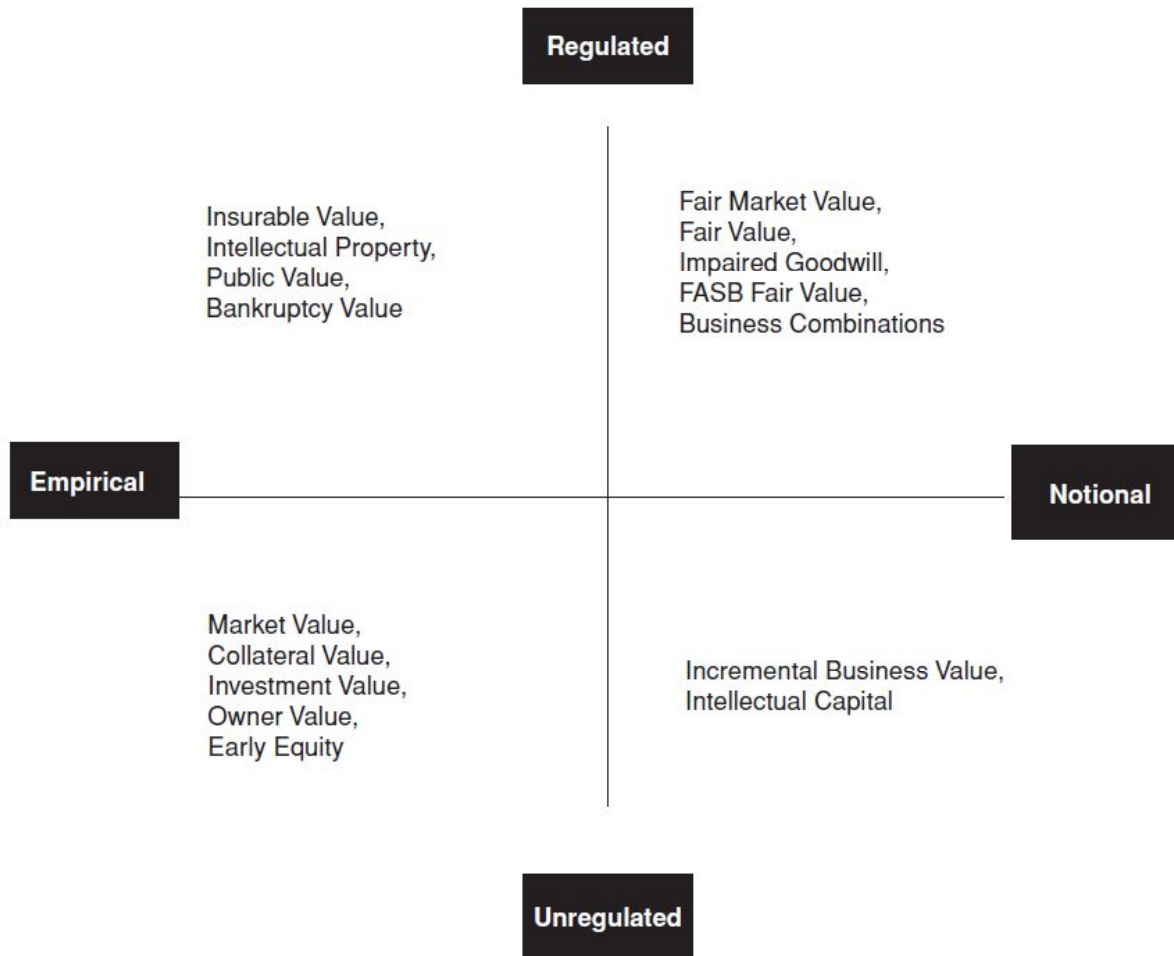
Once the valuation motive has been established, the value world in which the valuation is to be conducted must be identified. To better understand and identify the appropriate value world concept mentioned above, Slee has identified four quadrants (2011:50). These quadrants are identified as the Regulated, Unregulated, Notional and Empirical quadrants. Figure 2-2 below illustrates these quadrants.

The intention of the quadrant identification is to assist in the selection process for the correct appraisal approach. The quadrants are paired together and relates to the severity of the axis it is depicted on.

The Y-axis refers to the way the quadrant is regulated, i.e. how strong the influence of the authority is. In this part of the value world participants must abide by the rules set by the authorities or risk oppression. The X-axis refers to the type of experience of the authority in assigning a value to a business based on values of similar businesses. Notional value world is where the authority dictates the value of a business regardless of the market value of the business. An example of this is the value Revenue Authorities (like SARS) apply to businesses. In their opinion the discount from public capital to private capital markets is negligible.

According to Link *et al.* private capital market reside in the empirical world category (1999:43). The unregulated world category is also apart from the influence exercised by authorities and lend themselves more to a participation theory. It appears that a market value appraisal will fall within the Empirical Unregulated world categories (Link *et al.*, 1999:51).

Figure 2-2: Value World Quadrants



Source: Private Capital Markets (Slee, 2011:50)

Below is a representation of the different valuations of a business, illustrating the vast disparity between valuations based on the desired/employed quadrant. Each value is determined by the allocated quadrant, emphasising the importance of the intention/purpose when undertaking the exercise of valuing the business. This intention is the first step in the hierarchy methodology proposed by Slee. Table 2-2 represents the value of a hypothetical business at a specific point in time. Although the valuations vary greatly, they all correspond to the same timeframe. This phenomenon is in line with theorists throughout the industry insisting that many valuations exists for a single business at any one point in time. These valuations can be justified per the Value World and is entirely dependent on the reason for the valuation.

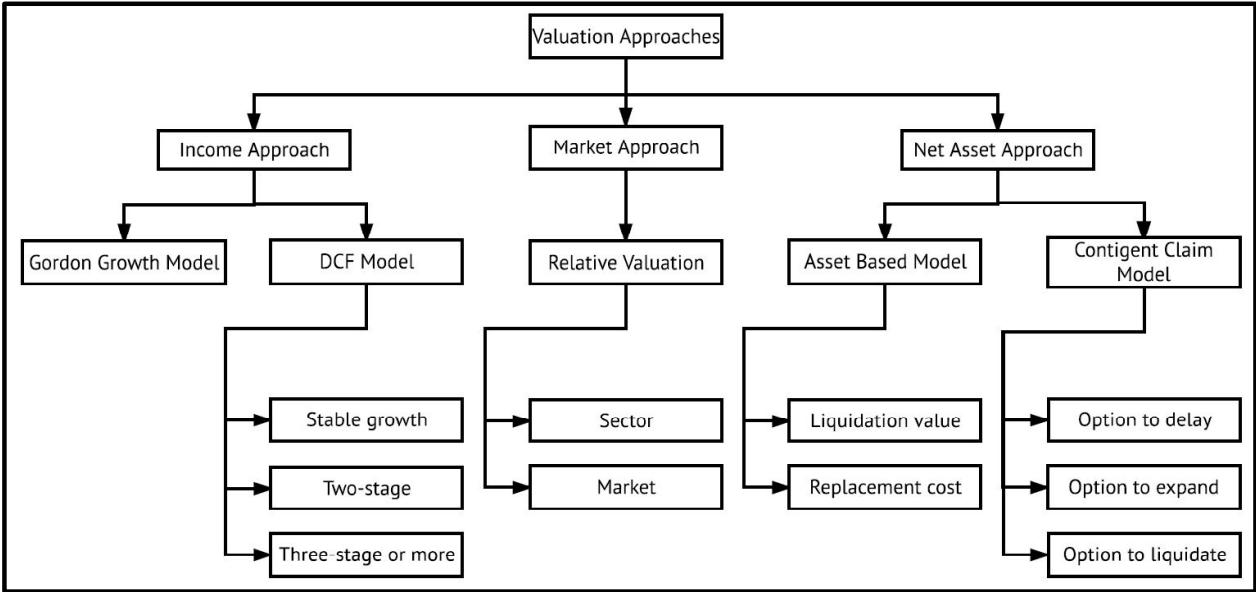
Table 2-2: Business valuation by value world

World	Value
Asset market value	\$2.4 million
Colateral value	\$2.5 million
Insurable value (buy/sell)	\$6.5 million
Fair market value	\$6.8 million
Investment value	\$7.5 million
Impaired goodwill	\$13.0 million
Financial market value	\$13.7 million
Owner value	\$15.8 million
Synergy market value	\$16.6 million
Public value	\$18.2 million

Source: Private Capital Markets (Slee, 2011:49)

Once the two steps above have been completed successfully, the approach can be identified to value the business. Below, in Figure 2-3, is a graphical representation of the different approaches with methods for each of the approaches. It must be noted that for each method there exists both a firm (whole business) and equity valuation method with minor adjustments to the financial figures used to derive the desired firm or equity valuation. Identifying the scope of the valuation, either firm or equity valuation, impacts on the projected earnings used to discount, as well as the deductions made from the projected cash flows before said discounting

Figure 2-3: Valuation methods - Damodaran

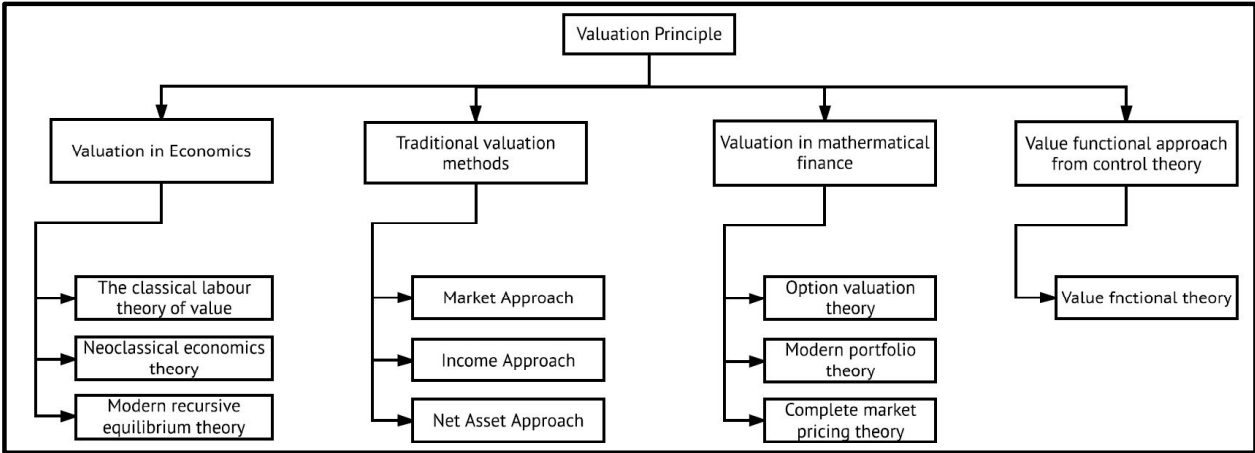


Source: Damodaran, Valuation Models modified, 2008

In Figure 2-3 above, all methods are used to determine a value. The Collins Concise Dictionary 21st century edition (2001:1663) defines value as “value – n 1 the desirability of a thing, often in respect of some property such a usefulness or exchangeability. 2 an amount, especially a material or monetary one, considered to be a fair exchange in return for a thing”. Determining the value of a business therefore amounts to estimate the market value of a thing, the business, and the desirability of that asset to interested parties. The more desirable the business, the greater the value with the necessary regard for premiums and discounts that still need to be identified and applied. This definition alludes to the subjective nature of value by quantifying the value as desirability in respect of its exchangeability. The definition doesn’t specify from whose perspective the desirability is taken and therefore it is assumed that it would be from both, the buyer and seller and that these values probably, will differ.

From Figure 2-3 three distinct valuation approaches are highlighted, the income approach, market approach and net asset approach. These valuation approaches are traditional valuation methods available to value a business. Anderson puts forward 10 valuation principles of his own in Figure 2-4 below (2013:18-22):

Figure 2-4: Anderson’s 10 Valuation Principles



Source: (Anderson, 2013)

Anderson has identified the above valuation principles. Although he has identified 10 different methods, he supports only three out of the ten. Table 2-3 below notes the methods not supported by Anderson. For this study, these methods have not been investigated further. However, the reasons put forward as to why these methods have been eliminated have been specified in Table 2-3 below (Anderson, 2013:20-21).

Table 2-3: Anderson – The seven discarded principles

Theory/Method	Reason for Omission
Classical Economics Theory	Invalid as theory of business valuation. Not useful in practice.
Neoclassical Economics Theory	Invalid as theory of business valuation. Not useful in practice.
Modern Economics Theory	Valid as theory of business valuation. Not useful in practice.
Modern Portfolio Theory	Invalid as theory of business valuation. Useful only for publicly traded firms.
Complete Markets Method	Valid as a theory for a very narrow class of assets. Not useful for privately held firms.
Option Value	Valid as a theory of business valuation, but incomplete as it doesn't provide a basis for the value of operating businesses. Often difficult to use practically.
Value Functional	Valid as a theory of business valuation for both privately held and publicly traded firms. Very difficult to implement.

Source:(Anderson, 2013:20-21)

The following section in this chapter will discuss the approaches and the methods to each approach as indicated in Figure 2-3 above in greater detail supported by Anderson.

Before we get into the detail of the different approaches, it is important to note that all valuations have the same dependencies, the financial statements of the business (Holton & Bates, 2009:112). In applying the method to value the business the same set of financials will be used in each method, with the only difference being the items from the financial statements used in each method. Adjustments to the financial statements may be required, but will be discussed in the following sections.

2.3 Income approach

“The value of an asset is the present value of its expected returns. Specifically, you expect an asset to provide a stream of returns during the period you own it.” (Reilly & Brown, 2003:374)

“Value today always equals future cash flow discounted at the opportunity cost of capital.” (Brealey & Myers, 2003:75)

As these two scholars suggest, the value of an asset is the revenue/income generated by the asset. In the case of a business valuation the asset being valued is the whole business. The income approach is the valuation of the business based on the expected future values of free cash flows available to the business (Feldman, 2005:104). In this approach the most widely used method is the discounted cash flow method (DCF) as per Figure 1-1 above (PricewaterhouseCoopers, 2017:31).

2.3.1 Discounted cash flow method (or discounted future economic income)

In order for a business to generate a gain, positive cash flow, it needs to successfully utilise its resources thereby generating profit in excess of its expenses. These resources are its products, management characteristics and success, employees, strategic alignment and competitive advantages. All these resources are aligned in the optimal utilisation of these resources to generate cash flows to the business which is then available to the shareholders and debt issuers to the business. These cashflow surpluses are paid out as dividends or retained to facilitate own funded growth. All the components above give rise to an intrinsic value/advantage in terms of the business. This intrinsic value forms the departure point for the valuation process.

Valuating a business in this manner has multiple steps that need to be followed closely. Any deviations from the prescribed valuation steps could lead to inaccurate valuations and value misrepresentations for both parties.

The primary goal is to identify the cash flow generated by the business. Due to financial records, these values will be historical values. However, additional cash flows into the future are also required. These cashflows are projected forward by applying current growth rates to historic financial data. Three growth scenarios have been identified and are:

- Scenario where there is no growth
- Scenario where there is constant growth

- Scenario where there is changing growth.

Determining the business cycles will identify the appropriate growth scenario to use. If the business is going through an expansion drive, the growth rate will be changing, necessitating the application of various growth rates to the cash flows. If the business has reached a mature phase in the business life cycle a constant or no growth rate scenario would be best to apply to the cash flows. The formula to determine the value of a business using the discounted future economic income method is as follows:

$$\text{DCF} + \text{Terminal Value} = \text{Business Valuation}$$

The DCF is calculated and added to the terminal value. It is important to note the reason behind adding the terminal value to the DCF. If the terminal value wasn't added to the summation, the business would be deemed to have ceased operating at the end of the projected period of cashflows. Therefore, if the business is a going concern, the value attributable to this stage in the business cycle also needs to be added to the business valuation. Terminal value (TV) is discussed in 2.3.3 Terminal values below. In principle TV is the last projected free cash flow plus perpetual growth discounted to a present value (PV) as with DCF.

The formula for DCF is:

$$DCF = \sum_{t=0}^N \frac{FV_t}{(1+r)^t}$$

Where: DCF = Present value cash flow

Σ = Sum of

N = The final period in years before the future cash flow will occur. This period is dependent on the scenario option chosen above. For a constant growth scenario, the period of cash flows will be reduced, but in scenarios where the growth rate fluctuates more periods will be assessed.

FV = Future cash flow at the end of the t^{th} period.

r = discount rate applied i.e. weighted average cost of capital (WACC). Capital asset pricing model (CAPM) is used to derive the cost of equity element in WACC. The discount rate applied will be discussed below to illustrate the options available in 2.3.2 below.

t = Year in which cash flow will occur. Cash flow is assumed to occur at the end of the period.

In the formula above the departure point is the cash flow generated by the business. As mentioned earlier the cash flow used is dependent on the extent of the valuation. If the valuation is to be done on the firm as a whole, the Free Cash Flow for the Firm (FCFF) will be calculated as follows:

Earnings before interest, tax, depreciation and amortisation (EBITDA)

* (1 – tax rate)

+ Depreciation*tax rate

- Capital Expenses (CAPEX) (Long-term assets)

- Change in Working Capital

= FCFF

This formula is the formula FCFF, cashflow available to the entire firm, not just the part attributable to equity. To calculate the cash flow available to equity shareholders the formula must be adjusted by removing all debts affected transaction components. The formula will change accordingly:

FCFF

+ New Debt

- Debt Repayment

= Free Cash Flow to Equity (FCFE)

The distinction between the two formulas above is the deduction of debt transactions. This is a very important distinction because the value being sought determines the cash flow type and discount rates. The discount rate applied to the cash flow depends on whether FFCF or FCFE is used as cashflow. The discount rate for FCFE should only contain the cost of equity opposed to the discount rate used on FFCF where both the cost of debt and equity should be used to discount the cash flow. If FFCF is used and discounted by the cost of equity alone, the value of the firm will be underestimated. On the other hand, if FCFE is discounted at the cost of debt and equity the value of equity in the business will be overpriced (Damodaran, 2012:16).

2.3.2 Discount Rates

In 2.3.1 above, the importance of using the correct discount rate was emphasised. The most common discount rate used to value the business as a whole, firm value, is the Weighted Average Cost of Capital (WACC). WACC is built-up by calculating the cost of each financing activity at their respective costs.

2.3.2.1 Weighted Average Cost of Capital (WACC)

The formula for WACC is:

$$WACC = kd * (d\%) + ke * (e\%)$$

Where: WACC = Weighted Average Cost of Capital.

kd = After-tax rate of debt cost. The cost of debt would be the interest rate payable on debt if it were obtained today, not the historical rate of debt.

d% = Debt capital as a percentage of capital structure.

ke = Rate of return on ordinary share capital – Use CAPM.

e% = Share capital as a percentage of capital structure.

In the above formula, WACC is calculated by multiplying the portion of capital structure with the corresponding cost of capital structure and adding the two together. Cost of debt is relatively

straight forward as it is merely the portion of debt to capital structure multiplied by the interest rate, after tax! Equity is similarly calculated, except for the cost of equity. In the following paragraph the formula to determine the cost of equity will be examined.

2.3.2.2 Capital Asset Pricing Model (CAPM)

According to PwC, CAPM is most probably the most used model to assist in determining a cost for equity (PricewaterhouseCoopers, 2017). Despite being as popular as CAPM is, it is very difficult to accurately measure and quantify cost of equity, even with the help of CAPM (PricewaterhouseCoopers, 2017). Estimating this cost is also very subjective and is due to the interpretation and judgement of the person conducting the valuation. The formula for CAPM is:

$$E(Re) = Rf + \beta * E(Rp)$$

Where: E(Re) = Expected rate of return on equity capital.

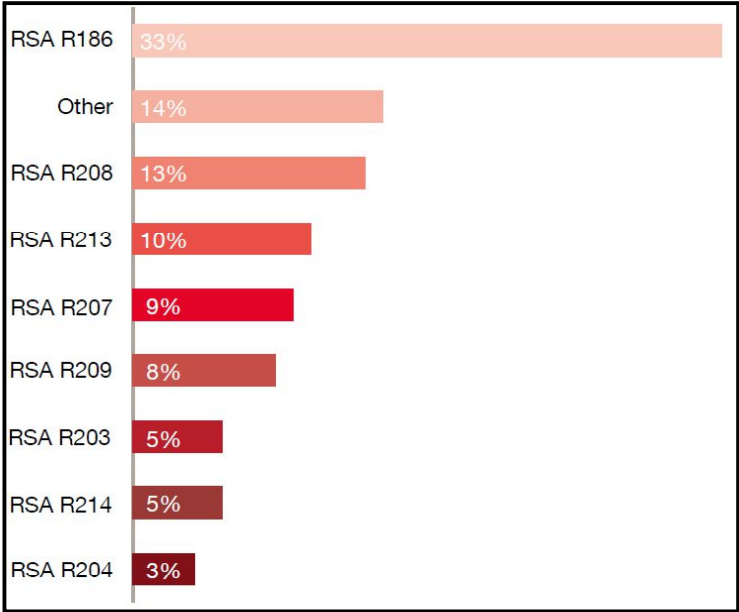
Rf = Risk-free return on investment.

β = Beta.

E(Rp) = Expected market risk premium – This is the return expected in a broad portfolio less the risk-free rate of return. Market risk premium was obtained from 2 sources and a conservative average was taken to arrive at the market risk premium used.

Calculating the formula for CAPM the first variable is the risk-free rate. As a preferred risk-free rate in South Africa, the RSA R186 is used most often, according to PwC, with 33% of respondents choosing RSA R186 (2017:34). Below is a representation of the preferred benchmarks identified by PwC.

Figure 2-5: Benchmarks used to determine risk-free rate



Source: (PricewaterhouseCoopers, 2017:34)

Beta (β) is defined as the measure of sensitivity to systematic risk of a security in relation to the market as a whole. The greater the perceived risk the greater the expected return (Link *et al.*, 1999:36). The market index used to compare the security to, is relative as it should be compared to the market in which the business operates. In South Africa the proxies most used in the beta calculations is the All Share Index (ALSI), see Figure 2-6 below. The general assumption of CAPM is that the risk premium of the expected return generated by the security is the securities systematic risk (Pratt *et al.*, 2008:187). Another type of risk associated with all businesses is unsystematic risk (Pratt *et al.*, 2008:182). This risk however is ignored due to the capital market theory where all investors have the same opportunity to invest in a wide variety of securities, therefore eliminating that particular risk by diversification.

Figure 2-6: Preferred Market Proxies



Source:(PricewaterhouseCoopers, 2017:36)

Applying β to the market risk premium is a simple calculation. Consideration has to be given as to which β will be used, levered or unlevered β . The distinction between the two variants is that levered β is used when the subject business has the same levels of debt as those for which the β has been calculated. Unlevered β is where the business has no, or substantially lower level of debt compared to those companies used to calculate levered β . The decision to use an unlevered β will be contemplated as the financial statements of the target business is evaluated and the levels of equity and debt ratios in the capital structure is calculated. The formula for calculating an unlevered β is:

$$\beta_U = \frac{\beta_L}{1 + (1 - t)(W_d/W_e)}$$

Where: $B_U = \beta$ unlevered

$B_L = \beta$ levered

t = Tax rate for the business

W_d = Percentage debt in capital structure

W_e = Percentage equity in the capital structure

Equity market risk premium is the return expected by investors over the return earned from risk free investments like the RSA R186. According to PwC, this is the single most debated component in the CAPM (PricewaterhouseCoopers, 2017:38). Below is an indication of average market risk premiums calculated by PwC in their survey (PricewaterhouseCoopers, 2017:38). In a recent interview by Thompson, Mr H Giyose CIO of First Avenue Investment Management set the equity market risk premium between 4% - 6% (Thompson, 2017). These values are slightly lower than the percentages identified in the PwC survey.

Figure 2-7: Average Market Risk Premiums

	Low	High
2016	5.6%	7.9%
2014	5.4%	6.8%
2012	4.7%	6.6%
Second and third quartiles		
	Low	High
2016 2 nd quartile	5.50%	6.50%
2016 3 rd quartile	5.75%	7.50%

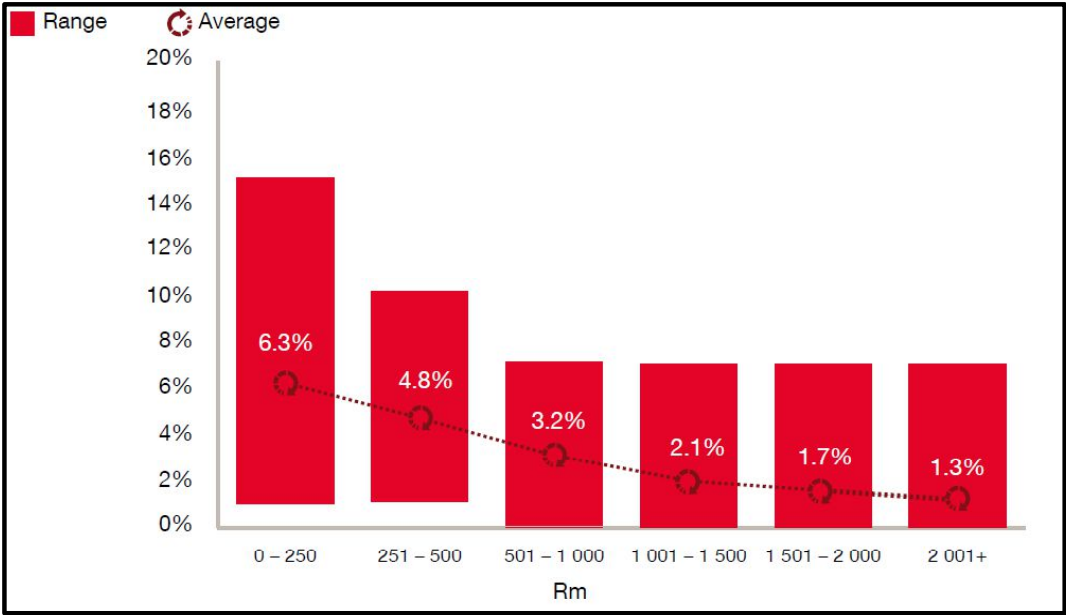
Source: (PricewaterhouseCoopers, 2017:38)

2.3.2.3 Small stock premium (SSP)

Depending on the size of the business being valued, PwC has identified a suitable SSP to apply to the cost of equity. This premium is applied in an effort to compensate the investor at a higher return for taking the added risk in investing in a smaller business (Hecht & Hampson, 2013). Hecht & Hampson declined to quantify the SSP due to the subjective nature of the premium. In the PwC survey the respondents indicated the premium is conditional on the size of the business, with larger businesses attracting a smaller premium in Figure 2-8 below. The reason for the smaller premium for larger businesses is that it is added to the cost of equity with a smaller premium resulting in a larger DCF value due to the total discount rate being lower. The reverse is achieved by raising the premium. The survey also revealed the tendency to add the premium to the cost of equity in Figure 2-9 below, opposed to using a factor multiplication. The result is the adding of an

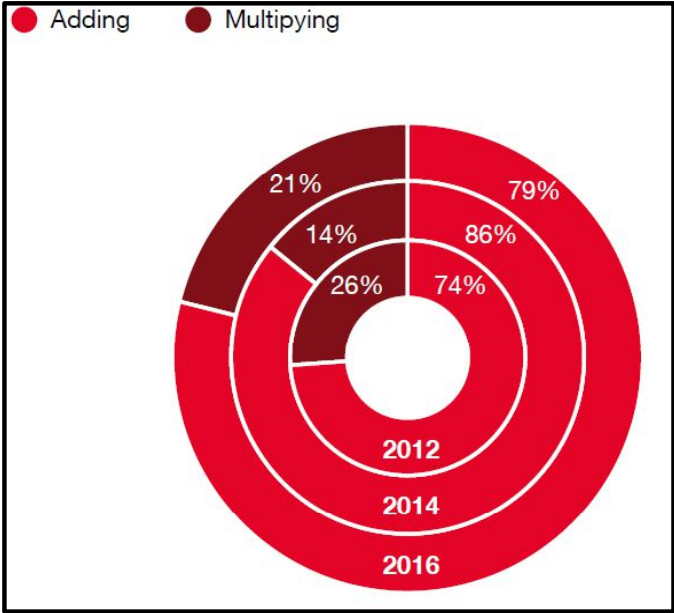
additional cost to the total cost of equity, essentially adding a risk factor to the default CAPM formula. The rates applied are illustrated in Figure 2-10 below.

Figure 2-8: Small stock premiums applied against business size in turnover



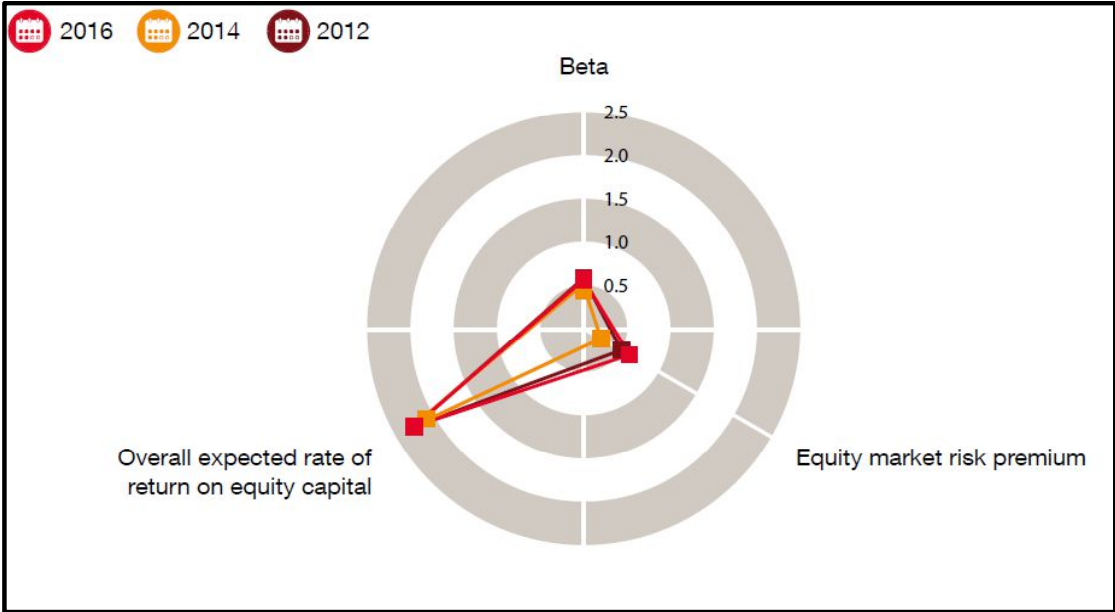
Source: (PricewaterhouseCoopers, 2017:43)

Figure 2-9: Inclusion method for small stock premium



Source: (PricewaterhouseCoopers, 2017:42)

Figure 2-10: Factor adjusted for SSP

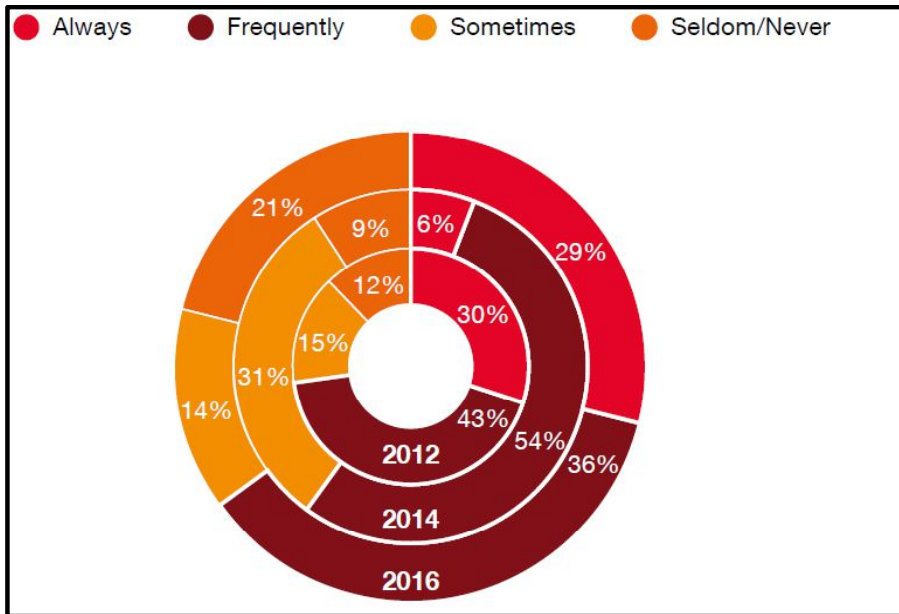


Source: (PricewaterhouseCoopers, 2017:41)

2.3.2.4 Specific risk premiums (SRP)

In addition to the default CAPM formula adjusted for SSP, PwC has observed a tendency amongst practitioners to add specific risk factors to the CAPM formula above. In their 2016 study 65% of respondents confirmed the use of specific risk factors always or at least frequently (PricewaterhouseCoopers, 2017). Below is a graphical representation of the results of the study applicable to specific risk factors adjustment to CAPM, affecting the business.

Figure 2-11: Specific risk factor adjustment frequency



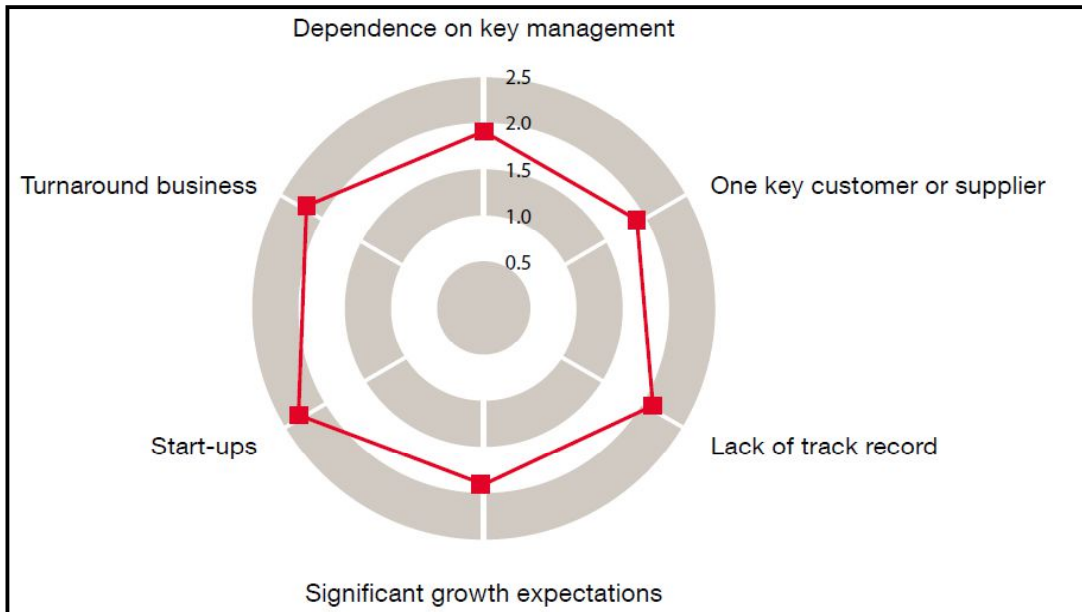
Source: (PricewaterhouseCoopers, 2017:44)

To accurately adjust the expected return on the asset, after adjusting for a small stock premium, additional risks specific to the target business needs to be contemplated. According to PwC some of these factors are:

- Dependence on key management
- One key customer or supplier
- Lack of track record
- Significant growth expectations
- Start-ups
- Turnaround businesses

These risks should be evaluated individually to determine the validity of the risk factor and its relevance in adjusting the CAPM formula. In the following figure the factors are depicted with their occurrence.

Figure 2-12: Specific risk factors



Source: (PricewaterhouseCoopers, 2017:46)

2.3.2.5 Comparable approach

In the comparable approach a listed company is used to calculate a β for the target business. Listed businesses have their β calculated by research agencies such as Reuter, Bloomberg etc. To use the β of the listed business the β needs to be unlevered to establish the β of the asset, or stated differently the equity β equals the asset β . The unlevered β formula discussed above will be applied to the listed business β . After the unlevered β has been calculated we need to re-lever the β to include the cost of debt again at the debt/equity ratio for the target business. The formula for re-levering the β is:

$$\beta_{RL} = \beta_U * (1 + (1 - t) * (D/E))$$

Where: β_{RL} = Beta re-levered

t = Tax rate for the business

D/E = Debt equity ratio

β_U = Beta unlevered

After this formula has been applied, the calculated re-levered β can be used in the CAPM formula above to calculate the cost of equity for the specific business being valued.

2.3.2.6 Build-up method

The build-up method is the preferred method, in conjunction with CAPM, when valuing privately held businesses. The formula for the build-up method is:

$$E(R_i) = R_f + RP_m + RP_s + RP_u$$

Where: $E(R_i)$ = Required return on security (asset)

R_f = Risk-free rate

RP_m = Equity risk premium (market risk)

RP_s = Size premium

RP_u = Unsystematic risk premium

Ibbotson Associates have also introduced another premium in the build-up method and includes a RP_i which is an industry risk premium. According to Ibbotson Associates, the same data points can be used for the first three points in both the CAPM and build-up method (cited by Pratt *et al.*, 2008:202). This would change the stated formula above slightly and would not use a non-beta-adjusted small stock premium but rather a beta-adjusted size premium. In the study conducted by PwC, they also concluded that CAPM is used and a small stock premium (SSP) is added to arrive at an expected return rate.

The departure point would be to calculate the levered β as in 2.3.2.5 Comparable approach above. Once the β has been established the CAPM will be calculated using the β . Where the build-up method detracts from CAPM is the ability to add additional risk premiums to the calculation of the expected return on the asset (cost of equity in this case). Although CAPM doesn't specifically incorporate specific risk factors in the formula, practitioners do add specific factors to the CAPM formula as stated, and illustrated, above. These additions are the SSP & SRP premiums.

In addition to the factors investigated by PwC, any factor identified can be analysed and adjustments made as a specific risk premium. These factors can be identified using management techniques like Porter's five forces, strength/weaknesses/opportunities/threat analysis (SWOT) and other strategic analysis tools.

Criticism levelled against the CAPM method have resulted in other methods being developed to better explain the returns realised by privately held firms and firms with smaller market

capitalisations. Other methods put forward by scholars to calculate the cost of equity as a discount rate for DCF method discussed by Mirzayev are (2015):

- Multifactor model i.e. Arbitrage pricing theory (APT): $R_i = R_f + RP_1 + RP_2 + \dots + RP_n$
- Fama-French model (FFM)
- Macroeconomic and statistical multifactor model

These methods are briefly discussed below for completeness but will not be used in the valuation of the business in the case study.

2.3.2.7 Multifactor models

To better define the sensitivity and factor premiums for each risk factor the arbitrage pricing theory model (APT) attempts to include as many of the risk factors as possible. The formula for APT is:

$$R_i = R_f + RP_1 + RP_2 + \dots + RP_n$$

Where: R_i = Required return for APT

R_f = Risk free rate

RP_1 = 1st factor risk premium

To calculate $RP_1 - RP_n$ we use the following formula:

$$RP_n = \beta_n * FP_n$$

Where: β_n = nth sensitivity of the asset to the risk factor

FP_n = nth factor premium

Due to the complexity of the risks for each β , appraisers prefer CAPM method.

2.3.2.8 Fama-French model (FFM)

In contrast to CAPM, FFM attempts to address the small cap businesses. Eugene Fama and Kenneth French introduced this model to better align the value of small cap businesses with their performance compared against the performance of large cap stocks. The formula for FFM is:

$$R_i = R_f + \beta(\text{mrkt}) * RMRF + \beta(\text{size}) * SMB + \beta(\text{value}) * HML$$

Where: R_i = Required return for FFM

R_f = Risk free rate

β = Various sensitivities of market, size and value to RMRF, SMB and HML respectively

RMRF = Difference between market and risk-free return (Same as CAPM)

SMB = Return premium average return of three small stocks over three large stocks

HML = Value premium of average return of two high book-to-market portfolios over the average return of two low book-to-market portfolios

In the FFM method additional factors are introduced into the CAPM formula. The necessity for three β calculations make it very difficult to calculate and not used often. Some assets may not sell as quickly without additional costs incurred. Due to this Pastor and Stambaugh have suggested an additional factor for liquidity also be included. This will add $\beta(\text{liq}) * \text{LIQ}$ where LIQ is premium for liquidity (cited by Pinto *et al.*, 2010:72).

2.3.2.9 Macroeconomic and statistical multifactor models

Multifactor models attempt to explain the required rate of return by applying complex statistical analysis to explain the returns on assets. The formula for multifactor models would be similar to this:

$$R_i = R_f + \beta_{i1} * \text{confidence risk premium} + \beta_{i2} * \text{timing horizon risk premium} + \beta_{i3} * \text{business cycle risk premium} + \beta_{i4} * \text{market timing risk premium}$$

Multifactor models are very complex, using complex statistical analysis to determine the returns and are therefore not used often.

2.3.3 Terminal values

There are two approaches to calculate the terminal value of a business. The first is the perpetual growth model, also referred to as the Gordon growth model, and the other is exit multiple. The first approach, perpetual growth model, is more common amongst academics and in practice illustrated in Figure 2-13. The mathematical theory explains the model well. The second option is

the exit multiple method which simply put, takes an accepted financial metric and multiplies it by the trading multiple for that specific metric in the applicable industry.

The formula for the two Terminal value (TV) methods are:

The first formula is the Perpetual growth model:

$$TV = (FCF_n * (1 + g)) / (WACC - g)$$

Where: TV = Terminal Value

FCF = Free cash flow

WACC = Weighted average cost of capital

g = Perpetual growth rate of FCF

Second formula (Exit multiple):

$$TV = \text{Financial Metric} * \text{Trading Multiple}$$

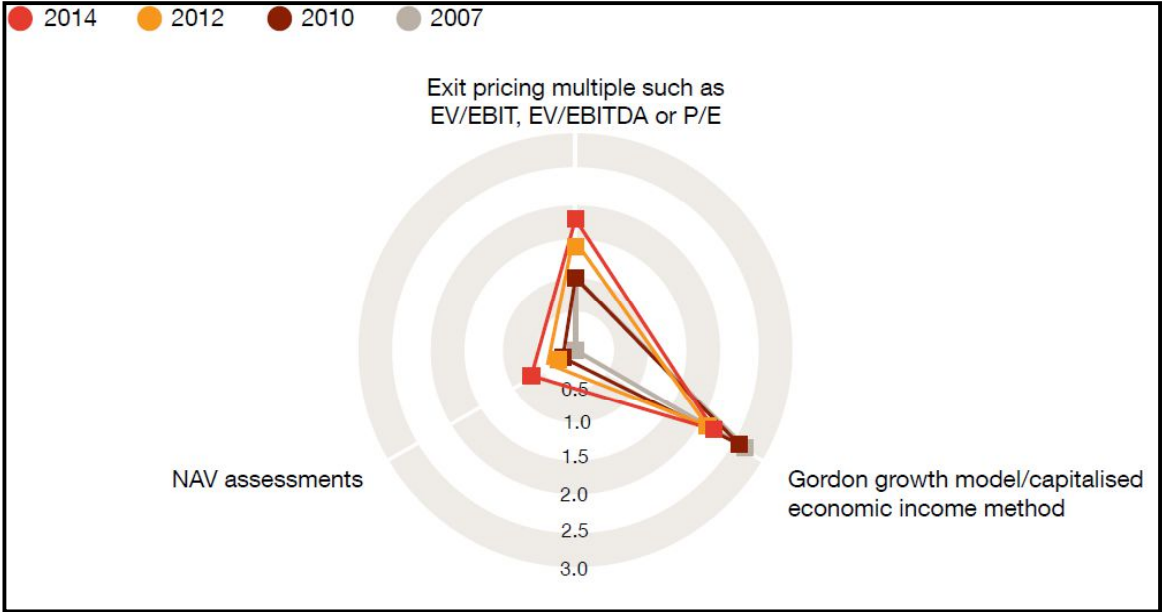
Where: TV = Terminal Value

Financial Metric = Acceptable financial metric i.e. EBITDA

Trading Multiple = Acceptable multiple for industry

The choice of which formula to use is entirely up to the person performing the valuation. The difference between the methods is due to the difficulty in determining a perpetual growth rate. This growth rate is usually linked to the growth rate of the country or inflation. Using the exit multiple is easier from a formula perspective, but acquiring trading multiples is difficult, especially if the business isn't listed, as multiples are freely available for listed peers but not for unlisted peers. This would result in discounts applied to the multiples of listed peers and would again need information to base the additional discount on.

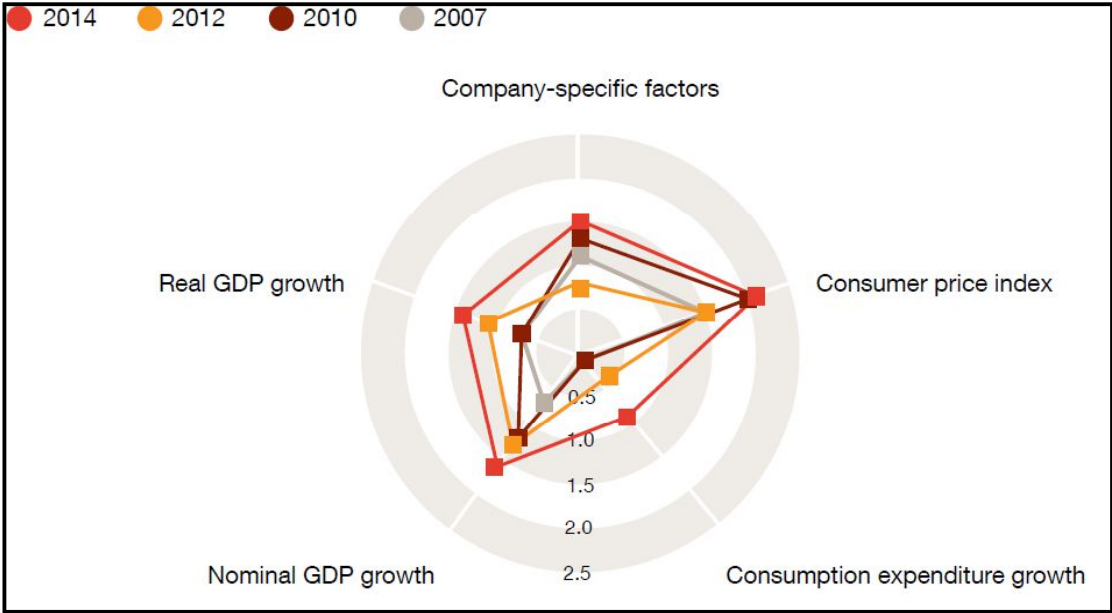
Figure 2-13: Approaches to calculate terminal values



Source: (PricewaterhouseCoopers, 2015:66)

Below is the preferred metric to use when a long-term growth rate is estimated. In the PwC study the consumer price index (CPI) was the preferred metric (PricewaterhouseCoopers, 2015:67). A better indication of inflation applicable to businesses is in fact the producer price index (PPI). Some of the costs used to calculate CPI is specific to individuals and their basket of goods. PPI is a more accurate reflection on costs attributable to businesses.

Figure 2-14: Basis used for long-term growth rates



Source: (PricewaterhouseCoopers, 2015:67)

2.4 Market approach

According to Pratt *et al* the most common methods associated with the market approach to valuation are the guideline publicly traded company method and the guideline merged and acquired company method (2008:262). The most important aspect when using the market approach to value a business is to ensure sufficient, relevant and current data on comparable businesses. If a value for a publicly traded business is used as a benchmark, but the trades on the open market are few and far between, it could result in a skewed value assumed to be a fair value.

2.4.1 Guideline publicly traded company method

As with the income approach, variables used to develop guidelines to value businesses are divided into two main groups. The groups of variables seek to value either the equity or the business as a whole (firm value). When the valuation is done to value the ordinary share capital, the price of the guideline company's stock is divided by the following variables in the income statement:

- Net sales
- Gross cash flow (net income plus noncash charges)
- Gross cash flow before taxes (earnings before depreciation, other noncash charges and taxes)
- Net cash flow (gross cash flow adjusted for capital expenditures, changes in working capital and sometimes changes in debt)
- Net income before taxes
- Net income after taxes
- Dividends or dividend-paying capacity

Where the firm value is established using the publicly traded company method, the market value of invested capital (MVIC) is divided by the following variables:

- Revenues
- Earnings before interest and taxes (EBIT)

- Earnings before interest, taxes, depreciation and amortisation (EBITDA)
- Net cash flow available to invested capital

All the above listed variables are calculated on an operating income basis with nonoperating items treated separately. Although this list is not exhaustive, according to Goedhart *et al* managers should use more than one variable to draw conclusions and assign value to a business (2005). The variable and growth don't increase linearly. As with the variable Price/Earnings, it only increases when growth is combined with an increase in the return on invested capital.

To ensure a fair value based on variables/multiples, the appraiser must ensure that the following characteristics and possible problem areas are addressed before a valuation is regarded as accurate:

- Use peers with similar Return on invested capital (ROIC) and growth: Proprietary systems are available to ensure the classification of the industry a target business is operating in is classified correctly. The industry needs to be specifically identified as comparing a guideline business in an industry that isn't a very good match could lead to incomparable multiples. ROIC also needs to be taken into consideration as businesses that have superior ROICs and growth will deliver higher multiples.
- Use forward-looking multiples: When calculating the above variables, the time frame should be relevant considering the market guidelines. As mentioned above, the more recent the transaction of a comparable the greater the appropriateness of the comparison of variable and if possible, use forecasted figures.
- Use enterprise-value multiples: Price/earnings (P/E) is commonly quoted as an indication of the performance of a business. Unfortunately, this multiple is used in calculating a value for the common capital in a business, excluding debt. It would be possible for a business to convert some equity into debt and artificially increase the P/E multiple. In order to avoid this tactic, it is prudent to use the MVIC / Earnings before interest, taxes, depreciation and amortisation (EBITDA) multiple. This multiple calculates the enterprise value of the business and is a substitute for P/E.
- Adjust the firm-value-to-EBITDA multiple for nonoperating items: If MVIC / Earnings before interest, taxes, depreciation and amortisation (EBITDA) multiple is used in the valuation process some of the following adjustments might be required to accurately determine either EBITDA and MVIC are:

- (i) Excess cash and nonoperating assets. Interest earned and nonoperating income is excluded from EBITDA, interest isn't regarded in EBITDA, the MVIC should also not include the value of nonoperating assets.
- (ii) Operating leases. If the business uses large operating leases rather than purchasing assets this could lead to a reduced EBITDA as an interest component is present in the rental (operating) expense. The value of the operating assets is also misrepresented and must be rectified. The accounting equation is $\text{Assets} = \text{Equity} + \text{Debt}$. The market value of the leased assets should be added to equity and debt and the interest portion of the lease should be added back in EBITDA.
- (iii) Nonoperating assets. These assets are acquired for other purposes than generating revenue for the business. Employee housing is an example of this. The rental received would have been removed from EBITDA and therefore the value of the assets need to be deducted from equity and debt. An adjustment may also be necessary where either the guideline business or the target business has a significantly higher asset base than the other. The excess should also be deducted from equity and debt.

In the study conducted by PwC the most popular in their option, in the choice of multiples were (PricewaterhouseCoopers, 2017):

- Market value of invested capital (MVIC) / revenue
- MVIC / Earnings before interest, taxes, depreciation and amortisation (EBITDA)
- MVIC / Earnings before interest and tax (EBIT)
- Price / Earnings (Earnings representing net income after tax)
- Price / Pre-tax earnings (PBT)
- Price / Book value of equity (BVE)
- Price / Earnings plus non-cash charges (CF)
- Price / Cash flow from operations (CFO).

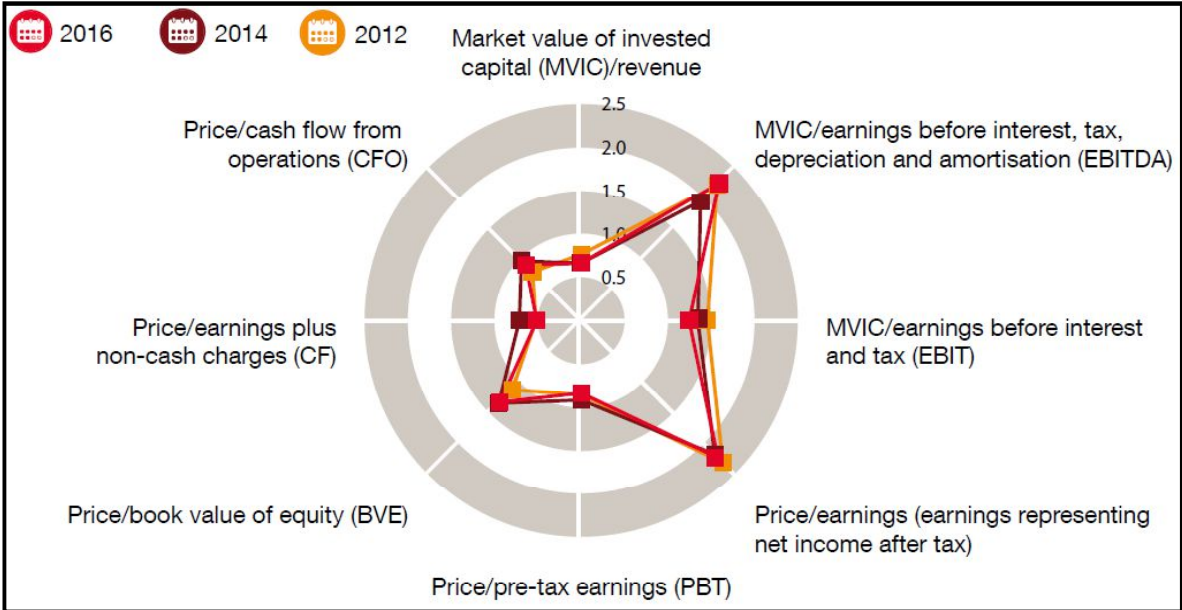
From the study MVIC / Earnings before interest, taxes, depreciation and amortisation (EBITDA) was the most used multiple followed by Price / Earnings (Earnings representing net income after tax) and in third position MVIC / Earnings before interest and tax (EBIT). Of the top three multiples, two measure the value of the firm opposed to one measuring the value of common stock, equity. The most used multiple is also the preferred alternative to P/E and isn't distorted by equity debt ratio in the capital structure.

Apart from the multiples listed above other multiples are also available to gauge the performance and value of a business. These are industry and business specific and should be used in a limited capacity when establishing value. In fact, these multiples should only be used to reaffirm a valuation or the likely validity of a valuation.

Valuing a new business can be performed by using nonfinancial multiples (Goedhart *et al.*, 2005). Due to the great uncertainty surrounding these multiples they should only be used in as far as they better forecast financial advantages. If this is not possible, forecasting done on a financial basis is the safest and most accurate method to determine the value of the business in relation to its peers. Although Goedhart *et al* profess to the superiority of the DCF method, they agree on the merits of performing a guideline publicly traded company method to provide affirmation of the value generated by the DCF.

Below is a representation of the results from the study for the popularity of each of the stated multiples.

Figure 2-15: Valuation multiples



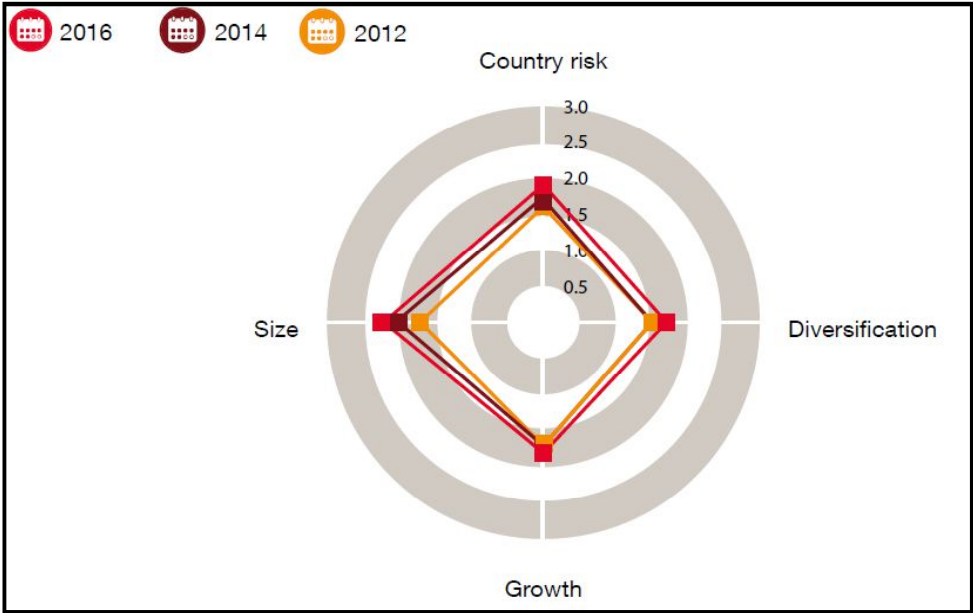
Source: (PricewaterhouseCoopers, 2017:54)

The multiples can be applied to businesses within the operating borders of the benchmark business or it can trade in a different sector, size or country. To enable successful matching of performance multiples, adjustments are made to the multiples for a target business based on the following criteria in relation to the benchmark business (PricewaterhouseCoopers, 2017:55):

- Size
- Growth
- Diversification
- Country risk.

The adjustment to multiples observed by PwC in their study is illustrated in the figure below (2017:55):





Figure 2-16: Adjustments to multiples



Source: (PricewaterhouseCoopers, 2017:55)

To illustrate the concepts mentioned above, a table with the effects of the target business in relation to the benchmark business is shown (the inverse relationship between target and benchmark is inferred):

Table 2-4: Adjustment effect on multiples

Multiple	Target Business in Relation to benchmark	Adjustment Effect
Size	SMALLER than benchmark	 Discount adjustment applied
Growth	HIGHER growth than benchmark	 Premium adjustment applied
Diversification	MORE diversified than benchmark	 Premium adjustment applied
Country Risk	GREATER country risk than benchmark	 Discount adjustment applied

In the table above the multiple for size for a smaller firm is reduced and produces a lesser value than the multiple of a larger business if the metric, revenue or EBITDA for example, was the same.

2.4.2 Guideline merged and acquired company method

Merged and acquired company method is similar to the guideline publicly traded company method in that it examines the values attributable to market related transactions. These transactions are considered based on the similarity of the guideline business in relation to the target business.

Values derived from transactions regarding mergers and acquisitions, like all valuations performed, result in a range of values. The range of values could represent fair market value up to investment value. Fair market value would be determined by an investor looking only for a return on his capital, whereas investment value could have premiums or discounts applied to the

valuation. Again, it is emphasised the transaction being used as a basis for the valuation of the target business must be comparable in terms of size of business sold, stake in business acquired and industry in which the guideline business conducts its operations.

In addition to these default considerations for evaluation of the relevance of a guideline transaction, Marren identifies additional criteria involved in mergers and acquisitions (1993):

- Process by which the target company is being sold
- Expected competition/counter bids
- Probability of future profits
- Synergies
- Tax implications
- Legal and accounting considerations.

From the list compiled by Marren, it becomes pertinently clear that the guideline merged and acquired method will be useful in valuing a transaction in the realms of mergers and acquisitions. The premiums and discounts applied to these types of transactions won't be as clearly defined as those premiums and discounts applied to normal sale transactions for investment purposes.

Using this method to value a management buy-out (MBO) agreement, would not be the most appropriate method to value the business. There are no synergies apparent and there should be no counter bidder but for the unsuccessful conclusion of the MBO.

2.5 Asset based approach

In the asset based approach the method used to value a business is the asset accumulation method. According to Pratt *et al.* (2008:351) if done properly the asset-based approach is one of the complex and rigorous valuation analysis to perform. This approach is also known as the balance sheet valuation approach (Gabehart & Brinkley, 2002:36).

A distinction is to be made between the book value of a business and the current value of owners' equity. This is a very subtle difference. Book value of a business is the value of the business as per the financial statements as drawn up annually as prescribed by legislation. IFRS 13 is the fair value measurement standard and attempts to place a fair value on assets. Unfortunately, this doesn't equate to a market value as assets cannot be increased above their original cost price. The book value as per accounting practice is referred to as the net asset value (NAV) of the business. This is theoretically the lowest price of a business according to Nel (Nel, 2009:123) and

isn't used as a valuation method. It could be used to determine whether the calculated value through one of the other approaches produced a value at least in excess of the NAV.

Two approaches exist under the asset based approach being: asset accumulation method and capitalised excess earnings method. Often the elements of these methods are combined when a valuation is conducted on the asset based approach.

The asset accumulation method involves identifying each of the asset and liability classes and revaluing each of them separately. This would be performed for all asset and liabilities of the business. Specific mention must be made of asset and liability classes that aren't common to every business. Here are some asset and liability classes that deserve special mention (Pratt *et al.*, 2008:352-353):

- Intangible real property
- Intangible personal property
- Contingent liabilities
- Special obligations

The same business value should be calculated whether asset accumulation or capitalised excess earnings method was used to value the business. Elements of the excess capitalised method, as mentioned earlier, is often used to complement the asset accumulation method as it is difficult to revalue the intangible assets of the business. Here the capitalised excess earnings method is utilised to assign a value to the intangible assets and added to the asset accumulation method valuation.

A hindrance of the asset based approach is the requirement to revalue all the assets and liabilities. Conducting a valuation is a specialised occupation and requires experience not only in the field of valuation of assets, but also in the environment of the business operations. There is a vast difference in the skill to value a motor vehicle than the skill to value a grain silo. It is also a costly exercise valuing assets, as the cost is often a percentage of the assets being valued.

2.6 Premiums and discounts

Premiums and discounts are applied to the valuation arrived at from conducting the preceding steps in the valuation process. Although some adjustments might have been applied against the multiples to arrive at a valuation, i.e. small stock premiums and specific risk premiums, further adjustments are made for control and marketability. These are applied in addition to the adjustments mentioned above.

2.6.1 Premiums

Premiums are applied to the valuation where control of the business is gained by acquiring the negotiated stake in the business. The premium is placed on control due to the control a majority stake holder has over the business and its reserves. The most sought-after reserve is cash reserves, as this directly influences how much reserves are paid out as a dividend and how much is retained for own financing capabilities. Practitioners view that control premiums have already been applied to the income approach and would apply premiums in the market approach according to PwC (PricewaterhouseCoopers, 2017:62)

2.6.2 Discounts

Discounts are usually applied in the case of a minority interest purchased in a business or the marketability perception of the business.

2.6.2.1 Minority Interest

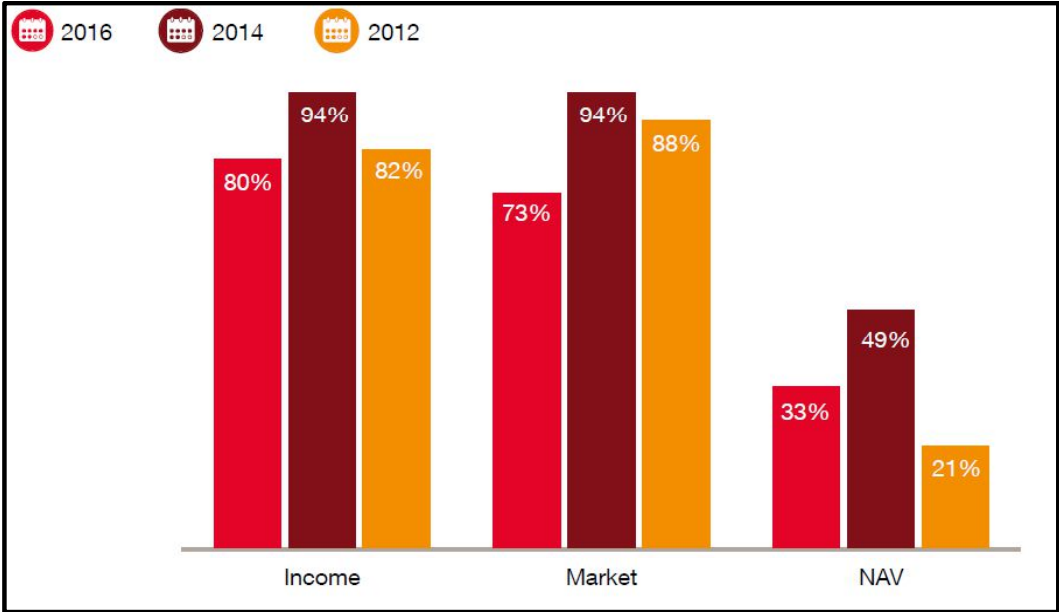
Where a minority interest is acquired, the reverse of the controlling interest acquisition occurs. This discount is offered as a reward for being prepared to buy a small stake in a business with the necessary caveat that you might be at the mercy of the larger shareholders in term of the power they exert. Dividend payments might decrease or be withheld completely. This discount is for a lack of ownership and operational control.

2.6.2.2 Marketability discount

In the words of Pratt *et al* “the ability to convert the business ownership interest (at whatever ownership level) to cash quickly, with minimum transaction and administrative costs in so doing and with a high degree of certainty of realising the expected amount of net proceeds” constitute the marketability of an asset (2008:417). Marketability needs to be distinguished from minority interest above. Marketability is the ease or difficulty at which an asset can be converted as stated by Pratt *et al* into cash, irrespective of the quantum of interest sold. It needs to be noted that both minority interest discount and marketability discount may occur concurrently. Resulting in a discount firstly for minority share and secondly for marketability discount for sale of a small stake.

During the survey done by PwC, the respondents reported that in 80% of the income approach valuations, a marketability discount was applied. Below is a breakdown of the percentage of valuations done and their occurrence of marketability discounts.

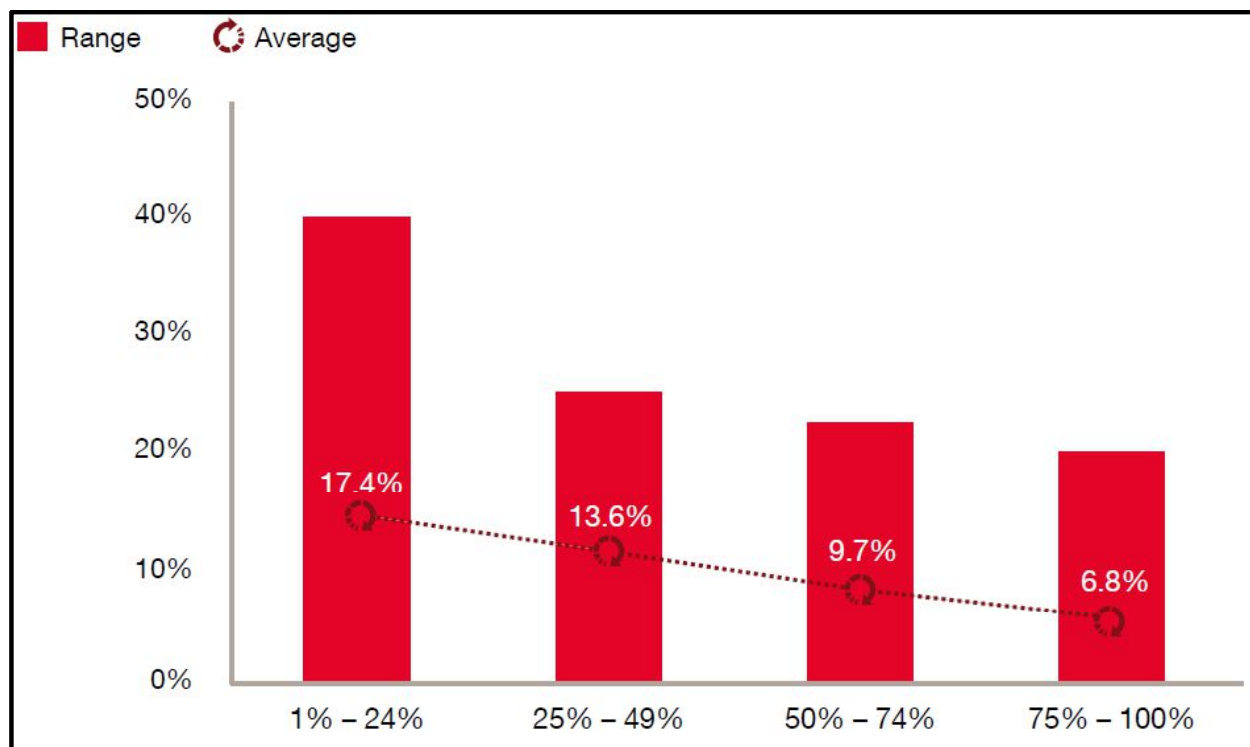
Figure 2-17: Marketability applied per approach



Source: (PricewaterhouseCoopers, 2017:65)

Respondents also indicated that they prefer to apply the marketability discount to the market value of equity rather than the enterprise value. To calculate this discount, the enterprise value will be established through a DCF model. If the net cash available to the business is positive, it will be added to the enterprise value to calculate the equity value. If the net cash is negative it will be deducted. The marketability discount will then be calculated on the equity value. Depending on the size of the interest up for sale, the marketability discount decreases, as can be seen in Figure 2-18 below.

Figure 2-18: Average marketability discount rate applied to equity value acquired



Source: (PricewaterhouseCoopers, 2017:67)

2.7 Summary

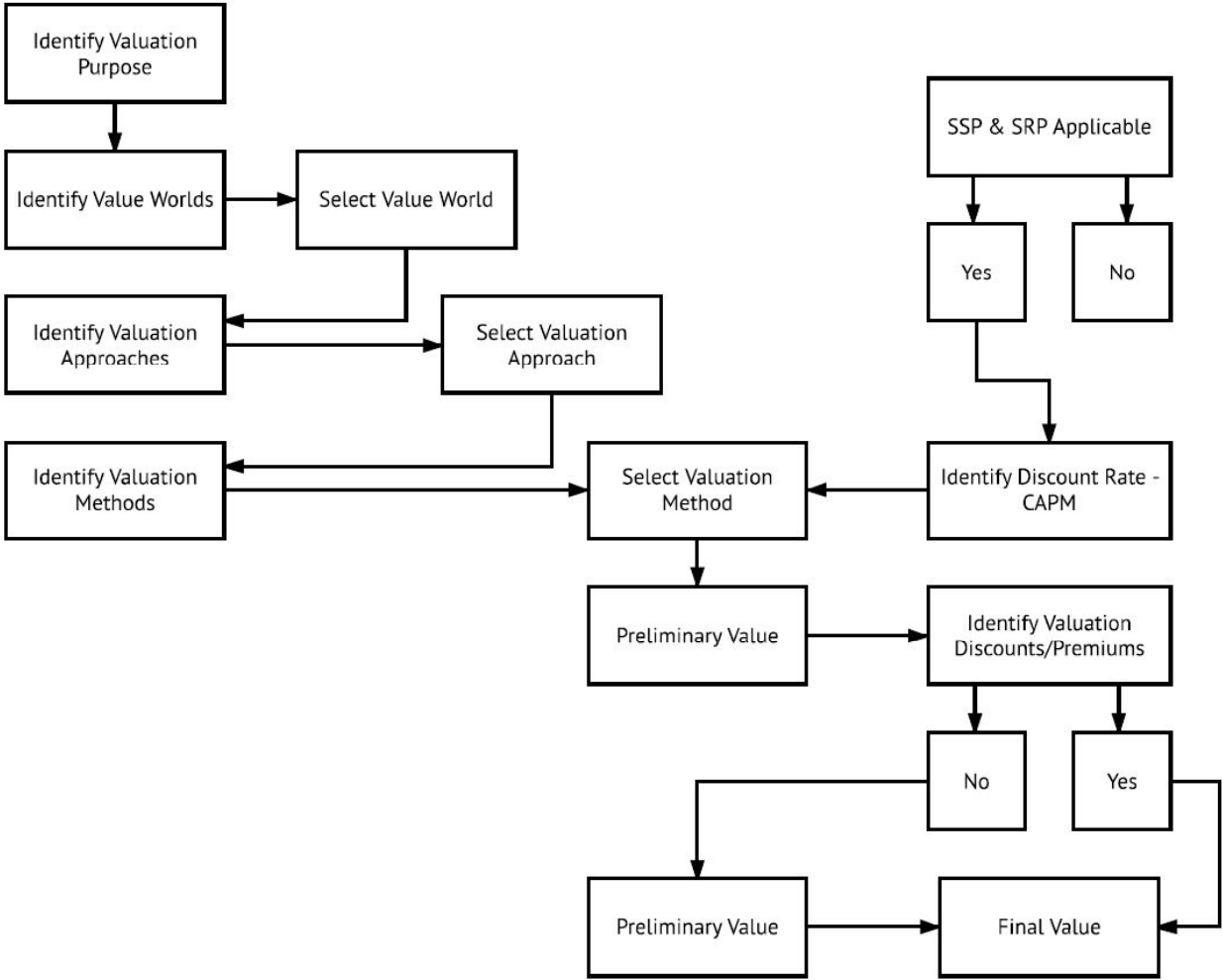
The main objective of this chapter was to formulate a valuation methodology. The methodology would start with the purpose of the valuation, followed by the identification of the value world. The value world would dictate which valuation approach to follow and then narrowing the choice to a valuation method. Many opinions were referenced as a favourite emerged from the options available, first in the approach and then in the method.

Below is a flowchart representation of the decision flow from start to finish. The option depicted is that of the income approach and the DCF method. This model will be used in the case study to ensure all variables have been addressed and calculated. The method has been identified as the most appropriate method to use as the valuation is performed on an unlisted business. This reduces the subjective nature of discounts and premiums used as they were taken from the PwC study. If a market approach was followed, adjustments to listed peer metrics would be necessary and could lead to subjective rates being applied. The flowchart in this chapter illustrates the steps needed to value Currie's Post

Where the SSP & SRP premiums are applicable the discount rate for cost of capital is adjusted, otherwise if there is no premium applicable CAPM is used unadjusted. After the preliminary value

is calculated the final discount and premium adjustments need to be performed. If there are no discounts or premiums, the preliminary value is taken and becomes the final value. If discounts or premiums are applicable, they are applied to the preliminary discount to calculate the final value as per the DCF.

Figure 2-19: DCF Flow chart



CHAPTER 3 CURRIE'S POST VALUATION CASE STUDY

3.1 Introduction

In this chapter the income approach will be applied to value Currie's Post. The DCF method will be used with surveyed value used in the rates applicable to each formula obtained from the PwC survey (2017).

3.2 Background

Currie's Post was established in 1995 by Mr Kevin Chapman. He started the business as many traders before him, purchasing goods and selling those goods. From his humble beginnings he started his own retail/wholesale chain called Yebo Cash & Carry. After a legal battle with Vodacom regarding the Yebo trademark, he changed the name of his venture to Currie's Post instead. He expanded and was able to open his first store in 1997 when his brother Mr John Chapman, joined the business.

As the business expanded he needed more management power and involved his second brother, Mr Mark Chapman and an accountant, Mr Grant McCann. He subsequently offered equity to his two brothers and a family friend, the accountant. Between the four owners, the daily operational control was allocated to Mark, with the trading responsibilities vesting with Kevin. The remaining Chapman brother was to run some stores for his own account with the assistance of the accountant.

By the time our valuation starts, Currie's Post has a turnover in excess of R600 million per annum and 40 branded stores. The stores were branded as Buzi stores, with a logo depicting an African female silhouette. The business is a thriving one and very well positioned within the primary foods sector. By the end of August 2013, two partners had shown intention to sell their shares. John and Grant wanted out and needed a buyer for their shares. Kevin offered the shares to one of their suppliers, Allem & Sassen Holdings (Pty) Ltd. The price of the 50% shareholding, Grant and John each owned 25%, was R 30 million. In the process Allem & Sassen insisted on a majority share and obtained an additional 1% giving them a total of 51% in Currie's Post.

Within two years Kevin had to resign due to illness and his 25% share was also purchased by Allem & Sassen, this time for R5 million. the reduced price for the second share sale wasn't solely due to a controlling share interest premium, but rather a truer reflection of the state of the business. During the past two years Kevin had operated as he had always done, by doing what his gut instinct told him. Unfortunately, this resulted in huge losses on imports and speculative positions on commodities.

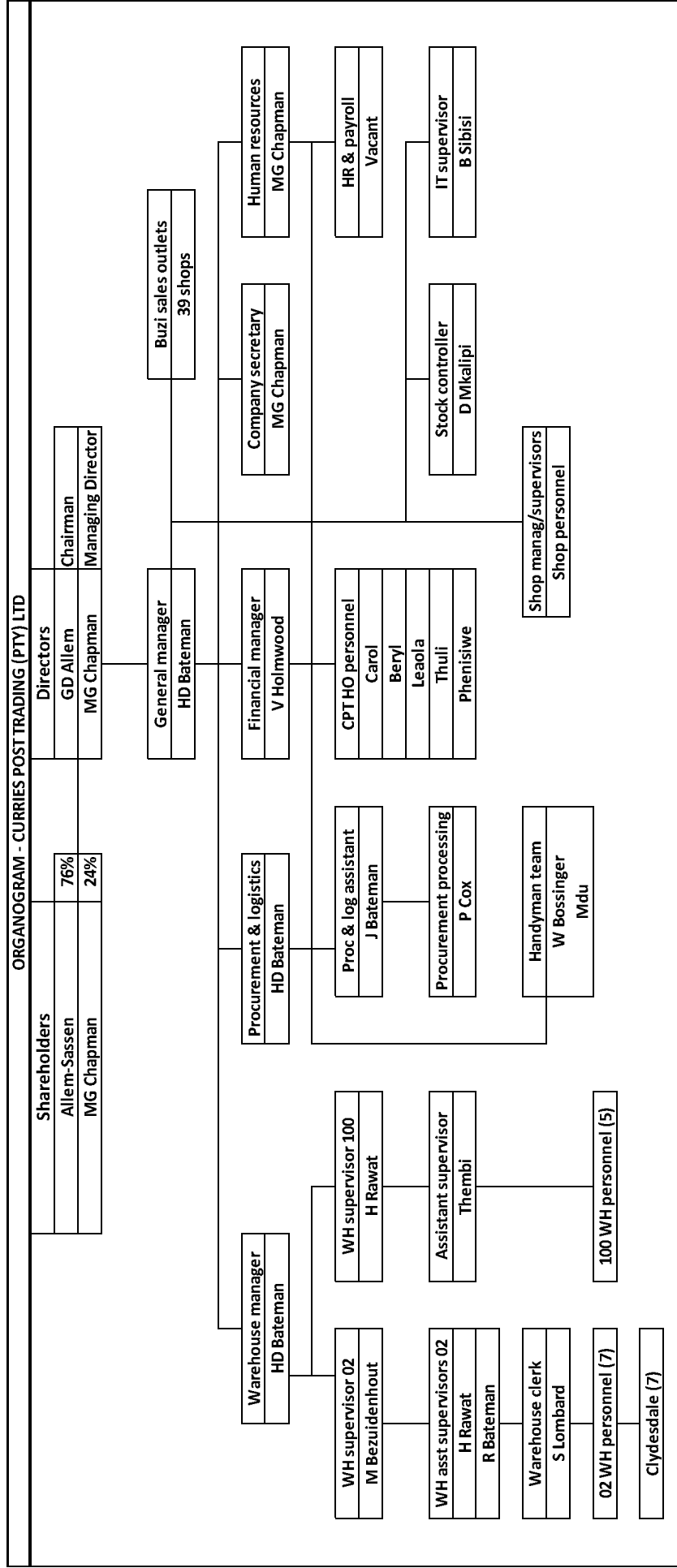
With Mark the only remaining family member of the original owners, the ship was steadied and consolidated. Management was changed and with the guidance from the holding company, Allem & Sassen, started to regain traction in the maize meal market. During the consolidation process, staff was reduced and one of the stores was closed, leaving 39 operating stores.

The directors, also the shareholders of Currie's Post, have started to consider their options regarding retirement and their shareholding in Currie's Post. In light of this consideration, the shareholders of Currie's Post, Allem & Sassen Holdings and Mark Chapman, have indicated their interest in having the business of Currie's Post valued. All shareholders have voiced their approval of a possible sale.

The first option to purchase Currie's Post will be extended to management for a possible management buy-out (MBO). In this scenario the MBO will be for the entire 100% shareholding in Currie's Post. Mark has agreed in principle to stay on for a period of 5 years after the MBO. This would be to ensure the continuity of management and ample opportunity for the new owners to either renegotiate the terms of Mark's employment or to source an able replacement without distressing the medium-term future of the business.

The current management and employee structure is set out in Figure 3-1 below:

Figure 3-1: Organogram for Currie's Post



Following on from the flowchart prepared in Chapter 2 Figure 2-19: DCF Flow chart, the researcher will follow the steps in the valuation process outlined in the flowchart. Assumptions used in the valuation process will be listed in the appropriate steps.

3.3 Step 1: Identify reason for valuation

As stated in Chapter 2 all valuations have the same departure point, the reason for the valuation process. In this case it is a value for the entire business (enterprise value) requested by management for the purpose of a first level analysis of the merits of an offer to management to affect a MBO.

3.4 Step 2: Identify the value world

Value world is situated on the empirical side of the x-axis and on the unregulated side of the y-axis. The valuation for a private firm in this bottom left quadrant will be one of either market value or owner value. To eliminate the element of bias in the valuation, the market value of Currie's Post will be calculated. Market value in the value world will be the responsibility of financial intermediaries as it is customary practice to involve a merchant bank or capital funds to perform the valuation. As this is an exploratory valuation estimate, if there is any interest amongst the parties involved a financial firm will be consulted to perform an official valuation as set out in this document.

3.5 Step 3: Identify applicable approach

Identifying the approach in accordance with Anderson, the three options we have available is the income, market and net asset approach. These are also the traditional approaches to valuation according to Anderson. In the study conducted by PwC, the income approach is the preferred valuation approach. At the risk of being a man with a hammer in Maslow's analogy, the income approach will be used to determine the value, and where possible use market values to substantiate the value derived by way of the income approach. Damodaran also advocates the income approach as a first option to valuing a business in his class notes at Stern NYU (Damodaran, 2017b).

3.6 Step 4: Identify applicable method

Damodaran also advocates the valuation exercise should start with the most basic valuation technique. The dividend model is by far the easiest model to apply as it requires the least amount of variables/inputs. Unfortunately, Currie's Post has not declared any dividends in the last couple of years, and after discussions with the owners they have indicated that all earnings will be

retained and not paid out in the form of dividends for the foreseeable future. This eliminates the application of the dividend growth model.

The remaining method is the DCF method. Cashflows are calculated and discounted to their present value to determine the value of the business. The enterprise value (EV) will be calculated as the owners has requested the business to be valued as a whole.

3.7 Step 5: Identify components

The formula for the DCF method to calculate the value of Currie's Post is:

$$DCF = \sum_{t=0}^N \frac{FV_t}{(1+r)^t}$$

The starting point of any valuation is the financial statements as stated by Damodaran (2017b:9). Provisional financial statements have been obtained from management in addition to the audited financial statements. Using the provisional statements for the year ended 31 August 2017, forecast financials were compiled for the periods August 2018 thru 2029.

For the discount rate r in the formula, the weighted average cost of capital (WACC) was used. WACC comprises the cost associated with debt and the cost of equity weighted in proportion to their contribution to capital structure.

After the DCF value for the forecast period was completed a terminal value (TV) was added to the DCF value to calculate the total value for Currie's Post. The terminal value was calculated using the perpetual growth model below:

$$TV = (FCF_n * (1 + g)) / (WACC - g)$$

The components in the formula above have already been identified as they are the same components that will be used in the DCF formula.

3.8 Step 6: Calculate components

Here follows the calculation using the DCF formula from 3.7 above. Calculating the FCFF started with the values for the 2017 financial year. The following assumptions were made to arrive at the forecast financials for the 2018 – 2029 periods:

- Currie's Post management have indicated their intention to embark on an expansion drive. They feel the business must expand their current footprint to achieve a better

growth rate for the business. This expansion drive will increase the number of stores in the group by 3 stores per year for the next 10 years.

- Producer price index (PPI) forecasts have been obtained from Rand Merchant Bank (RMB). PPI forecasts were used to calculate the inflation price adjustment required to the figures in the financials. PPI was used in preference to CPI (consumer price index) because CPI is a basket of goods and contains items not applicable to business inflation.
- R1 million per new store would have to be spent. This would be in the form of fixtures and fittings as the store locations are rented not owned. If management embarked on a store roll-out and purchased buildings and land, the CAPEX would increase dramatically. Due to this the store roll-out of 3 per year is very achievable, and in fact the expansion planned for 2018 has been secured and stores will be operational before the December high season. Other assets will have to be replaced and this estimated cost has also been accounted for in the CAPEX. CAPEX has been adjusted from the 2019 year as per the PPI forecast as the R1 million per store was actual cost of store in October – November 2017.
- Changes in net working capital (NWC) has also been adjusted against NOPAT. Because of the nominal approach to the DCF, NWC must be adjusted for inflation as well as increases in current assets and current liabilities. Inventory requirements were calculated based on the base year 2017 and adjusted in line with the change in cost of sales. Change in cost of sales addressed both increase in store count and PPI. Debtors were increased in proportion to revenue and therefore also adjusted for growth in turnover because of store expansion and PPI. Creditors increase proportionally to inventory and accounted for increases in additional inventory requirements and PPI costs.
- Operational and administrative costs were individually assessed to ensure the increase in store openings was adjusted first, and then an additional adjustment was made for the increase in costs associated with PPI. Depreciation is the exception as it was recalculated by depreciating the new fixtures & fittings and additional assets as per the accounting policy of the business. The wear & tear allowances allowed by SARS is equal to the accounting policy depreciation and therefore all depreciation was treated as a tax allowable deduction. This made the tax calculation less complicated as deferred tax was ignored.

The final FCFF calculation started with NOPAT and then adjusted for CAPEX, depreciation and change in NWC. Formula is:

$$FCFF = NOPAT - CAPEX + DEPR - \Delta NWC$$

Change in NWC is calculated as follows:

- If debtors increased from 2017 – 2018: Negative adjustment to NOPAT
- If inventory increased from 2017 – 2018: Negative adjustment to NOPAT
- If creditors increase from 2017 – 2018: Positive adjustment to NOPAT.

Calculating the WACC will be used as the discount rate for the future values to determine the present values of the cashflows. Firstly, the cost of debt is calculated, as a post-tax cost. The cost of the debt is the interest rate associated with the debt, but needs to be the current cost of the debt not the historical cost of the debt. The effect of this statement is to ensure the cost of the debt is market related. In the case of Currie's Post, the cost of the debt was calculated using the current bank overdraft rate. The second element to the WACC formula is cost of equity. To calculate cost of equity the CAPM formula is used.

In the CAPM formula, as per the findings of PwC in their study, the RSA R186 published by the South African Reserve Bank was used as the risk-free rate in the CAPM formula (2017).

In order to calculate the β for Currie's Post the β 's for listed peer firms were converted to unlevered β 's. The weighted average unlevered β was calculated for the listed peers. To calculate the applicable β for Currie's Post, the β must be relevered. This is achieved by applying the relever formula which contains the debt/equity ratio of the capital structure of Currie's Post to the unlevered weighted average β calculated from peers.

The market risk premium was determined by considering the view of a leading chief investment officer (CIO) of an investment firm together with the values from the PwC study. Mr Giyose estimated the equity market premium to be in the region of between 4% - 6%. The 2nd quartile and 3rd quartile low and high ranged from 5.5% - 7.5%. The average for the study was between 6% - 8%. An average of the opinions was taken, and the equity market premium was calculated at 6% $((4\%+8\%)/2)$.

As per the results of the literature study, premiums are added to the CAPM model to compensate for increased risk. The preceding discussion on the CAPM used was for the unadjusted CAPM. Since Currie's Post is an unlisted business, a small stock premium is applicable to the transaction. This premium is added to the CAPM formula as an additional risk to recalculate the discount rate.

Specific risk premium is another element identified in the literature and is applicable to businesses due to business specific risk factors. The risk factors identified by PwC in their study are listed below with an indication whether it is applicable to Currie's Post in Table 3-1 below.

Table 3-1: Specific risk factors

Risk	Relevant	Reason
Dependencies on key management	Not applicable	Mr M Chapman will continue for at least five years so management won't have to change.
Turnaround business	Yes	New growth planned but previous losses were a big set-back for the business.
Start-ups	Not applicable	Business is well established an in existence for more than 15 years
Significant growth expectations	Yes	Additional store roll-out
Lack of track record	Not applicable	Business is well established an in existence for more than 15 years
One key customer or supplier	Yes	Allem Brothers is the main meal supplier to Currie's Post. If another supplier had to be sourced the quality of the meal could deteriorate. Meal quality is one of Currie's Posts strategic advantages.

These aspects have both a negative and positive influence on the specific risk premiums of Currie's Post and therefore the specific risk premium has been estimated at 5%. The risk of losing

the mealie meal supplier, who is also owned by Allem & Sassen could delay or even halt store roll-out. Additional product required from Allem Brothers could also be a factor necessitating the expansion of production at Allem Bothers. Growth and turnaround risks mitigated one another, but one key supplier definitely increased the specific risk of Currie's Post.

Separate CAPM calculations were performed to illustrate the impact of the premiums on the discount rate. These discounts are applied to the DCF calculation to calculate the starting point of the valuation process. The other discounts and premiums are discussed after the equity value has been established as some of these are calculated against the equity value DCF and not the enterprise value DCF.

Calculating the items for the TV formula follows. TV formula is:

$$TV = (FCF_n * (1 + g)) / (WACC - g)$$

The WACC and g components of the perpetual growth formula are the same used in the DCF formula. The TV was also calculated 3 times to establish values for each of the WACC discount rates before and after the risk premiums were added to the CAPM formula. The FCF_n required as the numerator in the TV calculation is usually the last FCF in the projected period, 2027 in Currie's Post case, with the perpetual growth rate added. The FCF_n value for Currie's Post was calculated considering the end of the growth period, as we had a two stage DCF calculation. The final FCF₂₇ was adjusted by 5.4%, the perpetual growth rate, but also adjusted for the NWC increased requirements and the reduced CAPEX. In the projections the CAPEX for the 30 stores were completed by August 2027. The FCF₂₇ therefore included CAPEX for three stores to the value of R 4 574 807. This CAPEX for stores would not be repeated going forward from 2028 and was removed from the FCF₂₈.

Table 3-2: Financials – Actual & Forecast

Currie's Post Trading

Statement of Comprehensive Income

Actual & Provisional

R in '000	Aug-13	Aug-14	Aug-16	Aug-16	Aug-17 (Est)
Revenue	685 821	524 236	512 569	638 777	664 179
Cost of Sales	- 596 575	- 454 648	- 443 822	- 546 425	- 571 489
Gross Profit	89 246	69 588	68 747	92 353	92 690
Other Income	171	1 237	4 545	3 217	2 329
Administration Expenses	- 13 191	- 7 056	- 7 674	- 7 626	- 10 011
Operating Expenses	- 74 396	- 66 681	- 64 235	- 71 232	- 77 499
Operating (loss)/profit	1 830	- 2 912	1 383	16 712	7 508
Investment Revenue	121	0	45	144	-
Finance Costs	- 273	- 314	- 433	- 542	- 783
(Loss)/Profit before Tax	1 677	- 3 226	994	16 314	6 725
Taxation	- 597	- 903	- 728	- 4 528	- 2 048
(Loss)/Profit after Tax	1 080	- 4 129	266	11 786	4 677
Accumulated Surplus Prev	4 019	5 099	970	1 236	13 022
Accumulated Surplus Curr	5 099	970	1 236	13 022	17 699

Forecasts

R in '000	Aug-18 (F)	Aug-19 (F)	Aug-20 (F)	Aug-21 (F)	Aug-22 (F)	Aug-23 (F)	Aug-24 (F)	Aug-25 (F)	Aug-26 (F)	Aug-27 (F)	Aug-28 (F)	Aug-29 (F)
Revenue	756 040	858 646	969 010	1 087 229	1 213 348	1 349 917	1 497 697	1 657 502	1 830 198	2 016 711	2 125 614	2 240 397
Cost of Sales	- 650 530	- 738 817	- 833 779	- 935 500	- 1 044 018	- 1 161 528	- 1 288 685	- 1 426 188	- 1 574 783	- 1 735 268	- 1 828 972	- 1 927 737
Gross Profit	105 510	119 829	135 231	151 729	169 330	188 389	209 012	231 314	255 415	281 444	296 642	312 660
Other Income	2 462	2 609	2 761	2 915	3 073	3 239	3 414	3 598	3 792	3 997	4 213	4 440
Administration Expenses	- 7 966	- 8 665	- 9 385	- 10 140	- 10 928	- 11 780	- 12 693	- 13 669	- 14 714	- 15 832	- 16 687	- 17 588
Operating Expenses	- 88 054	- 94 987	- 106 591	- 119 740	- 133 820	- 147 999	- 163 222	- 180 199	- 197 763	- 217 385	- 227 560	- 238 678
Operating (loss)/profit	11 952	18 787	22 016	24 765	27 655	31 848	36 511	41 044	46 730	52 223	56 608	60 834
Investment Revenue	-	-	-	-	-	-	-	-	-	-	-	-
Finance Costs	- 1 153	- 1 564	- 2 022	- 2 704	- 3 625	- 4 230	- 4 888	- 5 795	- 6 580	- 7 634	- 8 046	- 8 481
(Loss)/Profit before Tax	10 799	17 223	19 994	22 061	24 030	27 618	31 623	36 249	40 150	44 589	48 562	52 353
Taxation	- 3 024	- 4 823	- 5 598	- 6 177	- 6 728	- 7 733	- 8 854	- 9 870	- 11 242	- 12 485	- 13 597	- 14 659
(Loss)/Profit after Tax	7 775	12 401	14 395	15 884	17 302	19 885	22 768	25 379	28 908	32 104	34 964	37 694
Accumulated Surplus Prev	17 699	25 475	37 876	52 271	68 155	85 456	105 341	128 110	153 489	182 397	214 501	249 465
Accumulated Surplus Curr	25 475	37 876	52 271	68 155	85 456	105 341	128 110	153 489	182 397	214 501	249 465	287 160

Figure 3-2: PPI – Actual and Forecast

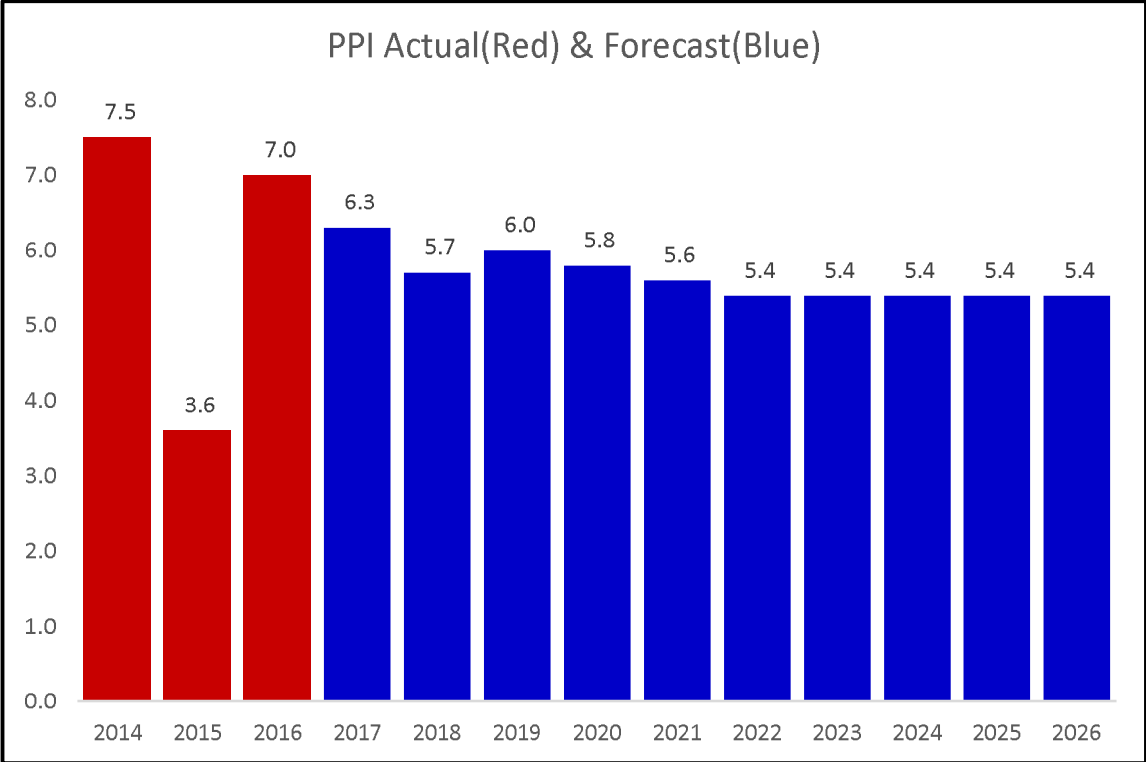


Figure 3-3: Revenue forecast with Store quantity, CAPEX per store and Revenue per store

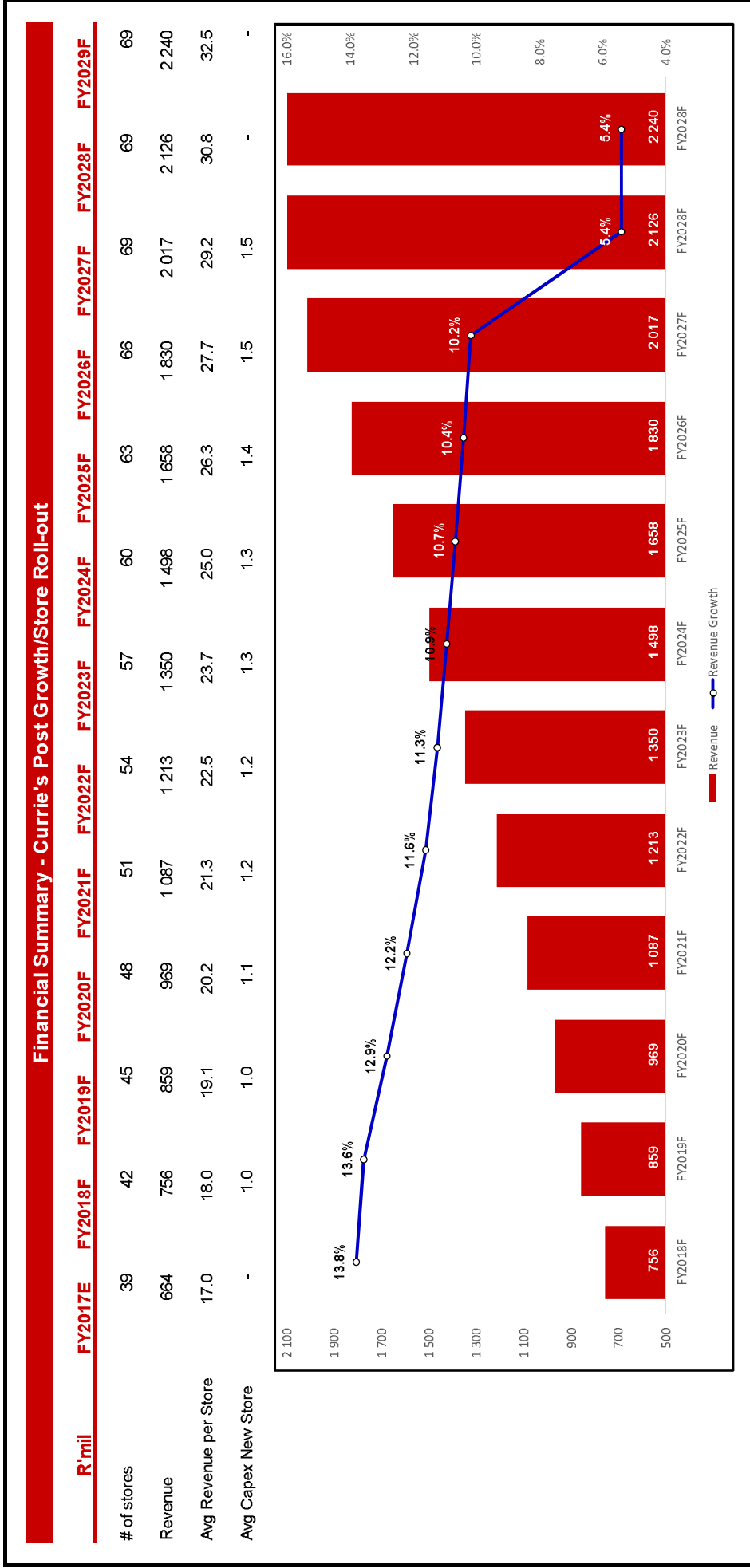


Table 3-3: FCFF calculations

Financial Summary - Free cash flow to firm (FCFF)													
R'mil	FY2017E	FY2018F	FY2019F	FY2020F	FY2021F	FY2022F	FY2023F	FY2024F	FY2025F	FY2026F	FY2027F	FY2028F	FY2029F
Revenue	664	756	859	969	1 087	1 213	1 350	1 498	1 658	1 830	2 017	2 126	2 240
Growth %		13.8%	13.6%	12.9%	12.2%	11.6%	11.3%	10.9%	10.7%	10.4%	10.2%	5.4%	5.4%
EBITDA	10.3	14.1	20.7	24.2	27.9	32.0	36.3	41.1	46.2	51.8	57.8	60.9	64.2
EBITDA margin %	1.5%	1.9%	2.4%	2.5%	2.6%	2.6%	2.7%	2.7%	2.8%	2.8%	2.9%	2.9%	2.9%
Depreciation	-	2.8	2.1	1.9	2.2	3.2	4.3	4.6	5.2	5.0	5.6	4.3	3.4
EBIT	7.5	12.0	18.8	22.0	24.8	27.7	31.8	36.5	41.0	46.7	52.2	56.6	60.8
EBIT margin %	1.1%	1.6%	2.2%	2.3%	2.3%	2.3%	2.4%	2.4%	2.5%	2.6%	2.6%	2.7%	2.7%
Tax	-	2.1	3.3	5.3	6.2	7.7	8.9	10.2	11.5	13.1	14.6	15.9	17.0
NOPAT	5.4	8.6	13.5	15.9	17.8	19.9	22.9	26.3	29.6	33.6	37.6	40.8	43.8
Growth %		59.2%	57.2%	17.2%	12.5%	11.7%	15.2%	14.6%	12.4%	13.9%	11.8%	8.4%	7.5%
NOPAT	5.4	8.6	13.5	15.9	17.8	19.9	22.9	26.3	29.6	33.6	37.6	40.8	43.8
Capex	-	3	3	3	5	7	4	4	6	4	6	-	-
% of revenue	0.0%	0.4%	0.4%	0.4%	0.5%	0.6%	0.3%	0.3%	0.4%	0.2%	0.3%	0.0%	0.0%
Depreciation	2.0	1.5	1.4	1.6	2.3	3.1	3.2	3.3	3.7	3.6	4.0	3.1	2.4
% of revenue	0.3%	0.2%	0.2%	0.2%	0.2%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
Change in NWC	-	4.3	2.3	2.5	2.7	2.9	3.4	3.6	3.9	4.2	4.6	2.7	2.8
Free Cash Flow Firm	3.1	4.9	9.2	11.3	12.0	12.8	19.0	22.0	23.4	28.7	30.6	41.2	43.4
FCFF margin	0.5%	0.6%	1.1%	1.2%	1.1%	1.1%	1.4%	1.5%	1.4%	1.6%	1.5%	1.9%	1.9%

Table 3-4: NWC calculations

NWC Calculations													
R'mil	FY2017E	FY2018F	FY2019F	FY2020F	FY2021F	FY2022F	FY2023F	FY2024F	FY2025F	FY2026F	FY2027F	FY2028F	FY2029F
Depr Calc	2.8	2.1	1.9	2.2	3.2	4.3	4.5	4.6	5.2	5.0	5.6	4.3	3.4
New Store Assets	-	0.6	1.2	1.9	2.6	3.3	3.5	3.6	3.8	4.0	4.2	3.4	2.6
Other Assets	2.8	1.5	0.7	0.3	0.6	1.0	1.0	0.9	1.4	1.1	1.4	0.9	0.8
CAPEX	-	3.0	3.1	3.4	5.3	7.2	3.8	4.0	6.0	4.4	6.5	-	-
New Store Assets	-	3.0	3.1	3.3	3.5	3.6	3.8	4.0	4.2	4.4	4.6	-	-
Other Assets	-	-	-	0.1	1.8	3.6	-	-	1.8	-	1.9	-	-
NWC	4.3	2.3	2.5	2.7	2.9	3.1	3.4	3.6	3.9	4.2	4.6	2.7	2.8
Inventory	1.5	11.1	12.4	13.3	14.2	15.2	16.5	17.8	19.3	20.8	22.5	13.1	13.8
Debtors	-	0.3	1.9	2.1	2.5	2.6	2.8	3.1	3.3	3.6	3.9	2.3	2.4
Creditors	3.1	-	10.7	12.0	13.8	14.7	15.9	17.2	18.6	20.2	21.8	12.7	13.4

Table 3-5: New CAPEX depreciation calculation

Depreciation on New Store Furniture & Fittings												
Store Opened	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2018	3 000 000	600 000	600 000	600 000	600 000							
2019	3 144 000	628 800	628 800	628 800	628 800	628 800						
2020	3 294 912	658 982	658 982	658 982	658 982	658 982	658 982					
2021	3 453 068		690 614	690 614	690 614	690 614	690 614	690 614				
2022	3 618 815		723 763	723 763	723 763	723 763	723 763	723 763	723 763			
2023	3 792 518		758 504	758 504	758 504	758 504	758 504	758 504	758 504	758 504		
2024	3 974 559		794 912	794 912	794 912	794 912	794 912	794 912	794 912	794 912	794 912	
2025	4 165 338							833 068	833 068	833 068	833 068	833 068
2026	4 365 274								873 055	873 055	873 055	873 055
2027	4 574 807									914 961	914 961	914 961
	600 000	1 228 800	1 887 782	2 578 396	3 302 159	3 460 663	3 626 774	3 800 860	3 983 301	4 174 499	3 415 996	2 621 084

The following figures represent the market capitalisation of the listed peers identified. The peers are:

- Bid Corporation Ltd
- Choppies Enterprises Ltd
- Gold Brands Inv Ltd
- Pick n Pay Stores Ltd
- Shoprite Holdings Ltd
- The Spar Group Ltd

Betas used was obtained from Equity Risk Service Q3/2017, Estimating Betas for JSE-Listed Companies and Indices and depicted in Appendix P.

Debt/equity ratios obtained from Investing.com and screenshots in Appendix J – Appendix O.

Figure 3-4: Bid Corporation Ltd Market Cap

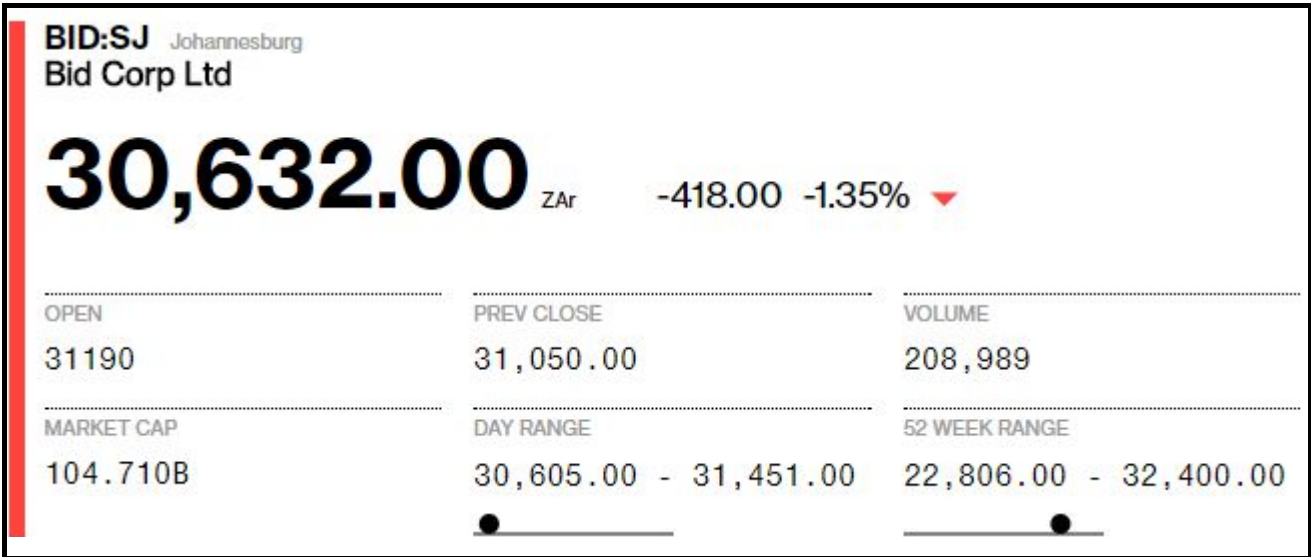


Figure 3-5: Choppies Enterprises Ltd Market Cap



Figure 3-6: Gold Brands Investments Ltd Market Cap



Figure 3-7: Pick n Pay Stores Ltd Market Cap

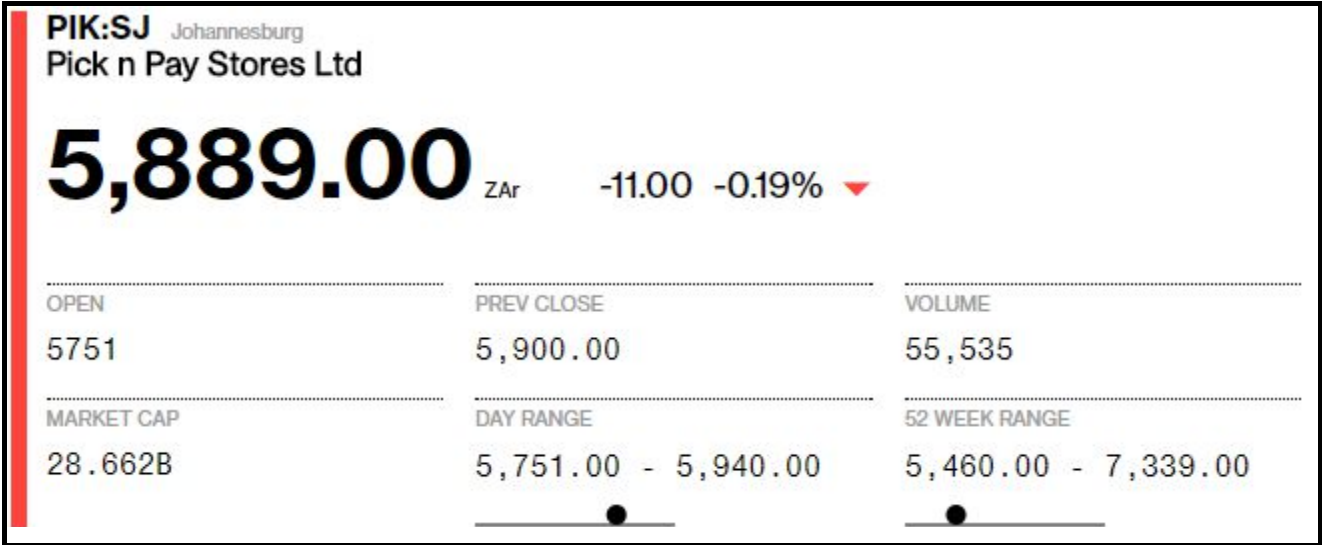


Figure 3-8: Shoprite Holdings Ltd Market Cap

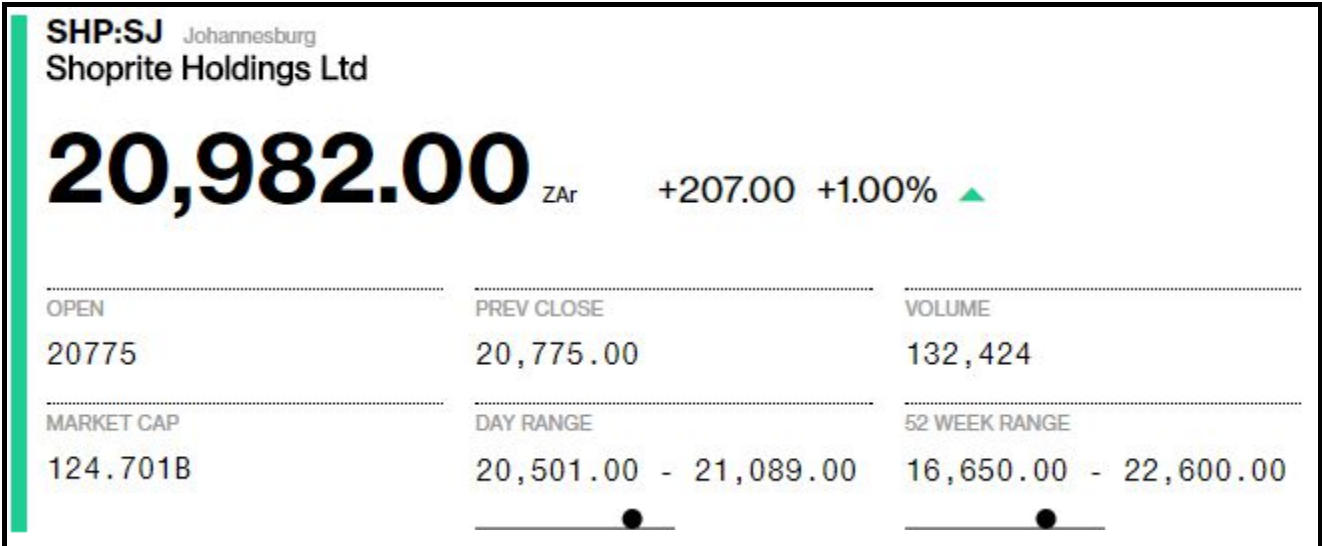


Figure 3-9: The Spar Group Ltd Market Cap



Table 3-6: Levered Beta calculated for Currie's Post from listed peers

Beta and gearing analysis

Unlever listed peers	Levered β	Tax Rate	Debt/Equity	Unlevered β	Market Cap	Weighted Avg β
BID Corporation Ltd	0.82	28%	34.22%	0.66	104.71	0.19
Choppies Enterprises Ltd	0.75	28%	31.66%	0.61	3.617	0.01
Gold Brands Inv Ltd	0.40	28%	185.09%	0.17	66.12	0.03
Pick n Pay Stores Ltd	0.85	28%	47.39%	0.63	28.662	0.05
Shoprife Holdings Ltd	0.55	28%	30.13%	0.45	124.701	0.16
The Spar Group Ltd	0.70	28%	121.15%	0.37	32.338	0.03
				0.48	360.148	<u>0.47</u>

Relever β for Currie's Post Debt/Equity targets

β unlevered	0.47
Company Tax rate	28%
Equity Aug 17	17 700
Debt Aug 17	82 878
Debt/Equity	468%
β relevered - Currie's Post	2.05

Figure 3-10: Cost of Equity (CAPM formula unadjusted)

$$E(R_e) = R_f + \beta * E(R_p)$$

Rf	9.45%
β	2.05
E(Rp)	6%
SSP	0.00%
SRP	0.00%
	<hr/>
	<u>21.78%</u>

Figure 3-11: Cost of Equity – SSP adjusted

$$E(R_e) = R_f + \beta * E(R_p) + SSP$$

Rf	9.45%
β	2.05
E(Rp)	6.00%
SSP	3.20%
SRP	0.00%
	<hr/>
	<u>24.98%</u>

Figure 3-12: Cost of Equity – SSP & SRP adjusted

$$E(R_e) = R_f + \beta * E(R_p) + SSP + SRP$$

Rf	9.45%
β	2.05
E(Rp)	6.00%
SSP	3.20%
SRP	5.00%
	<hr/>
	<u>29.98%</u>

Figure 3-13: WACC for all three CAPM scenarios

	R	Ratio		
Equity	17,700	17.60%		
Debt	82,878	82.40%		
Total Capital Structure	100,578			
			Proportional Cost	WACC
Unadjusted	Debt Ratio	82.40%		
	Cost of Debt	7.38%	6.08%	
	Equity Ratio	17.60%	3.83%	9.91%
	Cost of Equity	21.78%		
SSP	Debt Ratio	82.40%		
	Cost of Debt	7.38%	6.08%	
	Equity Ratio	17.60%	4.40%	10.48%
	Cost of Equity	24.98%		
SSP & SRP	Debt Ratio	82.40%		
	Cost of Debt	7.38%	6.08%	
	Equity Ratio	17.60%	5.28%	11.36%
	Cost of Equity	29.98%		

Table 3-7: DCF calculation - Unadjusted

DCF Value for Currie's Post (No prem or discount)						
Year	FCFF (R'mil)	FCFF	Period Offset	WACC	Terminal Value	PV
Aug-18	4.87	4 874 341	1	9.91%		R4 434 701
Aug-19	9.25	9 248 887	2	9.91%		R7 655 726
Aug-20	11.31	11 305 586	3	9.91%		R8 514 094
Aug-21	11.96	11 957 863	4	9.91%		R8 193 083
Aug-22	12.76	12 758 728	5	9.91%		R7 953 341
Aug-23	19.01	19 012 554	6	9.91%		R10 782 790
Aug-24	21.96	21 959 552	7	9.91%		R11 330 853
Aug-25	23.38	23 383 965	8	9.91%		R10 977 558
Aug-26	28.66	28 661 413	9	9.91%		R12 241 472
Aug-27	30.56	30 560 931	10	9.91%		R11 875 477
Aug-28	41.19	41 187 435	11	9.91%	R912 512 368.52	R322 605 438
						R416 564 534

Table 3-8: DCF calculation – SSP Adjustment

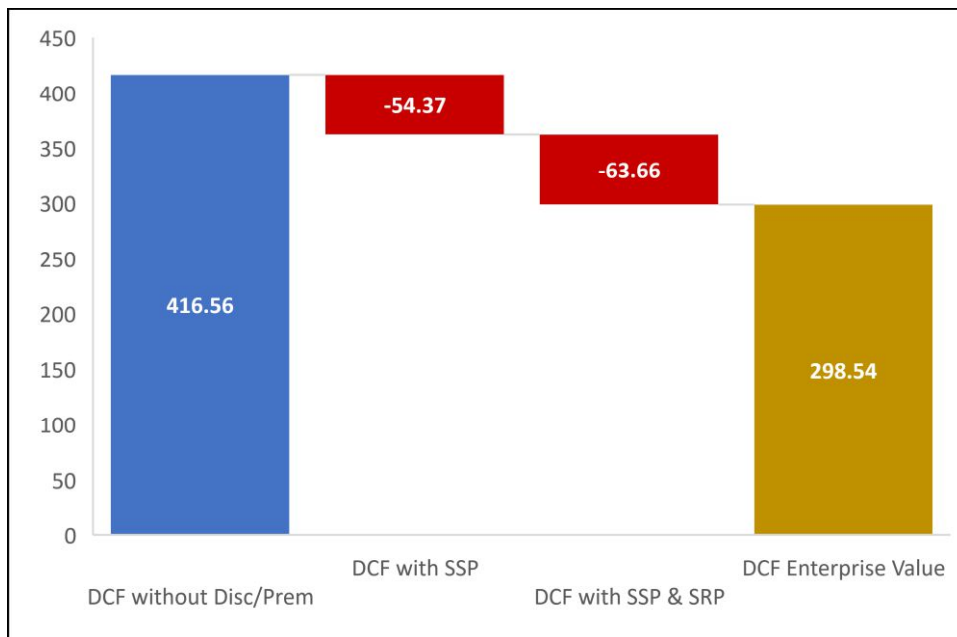
DCF Value for Currie's Post - SSP adjustment						
Year	FCFF (R'mil)	FCFF	Period Offset	WACC	Terminal Value	PV
Aug-18	4.87	4,874,341	1	10.48%		R4,412,095
Aug-19	9.25	9,248,887	2	10.48%		R7,577,875
Aug-20	11.31	11,305,586	3	10.48%		R8,384,555
Aug-21	11.96	11,957,863	4	10.48%		R8,027,299
Aug-22	12.76	12,758,728	5	10.48%		R7,752,687
Aug-23	19.01	19,012,554	6	10.48%		R10,457,173
Aug-24	21.96	21,959,552	7	10.48%		R10,932,671
Aug-25	23.38	23,383,965	8	10.48%		R10,537,799
Aug-26	28.66	28,661,413	9	10.48%		R11,691,180
Aug-27	30.56	30,560,931	10	10.48%		R11,283,824
Aug-28	41.19	41,187,435	11	10.48%	R811,289,644.44	R271,140,637
						R362,197,794

Table 3-9: DCF calculation – SSP & SRP Adjusted

DCF Value for Currie's Post - SSP & SRP adjustment						
Year	FCFF (R'mil)	FCFF	Period Offset	WACC	Terminal Value	PV
Aug-18	4.87	4,874,341	1	11.36%		R4,377,231
Aug-19	9.25	9,248,887	2	11.36%		R7,458,589
Aug-20	11.31	11,305,586	3	11.36%		R8,187,359
Aug-21	11.96	11,957,863	4	11.36%		R7,776,567
Aug-22	12.76	12,758,728	5	11.36%		R7,451,185
Aug-23	19.01	19,012,554	6	11.36%		R9,971,075
Aug-24	21.96	21,959,552	7	11.36%		R10,342,096
Aug-25	23.38	23,383,965	8	11.36%		R9,889,785
Aug-26	28.66	28,661,413	9	11.36%		R10,885,538
Aug-27	30.56	30,560,931	10	11.36%		R10,423,233
Aug-28	41.19	41,187,435	11	11.36%	R691,445,400.70	R211,776,299
						R298,538,958

3.9 Step 7: Calculate Enterprise Value

Figure 3-14: DCF Build-up to Enterprise value



3.10 Step 8: Calculate net cash position

Net cash position simply put, is the difference between assets and liabilities of the company on 31 August 2017. If the assets are greater than the liabilities the net cash position is added to the EV, and if the liabilities are greater the net cash position is deducted from the EV to calculate the equity value.

In the case of Currie's Post, the net cash position is calculated as follows:

Figure 3-15: Net cash position

Non-current Assets	7,151
Current Assets	94,017
Non-current Liabilities	- 1,827
Current Liabilities	- 81,051
Net Cash Position	<u>18,290</u>

3.11 Step 9: Identify discounts or premiums

From the literature the identified additional premium would be a control premium. Control premiums are applicable when a party acquires an interest above 50%. The premium will rise as the percentage share rises as this would give the purchaser more voting rights at meetings. This would enable such a shareholder to almost dictate proceedings if the share is more than 75%.

Control premiums aren't applicable to this valuation as the enterprise value is used to value the business, in other words a 100% share is purchased.

Discounts are in the form of minority interests or marketability discounts. Minority interest discount is the opposite to control premiums. When a share in a business is acquired, but is less than 50%, the price is discounted for the purchaser.

Marketability discount is a discount applied to a valuation where the target business isn't a listed entity and the probability of selling shares at a market related price without extensive effort is very unlikely. For this the purchaser would apply a marketability discount. In the case of Currie's Post, the business isn't a listed company and therefore the marketability discount will be applied. Although marketability discount is also associated with the interest acquired. According to PwC, for an interest of 100% the average discount applied would be 6.8%.

3.12 Step 10: Calculate discounts or premiums

Unlike the SSP and SRP premium calculations, the marketability discount identified is calculated on the DCF EV, plus or minus the net cash position. The marketability discount of 6.8% is thus applied to the following value:

Figure 3-16: Marketability discount calculation

DCF without Disc/Prem	416.56
Adjustment for SSP	- 98.70
Adjustment for SRP	- 51.55
DCF EV	266.31
Net Cash Position	18.29
DCF for Discount Calculation	284.60
Marketability Discount @ 6.8%	- 19.35

3.13 Step 11: Calculate EV post adjustment

A sensitivity analysis was also performed on the DCF EV after marketability discount to illustrate the change in EV due to changes in the forecast rates applied. The sensitivity calculations are illustrated in Table 3-10: Valuation sensitivity – Revenue & WACC and Table 3-11: Valuation sensitivity – EBITDA & Perpetual Growth.

- A 1% upward adjustment on WACC reduced the EV after marketability discount by R48 million.
- A 1% upward adjustment on Revenue increased the EV after marketability discount by R155 million.
- A 1% upward adjustment on EBITDA increased the EV after marketability discount by R5 million.
- A 1% upward adjustment on Perpetual growth increased the EV after marketability discount by R40 million.

From the above, it is clear the value most affecting the valuation of the firm due to a fluctuation is the Revenue component. This is a crucial variable in the determination of the value of the business. Ensuring the value of Revenue has not been overstated will produce a fair and equitable valuation. In the forecast financials revenue has only been increased in line with additional store openings and PPI. No additional adjustment in terms of additional growth, other than the two aspects mentioned, has been made in terms of revenue increases. Therefore, conservative revenue projections have been made.

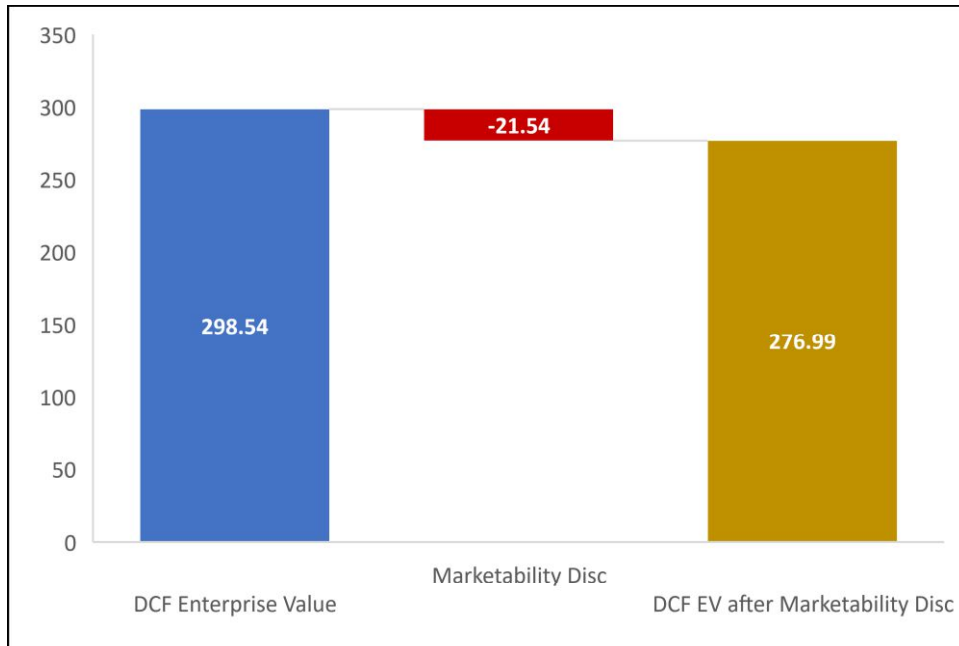
Table 3-10: Valuation sensitivity – Revenue & WACC after Marketability discount

Sensitivity : Revenue & WACC						
Change in REVENUE growth						
		-1.0%	-0.5%	0.0%	0.5%	1.0%
Change in WACC	-1.0%	157	251	346	441	536
	-0.5%	138	223	308	394	479
	0.0%	122	200	277	354	432
	0.5%	109	180	251	322	393
	1.0%	98	163	229	294	359

Table 3-11: Valuation sensitivity – EBITDA & Perpetual Growth after Marketability discount

Sensitivity : EBITDA & Perpetual Growth						
		Change in Perpetual growth %				
		-1.0%	-0.5%	0.0%	0.5%	1.0%
Change in EBITDA margin	-1.0%	244	257	272	290	312
	-0.5%	247	260	275	293	314
	0.0%	249	262	277	295	317
	0.5%	251	264	279	298	319
	1.0%	253	266	282	300	322

Figure 3-17: Enterprise value post adjustment



3.14 Step 12: Calculate Equity Value

Finally, to calculate the equity valuation the net cash position is added to the EV post adjustment value.

Figure 3-18: Equity valuation

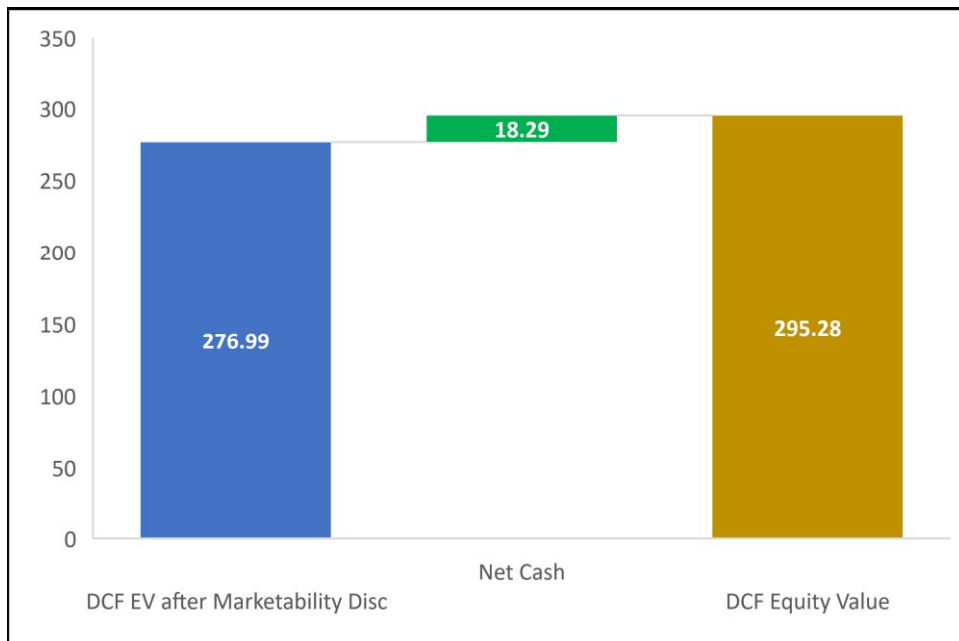
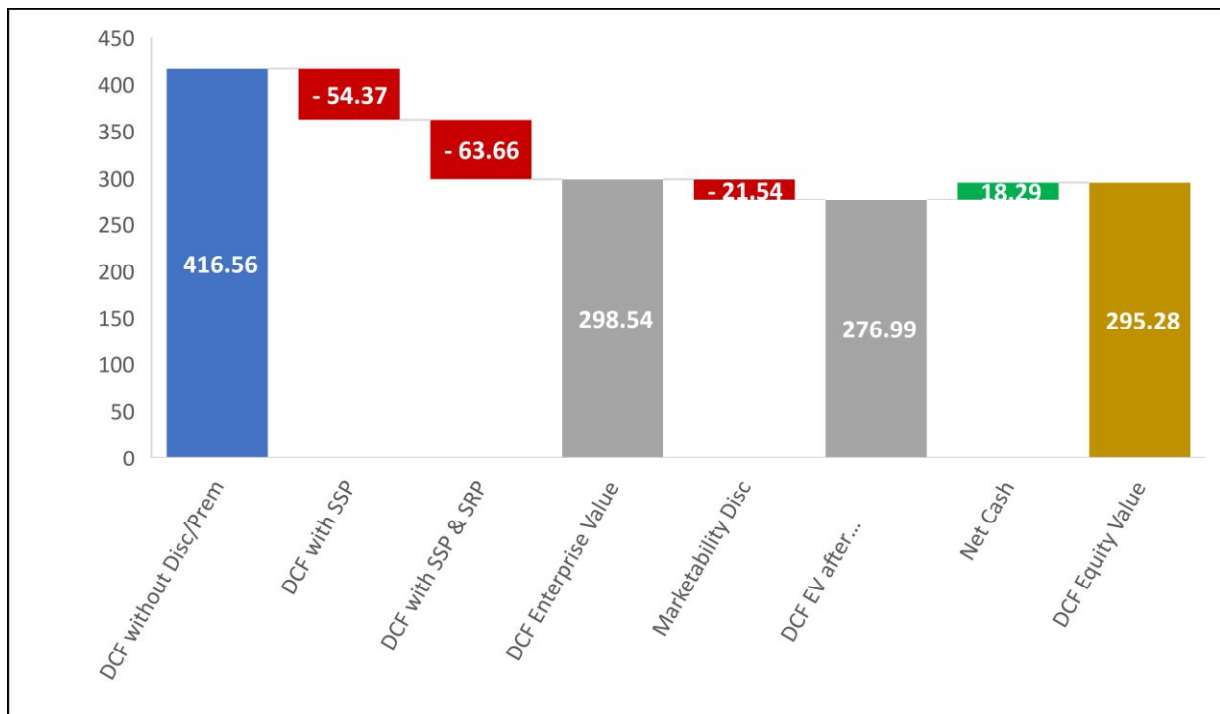


Figure 3-19: Combined valuation steps indicating discount, premiums and final values



CHAPTER 4 CONCLUSION AND RECOMMENDATIONS

4.1 Background

As highlighted in chapter 1, the importance of an accurate valuation was highlighted. The need for a valuation arose through discussions with current owners, who also serve as directors of Currie's Post. Their intention is to offer the business to management in the form of a management buy-out (MBO) if the value is agreed upon and is affordable to the management. The extent of the business operations gives an indication to the value of the business, but before an official valuation is conducted, the value is pure speculation. Once the value has been established management will be able to evaluate the affordability of the proposed MBO.

To conduct a valuation of the business, the primary objective, the secondary objectives had to be satisfied (refer Section 1.4). They are:

- Identify reason for valuation;
- Identify & select value world location;
- Identify & select valuation approach;
- Identify & select valuation method;
- Identify & apply discounts or premiums.

4.2 Findings

The primary objective was to value Currie's Post. This was concluded in 3.13 Step 11: Calculate EV post adjustment. The calculated range of value for Currie's Post is between R 276 994 570 (enterprise value) and R 295 994 750 (equity value).

The identified secondary objectives were a prerequisite for calculating the enterprise value. Each of the secondary objectives were treated separately as follows:

- **Identify reason for valuation:** The reason for the valuation was identified in 3.3 as being a valuation for current owners with the view of selling the business to management.
- **Identify & select value world location:** The value world location was identified as the Empirical Unregulated quadrant in 3.4. The location of the quadrant lends

itself to the valuation of a privately-owned business with the assistance of financial intermediaries.

- **Identify & select valuation approach:** The approach selected was performed in 3.5. Here Damodaran's advice was taken to conduct the valuation on the income approach as a first option. Anderson also advocates the three contemporary approaches to valuation and includes the income approach. The income approach was also possible because of the financial information made available to the researcher and the study compiled by PwC, giving access to rates required for an income approach valuation.
- **Identify & select valuation method:** Selecting the valuation method was performed in 3.6. Again, Damodaran's advice was taken and the simplest method was selected first. Due to dividend constraints this method, dividend growth model, could not be implemented. The next method in the hierarchy was the DCF method. All information to compute a value using DCF was available and suited to the unlisted property of the business.
- **Identify & apply discounts or premiums:** This objective was treated under various paragraphs. This is due to the nature of the discounts and premiums applied to the DCF valuation, but also because of the timing of the discount or premium application. The first two premiums are treated as additional costs of equity. SSP & SRP were added to the cost of equity and was illustrated in Figure 3-11: Cost of Equity – SSP adjusted and Figure 3-12: Cost of Equity – SSP & SRP adjusted. The final discount applied was the marketability discount and was discussed in 3.11 Step 9: Identify discounts or premiums and 3.12 Step 10: Calculate discounts or premiums.

4.3 Recommendations

After the value had been established for Currie's Post, a sensitivity analysis was performed. The findings of this sensitivity analysis concluded the following:

- A 1% upward adjustment on WACC reduced the EV after marketability discount by R48 million.
- A 1% upward adjustment on Revenue increased the EV after marketability discount by R155 million.

- A 1% upward adjustment on EBITDA increased the EV after marketability discount by R5 million.
- A 1% upward adjustment on Perpetual growth increased the EV after marketability discount by R40 million.

If the owners weren't successful in the selling process adding value to the business for future valuations can be increased based on the sensitivity analysis performed. Strategic objectives can be adjusted to achieve the change in metric above.

4.4 Limitations of the study

The following are limitation applicable to this study:

- This valuation is only applicable to Currie's Post. Specific rates have been considered and applied to reach the final valuation.
- The forecast financials were produced based on the August 2017 management figures. If any material adjustments are made to these financial figures the forecasts aren't accurate and will have to be computed again.
- The biggest driver of growth in Currie's Post is the opening of additional stores at a rate of 3 stores per year. If the projected store additions are hampered, an adjustment to the growth rate needs to be made. This will affect revenue, expenses and CAPEX. These effects will be observed in the FCFF.
- The forecasts have also been made based on information regarding the PPI. If the actual PPI figures should differ from the forecast PPI values adjustments to the revenue and expenses figures adjusted for PPI will need to be performed. The perpetual growth rate was also based on the final PPI value and would affect the discount rate for the TV.
- The basis of the valuation was for a 100% sale of the business. The only discount considered was the marketability discount. If less than 100% of Currie's Post was sold, or offered for sale, the marketability discount would have to be revisited and additional discounts could apply i.e. minority interest discount.

4.5 Recommendations for future research

Opportunities for future research:

- After the August 2017 financial statements have been finalised by the auditors, the values should be compared to the estimated figures and an adjusted value calculated if necessary.
- The market approach should be investigated to produce a value for Currie's Post and compare the two final valuation amounts.
- Not listed peers can be identified for Currie's Post and valuations can be performed on these unlisted peers.
- An investigation regarding sales transactions relating to unlisted peers can be investigated to determine the discount rates applied to the business between the seller and purchaser. In the final days of the case study a transaction between Choppies Enterprises Ltd and Arizona Cash & Carry was in the pipeline. Unfortunately, the transaction has not been finalised yet, so no correlation could be gleaned from the Choppies transaction with that of the valuation performed on Currie's Post. If possible, this transaction should be investigated and analysed.

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APPENDIX A: BALANCE SHEET

Currie's Post Trading					
Statement of Financial Position					
R in 000'					
	Aug-13	Aug-14	Aug-15	Aug-16	Aug-17 (Est)
Assets					
Non-current Assets					
Intangible assets	2 580	1 570	-	-	-
Property, plant & equipment	7 426	8 860	12 124	9 891	7 117
Deferred Tax	-	-	-	48	34
	<u>10 006</u>	<u>10 430</u>	<u>12 124</u>	<u>9 939</u>	<u>7 151</u>
Current Assets					
Inventories	56 998	57 550	63 622	78 541	80 050
Current tax receivable	-	390	-	-	-
Trade & other receivables	6 456	12 498	15 844	14 132	13 785
Other financial assets	-	-	-	-	-
Cash & cash equivalents	2 884	208	162	176	182
	<u>66 338</u>	<u>70 646</u>	<u>79 628</u>	<u>92 849</u>	<u>94 017</u>
Total Assets	<u>76 343</u>	<u>81 076</u>	<u>91 752</u>	<u>102 788</u>	<u>101 168</u>
Liabilities & Equity					
Equity					
Share capital	1	1	1	1	1
Accumulated surplus	5 099	970	1 236	13 022	17 699
	<u>5 100</u>	<u>971</u>	<u>1 237</u>	<u>13 023</u>	<u>17 700</u>
Total Equity	<u>5 100</u>	<u>971</u>	<u>1 237</u>	<u>13 023</u>	<u>17 700</u>
Non-current Liabilities					
Financial liabilities	637	797	2 327	1 556	1 827
Deferred tax	551	623	577	-	-
	<u>1 188</u>	<u>1 420</u>	<u>2 904</u>	<u>1 556</u>	<u>1 827</u>
Current Liabilities					
Trade & other payables	63 577	74 570	84 110	80 611	77 506
Provision for Leave Pay	-	-	-	986	552
Bank overdraft	-	424	2 128	3 403	1 458
Financial liabilities	6 455	3 690	1 024	1 028	1 167
Current tax payable	23	-	350	2 181	368
	<u>70 055</u>	<u>78 684</u>	<u>87 611</u>	<u>88 209</u>	<u>81 051</u>
Total Liabilities	<u>71 243</u>	<u>80 104</u>	<u>90 514</u>	<u>89 765</u>	<u>82 878</u>
Total Liabilities & Equity	<u>76 343</u>	<u>81 076</u>	<u>91 752</u>	<u>102 788</u>	<u>100 578</u>

APPENDIX B: INCOME STATEMENT

Currie's Post Trading

Statement of Comprehensive Income

R in '000'

	Aug-13	Aug-14	Aug-15	Aug-16	Aug-17 (Est)	Aug-18 (F)	Aug-19 (F)	Aug-20 (F)	Aug-21 (F)	Aug-22 (F)	Aug-23 (F)	Aug-24 (F)	Aug-25 (F)	Aug-26 (F)	Aug-27 (F)	Aug-28 (F)	Aug-29 (F)
Revenue	685 821	524 236	512 569	638 777	664 179	756 040	858 646	969 010	1 087 229	1 213 348	1 349 917	1 497 697	1 657 502	1 830 198	2 016 711	2 125 614	2 240 397
Cost of Sales	-	454 648	443 822	546 425	571 489	650 530	738 817	833 779	935 500	1 044 018	1 161 528	1 288 665	1 426 188	1 574 783	1 735 268	1 828 972	1 927 737
Gross Profit	89 246	69 588	68 747	92 353	92 690	105 510	119 829	135 231	151 729	169 330	188 389	209 012	231 314	255 415	281 444	296 642	312 660
Other Income	171	1 237	4 545	3 217	2 329	2 462	2 609	2 761	2 915	3 073	3 239	3 414	3 598	3 792	3 997	4 213	4 440
Administration Expenses	-	13 191	7 056	7 674	10 011	7 966	8 665	9 385	10 140	10 928	11 780	12 693	13 669	14 714	15 832	16 987	17 588
Operating Expenses	-	74 396	66 681	71 232	77 499	88 054	94 987	106 591	119 740	133 820	147 999	163 222	180 199	197 763	217 385	227 960	238 678
Operating (loss)/profit	1 830	2 912	1 383	16 712	7 508	11 952	18 787	22 016	24 765	27 655	31 848	36 511	41 044	46 730	52 223	56 608	60 834
Investment Revenue	121	0	45	144	-	-	-	-	-	-	-	-	-	-	-	-	-
Finance Costs	-	273	314	542	783	1 153	1 564	2 022	2 704	3 625	4 230	4 888	5 795	6 580	7 634	8 046	8 481
(Loss)/Profit before Tax	1 677	3 226	994	16 314	6 725	10 799	17 223	19 994	22 061	24 030	27 618	31 623	35 249	40 150	44 589	48 562	52 353
Taxation	-	597	903	728	2 048	3 024	4 823	5 588	6 177	6 728	7 733	8 854	9 870	11 242	12 485	13 597	14 659
(Loss)/Profit after Tax	1 080	4 129	266	11 786	4 677	7 775	12 401	14 396	15 884	17 302	19 885	22 768	25 379	28 908	32 104	34 964	37 694
Accumulated Surplus Prev	4 019	5 059	970	1 236	13 022	17 699	23 475	37 876	52 271	68 155	85 456	105 341	128 110	153 489	182 397	214 501	249 465
Accumulated Surplus Curr	5 099	970	1 236	13 022	17 699	25 475	37 876	52 271	68 155	85 456	105 341	128 110	153 489	182 397	214 501	249 465	287 160

APPENDIX C: DEPRECIATION SCHEDULE 1

Property, plant & equipment schedules					
2016					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	3 507 568	447 491 -	557 060	2 950 508
P&M	25%	5 255 109	638 296 -	3 701 783	1 553 326
Motor	20%	4 506 479	1 249 187 -	2 282 975	2 223 504
Office	20%	592 825	163 639 -	338 527	254 298
F&F	20%	608 931	45 266 -	84 715	524 216
IT	33%	1 820 464	134 019 -	1 642 507	177 957
		18 498 531	2 350 620 -	8 607 567	9 890 964
2017					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	3 507 568	140 303 -	697 363	2 810 205
P&M	25%	5 255 109	1 313 777 -	5 015 560	239 549
Motor	20%	4 506 479	901 296 -	3 184 271	1 322 208
Office	20%	592 825	118 565 -	457 092	135 733
F&F	20%	608 931	121 786 -	206 501	402 430
IT	33%	1 820 464	177 957 -	1 820 464	-
		18 498 531	2 773 684 -	11 381 251	7 117 280
2018					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	3 507 568	140 303 -	837 665	2 669 903
P&M	25%	5 255 109	239 549 -	5 255 109	-
Motor	20%	4 506 479	901 296 -	4 085 567	420 912
Office	20%	592 825	118 565 -	575 657	17 168
F&F	20%	608 931	121 786 -	328 287	280 644
IT	33%	1 820 464	-	1 820 464	-
		18 498 531	1 521 498 -	12 902 749	5 595 782
2019					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	3 507 568	140 303 -	977 968	2 529 600
P&M	25%	5 255 109	-	5 255 109	-
Motor	20%	4 506 479	420 912 -	4 506 479	-
Office	20%	592 825	17 168 -	592 825	100 000
F&F	20%	608 931	121 786 -	450 074	158 857
IT	33%	1 820 464	-	1 820 464	-
		18 498 531	700 169 -	13 602 919	4 995 612
2020					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	3 507 568	140 303 -	1 118 271	2 389 297
P&M	25%	5 255 109	-	5 255 109	-
Motor	20%	4 506 479	-	4 506 479	1 500 000
Office	20%	692 825	20 000 -	612 825	80 000
F&F	20%	608 931	121 786 -	571 860	37 071
IT	33%	1 820 464	-	1 820 464	300 000
		18 598 531	282 089 -	13 885 008	6 513 523
2021					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	3 507 568	140 303 -	1 258 574	4 248 994
P&M	25%	5 255 109	-	5 255 109	1 551 040
Motor	20%	6 006 479	300 000 -	4 806 479	1 200 000
Office	20%	692 825	20 000 -	632 825	60 000
F&F	20%	608 931	37 071 -	608 931	-
IT	33%	2 120 464	100 000 -	1 920 464	200 000
		20 398 531	597 374 -	14 482 382	9 467 189
2022					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	1 478 876	4 028 692
P&M	25%	6 806 149	387 760 -	5 642 869	1 163 280
Motor	20%	6 006 479	300 000 -	5 106 479	900 000
Office	20%	692 825	20 000 -	652 825	40 000
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	100 000 -	2 020 464	100 000
		23 949 571	1 028 063 -	15 510 444	8 439 127

APPENDIX D: DEPRECIATION SCHEDULE 2

Property, plant & equipment schedules					
2023					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	1 699 179	3 808 389
P&M	25%	6 806 149	387 760 -	6 030 629	775 520
Motor	20%	6 006 479	300 000 -	5 406 479	600 000
Office	20%	692 825	20 000 -	672 825	20 000
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	100 000 -	2 120 464	0
		23 949 571	1 028 063	-16 538 507	7 411 064
2024					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	1 919 482	3 588 086
P&M	25%	6 806 149	387 760 -	6 418 389	2 173 042
Motor	20%	6 006 479	300 000 -	5 706 479	300 000
Office	20%	692 825	20 000 -	692 825	-
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	0 -	2 120 464	-
		23 949 571	928 063	-17 466 570	8 268 283
2025					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	2 139 784	3 367 784
P&M	25%	8 591 431	834 081 -	7 252 470	1 338 962
Motor	20%	6 006 479	300 000 -	6 006 479	-
Office	20%	692 825	-	692 825	-
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	-	2 120 464	-
		25 734 853	1 354 383	-18 820 953	6 913 900
2026					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	2 360 087	3 147 481
P&M	25%	8 591 431	834 081 -	8 086 550	504 881
Motor	20%	6 006 479	-	6 006 479	1 896 259
Office	20%	692 825	-	692 825	-
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	-	2 120 464	-
		25 734 853	1 054 383	-19 875 336	7 755 776
2027					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	2 580 390	2 927 178
P&M	25%	8 591 431	504 881 -	8 591 431	-
Motor	20%	7 902 738	679 252 -	6 685 731	1 217 007
Office	20%	692 825	-	692 825	-
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	-	2 120 464	-
		27 631 112	1 404 436	-21 279 772	6 351 340
2028					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	2 800 693	2 706 875
P&M	25%	8 591 431	-	8 591 431	-
Motor	20%	7 902 738	679 252 -	7 364 983	537 755
Office	20%	692 825	-	692 825	-
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	-	2 120 464	-
		27 631 112	899 555	-22 179 326	5 451 786
2029					
	Rate	Cost	Depr	AD	BV
Land	0%	2 207 155	-	-	2 207 155
Buildings	4%	5 507 568	220 303 -	3 020 995	2 486 573
P&M	25%	8 591 431	-	8 591 431	-
Motor	20%	7 902 738	537 755 -	7 902 738	-
Office	20%	692 825	-	692 825	-
F&F	20%	608 931	-	608 931	-
IT	33%	2 120 464	-	2 120 464	-
		27 631 112	758 058	-22 937 385	4 693 728

APPENDIX E: FINANCIAL SUMMARY

Financial Summary - Historical Performance					
R'm	2014 A	2015 A	2016 A	2017 E	CAGR ('14 - '17)
Revenue	524 236	512 569	638 777	664 179	8.2%
Growth %		-2.2%	24.6%	4.0%	
EBITDA	- 1 655	3 613	19 062	10 282	83.8%
EBITDA margin %	-0.3%	0.7%	3.0%	1.5%	
Depreciation	- 1 257	- 2 231	- 2 351	- 2 774	
EBIT	- 2 912	1 383	16 712	7 508	
EBIT margin %	-0.6%	0.3%	2.6%	1.1%	
Tax	815	387	4 679	2 102	
NOPAT	- 2 097	996	12 032	5 406	
NOPAT %	-0.4%	0.2%	1.9%	0.8%	
Growth %		-	1108.6%	-55.1%	
Capex	2 696	5 743	1 476	-	
% of revenue	0.5%	1.1%	0.2%	0.0%	

APPENDIX F: NET WORKING CAPITAL REQUIREMENTS

		Net working capital requirements													
NWC	Aug-17 (Est)	Aug-18 (F)	Aug-19 (F)	Aug-20 (F)	Aug-21 (F)	Aug-22 (F)	Aug-23 (F)	Aug-24 (F)	Aug-25 (F)	Aug-26 (F)	Aug-27 (F)	Aug-28 (F)	Aug-29 (F)		
Inventory	80 050	11 072	12 366	13 302	14 248	15 200	16 460	17 811	19 260	20 814	22 480	13 125	13 834		
Debtors	13 785	1 907	2 130	2 291	2 454	2 618	2 834	3 067	3 317	3 584	3 871	2 260	2 382		
Creditors	77 506	10 719.68	11 973	12 879	13 796	14 717	15 937	17 245	18 648	20 153	21 765	12 708	13 395		
Revenue	664 179	756 040	858 646	969 010	1 087 229	1 213 348	1 349 917	1 497 697	1 657 502	1 830 198	2 016 711	2 125 614	2 240 397		
C.O.S	-	571 489	-	833 779	-	935 500	-	1 288 685	-	1 574 783	-	1 828 972	-		
Inventory	-	91 122	103 488	116 790	131 038	146 238	162 698	180 510	199 770	220 584	243 064	256 189	270 023		

APPENDIX G: INCOME STATEMENT CALCULATIONS 1

Currie's Post Trading					
Statement of Comprehensive Income					
R in 000'					
	Aug-13	Aug-14	Aug-15	Aug-16	Aug-17 (Est)
Revenue	685 821	524 236	512 569	638 777	664 179
Cost of Sales	- 596 575 -	- 454 648 -	- 443 822 -	- 546 425 -	- 571 489
Gross Profit	89 246	69 588	68 747	92 353	92 690
Other Income	171	1 237	4 545	3 217	2 329
Administration Expenses	- 13 191 -	- 7 056 -	- 7 674 -	- 7 626 -	- 10 011
Operating Expenses	- 74 396 -	- 66 681 -	- 64 235 -	- 71 232 -	- 77 499
Operating (loss)/profit	1 830 -	2 912	1 383	16 712	7 508
Investment Revenue	121	0	45	144	-
Finance Costs	- 273 -	- 314 -	- 433 -	- 542 -	- 783
(Loss)/Profit before Tax	1 677 -	3 226	994	16 314	6 725
Taxation	- 597 -	- 903 -	- 728 -	- 4 528 -	- 2 048
(Loss)/Profit after Tax	1 080 -	4 129	266	11 786	4 677
Accumulated Surplus Prev	4 019	5 099	970	1 236	13 022
Accumulated Surplus Curr	5 099	970	1 236	13 022	17 699
Stores					39
PPI					
Depr Stores					
Depr Other Assets		1 257 320	2 230 514	2 350 620	2 773 684
CAPEX Stores					-
CAPEX Other Assets					
Accounting Fees		7 119	428 009	22 467 -	14 469
Advertising		226 288	60 493	142 101	134 776
Auditor's remuneration		249 996	171 369	443 705	193 527
Bad debts		5 112 149		524 224	393 807
Bank charges		2 121 061	2 426 896	2 521 187	2 321 283
Shortages		187 970	483 784	405 558 -	35 643
CIPRO		6 096			
Cleaning		424 837	270 568	345 288	446 555
Commission paid		2 058 392	5 071 735	9 208 490	10 384 473
Computer expenses		1 145 646	1 183 977	1 297 167	1 461 982
Computer expenses SAP					2 085 239
Consulting fee		36 473	42 573	192 988	157 144
Depreciation		1 257 320	2 230 514	2 350 620	2 773 684
Discount allowed			207 197	403 494	356 454
Donations		6 021			40 519
Electricity & water		1 466 672	1 742 618	1 930 883	2 149 822
Employee costs		23 962 539	22 863 628	26 397 551	28 122 166
Entertainment		1 799	2 962	4 111	4 685
Fines & penalties		322 443	1 350	4 134	
Fumigation		226 947	244 669	245 257	280 821
General expenses		13 143	142 382	228 047	27 425
Hire of equipment		277 758	86 143	183 629	502 728
Insurance		1 740 423	1 508 348	1 959 062	2 098 340
Legal fees		2 100	30 300	15 000	41 893
Loss on disposal of asset				876 197 -	30 266
Management fees paid		3 605 929	4 115 000	3 710 000	6 589 197
Motor vehicle expenses		1 974 539	2 053 930	2 061 980	2 139 059
Postage & courier		65 951	100 441	81 347	63 765
Printing & stationery		539 110	453 312	217 799	267 153
Protective clothing		36 542	204 281	7 822	174 490
Rates & property taxes		27 182	33 750	36 509	34 178
Rent paid		17 393 045	16 555 690	16 855 546	18 318 178
Repairs & maintenance		1 815 550	1 600 330	1 688 906	1 556 446
Sales promotion			6 382	65 912	
SARS - interest & penalties				8 085	
Security		4 901 435	4 311 855	2 567 760	2 946 121
Staff training		1 859	10 023	4 863	28 051
Subscriptions		15 254	21 178	10 720	10 853
Telephone & internet		1 047 978	1 332 952	1 350 907	1 010 881
Trading rights - amortised		1 010 000	1 570 000		
Travel - local		198 671	213 238	336 620	335 896
Workman's compensation		250 589	127 373	152 208	139 427
		73 736 826	71 909 250	78 858 144	87 510 640

APPENDIX H: INCOME STATEMENT CALCULATIONS 2

Currie's Post Trading						
Statement of Comprehensive Income						
	Aug-18 (F)	Aug-19 (F)	Aug-20 (F)	Aug-21 (F)	Aug-22 (F)	Aug-23 (F)
Revenue	756 040	858 646	969 010	1 087 229	1 213 348	1 349 917
Cost of Sales	- 650 530 -	- 738 817 -	- 833 779 -	- 935 500 -	- 1 044 018 -	- 1 161 528
Gross Profit	105 510	119 829	135 231	151 729	169 330	188 389
Other Income	2 462	2 609	2 761	2 915	3 073	3 239
Administration Expenses	- 7 966 -	- 8 665 -	- 9 385 -	- 10 140 -	- 10 928 -	- 11 780
Operating Expenses	- 88 054 -	- 94 987 -	- 106 591 -	- 119 740 -	- 133 820 -	- 147 999
Operating (loss)/profit	11 952	18 787	22 016	24 765	27 655	31 848
Investment Revenue	-	0	0	0	0	0
Finance Costs	- 1 153 -	- 1 564 -	- 2 022 -	- 2 704 -	- 3 625 -	- 4 230
(Loss)/Profit before Tax	10 799	17 223	19 994	22 061	24 030	27 618
Taxation	- 3 024 -	- 4 823 -	- 5 598 -	- 6 177 -	- 6 728 -	- 7 733
(Loss)/Profit after Tax	7 775	12 401	14 395	15 884	17 302	19 885
Accumulated Surplus Prev	17 699	25 475	37 876	52 271	68 155	85 456
Accumulated Surplus Curr	25 475	37 876	52 271	68 155	85 456	105 341
Stores	42	45	48	51	54	57
PPI	5.7%	6.0%	5.8%	5.6%	5.4%	5.4%
Depr Stores	600 000	1 228 800	1 887 782	2 578 396	3 302 159	3 460 663
Depr Other Assets	1 521 498	700 169	282 089	597 374	1 028 063	1 028 063
CAPEX Stores	3 000 000	3 144 000	3 294 912	3 453 068	3 618 815	3 792 518
CAPEX Other Assets	-	-	100 000	1 800 000	3 551 040	-
Accounting Fees	21 140	22 408	23 708	25 036	26 388	27 813
Advertising	148 947	157 883	167 041	176 395	185 920	195 960
Auditor's remuneration	279 734	296 518	313 716	331 284	349 174	368 029
Bad debts	479 481	546 099	615 128	688 868	767 321	853 687
Bank charges	2 796 970	3 185 575	3 588 244	4 018 399	4 476 040	4 979 844
Shortages	37 675	39 935	42 251	44 617	47 027	49 566
CIPRO	-	-	-	-	-	-
Cleaning	508 317	577 303	651 506	730 989	815 784	907 605
Commission paid	11 987 015	13 652 463	15 378 190	17 221 712	19 183 030	21 342 187
Computer expenses	1 545 315	1 638 034	1 733 040	1 830 090	1 928 915	2 033 076
Computer expenses SAP	3 526 047	-	-	-	-	-
Consulting fee	166 101	176 067	186 279	196 711	207 333	218 529
Depreciation	2 121 498	1 928 969	2 169 871	3 175 770	4 330 222	4 488 725
Discount allowed	479 481	546 099	615 128	688 868	767 321	853 687
Donations	-	-	-	-	-	-
Electricity & water	2 447 159	2 779 273	3 136 503	3 519 156	3 927 378	4 369 426
Employee costs	32 011 678	36 356 120	41 029 093	46 034 643	51 374 661	57 157 165
Entertainment	4 952	5 249	5 554	5 865	6 181	6 515
Fines & penalties	-	-	-	-	-	-
Fumigation	319 661	363 043	409 706	459 691	513 015	570 757
General expenses	28 988	30 728	32 510	34 330	36 184	38 138
Hire of equipment	531 383	563 267	595 936	629 308	663 291	699 109
Insurance	2 388 557	2 712 718	3 061 392	3 434 882	3 833 329	4 264 791
Legal fees	44 281	46 938	49 660	52 441	55 273	58 258
Loss on disposal of asset	-	-	-	-	-	-
Management fees paid	3 921 470	4 156 758	4 397 850	4 644 130	4 894 913	5 159 238
Motor vehicle expenses	2 260 985	2 396 644	2 535 650	2 677 646	2 822 239	2 974 640
Postage & courier	82 315	87 254	92 315	97 484	102 748	108 297
Printing & stationery	282 381	299 324	316 684	334 419	352 477	371 511
Protective clothing	111 813	118 522	125 397	132 419	139 569	147 106
Rates & property taxes	36 126	38 294	40 515	42 784	45 094	47 529
Rent paid	20 851 723	23 681 600	26 725 475	29 985 982	33 464 356	37 230 956
Repairs & maintenance	1 645 163	1 743 873	1 845 018	1 948 339	2 053 549	2 164 441
Sales promotion	-	-	-	-	-	-
SARS - interest & penalties	-	-	-	-	-	-
Security	3 353 592	3 808 723	4 298 270	4 822 659	5 382 088	5 987 872
Staff training	17 365	18 407	19 475	20 566	21 676	22 847
Subscriptions	11 472	12 160	12 865	13 586	14 319	15 093
Telephone & internet	1 068 501	1 132 611	1 198 303	1 265 408	1 333 740	1 405 762
Trading rights - amortised	-	-	-	-	-	-
Travel - local	355 042	376 345	398 173	420 470	443 176	467 107
Workman's compensation	147 374	156 217	165 277	174 533	183 958	193 891
	96 019 703	103 651 421	115 975 722	129 879 481	144 747 690	159 779 157

APPENDIX I: INCOME STATEMENT CALCULATIONS 3

Currie's Post Trading						
Statement of Comprehensive Income						
	<u>Aug-24 (F)</u>	<u>Aug-25 (F)</u>	<u>Aug-26 (F)</u>	<u>Aug-27 (F)</u>	<u>Aug-28 (F)</u>	<u>Aug-29 (F)</u>
Revenue	1 497 697	1 657 502	1 830 198	2 016 711	2 125 614	2 240 397
Cost of Sales	- 1 288 685	- 1 426 188	- 1 574 783	- 1 735 268	- 1 828 972	- 1 927 737
Gross Profit	209 012	231 314	255 415	281 444	296 642	312 660
Other Income	3 414	3 598	3 792	3 997	4 213	4 440
Administration Expenses	- 12 693	- 13 669	- 14 714	- 15 832	- 16 687	- 17 588
Operating Expenses	- 163 222	- 180 199	- 197 763	- 217 385	- 227 560	- 238 678
Operating (loss)/profit	36 511	41 044	46 730	52 223	56 608	60 834
Investment Revenue	0	0	0	0	0	0
Finance Costs	- 4 888	- 5 795	- 6 580	- 7 634	- 8 046	- 8 481
(Loss)/Profit before Tax	31 623	35 249	40 150	44 589	48 562	52 353
Taxation	- 8 854	- 9 870	- 11 242	- 12 485	- 13 597	- 14 659
(Loss)/Profit after Tax	22 768	25 379	28 908	32 104	34 964	37 694
Accumulated Surplus Prev	105 341	128 110	153 489	182 397	214 501	249 465
Accumulated Surplus Curr	128 110	153 489	182 397	214 501	249 465	287 160
Stores	60	63	66	69	69	69
PPI	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%
Depr Stores	3 626 774	3 800 860	3 983 301	4 174 499	3 415 996	2 621 084
Depr Other Assets	928 063	1 354 383	1 054 383	1 404 436	899 555	758 058
CAPEX Stores	3 974 559	4 165 338	4 365 274	4 574 807	-	-
CAPEX Other Assets	-	1 785 282	-	1 896 259	-	-
Accounting Fees	29 314	30 897	32 566	34 324	36 178	38 132
Advertising	206 542	217 695	229 451	241 841	254 900	268 665
Auditor's remuneration	387 903	408 850	430 927	454 198	478 724	504 575
Bad debts	947 144	1 048 204	1 157 417	1 275 368	1 344 238	1 416 827
Bank charges	5 525 005	6 114 524	6 751 599	7 439 648	7 841 389	8 264 824
Shortages	52 243	55 064	58 037	61 171	64 475	67 956
CIPRO	-	-	-	-	-	-
Cleaning	1 006 964	1 114 407	1 230 517	1 355 918	1 429 138	1 506 311
Commission paid	23 678 595	26 205 101	28 935 423	31 884 205	33 605 952	35 420 674
Computer expenses	2 142 862	2 258 577	2 380 540	2 509 089	2 644 580	2 787 388
Computer expenses SAP	-	-	-	-	-	-
Consulting fee	230 330	242 768	255 877	269 694	284 258	299 608
Depreciation	4 554 837	5 155 243	5 037 684	5 578 935	4 315 550	3 379 142
Discount allowed	947 144	1 048 204	1 157 417	1 275 368	1 344 238	1 416 827
Donations	-	-	-	-	-	-
Electricity & water	4 847 763	5 365 020	5 924 004	6 527 714	6 880 210	7 251 741
Employee costs	63 414 370	70 180 683	77 492 842	85 390 067	90 001 131	94 861 192
Entertainment	6 867	7 238	7 629	8 041	8 475	8 932
Fines & penalties	-	-	-	-	-	-
Fumigation	633 240	700 807	773 824	852 684	898 729	947 260
General expenses	40 197	42 368	44 656	47 067	49 609	52 288
Hire of equipment	736 861	776 651	818 590	862 794	909 385	958 492
Insurance	4 731 674	5 236 543	5 782 141	6 371 394	6 715 449	7 078 083
Legal fees	61 404	64 719	68 214	71 898	75 780	79 872
Loss on disposal of asset	-	-	-	-	-	-
Management fees paid	5 437 837	5 731 480	6 040 980	6 367 193	6 711 021	7 073 417
Motor vehicle expenses	3 135 271	3 304 575	3 483 022	3 671 106	3 869 345	4 078 290
Postage & courier	114 145	120 309	126 805	133 653	140 870	148 477
Printing & stationery	391 573	412 718	435 004	458 495	483 253	509 349
Protective clothing	155 050	163 422	172 247	181 549	191 352	201 685
Rates & property taxes	50 096	52 801	55 652	58 657	61 825	65 163
Rent paid	41 306 766	45 714 197	50 477 181	55 621 265	58 624 813	61 790 553
Repairs & maintenance	2 281 321	2 404 512	2 534 356	2 671 211	2 815 456	2 967 491
Sales promotion	-	-	-	-	-	-
SARS - interest & penalties	-	-	-	-	-	-
Security	6 643 386	7 352 235	8 118 268	8 945 594	9 428 656	9 937 803
Staff training	24 080	25 381	26 751	28 196	29 718	31 323
Subscriptions	15 908	16 767	17 672	18 626	19 632	20 692
Telephone & internet	1 481 673	1 561 683	1 646 014	1 734 899	1 828 583	1 927 327
Trading rights - amortised	-	-	-	-	-	-
Travel - local	492 331	518 917	546 938	576 473	607 602	640 413
Workman's compensation	204 362	215 397	227 028	239 288	252 210	265 829
	<u>175 915 054</u>	<u>193 867 956</u>	<u>212 477 276</u>	<u>233 217 622</u>	<u>244 246 727</u>	<u>256 266 602</u>

APPENDIX J: BID CORPORATION LTD RATIOS

Bid Corporation Ltd (BIDJ)

 Johannesburg

30,691 -359 (-1.16%)

13:19:00 - Delayed Data. Currency in ZAR ([Disclaimer](#))

Volume: 197,847 Bid/Ask: 30,691 / 30,698 Day's Range: 30,690 - 31,451

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BIDJ Ratios

Name

Valuation Ratios

P/E Ratio TTM	25,78	22,37
Price to Sales TTM	0,8	3,1
Price to Cash Flow MRQ	-	-
Price to Free Cash Flow TTM	248,36	102,38
Price to Book MRQ	4,38	6,99
Price to Tangible Book MRQ	10,57	25,73

Profitability

Profitability: TTM vs 5 Year Average Margins	TTM (%)	5 Year Avg. (%)
EPS(MRQ) vs Qtr. 1 Yr. Ago	-	-9,38%
EPS(TTM) vs TTM 1 Yr. Ago	-	-12,08%
5 Year EPS Growth	-	15,79%
Sales (MRQ) vs Qtr. 1 Yr. Ago	-	26,9%
Sales (TTM) vs TTM 1 Yr. Ago	-	25,11%
5 Year Sales Growth	-	18,83%
5 Year Capital Spending Growth	-	25,88%

Financial Strength

Quick Ratio MRQ	0,84	1,51
Current Ratio MRQ	1,18	1,97
LT Debt to Equity MRQ	22,28%	8,46%
Total Debt to Equity MRQ	34,22%	9,65%

Source: Investing.com <https://za.investing.com/equities/bid-corporation-ltd-ratios> accessed 13

Nov. 2017

APPENDIX K: CHOPPIES ENTERPRISES LTD RATIOS

Choppies Enterprises Ltd (CHOPP)

 Botswana

2.42 0.00 (0.00%)

10/11 - Closed, Currency in BWP ([Disclaimer](#))

Volume: 0 Bid/Ask: 0.00 / 0.00 Day's Range: 2.42 - 2.42

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CHOPP Ratios

Name

Valuation Ratios

P/E Ratio TTM	27.81	27.81
Price to Sales TTM	0.87	0.87
Price to Cash Flow MRQ	-	-
Price to Free Cash Flow TTM	994.33	994.33
Price to Book MRQ	3.92	3.92
Price to Tangible Book MRQ	5.29	5.29

Profitability

Profitability: TTM vs 5 Year Average Margins	TTM (%)	5 Year Avg. (%)
EPS(MRQ) vs Qtr. 1 Yr. Ago	19.94%	19.94%
EPS(TTM) vs TTM 1 Yr. Ago	10.67%	10.67%
5 Year EPS Growth	-	-
Sales (MRQ) vs Qtr. 1 Yr. Ago	17.09%	17.09%
Sales (TTM) vs TTM 1 Yr. Ago	18.61%	18.61%
5 Year Sales Growth	-	-
5 Year Capital Spending Growth	-	-

Financial Strength

Quick Ratio MRQ	0.94	0.94
Current Ratio MRQ	1.76	1.76
LT Debt to Equity MRQ	21.55%	21.55%
Total Debt to Equity MRQ	31.66%	31.66%

Source: Investing.com <https://za.investing.com/equities/choppies-enterprises-ltd-ratios>
accessed 13 Nov. 2017

APPENDIX L: GOLD BRANDS INVESTMENTS LTD RATIOS

Gold Brands Investments Ltd (GBIJ)

 Johannesburg

60 0 (0.00%)

09:19:00 - Delayed Data, Currency in ZAR ([Disclaimer](#))

Volume: 1,650 Bid/Ask: 51 / 60 Day's Range: 51 - 60

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GBIJ Ratios

Name

Valuation Ratios

P/E Ratio TTM	-	22.37
Price to Sales TTM	0.46	3.1
Price to Cash Flow MRQ	-	-
Price to Free Cash Flow TTM	-	102.38
Price to Book MRQ	12.41	6.99
Price to Tangible Book MRQ	-	25.73

Profitability

Profitability: TTM vs 5 Year Average Margins	TTM (%)	5 Year Avg. (%)
EPS(MRQ) vs Qtr. 1 Yr. Ago	-798.48%	-9.38%
EPS(TTM) vs TTM 1 Yr. Ago	-530.19%	-12.08%
5 Year EPS Growth	-	15.79%
Sales (MRQ) vs Qtr. 1 Yr. Ago	-64.51%	26.9%
Sales (TTM) vs TTM 1 Yr. Ago	-39.37%	25.11%
5 Year Sales Growth	-	18.83%
5 Year Capital Spending Growth	-	25.88%

Financial Strength

Quick Ratio MRQ	0.59	1.51
Current Ratio MRQ	0.65	1.97
LT Debt to Equity MRQ	71.16%	8.46%
Total Debt to Equity MRQ	185.09%	9.65%

Source: Investing.com <https://za.investing.com/equities/gold-brands-investments-ltd-ratios>
accessed 13 Nov. 2017

APPENDIX M: SHOPRITE HOLDINGS LTD RATIOS

Shoprite Holdings Ltd (SHPJ)

 Johannesburg

20,953 +178 (+0.86%)

13:20:00 - Delayed Data. Currency in ZAR ([Disclaimer](#))

Volume: 17,468 Bid/Ask: 20,963 / 20,971 Day's Range: 20,501 - 21,089

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SHPJ Ratios

Name

Valuation Ratios

P/E Ratio TTM	21,67	24,43
Price to Sales TTM	0.87	0.67
Price to Cash Flow MRQ	-	39.1
Price to Free Cash Flow TTM	-	48.61
Price to Book MRQ	4.24	6.79
Price to Tangible Book MRQ	4.86	7.01

Profitability

Profitability: TTM vs 5 Year Average Margins	TTM (%)	5 Year Avg. (%)
EPS(MRQ) vs Qtr. 1 Yr. Ago	2.75%	12.51%
EPS(TTM) vs TTM 1 Yr. Ago	6.35%	10.81%
5 Year EPS Growth	10.25%	8.97%
Sales (MRQ) vs Qtr. 1 Yr. Ago	3.25%	10.38%
Sales (TTM) vs TTM 1 Yr. Ago	8.44%	12.03%
5 Year Sales Growth	11.25%	11.39%
5 Year Capital Spending Growth	10.63%	14.39%

Financial Strength

Quick Ratio MRQ	0.5	0.58
Current Ratio MRQ	1.17	1.12
LT Debt to Equity MRQ	0%	33.46%
Total Debt to Equity MRQ	30.13%	52.05%

Source: Investing.com <https://za.investing.com/equities/shoprite-holdings-ltd-ratios> accessed

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APPENDIX N: SPAR GROUP LTD RATIOS

SPAR Group Ltd (SPPJ)

 Johannesburg

16,740.00 **+90.00 (+0.54%)**

13:20:00 - Delayed Data. Currency in ZAR ([Disclaimer](#))

Volume: **56,144** Bid/Ask: **16,761,00 / 16,823,00** Day's Range: **16,648,00 - 16,998,00**

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SPPJ Ratios

Name

Valuation Ratios

P/E Ratio TTM	16,78	24,43
Price to Sales TTM	0.33	0.67
Price to Cash Flow MRQ	27.3	39.1
Price to Free Cash Flow TTM	30.72	48.61
Price to Book MRQ	5.54	6.79
Price to Tangible Book MRQ	16.25	7.01

Profitability

Profitability: TTM vs 5 Year Average Margins	TTM (%)	5 Year Avg. (%)
EPS(MRQ) vs Qtr. 1 Yr. Ago	-1.07%	12.51%
EPS(TTM) vs TTM 1 Yr. Ago	21.65%	10.81%
5 Year EPS Growth	13.9%	8.97%
Sales (MRQ) vs Qtr. 1 Yr. Ago	12.59%	10.38%
Sales (TTM) vs TTM 1 Yr. Ago	19.84%	12.03%
5 Year Sales Growth	18.72%	11.39%
5 Year Capital Spending Growth	55.11%	14.39%

Financial Strength

Quick Ratio MRQ	0.88	0.58
Current Ratio MRQ	1.18	1.12
LT Debt to Equity MRQ	94.38%	33.46%
Total Debt to Equity MRQ	121.15%	52.05%

Source: Investing.com [https://za.investing.com/equities/spar-group-\(j\)-ratios](https://za.investing.com/equities/spar-group-(j)-ratios) accessed 13 Nov.

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APPENDIX O: PICKNPAY RATIOS

Picknpay (PIKJ)

 Johannesburg

5,899.00 **-1.00** **(-0.02%)**

13:20:00 - Delayed Data. Currency in ZAR ([Disclaimer](#))

Volume: 3,001 Bid/Ask: 5,889,00 / 5,898,00 Day's Range: 5,751,00 - 5,940,00

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PIKJ Ratios

Name

Valuation Ratios

P/E Ratio TTM	23,59	24,43
Price to Sales TTM	0,37	0,67
Price to Cash Flow MRQ	-	39,1
Price to Free Cash Flow TTM	-	48,61
Price to Book MRQ	6,84	6,79
Price to Tangible Book MRQ	9,31	7,01

Profitability

Profitability: TTM vs 5 Year Average Margins	TTM (%)	5 Year Avg. (%)
EPS(MRQ) vs Qtr, 1 Yr. Ago	15,95%	12,51%
EPS(TTM) vs TTM 1 Yr. Ago	16,28%	10,81%
5 Year EPS Growth	9,68%	8,97%
Sales (MRQ) vs Qtr, 1 Yr. Ago	6,76%	10,38%
Sales (TTM) vs TTM 1 Yr. Ago	6,96%	12,03%
5 Year Sales Growth	6,97%	11,39%
5 Year Capital Spending Growth	3,03%	14,39%

Financial Strength

Quick Ratio MRQ	0,37	0,58
Current Ratio MRQ	0,85	1,12
LT Debt to Equity MRQ	2,06%	33,46%
Total Debt to Equity MRQ	47,39%	52,05%

Source: Investing.com <https://za.investing.com/equities/picknpay-ratios> accessed 13 Nov.

2017

APPENDIX P: MARKET PEERS BETAS

FTSE/JSE All Share Index (J203) as Market Proxy

Code	Name	Start Date	End Date	Alpha	Beta	Cap	Industry	Super Sector	Sector	Sub-Sector
BID	BID Corporation Ltd	31-May-16	29-Sep-17	-0.00338	0.82359	L	Consumer Services	Retail	Food & Drug Retailers	Food Retailers & Wholesalers
CHP	Choppies Enterprises Ltd	29-May-15	29-Sep-17	-0.02023	0.75097	S	Consumer Services	Retail	Food & Drug Retailers	Food Retailers & Wholesalers
GBI	Gold Brands Inv Ltd	29-Feb-16	28-Sep-17	-0.01433	0.39504	A	Consumer Services	Retail	Food & Drug Retailers	Food Retailers & Wholesalers
PIK	Pick n Pay Stores Ltd	28-Sep-12	29-Sep-17	-0.00023	0.85117	M	Consumer Services	Retail	Food & Drug Retailers	Food Retailers & Wholesalers
SHP	Shoprite Holdings Ltd	28-Sep-12	29-Sep-17	-0.00017	0.55109	L	Consumer Services	Retail	Food & Drug Retailers	Food Retailers & Wholesalers
SPP	The Spar Group Ltd	28-Sep-12	29-Sep-17	-0.00067	0.69521	M	Consumer Services	Retail	Food & Drug Retailers	Food Retailers & Wholesalers

Source: Equity Risk Service Q3/2017, Estimating Betas for JSE-Listed Companies and Indices

APPENDIX Q: RSA R186

Important Rates

Inflation rates <i>i</i>					
	1	3	5	7	9
CPI	5.1		Sep, 2017		
PPI	5.2		Sep, 2017		
Interest rates <i>i</i>					
Repo	6.75	2017-11-15			
Prime	10.25	2017-11-15			
R208	8.40	2017-11-14			
R186	9.45	2017-11-14			
Sabor	6.712	2017-11-14			
Exchange rates <i>i</i>					
R/\$	14.3449	2017-11-15			
R/€	18.9109	2017-11-15			
R/£	16.9622	2017-11-15			
Nominal Effective <i>i</i>					
Nominal effective exchange rate	56.94	2017-11-15			

Source: South African Reserve Bank <https://www.resbank.co.za/Pages/default.aspx> Date accessed 13 Nov. 2017