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VALUING A LISTED RETAILER ON THE JSE: A CASE STUDY OF EDCON

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VALUING A LISTED RETAILER ON THE JSE: A CASE STUDY OF EDCON

by

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DECLARATION

I declare that this dissertation is my own work. Any work done by other persons has been duly acknowledged. This dissertation has not been submitted for any previous degree or examination at any university.

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ABSTRACT

This dissertation relates to the study of valuing a business. Edcon, a well known listed retailer, was found its market values to be lower than its net asset value at 2002 financial year-end, while all of the major competitors of Edcon had a market value considerably in excess of net asset value. It was possible that Edcon's share was underpriced at year-end recently, as it was known that Edcon was a well-managed company with sound fundamentals. The "true" value of Edcon was investigated in this dissertation.

Two valuation models, Discounted Free Cash Flow and Economic Profit model, were used and simple assumptions had to be made in order to arrive at a consensus valuation in this dissertation.

Finally, all valuation performed in this case revealed that the share of Edcon was underpriced at year-end, and it was concluded that investors using these fundamental valuation methods and buying the shares could have made a profit.

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CHAPTER 1 INTRODUCTION

1.1 Introduction

For most companies net asset value per share is lower than the current share price for simple reason that there should be more to a company than just the book value of its assets. Where market value is found to be lower than net asset value this can be interpreted in a number of ways. It may be that the company has not been performing as well as others in the same sector and there is general agreement that this is going to continue, with the result that there is little demand for the shares. If net assets per share are much higher than share price a company may be seen as beyond redemption, but it may also become a target for takeover by someone who has spotted an opportunity to acquire assets cheaply. In South Africa on the Johannesburg stock exchange (JSE), one of the listed companies' market values found to be lower than its net asset values, was Edcon.

1.2 Problem statement

Edcon is a well-known retailer listed on JSE. In recent years, Edcon's market value at year-end was often way below net asset value, while all of the major competitors of Edcon have a market value considerably in excess of net asset value. It is possible that Edcon's share is underpriced at year-end recently, as it is known that Edcon is a well-managed company with sound fundamentals. The "true" value of Edcon is investigated in this dissertation.

1.3 Hypothesis

The central hypothesis is that all valuations performed in this case will reveal that the share of Edcon was underpriced at year-end, and that investors using these fundamental valuation methods and buying the shares could have made a profit.

1.4 Objective of the study

The objective of the study is to select the best valuation techniques available, employ them to reach a consensus view as to the value of Edcon at the end of March 2002, and thereby test the hypothesis. In support of valuation, financial analysis and business strategy analysis were employed.

1.5 Methodology and data collection

A review of the methodology followed in this dissertation will be discussed to provide insight into the ultimate evaluation of information.

The major source of data is secondary data from the firm's annual financial statements, historical material, relevant journals and Internet searches. Multiple valuation models are used to value Edcon. These available valuation models are net asset value (NAV), dividend-based model, earnings-based (P/E ratio) model, discounted cash flow model and economic profit model. However, only some of them were used in this case.

1.6 Structure of the study

There are seven chapters in this paper, which examines the historical financial performance and forecast future performance, and then employs the valuation models and draws a conclusion.

In chapter 2, related literatures were reviewed. These included the Miller-Modigliani formulas, Economic Profit model for valuation, Capital Asset Pricing Model and some related empirical researches. On the other hand, the valuation models were selected to value Edcon in this case. In chapter 3, Edcon was a well-known listed clothing retailer in JSE. As a case study, Edcon's historical performance was analysed in order to forecast its future performance. In chapter 4, cost of capital was analysed, because the cost of capital was need for the discounted valuation models. In chapter 5, the selected valuation models, i.e. Discounted Free Cash Flow and Economic Profit model, were employed in order to investigate Edcon's value. In chapter 6, the result was discussed and conclusion was drawn.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

Before moving on to the valuation of Edcon, some related literatures were reviewed. These included the Miller-Modigliani formulas, Economic Profit model for valuation, Capital Asset Pricing Model and empirical researches.

2.2 Valuation: the Miller-Modigliani formula

Miller, M.H. and Modigliani, F. (1961) state that under simplifying assumptions, as long as valuations are performed consistently, they should all lead to the same result.

The basic assumptions are perfect capital markets, rational behaviour and perfect certainty. In "perfect capital markets", no buyer or seller (or issuer) of securities is large enough for his transactions to have an appreciable impact on the ruling price. All trades have equal and costless access to information about the ruling price and about all other relevant characteristics of shares. No brokerage fees, transfer taxes, or other transaction costs are incurred when securities are bought, sold, or issued, and there are no tax differentials either between distributed and undistributed profits or between dividends and capital gains. "Rational behaviour" means that investors always prefer more wealth to less and are indifferent as to whether a given increment to their wealth takes the form of cash payments or an increase in the market value of their holdings of shares. "Perfect certainty" implies complete assurance on the part of every investor as to the future investment program and the future profits of every corporation.

According to this paper of Miller and Modigliani (1961), the following four valuation approaches are equivalent in terms of simplifying assumptions in an ideal economy characterized by perfect capital markets, rational behaviour, and perfect certainty.

<1> **The discounted cash flow approach;**

<2> **The current earnings plus future investment opportunities approach;**

<3> **The stream of dividends approach;**

<4> **The stream of earnings approach.**

Under the basic assumptions (perfect markets, rational behaviour and perfect certainty) the valuation of all shares would be governed by the following fundamental principle: the price of each share must be such that the rate of return (dividends plus capital gains per dollar invested) on every share will be the same throughout the market over any given interval of time. That is

$$\frac{d_j(t)+p_j(t+1)-p_j(t)}{p_j(t)} = \rho(t) \text{ independent of } j; \qquad (1)$$

thus,

$$p_j(t) = \frac{1}{1+\rho(t)}\left[d_j(t)+p_j(t+1)\right] \qquad (2)$$

where:
$d_j(t)$ = dividends per share paid by firm j during period t;
$p_j(t)$ = the price (ex any dividend in t-1) of share in firm j at the start of period t.

The equation (2) can be restated in the following in terms of the value of the enterprise as a whole rather than in terms of the value of an individual share.

$$\begin{aligned} V(t) &= \frac{1}{1+\rho(t)}\left[D(t)+n(t)p(t+1)\right] \\ &= \frac{1}{1+\rho(t)}\left[D(t)+V(t+1)-m(t+1)p(t+1)\right] \qquad (3) \end{aligned}$$

Where:
$n(t)$ = the number of shares of record at the start of t
$m(t+1)$ = the number of new shares (if any) sold during t at the ex dividend closing price $p(t+1)$, so that
$n(t+1) = n(t)+m(t+1)$
$V(t) = n(t)p(t)$ = the total value of the enterprise and
$D(t) = n(t)d(t)$ = the total dividends paid during t to holders of record at the start of t,

The amount of outside capital required will be

$$m(t+1)\, p(t+1) = I(t) - [X(t) - D(t)] \qquad (4)$$

thus

$$V(t) = \frac{1}{1+\rho(t)}[X(t) - I(t) + V(t+1)] \qquad (5)$$

Where:

I(t) is the given level of the firm's investment or increase in its holding of physical assets in *t*;
X(t) is the firm's total net profit for the period,

To demonstrate that the above four valuation approaches are equivalent, equation can be rewritten to a valuation formula to serve as a point of reference and comparison. It is assumed, for simplicity, that market rate of yield $\rho(t) = \rho$ for all *t*, then, setting $t = 0$, equation (5) can be rewritten as

$$V(0) = \frac{1}{1+\rho}\left[X(0) - I(0)\right] + \frac{1}{1+\rho}V(1) \qquad (6)$$

Since (5) holds for all *t*. thus (5) can also be rewritten

$$V(0) = \sum_{t=0}^{T-1}\frac{1}{(1+\rho)^{t+1}}\left[X(t) - I(t)\right] + \frac{1}{(1+\rho)^{T}}V(T) \qquad (7)$$

In general, the remainder term $(1+\rho)^{-T} * V(T)$ can be expected to approach zero as T approaches infinity so that (7) can be expressed as

$$V(0) = \lim_{T\to\infty}\sum_{t=0}^{T-1}\frac{1}{(1+\rho)^{t+1}}\times\left[X(t) - I(t)\right], \qquad (8)$$

Which can be further abbreviated to

$$V(0) = \sum_{t=0}^{\infty}\frac{1}{(1+\rho)^{t+1}}\times\left[X(t) - I(t)\right], \qquad (9)$$

2.2.1 The Discounted Cash Flow Approach

The discounted cash flow approach amounts to defining the value of the firm as

$$V(0) = \sum_{t=0}^{T-1}\frac{1}{(1+\rho)^{t+1}}\times[\Re(t) - \ell(t)] + \frac{1}{(1+\rho)^{T}}V(T) \qquad (10)$$

Where $\Re$ (t) represents the stream of cash receipts and ℓ (t) of cash outlays, or abbreviating, as above, to

$$V(0) = \sum_{t=0}^{\infty}\frac{1}{(1+\rho)^{t+1}}[\Re(t) - \ell(t)] \qquad (11)$$

It is known, by definition, that [X(t) – I(t)] = [$\Re$ (t) - ℓ (t)]. Hence (11) is formally equivalent to (9), and the discounted cash flow approach is thus seen to be an implication of the valuation principle for perfect markets given by equation (1).

2.2.2 The Current Earnings Plus Future Investment Opportunities Approach

The current earnings plus future investment opportunities approach can define the value of the firm as

$$V(0) = \frac{X(0)}{\rho} + \sum_{t=0}^{\infty} I(t) \times \frac{\rho^*(t) - \rho}{\rho}(1+\rho)^{-(t+1)} \qquad (12)$$

Where:

X(0) is the firm's total net profit for the period;

ρ is the market rate of return;

To see how the opportunities affect the value of the business assume that in some future period *t* the firm invests *I(t)* dollars. Suppose, further, for simplicity, that starting in the period immediately following the investment of the funds, the projects produce net profits at a constant rate of $\rho^*(t)$ per cent of *I(t)* in each period thereafter. The present worth as of *t* of the (perpetual) stream of profits generated will be $I(t)\ \rho^*(t)/\ \rho$, and the opportunities of the projects (i.e., the difference between worth and cost) will be

$$I(t)\frac{\rho^*(t)}{\rho} - I(t) = I(t)\left[\frac{\rho^*(t) - \rho}{\rho}\right]$$

The present worth as of now of this future opportunity is

$$I(t)\left[\frac{\rho^*(t) - \rho}{\rho}\right](1+\rho)^{-(t+1)}$$

And the present value of all such future opportunities is simply the sum

$$\sum_{t=0}^{\infty} I(t) \times \frac{\rho^*(t) - \rho}{\rho}(1+\rho)^{-(t+1)}$$

adding in the present value of the (uniform perpetual) earnings, X(0), on the assets currently held, the formula can be derived for the value of the firm (see equation (12)).

The same formula can be derived from (9) note first that our definition of $\rho^*(t)$ implies the following relation between the *X(t)*:

Because

$X(1) = X(0) + \rho^*(0)\ I(0)$,

$X(2) = X(1) + \rho^*(1)\ I(1)$,

....

$X(t) = X(t-1) + \rho^*(t-1)I(t-1)$

And by successive substitution

$$X(t) = X(0) + \sum_{r=0}^{t-1} \rho^*(r)I(r),$$

$t=1,2\ldots\infty$.

Substituting the last expression for *X(t)* in (9)yields

$$V(0) = [X(0) - I(0)](1+\rho)^{-1} + \sum_{t=1}^{\infty}[X(0) + \sum_{r=0}^{t-1} \rho^*(r)I(r) - I(t)](1+\rho)^{-(t+1)}$$

$$= X(0)\sum_{t=1}^{\infty}(1+\rho)^{-t} - I(0)(1+\rho)^{-1} + \sum_{t=1}^{\infty}[\sum_{r=0}^{t-1} \rho^*(r)I(r) - I(t)] \times (1+\rho)^{-(t+1)}$$

$$= X(0)\sum_{t=1}^{\infty}(1+\rho)^{-t} + \sum_{t=1}^{\infty}[\sum_{r=0}^{t-1} \rho^*(r)I(r) - I(t-1) \times (1+\rho)] \times (1+\rho)^{-(t+1)}$$

The first expression is simply a geometric progression summing to $X(0)/\rho$, which is the first term of (12). To simplify the second expression note that it can be rewritten as

$$\sum_{t=0}^{\infty} I(t)[\rho^*(t)\sum_{r=t+2}^{\infty}(1+\rho)^{-r} - (1+\rho)^{-(t+1)}]$$

Evaluating the summation within the brackets gives

$$\sum_{t=0}^{\infty} I(t)[\rho^*(t)\frac{(1+\rho)^{-(t+1)}}{\rho} - (1+\rho)^{-(t+1)}]$$

$= \sum_{t=0}^{\infty} I(t)[\frac{\rho^*(t)-\rho}{\rho}](1+\rho)^{-(t+1)}$, which is precisely the second term of (12).

Therefore the current earnings plus future investment opportunities approach and the discounted cash flow approach are equivalent.

2.2.3 The Stream of Dividends Approach

The dividend approach defines the current worth of a share as the discounted value of the stream of dividends to be paid on the share in perpetuity. That is

$$p(t) = \sum_{r=0}^{\infty} \frac{d(t+r)}{(1+\rho)^{r+1}} \qquad (13)$$

Equation (13) can be restated in terms of total market value as

$$V(t) = \sum_{r=0}^{\infty} \frac{D_t(t+r)}{(1+\rho)^{r+1}} \qquad (14)$$

Where $D_t(t+r)$ denotes that portion of the total dividends D (t + r) paid during period t+r, that accrues to the shares of records as of the start of period t (indicated by the subscript). That equation (14) is equivalent to (9) and hence also to (12) is immediately apparent for the special case in which no outside financing is undertaken after period t, for in that case

$D_t(t+r) = D(t+r) = X(t+r) - I(t+r)$.

To allow for outside financing, equation (14) can be rewritten as

$$V(t) = \frac{1}{(1+\rho)}[D_t(t) + \sum_{r=1}^{\infty} \frac{D_t(t+r)}{(1+\rho)^{r}}]$$

$$= \frac{1}{(1+\rho)}[D(t) + \sum_{r=0}^{\infty} \frac{D_t(t+r+1)}{(1+\rho)^{r+1}}] \qquad (15)$$

The summation term in the last expression can be written as the difference between the stream of dividends accruing to all the shares of record as of *t+1* and that portion of the stream that will accrue to the shares newly issued in *t*, that is,

$$\sum_{r=0}^{\infty} \frac{D_t(t+r+1)}{(1+\rho)^{r+1}} = (1 - \frac{m(t+1)}{n(t+1)}) \times \sum_{r=0}^{\infty} \frac{D_{t+1}(t+r+1)}{(1+\rho)^{r+1}} \qquad (16)$$

But from (14) it is known that the second summation in (16) is precisely V(t+1) so that (15) can be reduced to

$$V(t) = \frac{1}{1+\rho}[D(t) + (1 - \frac{m(t+1)p(t+1)}{n(t+1)p(t+1)}) \times V(t+1)]$$

$$= \frac{1}{1+\rho}[D(t) + V(t+1) - m(t+1)p(t+1)], \qquad (17)$$

which is (3) and which has already been shown to imply both (9) and (12).

Therefore the stream of dividend approach, the discounted cash flow approach and the current earnings plus future investment opportunities approach are equivalent.

2.2.4 The Stream of Earnings Approach

The current value of the firm under the earnings approach must be stated as

$$V(0) = \sum_{t=0}^{\infty} \frac{1}{(1+\rho)^{t+1}} \times [X(t) - \sum_{r=0}^{t} \rho I(r)]. \qquad (18)$$

Where:

I(t) = the capital to be raised in any future period,

ρ = Its opportunity cost, no matter how financed, is ρ per cent per period thereafter.

That this version of the earnings approach is indeed consistent with the basic assumptions and equivalent to the previous approaches can be seen by regrouping terms and rewriting equation (18) as

$$V(0) = \sum_{t=0}^{\infty} \frac{1}{(1+\rho)^{t+1}} \times X(t) - \sum_{t=0}^{\infty} (\sum_{r=t}^{\infty} \frac{\rho I(t)}{(1+\rho)^{r+1}})$$

$$= \sum_{t=0}^{\infty} \frac{1}{(1+\rho)^{t+1}} \times X(t) - \sum_{t=0}^{\infty} \frac{1}{(1+\rho)^{t+1}} \times (\sum_{r=0}^{\infty} \frac{\rho I(t)}{(1+\rho)^{r+1}}). \qquad (19)$$

Since the last inclosed summation, $(\sum_{r=0}^{\infty} \frac{\rho I(t)}{(1+\rho)^{r+1}})$, reduces simply to I(t), the expression (19) in turn reduces to simply

$$V(0) = \sum_{t=0}^{\infty} \frac{1}{(1+\rho)^{t+1}} [X(t) - I(t)], \qquad (20)$$

Which is precisely our earlier equation (9).

Therefore, the stream of earnings approach, the stream of dividends approach, the discounted cash flow and the current earnings plus future investment opportunities approach are equivalent under the simplifying assumptions in an ideal economy characterized by perfect capital markets, rational behaviour, and perfect certainty.

On the other hand, according to the paper of Modigliani and Miller (MM) (1961), the total market value of any company is independent of its capital structure. The total market value of the firm is the net present value of the income stream. For a firm with a constant perpetual income stream:

$$V= \frac{C_1}{WACC}$$

Where:

V = value of the firm;

C_1 = cash flows to be received one year hence;

WACC = the weighted average cost of capital.

WACC is constant because the cost of equity capital rises to exactly offset the effect of cheaper debt and therefore shareholder wealth is neither enhanced nor destroyed by changing the gearing level.

Before going any further, some of the assumptions upon which this conclusion is reached need to be mentioned.

- There is no taxation.
- There are perfect capital markets, with perfect information available to all economic agents and no transaction costs.
- There are no costs of financial distress and liquidation (if a firm is liquidated, shareholders will receive the same as the market value of their share prior to liquidation).
- Firms can be classified into distinct risk classes.
- Individuals can borrow as cheaply as corporations.

Clearly, there are problems relating some of these assumptions to the world in which we live. The implications of Miller and Modigliani Model are that as long as the assumptions behind the valuation are consistent, different methods would yield the same result.

2.3 Frameworks for Valuation

Copeland, Koller and Murrin (1996) stated two DCF-based frameworks for valuing a business and described the key value drivers of the business. They recommended these two models, namely the Discounted Free Cash Flow model and the Economic Profit model, for non-financial companies. This was because that they are straightforward to use, and they provide insights into the underlying economics of the business being valued. Other models have some features that limit their usefulness.

The Discounted Free Cash Flow model values the equity of a company as the value of a company's operations (the entity value that is available to all investors) less the value of debt and other investor claims that are superior to common equity (such as preferred stock). The values of operations and debt are equal to their respective cash flows discounted at rates that reflect the riskiness of these cash flows. As long as the discount rates are selected properly to reflect the riskiness of each cash flow stream, the entity approach will result in exactly the same equity value as if we directly discounted the cash flow to the shareholders.

The value of operations equals the discounted value of expected future free cash flow. Free cash flow is equal to the after-tax operating earnings of the company, plus noncash charges, less investments in operating working capital, property, plant and equipment, and other assets. It does not incorporate any financing-related cash flows such as interest expense or dividends. Free cash flow is the correct cash flow for the Discounted Free Cash Flow valuation model, because it reflects the cash flow that is generated by a company's operations and available to all the company's capital providers, both debt and equity. For consistency with the cash flow definition, the discount rate applied to the free cash flow should reflect the opportunity cost to all the capital providers weighted by their relative contribution to the company's total capital. This is called the weighted average cost of capital (WACC).

Since value is based on discounted free cash flow, the underlying value drivers of the business must also be the drivers of free cash flow. There are two key drivers of free cash flow and ultimately value: the rate at which the company is growing its revenues, profits, and capital base; and the return on invested capital. These value drivers are consistent with common sense. Return on invested capital equals the operating profits of the company, divided by the amount of capital invested in the company.

$$\text{ROIC} = \frac{NOPLAT}{Invested\ Capital}$$

Where

ROIC = Return on Invested Capital

NOPLAT = Net Operating Profits Less Adjusted Taxes

Invested Capital = Operating working capital + net fixed assets + other assets.

ROIC is a better analytical tool for understanding the company's performance than other return measures, such as return on equity or return on assets, because it focuses on the true operating performance of the company. Return on equity mixes operating performance with financial structure, making peer group analysis or trend analysis less focused. The return on total assets is inadequate because it includes a number of inconsistencies between the numerator and the denominator. Noninterest-bearing liabilities are not deducted from the denominator, total assets. Yet the implicit financing cost of these liabilities is included in the expenses of the company and, therefore, deducted from the numerator.

In summary, return on invested capital (relative to WACC) and growth are the fundamental drivers of a company's value. To increase its value, a company must do one or more of the following:

- Increase the level of profits it earns on its existing capital in place (earn a higher return on invested capital).
- Increase the return on new capital investment
- Increase its growth rate, but only as long as the return on new capital exceeds WACC.
- Reduce its cost of capital.

Another framework for valuation is the Economic Profit model. In this model, the value of a company equals the amount of capital invested plus a premium equal to the present value of the value created each year going forward. The formula is as follow:

Value = Invested capital + Present value of projected Economic Profit.

A company is worth more or less that its invested capital only to the extent it earns more or less than its WACC. So the premium or discount relative to invested capital must equal the present value of the company's future economic profit.

An advantage of the Economic Profit model over the Discounted Free Cash Flow model is that economic profit is a useful measure for understanding a company's performance in any single year, while free cash flow is not.

Economic profit measures the value created in a company in a single period of time and is defined as follows:

Economic Profit = Invested capital × (ROIC – WACC).

In other words, economic profit equals the spread between the return on invested capital and the cost of capital, times the amount of invested capital. Another way to define economic profit is as after-tax operating profits less a charge for the capital used by the company.

Economic Profit = NOPLAT – Capital charge,

= NOPLAT – (Invested capital × WACC).

This alternative calculation generates the same value for economic profit.

Economic profit is an important measure because it combines size and ROIC into a single result. Too often companies focus on either size (often measured by earnings) or ROIC. Focusing on size (say earnings or earnings growth) could destroy value if returns on capital are too low. Conversely, earning a high ROIC on a low capital base may mean missed opportunities.

Other discounted cash frameworks, if properly applied, will result in the same values for companies as the two DCF-based approaches Copeland, Koller and Murrin recommended. However, according to Copeland, Koller and Murrin (1996), each has significant drawbacks and their usefulness for practical applications is limited.

According to Copeland, Koller and Murrin (1996), valuing a company's equity by directly discounting the cash flow, i.e. dividend-based model and earnings-based model that were discussed in **Chapter 2.1.3 and 2.1.4**, to the equity holders (dividends and share repurchases) is intuitively the most straightforward valuation technique. Unfortunately, except for financial institutions, this approach is not as useful as the entity model. Discounting equity cash flow provides less information about the sources of value creation and is not as useful for identifying value creation opportunities. Furthermore, it requires careful adjustments to ensure that changes in projected financing do not incorrectly affect the company's value. Another shortcoming of the direct equity approach appears when valuing business units. The direct equity approach requires you to allocate debt and interest expense to each unit. This creates extra work without any extra information being provided.

Another valuation approach is to project cash flow in real terms and discount this cash flow at a real discount rate. However, most managers think in terms of nominal rather than real measures, so nominal measures are often easier to communicate. Interest rates are generally quoted nominally rather than in real terms. Moreover, since historical financial statements are stated in nominal terms, projecting future statements in real terms is difficult and confusing.

Copeland, Koller and Murrin further argued that formula-based DCF approaches make simplifying assumptions about a business and its cash flow stream (for example, constant revenue growth and margins), so that the entire discounted cash flow can be captured in a concise formula. Unfortunately, these formulas are most often too simple for real-world problem solving, though they may serve as valuable communication tools. Copeland, Koller and Murrin further stated that the Miller-Modigliani (MM) formula, although simple, is particularly useful for communicating the sources of a company's value. The MM formula (1961) values a company as the sum of the value of the cash flow of its assets currently in place plus the value of its growth opportunities. The formula is based on sound economic analysis, so it can be used to illustrate the key factors that will affect the value of the company. Unfortunately its simplifying assumptions (at least in the version given below) render it too inaccurate for precise valuations.

This MM formulas, i.e. the current earnings plus future investment opportunities approach which was discussed in **section 2.1.2**, can be defined as follows:

Value of entity = Value of assets in place + Value of growth,

$$= \frac{\text{NOPLAT}}{\text{WACC}} + \text{K (NOPLAT) N } [\frac{\text{ROIC} - \text{WACC}}{\text{WACC}(1 + \text{WACC})}],$$

Where

NOPLAT = Expected level of net operating profits less adjusted taxes in the first projected period.

WACC = weighted average cost of capital

ROIC = expected rate of return on invested capital.

K = investment rate, the percentage of NOPLAT invested for growth in new projects.

N = expected number of years that the company will continue to invest in new projects and earn the projected ROIC, also called the interval of competitive advantage.

2.4 Cost of equity: The Capital Asset Pricing Model

Cost of equity is an important factor for cash-flow-based valuation. It can be derived from Gordon's Growth Dividend Model or the Capital Asset Pricing Model (CAPM). As Gordon's Growth Model is itself a valuation model, this dissertation uses the CAPM to define the cost of equity.

The CAPM assumes that security markets are ideal in the sense that:

(1) There is a risk-free asset, and investors can borrow and lend unlimited amounts at the risk-free rate.

(2) There are no taxes, transaction costs, restrictions on short sales, or other market imperfections.

(3) Total asset quantity is fixed, and all assets are marketable and divisible.

According to Harrington, D.R. (1987), the assumptions are critical to understanding the CAPM. The following list describes the logical consequences of these assumptions:

1) Risk is the variance of expected portfolio returns.
2) Risk can be broken into two components: diversifiable (nonsystematic) risk and nondiversifiable (systematic) risk.
3) Proper diversification can reduce unsystematic risk.
4) Beta is the relevant measure of risk for investors with diversified portfolios.
5) Risk and return are linearly related by beta – that is, risk and return are in equilibrium.
6) Return is total return.
7) An investor holds portions of two portfolios: the risk-free asset and the market portfolio.
8) The return that an investor actually receives is derived from only two sources: risk-proportional market return plus nonsystematic random return. No other factor is consistent in its effect on security returns.

These are not the assumptions in their strict sense. Instead, they are statements that describe the model and its meaning.

Three main criticisms of CAPM are shown as follow:[1]

<1> The assumptions are to unrealistic; thus, the simple CAPM is probably seriously flawed.

<2> Tests of the CAPM prove that it does not describe what has occurred; thus, it is probably wrong.

<3> It is virtually impossible to get reasonable people to agree on the best forecasts for beta and for the risk-free and market rates of return; thus, the CAPM is practically useless.

However, creative analysts, examining these same criticisms, reach opposite conclusions. They assert that research and experimentation are needed to refine what is valid in the model, to improve the accuracy of forecasts, and to extend the model's uses. A number of creative uses have been and are being made of the CAPM.

Corporate managers have used the CAPM in three related ways: (1) to determine hurdle rates for corporate investments, (2) to estimate the required returns for divisions, strategic business units, or lines of business, and (3) to evaluate the performance of these divisions, units, or lines of business.

Managers often use the corporate cost of capital (usually a weighted average of the marginal costs of debt and equity) as the required rate of return for new corporate capital investments. To develop this overall cost of capital, the manager must have an estimate of the cost of equity capital. To calculate a cost of equity, some managers estimate the firm's beta (often from historical data) and use the CAPM to determine the firm's required return on equity.

Other equity cost methods, e.g. Gordon's Growth Dividend Model, require the use of a market-determined stock price and estimates of future growth rates and dividends for the firms, the CAPM is of special interest to managers whose firms are closely held, pay no dividends, or have uncertain future rates of growth.

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[1] Harrington, D. (1987) Modern Portfolio Theory, The Capital Asset Pricing Model and Arbitrage Pricing Theory: A User's Guide, 2nd Edition. Englewood Cliffs: Prentice-Hall. P209.

2.4.1 Estimating Beta

Beta is defined as a measure of the relative volatility of returns. In the capital asset pricing model, beta is the sole asset-specific or portfolio-specific factor. At any given time the forecasts for the risk-free rate and the market premium are the same for every asset or portfolio. Beta alone links the investor's expectations of returns from the asset or portfolio with investor's expectations of returns from the market. Because beta is such a crucial element in the CAPM, its estimation must be accurate.

To develop a beta forecast, practitioners and academics often extrapolate from history often using some form of regression analysis. Using historical data and regression analysis presents two main problems. The first problem is determining the best way to capture the important information contained in history. The second problem is the uncertainty over whether a historical beta is useful in forecasting risk.

Many investment advisory services offer beta services. However, the beta can vary from one service to another.

Harrington D.R. (1987) argued: *"How should betas be measured, using history? The disconcerting answer is that we do not know. Finding the best way to measure beta is not merely a theoretical problem; it is a practical one. The search still requires trial-and-error experimentation."*

Many analysts believe that beta is likely to appear nonstationary because a firm's risk conditions change. The problem with instability is that we do not know whether risk is changing or whether our statistical techniques are at fault. History, as usual, presents problems and the future remains unknown. Although many methods of estimating beta have been devised, the consensus of result cannot be achieved yet.

McDonald[2] (1985) suggested that analysts or researchers using historical data must exercise caution in the choice of time period over which to estimate a beta, in order to avoid major periods of nonstationarity.

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[2] McDonald, B. "Making Sense Out of Unstable Alphas and Betas," Journal of Portfolio Management, Winter 1985, p.20.

Beta does represent a very important kind of risk that should be important to investors: over time, returns do and will vary from our forecasts. Some firms and returns from their securities are profoundly influenced by socio-economic and political events. Other firm's returns have been (and perhaps will continue to be) dominated by microeconomic, firm-specific factors: superior management, market power, potent protection, or process innovation. Nonetheless, no firm and thus no security can escape the direct or indirect effects of events in the larger world. It is the desire to find a way to measure this macroeconomic sensitivity that spurs the search for a better beta. Despite the instability of historical betas, the concept of beta is not easily dismissed.

It is known that simple changes in the parameters of a time-series beta can result in a significant change in the resulting beta. We do not know which are the best ways to make estimates. Consistency is a stopgap policy. Harrington, D.R. (1987) further state that time-series betas are not good predictors of single-asset future betas. It is known that beta is a summary measure and may prove to be too austere. A richer model than the CAPM may better describe much that underlies the movements of returns in the marketplace. Unsystematic risk may not be irrelevant.

2.4.2 Estimating The Risk-free Rate

Whether in academic research or in practical applications of the CAPM, the 90-day Treasury bill rate has been virtually the only proxy used for the risk-free rate. The risk-free rate is usually used twice in the CAPM. It is first used as the minimum rate of return, and it is used again to create the risk premium. Thus, an error on estimating the risk-free rate of return would lead to a misestimate of the expected rate of return for an asset. Choosing an incorrect risk-free rate would mean that the analyst would misunderstand the sources of the asset's returns, the quality of its performance, or have poor data on which to make forecasts.

The risk-free rate is the rate that will entice investors to choose between current or future consumption – between savings or investment. The price required to induce an investor to forgo current consumption for a certain future sum, to forgo liquidity, is the price of time, or the riskless or risk-free rate of return.

There are some practical problems with using the Treasury bill rate. The first problem is that Treasury bill is not a pure market rate. These rates are influenced, either directly through interest rate control, or indirectly by controlling the money supply, by the central bank in its pursuit of such things as employment, economic growth, and the international stability and value of the currency. Thus, the rates reflect more than the investors' required compensation for illiquidity and their expectations concerning inflation. A second practical problem with using a Treasury security is that short-term Treasury securities show significant variability over time. Grey (1974) summarized the argument:

> *In theory, the appropriate rate of discount for an investment would include a risk-free rate plus some risk premium. Because Treasury bills are usually considered to be the closest available approximation to a risk-free investment, the discount rate on Treasury bills is often used as the risk-free rate. This creates some very serious problems, however, because the rate of Treasury bills, like that on most short-term marketable instruments, is quite volatile.... One way to approach the problem of dealing with the risk premium factor is to use the long-term interest rate instead of the risk-free rate. The long-term interest rate for investment grade bonds should still be less than the discount rate on common stocks because the latter are riskier...*[3]

Therefore, according to these arguments, South African gilt bonds are used instead of Treasury bills in this case.

2.4.3 Estimating The Market Return

The market return, and thus the risk premium, can be estimated in a variety of ways. However, the CAPM is expectational and the risk-premium estimate is equally expectational. Risk premium estimations are often formulated by subtracting the expected return on a risk-free asset from the expected return in the market, both estimates - the market rate return and the risk-free rate – are critical to the development of an adequate risk premium.

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[3] W. S. Grey, "Discount Rates and Return Forecasts," *Financial Analysts Journal*, 30 (May-June 1974), 55-56

Many practitioners estimate future market return is much the same way that they estimate beta. History is assumed to be relatively stable, and the future is not expected to be very different from the past. Consequently, these practitioners assume that past is an adequate mirror of the investor's expected market premium. Four main problems face us when history is used as a predictor of the market return: (1) calculating the market return: simple or compound returns; (2) calculating the market return: value or equally weighted returns; (3) time period; (4) market proxy.

(1) Calculating the market return: simple or compound returns

Two techniques are used for calculating returns: simple (arithmetic) averages or compound (geometric) averages. Simple and compound rates of return are quite different. Which should be used in looking at past performance? Carleton and Lakonishok (1985) say that

> *the truth is, each is appropriate under particular circumstances. The geometric mean measures changes in wealth over more than one period on a buy and hold (with dividends reinvested) strategy. If the average investor rebalanced his portfolio every period, the geometric mean would not be a correct representation of his portfolio's performance over time. The arithmetic mean would provide a better measure of typical performance over a single historical period.*

Their conclusion does not help us in deciding what to use in forecasting the market return.

(2) Calculating the market return: value or equally weighted returns

A discussion continues among academics and practitioners over whether to use a value-weighted index, where each return in the index is weighted by the market value of the stock, or an equally weighted index, where the returns are simply average. Carleton and Lakonishok (1985) found that the equally weighted index had a higher return over each of their holding periods. The difference in returns, they suggest, is due to the heavier weighting of smaller companies' stocks in the equally weighted index – there is a difference in risk. Carleton and Lakonishok conclude that the value-weighted index is a better reflection of what occurred in the markets and of investors' experience. Equally weighted indexes, they say, "make no more sense than an index constructed of their names." There are those who would disagree with this conclusion.

(3) Time period

It is suggested that investors look back over longer-periods of history and, in forming estimates for the future, often use 50 years or more of market returns as proxies for expected market returns. However, certain periods of history have a greater impact on individuals than do other periods. For example, the Great Depression in America had a profound and prolonged effect on the behavior of individuals as well as business firms. One other problem must be kept in mind when extrapolating from history: the result of historical market return depends on the choice of staring and ending points. If we begin the calculation with a bull-market high and end with a bear-market low, the results will be very different from those obtained by starting low and ending high. Choosing beginning and ending points with similar market yields (and price-earnings ratios) can reduce the magnitude of the problem. The period chosen reflects our best judgment of the period of history that will mostly nearly resemble the market that we expected over the investor's horizon. When analysts choose a period, the major consideration may be not only the level of the rates but their variability.

(4) Market proxy

In South Africa's stock market, JSE All Share Index can be used as a proxy for the market. This is not the only market proxy that we could use. The JSE-ALS40 and the Industrial 25 are among the choice. However, there are problems with each index if JSE-ALS40 or Industrial 25 is chosen as market proxy. Roll, R.[4] argued these problems that these indexes are just fragments of the real market for all risky assets, it is difficult, and probably impossible, to know whether an index is an adequate proxy for the unknown world. Furthermore, since each of these indexes is composed of different kinds of stocks, the results can be, and should be, quite different. Therefore the Jse-ALS40 and the Industrial 25 cannot be used in this case because they are fragments of the real market for all risky assets.

According to Harrington (1987), typically, the CAPM is implemented by using a long period of history (1926-2003) to estimate the market return, and a short spot Treasury rate is used as a proxy for risk-free rate. These choices assume the following conditions:

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[4] Roll, Richard, "A Critique of the Asset Pricing Theory's tests, Part 1: On Past and Potential testability of the Theory," Journal of Financial Economics, 4 (March 1977), 129-176.

1. *That a long period of history is the best proxy for investors' expectations of future market returns;*
2. *That the risk premium required by investors at any point in time depends almost exclusively on changes in risk-free rate;*
3. *That there is a single risk premium – a single expected capital market line.*

There is yet another approach to obtaining a market premium. Investment advisory services have begun to publish expected returns for the market. In most cases, the expected market return is derived by plotting the expected risk (beta) and expected return for a broad group of stocks. The expected market return is the forecasted return for a portfolio with a beta of 1.0. One of the benefits of using these analyst-derived estimates is that these estimates tend to provide results that are quite different from those using history alone. However, it must be cautious because published, ex ante (expected) returns have been available for a limited time. The forecasts could be biased by the particular group of analysts making the forecasts, or they could be no better than forecasts made using history as a proxy. Better collection and analysis of these forecasts may soon provide better estimates of the expected market return.

2.5 Empirical Research

The empirical research of Ali, A. and Pope, P.F. (1995) confirmed that earnings and cash flow have incremental information content. Board, J.L.G. and Day, J.F.S. (1989) found that irrespective of the efficient markets hypothesis it is possible that, even if cash flow data are economically more meaningful than historical cost earnings, investors continue to base their decisions on historical cost earnings. Historical cost earnings were found to be a more relevant basis for decision making than cash flow measures.

The Empirical tests of Ingram, R.W. and Lee, T.A. (1997) confirmed that both income and operating cash flow are important for observing company performance and prospects when considered jointly and when interpreted with respect to accounting measurement theory. The results of study of Livnat, J. and Zarowin, P. (1990) indicated that disaggregation of net income into cash from operations and accruals does not contribute significantly to the association with security returns beyond the contribution of net income alone. However, further disaggregation of financing and operating cash flows into their components significantly improves the degree of association. In contrast, there was no evidence of differential associations across components of investing cash flows.

There is general agreement that share values are related to future cash flows. Dechow, M.P. (1994) found that accruals play an important role in improving the ability of earnings to reflect firm performance. Earnings have a higher association with stock returns than do realized cash flows in firms experiencing large changes in their working capital requirements and their investment and financing activities.

Bowen, R. M., Burgstahler, D. and Daley L. A. (1987) found that cash flow data had incremental information content relative to that contained in earnings; cash flow data had incremental information content in addition to that contained in earning and Working capital from operations; accrual data (i.e., earnings and WCFO) jointly and separately had incremental information content in addition to that contained in cash flow data.

Ohlson, J. A. (1995) established that a firm's market value relates to contemporaneous and future earnings, book values, and dividends. Dividends paid today influence future expected earnings negatively. Dividends reduce book value but leave current earnings unaffected. While the accounting data will be incomplete indicators of value, the weighted average of capitalized earnings and book value still provides the core of the valuation function.

2.6 Conclusion

All of these above empirical researches show that earnings, cash flow and dividends are important to share price and returns. This is the reason why Dividend-based model, Earnings-based (P/E ratio) model and Discounted Free Cash Flows model can be used for valuing a business. However, only Discounted Free Cash Flow model and the Economic Profit model, which were suggested by Copeland, Koller and Murrin (1996), were used in this paper in order to valuing Edcon. This was because that they are straightforward to use, and they provide insights into the underlying economics of the business being valued. Other models have some features that limit their usefulness which were discussed in **section 2.2**.

CHAPTER 3 FINANCIAL AND BUSINESS ANALYSIS OF EDCON

3.1 Introduction

Edcon is a well-known listed fashion retailer on the Johannesburg Stock Exchange. In order to investigate the value of Edcon, financial analysis and business analysis will be examined in the following sections.

3.2 Background of business environment

The past year, i.e. year 2002 has been one of economic uncertainly and upheaval for nations across the globe. South Africa has been no exception, with the most significant event being the collapse of the Rand in the last quarter of 2001. The full implications for inflation, of the decline in the currency, have yet to be felt throughout the economy, but they will certainly be profound for all consumers. Domestic economic activity remained sluggish. National CFT (Clothing, Footwear and Textiles) sales are estimated by the Retailers' Liaison Committee to have increased by 6% in the year to March 2002, while statistics indicate that clothing and footwear selling prices declined by 1% in that period[5].

3.3 Background of Edcon

Edgars Consolidated Stores Limited originated from one small clothing store opened in Johannesburg in 1929. It was listed on the Johannesburg Stock Exchange in 1946. It operates through 671 stores in Southern Africa and is a speciality retailer, operating through 723 facias (retail formats), each targeting a specific, focused market segment. In June 1999, in recognition of the changed structure and focus within the organization, the name was changed from Edgars Stores Ltd to Edgars Consolidated Stores Limited and began trading on the JSE as Edcon. The group's business is the retailing of clothing, footwear, accessories and home textiles through its stores in Southern Africa[6].

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[5] 2002 Edcon annual report

[6] 2002 Edcon annual report

3.4 Financial analysis - Analysing Historical Performance

Analysing historical performance is the first step in valuing Edcon. A sound understanding of Edcon's past performance provides an essential perspective for developing and evaluating forecasts of future performance. Historical performance analysis should focus on the key value drivers i.e. return on invested capital (ROIC) and growth. The rate of return on invested capital (ROIC) is the single most important value driver. A company creates value for its shareholders only when it earns rates of return on invested capital (ROIC) that exceed its cost of capital. ROIC and the proportion of its profits that the company invests for growth drive free cash flow, which in turn drive value. Economic profit is another way of looking at performance. Economic profit combines size and spread (ROIC less WACC) into a cash basis of periodic performance.

The historical analysis should be developed in an integrated way. For example, in addition to ROIC itself, the key components of ROIC should be analysed. The final step in the historical analysis is to explain the company's financial health from a credit perspective. Is the company generating or consuming cash? How much debt does the company employ relative to equity? What margin of safety does the company have with respect to its debt financing?

The core value drivers, which are defined in Chapter 2, are as follows:

$$\text{ROIC} = \frac{\text{NOPLAT}}{\text{Invested capital}}$$

$$\text{Free cash flow} = \text{NOPLAT} - \text{Net investment}$$

$$\text{Economic Profit} = \text{Invested capital} \times (\text{ROIC} - \text{WACC})$$

Where:

NOPLAT = Net Operating Profits Less Adjusted Taxes.

Invested Capital = Operating working capital + net fixed assets + other assets.

ROIC = Return On Invested Capital.

The value drivers are defined by the concepts NOPLAT and invested capital. Therefore, NOPLAT and invested capital must be analysed before moving on to the value drivers themselves.

3.4.1 NOPLAT

Net operating profit less adjusted taxes (NOPLAT) represents the after-tax operating profits of the company after adjusting the taxes to a cash basis. **Table 3.1** showed the calculation of Edcon's NOPLAT and a reconciliation of NOPLAT to Edcon's accounting net income (source from Edcon's historical income statement, see **Appendix III**).

Table 3.1 Edcon, NOPLAT Calculation

R Millions

NOPLAT	**1999**	**2000**	**2001**	**2002**
Revenue	5,849.8	6,423.6	6,557.4	6,709.8
Cost of goods sold	(3,834.1)	(4,100.7)	(4,227.9)	(4,264.1)
Sales, general and administrative expenses	(1,590.8)	(1,675.6)	(1,868.8)	(1,921.9)
Depreciation expense	(191.6)	(209.1)	(199.6)	(194.9)
Operating earnings before interest and taxes (EBIT)	233.3	438.2	261.1	328.9
Taxes on EBIT	(75.3)	(131.1)	(76.7)	(111.4)
Change in deferred taxes	15.1	(10.8)	34.9	20.3
NOPLAT	**173.1**	**296.3**	**219.3**	**237.8**
Working:				
Taxes on EBIT				
Provision for income taxes (from income statement)	38.9	108.3	51.3	93.4
Tax shield on interest expense (at 30%)	37.9	26.6	27.8	21.7
Tax on interest income (at 30%)	(1.5)	(3.8)	(2.4)	(3.7)
Tax on nonoperating income (at 30%)	0.0	0.0	0.0	0.0
Taxes on EBIT	75.3	131.1	76.7	111.4
Change in deferred taxes				
Balance at the beginning of the year	115.0	130.1	119.3	154.2
Balance at the end of the year	130.1	119.3	154.2	174.5
Change in deferred taxes	15.1	(10.8)	34.9	20.3
Reconciliation to Net income				
Net income	68.2	244.9	120.9	171.7
Add: Increase in deferred taxes	15.1	(10.8)	34.9	20.3
Add: Goodwill amortization	4.8	8.9	4.2	3.8
Adjusted net income	88.1	243.0	160.0	195.8
Add: Interest expense after-tax	88.4	62.0	64.8	50.6
Total income available to investors	176.5	305.0	224.8	246.4
Less: Interest income after-tax	(3.4)	(8.8)	(5.5)	(8.6)
Less: Nonoperating income after-tax	0.0	0.0	0.0	0.0
NOPLAT	**173.1**	**296.3**	**219.3**	**237.8**

(At least five years' historical performances should be analysed. However, the four years period 1999-2002 was used only due to the fact that 1998 annual report was unavailable.)

Taxes on EBIT represent the income taxes attributable to EBIT. They are the taxes the company would pay if it had no debt, excess marketable securities, or nonoperating income or expenses. Taxes on EBIT equal the total income tax provision (current and deferred) adjusted for the income taxes attributed to interest expense, interest income, and nonoperating items. For Edcon, taxes on EBIT were calculated in **Table 3.1**. In this case, Edcon's effective tax in 2002 and 2001 is 35.5 percent and 29.7 percent, respectively. To simplify calculation, Edcon's tax can be estimated to be 30 percent which is the standard tax rate in South Africa.

For the period 1999-2002, the NOPLAT was R237.8m in 2002; up from R173.1m in 1999, expect the 2000 level. The 2000 level was the highest one during 1999-2002. Related expense increased by 6.6% in 2000. However, the related expenses, as a percentage of net sales was 93.2% in 2000, down from 96.0% in 1999. This was due to the fact that net sale growth of 9.8% more than related expenses increase of 6.6% in 2000. As a result, the increase in NOPLAT was 71.2% (see **Table 3.2**). Edcon 2000 Annual Report showed that the key impetus for increased sale in 2000 was improved service. The improved levels of service were a function of significant improvements in the price, taste, and size in stock, of the merchandise ranges.

Table 3.2 Edcon, NOPLAT

NOPLAT	1999	2000	2001	2002
Net Sales	5,849.8	6,423.6	6,557.4	6,709.8
Cost of goods sold	(3,834.1)	(4,100.7)	(4,227.9)	(4,264.1)
Sales, general and administrative expenses	(1,590.8)	(1,675.6)	(1,868.8)	(1,921.9)
Depreciation expense	(191.6)	(209.1)	(199.6)	(194.9)
Total related expenses	(5,616.5)	(5,985.4)	(6,296.3)	(6,380.9)
Operating earnings before interest and taxes (EBIT)	233.3	438.2	261.1	328.9
Taxes on EBIT	(75.3)	(131.1)	(76.7)	(111.4)
Change in deferred taxes	15.1	(10.8)	34.9	20.3
NOPLAT	**173.1**	**296.3**	**219.3**	**237.8**
Increase in net sales		9.8%	2.1%	2.3%
Increase in related expenses		6.6%	5.2%	1.3%
Related expense / net sales	96.0%	93.2%	96.0%	95.1%
Increase in NOPLAT		71.2%	-26.0%	8.4%

Particularly noteworthy, there was a huge decrease in NOPLAT in 2001,which declined by 26%, compared with 2000. This was due to the fact that the increase in expense was more than the increase in net sales in 2001 (see **Table 3.2**). According to Edcon 2001 Annual Report, slow turnover growth failed to accommodate an escalation in the additional operating cost of credit, together with an increase in systems costs, which albeit within budget, resulted in a momentary bottom-line stall in 2001.

Comparing to a net sales growth of 9.8% in 2000, slow turnover growth rate was 2.1% and 2.3% in 2001 and 2002, respectively. External factors, including macro-economic performance remains tepid with persistently low GDP growth, had negative impacts on retail market. Therefore although Edcon had an increase in net sales every single year from 1999 to 2002, both figures of NOPLAT in 2001 and 2002 were less than the figure in 2000.

In summary, during the 2001 to 2002 period, NOPLAT has been improved slightly, because of increasing net sales and reducing related expense to net sales ratio.

3.4.2 Invested Capital

Invested capital represents the amount invested in the operations of the business. Invested capital is the sum of operating working capital; net property, plant, and equipment; and net other assets (net of noncurrent, noninterest-bearing liabilities). Invested capital, plus any nonoperating investments, measures the total amount invested by the company's investors, which was called total investor funds. Total investor funds can also be calculated from the liability side of the balance sheet as the sum of all equity (plus quasi-equity items like deferred taxes) and interest-bearing debt. **Table 3.3** demonstrated the calculation of invested capital for Edcon (source from Edcon's historical balance sheet as in **Appendix I**).

Table 3.4 showed that the change in the component of invested capital and invested capital itself during the period 1999-2002.

During the period 1999-2002, there were an increase in total investor funds, including net working capital and operating invested capital. This was shown in **Figure 3.1**.

Table 3.3 Edcon, Invested Capital Calculation

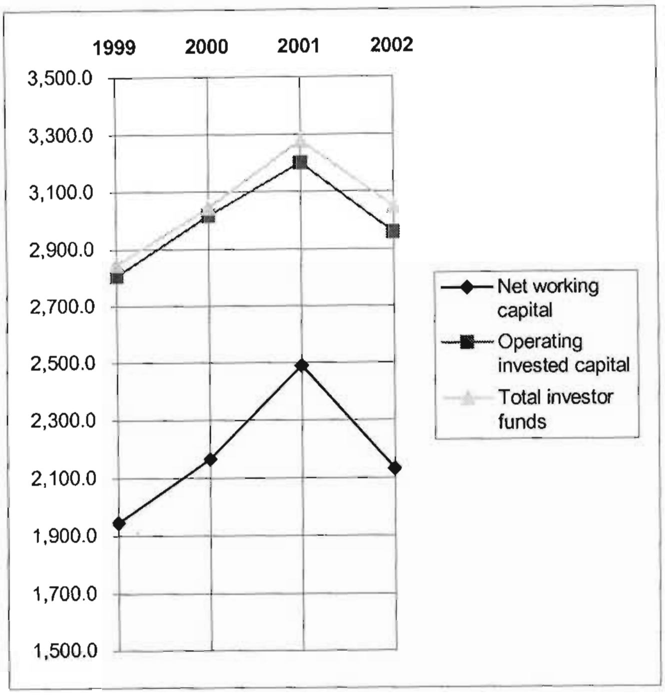
Invested Capital	**1999**	**2000**	**2001**	**2002**
Operating current assets	2,879.7	3,226.1	3,422.9	3,235.5
Noninterest bearing current liabilities	(934.4)	(1,062.5)	(934.1)	(1,104.3)
Net working capital	1,945.3	2,163.6	2,488.8	2,131.2
Net properties, equipment and vehicles	860.6	851.5	711.7	825.8
Other operating assets, net of other liabilities	0.0	0.0	0.0	0.0
Operating invested capital	**2,805.9**	**3,015.1**	**3,200.5**	**2,957.0**
Excess marketable securities	0.0	0.0	0.0	0.0
Trademark (Goodwill)	17.1	8.2	3.8	0.0
Nonoperating investments	22.2	19.2	74.4	89.9
Total investor funds	**2,845.2**	**3,042.5**	**3,278.7**	**3,046.9**
Equity	2,118.2	2,295.4	2,305.7	2,297.4
Deferred income taxes	130.1	119.3	154.2	174.5
Adjusted equity	2,248.3	2,414.7	2,459.9	2,471.9
All interest bearing debt	596.9	627.8	818.8	575.0
Total investor funds	**2,845.2**	**3,042.5**	**3,278.7**	**3,046.9**

(Notes: In this case, Edcon's operating current assets equals its total current assets in its balance sheet; noninterest bearing current liabilities equals its accounts payable.)

Table 3.4 Edcon, Change in Invested Capital

Change in Invested Capital	**1999**	**2000**	**2001**	**2002**
Operating current assets		12.0%	6.1%	-5.5%
Noninterest bearing current liabilities		13.7%	-12.1%	18.2%
Net working capital		11.2%	15.0%	-14.4%
Net properties, equipment and vehicles		-1.1%	-16.4%	16.0%
Other operating assets, net of other liabilities				
Operating invested capital		7.5%	6.1%	-7.6%
Excess marketable securities				
Trademark (Goodwill)		-52.0%	-53.7%	-100.0%
Nonoperating investments		-13.5%	287.5%	20.8%
Total investor funds		6.9%	7.8%	-7.1%
Equity		8.4%	0.4%	-0.4%
Deferred income taxes		-8.3%	29.3%	13.2%
Adjusted equity		7.4%	1.9%	0.5%
All interest bearing debt		5.2%	30.4%	-29.8%
Total investor funds		6.9%	7.8%	-7.1%

Figure 3.1 Changes in Capital (1999 – 2002)



Although Edcon had a decrease in operating invested capital in 2002 compared with 2001. It still had a growth of operating invested capital compared with 1999 (See **Figure 3.1**). This means that the amount invested in the operations of the business has increased during these four years.

In 2002, net working capital was R2,131.3m, which was less than the net working capital of R2,488.8m in 2001. This is because operating current assets were down 5.5% to R3, 235.5m, the key reduction in operating current assets is the decrease in inventory. Noninterest bearing current liabilities rose by 18.2%. Consequently, net working capital fell by 14.4% from R2,488.8m to R2,131.2m (see **Table 3.4**). As a result, operating working capital declined by 7.6% in spite of an increase of 16% in fixed assets in 2002.

There was an increase of 18.2% in noninterest bearing current liabilities in 2002. The major reason is that a large increase in accounts payable (see Edcon's balance sheet).

On the other hand, all interest bearing debt declined by almost 30% in 2002 (see **Table 3.4**). This was due to the fact that Edcon reduced its investment in working capital, through lower stock holdings and improved debtor collections, and was able to repay a massive fund in borrowing. On the other hand, net cash proceeds were generated from Edcon's securitisation programme were be used to repay debt (source from Edcon 2002 annual report). As a result, Edcon reduced its interest bearing debt in 2002.

In summary, Edcon reduced its invested capital in 2002 compared with 2001.

3.4.3 Return on Invested Capital

After NOPLAT and invested capital were analysed, the value drivers, return on invested capital, free cash flow and economic profit, can be analysed.

Return on invested capital (ROIC) is defined as follows:

$$\text{ROIC} = \frac{\text{NOPLAT}}{\text{Invested capital}}$$

Invested capital is generally measured at the beginning of the period or as an average of the beginning and end of the period. In this case, measuring at the beginning of the period was performed. **Table 3.5** showed the ROIC calculation for Edcon.

Table 3.5 Edcon, Return on Invested Capital (ROIC)

	1999	2000	2001	2002
NOPLAT	173.1	296.3	219.3	237.8
Operating invested capital (beginning of year)	2,957.5	2,805.9	3,015.1	3,200.5
Operating invested capital (average of the beginning and end of the year)	2,881.7	2,910.5	3,107.8	3,078.8
Goodwill	17.1	8.2	3.8	0.0
ROIC	5.9%	10.6%	7.3%	7.4%
ROIC (using average capital)	6.0%	10.2%	7.1%	7.7%
ROIC (including goodwill)	5.8%	10.5%	7.3%	7.4%

During the period 1999-2002, ROIC was 7.4% in 2002, up from 5.9% in 1999. The ROIC was stable at around 7.4% since 2001, although this was less than 2000 level which was 10.6% of ROIC. All of these is due to the change in NOPLAT and invested capital which has been analysed above. All of these factors showed that Edcon has been enhancing its performance since 1999.

3.4.4 Free Cash Flow

It is known that free cash flow is a company's true operating cash flow. It is the total after-tax cash flow generated by the company and available to all providers of the company's capital, both creditors and shareholders.

Free cash flow was calculated for Edcon in **Table 3.6.**

Table 3.6 Edcon, Free Cash Flow Calculation

	1999	2000	2001	2002
EBIT	233.3	438.2	261.1	328.9
Taxes on EBIT	(75.3)	(131.1)	(76.7)	(111.4)
Change in deferred taxes	15.1	(10.8)	34.9	20.3
NOPLAT	173.1	296.3	219.3	237.8
Depreciation expense	191.6	209.1	199.6	194.9
Gross cash flow	364.7	505.4	418.9	432.7
Increase in net working capital	46.8	218.3	325.2	(357.6)
Capital expenditure	238.2	200.0	59.8	309.0
Increase in other assets, net of liabilities	0.0	0.0	0.0	0.0
Gross investment	285.0	418.3	385.0	(48.6)
Free cash flow before goodwill	79.7	87.1	33.9	481.3
Investment in goodwill	1.6	0.0	0.2	0.0
Free cash flow	**81.3**	**87.1**	**34.1**	**481.3**
Nonoperating investment cash flow	(13.0)	3.0	(55.2)	(15.5)
Foreign currency translation effect	0.0	0.0	0.0	0.0
Cash flow available to investors	**68.3**	**90.1**	**(21.1)**	**465.8**
Financing flow				
After-tax interest income	(3.4)	(8.8)	(5.5)	(8.6)
Increase/(decrease) in excess marketable securities	0.0	0.0	0.0	0.0
After-tax interest expense	88.4	62.0	64.8	50.6
Decrease/(increase) in interest-bearing debt	(42.4)	(30.9)	(191.0)	243.8
Dividends	33.3	87.2	76.4	57.2
Share repurchases/(issues)	(7.6)	(19.5)	34.2	122.8
Total financing flow	**68.3**	**90.1**	**(21.1)**	**465.8**

(Notes: Free cash flow = Gross cash flow – Gross investment; Capital expenditure = the increase in net properties, equipment and vehicles plus depreciation expense for the period.)

Free cash flow in 2002 was R481.3m. This was the most amount of free cash flow during the period 1999-2002. This was due to a huge decrease in net working capital in 2002.

3.4.5 Economic Profit

Economic profit can be defined as follows:
Economic Profit = Invested capital × (ROIC – WACC).

As a practical matter, we generally use invested capital measured at the beginning of the period or the average of beginning and ending capital. Technically, for the Economic Profit valuation to exactly equal the Discounted Free Cash Flow (DCF) valuation, beginning capital must be used. If average capital is used, the variance will generally be very small.

Historical economic profit was shown in **Appendix XII Economic Profit**. Obviously, Edcon's ROIC was less than its WACC during the 1999 to 2002 period. This caused its economic profits to be negative during these period. It means that Edcon has been destroying value.

3.4.6 Develop An Integrated Historical Perspective

Many customers were forced to cut back on "luxury" purchases and with the depreciation of the rand forcing food and petrol prices upwards, results for 2002 were unlikely to be much better for clothing retailers.[7]

Government has in place long-established legislation which restricts the maximum interest rate that customers can be charged by retailers on credit transactions, thereby protecting innocent customers from the unscrupulous loan shark activities practiced in unregulated sectors of the market. This legislation has been destroying indirectly retailers' profit.[8]

Despite recent buoyancy in national clothing sales, it was unlikely that the reduction in personal taxes would compensate for the full inflationary impact of the devaluation in the currency, higher interest rates and rising fuel costs. Discretionary disposable income was, therefore, expected to remain under severe pressure throughout the coming year and, in consequence, clothing purchases would be constrained. As it was likely that inflation in the sector would reach double digits for the first time in many years, national unit sales of clothing may well decline in the year ahead. [9]

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[7] Sources from Edcon 2002 Annual report

[8] Sources from Edcon 2002 Annual report

As would be expected given the state of the industry, Edcon's performance over the recent years has been weak as strong growth was more than offset by low returns on capital. Geometric average revenue growth rate was just 4.4 percent per year from 1999 to 2002 (see **Appendix IX Edcon, ROIC & Growth Rate**). Over the same period, EBIT increased by 12.1 percent per year (see **Appendix IX Edcon, ROIC & Growth Rate)**. Unfortunately, this growth actually destroyed value as Edcon's ROIC averaged only 7.8 percent over 1999 to 2002 period versus an average WACC of 19.5 percent (see **Appendix IX Edcon, ROIC & Growth Rate** and **Appendix XI Edcon, Historical WACC)**.

In 2002 Edcon's ROIC increased to 7.4 percent due to increase in NOPLAT and decline in invested capital. **Appendix X - Edcon, Comparison ROIC** showed how Edcon's 2002 ROIC compared to five key competitors. Edcon underperformed most of its key competitors. Edcon's operating margin was the fourth of the six clothing retailers at 5.0 percent versus an average of 7.9 percent and capital turnover at 2.3 times also lagged the average of 2.9 times. The five key competitors earned an average ROIC in 2002 of 13.1 percent. Truworths, Mr Price and Foschini performed better than Edcon in terms of ROIC, and Edcon generated higher ROIC than Woolworths and Pepkor. Although Edcon's 2002 performance was better than its 2001 performance, Edcon underperformed most of its important competitors.

3.4.7 Financial Health From A Credit Perspective

Appendix XIV Historical Financial Health showed an analysis of Edcon's historical financial health.

(1) Interest coverage

Edcon's interest coverage ranged from 1.8 times to 4.9 times during the 1999 to 2002 period. Edcon's interest coverage was the lowest one among its four key competitors

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[9] Sources from Edcon 2002 Annual report

(see **Table 3.7 Comparison Interest Coverage**) in 2002. Although Edcon's interest coverage was low compared its competitors, it still was acceptable. On the other hand, Edcon is not only a retailer but also a significant credit provider. It has a debtor's book under management of over R3 billion. The Board of Edcon approved proceeding with the sale of the majority of the Group's debtors, on a totally non-recourse basis, to a securitisation structure. Net cash proceeds expected to be generated form this transaction will be used to repay debt, both on and off balance sheet, and to fund future expansion opportunities. Consequently, this proceeds expected to increase interest coverage for Edcon in future.

Table 3.7 Edcon, Comparison Interest Coverage

Comparison interest coverage	**Truworths**	**Mr Price**	**Woolworths**	**Foschini**
EBIT/interest expense in 2002	1813.5	21.3	6.3	4.8

(2) Debt/total investor funds

Debt/investor funds measure the company's reliance on debt capital. Edcon's debt to total investor funds ratio was 18.9 percent in 2002, which is the lowest level during the 1999 to 2002 period. In 2002, the Group reduced its investment in working capital, through lower stock holdings and improved debtor collections, and was able to repay a further R239 million in borrowings, as well as funding the cost of re-purchasing 10% of the issued share capital for R142 million[10]. Consequently, debt fell to only 18.9% of total investor funds – well below last year's 25%. This is positive sign for reducing financing cost.

(3) Investment rate

The investment rate is the ratio of investment to available funds. This measure tells us whether the company is consuming more funds than it is generating or generating extra cash flow that can be paid to investors as interest expense, dividends, debt reductions, share repurchases, and so on. This can either be expressed on a net basis (net investment/NOPLAT) or gross basis (gross investment/gross cash flow). In this case, Edcon's net investment to NOPLAT ratio was a negative ratio in 2002. This due to the fact that net investment reduced to a negative side. It means that Edcon generated funds only this year. This was also a positive sign for forecasting Edcon's future performance.

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[10] Source from Edcon 2002 annual report page 10

(4) Dividend payout ratio

The dividend payout ratio is total common dividends divided by income available to common shareholders. Edcon's dividend payout ratio was 33.3 percent in 2002, down from 63.2 percent in 2001. The 2002's dividend payout ratio was the lowest one during the 1999 to 2002 period. Edcon with positive free cash flow and low dividend payout can probably pay down debt. With low dividend payout ratio, Edcon can have more retained earnings for future opportunities. Edcon has R465.8 million total financing flows in 2002. This was also a positive sign for forecasting future performance.

After historical performance was analysed, it was concluded that Edcon has strong potential for improving its performance in next several years.

3.5 Business Analysis

Once the Edcon's financial historical performance was analysed, business analysis have to be performed, and then its future performance can be forecasted. The key to projecting performance is to develop a point of view on how the company can or will perform on the key value drivers: growth and return on invested capital. Since growth and ROIC are not constant over time, a third dimension, time itself, must also be considered.

In order to earn returns on capital in excess of the opportunity cost of capital, companies must develop and exploit a competitive advantage. Without a competitive advantage, competition would force all the companies in the industry to earn only their cost of capital (or even loss). Therefore, to develop a point of view about a company's ability to earn an attractive ROIC over time, the company's potential for generating competitive advantages and the nature of the industry in which it competes and its own assets and capabilities must be identify.

Competitive advantages that translate into a positive ROIC versus WACC spread can be categorized into three types:

<1> Providing superior value to the customer through a combination of price and product attributes that cannot be replicated by competitors.

<2> Achieving lower costs than competitors.

<3> Utilizing capital more productively than competitors.

A competitive advantage must ultimately be expressed in terms of one or more of these characteristics. Describing competitive advantages this way also helps to begin to shape the financial forecast.

Three techniques for identifying competitive advantages include customer segmentation analysis, competitive business system analysis, and industry structure analysis.

3.5.1 Customer Segmentation Analysis

The customers that Edcon has targeted are a broad range of middle income families. Edcon's brands enjoy formidable equity. It offers clear value to the targeted consumer for price and quality. Edcon will continue to be the largest national distributor of bona fide and international brands. Supplementing these brands are dominant value offerings of core essential fashion clothing and commodity products. The fashion offered will be appropriate to the market served. Other key aspects of service include, speed of transaction, staff attitude, trading hours, collateral services, and fair and efficient return policies.

Edcon's primary mission, articulated consistently since 1999, is to be the store of choice in South Africa. It means being first stop on a shopping trip for CFTA[11] for the formal market of income-earning South Africans, particularly the middle and lower earning segments. Edcon covers this market with assorted discount and department store formats nationwide that respond to the shopping patterns and needs demonstrated by each of Edcon's target segments of consumers. Given that all target shoppers have fundamental expectations for price, assortment and service, Edcon's ability to provide them in a manner clearly superior to other stores they shop will, over time, convert more of them to 'first stop' shoppers. Those that already shop with Edcon first will likewise be convinced to spend more of their available CFTA funds with Edcon. Achieving this requires that Edcon deliver ever-increasing efficiency in the conduct of its business, passing the benefit to its customers and strengthening consumers' perception of Edcon's stores versus the competition. Increasing Edcon's share of market concurrent with improving efficiencies will yield profitable growth (source from Edcon 2002 annual report).

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[11] Clothing, footwear, textile and accessory

3.5.2 Competitive Business System Analysis

The resources of the organization are those assets that contribute to the generation of value added. In order to analyse Edcon's resource, it is useful to divide these resources into three broad categories:

(1) Tangible

There are 671 stores in southern Africa. The number of employees is 10,766.

(2) Intangible

Their popular brand names are ABC Shoes, Cuthberts, Edgars, Jet, Sales House and Smiley's Wearhouse.

(3) Organizational capability

Suppliers of financial services; management training to maintain and improve levels of service; management organization and leadership, organizational routes that allow each supply chain to run smoothly and are all efficiently.

To explain the organization's sustainable competitive advantage, Porter's value chain is analysed.

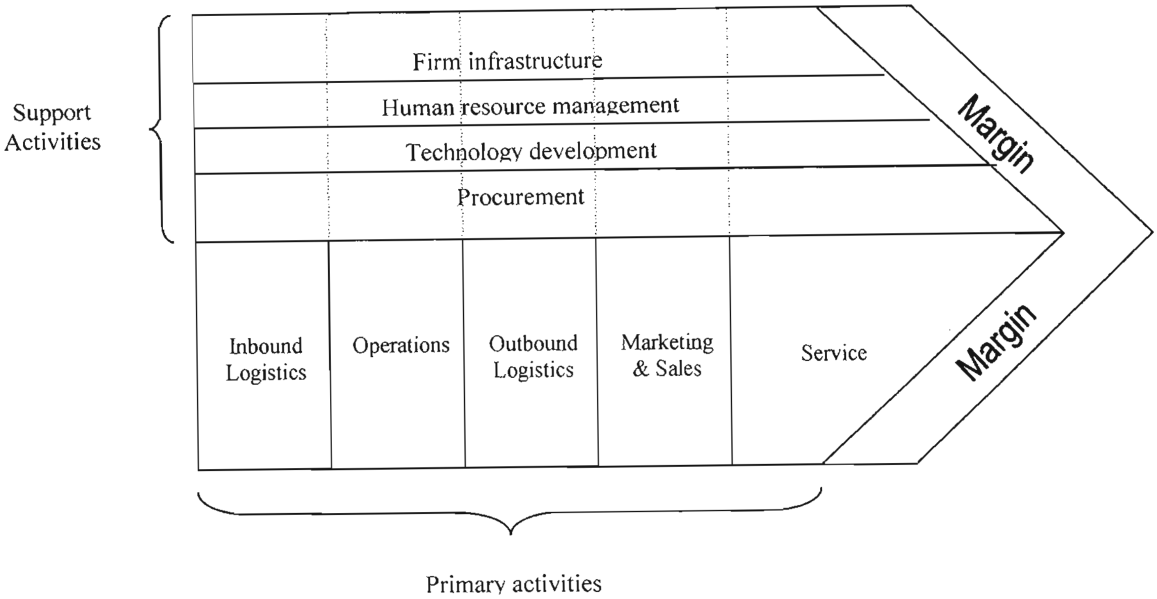
Porter's outline of the process was shown in **Figure 3.2**.

According to Porter's value chain, the primary activities of the company are:

- *Inbound logistics.*

These are the areas concerned with receiving the goods from suppliers, storing them until required by operations and handling and transporting them within the company. In the case of Edcon inbound logistics is good, this can see from its annual financial statements report. Edcon has been consolidating all back office support functions, through greater centralization and more productive use of technology.

Figure 3.2 The Value Chain


Support Activities
Firm infrastructure
Human resource management
Technology development
Procurement
Margin
Inbound Logistics
Operations
Outbound Logistics
Marketing & Sales
Service
Margin
Primary activities

Source: Lynch, R. (2000) adapted from Michael E Porter, 1985, *Competitive Advantage: Creating Sustaining Performance*, the Free Press.

- *Operations.*

This is the production area of the company. Although Edcon is retailer, its manufacturing division serves the group as primary customer. However, the division recorded profits lost in recent years.

- *Outbound logistics.*

These distribute the final product to the customer. Edcon is a leading retailer in this market. This activity is good in Edcon.

- *Market and sales.*

This function analyses customers' wants and needs and brings to the attention of customers what products or services the company has to offer. This function is important for retail companies, such as Edcon. Edcon is a retail giant company in this market so far. They spend lot of resource to analyses customers' wants and needs. Edcon perform this function very well[12].

- *Service.*

Before or after a product or service has been sold, there is often a need for installation or after-sales service. There may also be a requirement for training, answering customer queries, etc. Edcon has high reputation for good customer service in the retail market[13].

Each of the above categories will add value to the organization in its own ways. For Edcon, they get higher scares on standards of service, low production costs, faster and cheaper outbound delivery and so on. In other words, these are the areas of competitive advantage of Edcon.

The support activities are:

- *Procurement.*

This function is to obtain the lowest prices and highest quality of goods for the activities of the company. This is very important function for retail companies. Most of the major retail companies, including Edcon, are doing well in this function[14].

- *Technology development.*

This may be an important area for new products in the company. Edcon has spent a large amount of money on improving their IT system and financial service system. Edcon's IT infrastructure and software capabilities are now impressive and provide powerful tools for business efficiency. Edcon's new technology, system investment (Retek), was introduced to enhanced merchandise productivity and contributed to the marked improvement in the quality of the debtors book. It also facilitated improved customer service and the launch of financial products.

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[12] Information from Edcon's Annual financial reports
[13] Information from Edcon's Annual financial reports
[14] Information from Edcon's Annual financial reports

- *Human resource management.*

Recruitment, training, management development and reward structures are vital elements in all companies including Edcon. One of Edcon's group value is shown in its annual financial reports is that 'our people are our most important asset in satisfying customers and achieving corporate goals. Management cannot expect staff to look after customers better than they look after their staff.' Underpinning the validity of the approach to human resources (HR) management adopted by the Group as part of the turnaround strategy has been made across the Group in the past year. Their HR department consolidate its position as a business partner, rather than a service department. Edcon has done very well in this field.

- *Firm infrastructure.*

This includes the background planning and control systems, for example, accounting that allow companies to administer and direct their development. It includes corporate strategy. The control system of Edcon is better than before. This can be shown in its annual financial reports.

Edcon was ranked by Markinor survey of SA brands as a top retailer, largely due to product, location and service and continuous improvements in all three. Since March 1999, sales have continued to grow despite a reduction in space of over 66 000 m^2 (source from Edcon annual report), and the reduction of inventories, advertising and markdowns. Additionally, Edcon have boosted sales per square meter by 34% and sales per employee by 48% in the same period (See **Table 3.8**). Store and chain management expenses, excluding its IT investments, have by comparison only grown by 9%. [15]

Table 3.8 Improve Operating Efficiency

	March 1999	**March 2002**	**Change**
Sales revenue per retail employee:	R465, 400	R690, 600	Up 48%
Sales revenue per square meter:	R7, 143	R9, 572	Up 34%

According Edcon's 2002 annual report, in summary, Edcon has made the following progress to revitalize the entire organization:

- Repositioning Edcon's brands, based on exhaustive customer research;

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[15] Source from Edcon 2002 annual report p15

- Regaining profitable clothing, footwear and textile (CFT) market share, through improved customer service and value for money offerings;
- Consolidating all back office support functions, through greater centralization and more productive use of technology;
- Cleaning up the debtors' book, through improved collections and tighter credit granting controls;
- Enhancing space utilization, by rationalizing the number of stores and introducing selective multi-branding; and
- Raising productivity, through an enlightened and motivating human resource strategy.

3.5.3 Industry Structure Analysis

The third framework for assessing competitive advantage is industry structure analysis. Industry structure analysis look outside the industry at the forces that will shape the industry's profitability. Michael Porter of Harvard is best known for having formalized industry structure models. An approach to industry structure analysis is shown in **Figure 3.3** in the next page.

Porter's five-forces model is a composite of the following five competitive forces:

❶ The rivalry among competing sellers in the industry.

❷ The potential entry of new competitors.

❸ The market attempts of companies in other industries to win customers over to their own substitute products.

❹ The competitive pressure stemming from supplier-seller collaboration and bargaining.

❺ The competitive pressures stemming from seller-buyer collaboration and bargaining.

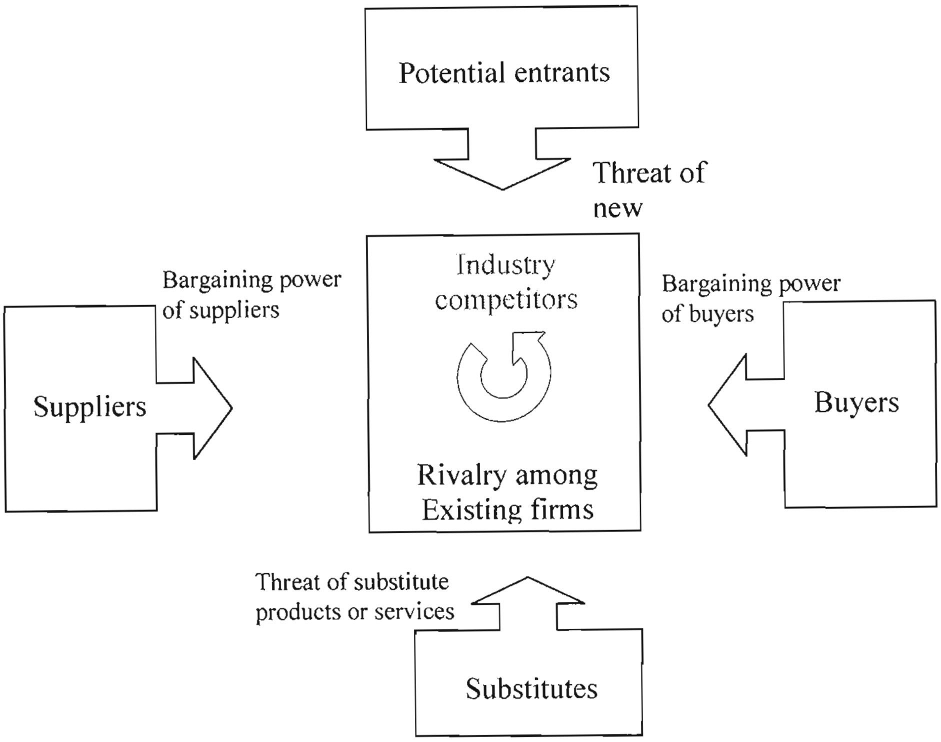
What follows is an analysis of Edcon based on Porter's five-force model:

(1) The rivalry among competing sellers in the industry

Unfortunately, this is a strong force for Edcon in the retail industry. Edcon is in one of the most highly competitive markets. Thus Edcon has to engage in regular and extensive monitoring of key competitor companies. Such as:

- Examining price changes and matching any significant move immediately;
- Examining any change in rival products in great detail and regularly attempting new initiatives themselves;
- Watching investment in new and competing stores and conducting regular drives to reduce their own costs levels;
- Attempting to poach key employees; and so on.

Figure 3.3 Porter's Five Forces Model


Potential entrants
Threat of new
Bargaining power of suppliers
Industry competitors
Bargaining power of buyers
Suppliers
Buyers
Rivalry among Existing firms
Threat of substitute products or services
Substitutes

Source: Lynch, R. (2000) adapted from Michael E. Porter, "How Competitive Forces Shape Strategy," *Harvard Business Review* 57, no. 2 (March-April 1979), pp. 137-45.

(2) The potential entry of new competitors

This is a moderate force; the retail market is not attractive for new entrants due to the fact that profit margins are low. High capital investment also makes this market unattractive to new entrants.

(3) The market attempts of companies in other industries to win customers over to their own substitute products.

The market attempts of companies in other industries to win customers over to their own substitute products, i.e. the threat of substitutes is a weak force. This is a conventional business. The threat of substitutes is major comes mostly from e-commerce, but so far this kind of business has not proved to be very popular in South Africa. The major retail companies, including Edcon, have also entered e-commerce market. Therefore, e-commerce does not entirely replace an existing retail environment. From this, it can be concluded that the threat of substitutes is weak.

(4) The competitive pressure stemming from supplier-seller collaboration and bargaining.

This means the bargaining power of suppliers. In this retail market, the force is low because there are so many suppliers and there are many substitutes for the supplies they offer. There are many source of supply for goods, thus the bargaining power of suppliers is a weak force in this industry.

(5) The competitive pressures stemming from seller-buyer collaboration and bargaining.

This bargaining power of buyers is a strong force in the retail industry, because the buyers can easily switch from one store to another without problems.

After business analysis was investigated, it was concluded that Edcon is a well managed company with sound fundamentals. According financial analysis, Edcon has positive potential growth in next several years. All of these factors can make a positive sign for forecasting future performance. Therefore, future free cash flow and economic profit can be forecasted in the following chapter.

CHAPTER 4 Cost of Capital

4.1 Introduction

To value a business, such as Edcon, cost of capital is an important component. Therefore, cost of capital was analysed in this chapter, before forecasting future performance and valuing Edcon.

The weighted average cost of capital (WACC) is the cost of capital for the firm as a whole, and it can be interpreted as the required return on the overall firm. In discussing the WACC, it will be recognized the fact that a firm will normally raise capital in a variety of forms and that these different forms of capital may have different costs associated with them.

It is known that the particular mixture of debt and equity a firm chooses to employ - its capital structure - is a managerial variable. A firm's overall cost of capital will reflect the required return on the firm's assets as a whole. Given that a firm uses debt and equity capital, this overall cost of capital will be a mixture of the returns needed to compensate its lenders and its shareholders. In other words, a firm's cost of capital will reflect both its cost of debt capital and its cost of equity capital. These costs for Edcon will be discussed separately in the sections that follow.

4.2 The Cost of Equity

To begin with, the most difficult question on the subject of cost of capital: what is the firm's overall cost of equity? The reason this is a difficult question is that there is no way of directly observing the return that the firm's equity investors require on their investment. To estimate the opportunity cost of equity capital, using the capital asset pricing model (CAPM) or the arbitrage pricing model (APM) are recommended. Both approaches have problems associated with their application. For example, they are subject to measurement problems. But they are theoretically correct; they are risk-adjusted and account for expected inflation. In contrast, many other approaches to computing the cost of equity are conceptually flawed. For example, the dividend yield model, the earnings – to –price ratio model, and the dividend yield model with a growth term (sometimes called the Gordon growth model) give incorrect results. In this case, only CAPM was employed in order to simplify our calculation.

The Capital Asset Pricing Model

In essence, the CAPM postulates that the opportunity cost of equity is equal to the return on risk-free securities, plus the company's systematic risk (beta), multiplied by the market price of risk (market risk premium). The equation for the cost of equity (k_E) is as follows:

$$k_E = r_f + ß_E \times (r_m - r_f)$$

Where: r_f = the risk-free rate

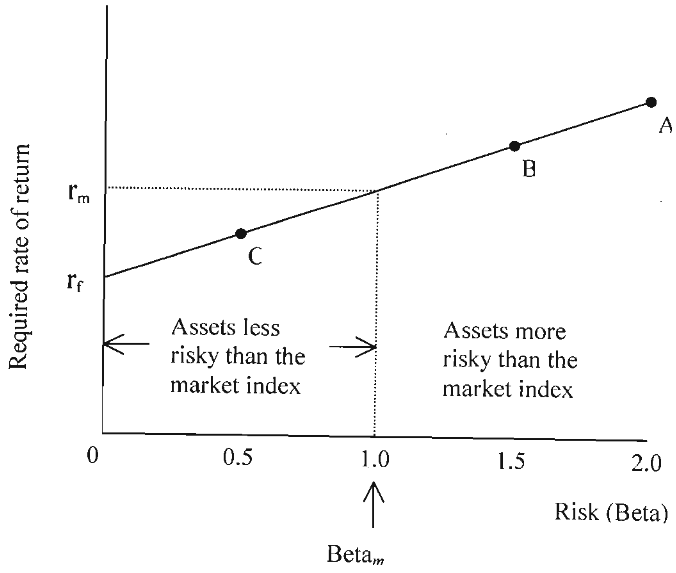
r_m = the expected return for the equities market

$r_m - r_f$ = the market risk premium

$ß_E$ = the estimated Beta for the equity

Security market line (SML) is the graphical depiction of the Capital Asset Pricing Model (CAPM). It is the CAPM specification of how risk and required rate of return are related. CAPM theory posits a linear relationship between an asset's risk and its required rate of return. This linear relationship i.e. the Security Market Line (SML) is shown in **Figure 4.1**.

Figure 4.1 The Security Market Line (SML)



Source: Jones, C.P. (1999) P181

In the formula of CAPM, Jones (1999) states that Beta is a measure of the systematic risk of a security that cannot be avoided through diversification. Beta is a relative measure of risk – the risk of an individual stock relative to the market portfolio of all stocks. If the beta is 1.0 for the security, this means that for every 1 percent change in the market's return, on average this security's returns change 1 percent. Security's Beta of 0.6 means that stock returns move up or down, on average, only 60 percent as much as the market as a whole. Security's beta of 1.5 means that security returns are 1.5 times as volatile as market returns, both up and down. Stocks with high (low) betas are said to be high (low) risk securities.

In this formula, the risk-free rate should be the easiest of these variables to obtain. In estimating the risk-free rate, the investor can use the current return on Treasury bills as the best indication for future returns. Estimating the expected return for the equities market is more difficult because the expected return for the market index is not observable.

The estimates of risk-free rate and the expected return on the market are the same for each security being evaluated. However, beta is unique, bring together the investor's expectations of returns for the stock with those for the market. Beta is the only company-specific factor in the CAPM; therefore, risk is the only asset-specific forecast that must be made in the CAPM.

Many brokerage and investment advisory services report Betas and returns for the market as part of the total information given for individual stocks. For example, the CADIZ Quantitative Research reports the Beta for each stock covered and Fleming Martin Research give annual rates of return for the market on JSE in South Africa.

To derive the market parameters a research report from Fleming Martin Research was used, given the past 40 years return on the market[16] of 19.9%. However, there is considerable controversy over what is the right period of history to use as a proxy for the future. Different researchers may arrive at different betas depending on the method used, the number of past observations, and other assumptions that have to be made. Betas are subject to fluctuation, although portfolio betas have been found to be fairly stable over time (Harrington, D. 1987). Over the past 40 years South African gilt bonds paid an average of 9.5 percent[17]. The bond yields are an indication of interest rates which are almost free of the risk of default. Therefore this bond yield can be used as the risk free rate. Thus the market risk premium is 19.9%-9.5%=10.4%. One estimate of Edcon's beta is 1.01[18]. Thus Edcon's Beta means that Edcon's asset is more risky than that of the equities market (see **Figure 4.1**). This also means that Edcon's required rate of return is above the expected return for equities market (r_m). Edcon returns are 1.01 times as volatile as market returns, both up and down.

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[16] Source from Fleming Martin Research-all shares index

We could thus estimate Edcon's cost of capital i.e. expected return on Edcon as:

$$k_E = r_f + \beta_E \times (r_m - r_f) = 9.5\% + 1.01 \times (19.9\% - 9.5\%) = 20.0\%$$

4.3 The Cost of Debt

In addition to ordinary equity, firms use debt to finance their investment. The cost of debt is the return that the firm's lenders demand on new borrowing.

Financial analysts frequently focus on a firm's total capitalization, which is the sum of its long-term debt and equity. This is particularly true in determining the cost of capital. Short-term liabilities are often ignored in the process. Some short-term liabilities such as accounts payable and accrued wages arise automatically with sales increases and have already been incorporated into cash flow estimates. We ignore them in calculating the cost of capital to avoid the error of double counting. Other current liabilities, short-term bank borrowing for example, are excluded because they support seasonal needs and are not part of the permanent capital structure. [19]

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[17] Source from Fleming Martin Research

[18] Source from "JSE Actuaries All share Index as Market Proxy" Quantitative Research CADIZ stockbroking

[19] Source from Ross (2001) *Fundamentals of Corporate Finance,* 2nd South African Edition McGraw-Hill Book Company Australia Pty Ltd, Page388

Edcon's loans were not publicly traded, so market quotes were not available. Thus we assumed that their book value approximated their market value. The costs of these loans were shown in **Table 4.1**.

To calculate the weighted average debt cost, the percentage of the total debt represented by each issue is multiplied by the yield on the issue. The resulting is then added to get the overall weighted average debt cost. The results of the calculations show that Edcon's pre tax cost of debt is 9.66 percent.

Table 4.1 Edcon's Pre-tax Weighted Average Cost of Debt

	Interest Rate[20]	Market value[21] R000	Percentage of total	Weighted average Debt cost k_d (% of total * interest rate)
Secured loan	7.56%	113,463	56.2%	4.25%
Unsecured loan	12.38%	50,000	24.8%	3.07%
Convertible debt	12.34%	38,163	18.9%	2.33%
Other long-term debt	13%	122	0.1%	0.01%
Total:		**201,748**	**100,00%**	**9.66%**

4.4 The Cost of Preference Shares

Determining the cost of preference shares is quite straightforward. Preference shares have a fixed dividend paid every period forever, so a preference share held is essentially in perpetuity. The cost of preference shares, k_p, is thus:

$$k_p = \frac{d_p}{P_0}$$

Where:

d_p = the fixed dividend paid

P_0 = the current price per preference

Since preference share dividends are not tax deductible, no tax adjustment is required.

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[20] Source from Edcon 2002 Annual Financial Statement report Page88-89.

[21] Source from Edcon 2002 Annual Financial Statement report Page88-89.

Edcon's fixed preference dividend paid is R2×6%=R0.12 (source from Edcon 2002 Annual Financial Statement Report). Thus Edcon whose R2 preference shares are trading at par and are paying R0.12 per share in preference dividends would calculate the cost of preference shares as:

$$k_p = \frac{d_p}{P_0} = \frac{R0.12}{R2} = 6\%$$

4.5 Weighted Average Cost of Capital (WACC)

It is now possible to calculate Edcon's cost of capital i.e. WACC.

At the end of Edcon's financial year-end, the market value of Edcon's equity is worth **R1,384.4 million**[22], based on a share price of R24.10 and a total of 57.445 million shares outstanding. Its debt is worth **R201.7 million**. Its preference share is worth **R0.3 million**[23]. Thus the total value is **R1586.5 million**. Assuming a corporate tax rate of 30 percent, Edcon's WACC is:

$$\text{WACC} = \frac{E}{V} \times k_E + \frac{D}{V} \times k_d \times (1\text{-Tax}) + \frac{D_p}{V} \times k_p$$

$$= \frac{1384.4}{1586.5} \times 20.0\% + \frac{201.7}{1586.5} \times 9.66\% \times (1\text{-}30\%) + \frac{0.3}{1586.5} \times 6\%$$

$$= 18.3\%$$

Therefore Edcon's WACC is 18.3 percent.

After WACC was calculated, then DCF-based model can be used for valuing Edcon in next chapter.

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[22] Source from 2002 Edcon Annual Financial Statement Report

[23] Source from 2002 Edcon Annual Financial Statement Report

CHAPTER 5 MULTIPLE VALUATION TECHNIQUES

5.1 Introduction

There are many models can be used to value a business. However, only the Discounted Free Cash Flow model and Economic Profit model were used to value Edcon in this paper. This was because that they are straightforward to use, and they provide insights into the underlying economics of the business being valued. Other models have some features that limit their usefulness.

The Discounted Free Cash Flow (DCF) model and Economic Profit model, which were described in CHAPTER 2, can be used to value Edcon. To value Edcon, the following core value drivers of the Discounted Free Cash Flow model and economic profit model need to be calculated firstly:
ROIC = NOPLAT/Invested capital.
Free cash flow = NOPLAT – Net investment.
Economic profit = Invested capital × (ROIC- WACC).

5.2 Discounted Free Cash Flow Model

A company's expected cash flow can be separated into two time periods and the company's value defined as follows:

Value = Present value of cash flow during explicit forecast period + Present value of cash flow after explicit forecast period.

The explicit forecast period should be long enough so that the business will have reached a steady state of operations by the end of the period. At present, global markets remain depressed and characterized by economic uncertainty. Unstable South African Rand cannot be forecasted accurately in next several years. The consensus seems to be that any macro-economic negative will impact hardest on clothing retail. Therefore it is impossible to forecast accurately for a very long period of time, such as 7 years or 10 years, in this retail market. As a rule of thumb, we rarely use a forecast

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during the forecasted period because these costs have been well controlled since Edcon's three-years revitalization programme has been completed.

Table 5.3 Selling, General and Administrative to Revenue ratio (1999-2002)

	1999	2000	2001	2002
Selling, General and Administrative to Revenue	27.2%	26.1%	28.5%	28.6%

Other forecast assumptions were shown in **Appendix XV – Forecast Assumptions**. These assumptions were expected in terms of their historical performance, i.e. the average of historical performance. It was also assumed that these ratios were stable during the forecasted period.

According to the forecast assumptions, Forecasted income statement was shown in **Appendix XVI Forecasted Income Statement**.

Total non-current assets/revenue averaged 13.7% and total current assets/revenue averaged 50% during the period 1999-2002 (see **Table 5.4**). Therefore, total non-current assets/revenue was assumed to be 13.7% and total current assets/revenue was assumed to be 50% during the forecasted period. This balance sheet was forecasted in **Appendix XVII Forecasted Balance Sheet**, based on these two ratios.

Table 5.4 The Ratios of Current Assets/Revenue and Non-current Assets/Revenue

	1999	2000	2001	2002	Average
Total non-current assets/revenue	15.4%	13.7%	12.0%	13.6%	13.7%
Total current assets/revenue	49.2%	50.2%	52.2%	48.2%	50%

After **Income Statement** and **Balance Sheet** were forecasted, Forecasted NOPLAT and Forecasted invested capital during the period 2003-2007 can be calculated in **Appendix XVIII Forecasted NOPLAT** and **Appendix XIX Forecasted Invested Capital,** respectively. After these two tables were established, forecasted free cash flow can be generated from these two tables which mentioned above (see **Appendix XX Forecasted Free Cash Flow**).

To use the Discounted Free Cash Flow model, Weighted Average Cost of Capital (WACC) need to be developed. The weighted average cost of capital is the discount rate, or time value of money, used to convert expected future cash flow into present value for all investors. Market value was employed to weight for each financing element, because market values reflect the true economic claim of each type of financing outstanding, whereas book values usually do not. WACC was estimated in **CHAPTER 4** and in **Appendix XXI**.

After explicit forecast period, i.e. after 2007, the revenue growth rate was assumed to be **5%**. It can also be assumed that the expected growth rate in NOPLAT in perpetuity was **5%** after year 2007.

After explicit forecast period, the continuing value can be calculated from the following formula:

$$\text{Continuing value} = \frac{\text{NOPLAT}_{T+1}\,(1 - g/\text{ROIC})}{\text{WACC} - g},$$

Where:

NOPLAT_{T+1} = the normalized level of NOPLAT in the first year after the explicit forecast period

g = the expected growth rate in NOPLAT in perpetuity

ROIC = the expected rate of return on net new investment

In 2007, the forecasted NOPLAT would be **R786.5** million (See **Appendix XVIII**). NOPLAT in the first year after the explicit forecast period, i.e. year 2008, would be **786.5*(1+5%)**, based on the forecasted expected growth rate of **5%** in NOPLAT in perpetuity.

When estimating continuing value, the expected rate of return on new investment should be consistent with expected competitive conditions. Economic theory suggests that competition will eventually eliminate abnormal returns, so for many companies, set ROIC = WACC. Therefore, ROIC = WACC was set in this case. Thus, Continuing value = 786.5*(1+5%)*(1-5%/18.32%)/(18.32%-5%) = **R4508.3** million (see **Appendix XXII**).

Debt (long-term loan) value of the firm was R201.7 million (source from Edcon 2002 annual report), it can be calculated as follow, based on the assumption that Edcon's capital structure would keep on the same level like 2002 level in forecasted period.

Debt value of the firm = 113.5+50.0+38.1+0.1=R201.7 million.

The Discounted Free Cash Flow model was shown in **Appendix XXII Discounted Free Cash Flow**. The total present value of free cash flow was **3,075.7**. The equity value of Edcon was **R2874.0** million.

5.3 Economic profit

Forecasted economic profit can be calculated in **Appendix XXIII Forecasted Economic Profit**. In this table, forecasted return on invested capital (ROIC) was generated from the following formula:
ROIC = NOPLAT/Invested capital.

Invested capital was measured at the beginning of the period in this case. ROIC = WACC was set after 2007.

With the economic profit approach, the continuing value does not represent the value of the company after the explicit forecast period, instead it represents the incremental value over the company's invested capital at the end of the explicit forecast period.

The total value of the company is as follows:
Value = invested capital at the beginning of forecast + present value of forecasted economic profit during explicit forecast period + present value forecasted economic profit after explicit forecast period.

While the economic profit continuing value (the last term in the preceding equation) is different from the Discounted Free Cash Flow continuing value, the value of the company will be the same given the same projected financial performance.

The recommended economic profit continuing value formula is as follows (source from Copeland, T., Koller, T. and Murrin, J. (1996) *Valuation: Measuring and Managing the Value of Companies*, 2nd Edition. Toronto: John Wiley & Sons, Inc. p290):

$$\mathrm{CV} = \frac{\text{Economic Profit}_{T+1}}{\mathrm{WACC}} + \frac{(\mathrm{NOPLAT}_{T+1})(g/\mathrm{ROIC})(\mathrm{ROIC} - \mathrm{WACC})}{\mathrm{WACC}\,(\mathrm{WACC} - g)}$$

Where:

Economic Profit_{T+1} = the normalized economic profit in the first year after the explicit forecast period.

NOPLAT_{T+1} = the normalized NOPLAT in the first year after the explicit forecast period.

g = the expected growth rate in NOPLAT in perpetuity.

ROIC = the expected rate of return on net new investment.

WACC = the weighted average cost of capital.

Using the economic profit approach, results in a continuing value of economic profit after 2007 equal to **R93.6** million calculated as follows:

$$CV = \frac{\text{Economic Profit}_{2008}}{\text{WACC}} + \frac{(\text{NOPLAT}_{2008})(g/\text{ROIC})(\text{ROIC} - \text{WACC})}{\text{WACC}(\text{WACC} - g)}$$

$$= \frac{\text{Economic Profit}_{2008}}{\text{WACC}} + \frac{(\text{NOPLAT}_{2008})(g/\text{ROIC})(\text{ROIC} - \text{WACC})}{\text{WACC}(\text{WACC} - g)}$$

= 273.6/18.32% = R93.6 million

Working:

ROIC = WACC = 18.32%

$\text{NOPLAT}_{2008} = \text{NOPLAT}_{2007}*(1+g) = 786.5*(1+5\%)$

Invested capital = invested capital at the end of 2007 = invested capital at the beginning of 2008

= R4414.7million.

Economic $\text{profit}_{2008} = \text{NOPLAT}_{2008}$ – (Invested capital * WACC)

= 786.5*(1+5%) – (4414.7 * 18.32%) = R17.1 million

Thus, total present value of economic profit =R 149.2 million (see **Appendix XXIII Forecasted Economic Profit**).

Total value of the firm = total present value of economic profit + invested capital at the beginning of 2003 = 149.2 + 2957.0 =R3106.2 million.

Equity value of the firm = total value of the firm – debt value of the firm = 3106.2 – 201.7 = **R2904.5** million.

Therefore, similar values can be generated from these two valuation approaches.

CHAPTER 6 RESULTS AND CONCLUSIONS

6.1 Results: A Consensus Value of Edcon

After using the recommended valuation models, the "true" value of Edcon can be generated from these models. The equity value of Edcon was **R2874.0** million which was generated from the Discounted Free Cash Flow model. Economic Profit model generated the Equity value of the firm was **R2904.5** million. Therefore, the average value of the results of these valuation approaches which demonstrated in **CHAPTER 5** was as follows:

(2874.0+2904.5)/2=**R 2889.3 million.**

It revealed that the equity value of Edcon at 2002 financial year-end was **R2889.3** million, while the market value was only R 1384.4 million at year-end, based on a share price of R24.10 and a total of 57.445 million shares outstanding. On the other hand, Edcon's Net asset value (NAV) was R2297.4 million which was calculated in **Table 6.1**.

Table 6.1 Net Asset Value of Edcon in 2002

	Rm
Total assets	4151.2
Interest bearing debt	575.0
Interest free liabilities	1278.8
Net asset value	2297.4
Total shareholders' funds	2297.4

(Source from Edcon's balance sheet in 2002)

Working:

Net asset Value (NAV) = total shareholders' funds, *or*

= total assets – total liabilities

= 4151.2 - 575.0 - 1278.8

= 2297.4

Obviously, Edcon's NAV was more than its equity market value of R1384.4m, while Edcon's major competitors' NAV were less than their equity market value (see **Table 6.2**).

Table 6.2 Net Asset Values and Equity Values of Some Firms

Company (Accounts year)	NAV (Rm)	Market value of equity (Rm)
Truworths[24] (2002)	1089.5	2801.0
Mr Price[25] (2002)	673.0	1380.0
Woolworths[26] (2002)	2374.8	4051.0
Foschini[27] (2002)	1830.1	2046.7

According to the financial and business analysis in CHAPTER 3, Edcon's performance over the recent years has been weak as strong growth was more than offset by low returns on capital. Geometric average revenue growth rate was just 4.4 percent per year from 1999 to 2002. Over the same period, EBIT increased by 12.1 percent per year. Unfortunately, this growth was not sufficient to create value as Edcon's ROIC averaged only 7.8 percent over 1999 to 2002 period versus an average WACC of 19.5 percent. In 2002 Edcon's ROIC increased to 7.4 percent due to increase in NOPLAT and decline in invested capital. **Appendix X - Edcon, Comparison ROIC** showed how Edcon's 2002 ROIC compared to five key competitors. Edcon underperformed most of its key competitors. Although Edcon's 2002 performance was better than its 2001 performance, the company has not performed as well as others in the same sector. On the other hand, the past year, i.e. March 2001-March 2002, had seen economic uncertainty and upheaval right across the globe, and South Africa had its share. The tragic events of 11 September 2001 had destabilized already fragile economies, while the demise of many major international and local corporations had seriously undermined investor confidence. In the South African context, the most significant event had been the collapse of the Rand in the last quarter of 2001. The full implications for inflation of the decline in the currency had a profound influence on all consumers. These external factors made share prices of all listed retailers to be lower than last financial year[28]. As a result, there was little demand for Edcon's shares before March 2002. This caused Edcon's 2002 financial year-end closing share price to be low at R24.10 which was lower than the NAV per share at R40.0, based on NAV of R2297.4 million and a total of 57.445 million shares outstanding.

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[24] Source from Truworths 2002 annual report. Equity market value was 2801.0 Rm, based on a share price of R5.99 at year-end and a total of 467.603 million shares outstanding;

[25] Source from Mr Price 2002 annual report;

[26] Source from Woolworths 2002 annual report;

[27] Source from Foschini 2002 annual report;

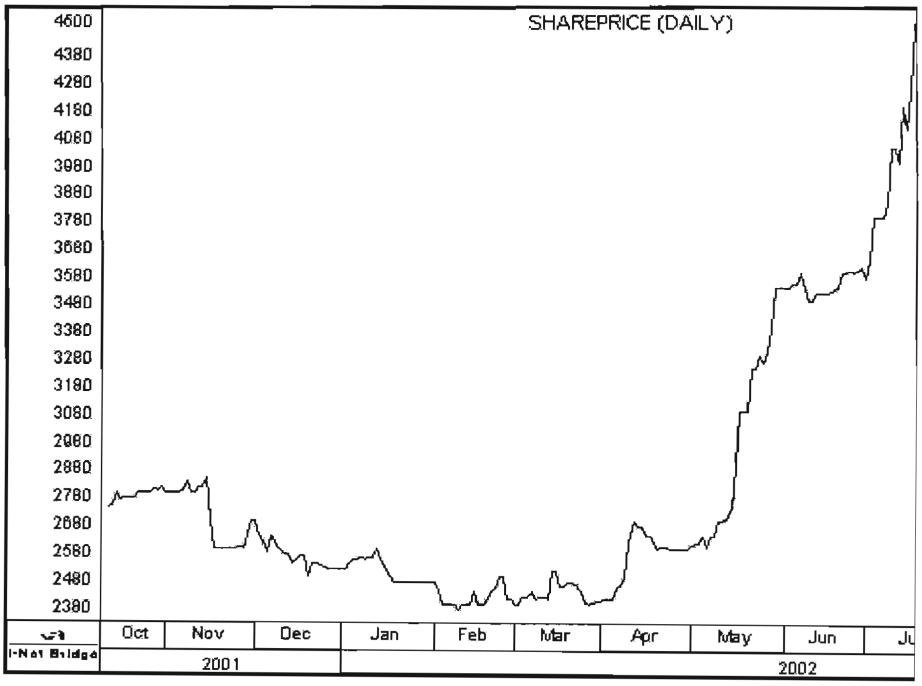
[28] Sources from "Top Companies, Supplement to the Financial Mail June 28 2002" Page 173.

On the other hand, Edcon's 2002 annual report showed that the three-year programme to revitalize the entire organization had been completed and the stage had been reached where the Group was in position to boost returns to shareholders and had its blue-chip status restored among investors. It was shown that the debt/total investor funds was reduced to the lowest level during the recent four years. The investment rate showed that Edcon generated more cash flow than its consumed funds. The dividend payout ratio of 2002 was reduced to 33.3 percent which was the lowest level during the recent four years (see **Appendix XIV**). More free cash flows and lower dividend payout ratio mean Edcon has more retained earnings for future opportunities.

According to our forecast assumptions in **Table 5.1**, Edcon's forecasted performance would be better than the performance in 2002. These assumptions and future performance were based on Edcon's revitalization programme and historical performance. Edcon's share price would be more than the market price at year-end, i.e. R24.10, based on our forecast of Edcon's future performance. We would like to know what the true value of Edcon's share at year-end is. This is the reason why we did the valuation. The true equity value of Edcon was generated from the two valuation approaches, which were used in this case, was **R 2889.3 million.** Thus Edcon's share price was calculated at around **R50.0**, based on a total of 57.445 million shares outstanding. The calculated share price, i.e. R50.0 was more than the market share price, i.e. R24.10, at year-end. From the calculation in this case, it was suggested that the share price of R50.0 was Edcon's true value in 2002 financial year-end. Therefore investors can make profit if investors buy Edcon's share at year-end market price. This result can meet the hypothesis which was described in Section 1.3.

Edcon's share price increased significantly after its annual report was announced in May 2002 (see **Figure 6.1**). As per the semi-strong form of the efficient market hypothesis, all publicly available information about the share would be impounded immediately and without bias into the share price. It would seem that Edcon's share price challenge this hypothesis. Correia, C. etc (2001) state that the efficiency of the JSE is an issue of considerable importance to South African investors. During the last three decades a number of studies have addressed this issue. Research has been popular but inconclusive for academics. The implications of market efficiency at the semi-strong level are of far more relevance to financial managers than debating whether the JSE is an efficient market or not. On the other hand, Ross et al. (2001) state that any conclusions drawn about the relative efficiency of the major markets of the world, such as the New York or London Stock Exchanges, may not apply to smaller markets such as the JSE. In these smaller markets, shares may be infrequently traded, so the last ruling price may not reflect new information that has become available.

Figure 6.1 Edcon's share price



Source from Edcon's website: http://www.edcon.co.za

6.2 Limitations of The Results

Only two valuation models, i.e. Discounted Free Cash Flow and Economic Profit model, were used in this case. Other valuation models, such as Dividend based model, Earnings based model, were not employed for the reasons given in Section 2.3 on p13. According to Miller and Modigliani's (1961) argument which was stated in Section 2.2, under simplifying assumptions, as long as valuations are performed consistently, those valuation models which mentioned above should all lead to the same result.

Some assumptions in the models have to be made in this dissertation. This is a problem because different people would make different assumptions. This would give different results. It is so difficult to produce exactly results when future performance is forecast. Some assumptions have to be made because projected performance can be calculated just in terms of historical performance. The same problems occur when the WACC is estimated.

It must be remembered that valuation models relate to the future and that the future is always uncertain. Furthermore, the valuation models are subject to numerous assumptions. It follows, therefore, that valuations can be no more than approximations of true value. However, it does not mean that these valuation models are useless.

6.3 Conclusions

In this dissertation, the hypothesis is that all valuations in this case will reveal that the share of Edcon was underpriced at year-end, and that investors using these fundamental valuation methods and buying the shares could have made a profit. The true value has to be investigated in order to demonstrate the hypothesis in this case. The financial analysis and business analysis were employed in order to forecast Edcon's future performance. After future performance was forecasted, two valuation models were used to value Edcon's true value. These models were Discounted Free Cash Flow and Economic Profit model.

Edcon's value was generated from these valuation models. It was estimated at R2889.3 million at 2002 financial year-end. This estimated value was more than Edcon's NAV and equity market value. Edcon's equity market value was found to be lower than its net asset value (NAV) in this case. However, according to the analysis in this case, NAV is difficult to reflect a company true value and the equity value should be more than its NAV. Therefore its true equity value was estimated from the selected valuation models in order to demonstrate that the equity market value was underpriced by investors. Consequently, it was estimated that equity value per share was about R50.0 at year-end. Comparing with the market share price which was R24.10 at year-end, this estimated share price was higher. It was concluded that investors could have made a profit if they had bought Edcon's shares at 2002 financial year-end.

In practice, Discounted Free Cash Flow and Economic Profit model can be used to value a company which investors want to invest in. It was recommended that investors could use these two valuation models to investigate share's true value in order to consider whether or not the share was worth investing in.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Arnold, G. (1998) *Corporate Financial Management*, 1st edition. Essex: Prentice Hall.
2. Amling, F. and Droms, W.G. (1996) *Investment Fundamentals*, 1st Edition. New York: The Dryden Press.
3. Baynes, T.A.H. (1973) *Share Valuations*, 2nd Edition. London: William Heinemann Ltd.
4. Bodie, Z., Kane, A. and Marcus, A.J. (2002) *Investments*, 5th Edition. New York: McGraw-Hill.
5. Brealey, R.A. (1983) *An Introduction to Risk and Return from Common Stocks*, 2nd Edition. Oxford: Basil Blackwell.
6. Copeland, T., Koller, T. and Murrin, J. (1996) *Valuation: Measuring and Managing the Value of Companies*, 2nd Edition. Toronto: John Wiley & Sons, Inc.
7. Correia, C., Flynn, D., Uliana, E. and Wormald, M. (2001) *Financial Management*, 4th Edition. Cape Town: JUTA.
8. Damodaran, A. (2001) *Corporate Finance Theory and Practice*, 2nd Edition. New York: John Wiley & Sons, Inc.
9. Firer, C. (1986) "Risk assessment & the Annual Report". *The South African Chartered Accountant*. August. Pp300-301.
10. Firth, M. (1977) *The Valuation of Shares and the Efficient-Markets Theory*, 1st Edition. London: The Macmilian Press Ltd.
11. Franks, J.R., Broyles, J.E. and Carleton, W.T. (1985) *Corporate Finance Concepts and Applications*, 1st Edition. Boston: Kent Publishing Company.
12. Grinblatt, M. and Titman, S. (1998) *Financial Markets and Corporate Strategy*, 1st Edition. New York: Irwin/McGraw-Hill.

13. Harrington, D. (1998) *Corporate Financial Analysis in a Global Environment*, 5th Edition. Cincinnati: South-Western College Publishing.

14. Harrington, D. (1987) *Modern Portfolio Theory, The Capital Asset Pricing Model and Arbitrage Pricing Theory: A User's Guide,* 2nd Edition. Englewood Cliffs: Prentice-Hall.

15. Joubert W.A. and Viljoen, G.V.N. (1986) *A Student's Guide to Valuations*, 5th Edition. Pretoria: Academica.

16. Johnson, H. (1999) *Mergers and Acquisitions*, 1st Edition. London: Pearson Education Limited.

17. Jones, C.P. (1999) *Investments: Analysis and Management*, 7th Edition. Toronto: John Wiley & Sons, Inc.

18. Kidwell D.S., Peterson R.L. and Blackwell D.W. (1997) *Financial Institutions Markets, and Money*, 6th Edition. Orlando: The Dryden Press.

19. Levy, H. and Alderson, M.J. (1998) *Principles of Corporate Finance*, 1st Edition. Cincinnati: International Thomson Publishing.

20. Lumby, S. and Jones, C. (2001) *Fundamentals of Investment Appraisal*, 1st Edition. London: Thomson Learning.

21. Lynch, R. (2000) *Corporate Strategy*, 2nd Edition. Essex: Prentice Hall.

22. McCarthy, G.D. and Healy, R.E. (1971) *Valuing a company practices and procedures*, 1st Edition. New York: The Ronald Press Company.

23. Miller, Jean (1991) *The Valuation of Business interests - different Perspectives,* 1st Edition. Durban: Butterworths.

24. Ohlson, J. (1995) "Earnings, Book Values and Dividends in Equity Valuation". *Contemporary Accounting Research.* Vol.11. N.2. Spring. Pp.61-87.

25. Palepu, K.G., Healy, P.M. and Bernard, V.L. (2000) *Business Analysis & Valuation Using Financial Statements*, 2nd Edition. Boston: South – Western College Publishing.

26. Pratt, S.P., Reilly, R.F. and Schweihs, R. P. (2000) *Valuing a business the analysis and appraisal of closely held companies*, 4th Edition. USA: McGraw-Hill.

27. Ross, S., Westerfield, R.W., Jordan, B.D. and Firer, C. (2001) *Fundamentals of Corporate Finance*, 2nd South African Edition. NSW, Australia: McGraw-Hill.

28. Sherrerd, K.F. (1987) *Equity Markets and Valuation Methods*. San Francisco: Professional Book Distributions, Inc.

29. Shim, J.K. and Siegel, J.G. (2000) *Financial Management*, 2nd Edition. New York: BARRON'S.

30. Thompson, A.A. and Strickland, A.J. (2001) *Crafting and Executing Strategy*, 12th Edition. Singapore: McGraw-Hill.

31. Vigario, F. (1997) *Managerial Accounting and Finance*, 2nd Edition, South Africa.

REFERENCES

1. 1999 Edcon Annual financial statements report.

2. 2000 Edcon Annual financial statements report.

3. 2001 Edcon Annual financial statements report.

4. 2002 Edcon Annual financial statements report.

5. 2002 Foschini Annual financial statements report.

6. 2002 Mr. Price Annual financial statements report.

7. 2002 Pepkor Annual financial statements report.

8. 2002 Truworths Annual financial statements report.

9. 2002 Woolworths Annual financial statements report.

10. Arnold, G. (1998) *Corporate Financial Management*, 1st edition. Essex: Prentice Hall, pp733 and pp739.

11. CADIZ Quantitative Research reports

12. Financial Mail (April 5-2002) pp80-pp82

13. Financial Mail (April 12-2002) pp80

14. Financial Mail (May 22-2002) pp48

15. Fleming Martin Research

16. Grey, W. S. "Discount Rates and Return Forecasts," *Financial Analysts Journal*, 30 (May-June 1974), 55-56

17. Lynch, R. (2000) *Corporate Strategy*, 2nd Edition. Essex: Prentice Hall, pp106.

18. Profile Stock Exchange handbook (Jan2001-Jun2002), pp185 and pp200.

19. Ross, S., Westerfield, R.W., Jordan, B.D. and Firer, C. (2001) *Fundamentals of Corporate Finance*, 2nd South African Edition. NSW, Australia: McGraw-Hill, pp388.

20. Lyle, S. (2002) Financial notes for MBA (Strategic Financial Management).

21. Top Companies, Supplement to the Financial Mail (June 28 2002) pp173.

INTERNET SOURCES

1. The Graduate School of Business, University of Natal-Durban, South Africa: http://www.gsb.nu.ac.za

2. http://home3.americanexpress.com/smallbusiness/resources/starting

3. Business information – valuing a business, 2002. (Online), Available at: http://www.businesshotlinepublications.co.uk

4. Edcon's website: http://www.edcon.co.za/financial/2002+financial+highlights.htm

5. Foschini' s website: http://www.foschinigroup.co.za/financial_fs.htm and http://www.foschinigroup.com/top.htm

6. Mr. Price's website: www.mrpricegroup.com/Investors/2003/MidYear/Reports/Results-English.pdf

7. BoE Personal Stockbrokers: http://www.boesec.co.za/

8. The Perpetual Annuity website: http://www.perpetualannuity.co.za/

9. Profile's JSE Company Information for Edgars Consolidated Stores Ltd:
http://www.profile.co.za/JSE/data/000338/main.asp

10. Rens Search Website: http://www.lib.rpi.edu/resources/references/business

11. CADIZ Holdings Limited: http://www.cadiz.co.za/

12. Financial Mail Website: http://free.financialmail.co.za/

13. ABSA Website: http://www.absa.co.za/

EDCON, HISTORICAL BALANCE SHEET, R Millions

	1995	1996	1997	1998	1999	2000	2001	2002
Assets								
Net properties, equipment and vehicles	428.2	540.5	698.7	813.9	860.6	851.5	711.7	825.8
Trademarks (goodwill)					17.1	8.2	3.8	0.0
Investments	17.8	63.7	32.5	32.8	0.8	0.8	29.2	13.9
Loans					21.4	18.4	45.2	76.0
Total non-current assets	**446.0**	**604.2**	**731.2**	**846.7**	**899.9**	**878.9**	**789.9**	**915.7**
Inventories					1,083.2	1,204.7	1,175.8	993.2
Accounts receivable and prepayments					1,681.6	1,902.9	2,066.6	2,000.3
Taxation receivable					33.5	0.0	0.0	26.5
Cash and cash equivalents					81.4	118.5	180.5	215.5
Total current assets	**2,074.8**	**2,347.2**	**2,428.7**	**2,875.2**	**2,879.7**	**3,226.1**	**3,422.9**	**3,235.5**
Total assets	**2,520.8**	**2,951.4**	**3,159.9**	**3,721.9**	**3,779.6**	**4,105.0**	**4,212.8**	**4,151.2**
Equity and liabilities								
Capital and reserves								
Share capital and premium					591.2	591.2	593.2	451.7
Non-distributable reserves					43.2	37.5	41.9	58.4
Retained surplus					1,452.2	1,624.3	1,670.2	1,786.7
Ordinary shareholders' equity	**1,144.8**	**1,493.8**	**1,820.1**	**2,022.6**	**2,086.6**	**2,253.0**	**2,305.3**	**2,296.8**
Preference share capital	1.2	34.5	74.9	53.1	0.3	0.3	0.3	0.3
Minority interest					31.3	42.1	0.1	0.3
Total shareholders' funds	**1,146.0**	**1,528.3**	**1,895.0**	**2,075.7**	**2,118.2**	**2,295.4**	**2,305.7**	**2,297.4**
Interest bearing debt								
Long and medium term	368.4	212.2	10.2	379.1	221.0	199.1	225.4	182.7
Short term	65.0	73.5	217.9	175.4	375.9	428.7	593.4	392.3
Total interest bearing debt.	**433.4**	**285.7**	**228.1**	**554.5**	**596.9**	**627.8**	**818.8**	**575.0**
Total capital employed	**1,579.4**	**1,814.0**	**2,123.1**	**2,630.2**	**2,715.1**	**2,923.2**	**3,124.5**	**2,872.4**
Interest free liabilities								
Accounts payable					917.9	1,005.7	934.1	1,104.3
Current taxation					16.5	56.8	0.0	0.0
Deferred taxation					130.1	119.3	154.2	174.5
Owing to subsidiaries					0.0	0.0	0.0	0.0
Total interest free liabilities	**941.4**	**1,137.4**	**1,036.8**	**1,091.7**	**1,064.5**	**1,181.8**	**1,088.3**	**1,278.8**
Total equity and liabilities	**2,520.8**	**2,951.4**	**3,159.9**	**3,721.9**	**3,779.6**	**4,105.0**	**4,212.8**	**4,151.2**
Net equity per ordinary share (cents)	2,206.8	2,822.7	3,358.4	3,629.2	3,636.7	3,926.7	4,013.1	3,998.3
Check: Assets = Liab + Equity ?	0	0	0	0	0	0	0	0
Comment =>	Balances	Balances	Balances	Balances	Balances	Balances	Balances	Balances

Financial year end 30 March	1995	1996	1997	1998	1999	2000	2001	2002
Deferred Taxes					130.1	119.3	154.2	174.5
No of Common Shares o/s (000)	51,876	52,921	54,196	55,732	57,376	57,376	57,445	57,445
Market Price of Common Stock (R)	127.50	165.00	120.00	85.20	31.80	70.70	21.05	24.10
Weighted average price per share traded	137.59	120.19	118.03	102.96	30.65	56.36	35.39	26.74
Book Value per Share	22.07	28.23	33.58	36.29	36.37	39.27	40.13	39.98
Dividends per Common Share (**DPS** cents)					58.0	152.0	132.9	99.6
Total Dividends Paid (Rm)					33.3	87.2	76.4	57.2
P/E ratio					21.3	17.9	10.0	8.1
Market capitalization (Rm)	6614.2	8732.0	6503.5	4748.4	1824.6	4056.5	1209.2	1384.4
Earnings yield (%)					4.7%	5.6%	10.0%	12.4%
Dividend yield (%)					1.8%	2.1%	6.3%	4.1%
Standard tax rate-South Africa	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Effective tax rate	39.9%	35.9%	34.4%	34.0%	36.3%	30.6%	29.7%	35.2%
Preference share value R000					**300**	**300**	**300**	**300**

EDCON, HISTORICAL INCOME STATEMENT, R Millions	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Revenue	**4,203.6**	**5,097.0**	**5,616.7**	**5,641.7**	**5,849.8**	**6,423.6**	**6,557.4**	**6,709.8**
Cost of goods sold	(2,593.3)	(3,163.9)	(3,510.6)	(3,583.4)	(3,834.1)	(4,100.7)	(4,227.9)	(4,264.1)
Gross profit	**1,610.3**	**1,933.1**	**2,106.1**	**2,058.3**	**2,015.7**	**2,322.9**	**2,329.5**	**2,445.7**
Expenses								
Selling, general and and administrative expenses					(1,590.8)	(1,675.6)	(1,868.8)	(1,921.9)
Depreciation expense					(191.6)	(209.1)	(199.6)	(194.9)
Amortization of goodwill					(4.8)	(8.9)	(4.2)	(3.8)
Total expenses	(1,092.6)	(1,354.2)	(1,558.8)	(1,641.1)	(1,787.2)	(1,893.6)	(2,072.6)	(2,120.6)
Trading profit (Operating income)	**517.7**	**578.9**	**547.3**	**417.2**	**228.5**	**429.3**	**256.9**	**325.1**
Interest income	(60.5)	(72.9)	(51.8)	(56.8)	4.9	12.5	7.9	12.3
Financing costs (interest expense)					(126.3)	(88.6)	(92.6)	(72.3)
Income before income taxes	457.2	506.0	495.5	360.4	**107.1**	**353.2**	**172.2**	**265.1**
Provision for income taxes	(181.8)	(180.8)	(170.5)	(122.5)	(38.9)	(108.3)	(51.3)	(93.4)
Profit after taxation (Net income)	**275.4**	**325.2**	**325.0**	**237.9**	**68.2**	**244.9**	**120.9**	**171.7**
Equity accounted retained earnings	9.0	14.9	6.1	0.0	0.0	0.0	0.0	0.0
Attributable to outside shareholders	(0.1)	(2.9)	(10.2)	(7.4)	17.6	(18.4)	0.0	0.0
Earnings attributable to ordinary shareholders	**284.3**	**337.2**	**320.9**	**230.5**	**85.8**	**226.5**	**120.9**	**171.7**
Numbers of ordinary shares (000)	51,876	52,921	54,196	55,732	57,376	57,376	57,445	57,445
Earnings per ordinary share (cents) ***attributable earnings basis (EPS)***					149.5	394.8	210.5	298.9
Total ordinary dividends					33.3	87.2	76.4	57.2
Dividends per ordinary share (cents)					58.0	152.0	100.0	117.0

EDCON, COMMON SIZE BALANCE SHEET

	1999	2000	2001	2002	Average
Assets					
Net properties, equipment and vehicles	22.8%	20.7%	16.9%	19.9%	20.1%
Trademarks	0.5%	0.2%	0.1%	0.0%	0.2%
Investments	0.0%	0.0%	0.7%	0.3%	0.3%
Loans	0.6%	0.4%	1.1%	1.8%	1.0%
Total non-current assets	**23.8%**	**21.4%**	**18.8%**	**22.1%**	**21.5%**
Inventories	28.7%	29.3%	27.9%	23.9%	27.5%
Accounts receivable and prepayments	44.5%	46.4%	49.1%	48.2%	47.0%
Taxation receivable	0.9%	0.0%	0.0%	0.6%	0.4%
Cash and cash equivalents	2.2%	2.9%	4.3%	5.2%	3.6%
Total current assets	**76.2%**	**78.6%**	**81.3%**	**77.9%**	**78.5%**
Total assets	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Equity and liabilities					
Capital and reserves					
Share capital and premium	15.6%	14.4%	14.1%	10.9%	13.8%
Non-distributable reserves	1.1%	0.9%	1.0%	1.4%	1.1%
Retained surplus	38.4%	39.6%	39.6%	43.0%	40.2%
Ordinary shareholders' equity	**55.2%**	**54.9%**	**54.7%**	**55.3%**	**55.0%**
Preference share capital	0.0%	0.0%	0.0%	0.0%	0.0%
Minority interest	0.8%	1.0%	0.0%	0.0%	0.5%
Total shareholders' funds	**56.0%**	**55.9%**	**54.7%**	**55.3%**	**55.5%**
Interest bearing debt					
Long and medium term	5.8%	4.9%	5.4%	4.4%	5.1%
Short term	9.9%	10.4%	14.1%	9.5%	11.0%
Total interest bearing debt.	**15.8%**	**15.3%**	**19.4%**	**13.9%**	**16.1%**
Total capital employed	**71.8%**	**71.2%**	**74.2%**	**69.2%**	**71.6%**
Interest free liabilities					
Accounts payable	24.3%	24.5%	22.2%	26.6%	24.4%
Current taxation	0.4%	1.4%	0.0%	0.0%	0.5%
Deferred taxation	3.4%	2.9%	3.7%	4.2%	3.6%
Owing to subsidiaries	0.0%	0.0%	0.0%	0.0%	0.0%
Total interest free liabilities	**28.2%**	**28.8%**	**25.8%**	**30.8%**	**28.4%**
Total equity and liabilities	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Total non-current assets/revenue	15.4%	13.7%	12.0%	13.6%	**13.7%**
Total current assets/revenue	49.2%	50.2%	52.2%	48.2%	**50.0%**

EDCON, COMMON SIZE INCOME STATEMENT

	1999	2000	2001	2002	Average
Revenue	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of goods sold	65.5%	63.8%	64.5%	63.6%	64.4%
Gross profit	34.5%	36.2%	35.5%	36.4%	35.6%
Expenses					
Selling, general and administrative expenses	27.2%	26.1%	28.5%	28.6%	27.6%
Depreciation expense	3.3%	3.3%	3.0%	2.9%	3.1%
Amortization of goodwill	0.1%	0.1%	0.1%	0.1%	0.1%
Total expenses	30.6%	29.5%	31.6%	31.6%	30.8%
Trading profit (Operating income)	3.9%	6.7%	3.9%	4.8%	4.8%
Interest income	0.1%	0.2%	0.1%	0.2%	0.1%
Financing costs (interest expense)	2.2%	1.4%	1.4%	1.1%	1.5%
Income before income taxes	1.8%	5.5%	2.6%	4.0%	3.5%
Provision for income taxes	0.7%	1.7%	0.8%	1.4%	1.1%
Profit after taxation (Net income)	1.2%	3.8%	1.8%	2.6%	2.3%

EDCON NOPLAT CALCULATION *R Millions*

NOPLAT	**1999**	**2000**	**2001**	**2002**
Revenue	5,849.8	6,423.6	6,557.4	6,709.8
Cost of goods sold	(3,834.1)	(4,100.7)	(4,227.9)	(4,264.1)
Sales, general and administrative expenses	(1,590.8)	(1,675.6)	(1,868.8)	(1,921.9)
Depreciation expense	(191.6)	(209.1)	(199.6)	(194.9)
Operating earnings before interest and taxes (EBIT)	233.3	438.2	261.1	328.9
Taxes on EBIT	(75.3)	(131.1)	(76.7)	(111.4)
Change in deferred taxes	15.1	(10.8)	34.9	20.3
NOPLAT	**173.1**	**296.3**	**219.3**	**237.8**
Taxes on EBIT				
Provision for income taxes (from income statement)	38.9	108.3	51.3	93.4
Tax shield on interest expense (at 30%)	37.9	26.6	27.8	21.7
Tax on interest income (at 30%)	(1.5)	(3.8)	(2.4)	(3.7)
Tax on nonoperating income (at 30%)	0.0	0.0	0.0	0.0
Taxes on EBIT	75.3	131.1	76.7	111.4
Change in deferred taxes				
Balance at the beginning of the year	115.0	130.1	119.3	154.2
Balance at the end of the year	130.1	119.3	154.2	174.5
Change in deferred taxes	15.1	(10.8)	34.9	20.3
Reconciliation to Net income				
Net income	68.2	244.9	120.9	171.7
Add: Increase in deferred taxes	15.1	(10.8)	34.9	20.3
Add: Goodwill amortization	4.8	8.9	4.2	3.8
Adjusted net income	88.1	243.0	160.0	195.8
Add: Interest expense after-tax	88.4	62.0	64.8	50.6
Total income available to investors	176.5	305.0	224.8	246.4
Less: Interest income after-tax	(3.4)	(8.8)	(5.5)	(8.6)
Less: Nonoperating income after-tax	0.0	0.0	0.0	0.0
NOPLAT	**173.1**	**296.3**	**219.3**	**237.8**

EDCON, INVESTED CAPITAL	***R Millions***				
	1998	**1999**	**2000**	**2001**	**2002**
Operating current assets	2,875.2	2,879.7	3,226.1	3,422.9	3,235.5
Noninterest bearing current liabilities	(731.7)	(934.4)	(1,062.5)	(934.1)	(1,104.3)
Net working capital	2,143.5	1,945.3	2,163.6	2,488.8	2,131.2
Net properties,equipment and vehicles	814.0	860.6	851.5	711.7	825.8
Other operating assets, net of other liabilities	0.0	0.0	0.0	0.0	0.0
Operating invested capital	**2,957.5**	**2,805.9**	**3,015.1**	**3,200.5**	**2,957.0**
Excess marketable securities		0.0	0.0	0.0	0.0
Trademark(Goodwill)		17.1	8.2	3.8	0.0
Nonoperating investments		22.2	19.2	74.4	89.9
Total investor funds		**2,845.2**	**3,042.5**	**3,278.7**	**3,046.9**
Equity		2,118.2	2,295.4	2,305.7	2,297.4
Deferred income taxes		130.1	119.3	154.2	174.5
Adjusted equity		2,248.3	2,414.7	2,459.9	2,471.9
All interest bearing debt		596.9	627.8	818.8	575.0
Total investor funds		**2,845.2**	**3,042.5**	**3,278.7**	**3,046.9**

EDCON, CHANGES IN INVESTED CAPITAL

	1999	2000	2001	2002
Operating current assets		12.0%	6.1%	-5.5%
Noninterest bearing current liabilities		13.7%	-12.1%	18.2%
Net working capital		11.2%	15.0%	-14.4%
Net property plant and equipment		-1.1%	-16.4%	16.0%
Other operating assets, net of other liabilities				
Operating invested capital		7.5%	6.1%	-7.6%
Excess marketable securities				
Trademark(Goodwill)		-52.0%	-53.7%	-100.0%
Nonoperating investments		-13.5%	287.5%	20.8%
Total investor funds		6.9%	7.8%	-7.1%
Equity		8.4%	0.4%	-0.4%
Deferred income taxes		-8.3%	29.3%	13.2%
Adjusted equity		7.4%	1.9%	0.5%
All interest bearing debt		5.2%	30.4%	-29.8%
Total investor funds		6.9%	7.8%	-7.1%

EDCON, ROIC	**1999**	**2000**	**2001**	**2002**	**Average**
NOPLAT	173.1	296.3	219.3	237.8	231.6
Operating invested capital (beginning of year)	2,957.5	2,805.9	3,015.1	3,200.5	2,994.8
Operating invested capital (average of the beginning and end of the year)	2,881.7	2,910.5	3,107.8	3,078.8	2,994.7
Goodwill	17.1	8.2	3.8	0.0	7.3
ROIC	5.9%	10.6%	7.3%	7.4%	7.8%
ROIC (using average capital)	6.0%	10.2%	7.1%	7.7%	7.7%
ROIC (including goodwill)	5.8%	10.5%	7.3%	7.4%	7.8%

Growth rates					Geometric Average growth rate	Arithmetic average
Revenue growth rate	3.7%	9.8%	2.1%	2.3%	4.4%	4.5%
EBIT growth rate		87.8%	-40.4%	26.0%	12.1%	24.5%
NOPLAT growth rate		71.2%	-26.0%	8.4%	11.2%	17.9%
Invested capital growth rate	-5.1%	7.5%	6.1%	-7.6%	0.0%	0.2%

EDCON, COMPARISON OF RATES OF RETURN ON INVESTED CAPITAL (ROIC), 2002

Company (Clothing retailers) 1-	(Operating expenses/revenue +	Depreciation/revenue) =	Operating margin
Truworths	78.8%	2.9%	18.3%
Mr Price	91.1%	2.2%	6.7%
Woolworths	94.1%	2.5%	3.3%
Foschini	87.0%	3.9%	9.1%
Pepkor	96.3%	1.8%	1.9%
Average	89.5%	2.7%	7.9%
Edcon	**92.2%**	**2.9%**	**5.0%**

Company 1/	(Working capital/revenue +	Net PPE/revenue	+ Other assets/revenue) =	Capital turnover
Truworths	39.6%	14.2%	0.0%	1.9
Mr Price	18.7%	6.3%	0.5%	3.9
Woolworths	28.7%	10.9%	0.0%	2.5
Foschini	40.9%	8.3%	0.0%	2.0
Pepkor	15.4%	8.0%	0.0%	4.3
Average	28.7%	9.5%	0.1%	2.9
Edcon	**31.8%**	**12.3%**	**0.0%**	**2.3**

Company	Operating margin *	Capital turnover *	1-Cash tax rate =	After-tax ROIC
Truworths	18.3%	1.9	64.4%	21.9%
Mr Price	6.7%	3.9	71.9%	18.9%
Woolworths	3.3%	2.5	66.0%	5.6%
Foschini	9.1%	2.0	73.6%	13.7%
Pepkor	1.9%	4.3	71.2%	5.7%
Average	7.9%	2.9	69.4%	13.1%
Edcon	**5.0%**	**2.3**	**65.3%**	**7.4%**

	1999	2000	2001	2002	Average
WACC	21.9%	19.8%	18.1%	18.32%	19.5%

Working:				
Risk-free rate	9.50%	9.50%	9.50%	9.50%
Beta	1.36	1.06	1.06	1.01
Expected return on market	19.90%	19.90%	19.90%	19.90%
Market risk premium	10.40%	10.40%	10.40%	10.40%
Cost of equity (Ke)	23.64%	20.52%	20.52%	20.00%

Standard tax rate = 30%

EDCON, WACC

Year 1999 WACC	Market value R000	Percentage of total market value %	Pretax cost %	After-tax cost %	Contribution to WACC %
Secured loan	160,358	7.77%	12.95%	9.1%	0.7%
Unsecured loan	38,163	1.85%	12.3%	8.6%	0.2%
Convertible debt	37,957	1.84%	12.2%	8.5%	0.2%
Other long-term debt	2,176	0.11%	20.0%	14.0%	0.0%
Short-term interest debt		0.00%	13.0%	9.1%	0.0%
Preference share	300	0.01%	6.0%	6.0%	0.001%
Common equity	1,824,557	88.42%	23.6%	23.6%	20.9%
Total	2,063,511	100%			**21.9%**
Year 2000 WACC					
Secured loan	147,450	3.45%	7.22%	5.1%	0.2%
Unsecured loan	38,163	0.89%	12.34%	8.6%	0.1%
Convertible debt	34,065	0.80%	9.40%	6.6%	0.1%
Other long-term debt	1,423	0.03%	12.50%	8.8%	0.0%
Short-term interest debt		0.00%	13.00%	9.1%	0.0%
Preference share	300	0.01%	6.00%	6.00%	0.0%
Common equity	4,056,497	94.82%	20.52%	20.52%	19.5%
Total	4,277,898	100%			**19.8%**
Year 2001 WACC					
Secured loan	131,127	8.99%	6.62%	4.63%	0.4%
Unsecured loan	50,000	3.43%	12.38%	8.67%	0.3%
Convertible debt	38,163	2.62%	12.34%	8.64%	0.2%
Other unsecured loan	29,102	2.00%	9.60%	6.72%	0.1%
Other long-term debt	791	0.05%	12.50%	8.75%	0.0%
Short-term interest debt		0.00%	13.00%	9.10%	0.0%
Preference share	300	0.02%	6.00%	6.00%	0.0%
Common equity	1,209,209	82.90%	20.52%	20.52%	17.0%
Total	1,458,692	100%			**18.1%**
Year 2002 WACC					
Secured loan	113,463	7.15%	7.56%	5.29%	0.38%
Unsecured loan	50,000	3.15%	12.38%	8.67%	0.27%
Convertible debt	38,163	2.41%	12.34%	8.64%	0.21%
Other long-term debt	122	0.01%	13.00%	9.10%	0.00%
Short-term interest debt		0.00%	13.00%	9.10%	0.00%
Preference share	300	0.02%	6.00%	6.00%	0.00%
Common equity	1,384,425	87.26%	20.00%	20.00%	17.46%
Total	1,586,473	100.00%			**18.32%**

EDCON, ECONOMIC PROFIT

	1999	2000	2001	2002
Return on invested capital	5.9%	10.6%	7.3%	7.4%
WACC	21.9%	19.8%	18.1%	18.3%
Spread	-16.1%	-9.2%	-10.8%	-10.9%
Invested Capital (beginning of year)	2,957.5	2,805.9	3,015.1	3,200.5
Economic profit (before goodwill)	(475.9)	(258.4)	(326.2)	(348.5)
NOPLAT	173.1	296.3	219.3	237.8
Capital charge	649.0	554.7	545.5	586.3
Economic profit (before goodwill)	(475.9)	(258.4)	(326.2)	(348.5)

EDCON, FREE CASH FLOW

	1999	2000	2001	2002
EBIT	233.3	438.2	261.1	328.9
Taxes on EBIT	(75.3)	(131.1)	(76.7)	(111.4)
Change in deferred taxes	15.1	(10.8)	34.9	20.3
NOPLAT	173.1	296.3	219.3	237.8
Depreciation expense	191.6	209.1	199.6	194.9
Gross cash flow	364.7	505.4	418.9	432.7
Increase in net working capital	46.8	218.3	325.2	(357.6)
Capital expenditure	238.2	200.0	59.8	309.0
Increase in other assets, net of liabilities	0.0	0.0	0.0	0.0
Gross investment	285.0	418.3	385.0	(48.6)
Free cash flow before goodwill	79.7	87.1	33.9	481.3
Investment in goodwill	1.6	0.0	0.2	0.0
Free cash flow	**81.3**	**87.1**	**34.1**	**481.3**
Nonoperating investment cash flow	(13.0)	3.0	(55.2)	(15.5)
Foreign currency translation effect	0.0	0.0	0.0	0.0
Cash flow available to investors	**68.3**	**90.1**	**(21.1)**	**465.8**

Financing flow

After-tax interest income	(3.4)	(8.8)	(5.5)	(8.6)
Increase/(decrease) in excess marketable securities	0.0	0.0	0.0	0.0
After-tax interest expense	88.4	62.0	64.8	50.6
Decrease/(increase) in interest-bearing debt	(42.4)	(30.9)	(191.0)	243.8
Dividends	33.3	87.2	76.4	57.2
Share repurchases/(issues)	(7.6)	(19.5)	34.2	122.8
Total financing flow	**68.3**	**90.1**	**(21.1)**	**465.8**

EDCON, HISTORICAL FINANCIAL HEALTH

	1999	2000	2001	2002
Interest coverage				
EBIT	233.3	438.2	261.1	328.9
Interest expense	126.3	88.6	92.6	72.3
EBIT/Interest expense	1.8	4.9	2.8	4.5
Capital structure				
Total interest bearing debt	596.9	627.8	818.8	575.0
Total investor funds	2,845.2	3,042.5	3,278.7	3,046.9
Debt/Total funds (book value)	21.0%	20.6%	25.0%	18.9%
Investment rate				
Net investment	93.4	209.2	185.4	(243.5)
NOPLAT	173.1	296.3	219.3	237.8
Net investment rate	54.0%	70.6%	84.5%	-102.4%
Gross investment	285.0	418.3	385.0	(48.6)
Gross cash flow	364.7	505.4	418.9	432.7
Gross investment rate	78.2%	82.8%	91.9%	-11.2%
Dividend payout				
Common dividends	33.3	87.2	76.4	57.2
Net income available to common	68.2	244.9	120.9	171.7
Dividend payout ratio	48.8%	35.6%	63.2%	33.3%
Financing flow analysis				
After-tax interest income	(3.4)	(8.8)	(5.5)	(8.6)
Increase/(decrease) in excess marketable securities	0.0	0.0	0.0	0.0
After-tax interest expense	88.4	62.0	64.8	50.6
Decrease/(increase) in debt	(42.4)	(30.9)	(191.0)	243.8
Dividends	33.3	87.2	76.4	57.2
Share repurchase/(issues)	(7.6)	(19.5)	34.2	122.8
Total financing flow	68.3	90.1	(21.1)	465.8

	Truworths	Mr Price	Woolworths	Foschini
EBIT/interest expense in 2002	1813.5	21.3	6.3	4.8

EDCON, FORECAST ASSUMPTIONS	**2003**	**2004**	**2005**	**2006**	**2007**	**Perpetuity**
Operations						
Revenue growth	**9.0%**	**8.0%**	**7.0%**	**6.0%**	**5.0%**	**5.0%**
Cost of goods sold/revenue	**62.0%**	**62.0%**	**62.0%**	**62.0%**	**62.0%**	**62.0%**
Expenses						
Selling, general and and administrative expenses	**25.0%**	**25.0%**	**25.0%**	**25.0%**	**25.0%**	**25.0%**
Depreciation expense	**3.1%**	**3.1%**	**3.1%**	**3.1%**	**3.1%**	**3.1%**
Amortization of goodwill	**0.1%**	**0.1%**	**0.1%**	**0.1%**	**0.1%**	**0.1%**
Interest income	**0.1%**	**0.1%**	**0.1%**	**0.1%**	**0.1%**	**0.1%**
Financing costs (interest expense)	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**
Provision for income taxes	**1.1%**	**1.1%**	**1.1%**	**1.1%**	**1.1%**	**1.1%**
Total non-current assets/revenue	**13.7%**	**13.7%**	**13.7%**	**13.7%**	**13.7%**	**13.7%**
Total current assets/revenue	**50.0%**	**50.0%**	**50.0%**	**50.0%**	**50.0%**	**50.0%**

EDCON, FORECASTED INCOME STATEMENT						
	2003	**2004**	**2005**	**2006**	**2007**	**Perpetuity**
Revenue	7,313.7	7,898.8	8,451.7	8,958.8	9,406.7	9,877.1
Cost of goods sold	(4,534.5)	(4,897.2)	(5,240.0)	(5,554.5)	(5,832.2)	(9,448.1)
Gross profit	2,779.2	3,001.5	3,211.6	3,404.3	3,574.6	3,574.6
Expenses						
Selling, general and and administrative expenses	(1,828.4)	(1,974.7)	(2,112.9)	(2,239.7)	(2,351.7)	(2,469.3)
Depreciation expense	(228.2)	(246.4)	(263.7)	(279.5)	(293.5)	(306.2)
Amortization of goodwill	(6.2)	(6.7)	(7.2)	(7.6)	(8.0)	(9.9)
Total expenses	(2,062.8)	(2,227.9)	(2,383.8)	(2,526.8)	(2,653.2)	(2,785.3)
Trading profit (Operating income)	716.4	773.7	827.8	877.5	921.4	789.2
Interest income	10.6	11.5	12.3	13.0	13.7	9.9
Financing costs (interest expense)	(110.2)	(119.0)	(127.4)	(135.0)	(141.8)	(148.2)
Income before income taxes	616.8	666.1	712.8	755.5	793.3	650.9
Provision for income taxes	(82.7)	(89.4)	(95.6)	(101.4)	(106.4)	(108.6)
Profit after taxation (Net income)	**534.1**	**576.8**	**617.2**	**654.2**	**686.9**	**542.3**

EDCON, FORECASTED BALANCE SHEET

	2003	2004	2005	2006	2007	Perpetuity
Assets						
Properties, fixtures, equipment and vehicles	934.6	1,009.4	1,080.0	1,144.9	1,202.1	1,262.2
Trademarks	8.6	9.3	10.0	10.6	11.1	11.7
Investments	12.4	13.4	14.4	15.2	16.0	16.8
Loans	45.6	49.3	52.7	55.9	58.7	61.6
Total non-current assets	**1,001.2**	**1,081.3**	**1,157.0**	**1,226.4**	**1,287.8**	**1,352.1**
Inventories	1,278.5	1,380.8	1,477.4	1,566.0	1,644.4	1,726.6
Accounts receivable and prepayments	2,189.2	2,364.3	2,529.8	2,681.6	2,815.7	2,956.5
Taxation receivable	17.7	19.2	20.5	21.7	22.8	24.0
Cash and cash equivalents	169.0	182.5	195.2	207.0	217.3	228.2
Total current assets	**3,654.5**	**3,946.8**	**4,223.1**	**4,476.5**	**4,700.3**	**4,935.3**
Total assets	**4,655.7**	**5,028.1**	**5,380.1**	**5,702.9**	**5,988.1**	**6,287.5**
Equity and liabilities						
Capital and reserves						
Share capital and premium	640.2	691.4	739.8	784.2	823.4	864.6
Non-distributable reserves	51.9	56.0	60.0	63.6		70.1
Retained surplus	1,870.2	2,019.8	2,161.2	2,290.8	2,405.4	2,525.6
Ordinary shareholders' equity	**2,562.3**	**2,767.2**	**2,961.0**	**3,138.6**	**3,228.8**	**3,460.3**
Preference share capital	0.3	0.4	0.4	0.4	0.4	0.5
Minority interest	21.7	23.4	25.1	26.6	27.9	29.3
Total shareholders' funds	**2,584.3**	**2,791.0**	**2,986.4**	**3,165.6**	**3,257.1**	**3,490.1**
Interest bearing debt						
Long and medium term	238.0	257.0	275.0	291.5	306.1	321.4
Short term	511.2	552.1	590.8	626.2	657.6	690.4
Total interest bearing debt.	**749.3**	**809.2**	**865.8**	**917.8**	**963.7**	**1,011.9**
Total capital employed	**3,333.6**	**3,600.2**	**3,852.3**	**4,083.4**	**4,220.8**	**4,501.9**
Interest free liabilities						
Accounts payable	1,135.5	1,226.4	1,312.2	1,390.9	1,460.5	1,533.5
Current taxation	21.2	22.9	24.5	26.0	27.2	28.6
Deferred taxation	165.4	178.7	191.2	202.6	212.8	223.4
Owing to subsidiaries	0.0	0.0	0.0	0.0	0.0	0.0
Total interest free liabilities	**1,322.1**	**1,427.9**	**1,527.8**	**1,619.5**	**1,700.5**	**1,785.5**
Total equity and liabilities	**4,655.7**	**5,028.1**	**5,380.1**	**5,702.9**	**5,988.1**	**6,287.5**

EDCON, FORECASTED NOPLAT

	2003	2004	2005	2006	2007
NOPLAT					
Revenue	7,313.7	7,898.8	8,451.7	8,958.8	9,406.7
Cost of goods sold	(4,534.5)	(4,897.2)	(5,240.0)	(5,554.5)	(5,832.2)
Sales, general and administrative expenses	(1,828.4)	(1,974.7)	(2,112.9)	(2,239.7)	(2,351.7)
Depreciation expense	(228.2)	(246.4)	(263.7)	(279.5)	(293.5)
EBIT	722.6	780.4	835.0	885.1	929.4
Taxes on EBIT	(119.0)	(128.5)	(137.5)	(145.8)	(153.1)
Change in deferred taxes	(9.1)	13.2	12.5	11.5	10.1
NOPLAT	**594.5**	**665.1**	**710.0**	**750.9**	**786.5**
Taxes on EBIT					
Provision for income taxes (from income statement)	82.7	89.4	95.6	101.4	106.4
Tax shield on interest expense (at 30%)	33.1	35.7	38.2	40.5	42.5
Tax on interest income (at 30%)	(3.2)	(3.4)	(3.7)	(3.9)	(4.1)
Tax on nonoperating income (at 30%)	0.0	0.0	0.0	0.0	0.0
Taxes on EBIT	119.0	128.5	137.5	145.8	153.1
Change in deferred taxes					
Balance at the beginning of the year	174.5	165.4	178.7	191.2	202.6
Balance at the end of the year	165.4	178.7	191.2	202.6	212.8
Change in deferred taxes	(9.1)	13.2	12.5	11.5	10.1

EDCON, FORECASTED INVESTED CAPITAL

Invested Capital	**2003**	**2004**	**2005**	**2006**	**2007**
Operating current assets	3,654.5	3,946.8	4,223.1	4,476.5	4,700.3
Noninterest bearing current liabilities	(1,156.7)	(1,249.2)	(1,336.7)	(1,416.9)	(1,487.7)
Net working capital	2,497.8	2,697.6	2,886.4	3,059.6	3,212.6
Net property plant and equipment	934.6	1,009.4	1,080.0	1,144.9	1,202.1
Other operating assets, net of other liabilities	0.0	0.0	0.0	0.0	0.0
Operating invested capital	**3,432.4**	**3,707.0**	**3,966.4**	**4,204.4**	**4,414.7**
Excess marketable securities	0.0	0.0	0.0	0.0	0.0
Trademark(Goodwill)	8.6	9.3	10.0	10.6	11.1
Nonoperating investments	58.0	62.7	67.1	71.1	74.7
Total investor funds	3,499.1	3,779.0	4,043.5	4,286.1	4,500.4
Equity	2,584.3	2,791.0	2,986.4	3,165.6	3,257.1
Deferred income taxes	165.4	178.7	191.2	202.6	212.8
Adjusted equity	2,749.7	2,969.7	3,177.6	3,368.2	3,469.9
All interest bearing debt	749.3	809.2	865.8	917.8	963.7
Total investor funds	3,499.0	3,778.9	4,043.4	4,286.0	4,433.6

EDCON, FORECASTED FREE CASH FLOW	**2003**	**2004**	**2005**	**2006**	**2007**
EBIT	722.6	780.4	835.0	885.1	929.4
Taxes on EBIT	(119.0)	(128.5)	(137.5)	(145.8)	(153.1)
Change in deferred taxes	(9.1)	13.2	12.5	11.5	10.1
NOPLAT	594.5	665.1	710.0	750.9	786.5
Depreciation expense	228.2	246.4	263.7	279.5	293.5
Gross cash flow	822.7	911.6	973.7	1,030.3	1,080.0
Increase in net working capital	366.6	199.8	188.8	173.2	153.0
Capital expenditure	337.0	321.2	334.3	344.3	350.7
Increase in other assets, net of liabilities	0.0	0.0	0.0	0.0	0.0
Gross investment	703.5	521.0	523.2	517.5	503.7
Free cash flow before goodwill	119.2	390.5	450.5	512.9	576.3
Investment in goodwill	(14.9)	(7.4)	(7.9)	(8.2)	(8.6)
Free cash flow	**104.3**	**383.1**	**442.7**	**504.6**	**567.7**
Nonoperating investment cash flow	31.9	(4.6)	(4.4)	(4.0)	(3.6)
Foreign currency translation effect	0.0	0.0	0.0	0.0	0.0
Cash flow available to investors	136.1	378.5	438.3	500.6	564.2
Rate of growth in NOPLAT (g)		11.9%	6.8%	5.7%	4.7%
Rate of growth in Free cash flow		267.4%	15.5%	14.0%	12.5%

EDCON, WACC

Year 2002	Estimated market value	Percentage of total market value	Pretax cost	After-tax cost	Contribution to WACC
	R000	%	%	%	%
Secured loan	113,463	7.15%	7.56%	5.29%	0.38%
Unsecured loan	50,000	3.15%	12.38%	8.67%	0.27%
Convertible debt	38,163	2.41%	12.34%	8.64%	0.21%
Other long-term debt	122	0.01%	13.00%	9.10%	0.00%
Short-term interest debt		0.00%	13.00%	9.10%	0.00%
Preference share	300	0.02%	6.00%	6.00%	0.00%
Common equity	1,384,425	87.26%	**20.00%**	20.00%	17.46%
Total	**1,586,473**	100.0%			**18.32%**

Standard tax rate: 30%

Market expected return	19.90%
Risk-free rate	9.50%
Market risk premium	10.40%
Beta	**1.01**
Cost of equity (Ke)	20.00%

EDCON, Discounted Free Cash Flow

		2003	2004	2005	2006	2007	Perp
Free cash flow		104.3	383.1	442.7	504.6	567.7	4,508.3
Present value factors at	**18.32%**	0.8452	0.7143	0.6037	0.5103	0.4313	0.4313
Present value of free cash flow		88.1	273.7	267.3	257.5	244.8	1,944.3

Total present value of free cash flow	**3,075.7**

Expected growth rate in NOPLAT in perpetuity g =	**5%**
Debt value of the firm =	201.7
Equity value of the firm =	**2,874.0**

EDCON, FORECASTED ECONOMIC PROFIT		**2003**	**2004**	**2005**	**2006**	**2007**	**Perp**
Return on invested capital (ROIC)		20.1%	19.4%	19.2%	18.9%	18.7%	**18.32%**
WACC		18.32%	18.32%	18.32%	18.32%	18.32%	18.32%
Spread		1.8%	1.1%	0.8%	0.6%	0.4%	0.0%
Invested capital (beg of year)		2957.0	3432.4	3707.0	3966.4	4204.4	4414.7
Economic Profit (before goodwill)		**52.9**	**36.4**	**31.0**	**24.3**	**16.3**	**93.6**
Discount factor at	**18.32%**	0.8452	0.7143	0.6037	0.5103	0.4313	0.4313
Present value of Economic Profit		44.7	26.0	18.7	12.4	7.0	40.4

Total present value of Economic Profit	**149.2**
Invested capital (beginning of forecast)	2,957.0
Total value of the firm	**3,106.2**
Debt value of the firm	201.7
Equity value of the firm	2,904.5

Economic Profit in 2008 = 17.1